



Country / City .....  
University / School .....  
Academic year .....  
Title of the project .....  
Authors .....

El Tabo, V Región de Valparaíso, Chile  
Universidad Diego Portales  
2018  
Ecosistemic recovery of El Peral lagoon.  
Macarena Cuevas Letelier







# PERFORMATIVE NATURE

Barcelona International Landscape Architecture Biennial

September 2018 **Barcelona**

SCHOOL PRIZE

X International Landscape Architecture Biennial

**Máster d'Arquitectura del Paisatge -DUOT - UPC**

ETSAB- Escola Tècnica Superior

d'Arquitectura de Barcelona

Avenida Diagonal, 649 piso 5

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## TECHNICAL DOSSIER

Title of the project ..... Ecosistemic recovery of El Peral lagoon  
Authors ..... Macarena Cuevas Letelier  
Title of the course ..... Graduate project workshop  
Academic year ..... 2018  
Teaching Staff ..... Pedro Pedraza / Cristian Seguel  
Department/Section/Program of belonging ..... Landscape area  
University/School ..... Universidad Diego Portales

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

Nature sanctuary El Peral lagoon, is located in El Tabo, San Antonio, Valparaiso, Chile, is a wetland surrounded by urbanization, it has 25 hectares of protected land (approximately 16 correspond to the wetland); it was declared a sanctuary in 1975; and CONAF (national forest corporation) took over its administration in 1983. The wetland is an important migration point for birds that come from the northern hemisphere, which travel looking for nesting and feeding areas, so if the wetland disappears, the number of migratory birds will be reduced, because they should travel more distances to arrive to a new migration point.

The wetland is seasonal, it is dries some seasons in the year; due to climate change and low rainfalls in the past years.

The creation of a new sewerage network will allow water in the area to increase, it will also clean the water and pour it back into the wetland, helping to recover the water level of the wetland, restoring the flora and fauna of the place, avoiding prolonged droughts. In addition, the sewage treatment plant would allow irrigate cultivation areas, both of orchards, and nurse-ponds characteristic of the wetland. Sludges that are obtained from water treatment would serve as fertilizers, and the water cycle could be used entirely.

The use of the sanctuary as a recreational and environmental education place, will integrate into the urban area, as a public space, that encourages care of the ecosystem and allow people to bond with it.

For further information

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Consult the web page <http://landscape.coac.net/>



# LAGUNA EL PERAL | RECUPERACIÓN ECOSISTÉMICA / ECOSYSTEMIC RECUPERATION

## MEMORIA / ABSTRACT

In order to recover the ecosystem of the sanctuary of nature Laguna El Peral, it is proposed the creation of a sewage treatment plant, which allows to recover the level of water lost from the lagoon and also nesting areas for the birds that travel from the northern hemisphere. In addition to the creation of new trails and programs related to the cultivation of native and ornamental program.

## ANALISIS ECOSISTEMICO / ECOSYSTEMIC ANALYSIS

**WORLD WETLANDS**

- MARINE
- ESTUARIES
- RIVERSIDE
- LACUSTRINE
- SHAMPS
- 6% OF EARTH BELONGS TO WETLAND AREAS

**CHILEAN WETLANDS**

- ANDINOS Y ALTOANDINOS
- HUMEDALES COSTEROS
- TURBERAS

**SAN ANTONIOS PROTECTED WETLANDS**

- QUEBRADA DE CORDOVA
- LAGUNA EL PERAL
- HUMEDAL DE CARTAGENA
- LAGUNA LLOLLO
- RESERVA NACIONAL EL YALI
- PARQUE DE LA NATURALEZA HUMEDAL RIO RAIPU

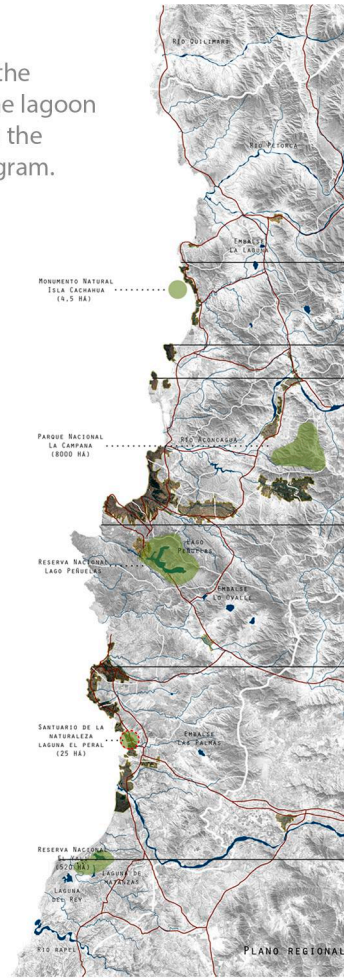
**IMPORTANCE AND BENEFITS OF WETLANDS**

- WILD LIFE
- CLEAN WATERS
- CULTURE
- PREVENT FLOODS
- WELLNESS
- CLIMATE CONTROL

**COAST BIRDS**  
**MARINE BIRDS**  
**LAND BIRDS**  
**RAPTORS**  
**WATERFOWL**

**SEASONAL MIGRATION**

- JANUARY
- MARCH
- MAY
- JULY
- SEPT.
- NOVEM.



## ANALISIS COMUNAL / COMUNAL ANALYSIS

**PLAN REGULADOR / REGULATION PLAN**

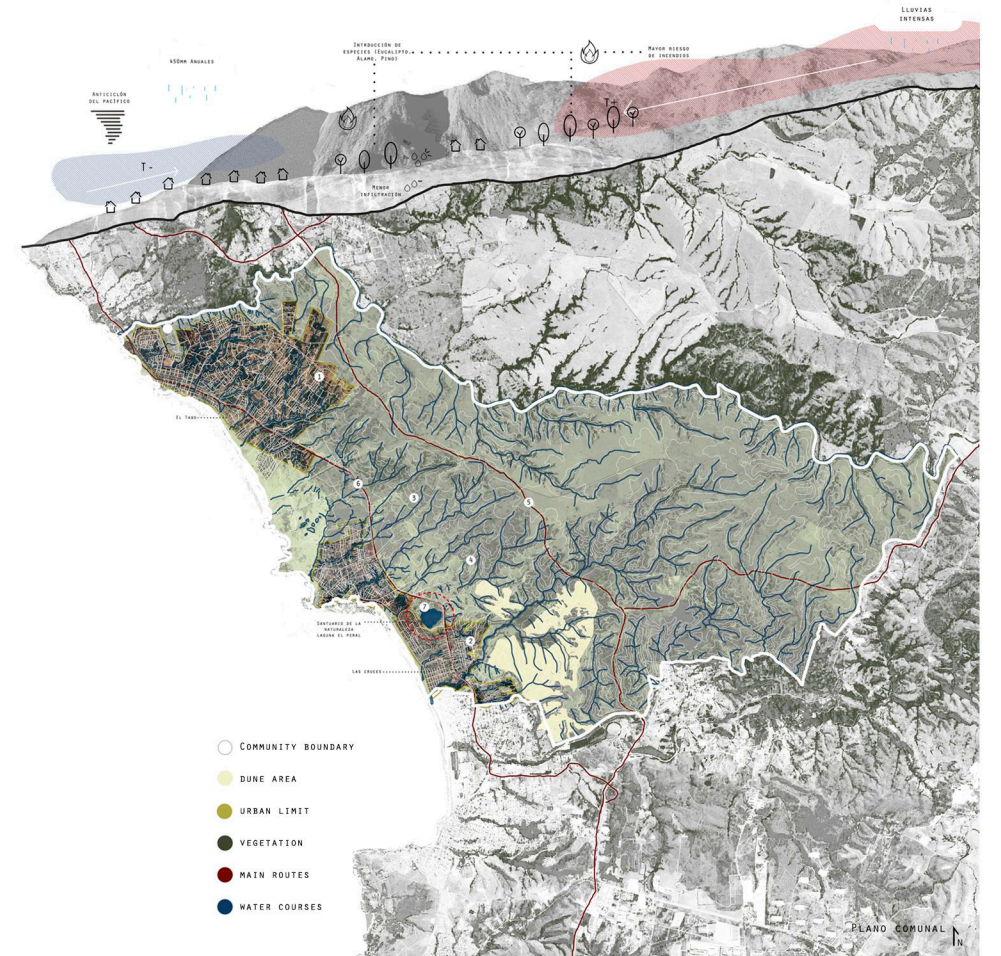
- PROTECCIÓN Y USO CULTURAL, RECREATIVO Y VISUAL DEL PAISAJE
- PROTECCIÓN DE IDENTIFICACION Y USO RIESGO
- EL TIPO DE USO DE TIERRA
- TIPO Y USO MEDIO AMBIENTE
- PAISAJE Y OBSERVACIÓN
- PROTECCIÓN DEL PATRIMONIO
- USO PRODUCTIVO

**LÍMITE URBANO / URBAN LIMIT**

**CONECTIVIDAD / CONNECTIVITY**

**ECOLOGÍA / ECOLOGY**

**HIDROLOGÍA / HYDROLOGY**



## ANALISIS DE PAISAJE / LANDSCAPE ANALYSIS

**BIRDS**

- ZARDO CHILLA
- CAUPE
- GUANO
- CHICA
- SIEETE COLORADO
- PIBA
- MARIBATO
- SARSA BOTEKA
- PERDIZ
- TAGUETA
- MALKA
- PAMPILLO
- GAVIOTA SARGINA
- GAVIOTA DE FRANKLIN
- GAVIOTA CAROL
- PATO BARR
- PATO JERÓN
- CORNO DE CHILLO NEGRO
- TARCA
- TILLO
- BLANDELLLO
- TICA
- PATO GUARNA
- GAVIOTA MONTANA
- PATO REAL

**PLANTS**

- CERATOPHYLLUM DEMISSUM
- SCHROBERIA COLONIALIS
- AMARILLA COMPLETADA
- BOJONES LONCHINA
- BOJONES CALIFORNIAS
- CARINA ENARROJADA
- FRONTEROJA PANDELLONES
- FRONTEROJA BARRILETERO
- POLICOMONTEJA MEXICANA
- JUSTICIA BOTAN
- CERATOPHYLLUM DEMISSUM
- TYPHA DUMETORUM
- SCHIZOPHYLLON
- SCHIZOPHYLLON
- LUPINUS
- PLUMAS BLANCAS

## SITUACION INTERIOR - EXTERIOR / INNER - OUTER SITUATION

**SECTION A-A**  
CORTE A-A'

**SECTION B-B**  
CORTE B-B'

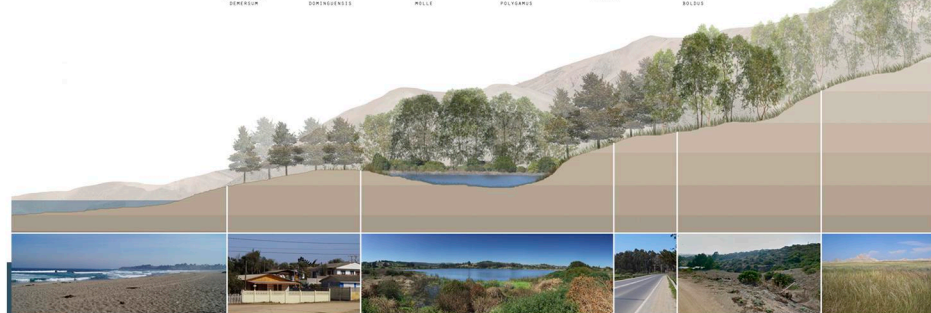
**SECTION C-C**  
CORTE C-C'

**SECTION D-D**  
CORTE D-D'

**CONTEXT SITUATION**

**INNER SITUATION**

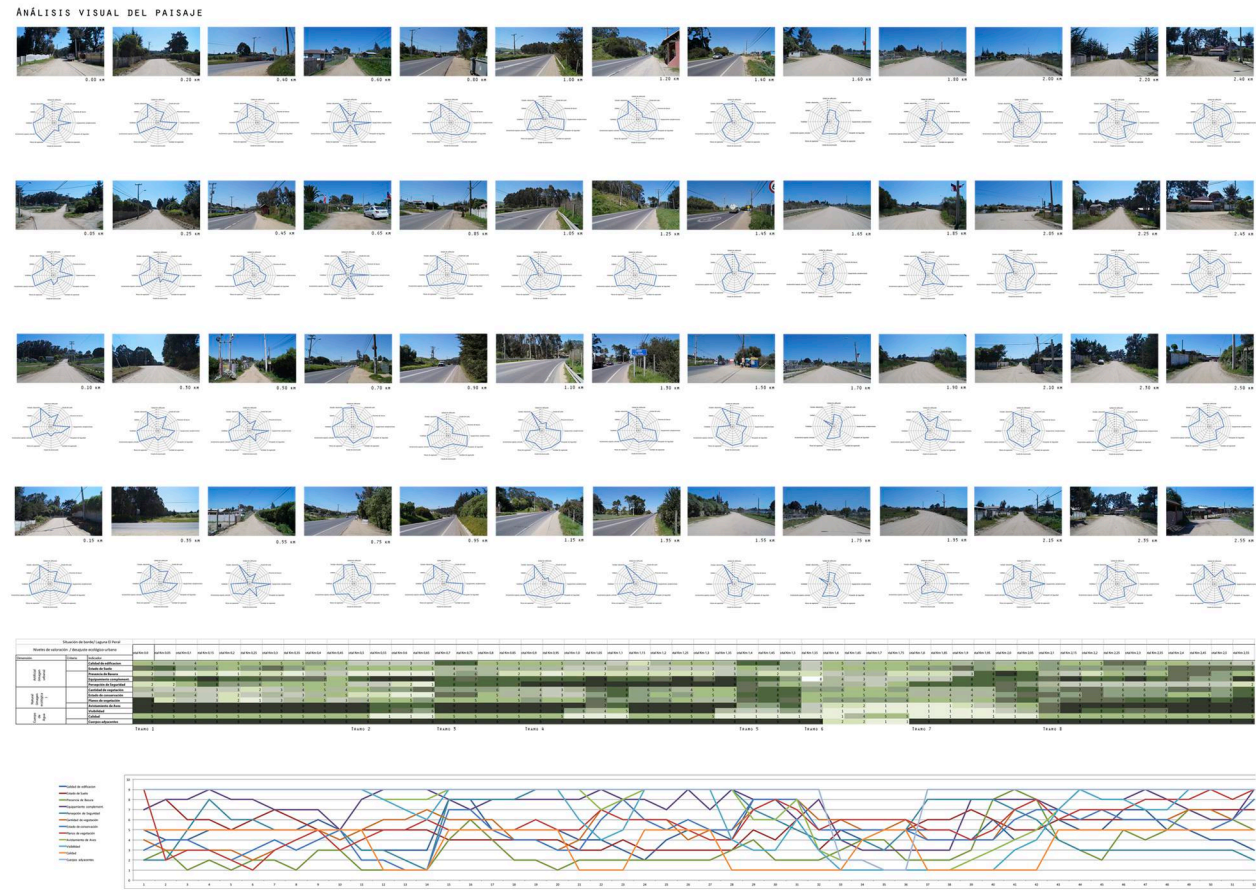
## PLANTA PIEZA ESPECIFICA / SPECIFIC PIECE PLAN





# LAGUNA EL PERAL | RECUPERACIÓN ECOSISTÉMICA / ECOSYSTEMIC RECOVERY

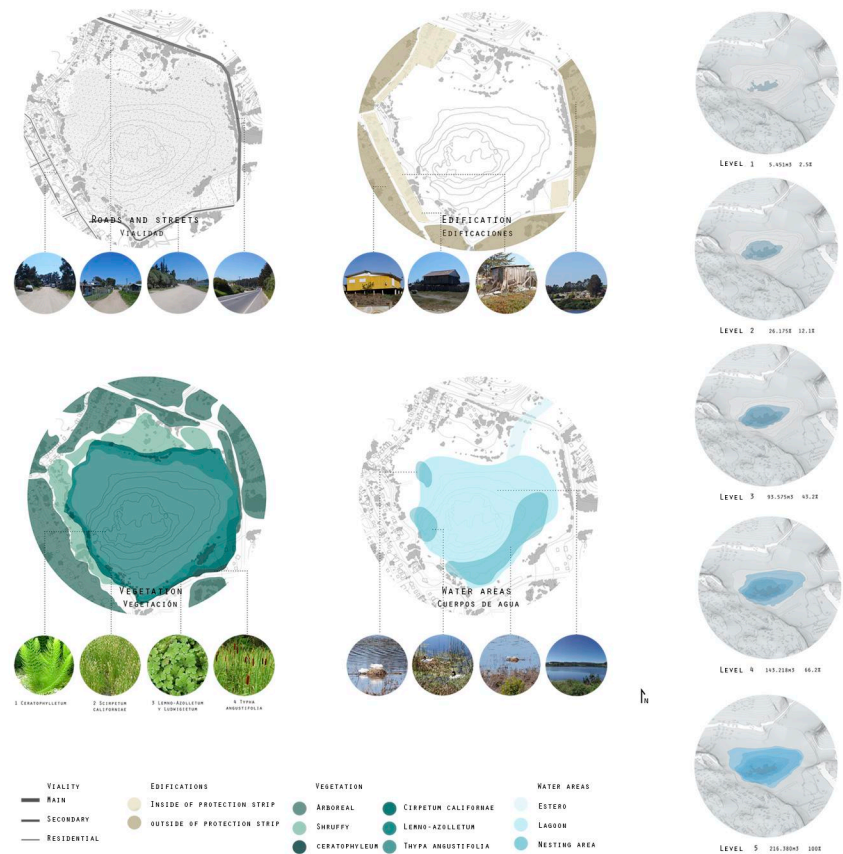
## ANÁLISIS VISUAL DEL PAISAJE / VISUAL ANALYSIS OF LANDSCAPE



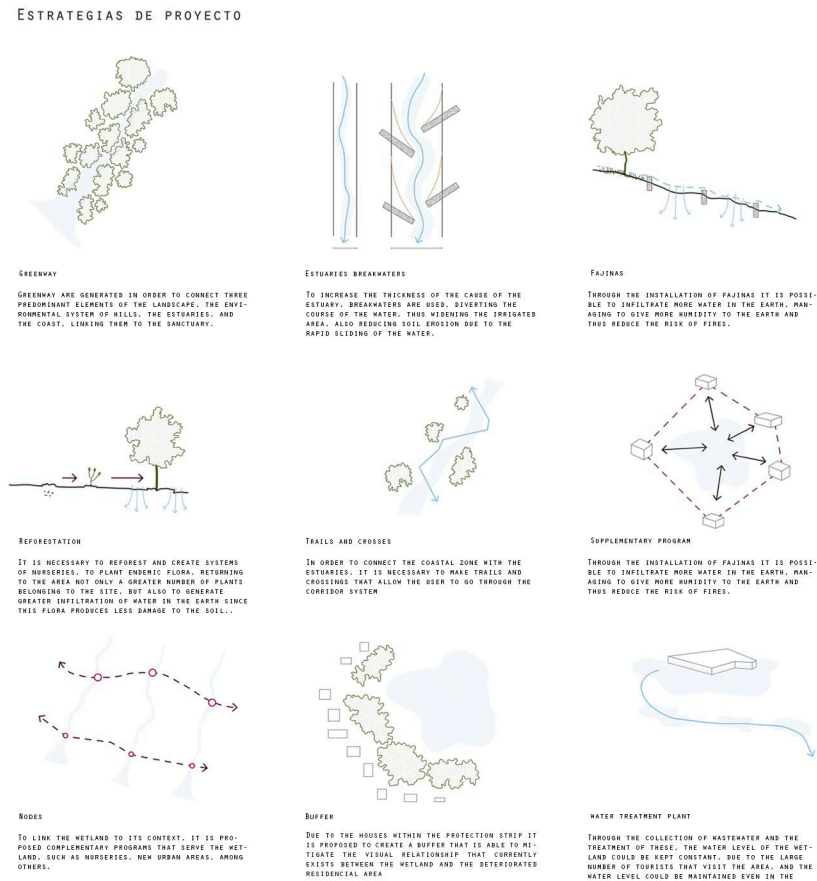
## TRAMOS TIPO / TIPE SECTION



## ANÁLISIS DE ZONIFICACION / ZONING ANALYSIS



## ESTRATEGIAS DE PROYECTO / DRAFT STRATEGY



## PLAN MAESTRO / MASTER PLAN

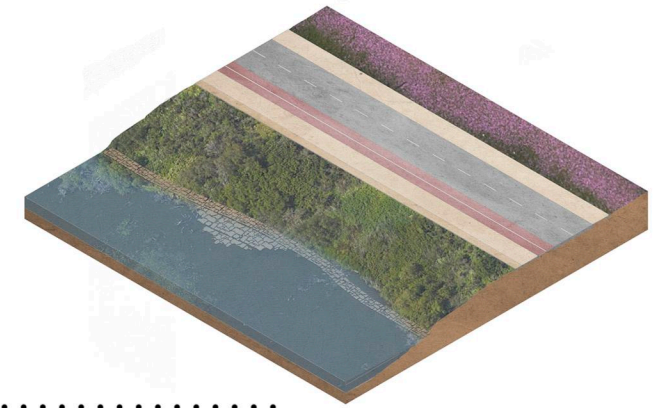
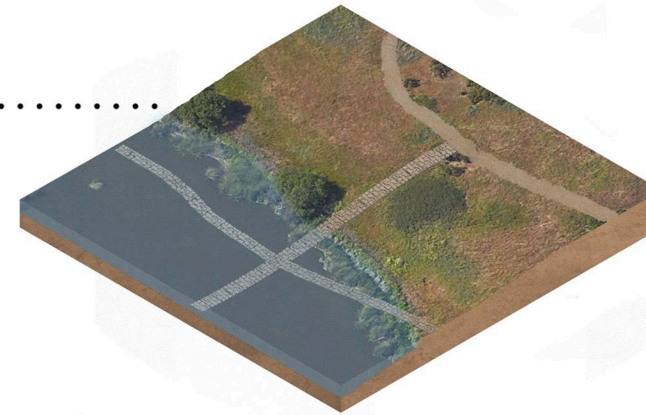
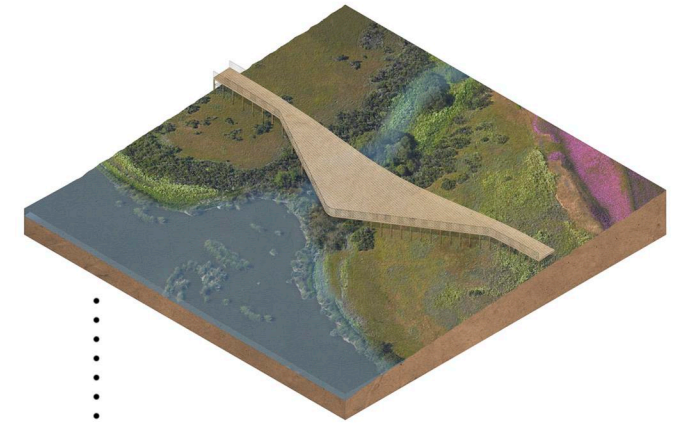
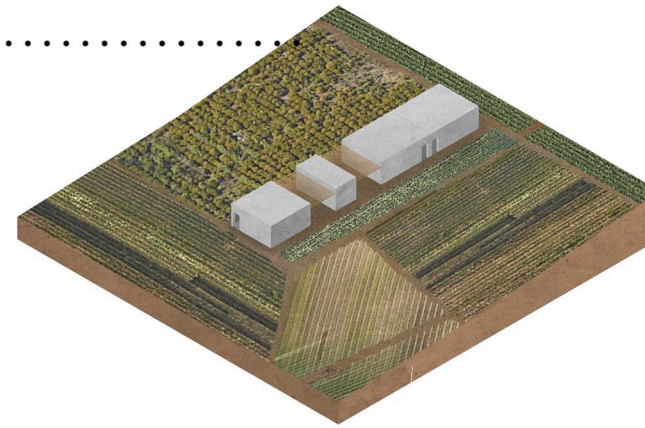


10



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PLANTA DE PROYECTO / PROJECT PLAN



IMAGENES DE PROYECTO / PROJECT IMAGES

