



CEDAR CLOSE WEIR

BYPASS CHANNEL

COMMUNITY ENGAGEMENT DOCUMENT



1. INTRODUCTION

The Cedar Close weir bypass channel project will contribute to the restoration of the River Beane, a globally rare chalk river. The project is a partnership between East Herts Council, the Countryside Management Service and the Environment Agency.

We are seeking comments from stakeholders and the public on the proposals set out below. The engagement period will run from 20th February to 13th March 2023. This document is intended to support the community engagement process:

- Section 2 explains why we are considering a bypass channel for Cedar Close weir.
- Section 3 sets out the details of the bypass channel proposal.
- Section 4 describes the stages of the project and how we plan to engage with the local community.
- Section 5 provides contact details to enable stakeholders to comment on these proposals or to request further information.

2. WHY ARE WE CONSIDERING BYPASSING THE WEIR?

The river Beane is a chalk river, one of only around 200 in the world. It represents one of the most valuable habitats in Hertfordshire, characterised by clear water and a diverse flora. The river also provides a valuable natural corridor through Hertford.

However, it has been historically modified with several weirs which prevent the natural movement of fish and eels along the river. This restricts access to potential habitat and ultimately access to the sea, the latter being particularly important for the lifecycle of the European eel, which is a Critically Endangered species. Weirs also cause siltation and habitat degradation of the upstream river channel, change the flow characteristics of the river and interrupt the supply of sediment to the downstream river channel.

In 2018/19, we completed a feasibility study which identified ways to allow fish and eels to move freely along the rivers Beane and Lee in Hertford. The study also looked at ways to reduce impoundment to promote natural flow conditions, wider habitat improvements along the rivers, and the enhancement of the public green spaces alongside the rivers. The Cedar Close weir project was developed as a result of this feasibility study and has the same main objectives.

The most recent project update in April 2022 identified that the removal of Cedar Close weir was under consideration. However, following the collection of additional survey information to inform our flood modelling, we have concluded that there are too many risks associated with this option to proceed further with it. These risks include the need for mitigation of a small increase in downstream flood risk, and the impact on water levels in the mill stream.

We have therefore confirmed that our preferred option for Cedar Close weir is a bypass channel within Millmead Open Space. We now plan to develop more detailed designs for this channel.

This project is one of several along the river Beane, at varying stages of development. The long-term aim of these projects is to open a long stretch of the river from its confluence with the Lee to the movement of fish and eels and to enhance wildlife habitats along the river.

The project is primarily funded by the Environment Agency, with support from East Herts Council, and managed by the Countryside Management Service.

3. DESIGN OF THE BYPASS CHANNEL

A bypass channel around the Cedar Close weir will achieve three main objectives:

1. To remove the barrier to the movement of fish and eels along the river;
2. To create a new section of in-channel and bankside habitat more characteristic of chalk rivers; and
3. To improve the public green space by adding a new and attractive feature.

The location and design of the proposed new channel are shown on the maps in Figures 5 and 6. It will follow the course of a relic channel (Figure 1), rejoining the river immediately downstream of the weir.

The main section leading from the upstream end will be designed to appear as natural as possible (see Figure 2 for an example). It will follow the route of the relic channel with banks at a natural gradient where possible, and the bed of the stream will be lined with gravels. There will be occasional pools and boulders to create diverse flow conditions and to aid the movement of fish, and the banks will be planted with native bankside plants.



Figure 1. Relic channel within Millmead Open Space.



Figure 2. Example of a bypass channel designed to replicate a natural channel, River Great Ouse, Stony Stratford.

A short second section adjacent to the weir will be more engineered, incorporating a technical fish pass and an eel pass. The fish pass uses baffles to create flow conditions which fish can move through on a relatively steep slope. The incorporation of a fish pass into the design enables the remainder of the bypass to have much more natural characteristics. Similarly to the existing weir, this area will be fenced for public safety. Figure 3 shows Cedar Close weir and the approximate location of the proposed fish pass on the far bank, and Figure 4 is an example of a technical fish pass.



Figure 3. Cedar Close weir. The bypass channel would re-enter the river immediately to the right of the weir.



Figure 4. Example of a technical fish pass and eel pass (left hand side of weir), River Brit, Gundry's weir

A land bridge and small culvert at the upstream entrance to the bypass channel from the Beane will provide access to the main riverbank and the area of land between the bypass channel and the main river. The culvert is also required to control maximum flows along the bypass channel, preventing any impact on flood risk. Detailed flood modelling has been undertaken to confirm that there will be no impact on local flood risk as a result of the bypass channel, due to the low proportion of the total flow of the river passing through the bypass.

It will be necessary to fell up to 50% of the trees, primarily alders, which have become established in the relic channel. This has been carefully considered in the design process and the current design will minimise the requirement for felling while fulfilling the objectives of the project. Following construction of the bypass channel, we will carry out replacement tree planting adjacent to the channel where possible, with native riparian species such as willow, alder and birch. This will add both age and species diversity to the copse, increasing its long-term value to wildlife. We will also carry out additional tree planting in other areas of Millmead Open Space to extend the habitat benefits. We will replant at least as many trees within the green space as are required to be felled.

In association with the bypass channel construction and as part of wider habitat improvements we also propose some thinning of trees along the riverbank within the open space to allow more light to reach the river and further contribute to the diversity of habitats within the channel and along the riverbanks. Many river species,

including fish and birds such as kingfisher and little egret, benefit from open sections of river, and this is also a key characteristic of chalk rivers.

We are also working closely with Hertfordshire and Middlesex Wildlife Trust, who manage the Beane Marshes nature reserve north of Cedar Close weir, as there may be opportunities to incorporate the creation of wetland habitat on Beane Marshes into the delivery of the Cedar Close weir project. The bypass channel itself will have no direct effect on the nature reserve.

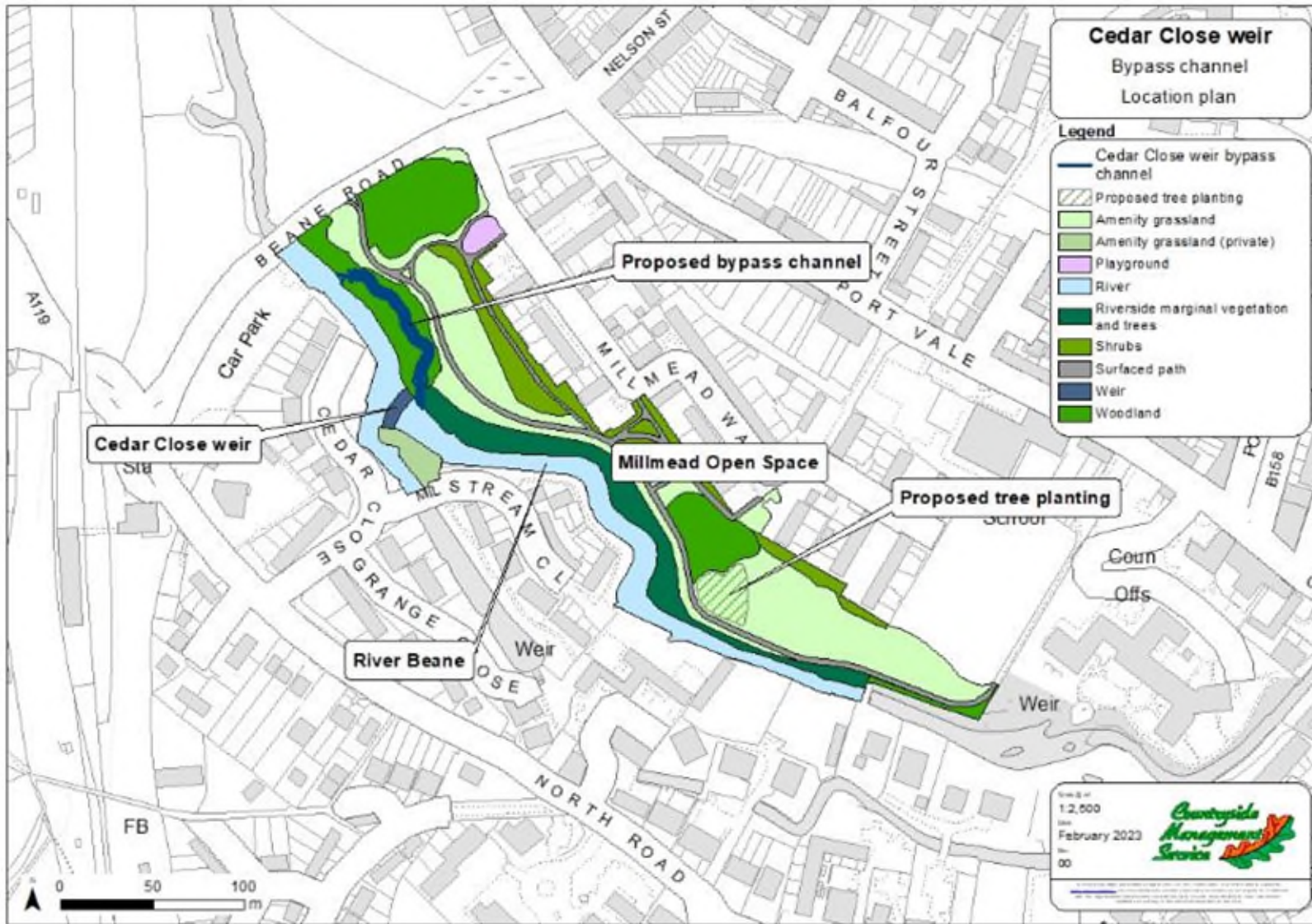


Figure 5. Location of proposed bypass channel within Millmead Open Space.

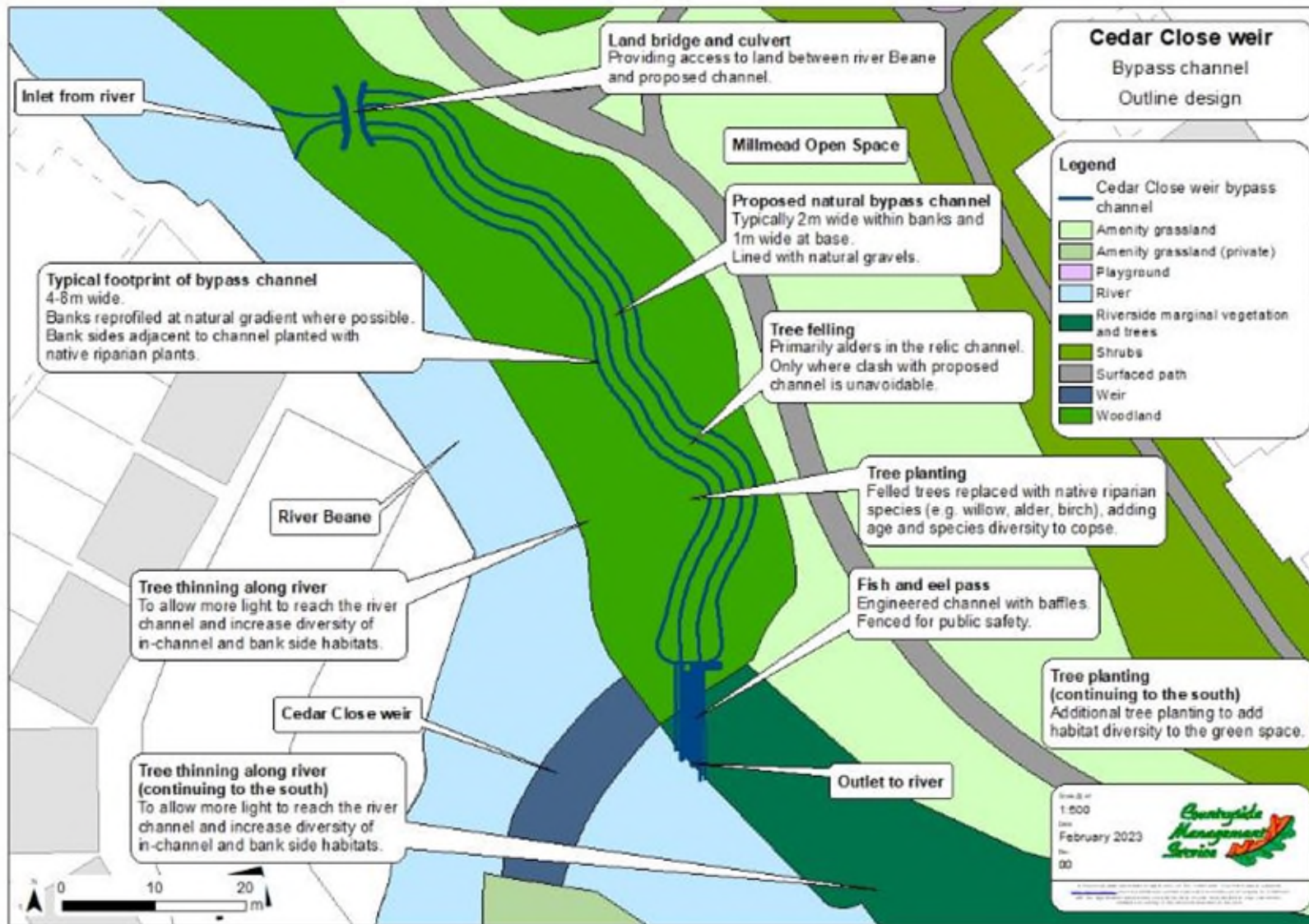


Figure 6. Outline design of proposed bypass channel and associated works.

4. COMMUNITY ENGAGEMENT PROCESS

Community engagement is integral to the development of projects such as this, to ensure that stakeholders are fully aware of and able to interact with designs as they emerge.

The first stage of community engagement on this project took place in October 2018, as part of the wider Hertford weirs fish passage feasibility study, when we sought views on the initial options for Cedar Close weir along with five other weirs in Hertford. This included a community engagement event held at Hertford Theatre. At the conclusion of this engagement period, we considered public feedback and selected a preferred option for each weir.

In this second stage, we are now seeking comments on the detailed proposals for a Cedar Close weir bypass channel. Following this stage, we will confirm details of the design, working towards an application for planning permission in September 2023 and delivery of the project in 2024.

Please be aware that we will not respond individually to comments received through the public engagement; instead, we will produce a summary of comments, noting any amendments made to the design as a result. The engagement response document will be published online alongside this document. We will retain contact details only for the purpose of keeping respondents informed about the plan development process.

4.1 Stages of project development

Project stage	Timescale	Completed
Feasibility study and development of initial options	2018	Yes
Stakeholder engagement on initial options	October 2018	Yes
Further assessment of preferred options	April 2022	Yes
Finalisation of outline design	January 2023	Yes
Stakeholder engagement on outline design	20 th February to 13 th March 2023	
Final design confirmed – further publicity	September 2023	
Application for planning permission	September 2023	
Anticipated project delivery	Summer 2024	

4.2 Stakeholders

- Relevant Hertfordshire County Council officers and members
- Relevant East Herts Council officers and members
- Relevant Environment Agency officers and specialists
- Hertford Town Council
- Herts and Middlesex Wildlife Trust
- River Beane Restoration Association
- Hertford Angling Club
- Red Spinner Angling Society
- Hertford Canoeing Club
- Hertford Civic Society
- Bengoe Residents Facebook group
- Bengoe Neighbourhood Plan Committee
- Molewood Residents' Association
- Molewood Mill Race Action Group
- Neighbouring and local residents

5. STAKEHOLDER FEEDBACK

Thank you for taking the time to read this document. We are keen to receive feedback from you on our proposals for the Cedar Close weir bypass channel.

Please return your comments using the contact details below by **Monday 13th March** at the latest.

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