#### **TECHNICAL DOSSIER**

Title of the project
Authors
Alyssa Fomin
Title of the course
Academic year
Teaching Staff
Department/Section/Program of belonging
Landscape Architecture Program / School of Architecture
University/School

The Flood
Alyssa Fomin
Title of the course
11194 Final Undergraduate Studio, Bachelor of Landscape Honours
2019
Landscape Architecture Program / School of Architecture
University/School
University of Technology Sydney



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

Water is a life force, a spiritual entity. It also is a hydro-social tool which has been used to shape political and social formations. Through water you can change the fabric of a city. In Australia, we are in a time of environmental crisis, our waterways have been diverted, dammed and manipulated. We are facing drought, flooding and an anthropogenic climate emergency. As a nation we have lost our deep connection with and respect for water.

In 2100 Darling Harbour will be flooded due to climate-related sea level rise. What if we prematurely flood it, using the matrix and form from current extensive overflow and flooding points and the narratives of past, present and future. How can this new harbour and estuary bring a new hydro-social formation and change the city, how we relate to water and this new age of Climate Change?



# CLIMATE CHANGE AGAIN

11th International Biennial Landscape Barcelona

Barcelona September 2020 SCHOOL PRIZE

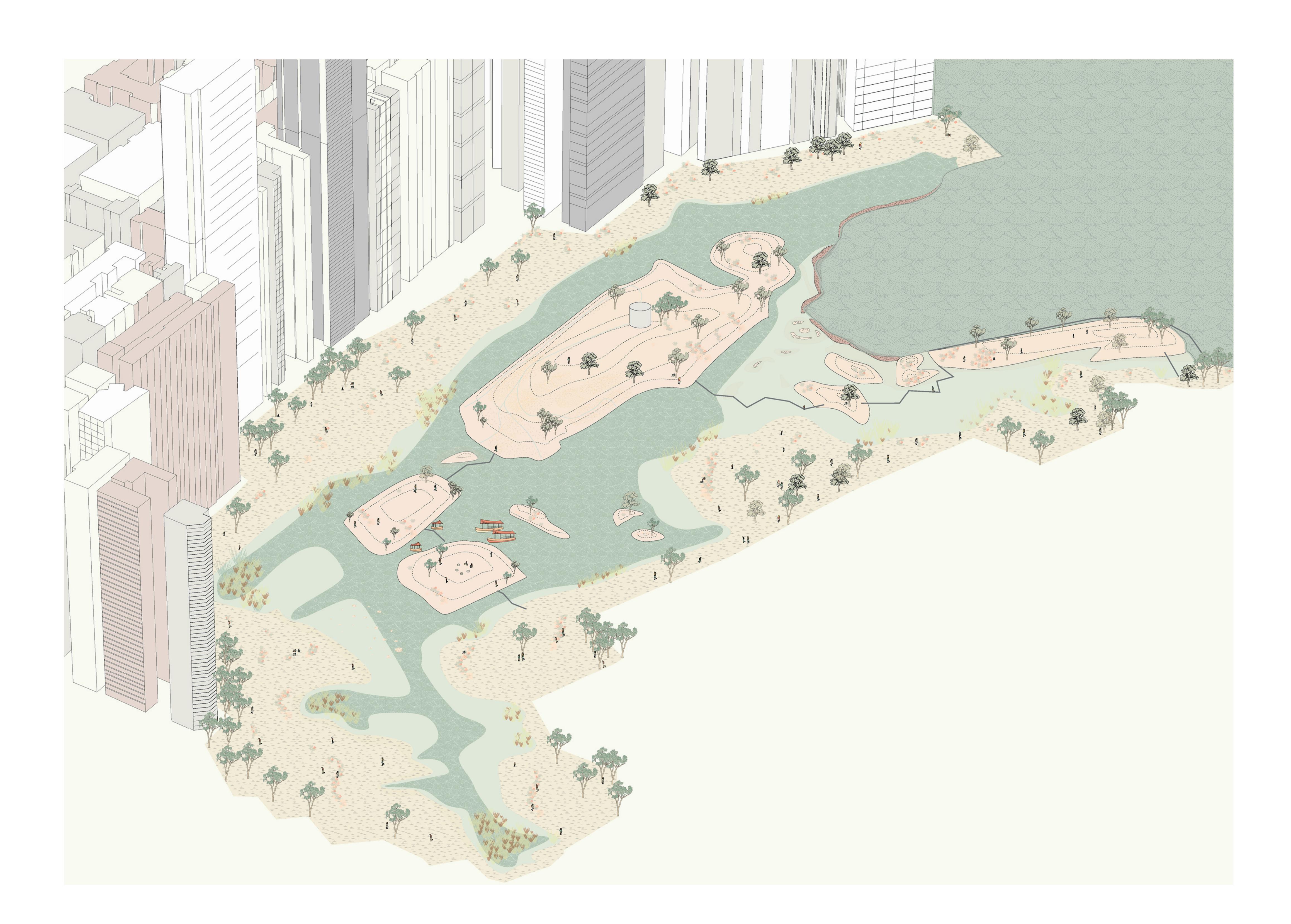
For further information

Máster d'Arquitectura del Paisatge -DUOT - UPC

T: + 34 93 401 64 11 / +34 93 552 0842 Contact via email at: biennal.paisatge@upc.edu Máster d'Arquitectura del Paisatge -DUOT - UPC
ETS AB - Escola Tècnica Superior
d'Arquitectura de Barcelona
Avenida Diagonal, 649 piso 5
08028 Barcelona-Spain

### 'THE FLOOD'





#### CULTURAL NARRATIVE



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The beginning

Australia's spiritual relationship with water

At a Welcome to Country, a woman told me a story, she said Bunjil the eagle, Creator of the land and Waa the crow, Creator of water asked for two promises.

To protect the land, and to protect the children.

Mounting chaos and disunity angered the sea, which began to rise. The people went to Bunjil for help. He agreed, but only if the people would change their ways and respect the land and each other. He raised his spear and walked into the ocean, asking the sea to stop rising.



### PLANTING



FILTERING STAGES

Sydney oyster Saccostrea glomerata strapweed is habitat for the endangered cockle which is also filters seagrass forests store

173 telagrams of carbon/ yr /

l oyster = filters

2080

An ode to hyper-ecologies + filtering aquatics

The planting is all endemic species, understanding these coastal natives will tolerate the ground conditions.

vegetation community will never be the same as it was and invites the unknown new relationships with city flora/ fauna.

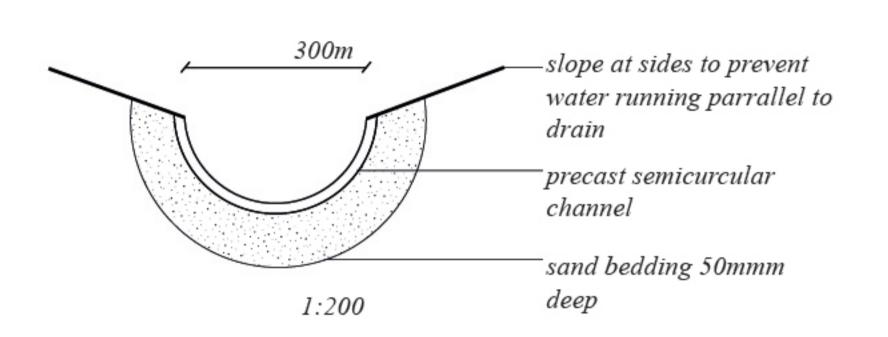
The planting layout is sporadic and organic, there are no defined trails and people and plants are free to

The park also acts as a border/ protection from extreme flooding acting as a sponge.



### BIOSALINTY GARDENS

Natural gravity irrigation channel

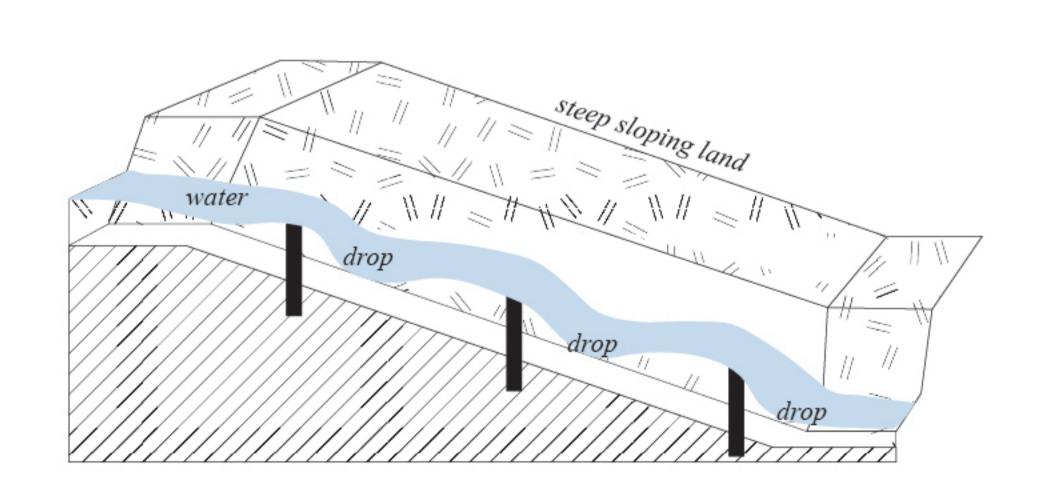


2080

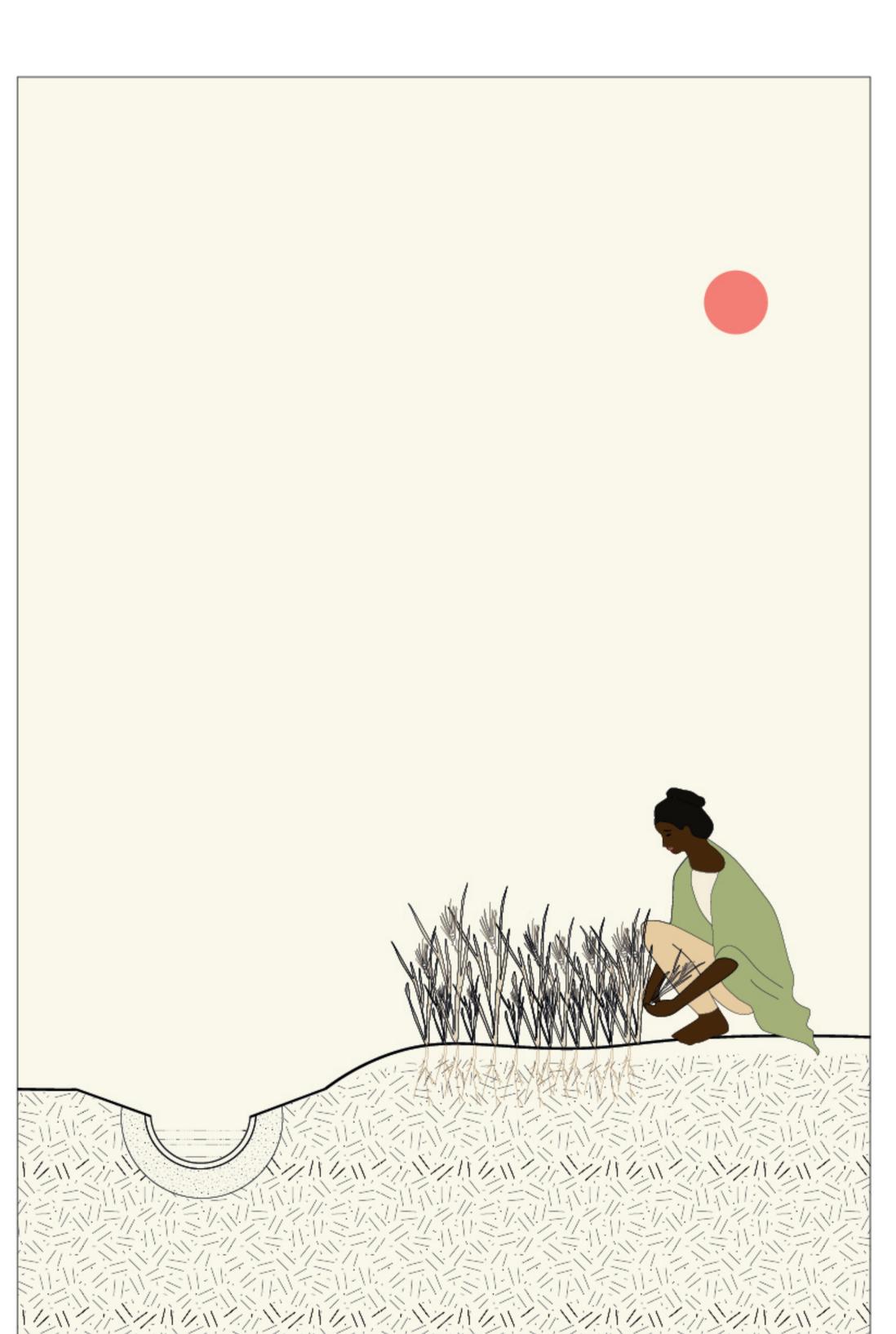
Living with Seawater

Food crops where local communities experiment with planting through different levels of saline resistant flora, and experiment with levles/ heights and soil salinity.

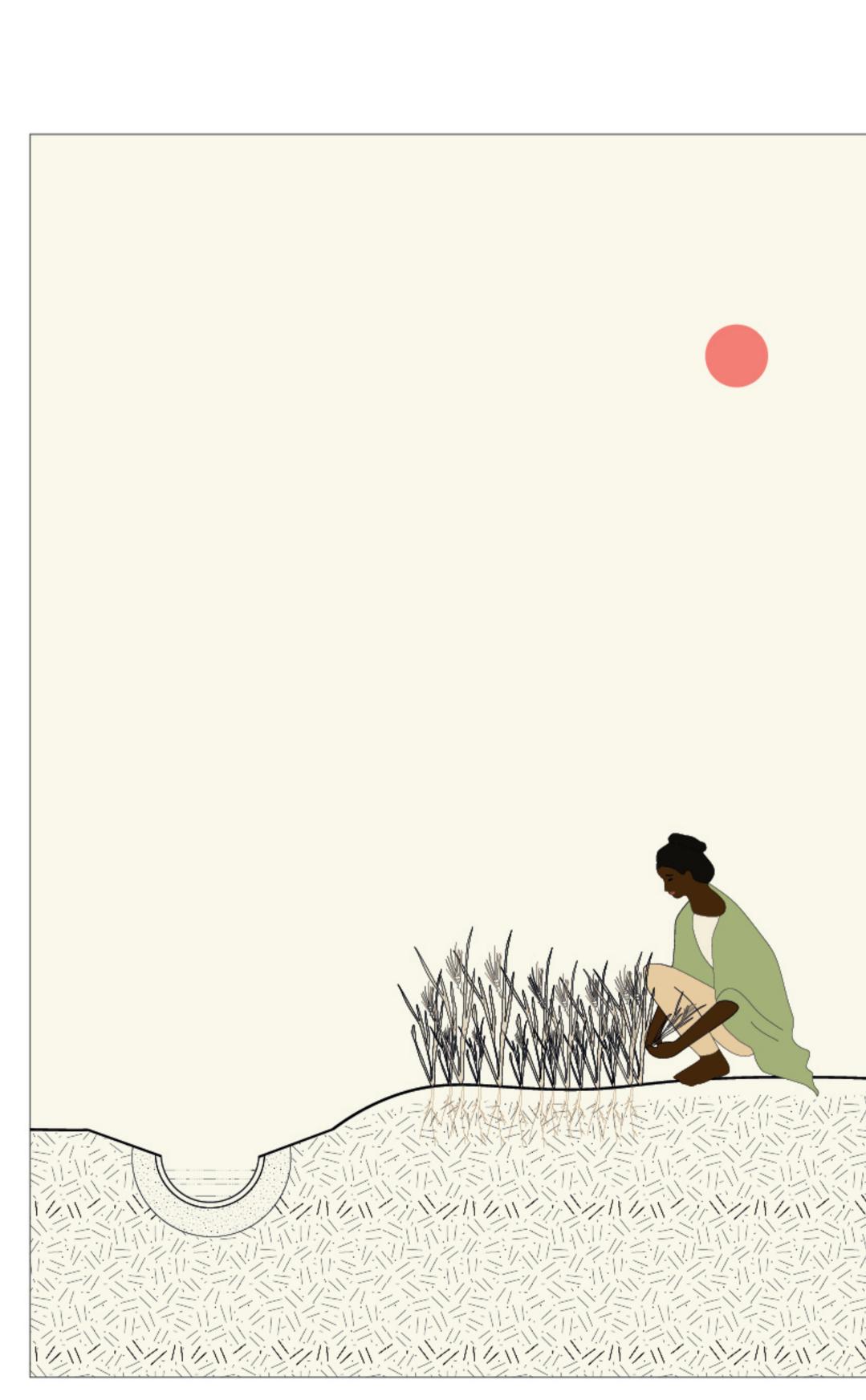
The first crops are planted in October and harvested in March.



flow water control diagram









QTY TREES

AL 33 Allocasurina lita

AC 21 Angophora costata Sydney Red Gum

BI 94 Banksia intergrifolia Coastal Banksia Backhousia myrtifolia Grey myrtle

Corymbia gummifera Red Bloodwood

EP 8 Eucalyptus piperita Sydney Peppermint

ET 14 Eucalyptus tereticornis Forest Red Gum

FR 12 Ficus rubiginosa Port Jackson Fig

GROUNDCOVER

AS 334 Austrostipa stipoides Coast Spear Grass

BS 45 Billardiera scandens Hairy Apple Berry

BN 32 Belchnum nudum Fishbone Water Fern

BP 25 Belchnum Patersonii Strap Water Fern CA 67 Cissus antarctica Kangaroo Vine

CH 90 Cissus hypoglauca Native Grape

DR 350 Danthonia richardsonii Wallaby Grass

JK 500 Juncus kraussii Salt Marsh Rush

HV 130 Hardenbergia violacea Purple Coral Pea

KR 90 Kennedia rubicunda Dusky Coral Pea

LL 120 Lomandra longifolia Mat Rush

SHRUBS

AO 56 Acacia longifolia Sydney Golden Wattle

AM 98 Acacia myrtifolia Red-stemmed Wattle

CS 113 Callicoma serratifolia Black Wattle

DE 43 Dillwynia retorta Heathy Parrot Pea

ER 33 Elaeocarpus reticulatus Blueberry Ash

GL 65 Grevillea linearfolia Linear-leaf Grevillea GS 20 Grevillea sericea Pink Spider Flower

Hakea teretifolia Needlebrush

MQ 45 Melaleuca quinquenervia Broad paperbark

NL 55 Notelaea longifolia Large Mock-olive

TL 78 Tristaniopsis laurina Luscious 'Water Gum

WF 45 Westringia fruticosa Coastal Rosemary

AQUATIC

HD 150 Halophila decipiens Paddlegrass

HO 190 Halophila ovalis Spoongrass

PA 320 Posidonia australis Strapweed

RM 100 Ruppia maritima Tasselweed

RE 130 Ruppia megacarpa Seagrass

RP 190 Ruppia polycarpa Seagrass ZC 180 Zostera capricorni Eelgrass

BIOSALINITY CROPS

RO 50 Allium cepa Red onion

AN 33 Atriplex nummularia- Saltbush

DC 20 Dacus carota Cos Carrot

### 1908

My Country

Her pitiless blue sky, When sick at heart, around us,

But then the grey clouds gather, And we can bless again

The drumming of an army,

#### CONTEXT

PM FLOODING DARLING HARBOUR PLAN MATRIX FOR ESTUARY



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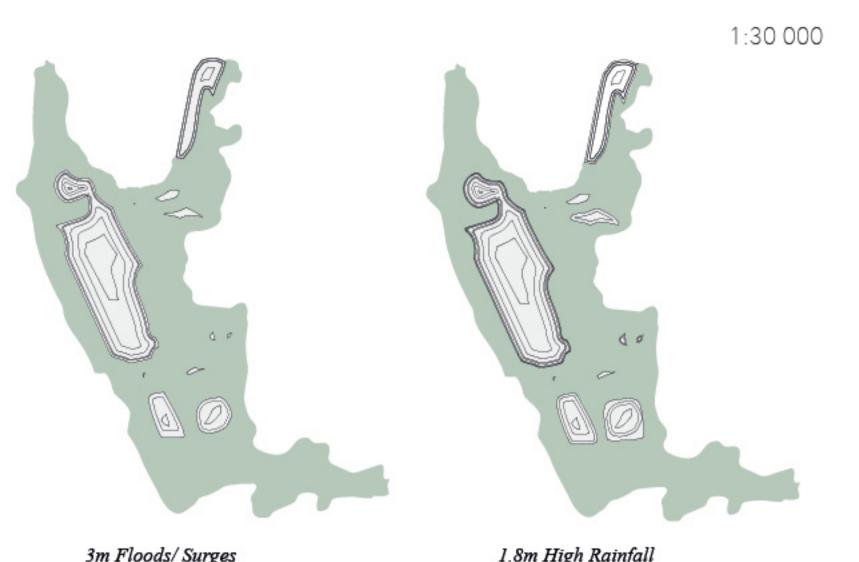
### 2019

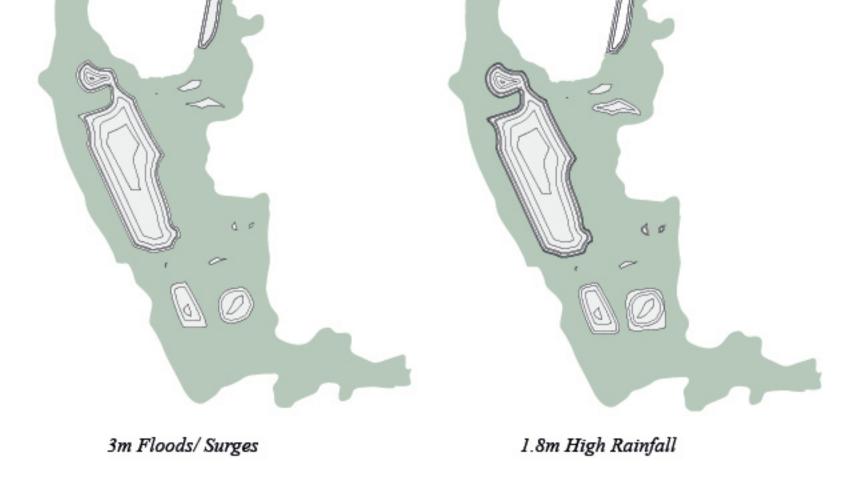
Water & the Climate

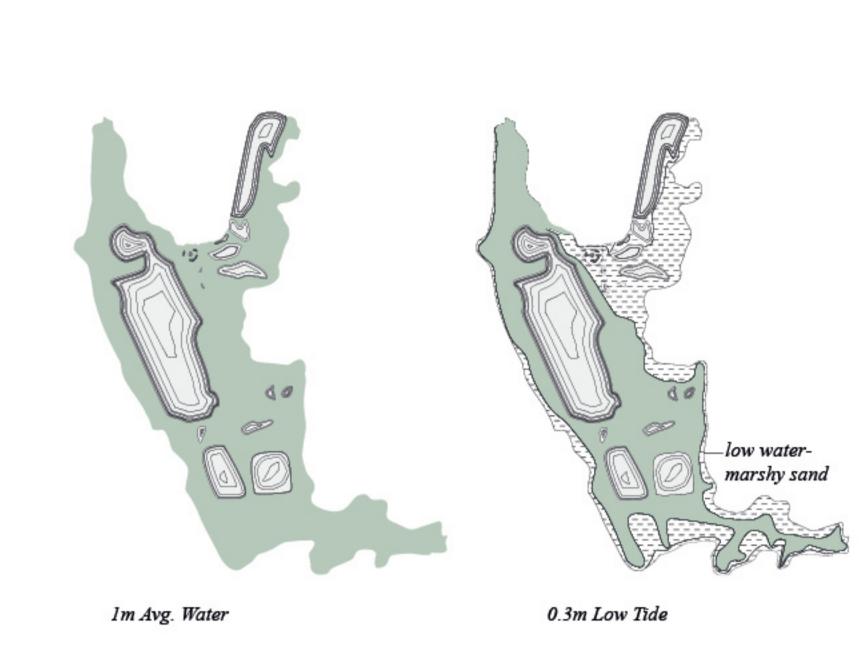
In Australia, we are in a time of environmental crisis, our waterways have been diverted, dammed and manipulated. We are facing drought, flooding and a man-made climate

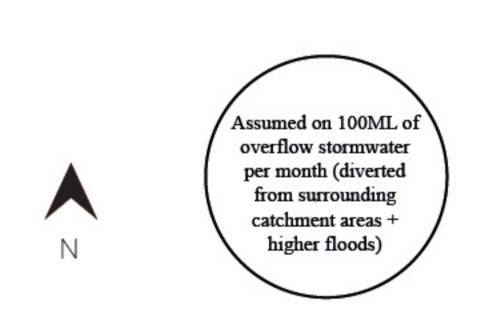
Darling Harbour is the highest waste water overflow catchment in Sydney. When it rains heavily the water becomes trapped due to impervious surfaces.

#### TIDES/ FLOWS







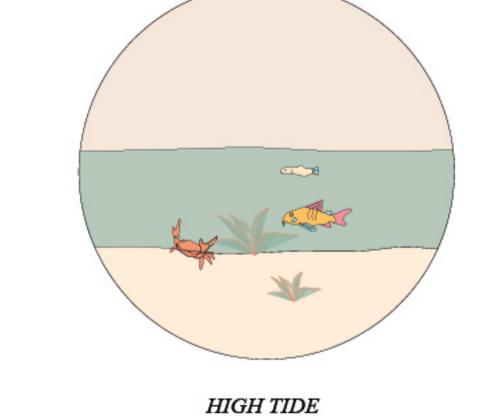


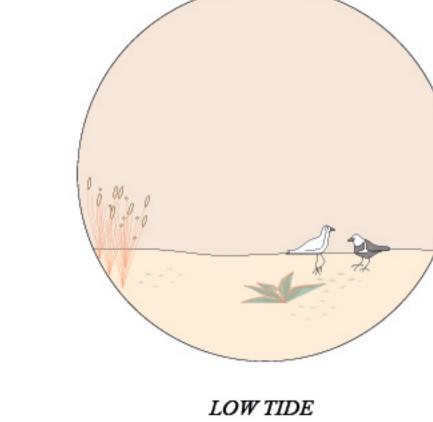
### 2080

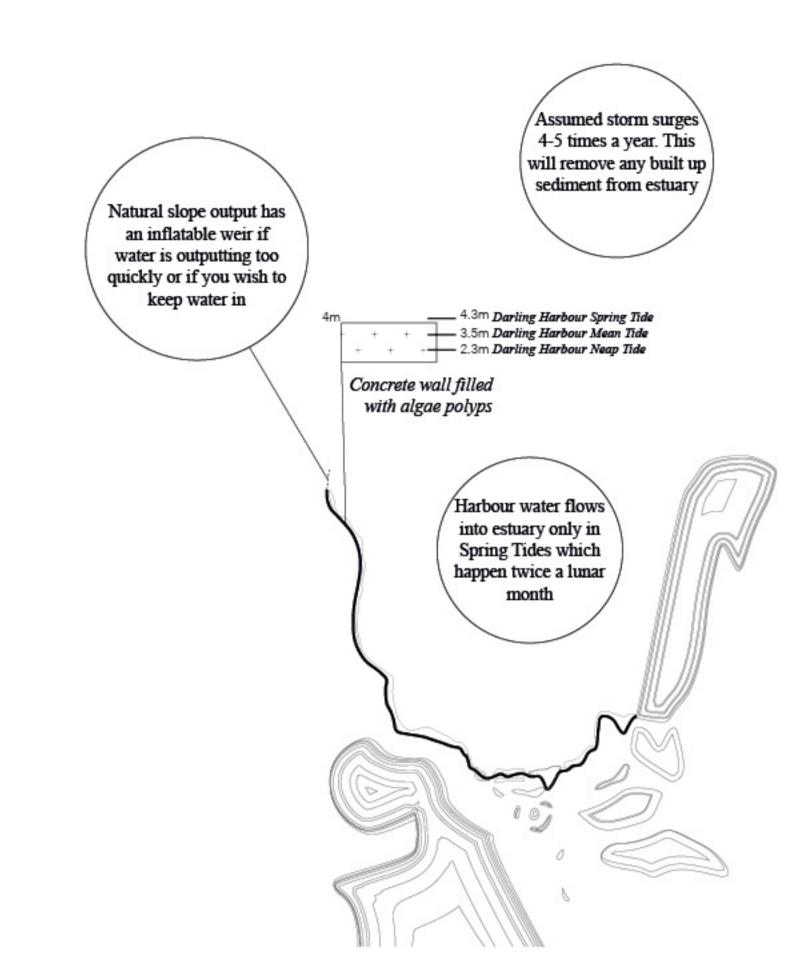
The Flood

The flood begins in 2080 and ironically protects the city from future storm surges, acting as a barrier and the parkland as sponge for extreme

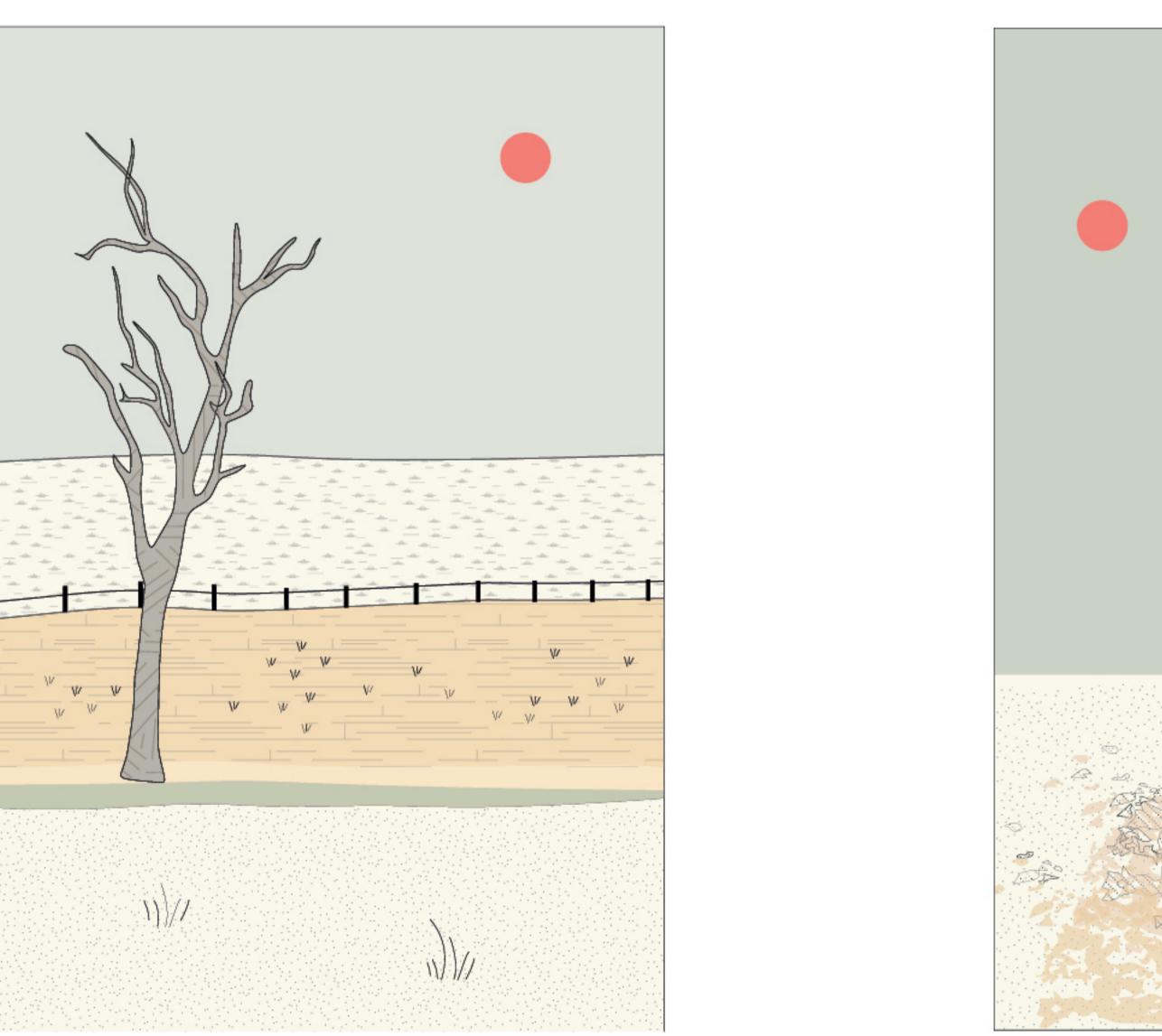
The estuary itself is a dynamic system, where the temperature, salinity, turbulence and flow all change daily in response to the tides. It is a highly productive habitat, experiencing strong seasonal variation in fish and bird







#### CULTURAL NARRATIVE



05 FRAMEWORK FOR SEA-LEVEL RISE

Core of my heart, my country!

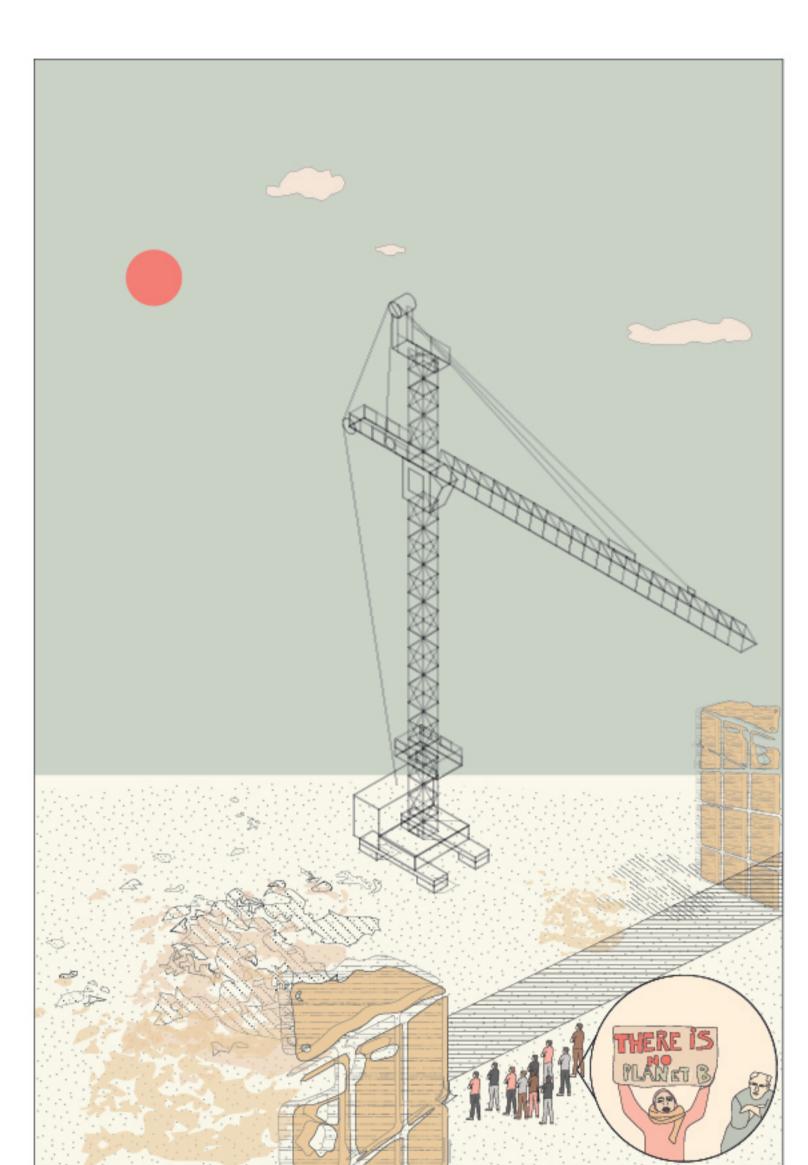
We see the cattle die

The steady, soaking rain.

- Dorothea McKellar

#### CULTURAL NARRATIVE

2100 sea level rise



### 2077

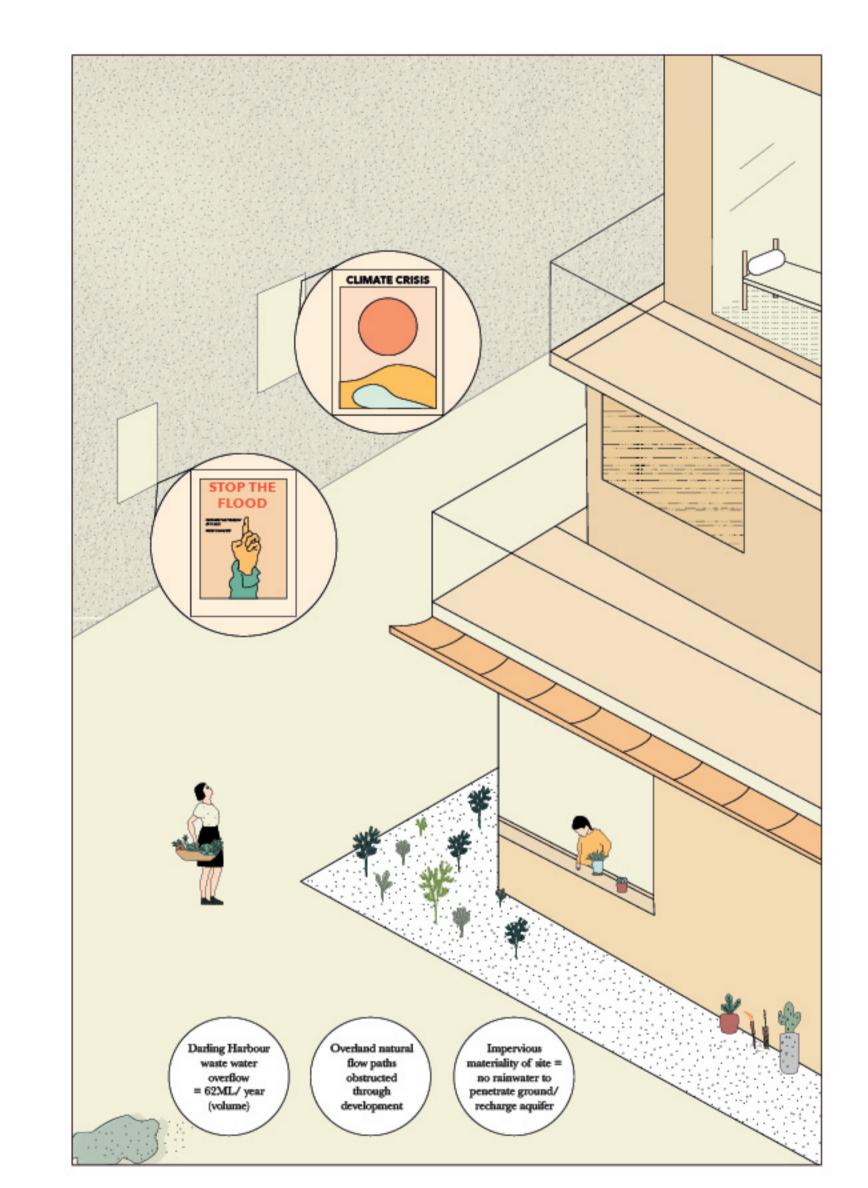
The Demolition

The demolition of the city occurs. There are still protests, but mostly a coming together. People see the flood as a way to save the city, and the Earth. To connect with water once

"What we call the beginning is often the end. And to make an end is to make a beginning.

The end is where we start from." T.S. Eliot

#### CULTURAL NARRATIVE



### 2074-77

The Sacrifice + A Temporary Space

A temporary village sprouts in the empty buildings awaiting demolition...

It is also a place where protests for and against 'The flood' occur.

People say goodbye to the buildings, the city and their homes with offerings or markings.

#### REEF EDGE

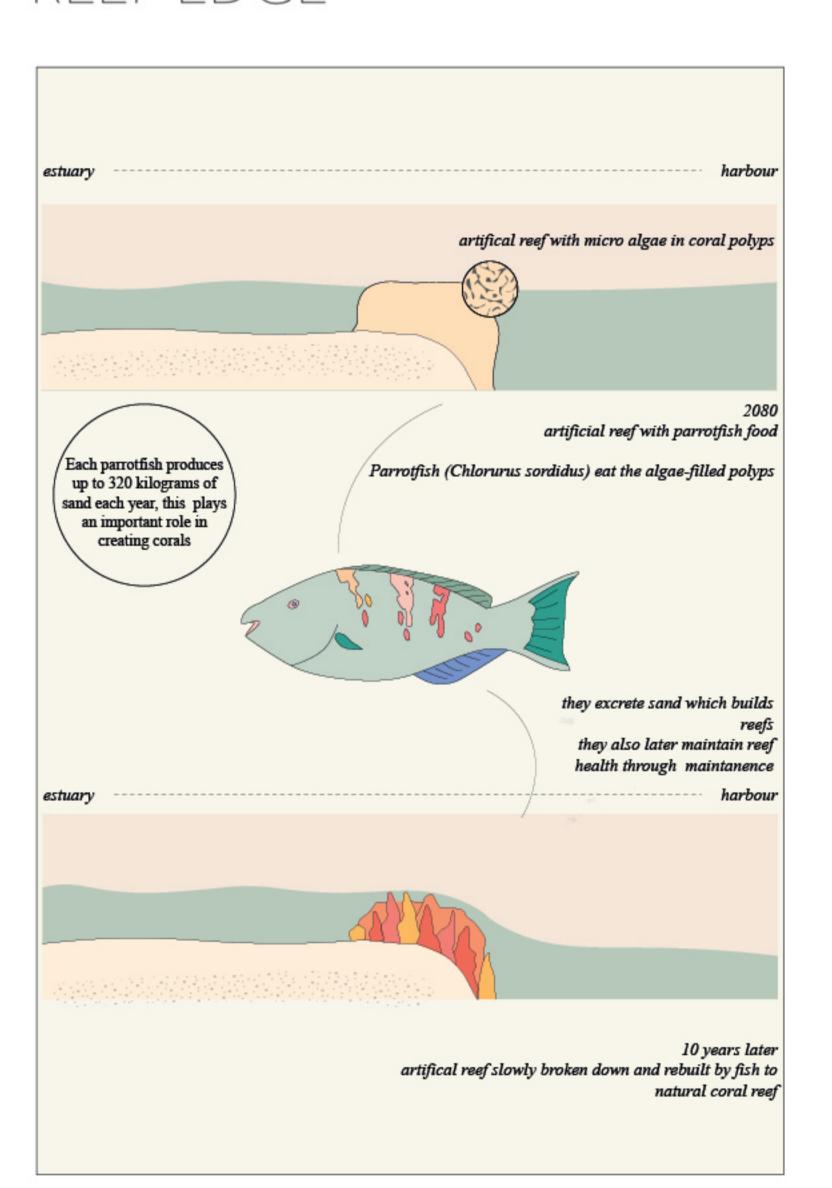
Estuary monthly tidal fluctuations

Surges

Spring Tide

Mean Tide ●

Neap Tide ●



## 2080-2100

Parrotfish Poop Reefs

Tropical fish have made their way down to Sydney due to warming waters. The parrotfish is inticed through suitable habitat and food (the artifical reef/ concrete polyp wall) or brought here through a programme.

Over the years they build natural reefs adjacent to the estuary which protect the estuary from 87% of strong waves.

#### CULTURAL NARRATIVE





#### 2080

The Islands

The first is a space for Welcome to Country and a stone yarning circle, directed and owned by the Eora nations people.

A yarning circle is a harmonious, creative and collaborative way of communicating to: encourage responsible, respectful and honest interactions between participants, building trusting relationships. Foster accountability and provide a safe place to be heard and to respond.

Here important stories about culture, water and management occur.

