

ACTION NAME C7 Demolition of the Dam at the former Bera Plant
Special Conservation Zone (SCZ) being acted upon:
SCZ Bidasoa river
LINK WITH NATURA 2000
The action is encompassed within the following SCZ Management Plan Operational Objectives: - Operational Objective 1.1.2. Permeate the existing obstacles in the aquatic channel of the key River System management element. - Operational Objective 1.2.1. Improve the flow system of the water currents of the key River System management element. Measure 1.7. Continue with the permeation measures and dam demolition in the Bidasoa basin, execution underway by the Government of Navarre. - Operational Objective 5.1.2. Improve the habitat conditions of the Atlantic salmon, shad, sea lamprey and European bullhead.
Key Elements of the promoted SCZ
The “Key Elements” of the SCZ favoured by the actions are: “River system”, “River habitats”, “Atlantic salmon, shad, sea lamprey and European bullhead”, “European mink and European otter” and “Pyrenean desman”.
PLACE OF ACTION AND MUNICIPALS:
Bera and Lesaka.
Envisaged date
2017
Budget
€181,000
Related project actions
Geomorphological follow-up, follow-up of fish species and aquatic mammals
Description of the action -OBJECTIVES
The aim of this action is the demolition of the irrigation dam called “Bera or San Martín Plant Dam” in Bera, improving the river connectivity, facilitating the movement of species and reducing the flood risk of this stretch.
Description of the action - BACKGROUND
The space denominated Bidasoa river is a designated Special Conservation Zone (SCZ) due to its natural values, including in particular its fish communities and natural habitats, wild flora and fauna that represent the biological diversity of Navarre. However, a set of obstacles impedes the movement of aquatic fauna in the SCZ, to a greater or lesser extent depending on the affected species and the hydrological time of year. This is the third dam on the axis of the Bidasoa encountered by fish species migrating from the sea, on the main axis of the Bidasoa. Across 1,500 m the Bera Plant dam generates a backwater that alters the characteristics of the channel, substituting the series of rapids, pools and tables that are ideal for the majority of fish species within the SCZ. Within the framework of the EFA221/11-GURATRANS Project financed by POCTEFA, in April 2014 a project covering all the actions envisaged for this action was drawn up. Likewise, this obstacle also impedes the Bidasoa river from obtaining a “good ecological condition”, because the dam alters the structure and substrate of

the riverbed, and worsens river connectivity. It also modifies the river banks and extremely important natural processes such as sediment circulation and the capture of nutrients.

Description of the action – INITIAL AND CURRENT STATE (C actions)

The San Martín dam was formally used to produce electrical energy. Water Confederation concession dates from 1910. It is currently in disuse. The action can be summarised in two main parts.

Complete removal of the Bera Plant dam and its adjacent elements:
 The dam made from masonry has a maximum height of 2.86m and length from bank to bank of 102.84m. In terms of the shape, it is considered to be a trapezoid section with a 3.86m thick base and crowning width of 0.45m. In the central part of the dam there are some rocks that phase the jump and make the obstacle partially permeable. The dam has no fish way device as such.

Canal filling
 From the mill, and 728m long and dimensions of 3.75m wide by 2.75m high, the bypass channel flows till it disappears in the inside of the mountain to emerge in the area of the former Plant. The channel is braced at regular points across the entire length with metal beams. It is 40 cm thick and is made from reinforced concrete. For the channel filling part, earth generated from the moving works for the dam demolition will be used.

JUSTIFICATION What are the desired results? – ENVISAGED RESULTS

- To achieve a “Very Good” River Connectivity Index value “Free from obstacles”. 3.5 km of obstacle-free river will be created, along the lower stretch of the Bidasoa river passing through Navarre.
- Furthermore, the 1500 m long stretch of reservoir will be removed, creating a more natural and diverse river habitat, eliminating the stored water and generating a series of rapids, pools and tables

