

## Frequently Asked Question – Restoring the River Leven

### Why restore the River Leven?

The River Leven has seen many man-made changes that have been made over time many due to its rich industrial heritage which have an impact on the local environment. These include artificial straightening of the river, with gabions (wire baskets filled with stones) and walls as well as barriers within the river such as the Kirkland and Burn Mill Dams.

Restoring water courses to a more natural condition can bring many benefits, helping to:

- provide a space for local people to enjoy;
- improve local resilience to climate change;
- support biodiversity including fish, mammals, birds and amphibians;
- allow fish passage by removing barriers;
- reduce flood risk, for instance through natural flood management;
- gain space for nature in a more urban environment.

### Where is the project happening?

Over a 2½ mile stretch of the river between Windygates and Leven.

### Why are you only looking at this section of the River Leven?

SEPA carried out a catchment wide study highlighting opportunities for river restoration. As the initial focus for the Leven Programme was on the most downstream reach of the River Leven, it made sense to work together, co-ordinate action and achieve maximum benefits.

In terms of fish passage the Kirkland and Burn Mill are the two most downstream barriers to fish migration and it makes sense to focus on these first. The Leven Programme has a long-term vision for change throughout the catchment and this is just the first focussed area of work.

## **What is the aim of the project?**

To look at the potential to restore a 2 ½ mile stretch of the river between Windygates and Leven, including improving the physical condition of the river and its floodplain to provide better habitat, and improving potential fish passage at the Kirkland and Burn Mill Dams.

We are also looking to develop the area with local communities, improving local biodiversity, path networks and green spaces as part of the wider Leven Programme.

## **Who is undertaking this project?**

In conjunction with other initiatives in the Leven Programme, this project has been commissioned by Fife Council and the Scottish Environment Protection Agency (SEPA), supported initially with funding from the Water Environment Fund (WEF).

Fife Coast and Countryside Trust (FCCT) are managing the project on behalf of Fife Council and are working with cbec eco-engineering to develop restoration options that can be shared with the local community for their feedback.

## **Who is funding the project?**

The projects have been commissioned by Fife Council and the Scottish Environment Protection Agency (SEPA), supported initially with funding from the Water Environment Fund (WEF) and Fife Council.

## **What is happening at the moment?**

We are in the initial concept design stage of the project. We have carried out surveys, research, spoken to local landowners and technical experts and reviewed information gathered about the current state of the river and the Kirkland and Burn Mill Dams.

This information has been pulled together into options for potential restoration that can help improve the River Leven for local people and wildlife to enjoy. These options are now being shared with the wider community for their thoughts and views.

## **When will work start on the ground?**

We hope to start the improvement works in 2023 in a phased approach, subject to funding which is currently being sought.

## **How will you work with the local community?**

While the key aim of this project is about restoring the river we are really keen to connect with the local community and for them to have a say in how the project is developed through an engagement and consultation process starting now.

As the project develops, we hope to work with local community groups and schools through activities such as tree planting, fish in the classroom, guided walks and family events.

If you are a local community group or organisation and would like to work with us, please [get in touch](#).

## **How does this project link to the other work happening within the Leven Programme?**

Working collaboratively with Restoring the River Leven Project, the Levenmouth Connectivity Project - River Park Routes is looking to upgrade and add walking and wheeling routes along and across the river that will connect up to the wider On-roads Active Travel Network that is also being developed.

The River Leven Parks project is designed to deliver an accessible, attractive and bio-diverse public park for the local community either side of the River Leven.

We are liaising closely with the Levenmouth Rail Link project as the new line comes to Levenmouth.

## **Have local landowners affected by the proposals been consulted?**

Yes we have spent time talking to local landowners to share the restoration proposals and they are supportive of the project.

## How will my feedback be used?

The feedback received through the consultation process will help shape the project going forward. All feedback will be considered by the project team and balanced with achieving project objectives. The project will then progress to the developed design phase where the options shared now are further refined.

## What is Large Wood and why is it used in river restoration projects?

The restoration proposals for the River Leven include design features involving the placement of large pieces of natural wood consisting of a tree trunk and its root plate within the river. These features often occur naturally and help shape the flow and nature of the river. They help create pools of deeper slower water which provide habitat and nursery areas for fish and invertebrates.

Being a natural material, wood is not only sustainable with a minimal carbon footprint but also provides important ecological benefits such as cover for fish, invertebrates and birds. The use of large pieces of wood in river restoration is a tried and tested approach and there are numerous examples where it's use has resulted in significant improvements to the river and the quality of the habitats it supports.

## What is the benefit of reconnecting a river to its floodplain?

Natural connectivity between a river and its floodplain is very important. During flood events, rivers naturally spill out into their floodplains. However, man-made features such as embankments disconnect a river from its floodplain, keeping flood water within the river channel, which increases flood risk to downstream areas.

In contrast, when rivers are reconnected to their floodplains the flood water can be directed to areas where it is temporarily stored. Not only does this decrease the severity of floods but it also reinstates floodplain habitats upon where our native species thrive.

## **Why is improving fish passage at the Kirkland and Burn Mill Dams important?**

The Kirkland and Burn Mill Dams were constructed to support local industry along the River Leven. The factories are now gone, and options are being considered for both dams to make it easier for fish to move up and down the river as they would do naturally. This will help improve the health and variety of fish as well as other wildlife along the River Leven. Whilst neither of the structures are listed, the important role they played in the area's history will be highlighted as part of the restoration project.

## **What are the proposed restoration improvements in a nutshell?**

- Creation of shallow 'ponded' areas to promote wetland and wet woodland habitat.
- Large wood placed along and within the river to provide shelter for fish, birds and invertebrates.
- Modifications to the Kirkland and Burn Mill Dams to make it easier for fish to migrate up and downstream.
- Reprofiling the banks of the lower Kennoway Burn to improve its connection with the floodplain.
- Planting of native trees and wetland plants along the riverbanks and floodplain areas to improve biodiversity and encourage important wet woodland habitat.
- Removing rock and stone bank protection and replacing with greener more sustainable alternatives.