

Kelani River Park

Integración de infraestructura de emergencia en Sri Lanka

Jesús Arcos Cordón

aldayjover
arquitectura y paisaje

CONAMA

 **Viladecans**
2030



 **Diputació**
Barcelona

KELANI RIVER PARK

SRI LANKA

URBAN, LANDSCAPE AND SOCIAL
INTEGRATION OF THE FLOOD
PROTECTION SYSTEM

36 km OF RIVER TRANSFORMED INTO
72 km OF LINEAR RIVER PARK

10 NEW BRIGES
26 BATH AREAS
55 PIERS
34 PARKS

FROM COLOMBO TO HANGWELLA:



9h:00min



2h:20min



2h:40min



1h:25min



JAPAN EMBASSY

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arquitectura y paisaje

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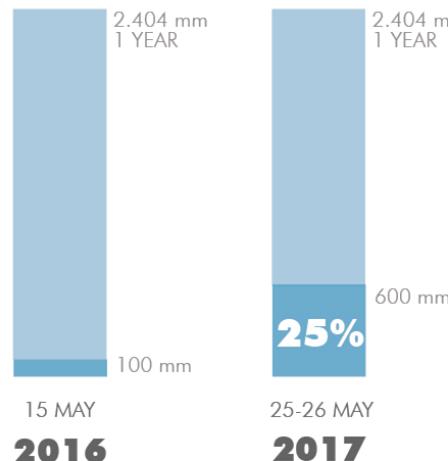
KELANI RIVER PARK. URBAN, LANDSCAPE AND SOCIAL INTEGRATION OF THE FLOOD PROTECTION SYSTEMS OF THE KELANI RIVER



FLOODS IN MAY 2016



PRECIPITATION



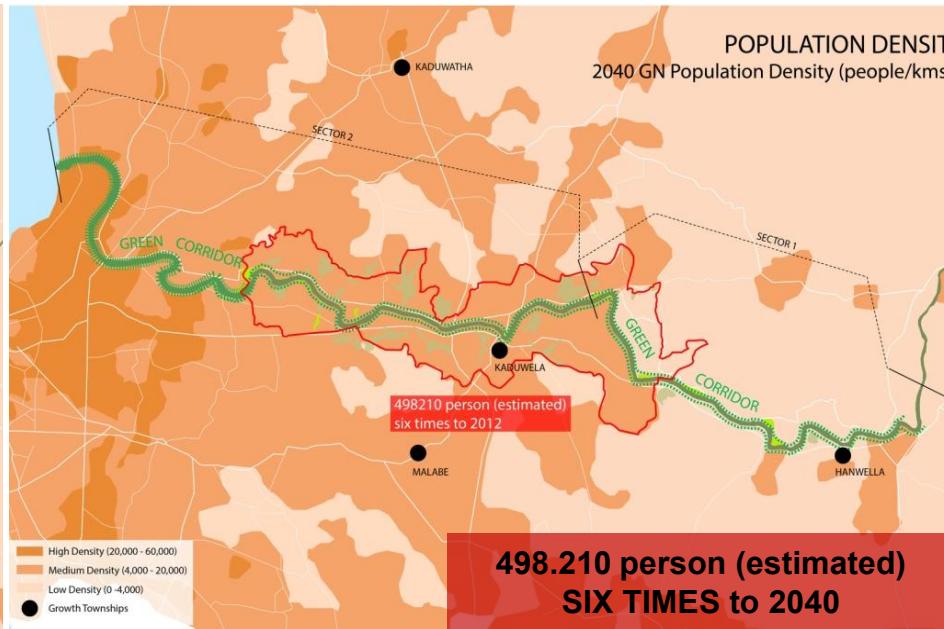
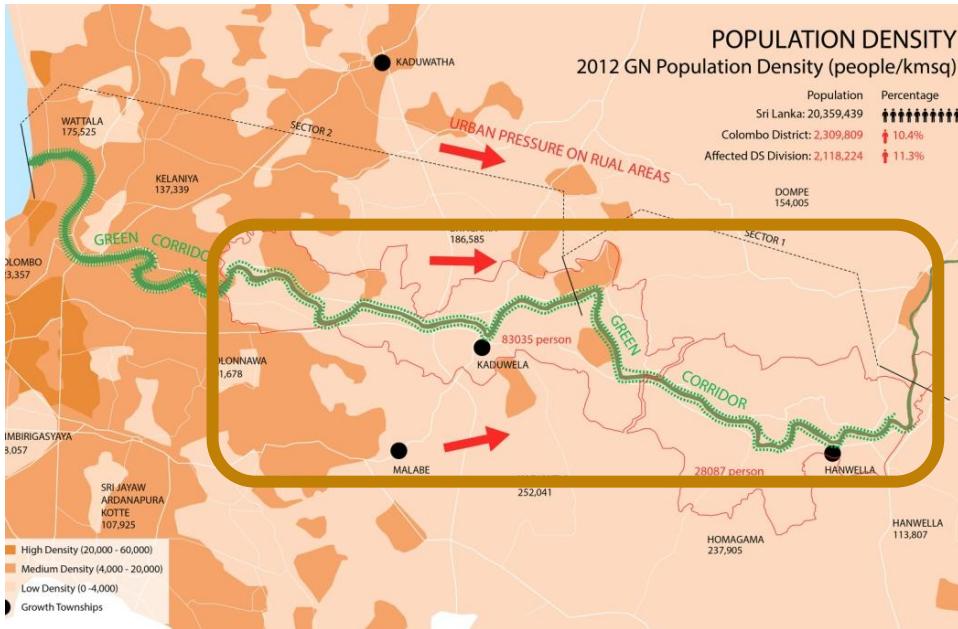
FLOOD AREA IN KELANI RIVER BASIN

The lower floodplains **suffer** from the floods without any protection

The areas located in the lower part of the River, have a **higher density** of population

POPULATION x 6
TO 2040

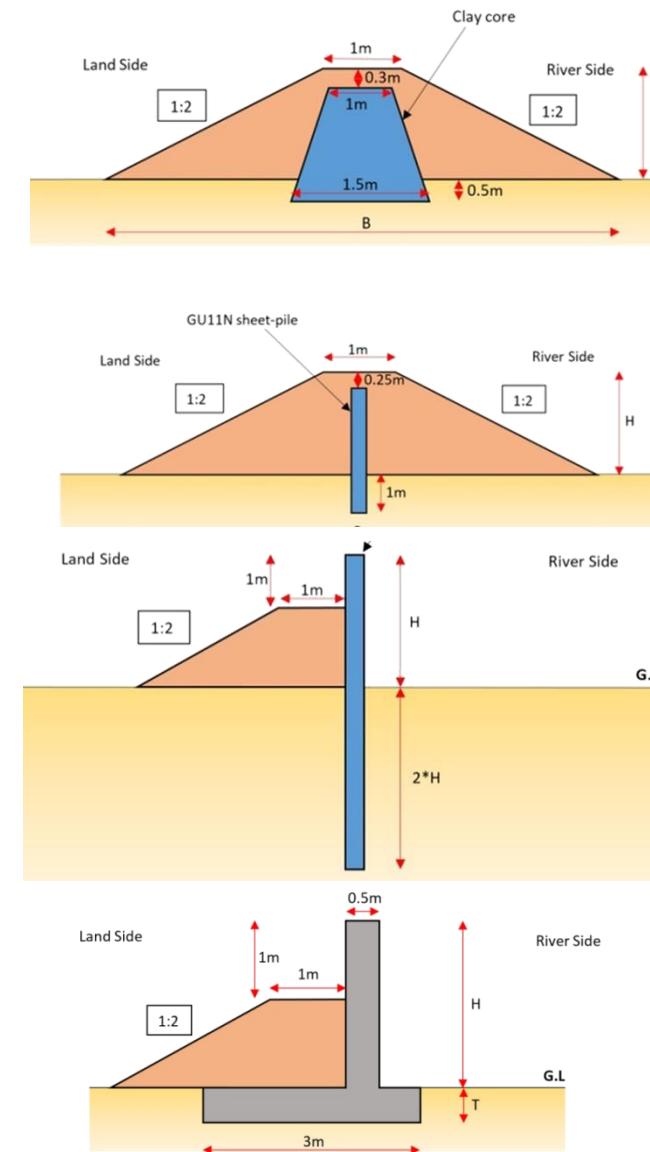
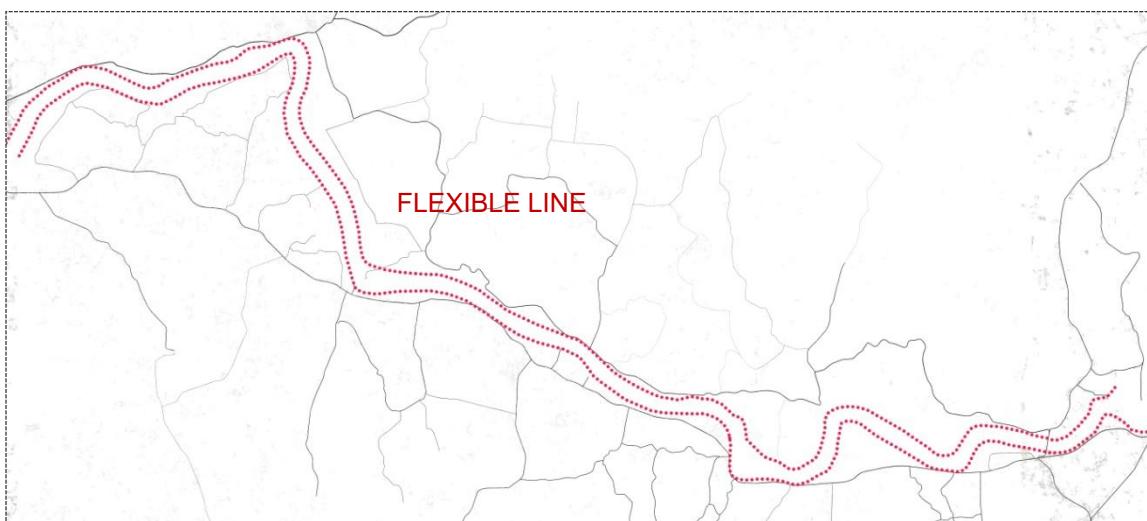
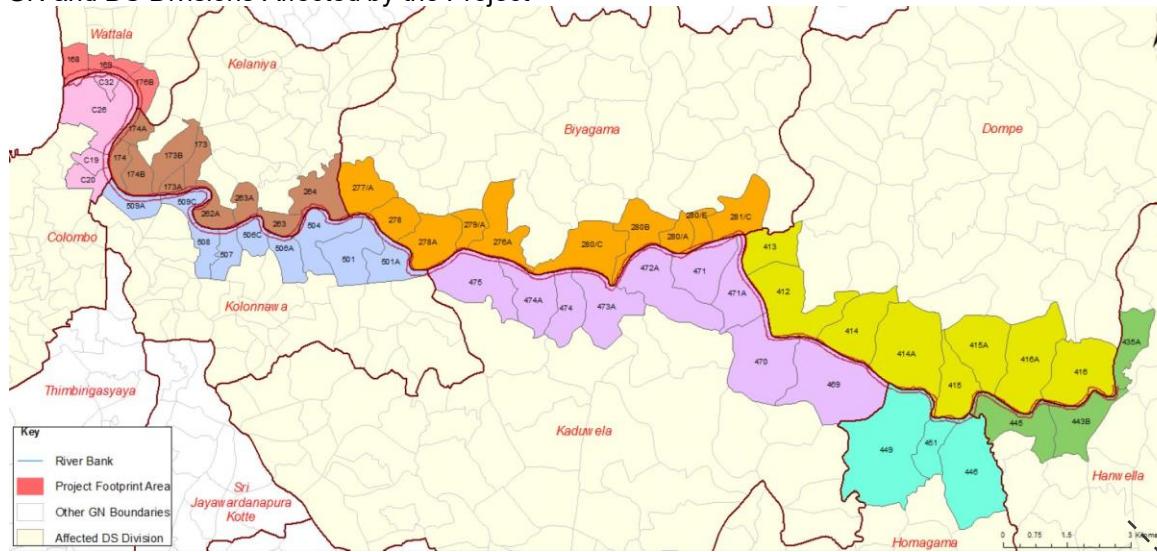
17 Districts in Sri Lanka were affected by severe floods and landslides during 5 days. 500.000 affected, of which 223,687 were displaced from their homes either due to the floods, landslides or threat of landslides.



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KELANI RIVER PARK. URBAN, LANDSCAPE AND SOCIAL INTEGRATION OF THE FLOOD PROTECTION SYSTEMS OF THE KELANI RIVER

GN and DS Divisions Affected by the Project

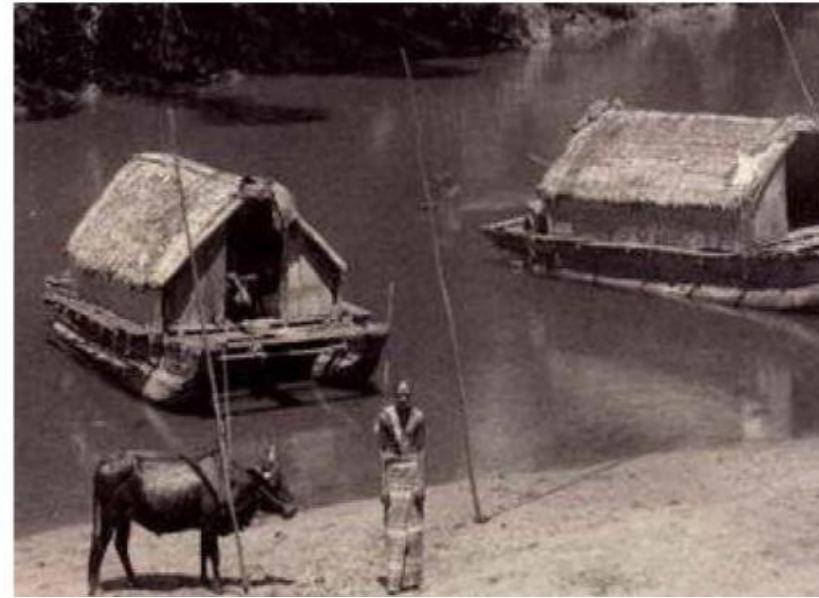


CLIMATE
RESILIENCE
IMPROVEMENT
PROJECT



Flood embankment.
Hydraulic
infrastructure

1860



2018



ROOTS IN THE
KELANI RIVER

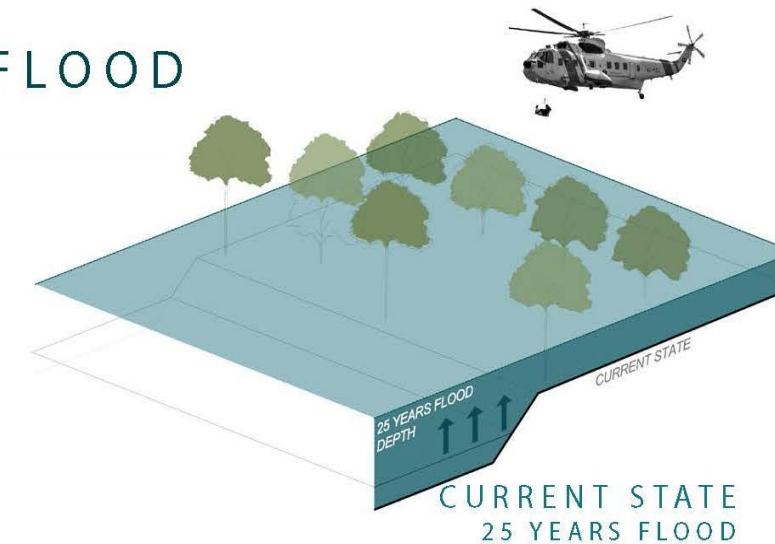


ROOTS IN THE
KELANI RIVER

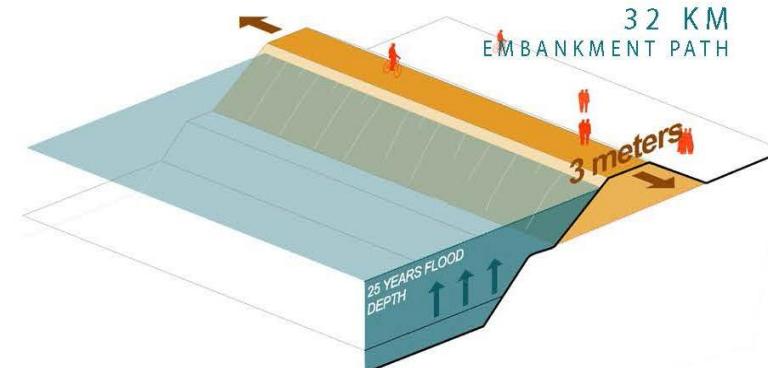
KELANI RIVER PARK. URBAN, LANDSCAPE AND SOCIAL INTEGRATION OF THE FLOOD PROTECTION SYSTEMS OF THE KELANI RIVER



FLOOD



FLOOD PROTECTION / PROPOSED DYKE

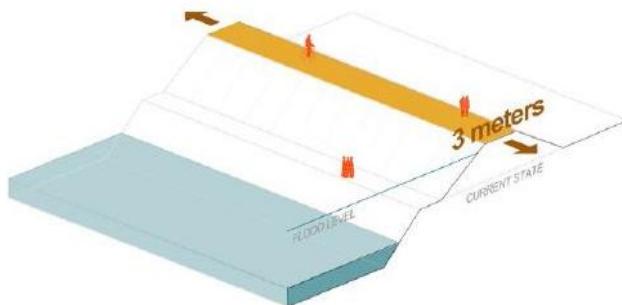


CONAMA LOCAL VILADECANS 2025

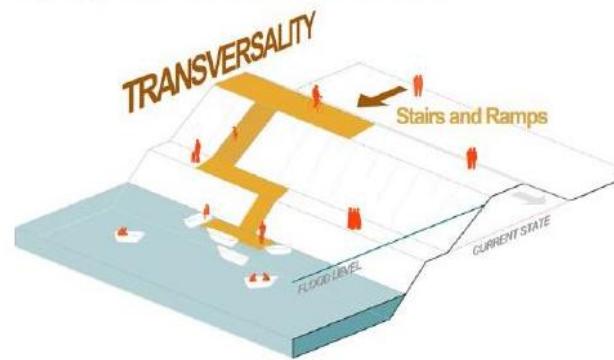
KELANI RIVER PARK. URBAN, LANDSCAPE AND SOCIAL INTEGRATION OF THE FLOOD PROTECTION SYSTEMS OF THE KELANI RIVER



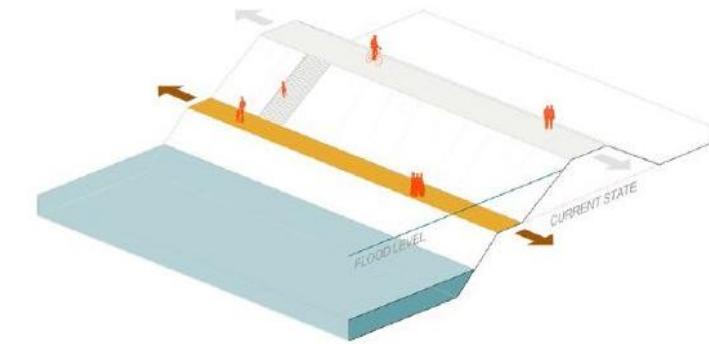
MOBILITY A SUSTAINABLE MODEL



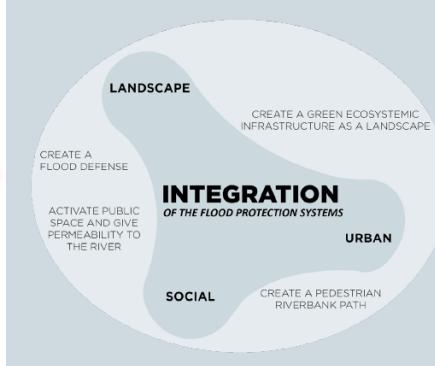
WINDOW TO THE RIVER GATH, PIER & BATH AREAS



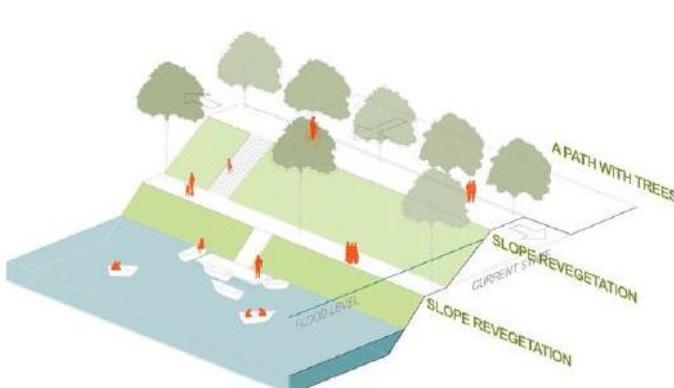
WORKING PLATFORM WHEN IT'S POSSIBLE



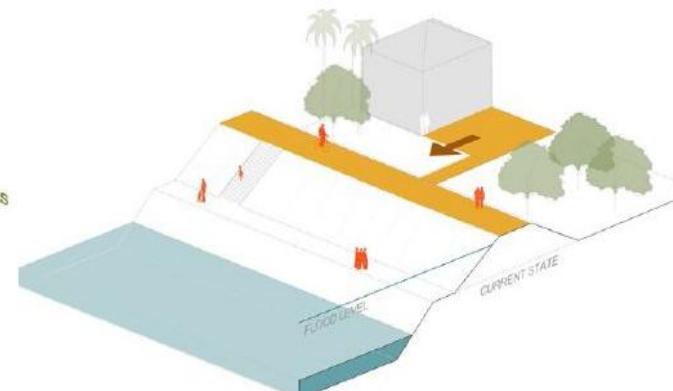
KELANI RIVER PARK NOT JUST A FLOOD PROTECTION



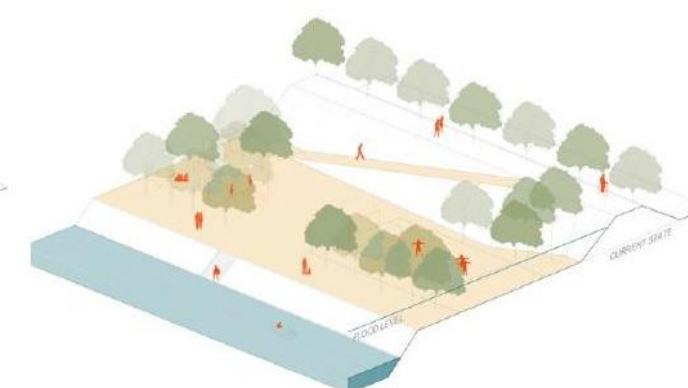
GREEN INFRASTRUCTURE A NEW LANDSCAPE



PUBLIC SPACES NETWORK INTEGRATION OF OPEN SPACES

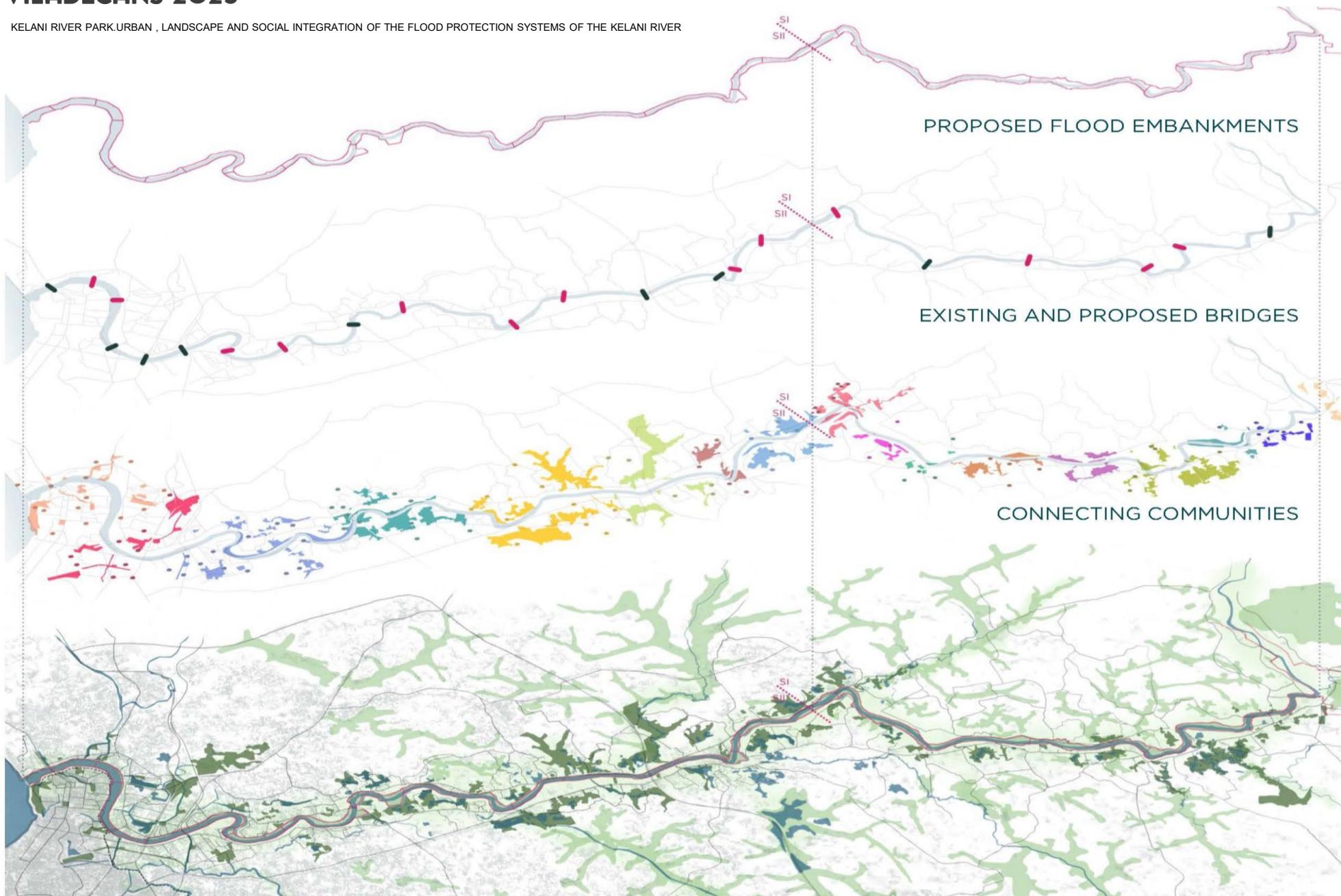


ROOM SPACES WHEN IT'S POSSIBLE



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KELANI RIVER PARK. URBAN, LANDSCAPE AND SOCIAL INTEGRATION OF THE FLOOD PROTECTION SYSTEMS OF THE KELANI RIVER

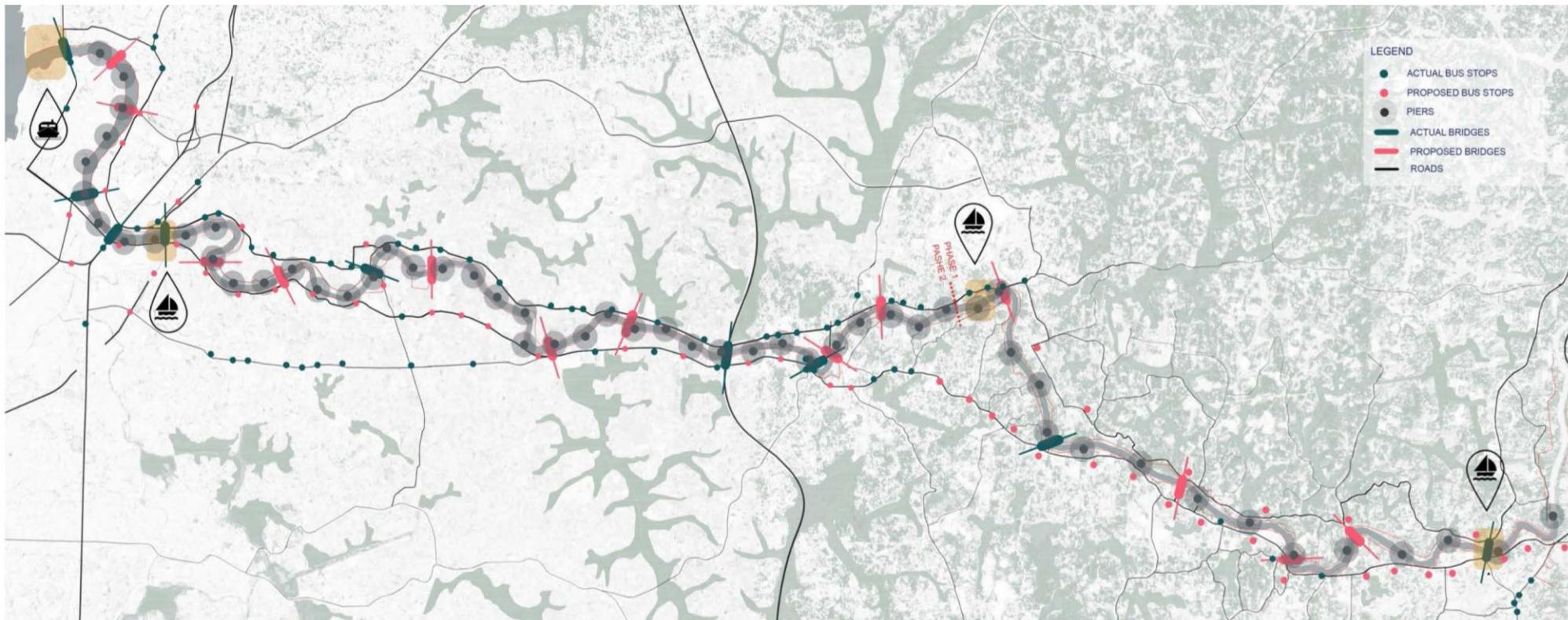


OPPORTUNITY TO
CONNECT
COMMUNITIES AND
PROVIDE THEM
WITH PARKS AND
FACILITIES

36km
2 shores
58 municipalities
benefited by the
metropolitan park

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KELANI RIVER PARK. URBAN, LANDSCAPE AND SOCIAL INTEGRATION OF THE FLOOD PROTECTION SYSTEMS OF THE KELANI RIVER



COLOMBO'S
GROWTH GIVING
ITS FACE TO THE
KELANI RIVER



New smart mobility

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CURRENT STATE



SOCIO ECOLOGICAL SPACES



SOCIO ECOLOGICAL SPACES



SOCIO ECOLOGICAL SPACES



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VILADECANS 2025



95% PEOPLE

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95% PEOPLE
5% FLOOD



95% PEOPLE

5% FLOOD

100% NATURE



95% PEOPLE

5% FLOOD

100% NATURE

SOCIO-
ECOLOGICAL
SPACE

FLOOD
TRANSITION



CURRENT STATE



ACCESIBILITY AND
TRANSVERSAL CONNECTION



ACCESSION AND
TRANSVERSAL CONNECTION

FLOOD PERIOD

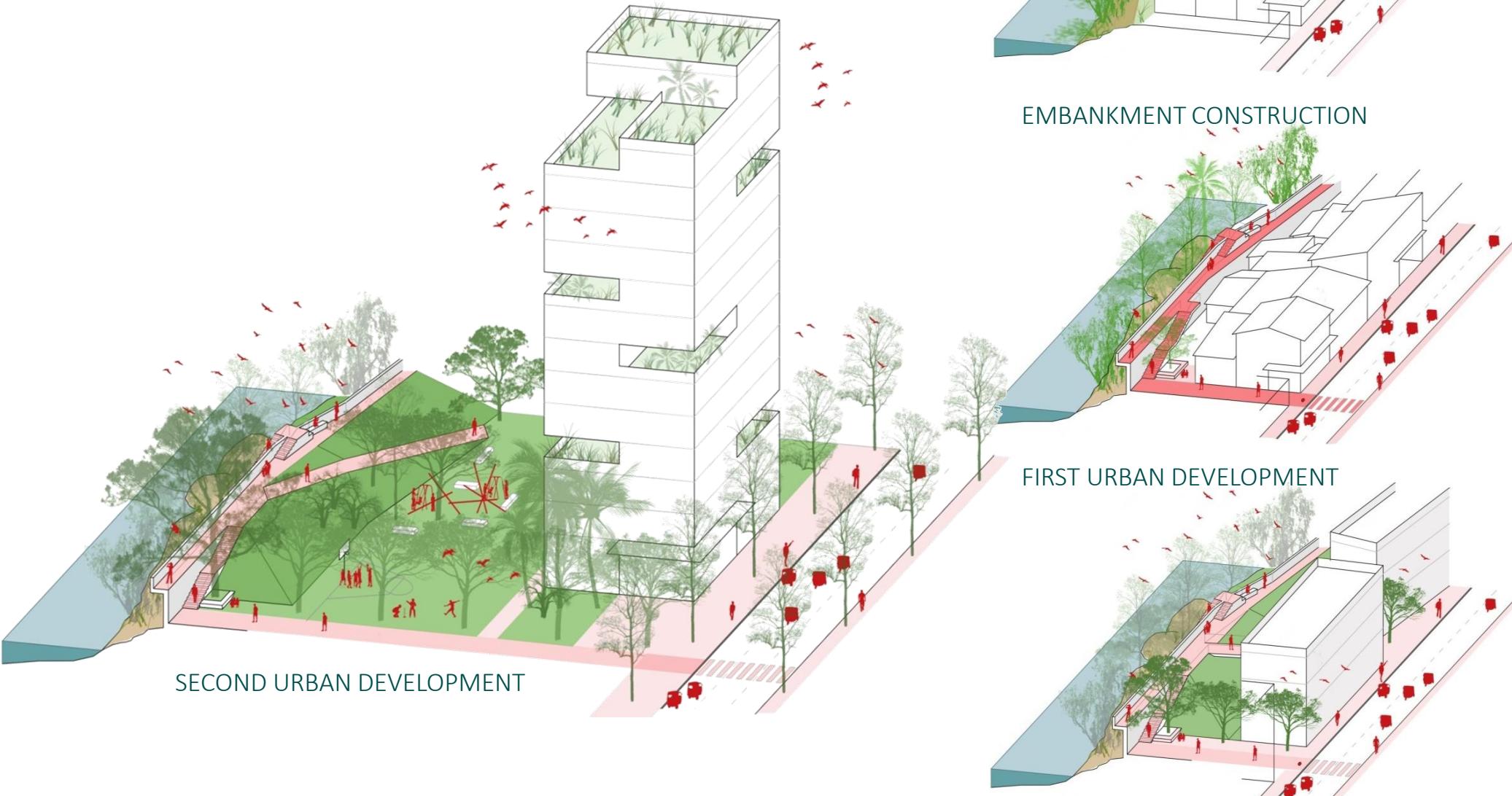
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VILADECANS 2025



SERVING THE DIFFERENT NEIGHBORHOODS

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KELANI RIVER PARK. URBAN, LANDSCAPE AND SOCIAL INTEGRATION OF THE FLOOD PROTECTION SYSTEMS OF THE KELANI RIVER

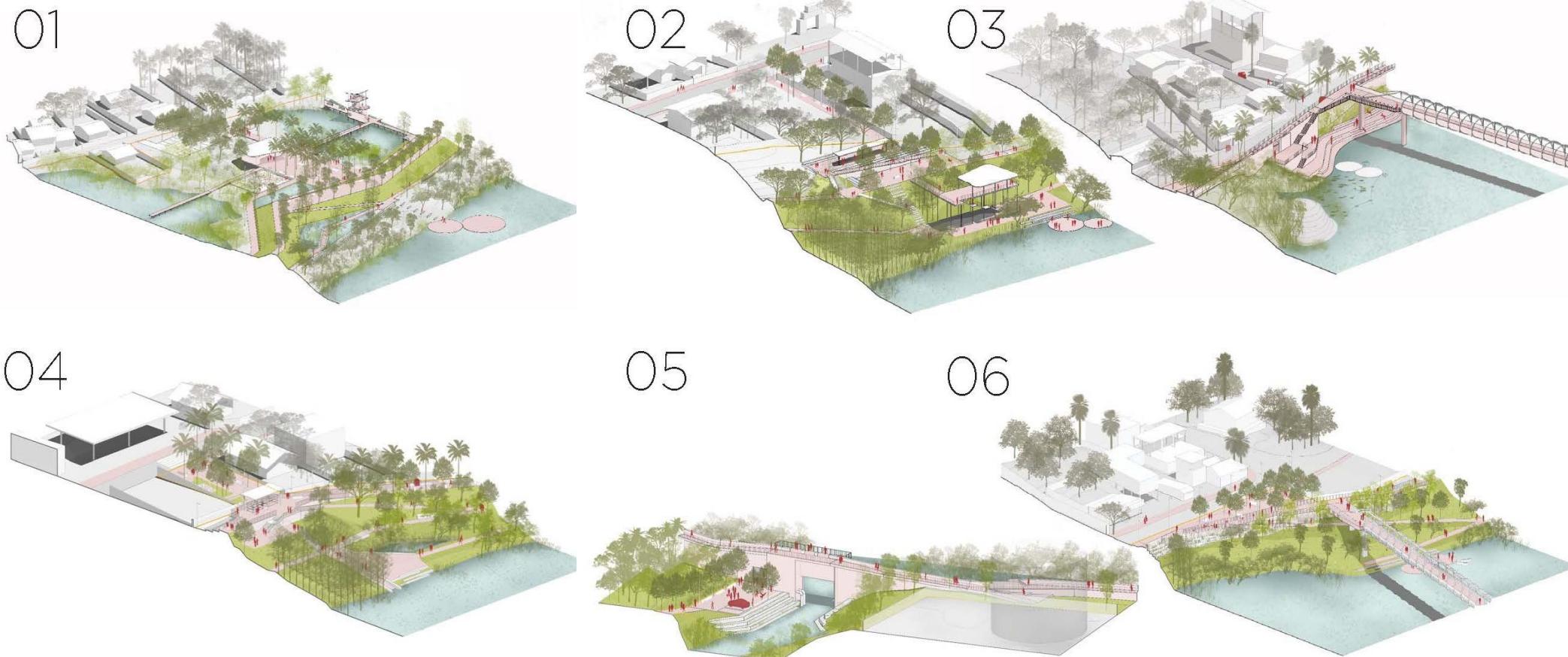


OPPORTUNITY FOR
LOW INCOME
HOUSES
IMPROVEMENT
AND FOR NEW
URBAN
CENTRALITIES
DEVELOPMENT



OPPORTUNITY FOR
LOCAL SMALL BUSINESS AND
METROPOLITAN NEW BUSINESS

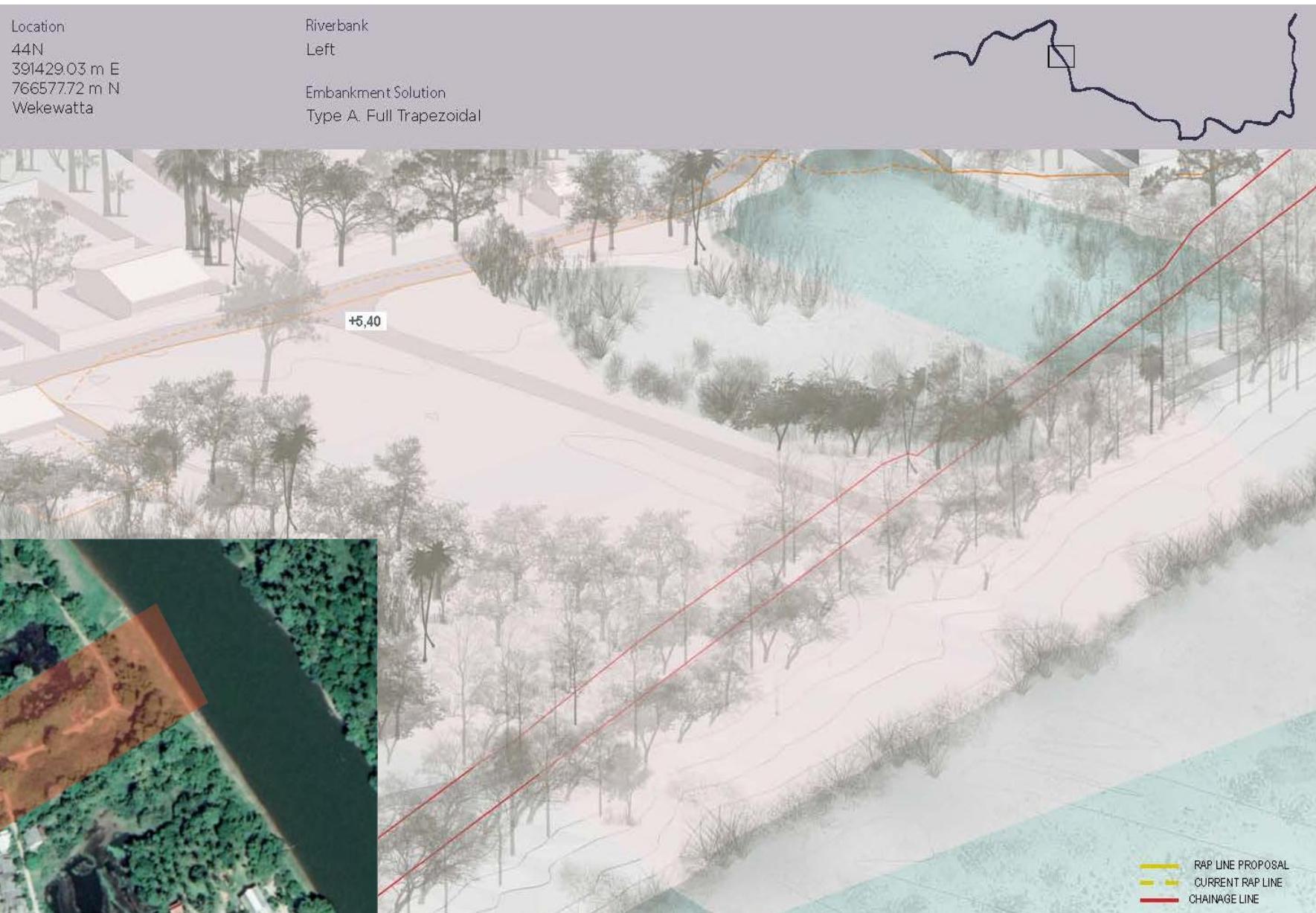
NEW HUBS OF
ECONOMIC
ACTIVITY

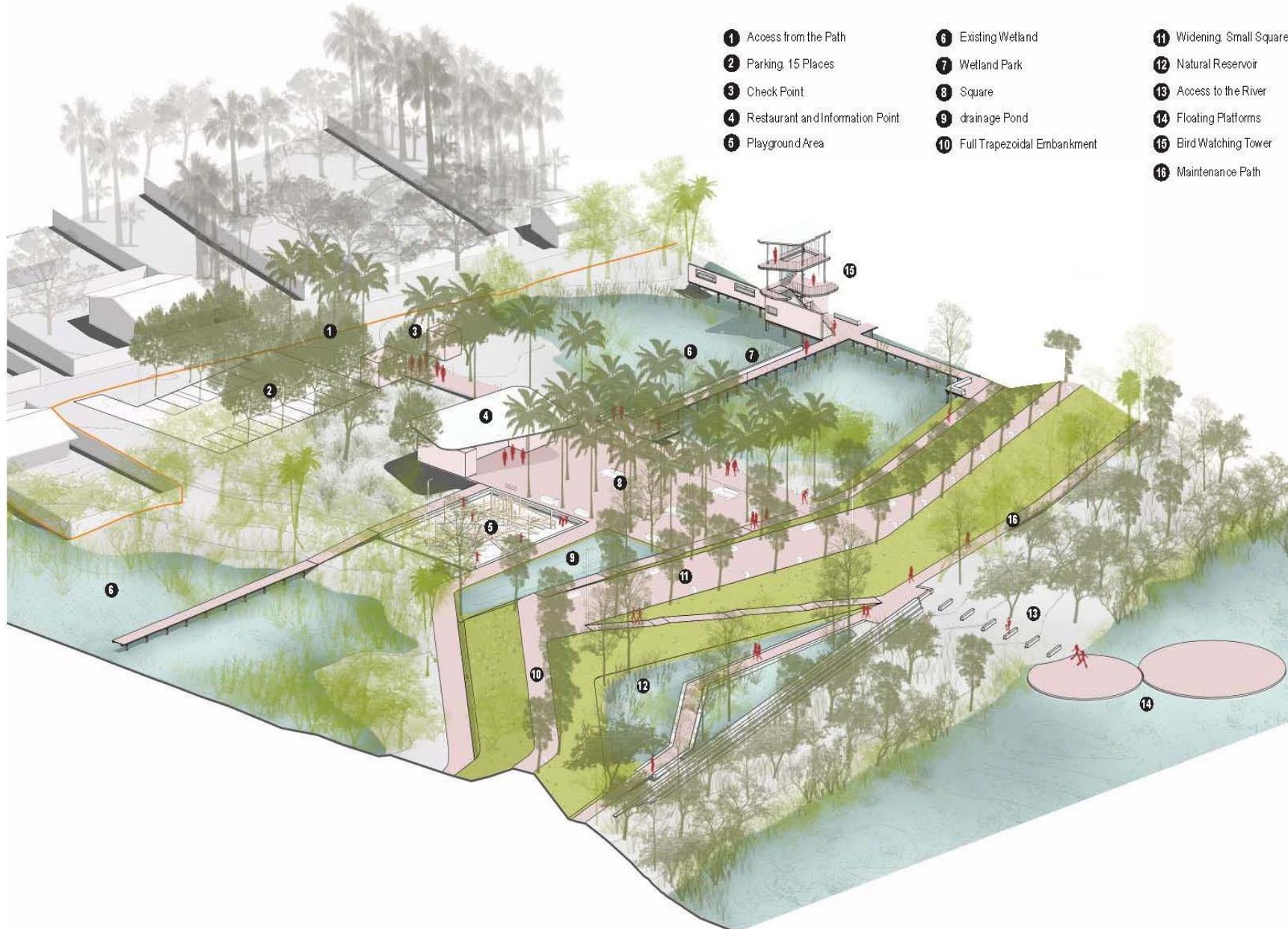


6 PILOT PROJECTS

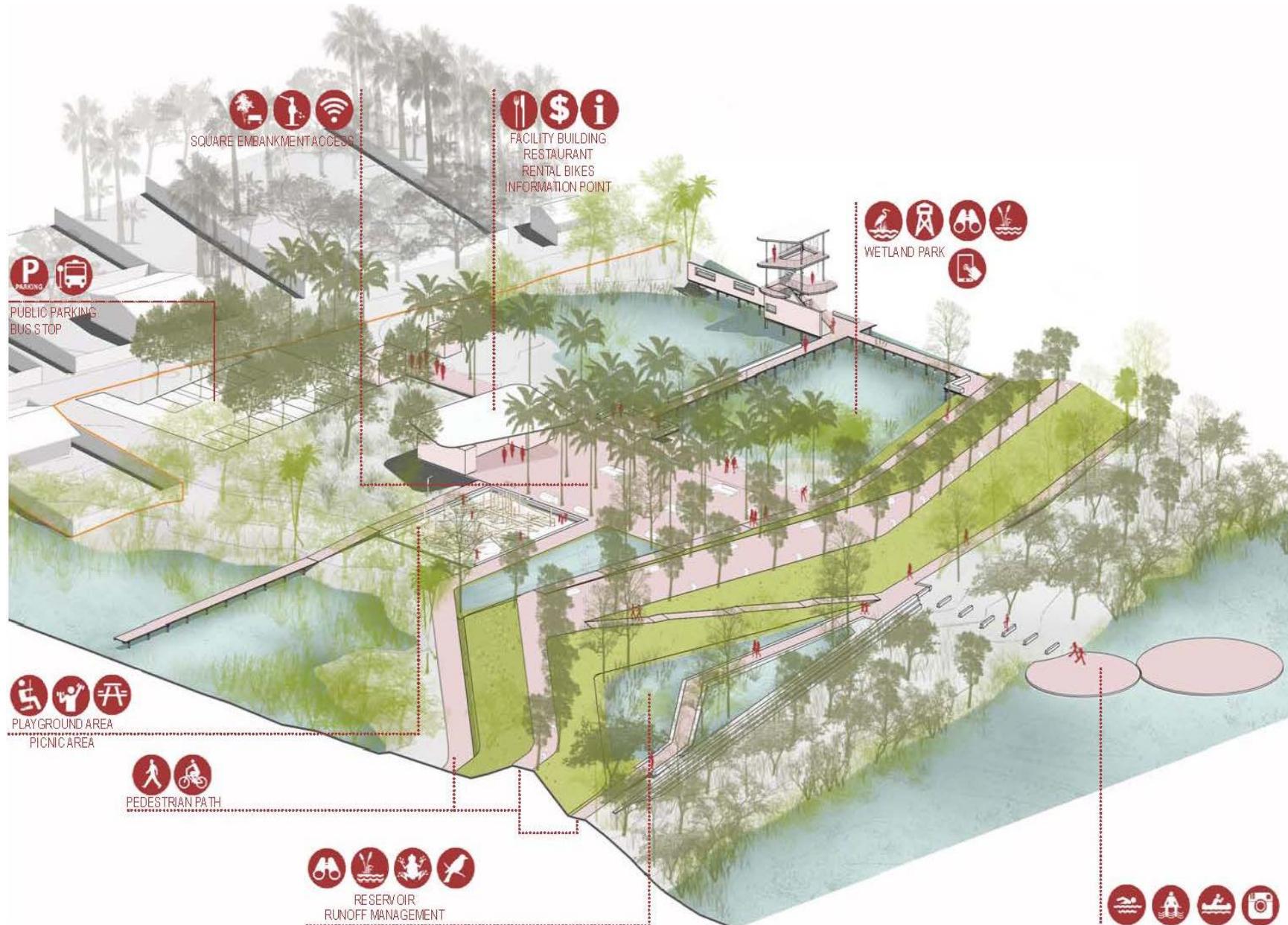
8 main SYSTEMS
analyzed in each:

- Uses and potential activities
- Topography
- Mobility and accessibility
- Flood
- Drainage and permeability
- Landscape and ecology
- Materiality and maintenance
- Furniture





PILOT PROJECT 01
PROPOSAL



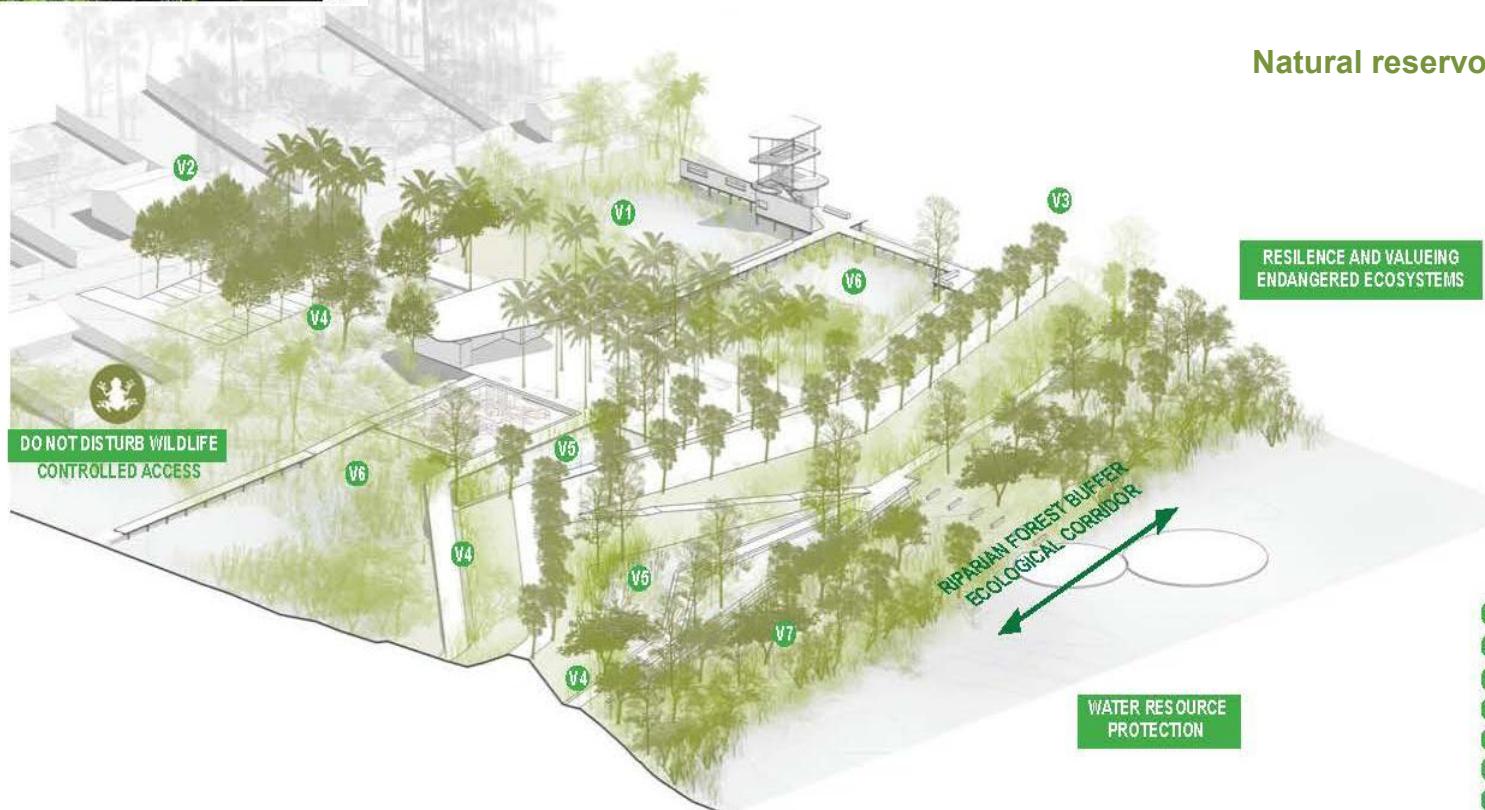
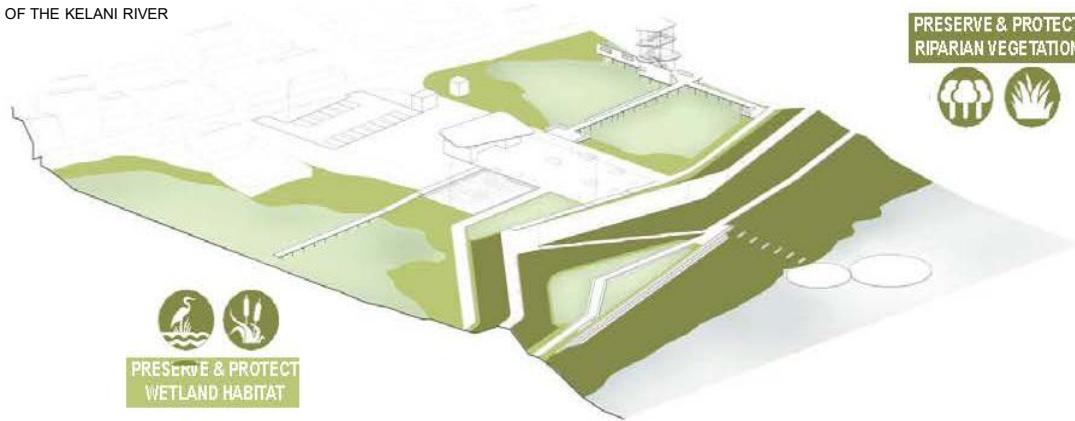
PILOT PROJECT 01
USES AND
POTENTIAL
ACTIVITIES

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KELANI RIVER PARK. URBAN, LANDSCAPE AND SOCIAL INTEGRATION OF THE FLOOD PROTECTION SYSTEMS OF THE KELANI RIVER



Preserve and disseminate existing wetlands



Natural reservoir



- V1 Square Palms
- V2 Parking Trees
- V3 Embankment Trees
- V4 Ditch Vegetation
- V5 Pond Vegetation
- V6 Aquatic Plants
- V7 Riparian woodland



**PILOT PROJECT 01
LANDSCAPE AND ECOLOGY**

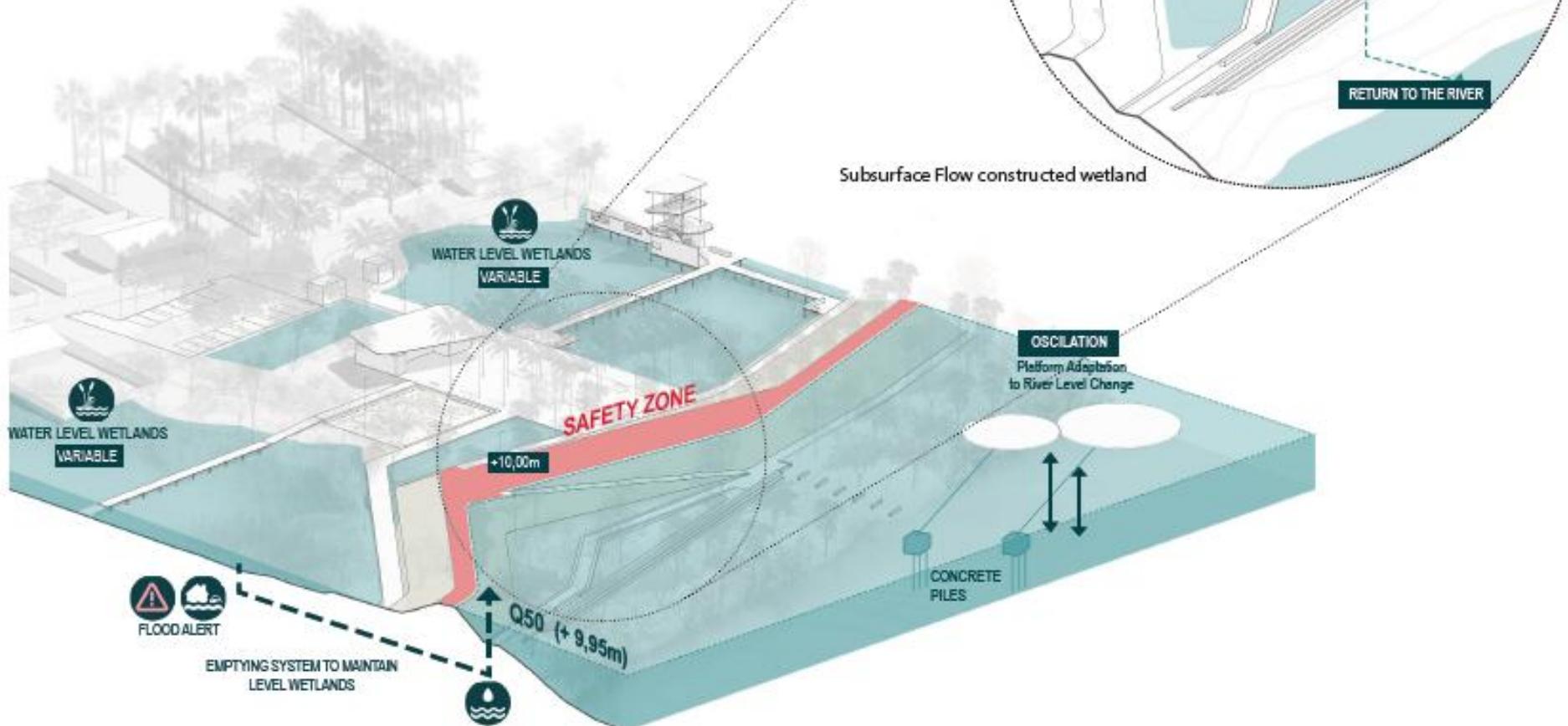
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KELANI RIVER PARK. URBAN, LANDSCAPE AND SOCIAL INTEGRATION OF THE FLOOD PROTECTION SYSTEMS OF THE KELANI RIVER



FLOOD

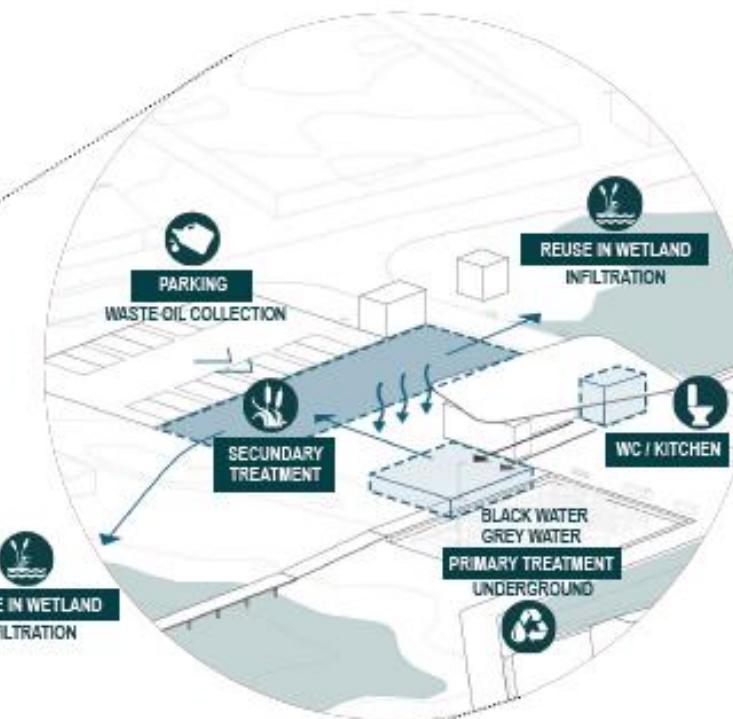
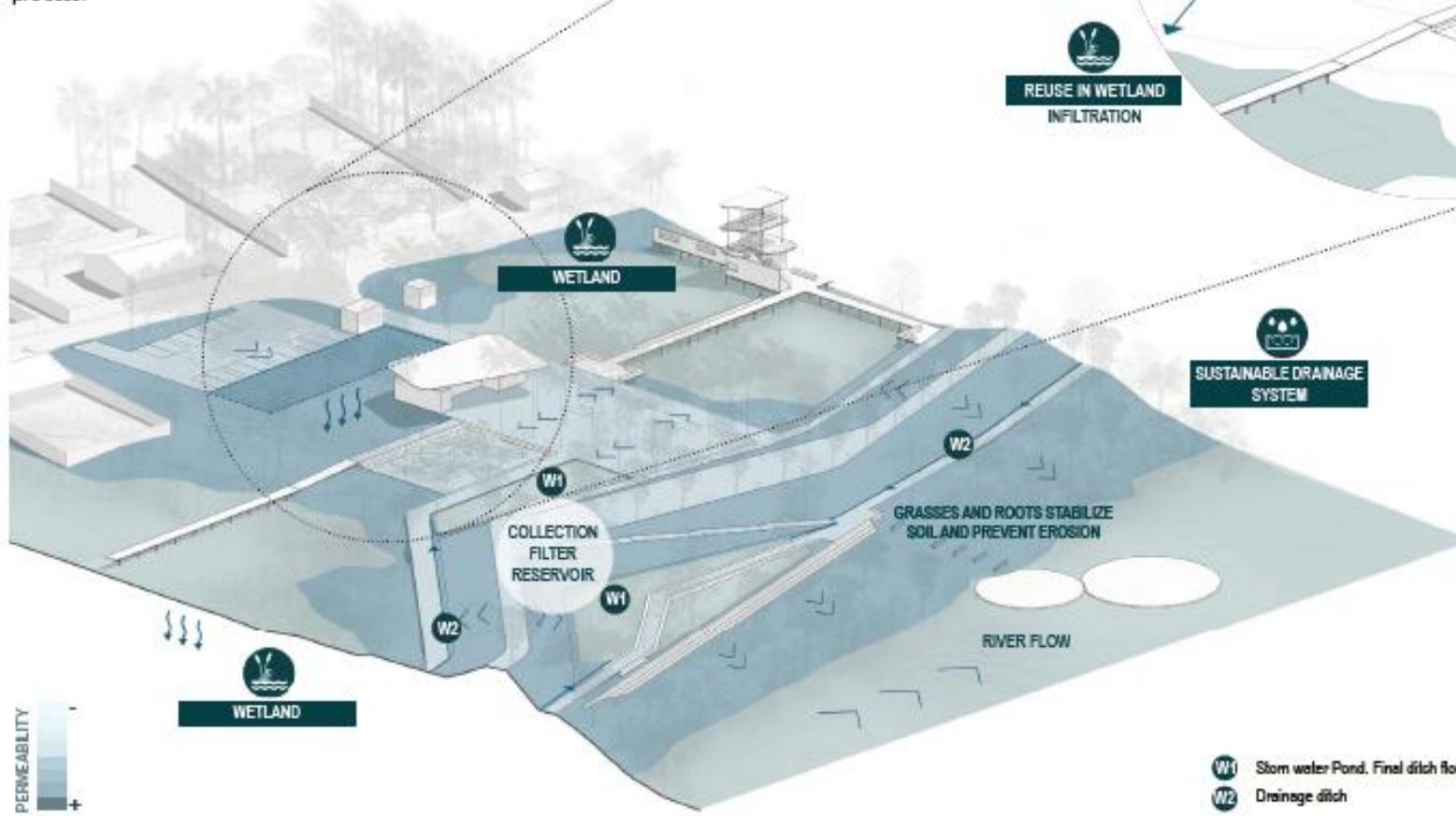
The flood of this zone does not only concern the Kelani River. It also affects the Wetlands' water level. So a hydrological automatic system is proposed to control it, activating the emptying by pumping from the Wetlands to the River, to protect the public space and the private properties in the town side.



DRAINAGE AND PERMEABILITY

Main routes and resting areas are mainly solved with permeable stabilized sand pavements delimited with precast concrete curbs. The paths that go into the wetlands will be raised wooden platforms that allow their use regardless of the level of water in each season.

A connection system between the different wetlands and the water collection areas of the embankment drainage is established with the aim of expelling the excess of water accumulated. The discharge of water into the River occurs after a phytodepuration process.



PILOT PROJECT 01 DRAINAGE AND PERMEABILITY

KELANI RIVER PARK

SRI LANKA



Conecta. Actúa. Transforma

La transición ecológica empieza en tu ciudad

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