



# ACTION NAME C1 Recover the Ubaran stream

#### SCZ in which the action is undertaken

Leitzaran river

# LINK WITH NATURA 2000

Recovering the Ubaran stream coincides with the following Natura 2000 planning objectives:

- Operational Objective 3 "Eliminate the obstacles in the aquatic channel" of the key Ecological River Channel management element. It is specifically related to action "AP1. Draft and execute projects to permeate/demolish the obstacles associated with disused concessions in the SCZ or in nearby areas".

- Operational Objective 2 "Limit the impacts on fish species present in the SCZ" of the key management element "*Parachondrostoma miegii* and the Fish Community in general", which returns to the actions of the Ecological River Channel.

It is also related to the Ubaran stream's potential capacity for housing fish of particular community interest, Pyremean desman (*Galemys Pirenaycus*) and Atlantic salmon (*Salmo salar*).

### Key Elements of the promoted SCZ

Benefits:

- Direct benefit to the key elements "Ecological River Channel" and "Parachondrostoma miegii and Fish Community in general"

- Potential benefit to the key element "Pyrenean desman (Galemys pyrenaicus)" and the species of community interest, Atlantic salmon (Salmo salar).

### PLACE OF ACTION AND MUNICIPALS:

Ubaran stream, Leitzaran river. Municipal of Andoain.

Date

Summer 2017

Budget

€147,828

**Description of the action - OBJECTIVES** 

Recover the connectivity of the lower stretch of the Ubaran stream.

# **Description of the action -BACKGROUND**

The Ubaran stream joins to the Leitzaran river near the convergence with the Oria. It is included within the SCZ Leitzaran river due to its natural values, including in particular its fish community and the good condition of its river banks.

However, a set of obstacles impedes the movement of the fauna, to a greater or lesser extent depending on the affected species and the time of year. There are 4 obstacles that are concentrated in a 750 m stretch in the lower part of this stream.

# **Description of the action - INITIAL AND CURRENT STATE**

Below are the detailed actions envisaged for each obstacle, starting with its union with the Leitzaran river.







# **Obstacle 1**

The first one, 100 m up from the Leitzaran, is an abandoned piping, protected with concrete. It cuts the channel, along with a small dam or irrigation dam. It requires a jump of 0.8 m, while the jump at the dam is 1 m. When the water level is low, fish with good swimming capacities such as the trout or Atlantic salmon have difficulty crossing. Furthermore the water flow is laminar - it is very shallow - preventing fish from passing at certain times of year. As it is in disuse, the plan is to completely eliminate the piping and dam.

# **Obstacle 2**

At 760 m up from the Leitzaran. Small water mill "Goiko Errota", 1.5 m high. It poses similar problems to the previous mill: despite the jump being greater, due to the fact it is sloped and the stones that jut out retain the water. It also favours fish passing because it has a good depth in the lower and higher area, with less pronounced lamination than obstacle 1. The water mill is in use, for informative purposes, which is respected in the solution proposed. The plan is to improve the fish way, giving it a less acute slope, lengthening the ramp 24 m to achieve an average gradient of 9%.

# **Obstacle 3**

At 830 m up from the Leitzaran there is a ford on 10 concrete tubes measuring 30 cm in diameter, which generates a jump of 0.8 m. Its capacity to restrain fish is variable, as occasionally the tubes below the ford clog up. In any case, it poses problems both when the water circulates below the ford (a jump, too narrow tubes, high speeds within the tubes, etc.) and when the water extends over the concrete ford and loses depth. The proposal is to substitute the ford with three prefabricated concrete boxes to avoid these problems.

# **Obstacle 4**

Located 850 m from the Leitzaran. Concrete crossing of the former supply piping to the town of Andoain. Currently it does not constitute an obstacle, but when the previous ford is removed, it has been envisaged that it will generate a small jump, capable of creating problems for some fish species when the river is low.

The proposal is to bury the piping deeper down to avoid these problems.

# JUSTIFICATION What are the desired results? - ENVISAGED RESULTS

- Eliminate obstacles 1, 3 and 4.

- Adapt the water mill (obstacle 2) to enable fish to pass.
- Free up 8,600 m of river with these actions.
- Remove 378 m<sup>3</sup> of materials (concrete and unused channels) along the river.



