

APPLICATION NO.	P15/S2946/FUL
APPLICATION TYPE	FULL APPLICATION
REGISTERED	22.9.2015
PARISH	GORING
WARD MEMBER(S)	Kevin Bulmer
APPLICANT	Goring And Streatley Community Energy Ltd
SITE	Goring On Thames Weir Goring-on-Thames
PROPOSAL	Demolish part of the existing weir at Goring Lock for a distance of approximately 18m westwards of the lock island, and replace it with three archimedes screws (3.5m in diameter each), associated housing for generators and control equipment, a 2.1m wide fish pass, a new eel pass and a new 3.0m wide flood control gate for the use of the Environment agency.
AMENDMENTS	As amended by plans relocating control hut adj. to lock house, and as amplified by additional information, rec'd 12 January 2016
GRID REFERENCE	459600/180910
OFFICER	Katherine Quint

1.0 **INTRODUCTION**

1.1 The application has been called to Planning Committee by the ward councillor, Cllr Bulmer, in light of the application's importance and the level of public interest.

Further to this point the application has also been referred to Planning Committee because the recommendation conflicts with the views of Goring Parish Council who objected on the following grounds:

- Flood risk
- Noise impact
- Impact on biodiversity
- Visual impact on the AONB and the Conservation Area
- No visual Impact Assessment submitted
- Financial viability of the scheme

1.2 The application area relates to Goring weir, located to the west of The Lock House and the Lock Island. The eastern bank comprises residential properties with garden leading down to the river; the western bank is characterised by meadow land and marshy grassland, and includes the buildings forming The Swan Hotel. The B4009 road bridge over The Thames is located 100m south of the weir, linking Goring and Streatley. The Thames footpath runs alongside the river on the western bank, and south of the Lock House on the eastern bank.

1.3 The site is washed over by both the Chilterns and North Wessex Areas of Outstanding Natural Beauty, and falls within Flood Zone 3. The site sits within Goring Conservation Area, and adjacent to Streatley Conservation Area (West Berkshire). Goring has a completed community led plan, and has begun work on their Neighbourhood Plan (designated plan area agreed).

1.4 The site is identified on the Ordnance Survey Extract **attached** at Appendix 1.

2.0 **PROPOSAL**

2.1 The applicant seeks full planning permission to demolish part of the existing weir at Goring Lock for a distance of approximately 18m westwards of the lock island, and to replace it with three archimedes screws (3.5m in diameter each).

The proposal also includes locating the control hut and control equipment adjacent to the lock house, and the provision of a 2.1m wide fish pass, a new eel pass and a new 3.0m wide flood control gate for the use of the Environment Agency.

The proposed concrete works are to be left exposed, and metalwork, including the Archimedes Screws and the acoustic covers to the generators, would be painted 'Environment Agency' grey.

The scheme is being promoted as a community scheme to be owned by and operated for the benefit of the community, and has been submitted by Goring and Streatley Community Energy Ltd.

2.2 Reduced copies of the plans accompanying the application are **attached** at Appendix 2. Full copies of the plans and consultation responses are available for inspection on the Council's website at www.southoxon.gov.uk.

3.0 **SUMMARY OF CONSULTATIONS & REPRESENTATIONS**

3.1 **Original plans (specialist advisors) summarised below:**

Goring Parish Council	Object	<ul style="list-style-type: none"> - Flood risk - Noise impact - Impact on biodiversity - Visual impact on AONB and Conservation Area - Lack of Visual Impact Assessment - Financial viability of the scheme
Streatley Parish Council	Object	<ul style="list-style-type: none"> - Flood risk to be assessed by Environment Agency - Objection raised to brick wall structure, but supported if relocated alongside lock house - Recommend redesign of hydro inlet gates to reduce scale of visual barrier
West Berkshire Council	No strong views	<ul style="list-style-type: none"> - No comment to make on drainage grounds - Effect of the proposals on West Berkshire side is not mentioned, nor assessed, in FRA - No objection to the principle and agree with SODC Conservation Officer regarding impact on Streatley and Goring Conservation Areas.
Conservation Officer	No strong views	Principle of the scheme acceptable. However, a redesign of the building or evidence that the most sympathetic design has been proposed should be obtained to inform the decision.
Public Rights of Way Officer	No strong views	No impact on any recorded Public Rights of Way
Angling Trust	Object	The scheme fails to adequately address issues relating to fisheries and their related habitats
Drainage Engineer (MONSON)	---	Environment Agency to comment on drainage considerations
Countryside Officer (SODC)	---	Environment Agency to comment on biodiversity and ecological considerations

3.2 **Original plans (public representations) summarised below:**

<p>15 representations of support:</p> <ul style="list-style-type: none"> - Additional interest to the village and positive impact on tourism - Positive, community response to addressing climate change - Supporting information has been provided to mitigate impact on flood risk, noise and effect on aquatic life - Some disruption during construction, but over time the scheme will integrate into its surroundings - Appropriate form of renewable energy, which will generate energy for homes / businesses in the local area - There will be a visual change, but the impact on the wider setting is less than substantial, and the benefits far outweigh any potential harm. - Higher profile than existing weir, but minimal visual impact on the village
<p>74 representations of objection:</p> <ul style="list-style-type: none"> - Increased flood risk - Noise impact - Visual impact on the landscape character of the AONB, and Conservation Area - Reduction in visitors and loss of tourism - Environmental benefits do not outweigh the damage and harm to the environment - Disruption and damage to aquatic life, wildlife habitats and migratory patterns - Concerns over financial viability / cost effectiveness, maintenance and debris - Lack of information on strategy when no longer viable / restoration of the area - Disruption during construction - Lack of information to show effective working and benefits of the proposal - While sustainable energy is supported, it cannot be supported in this form.
<p>1 representation - No strong views</p>

3.3 **Revised plans (specialist advisors) summarised below:**

Goring Parish Council	Objection maintained	As above
Streatley Parish Council	No strong views	<ul style="list-style-type: none"> - Visual aspect addressed through revisions - Recommend that construction ties in closely with existing weir / railings etc - Recommend residents' views are considered
West Berkshire Council	Approve	<ul style="list-style-type: none"> - The visual impact of amended proposal has a much reduced impact on the Streatley Conservation Area – no objections. - No other comments
Environment Agency	No strong views	<ul style="list-style-type: none"> - Additional information (updated FRA and cover note) addresses previous EA concerns and clarifies changes to the scheme since 2012. - Fish pass – details to be approved by condition - No objection to the proposed development, subject to conditions, and EA being updated on any further planning changes
Conservation	No strong	Application supported and the amendments further

Officer	views	mitigate the visual impact of the proposal.
Health & Housing - Env. Protection Team	Approve	Any potential noise issues can be addressed satisfactorily by condition prior to installation: detailed acoustic report, including mitigation measures
Angling Trust	Objection maintained	As above

3.4 **Revised plans (public representations) summarised below:**

<p>4 representations of support:</p> <ul style="list-style-type: none"> - The amended design is preferable to the originally-submitted design - The Thames is a wonderful and historical source of clean energy - The proposed end product looks like many other weirs already on the river - AONB and conservation area regulations do not prohibit development; they seek mitigation, and this is demonstrably feasible as shown by the photomontages - Local communities should support green energy schemes of this kind
<p>58 representations of objection:</p> <ul style="list-style-type: none"> - The revised plans do not address concerns raised in original consultation - The proposal conflicts with the Countryside and Rights of Way Act - Relocated control hut highly visible from upstream and lock viewing area - The proposed access is unsafe and inadequate over private land - Other locations more appropriate and far less destructive - The acoustic enclosures will increase the height, impacting on visual amenity

3.5 Consultation was also carried out by site notice at: Goring and Streatley road bridge, alongside the lock, and on the High Street / pathway leading to car park. The following parties were also consulted but no comments were received:

- | | |
|------------------------------------|-----------------------|
| Berks, Bucks & Oxon Wildlife Trust | Oxford Canoe Club |
| North West Downs AONB | Kingfisher Canoe Club |
| Chilterns AONB | British Canoeing |
| Sustainability Officer (SODC) | |

4.0 **RELEVANT PLANNING HISTORY**

4.1 [P12/S2609/FUL](#) - Withdrawn (25/02/2013)

Demolition of part of the existing weir at Goring Lock for a distance of approx. 18m westwards from the wall of the Lock Island and replace it with three Archimedes screws (3.6m diam.) a 2.1m wide fish pass and a new 3.0m wide sluice gate for the use on EA. Construction of 3x2m hut on the Lock Island to house electrical switch gear.

5.0 **POLICY & GUIDANCE**

5.1 **South Oxfordshire Core Strategy policies**

- CSS1 – The overall strategy
- CSEN1 – Landscape (AONB)
- CSEN3 – Historic Environment
- CSQ1 – Renewable energy
- CSQ3 – Design
- CSB1 – Conservation and improvement of biodiversity

5.2 **South Oxfordshire Local Plan policies**

C3 – The River Thames and its valley
C4 – Landscape setting
C6 – Biodiversity conservation
C8 – Species protection
C9 – Landscape features
CON7 – Conservation areas
D1 – Design
G2 – Protection from adverse development
EP2 – Noise and vibrations
R8 – Public rights of way
CF1 – Safeguarding community facilities and services including recreational facilities

5.3 South Oxfordshire Design Guide

**5.4 National Planning Policy Framework
National Planning Policy Framework Planning Practice Guidance**

Para 14 – Presumption in favour of sustainable development
Para 17 – Low carbon future in a changing climate
Paras 97 & 98 – Increase the use and supply of renewable and low carbon energy
Paras 99 & 103 – Managing flood risk
Paras 109 & 118 – The natural and local environment, and biodiversity
Para 115 & 116 – Conservation of landscape and scenic beauty (AONBs)

6.0 PLANNING CONSIDERATIONS

6.1 The main issues in determining the applications are:

- Renewable energy considerations
- Visual impact on the landscape character of the AONB
- Flood implications
- Impact on the character and appearance of the Conservation Area
- Biodiversity and ecological considerations
- Noise impact
- Additional matters

6.2 Renewable energy considerations

6.2i The NPPF encourages new development which helps increase the use and supply of renewable and low carbon energy as long as proposals address adverse impact satisfactorily and take account of longer term factors, e.g. Flood risk, coastal change, water supply and changes to biodiversity and landscape.

National policy advises that Local Planning Authorities (LPAs) should recognise the responsibility on all communities to contribute to energy generation from renewable or low carbon sources, and support community-led initiatives for such schemes. They should recognise that even small-scale projects provide a valuable contribution to cutting greenhouse gas emissions. When determining applications, LPAs should not require applicants for energy development to demonstrate the overall need for renewable or low carbon energy, and should approve the application if its impacts are (or can be made) acceptable.

6.2ii It is recognised that similar schemes are being considered along the Thames, and schemes in Windsor (operational), Sandford on Thames and Culham have already been granted permission. The proposal provides an opportunity to respond positively

to development which generates renewable energy, and therefore the principle is supported. Although the principle of the renewable energy scheme is acceptable, specific site constraints may affect whether the delivery of the scheme is acceptable and confirms to planning policy. In this case the site is washed over by Areas of Outstanding Natural Beauty, which is considered in greater detail in section 6.3.

6.3 Visual impact on the landscape character of the AONB

- 6.3i Paragraph 116 of the NPPF clarifies that ‘planning permission should be refused for major developments in these designated areas [AONB] except in exceptional circumstances and where it can be demonstrated they are in the public interest.’ Although the level of public interest generated by the proposal is large, the scale of development is categorised as minor in planning terms and therefore does not conflict with paragraph 116 of the NPPF in terms of the application site being within the AONB. Further to this point, the benefit to the public is acknowledged in the development being for renewable energy generation and being a community-led initiative.
- 6.3ii The application site is located within the Chiltern Hills of the North Wessex Downs, and of the Goring Gap, as well as forming part of the River Thames Corridor. In light of the site’s sensitive landscape setting paragraph 115 of the NPPF plays an important role in determining the application. The policy requires that ‘great weight is given to conserving landscape and scenic beauty in National Parks, the Broads and Areas of Outstanding Natural Beauty, which have the highest status of protection in relation to landscape and scenic beauty. The conservation of wildlife and cultural heritage are important considerations in all these areas...’.
- 6.3iii The applicant has provided a Visual Impact Assessment in section 3 of the Environmental Report (Rogers 2009) an extract of which is attached at **Appendix 3** and the Design and Access Statement (January 2016), which considers the main views towards the application site and their sensitivity to change; and impact on visual amenity and landscape, both in terms of operational impact and during the construction period. The report is amplified by photographs, and the visual and landscape amenity assessed in 2009 is not considered to have altered significantly to require a further assessment.

The key findings set out in the report are as follows:

- Views from the road bridge are considered to be highly sensitive to change given the historic and scenic nature of the bridge and the clear views across to the weir.
- There is a limited view of Goring Weir from Swan Meadow upstream, which has a medium sensitivity to change. This is a particularly scenic area of species rich marshy grassland with a high conservation value.
- River users travelling upstream have a clear view of the weir when approaching the lock channel - this section of the river is considered to have medium to high sensitivity to change.
- River users travelling downstream do not have clear views of the upstream side of the weir before they enter the lock cut; the weir is mostly obscured by the lock island, trees and the lock cottage. Views from this section of the river are considered to have low sensitivity to change.
- The main impacts on the landscape of the area will be the hydropower plant and the building housing the control gear. The existing weir structure is functional rather than aesthetic in appearance and though an important local

landscape feature, its design does little to enhance the local landscape character. The addition of a hydropower plant to the weir will not significantly increase the overall size of the weir, nor will it have an adverse effect on its visual appearance. The hydropower plant will therefore have no significant adverse effect on local landscape character.

- During operation, adverse effects of high significance on visual amenity would be experienced mainly by river users travelling upstream, and pedestrians viewing the river from the B4009 road bridge.
- During the construction period there will an impact in terms of the view from the bridge, and to users of the Thames path downstream and river users. However, the construction period would only be for a limited period of time and therefore the adverse effect on visual amenity during construction would only be considered of medium significance.

- 6.3vi Notwithstanding the landscape importance of the AONB and the special landscape character of the river corridor, the proposed development should be viewed in the context of the existing weir structure and is not considered to have an adverse effect on its visual appearance, over and above that of the existing weir.

The report, which considers the original proposal rather than the revised proposal, recommends that in order to mitigate the impact on highly sensitive areas, the colour of the hydropower plant and the control building would be sympathetic to the local landscape and the existing weir structure. The revised scheme minimises the impact on visual amenity further, by virtue of the control systems being removed from over the weir, and reducing the height of the proposed structure over the weir. Further to this point, a schedule of materials, finishes and detailing would be required by condition to ensure the finishes harmonise with the local landscape and the existing weir structure.

6.4 **Flood implications**

- 6.4i The NPPF makes clear that development should be safe without increasing flood risk elsewhere (para. 100) and that planning decisions should ensure that development does not contribute to unacceptable levels of water pollution (para. 109).
- 6.4ii The development involves new structures within the River Thames and its floodplain. A hydraulic modelling investigation has been carried out to establish the impact on flood risk. Overall the results show that despite the redistribution of flows across the Goring and Streatley weir complex, the actual impact on flood levels is insignificant and within model tolerances. Although the detailed design of the proposed new gate has not been carried out, the study illustrates that it is possible to install three new turbines at Goring weir without any significant impact on flood levels upstream or downstream of the Weir.
- 6.4iii Advice has been sought from the Environment Agency, who have also scrutinised the methodology of the FRA and the results of the modelling, taking into account the modelling period and the flood risk in relation to the revised proposal. The originally submitted Flood Risk Assessment (FRA), dated May 2010 was considered an inadequate assessment of the flood risk, and did not contain any explanation of the flood risk implications of amendments to the scheme since 2012.

The revised FRA (dated December 2015) explains that there is only a 2mm modelled increase in peak flood level from a 1% annual probability flood event, allowing for climate change, which is not seen as significant in the context of the proposed scheme and modelling. The assessment also explains that the proposed scheme has been modelled as a complete blockage of a 13 metre section of the proposed weir. This

would mean that any unplanned closure of one of the Archimedes screws due to a blockage from flood debris or emergency maintenance work, would not make the flood risk situation any worse than predicted by the modelling.

The EA has not raised objections to the proposal on flood risk grounds, subject to the following details being secured by condition:

- Development to be carried out in accordance with updated FRA, and mitigation measures:
 - Generators to be located above the 1% AEP plus climate change flood level
 - Flood resilience measures to the control hut up to 600mm over the 1% AEP plus climate change flood level.

6.5 Impact on the character and appearance of the Conservation Area

6.5i Throughout history, the river has been used to generate power both in the local context of Goring and Streatley and elsewhere throughout the district along the river. The installation of the Archimedean Screw generator is considered to be a modern progression of a historic tradition. The council's Conservation Officer has raised no objection to the principle of the proposal.

6.5ii The site is clearly visible from the Streatley and Goring Bridge, from on the river and from the riverside areas to the north in neighbouring Streatley. The location here does not easily lend itself to discreetly housing the generators, as this part of the river is open in character and prominent in views from the river crossing. Given the sensitivity of the area, revisions were sought to minimise the built structures and brick wall over the weir and to explore other materials and finishes to help assist with reducing the visual impact within the Conservation Area.

6.5iii Ultimately there will be some alteration to the character of this part of the river and the contribution it makes to the Conservation Area. The revised plans have reduced the visual impact of the weir construction on the river and the proposed Control Hut is of a design and scale that it would not look out of place as an ancillary garden structure to the Lock House. The Conservation Officer at West Berkshire Council has also assessed the impact of the revised proposal on the Streatley Conservation Area and has raised no objections. In order to mitigate visual impact further, a schedule of materials, finishes and detailing is recommended, which would be secured by condition.

The Conservation Officer is satisfied that the amended plans are an improvement on the previous design, and steps have been taken to mitigate the visual impact to this part of the river. The harm is less than substantial and can be satisfactorily outweighed by the benefits of the scheme, thereby conforming to paragraph 134 of the NPPF.

6.6 Biodiversity and ecological considerations

6.6i Paragraph 118 of the NPPF states that planning decisions should conserve and enhance biodiversity, including by mitigating harmful impacts and incorporating biodiversity into development where possible.

6.6ii In assessing the ecological implications of the scheme on terrestrial habitats and river ecology, advice has been sought from the Environment Agency. The applicant has undertaken a series of surveys of the site and the area of influence, including habitat and protected species surveys, along with mitigation reports.

- 6.6iii 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. However, the various ecological reports which have been submitted provide recommendations designed to ensure that the likelihood of impacts on protected species is minimised.
- 6.6iv With regard to the fish pass, concerns were raised by the Environment Agency over whether an effective design was possible under the operation of the scheme in accordance with the EA licences. The design was amended in January 2016 and confirmation was received from the EA that the revisions were acceptable and that the details of the fish pass could be approved by condition. This approach was also agreed for the eel pass.
- 6.6v While further mitigation will be required to obtain the relevant EA licenses, advice from the EA has confirmed that a sufficient level of information has been provided with the application to be able to make an assessment of biodiversity and ecological considerations. There are no outstanding biodiversity or ecological issues that would prevent the planning permission being granted on these grounds, subject to the inclusion of conditions:
- Details of fish and eel passes
 - Environment report (July 2009)
 - Ecological and sedimentological report (November 2013)
 - Water Framework Directive Compliance Assessment (June 2014)

6.7 Noise impact

- 6.7i Policy EP2 of the SOLP Policy EP2 sets out that proposals which would by reason of noise or vibrations have an adverse effect on existing or proposed occupiers will not be permitted, unless effective mitigation measures will be implemented. In addition, noise sensitive development will not be permitted close to existing or proposed sources of significant noise or vibrations.
- 6.7ii The Noise Impact Assessment submitted with the application reports on the ambient noise in various locations close to the weir. A technical assessment of the equipment (gearbox, generator and turbines) and associated noise could not be carried out until the elements are in place and functioning. However, the council's Environmental Health Officer is satisfied that any potential noise issues can be addressed satisfactorily by a condition requiring a detailed acoustic report prior to installation of the proposed development.
- 6.7iii The condition would require the applicant to carry out a Noise Impact Assessment in accordance with BS 4142:2014 'Methods for rating and assessing industrial and commercial sound', by a suitably qualified acoustic consultant and testing in a variety of water flows. In the event that noise levels exceed standards levels, the applicant would be required to submit appropriate mitigation before the first use of the scheme. Noise attenuating features (principally the acoustic covers, insulation of building) are bespoke to the equipment installed, but noise reducing measures can be designed to achieve any reasonable level of attenuation that is required and the measures are of a small enough scale that they would not introduce further planning considerations.

Subject to a detailed condition, the noise impact associated with the development can be satisfactorily managed to the extent that the residential amenity of neighbouring dwellings would be safeguarded.

6.8 **Additional matters:**

6.8i **Construction methodology**

The revised Outline Construction Method Statement (rev 3) is sufficient to allow the EA to understand in general how flood risk and environmental impacts will be managed during construction. It is recommended that the detail of the methodology is secured by condition for consideration by the EA and the Highway authority prior to construction commencing.

6.8ii **Maintenance and exit strategy**

In addition to the requirement for planning permission a number of licences and consents must be sought via the Environment Agency for hydropower schemes, as set out in the government guidance for new hydropower schemes. The maintenance of the scheme and the exit strategy / end of life procedures is managed directly with the Environment Agency. The planning system does not seek to duplicate this process. As such there is insufficient justification to require the applicant to resubmit the same detailed information for re-consideration by the Environment Agency as part of the planning process.

6.8iii **Financial viability of scheme**

The financial viability of the scheme is a matter for the implementation body and is not a material planning consideration, and therefore cannot be factored into determination of the application.

6.8iv **Public Rights of Way**

The development would not interrupt, or require redirection of, any public right of way. Any potential impact on the public right of way south of the lock house during the construction period would be addressed in the Construction Methodology.

7.0 **CONCLUSION**

7.1 Your officers recommend that planning permission is granted because the proposed development is considered to be acceptable for the following reasons:

- i The proposed development is considered to be acceptable for the following reasons: By virtue of the scale, layout and design of the development, the hydropower scheme is not considered to be harmful to the special landscape character of the Area of Outstanding Natural Beauty or the river corridor, as amplified by the Visual Impact Assessment.

The impact on the historic merits of the Conservation Area and effect on visual amenity constitutes less than substantial harm, which is outweighed by the public benefit of the renewable energy generation and through the use of the existing water source. Subject to detailed information to be submitted for approval by condition, the scheme does not present planning issues with respect to ecological and environmental protection, flood risk and noise emission.

Subject to conditions, the proposal accords with the National Planning Policy Framework (2012) and National Planning Practice Guidance (2014), South Oxfordshire Core Strategy (2012), South Oxfordshire Local Plan (Saved policies, 2011) and the South Oxfordshire Design Guide (2008).

8.0 RECOMMENDATION

8.1 That planning permission be granted subject to the following conditions:

- 1. Work to commence within three years.**
- 2. In accordance with approved plans.**
- 3. Flood risk mitigation – in accordance with flood risk assessment.**
- 4. Construction traffic management plan.**
- 5. Schedule of materials, finishes and detailing.**
- 6. Specification of the archimedes screw.**
- 7. Fish pass design and details.**
- 8. Eel pass design and details.**
- 9. Acoustic assessment.**
- 10. Wildlife protection.**
- 11. No lighting.**

Informatives

- 1. Wild bird and nest protection.**
- 2. Public right of way – liaison with Oxfordshire County Council.**
- 3. Flood defence consent.**

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