

Country / City BOGOTÁ / COLOMBIA

University / School UNIVERSIDAD DE LOS ANDES

Academic year 2019

Title of the project MULTIFUNCTIONAL BORDERS IN THE GUALÍ WETLANDS

Authors DANIEL BERMUDEZ + PAULA FERRO + VICTOR MOSQUERA + GERMÁN PEÑARANDA + MIGUEL STEINER + NATALIA PERICO



## TECHNICAL DOSSIER

Title of the project	MULTIFUNCTIONAL BORDERS IN THE GUALÍ WETLANDS
Authors	Daniel Bermúdez; Paula Ferro; Victor Mosquera; Germán Peñaranda; Natalia Perico; Miguel Steiner
Title of the course	INTERMEDIATE UNIT OF LANDSCAPE ARCHITECTURE
Academic year	2019
Teaching Staff	DIEGO BERMUDEZ + MANUELA GUZMÁN
Department/Section/Program of belonging	DEPARTMENT OF DESIGN AND ARCHITECTURE / INTERMEDIATE UNITS / UNDERGRAD ARCHITECTURE PROGRAM
University/School	UNIVERSIDAD DE LOS ANDES



Written statement, short description of the project in English, no more than 250 words

This project is the first step in the semester-long study of the Gualí Wetlands in Funza, in the outskirts of Bogotá. It consists of a master plan within this 1196 hectare ecosystem that could serve to articulate the main agents that coexist around it - industries, agriculture, road networks, urbanization and floriculture - with the wildlife and ecological structure of the wetland. Since these relationships are stronger and have greater impact on the outer limits and riverbanks of the wetland, our strategy focuses on intervening only these areas. The interventions are defined based on the type of agent that is dominant in a certain area as well as the topographic tendency of the land. All of them are designed and sought out to provide a multifunctional use of the land that can serve the agent in the same way that it serves the ecosystem, forming a better relationship between human infrastructures and natural landscape. An important technique that can be found in many areas of the project is water depuration, which consists of planting specific species of flora that are native to the wetland to help cleanse the waters that have been polluted by industries or urbanization. Considering the constant expansion of Bogotá onto its neighboring municipalities, this project is thought out in a long term where it could very well be part of the city.

For further information  
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# CLIMATE CHANGE AGAIN

11th International Biennial Landscape Barcelona

Barcelona September 2020  
SCHOOL PRIZE

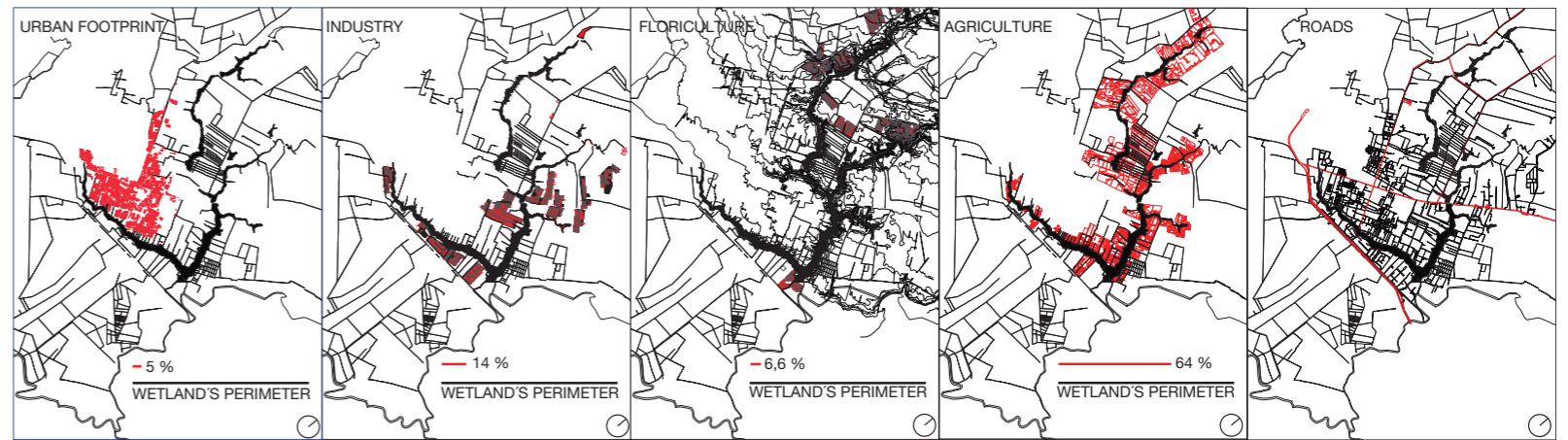
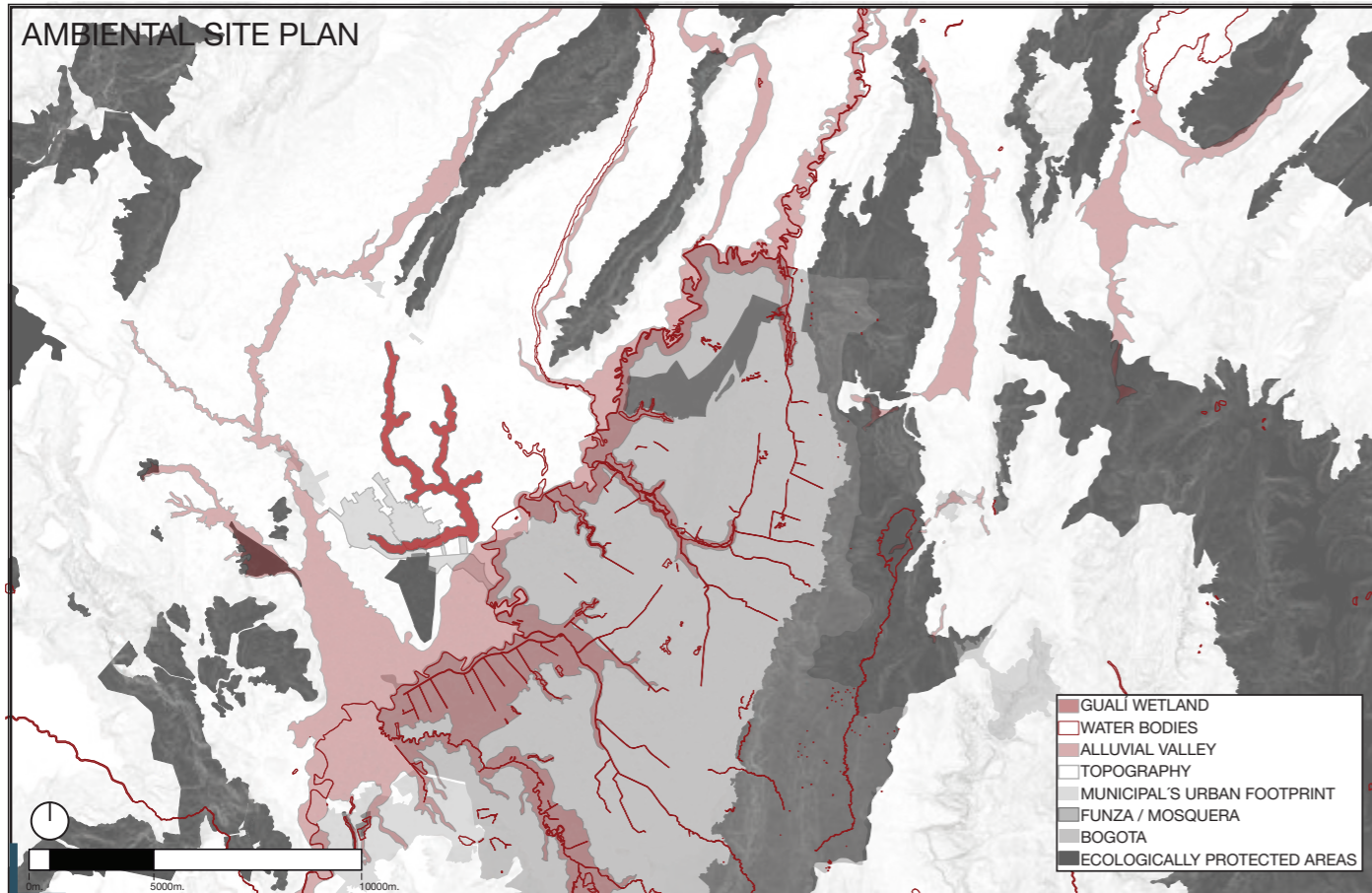
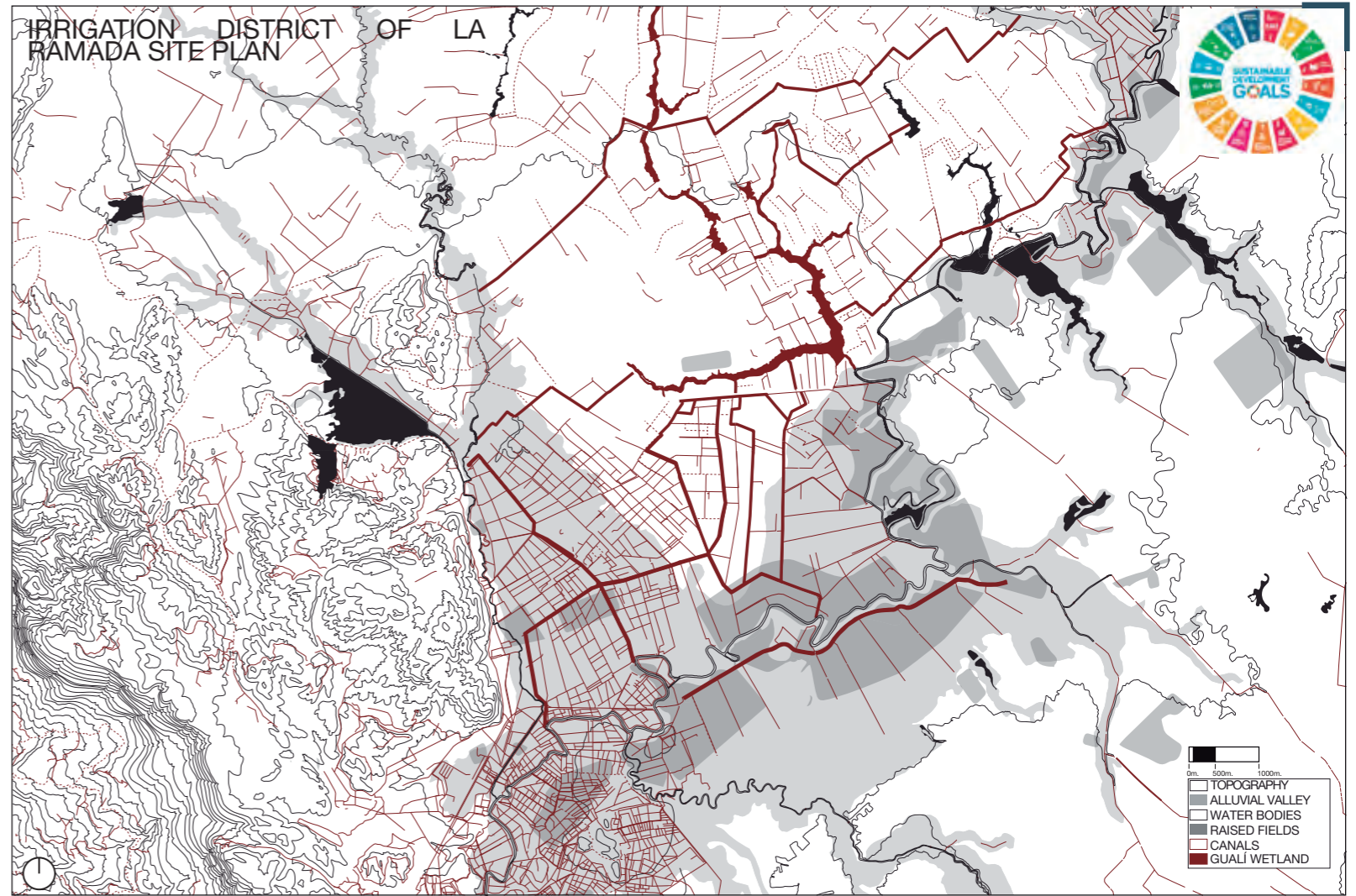


# SITE ANALYSIS



SOUTH AMERICA

IN 1926 GOVERNMENT AUTHORITIES CREATED THE IRRIGATION DISTRICT OF LA RAMADA (DISTRITO DE RIEGO DE LA RAMADA) IN THE OUTSKIRTS OF BOGOTA. THE MAIN GOAL WAS TO CONTROL THE RECURRING INUNDATIONS IN THIS FLOODPLAIN SAVANNA TO INCREASE NEARBY PRODUCTIVE AREAS.



## URBAN FOOTPRINT

UNCONTROLLED AND RAPID EXPANSION TENDENCIES COLLIDE WITH THE WETLAND CREATING RESIDUAL OR UNRESOLVED AREAS IN THEIR BARRIER.

## INDUSTRY

DISPOSAL OF GARBAGE AND DRAIN WATER GO TO THE WETLAND

## FLORICULTURE

WATER EXTRACTION TO LAGOONS FOR STORAGE AND INTERNAL IRRIGATION. CONTAMINATES THE WATER WITH PESTICIDES AND FERTILIZERS.

## ARGICULTURE

WATER EXTRACTION FOR IRRIGATION WITH WATER PUMPS CONTAMINATES THE WATER WITH PESTICIDES AND FERTILIZERS

## ROADS

FRAGMENT THE WETLAND INTO VARIOUS, SMALLER VULNERABLE WETLANDS.

THESE HUMAN ACTIVITIES WITH THE GUALI WETLAND HAVE BEEN IDENTIFIED. EACH OF THEM HAVE A DIFFERENT TYPE OF INTERACTION WITH THE WETLAND. FROM THESE POOR INTERACTIONS, THE FOLLOWING PROJECT EMERGED.





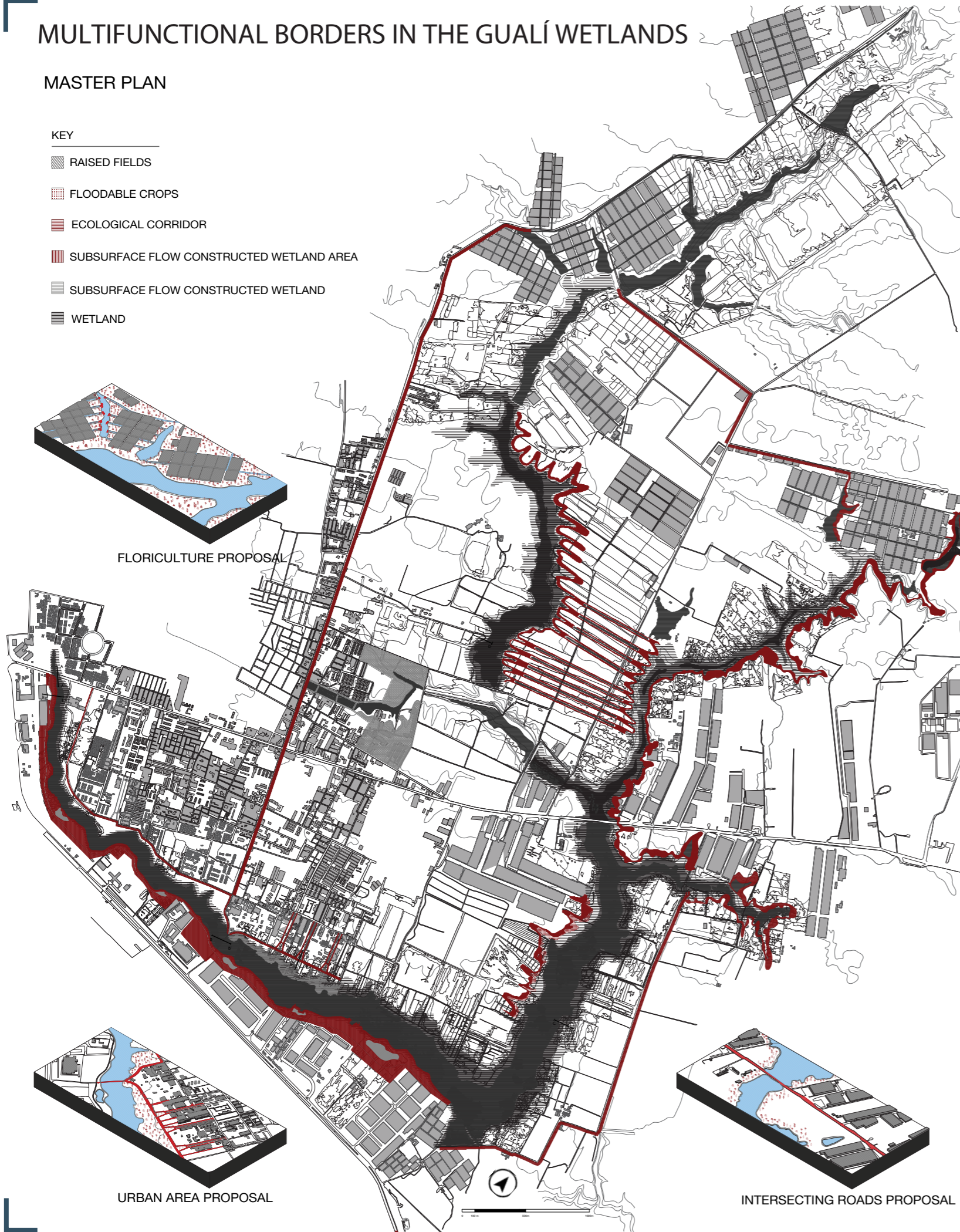
# MULTIFUNCTIONAL BORDERS IN THE GUALÍ WETLANDS



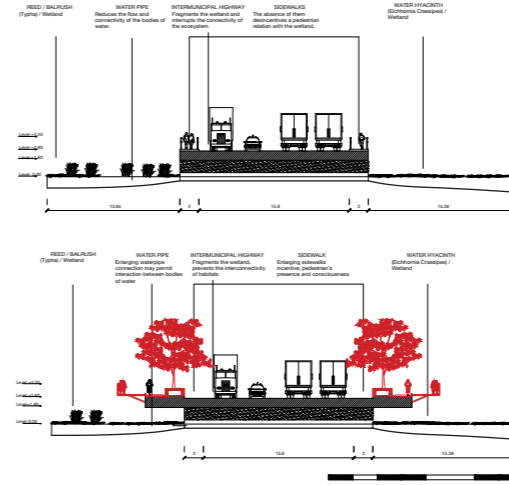
## MASTER PLAN

### KEY

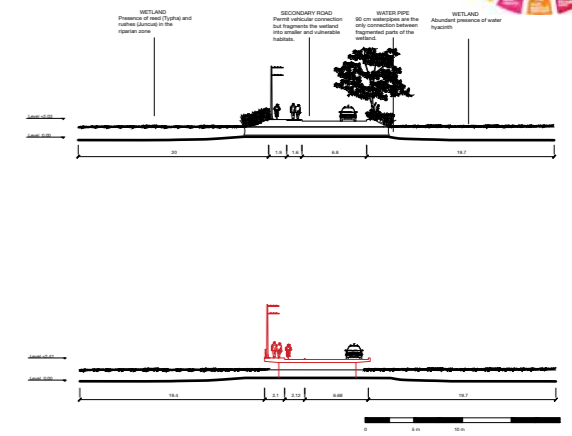
- RAISED FIELDS
- FLOODABLE CROPS
- ECOLOGICAL CORRIDOR
- SUBSURFACE FLOW CONSTRUCTED WETLAND AREA
- SUBSURFACE FLOW CONSTRUCTED WETLAND
- WETLAND



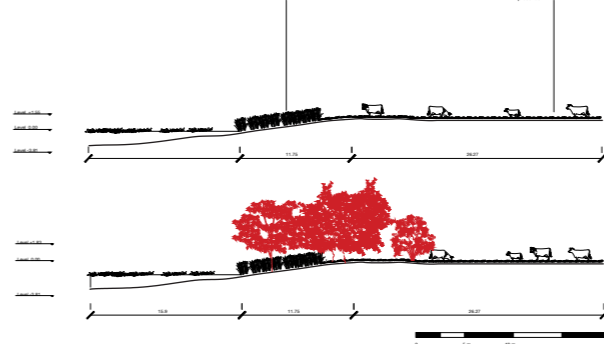
### SECTION A-A' GUALI WETLAND - STREET "AVENIDA CARRERA 5 ESTE" - GUALI WETLAND



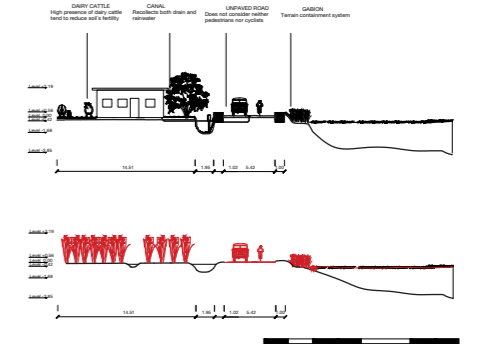
### SECTION B - B' WETLAND - ROAD (CALLE 15) - WETLAND



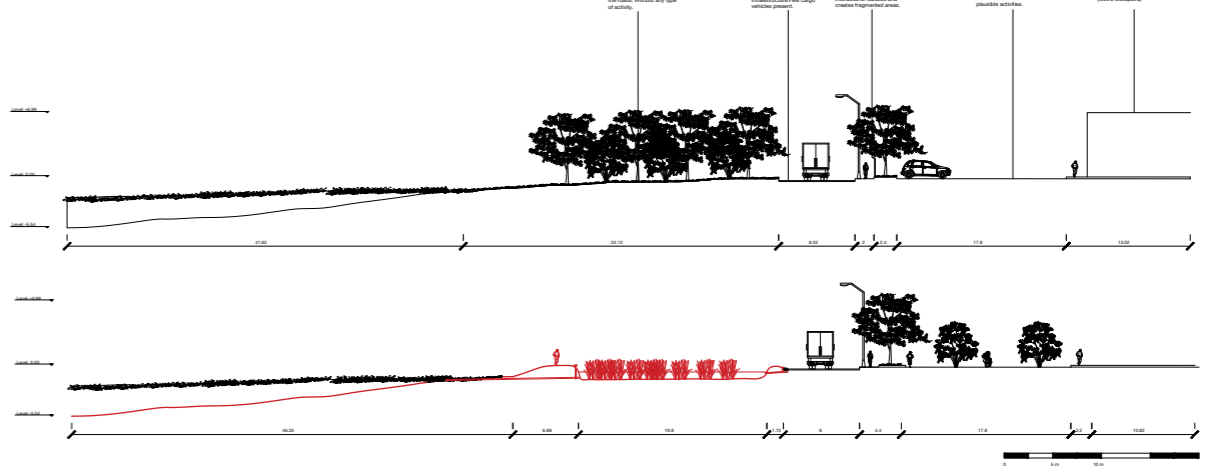
### SECTION C-C' WETLAND - CATTLE RAISING FARM



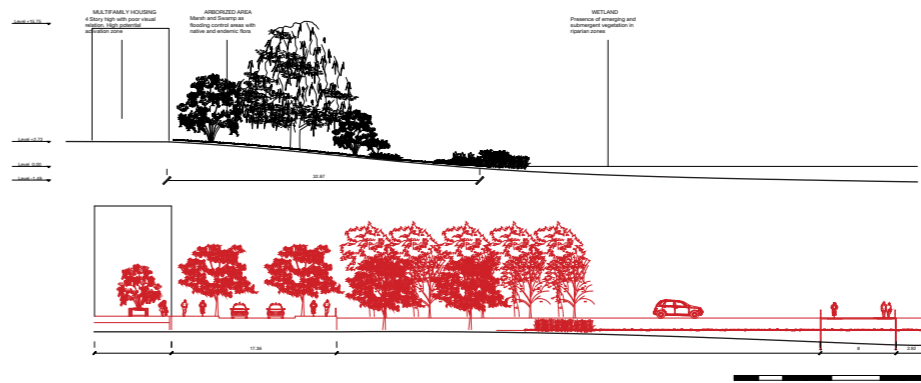
### SECTION D-D' DAIRY FARM - CANAL - UNPAVED ROAD - WETLAND



### SECTION E-E' GUALI WETLAND - ARBORIZED AREA - PARKING - "METRO MOSQUERA" MARKETPLACE



### SECTION F-F' WETLAND ARBORIZED AREA - 4 STORY MULTIFAMILY HOUSING

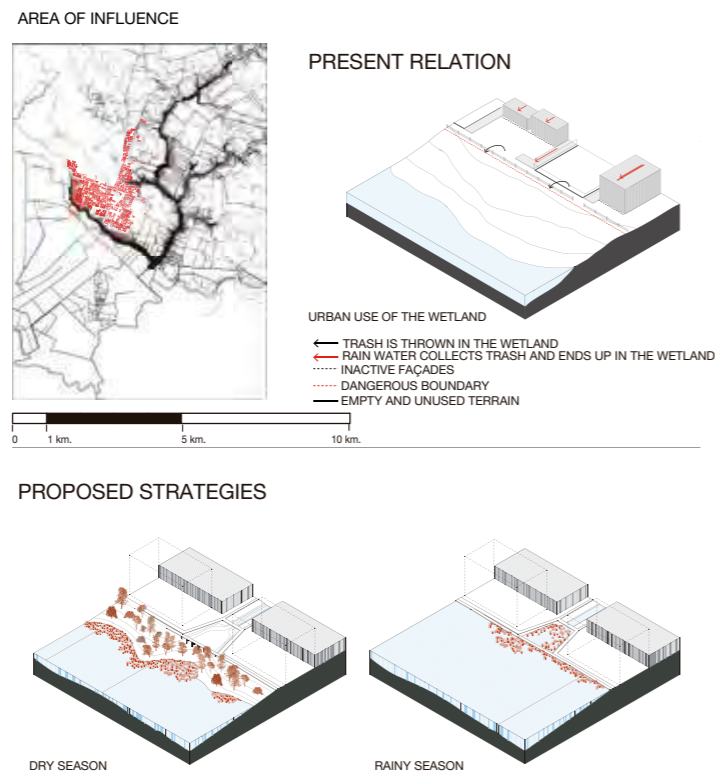




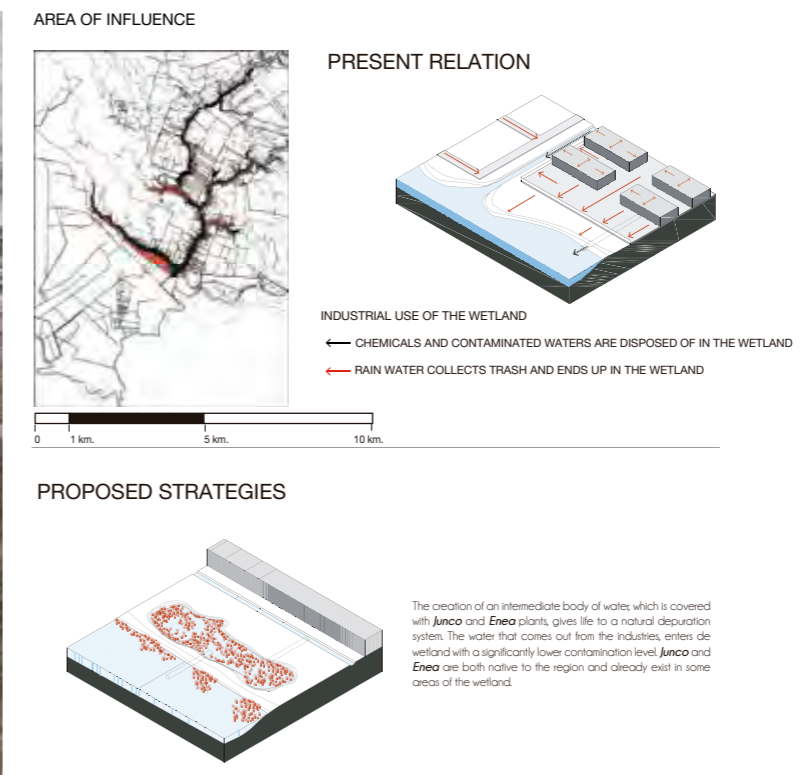
# PROJECT STRATEGIES



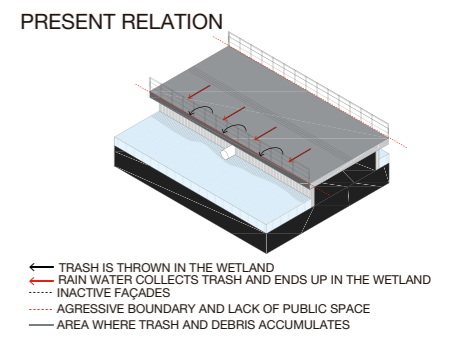
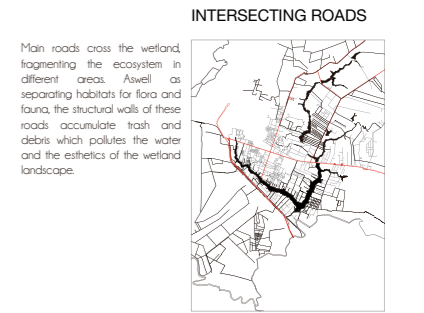
## URBAN AREA CREATING A FACE FOR THE WETLAND



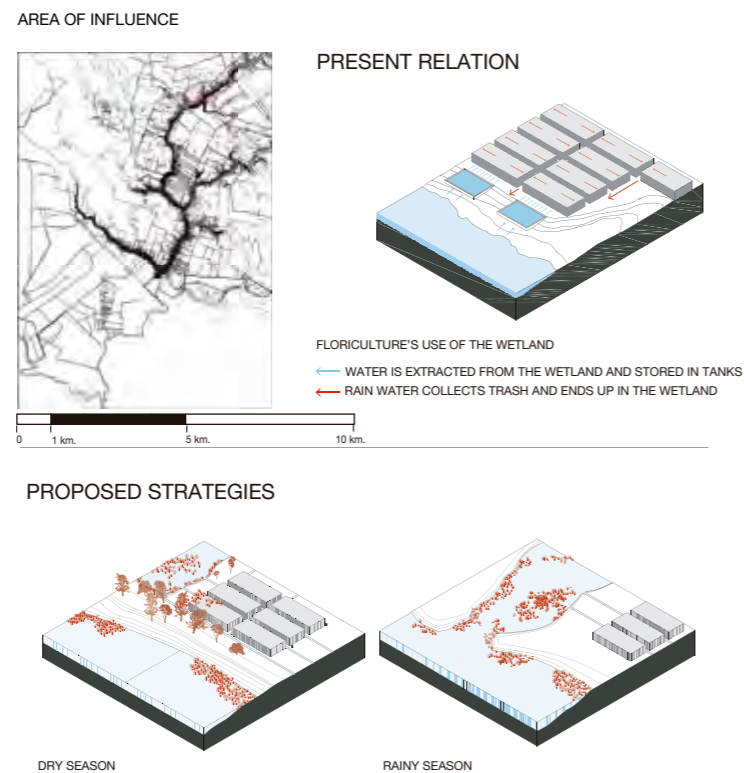
## INDUSTRIES WATER DEPURATION AND CLEANSING



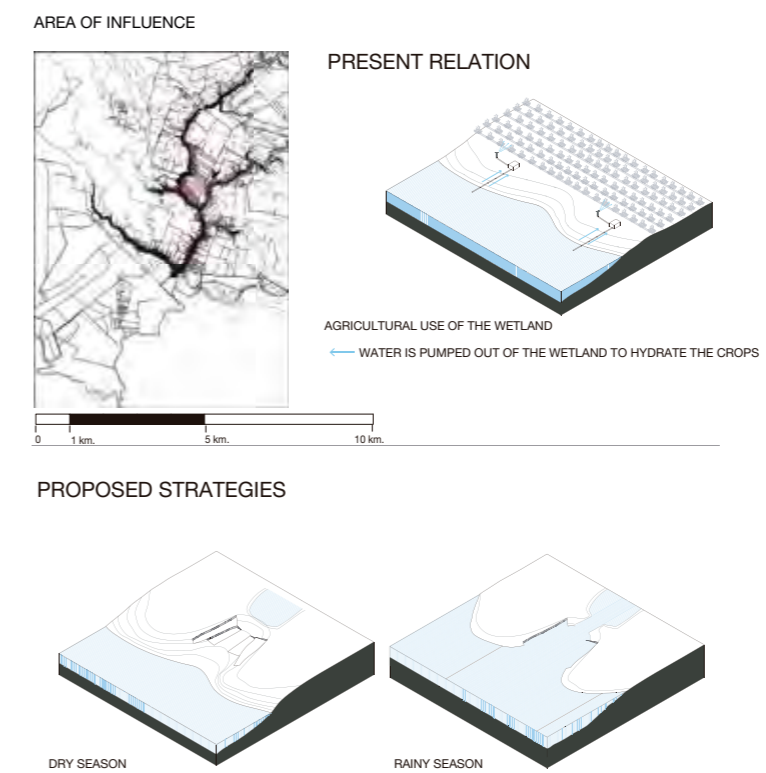
## ROAD NETWORK RECONNECTING A FRAGMENTED ECOSYSTEM



## FLORICULTURE REVERSING THE WATER EXTRACTING PROCESS



## AGRICULTURE ALLOWING FLOODABLE CROPS



## PROPOSED STRATEGIES

