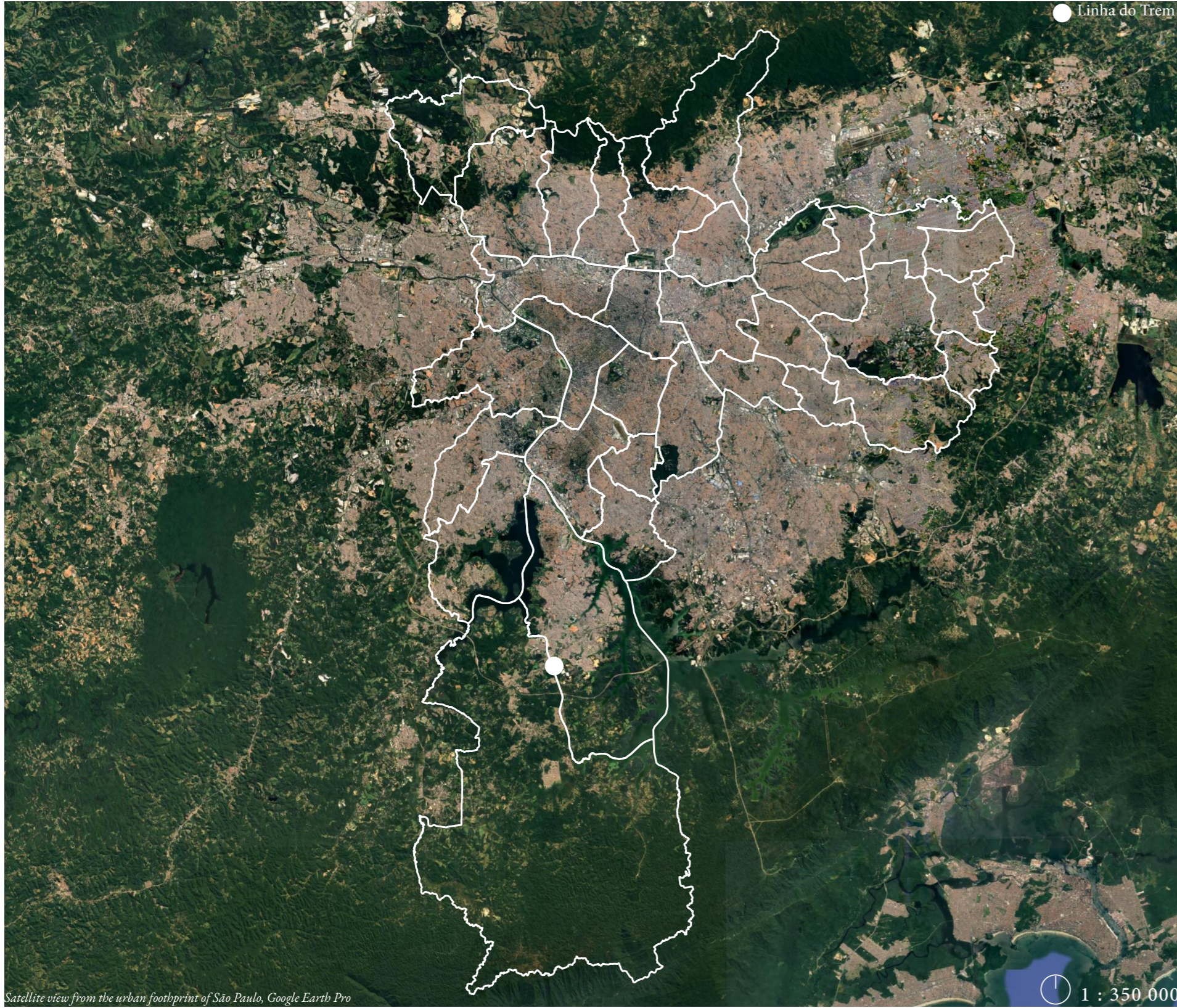
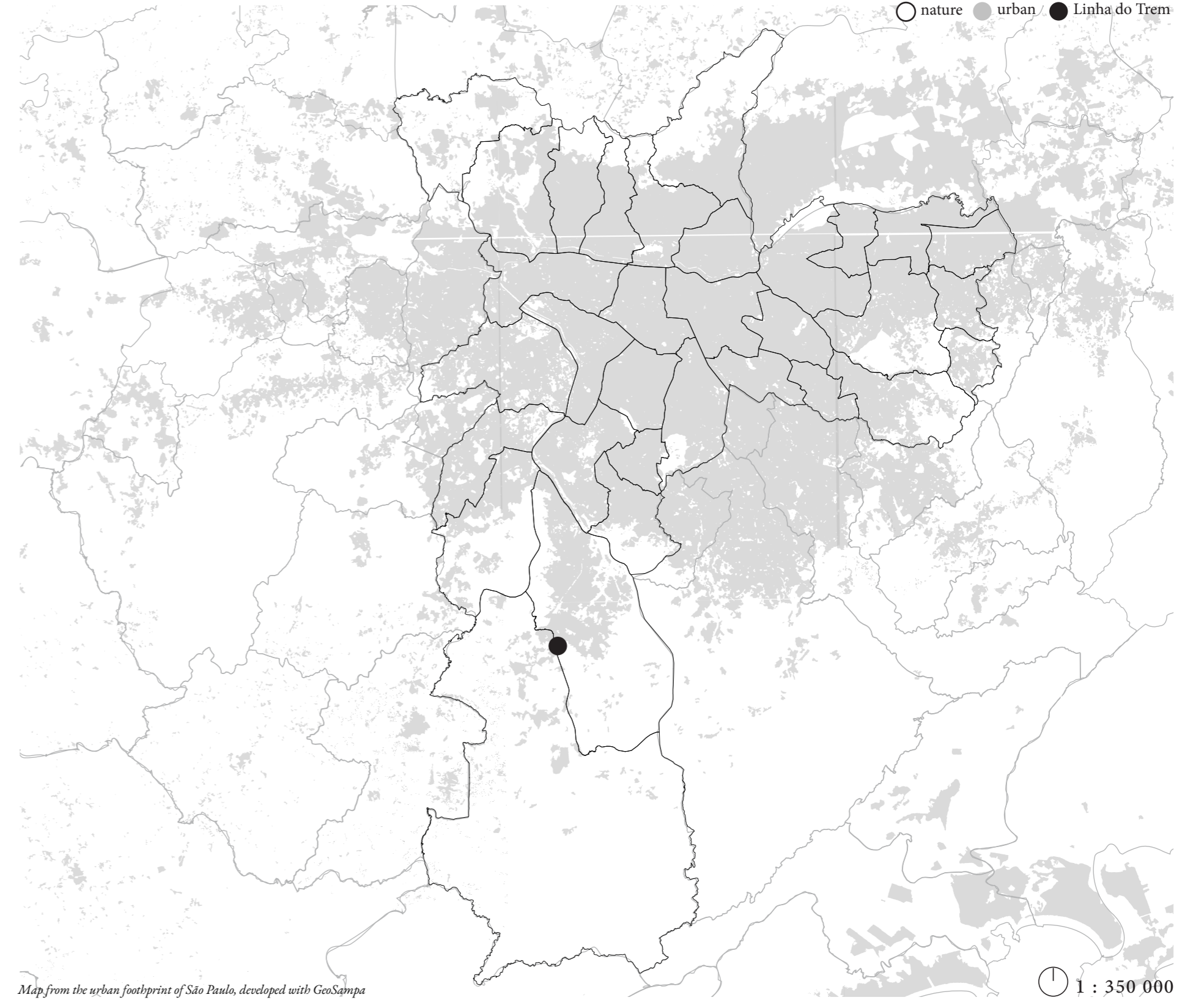


MINHA BACIA, NOSSA CIDADE

LIVING ON THE EDGE



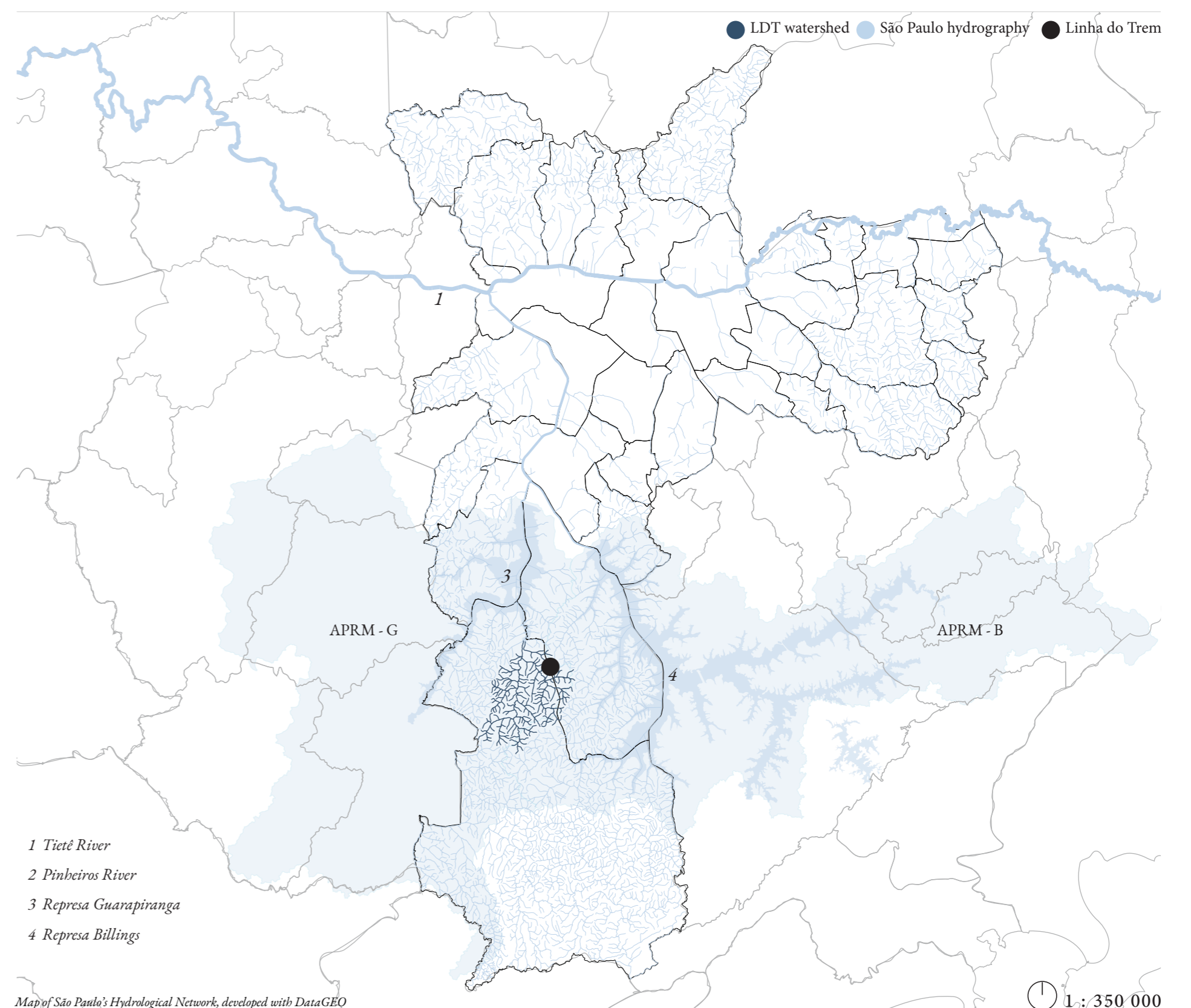
São Paulo



Uncontrolled urban growth



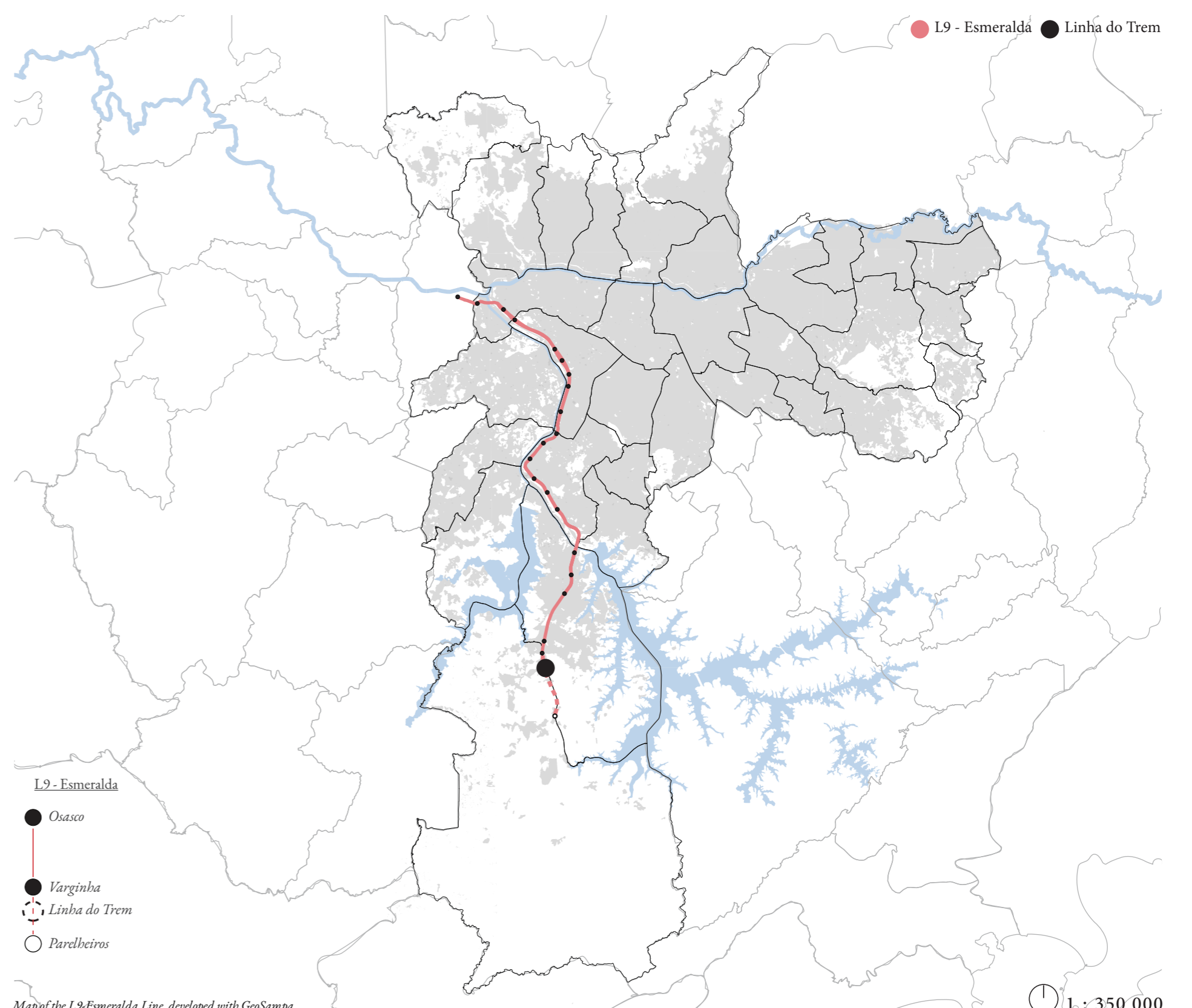
Zona Sul



Represas Guarapiranga & Billings



Linha do Trem



Linha 9 - Esmeralda

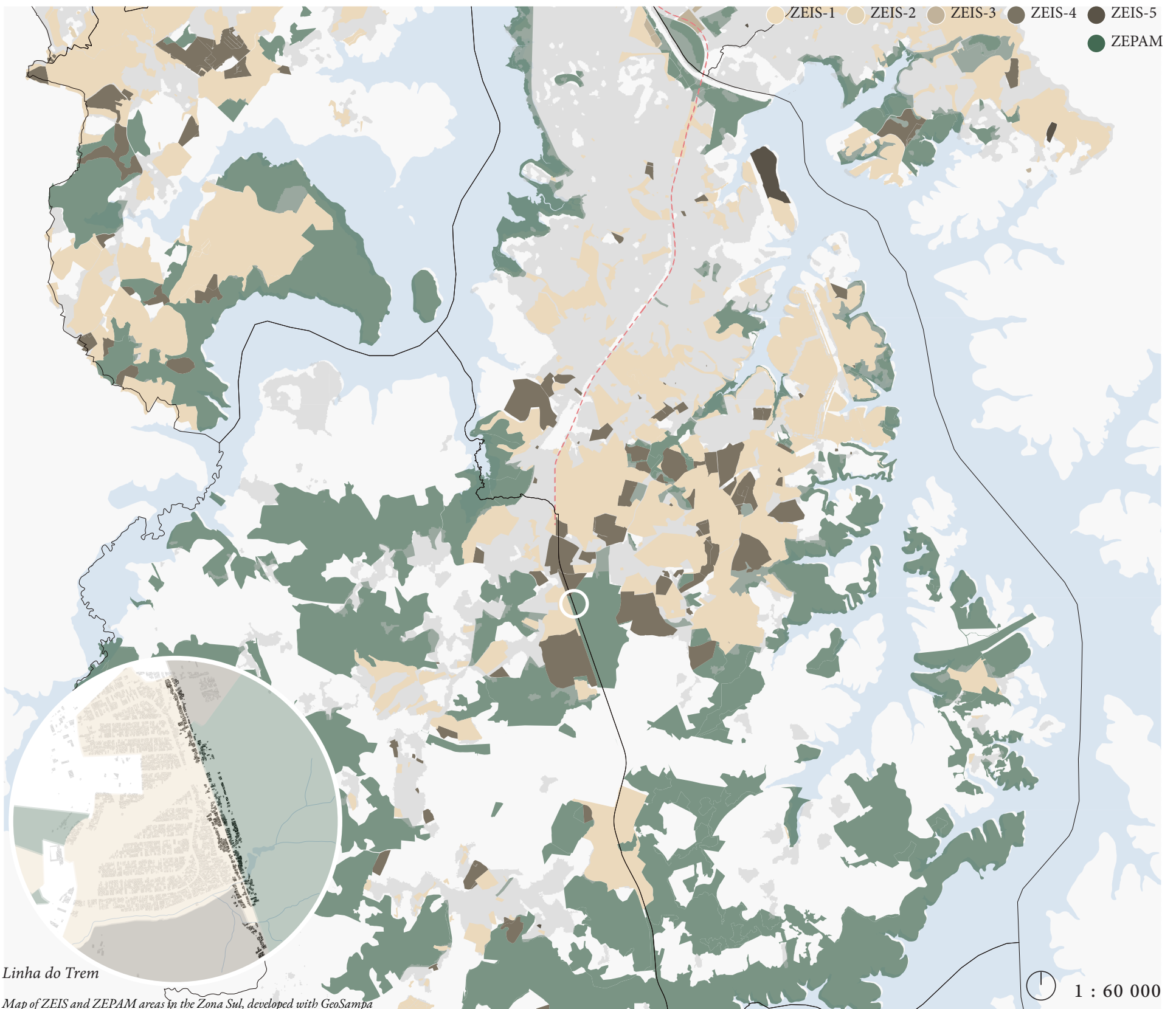
MINHA BACIA, NOSSA CIDADE

“How do water management challenges in a marginalized community influence the dynamics of urban expansion in São Paulo?”

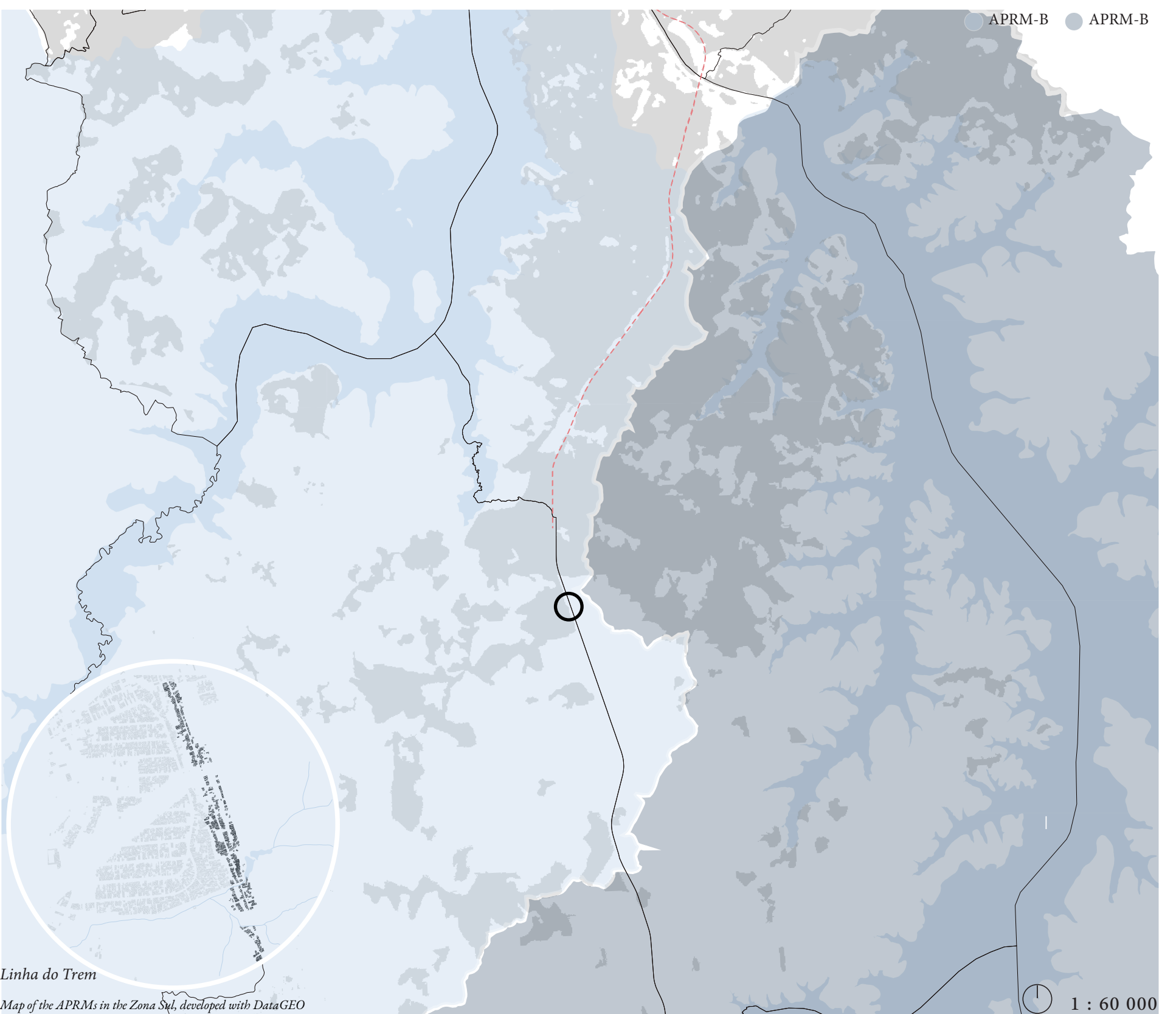
LBARC2238 Atelier de recherche: Territoire

Frédéric Neirinckx

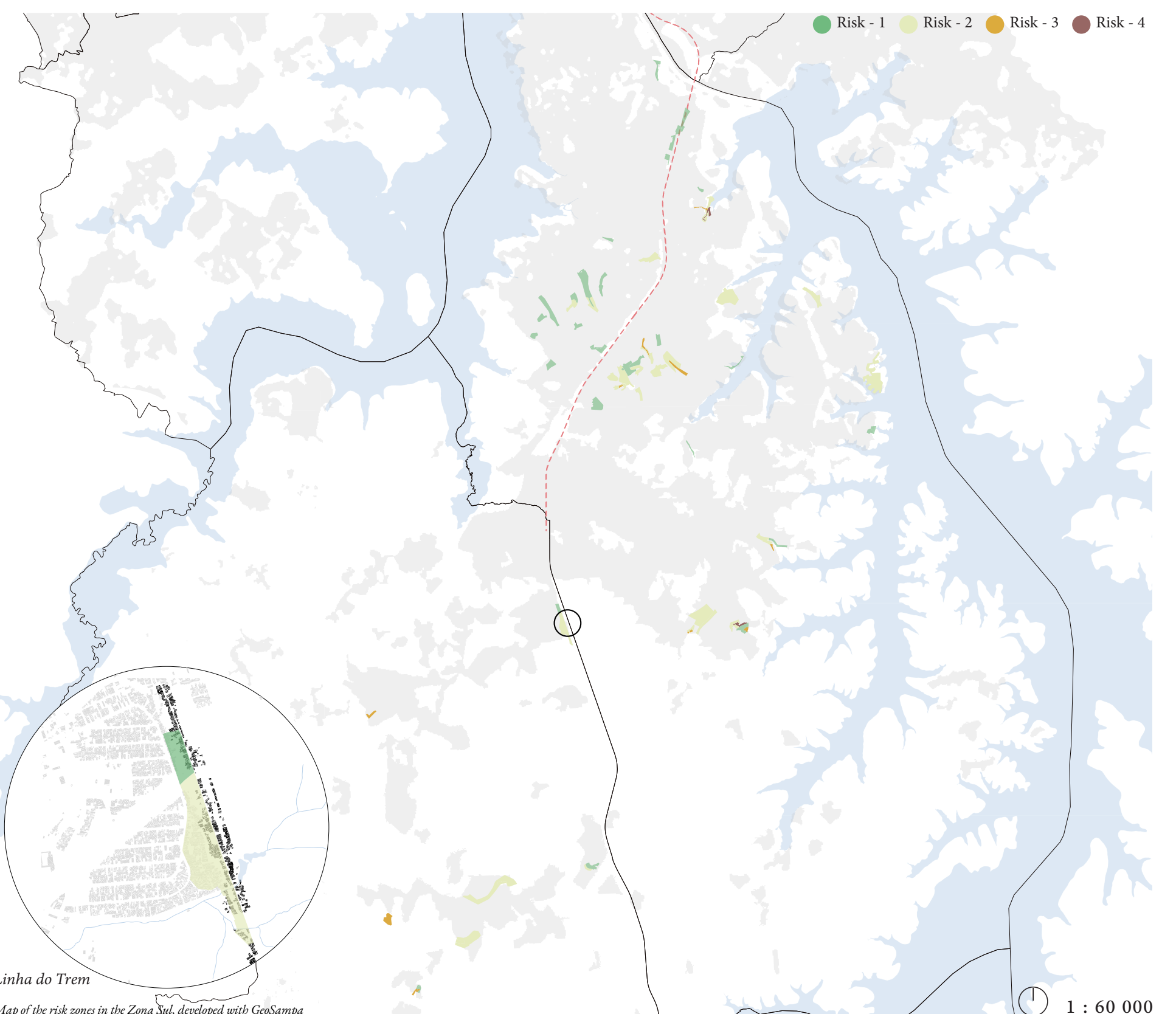
ZONA SUL : LAND USE OF URBAN TENSIONS



ZEIS & ZEPAM



Áreas de Proteção e Recuperação dos Mananciais



Risk areas

MINHA BACIA, NOSSA CIDADE

“How do water management challenges in a marginalized community influence the dynamics of urban expansion in São Paulo?”

LBARC2238 Atelier de recherche: Territoire

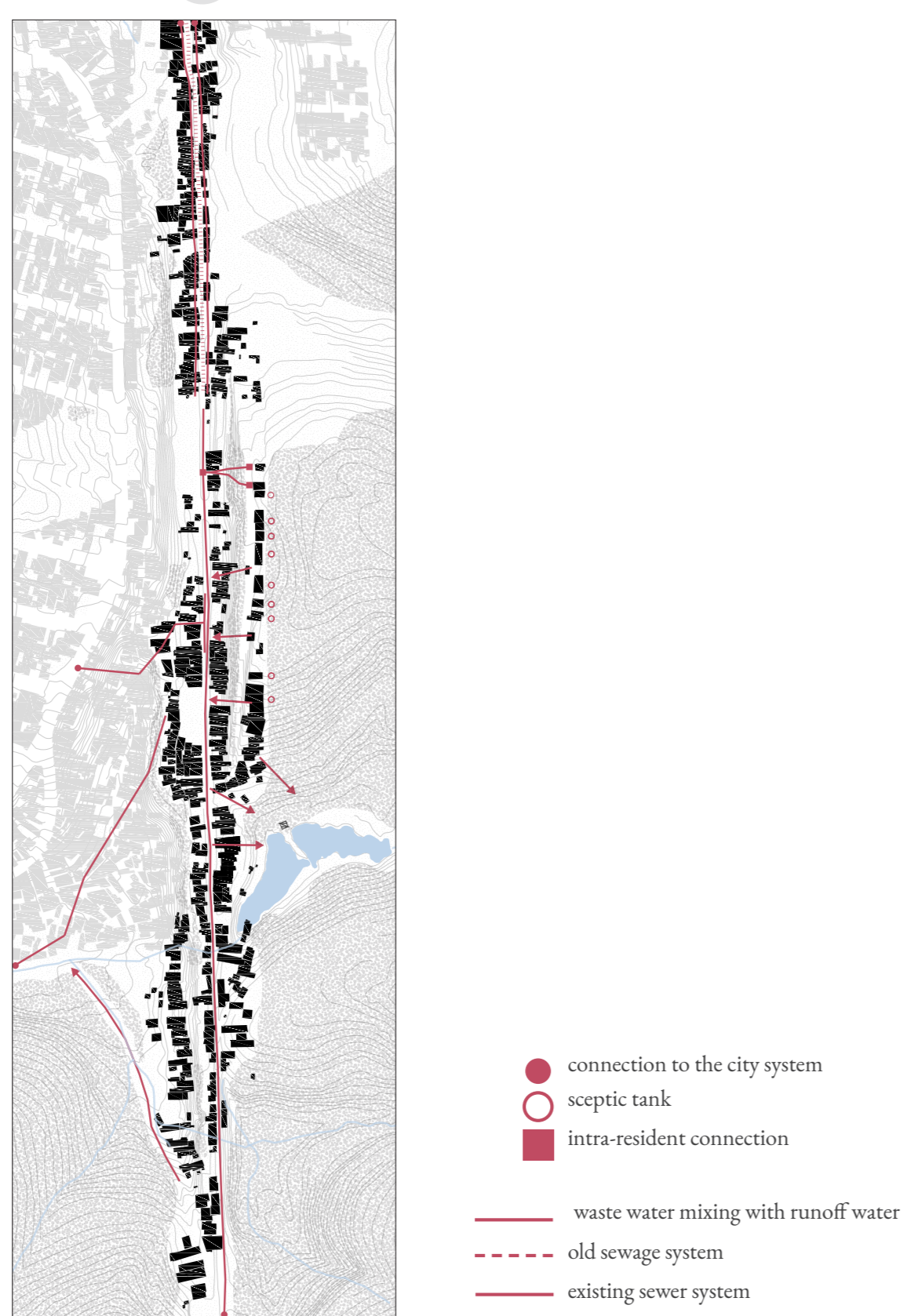
Frédéric Neirinckx



The main street



View from the main street - midpoint perspective



Sewage system



Runoff water system

MINHA BACIA, NOSSA CIDADE

“How do water management challenges in a marginalized community influence the dynamics of urban expansion in São Paulo?”

LBARC2238 Atelier de recherche: Territoire

Frédéric Neirinckx



Pereira's lake



View from an open sewer



Government-built drainage system



Open sewer clogged with garbage



The soccer field

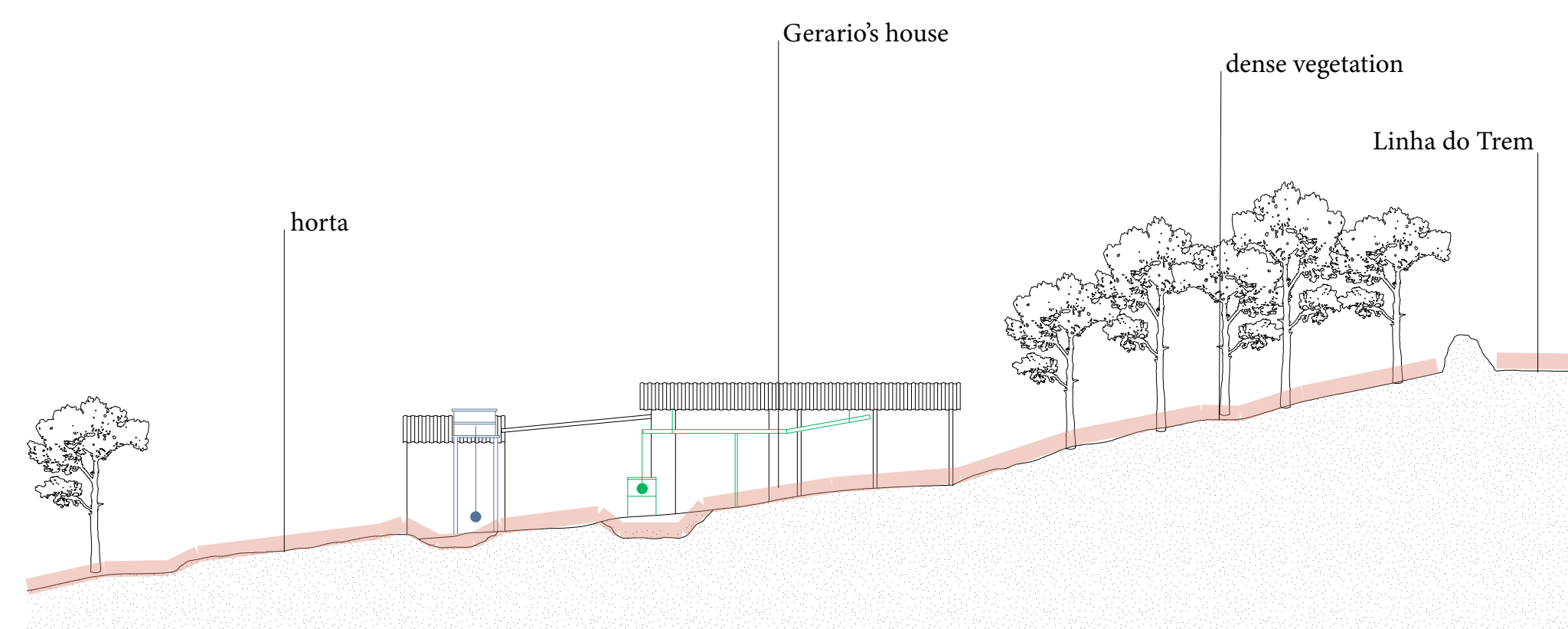


Sewers running under dwellings

**MINHA BACIA, NOSSA CIDADE**  
“How do water management challenges in a marginalized community influence the dynamics of urban expansion in São Paulo?”  
LBARC2238 Atelier de recherche: Territoire  
*Frédéric Neirinckx*

CASA DO GERARIO

● rain harvesting ● runoff water ● drinkable water



Gerario's house



Water harvesting system



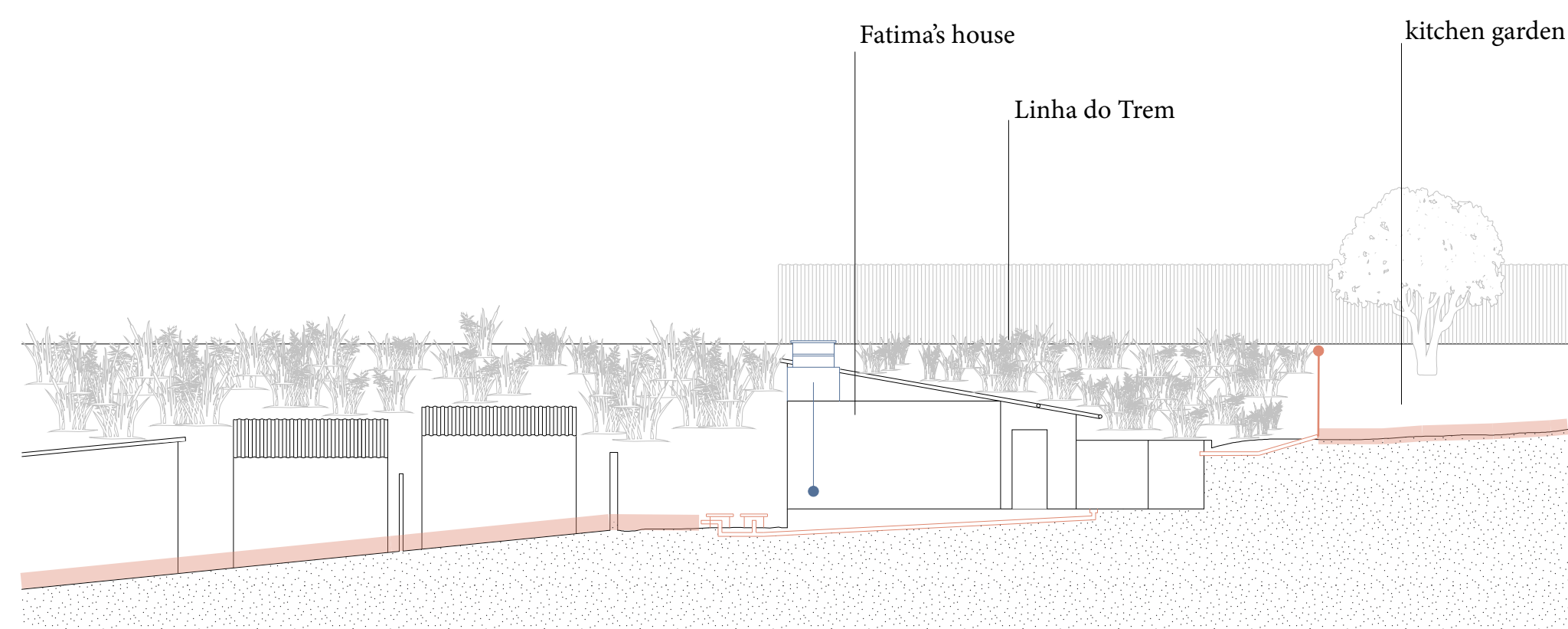
Handmade channel for water flow



Sloped terrain of Gerario site

CASA DA FATIMA

● runoff water ● drinkable water



Fatima's house



Retention wall



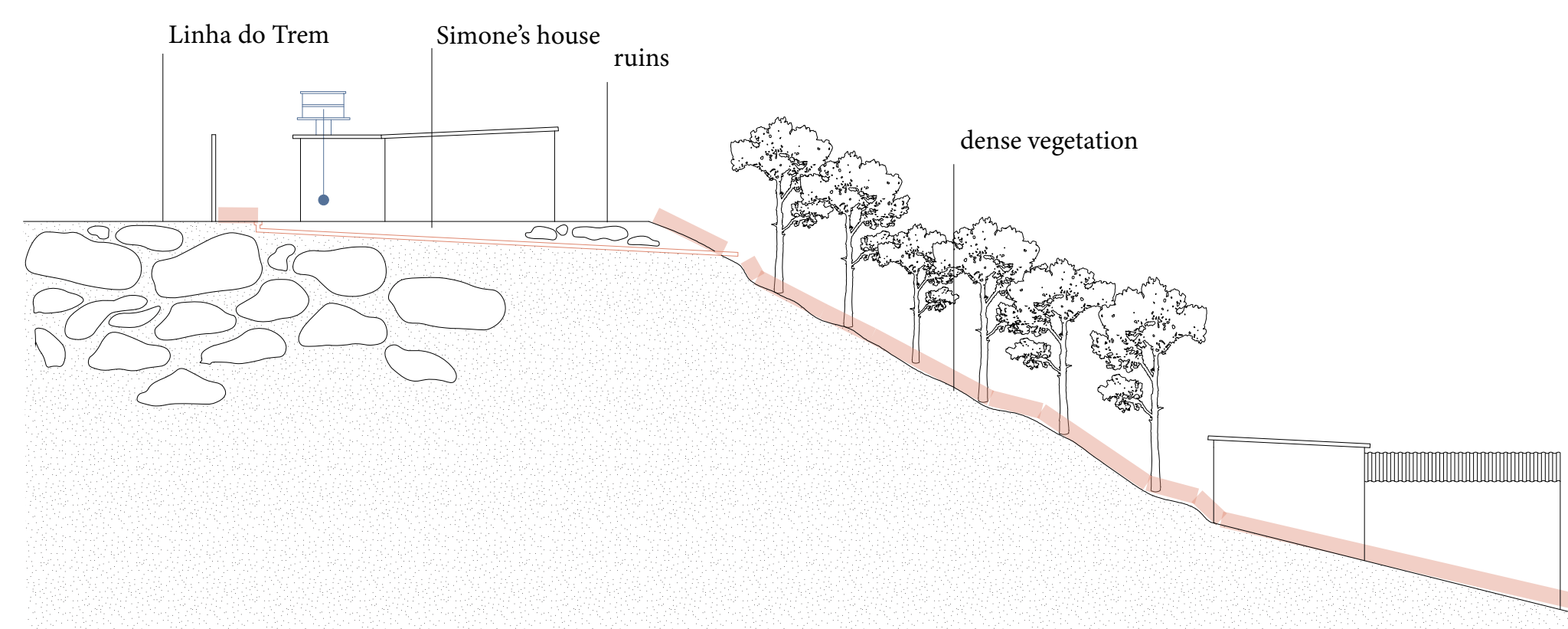
Drainage grid



Water drainage system

CASA DA SIMONE

● runoff water ● drinkable water



Simone's house



Simone's entrance



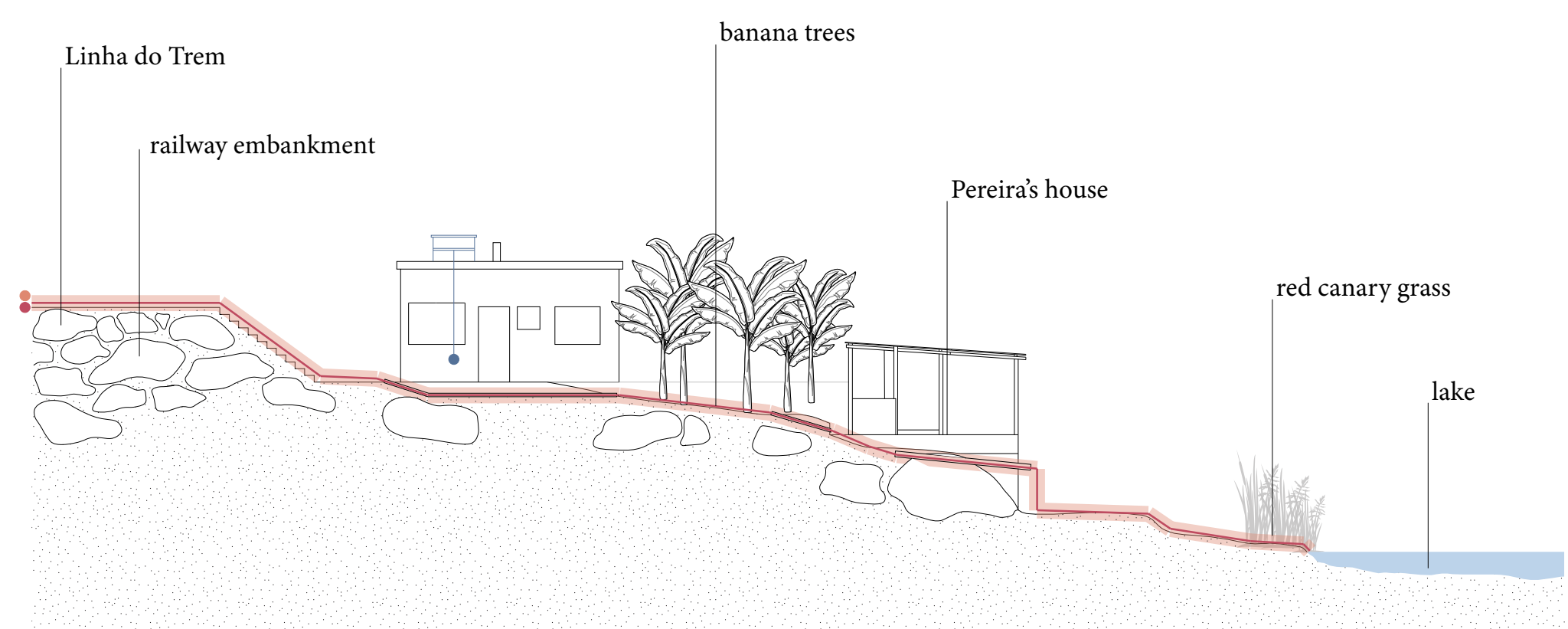
Drainage grid



Landslide-affected area

CASA DO PEREIRA

● waste water ● surface water ● runoff water ● drinkable water



Pereira's house



Pereira's lake



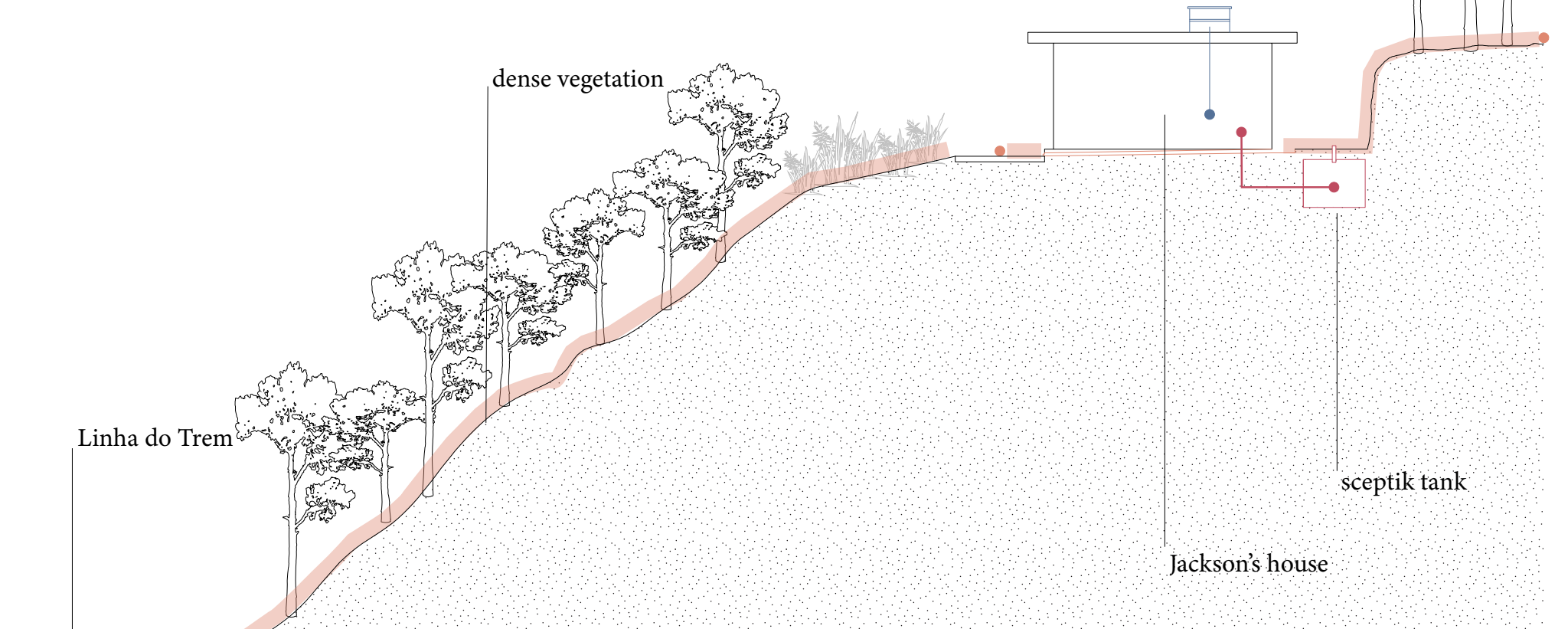
Railway embankment rocks



Runoff drain pipe discharging into the lake

CASA DO JACKSON

● waste water ● runoff water ● drinkable water



Jackson's house



Collapsed embankment covered with a protective tarp



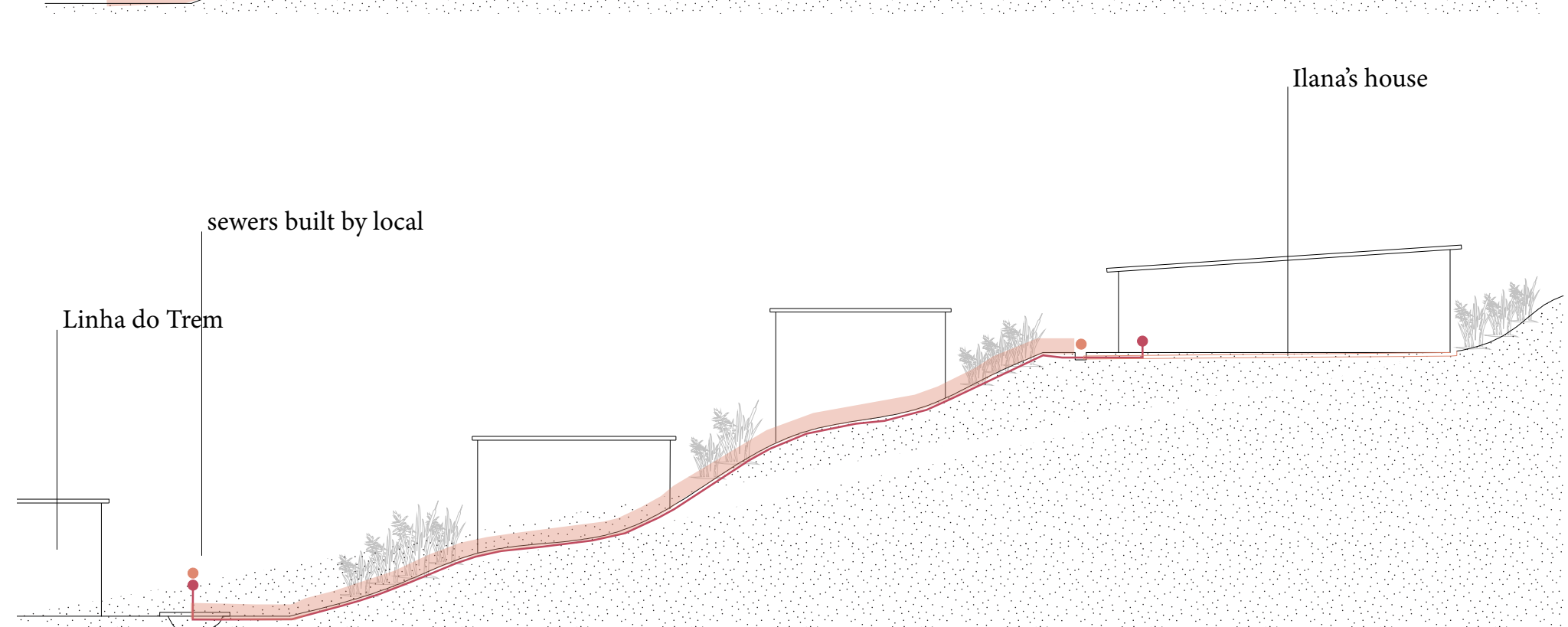
Drainage pipes



Flow path of rainwater leading to the lake

CASA DA ILANA

● waste water ● runoff water ● drinkable water



Ilana's house



View from Ilana's house

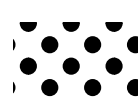


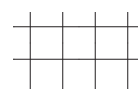
Runoff flowing beneath Ilana's house

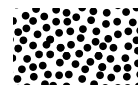



Sewer clogged with garbage


## LANDSCAPE ECOLOGY PRINCIPLES


- 


Matrix : *defined as the dominant land cover in a landscape mosaic, providing the structural background across which other landscape elements are embedded.*
- 

Patch : *is spatially distinct areas differing from the surrounding matrix in structure or function. They serve as ecological, hydrological, or spatial roles, depending on their size.*
- 

Corridor : *linear structures that connect patches and channel the flow of organisms, energy, or matter across the landscape.*
- 

Degraded Patch : *can be described as a formerly vegetated area whose ecological function was compromised, for example, through deforestation, erosion, or exposure to urban use.*
- 

Sink : *it is generally a location that receives flows, whether of species, water, pollutants, without necessarily redistributing them. A zone where local reproduction is lower than mortality and is sustained only by incoming flows. Hydrologically, it is an area where water tends to accumulate.*
- 

Edge : *marks the transition between a patch and the surrounding matrix, where ecological or the environmental conditions shift sharply.*
- 

Buffer : *refers to a protective zone adjacent to a sensitive area, typically used to minimize negative impacts from surrounding land uses.*



Analysis



Project

### MINHA BACIA, NOSSA CIDADE

“How do water management challenges in a marginalized community influence the dynamics of urban expansion in São Paulo?”

LBARC2238 Atelier de recherche: Territoire

Frédéric Neirinckx

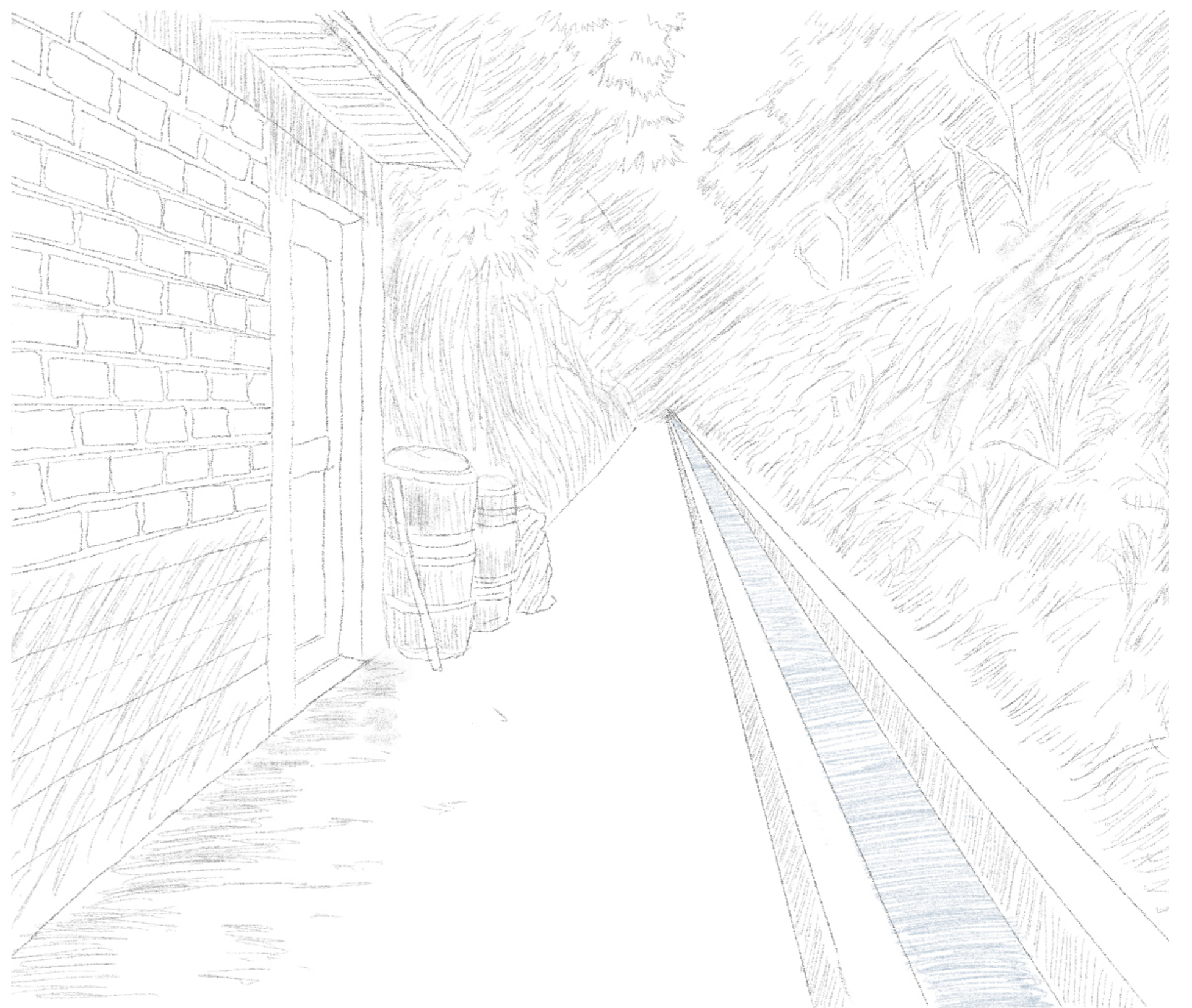
## THE SOCIAL WATERSHED

At the edge of São Paulo, where the forest meets the city, a community navigates the flow of daily life through water. Here, infrastructure is not only built, but lived and shaped by necessity, adaptation, and collective care. This project imagines a new balance, where rainwater is guided, not fought, where greywater is treated, not hidden and where water becomes more than infrastructure, it becomes a social connector.

Canals, gardens, and gathering spaces trace a new cartography. One where the landscape no longer divides, but unites. In Linha do Trem, water becomes the beginning of a new relationship between people and the city.



A line of flow

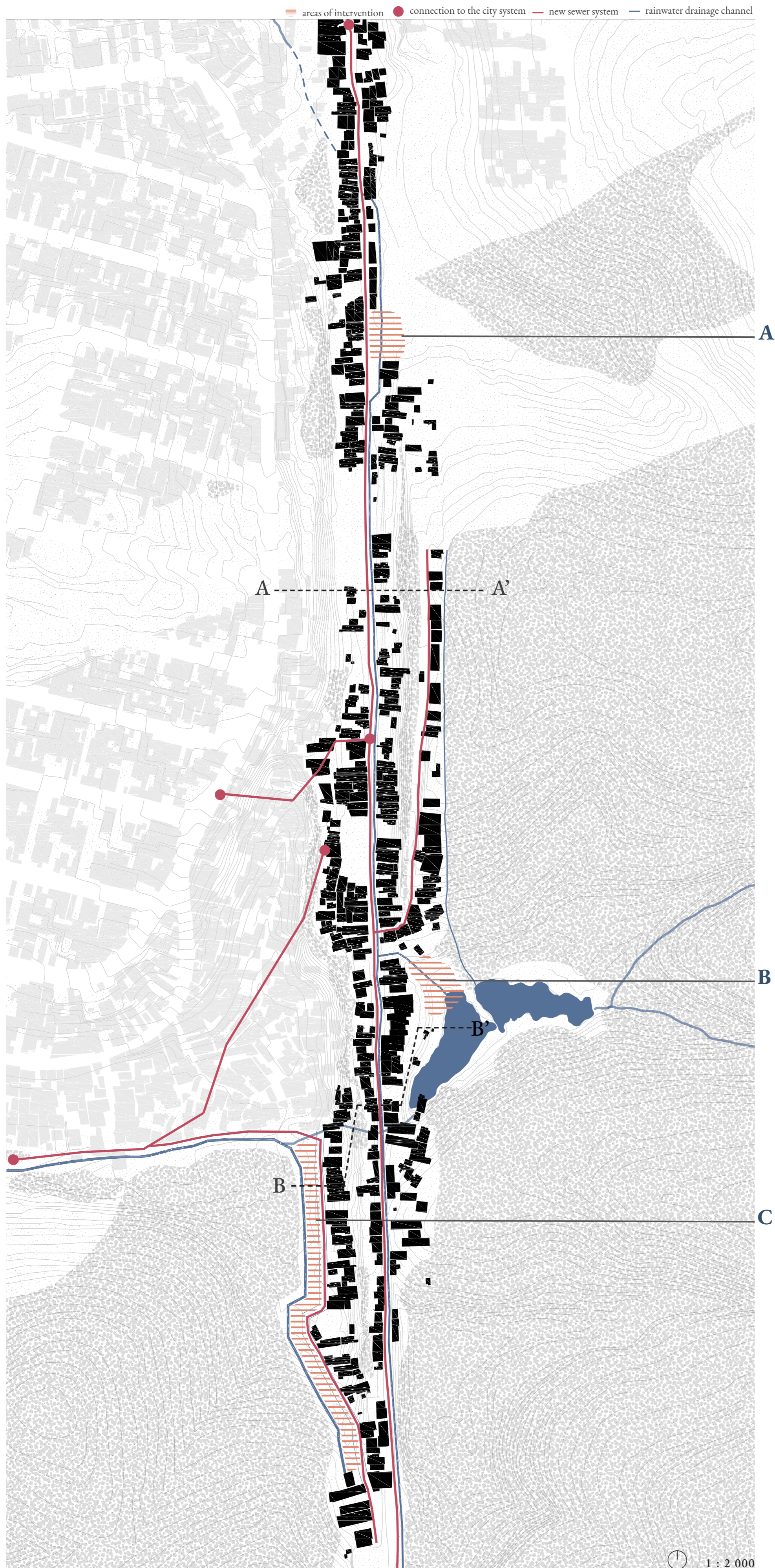


A path for rain



A lake reclaimed

### DESIGNING THE FLOWS



Dual water infrastructure system

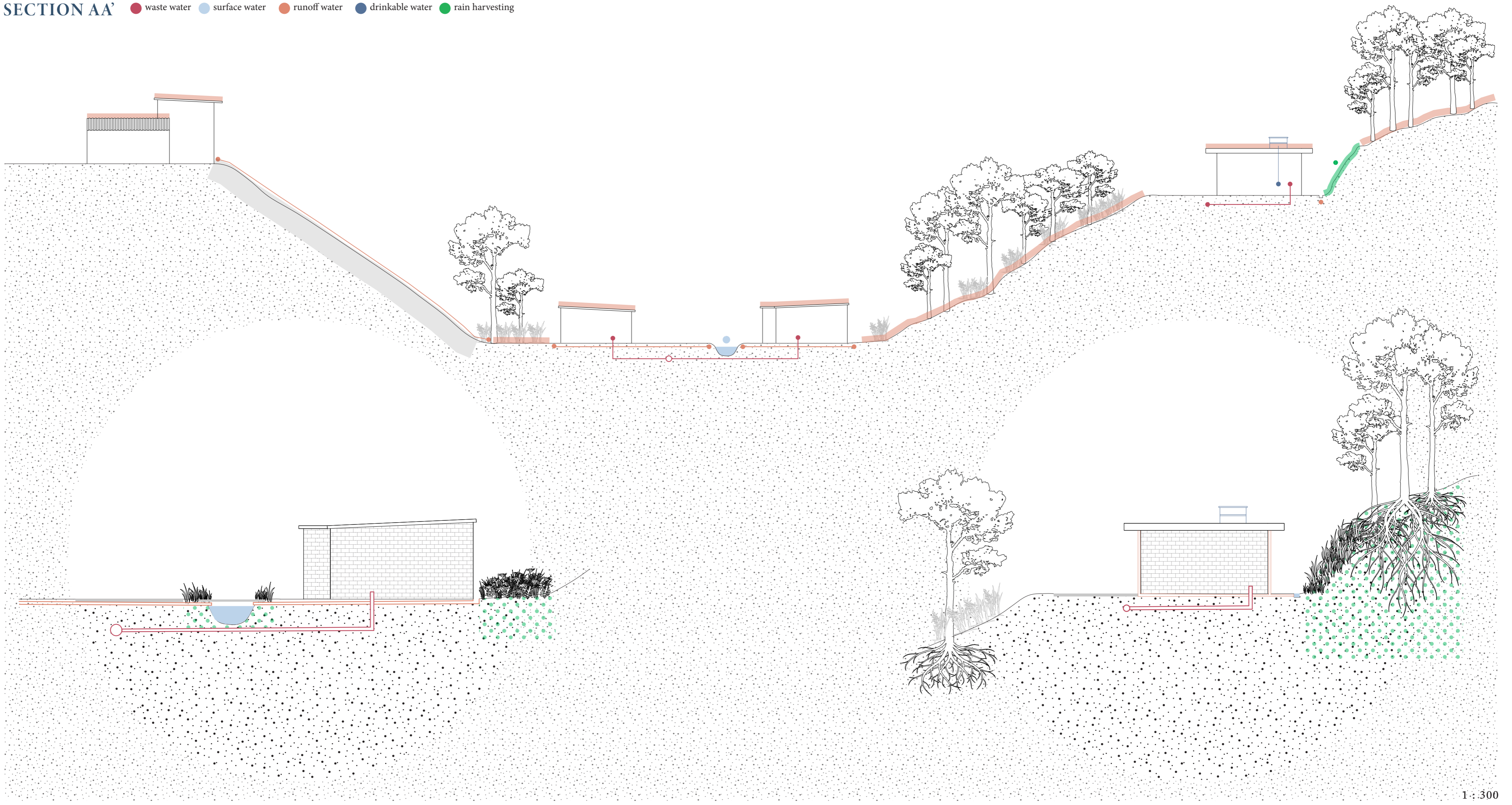
### MINHA BACIA, NOSSA CIDADE

“How do water management challenges in a marginalized community influence the dynamics of urban expansion in São Paulo?”

LBARC2238 Atelier de recherche: Territoire

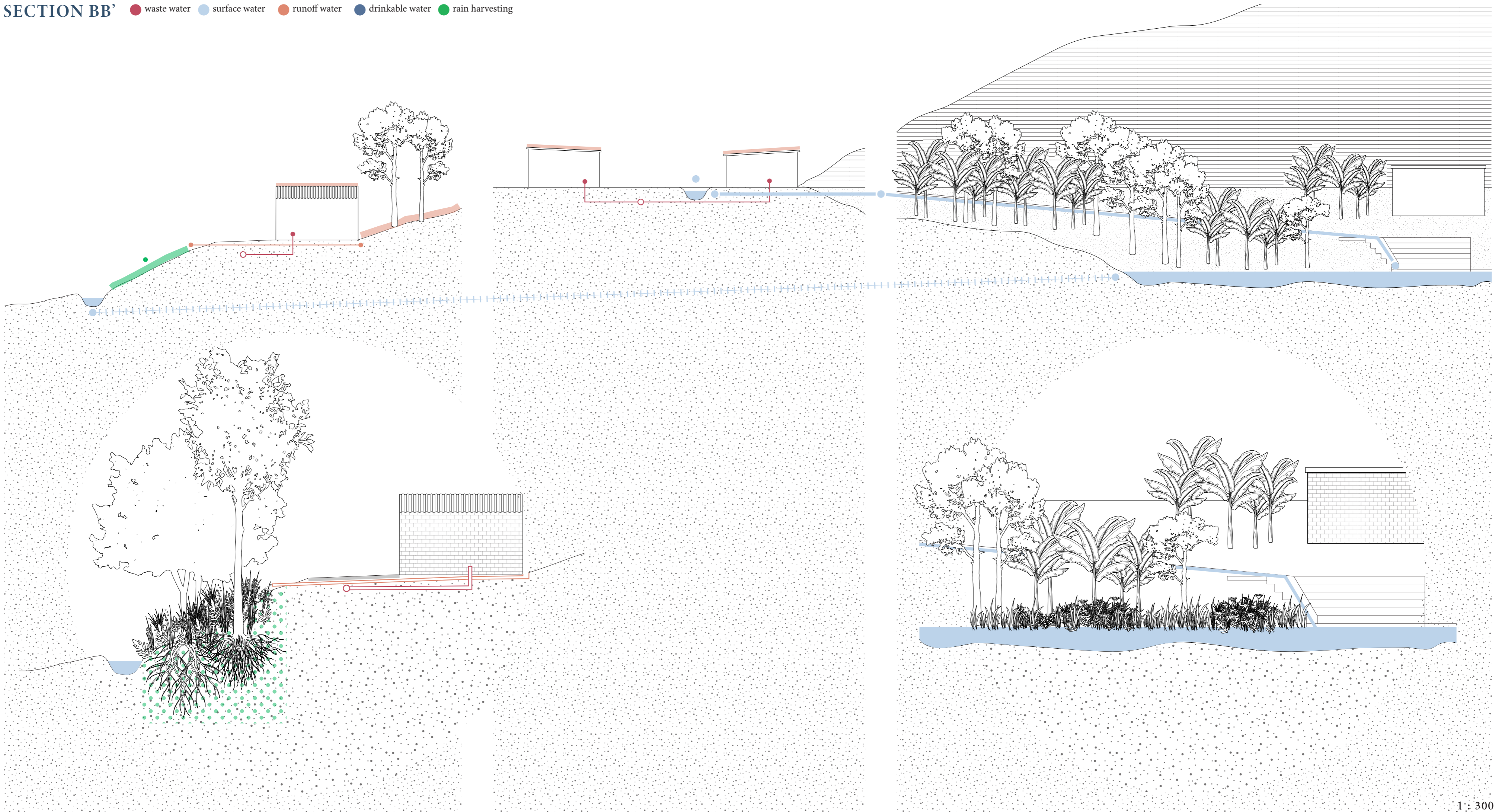
Frédéric Neirinckx

SECTION AA' ● waste water ● surface water ● runoff water ● drinkable water ● rain harvesting



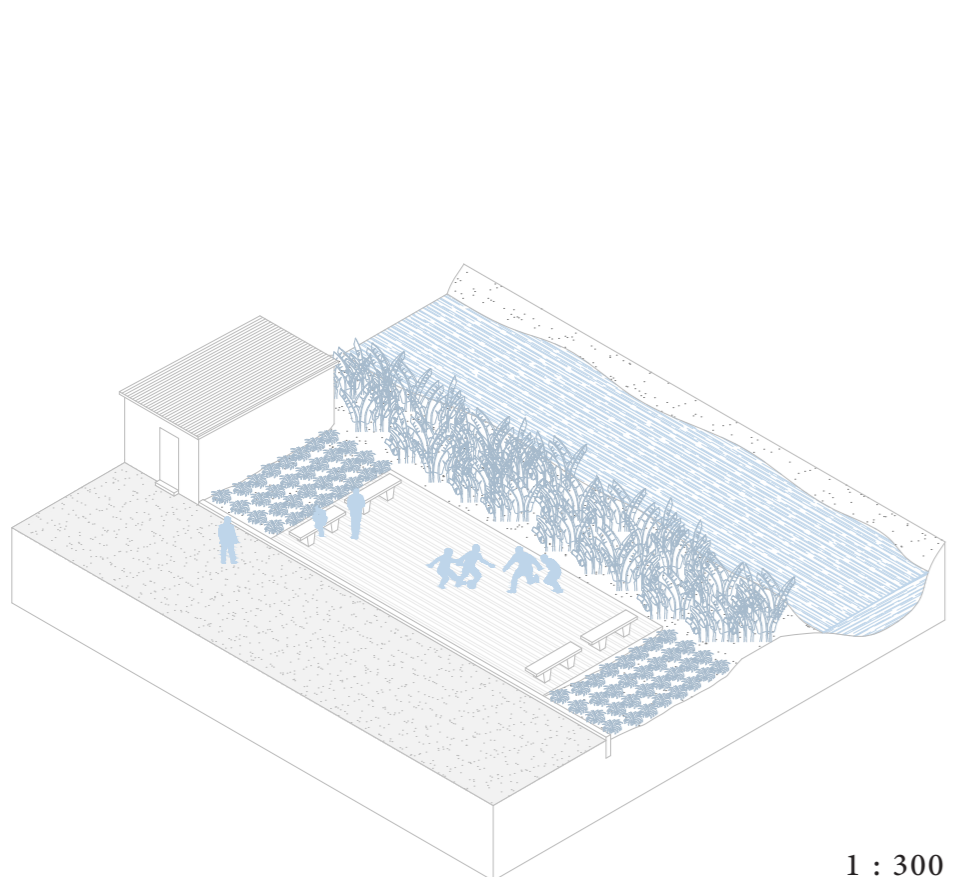
1 : 300

SECTION BB' ● waste water ● surface water ● runoff water ● drinkable water ● rain harvesting



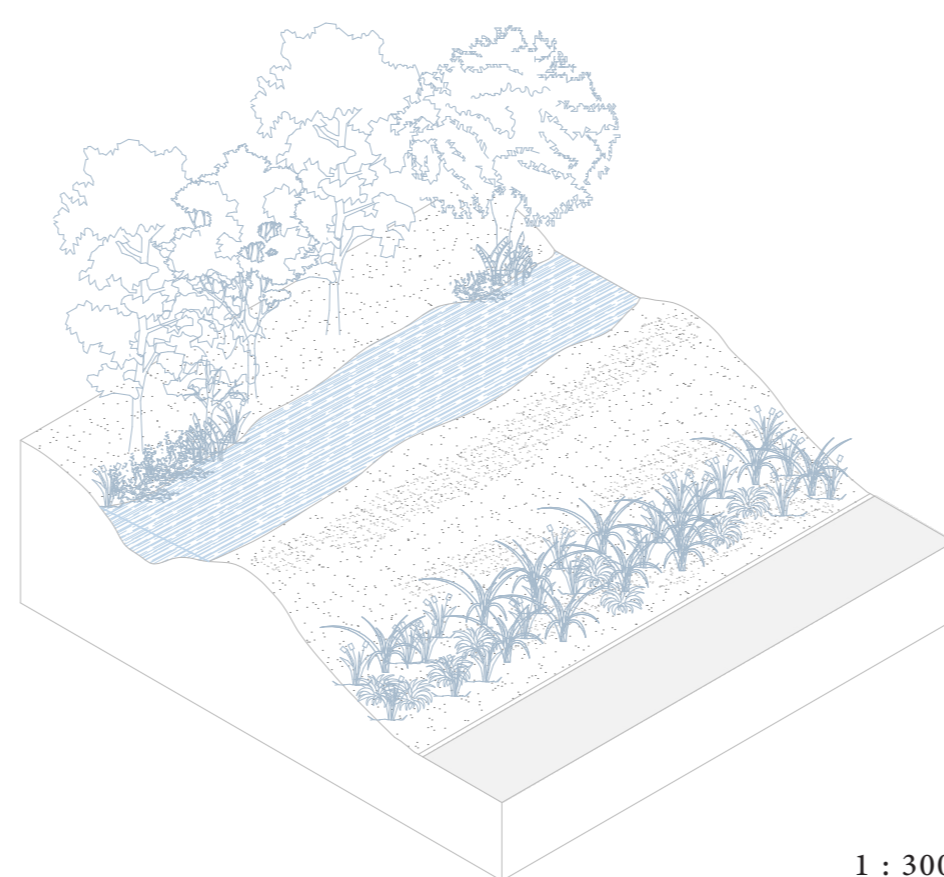
1 : 300

DESIGNING SPACES FOR THE COMMUNITY



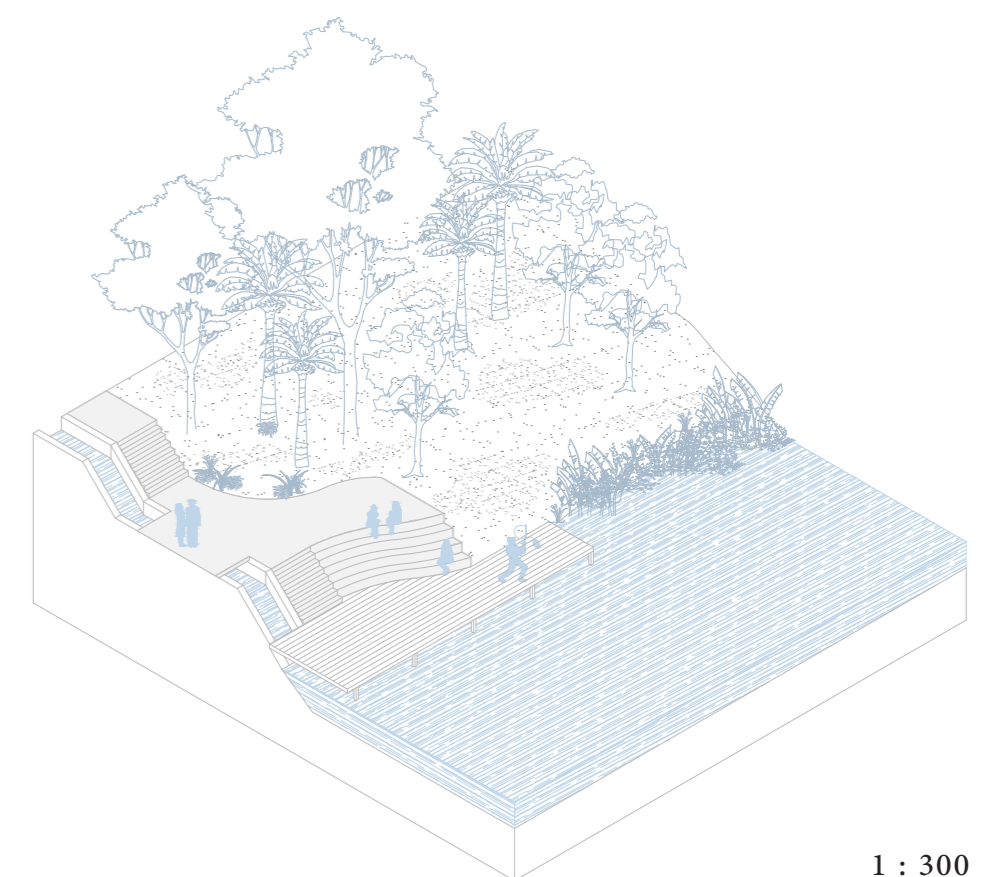
1 : 300

A. the meeting ground



1 : 300

B. reshaping the boundary



1 : 300

C. a watershed agora

MINHA BACIA, NOSSA CIDADE

“How do water management challenges in a marginalized community influence the dynamics of urban expansion in São Paulo?”

LBARC2238 Atelier de recherche: Territoire

Frédéric Neirinckx