

# NALÓN (ES)

## Nalón estuary between an industrial past and ecological values

The actual Nalón river and estuary occupies a narrow area between the river slopes along its course called Bojo Nalón, and harbours, marshlands and at the mouth of the river. The aim of this project is to find a strategy that expand the river edge to beyond its actual limits, including multiple habitats and social values that will compose a corridor and rich scenario to respond to the climate emergency at the same time that engages with the existing ecological values and promotes them, without losing the industrial identity of the site and multiplies the economical values by opening up a wide range of possibilities.

- The strategy of this project acts on different scales, all of them having in common two main concepts:
1. the expansion of the water edge from a thin line to a wide area from the riparian zone of the tributaries until the low tide of the coast
  2. the blending between the three main elements that composes the estuary:
    - range of blue for habitats of the estuary (marshlands, allowed forests, meadow, etc.)
    - range of green for habitats of the estuary (marshlands, allowed forests, meadow, etc.)
    - range of orange for social values (harbours, beaches, seaside promenade)

**Climate Emergency strategy**  
The expanded area of the new water edge is defined by the impact of the river flood (10, 100 and 500 return periods) and sea level rise (0.65m, 1.00 and 1.50m), which takes approximately the area of the floodplain of the river, now occupied by multiple uses, amongst them agriculture and pastures and expands along the tributaries of the Nalón river. This is the area most affected by the climate emergency that needs to be addressed.

The ecological value of this area is on the existing nature between meadows and freshwater, which become biodiversity hotspots in different gradients support an ecological succession of habitats composing the estuary, as a wide delicate ecosystem with a great power to respond to the climate emergency (see diagram BETWEEN WATERS).



# Between waters

Expanding the edge of the water, a holistic strategy to find new ways of inhabiting the estuary and respond to the climate emergency

# 1

# NALÓN (ES)

The legacy of the industrial coal mining past of the Nalón estuary, oversized on a human scale and based on barriers, makes the social use of the mouth impossible and prevents the relationship between the brackish water habitats (Blue) and the freshwater habitats that flow down the slope towards the river (green).

Designing the reconstruction of this port infrastructure, reducing it to a minimum so that it is capable of guaranteeing security against flooding and making it permeable. In this sense, the aim is to promote the encounter between the two waters, which allows the reactivation and enhancement of a civic matrix along the estuary (orange), creating a large loop of activity directly related to the ecosystem services provided by the green and the blue.

To materialise our strategy, we present a catalogue of solutions. Depending on the habitat they improve, solutions are grouped into Green - for freshwater habitats - or Blue solutions - for brackish water habitats. The ones that locate in-between and encourage our curiosity, understanding and appreciation of these environments are grouped into Edge - or orange - solutions.

**Green solutions (+0.65/+1 msl)**

- g1 Swamp alder forest continuity
- g2 Biodiversity spots
- g3 Bull green-tinted
- g4 Walk the hillside

**Blue solutions (+0.65/+0.65 msl)**

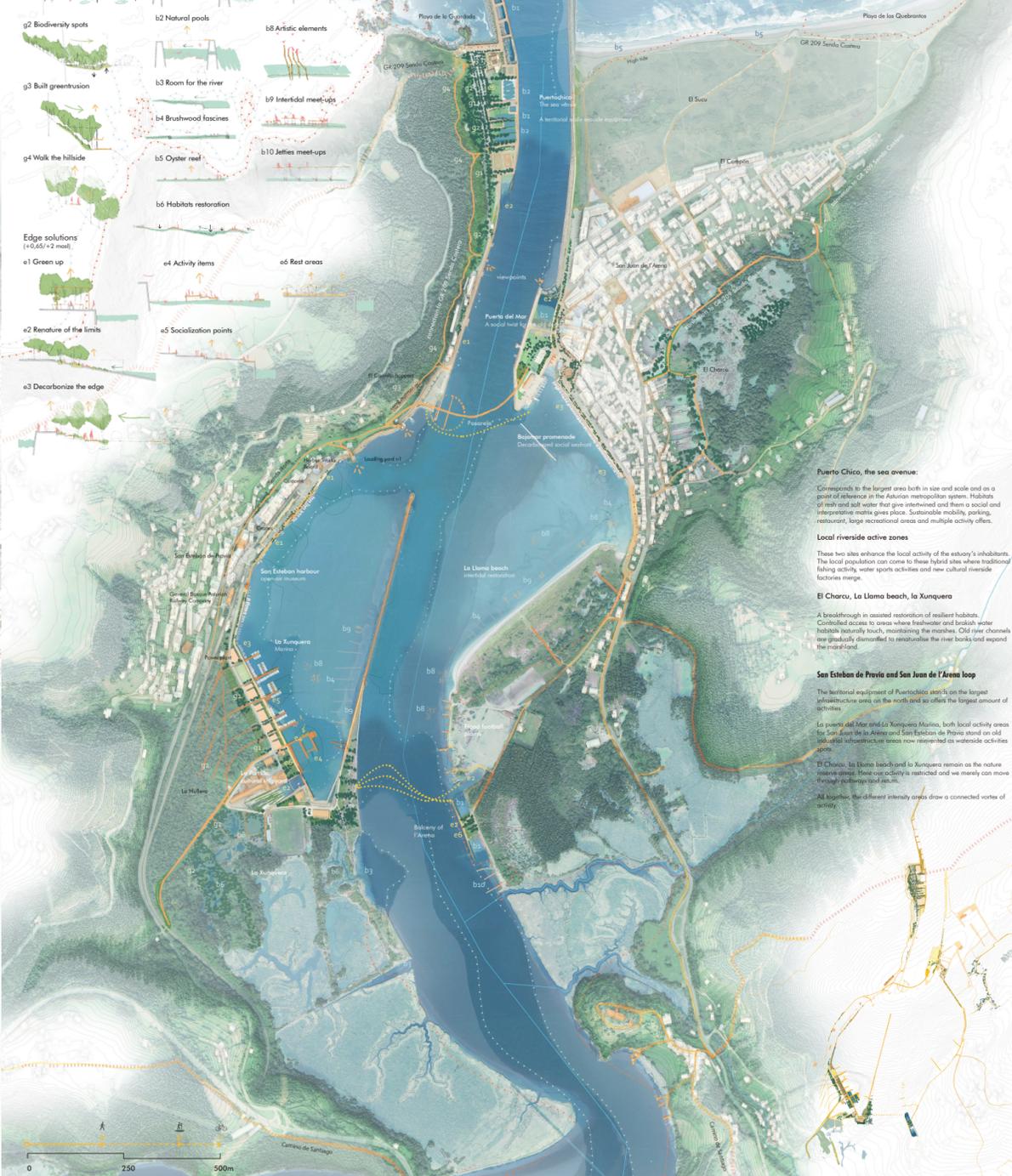
- b1 Blue intrusion
- b2 Natural pools
- b3 Room for the river
- b4 Brushwood fascines
- b5 Oyster reef
- b6 Habitats restoration

**Edge solutions (+0.65/+2 msl)**

- e1 Green up
- e2 Restore of the limits
- e3 Decarbonize the edge

**Other solutions:**

- b7 Walk on water
- b8 Artistic elements
- b9 Intertidal meet-ups
- b10 Jetties meet-ups
- e4 Activity items
- e5 Socialization points



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# 2

# NALÓN (ES)

## A Adapting a large port infrastructure to natural dynamics

The expansion of Puerto Chico used to be a small harbour before it was filled with silt to welcome social use. Nowadays in an empty space, with parking lots, a football field, a seawater swimming pool and a restaurant. The proposal aims to open up a wide range of possibilities to reconsider this infrastructure making it more porous and able to adapt to climate emergency effects, while at the same time welcoming a multiply variety of social uses.

Climate change emergency and ecosystem restoration

- Release from the flood zone activities that could contaminate the soil and the waters (sports and clean pool)
- Recover much space on landfill through topographic modifications of the terrain that allow flooding and natural restoration of the space
- Protect the environmental value of the swampy alder groves of the old track beach
- Reconnect fluvial dynamics of San Esteban dock by revitalization of the old boating ramps with meadows

Consistency between ecology and economy

- Reduce the permeability of paved surface
- Improve soft connectivity between San Esteban and Puerto Chico through safe and wide promenades and a bicycle lane path
- Creation of new natural basins by taking advantage of the tides, ensuring the naturalization and social use of the space
- Connect through spectators the site to the Ganercho, La Guardada beach and Senda de los Miradores

**Retention area**

- Parking areas and Carr die planes
- Urban beach
- Seawater swimmingpool

**La Xunquera Marina**

- Discovering Alder swamp forests
- Natural activities Centre
- Floating jetties for sea sports

**Scale:** 0 10 20m

**Puerto Chico, the Sea Venue**

- Mollusc pier
- Open-air local food Market
- Puerto Chico restaurant
- Seaside promenade for pedestrians and bicycles
- Seawater swimmingpool
- Naturalized pools
- Football fields
- Restoration of the former boating ramps

**Scale:** 0 15 30m

**San Esteban de Pravia and San Juan de la Arena loop**

Corresponds to the largest area both in size and scale and as a point of reference in the Asturian metropolitan system. The local population can come to these hybrid sites where traditional fishing activity, water sports activities and new cultural riverside factories merge.

**El Charco, La Llama beach, La Xunquera**

A breakthrough in assisted restoration of resilient habitats. Controlled access to areas where freshwater and brackish water habitats naturally meet, maintaining the meadows. Old river channels are gradually dismantled to rehabilitate the river banks and expand the marshland.

**San Esteban de Pravia and San Juan de la Arena loop**

The territorial equipment of Puertachico stretch on the largest infrastructure area, on the north and so offers the largest amount of activities.

La playa del Mar and La Xunquera Marina, both local activity areas for San Juan de la Arena and San Esteban de Pravia stand on old industrial infrastructure areas now reconverted as waterside activities parks.

El Charco, La Llama beach and La Xunquera remain as the nature reserve areas. Here our activity is restricted and we merely can move through softways and paths.

All together, the different intensity areas draw a connected vortex of vitality.

**Scale:** 0 15 30m

**San Esteban de Pravia and San Juan de la Arena loop**

- La Xunquera
- Move to other areas activities that are on flooding areas, and could be contaminating the soil and water (sports and clean pool)
- Reopen space for activities to move inward on landfill through topographic modifications of the terrain that allow flooding and natural dynamics of the tide

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**Puerto del Mar**

- Renovation of the Calle Galemra
- Living breakwaters
- Urban beach
- Sea Park
- New Sea Square
- Fishmarket
- New green public square
- pedestrian bridge over the boating ramp
- Urban beach
- Restoration of former and not used boating ramps restoring fluvial dynamics
- Open-air amphitheatre
- Restoration of the Promenade of Bujumar

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