

# DE SPONS VAN SCHOUWEN

“We aim to create a more robust and climate-resilient Schouwen-Duiveland by working with farmers, residents, and representatives of the tourism industry to foster freshwater capture, infiltration, sustainable extraction, and

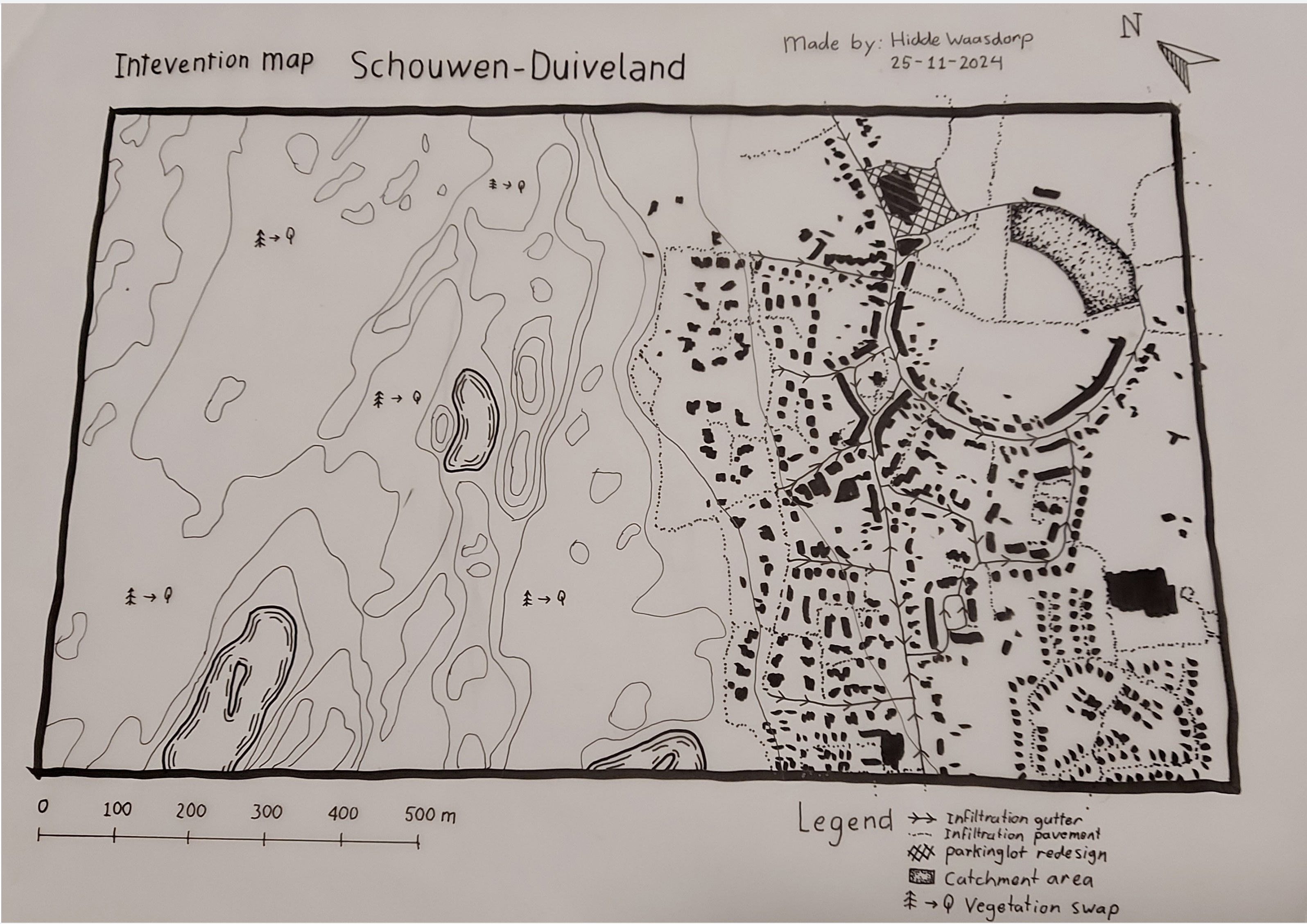
Made by Hidde Waasdorp Strategic spatial interventions (CU79108V1) 21-12-2024

## Objectives

- The design should be,
- Low in costs
  - Low in maintenance
  - Have a sponge function
  - green in order to not put pressure on the existing ecosystem

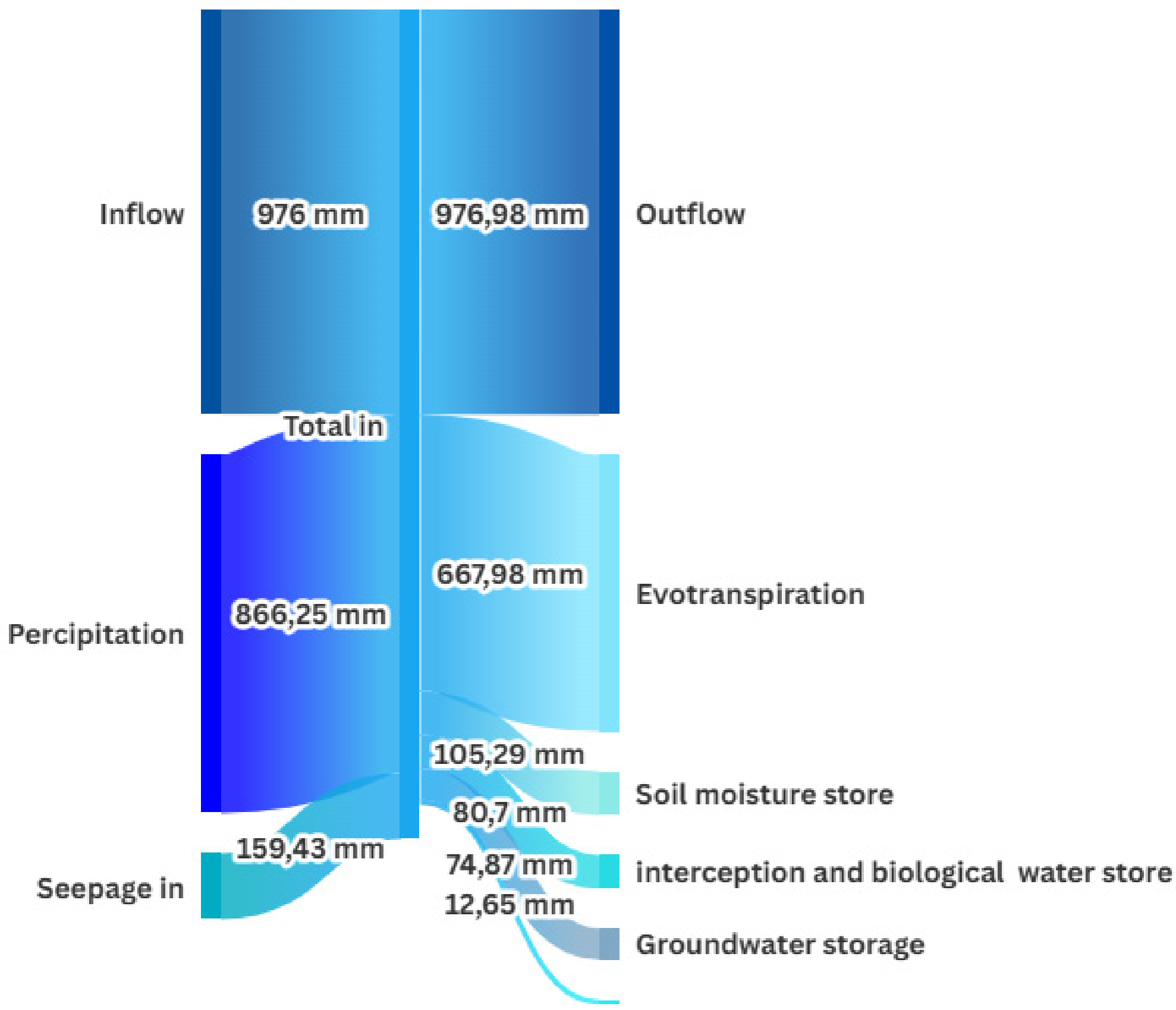


Results									
CLIMATE AND COSTS					CO BENEFITS				
Measure	Surface (m²)	Storage capacity (m³)	Return Time Factor (-)	Groundwater recharge (mm/year)	Evapotranspiration... (mm/year)	Heat reduction (°C)	Cool areas	Construction (€)	Maintenanc (€/year)
Adding trees to streetscape	8.466,33	423	1,04	0	3	0,02	1	96.516	33
Infiltration fields and strips with surface storage	23.192,99	12.796	7,07	30	11	0,04	0	1.391.579	11.550
Drought resistant species	355.141,25	4	1	0	0	0	0	9.766.384	0



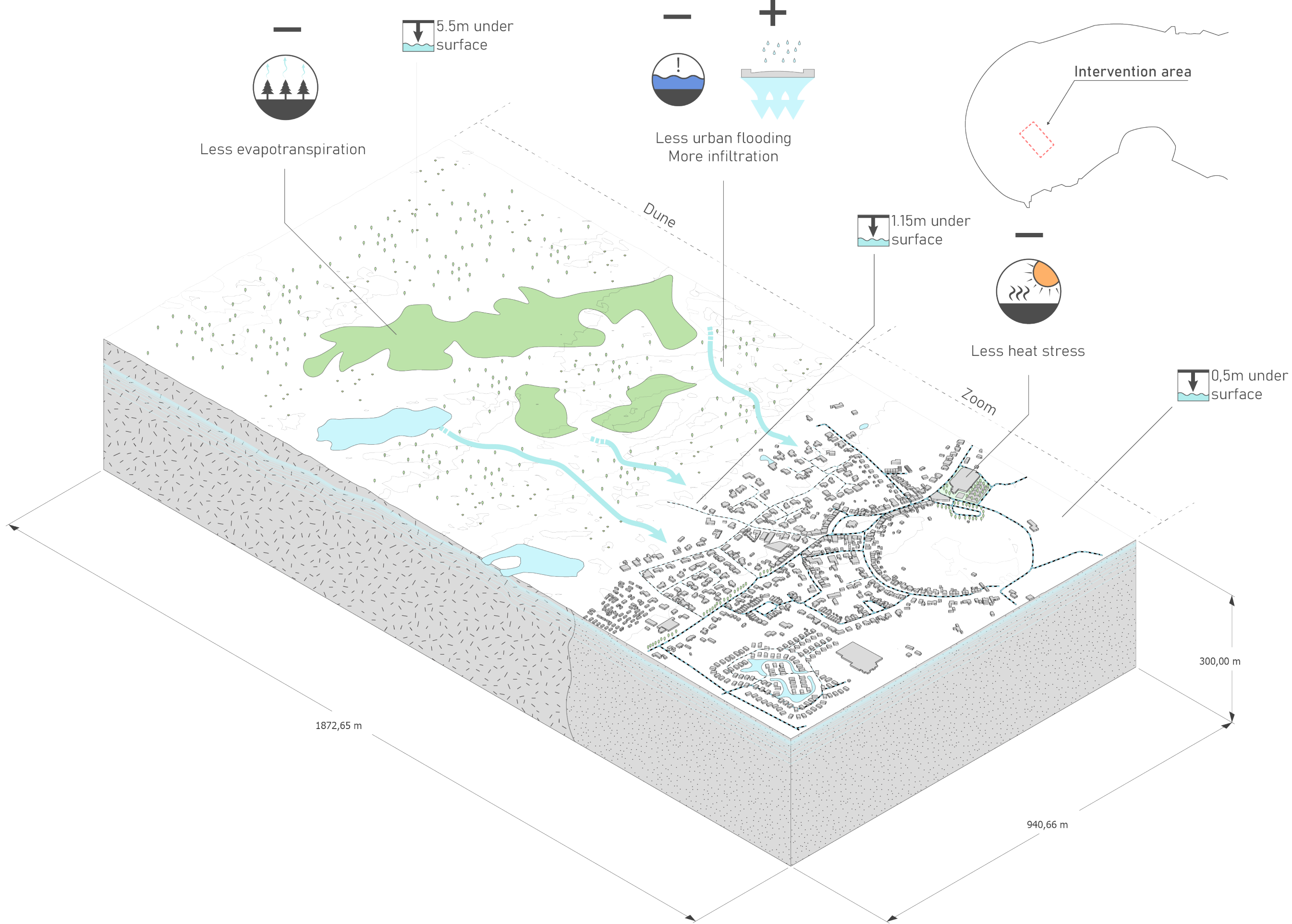
## Water balance current situation

Total surplus = 156,7mm



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## Current situation - Schouwen-Duiveland



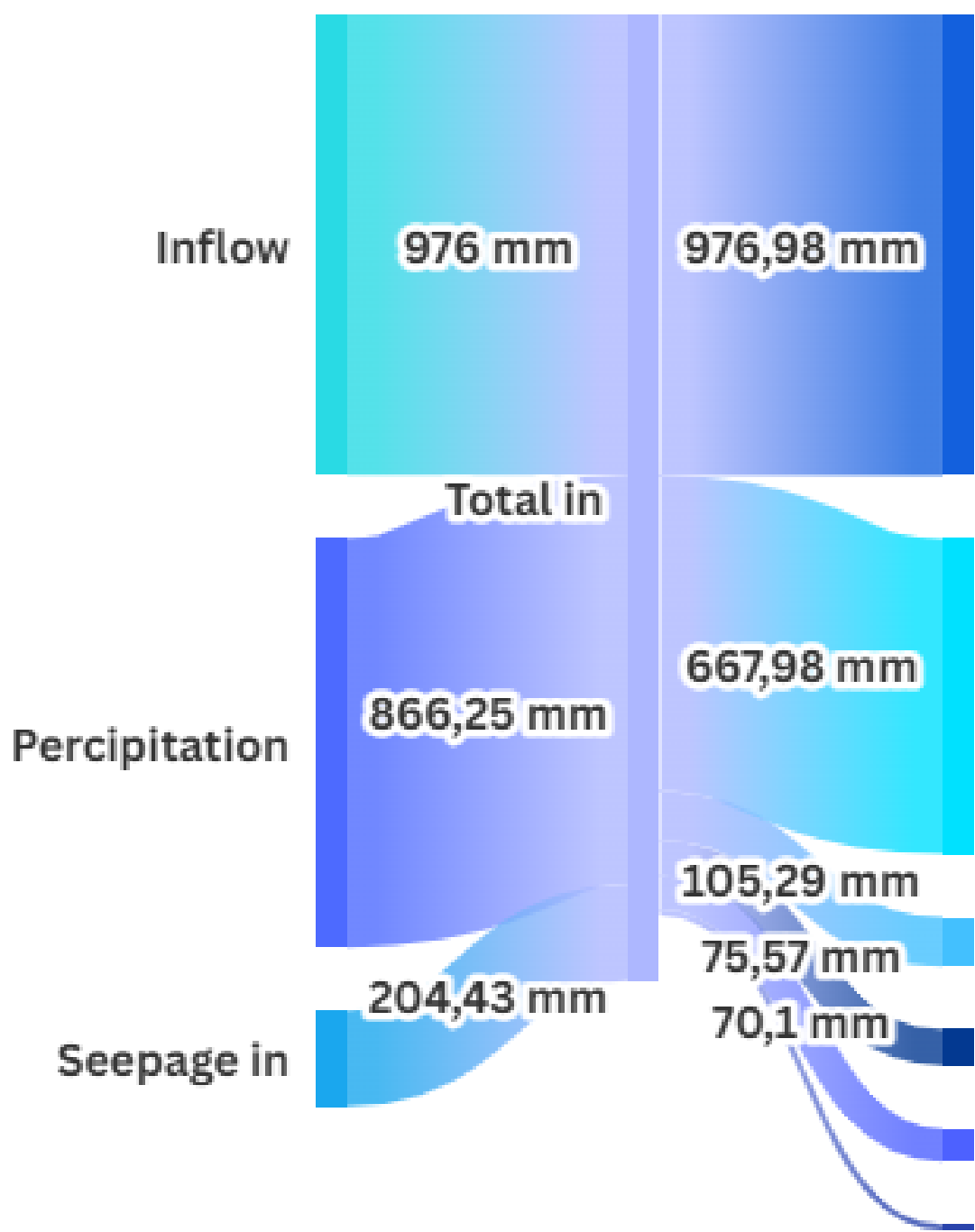
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## Water balance of interception area

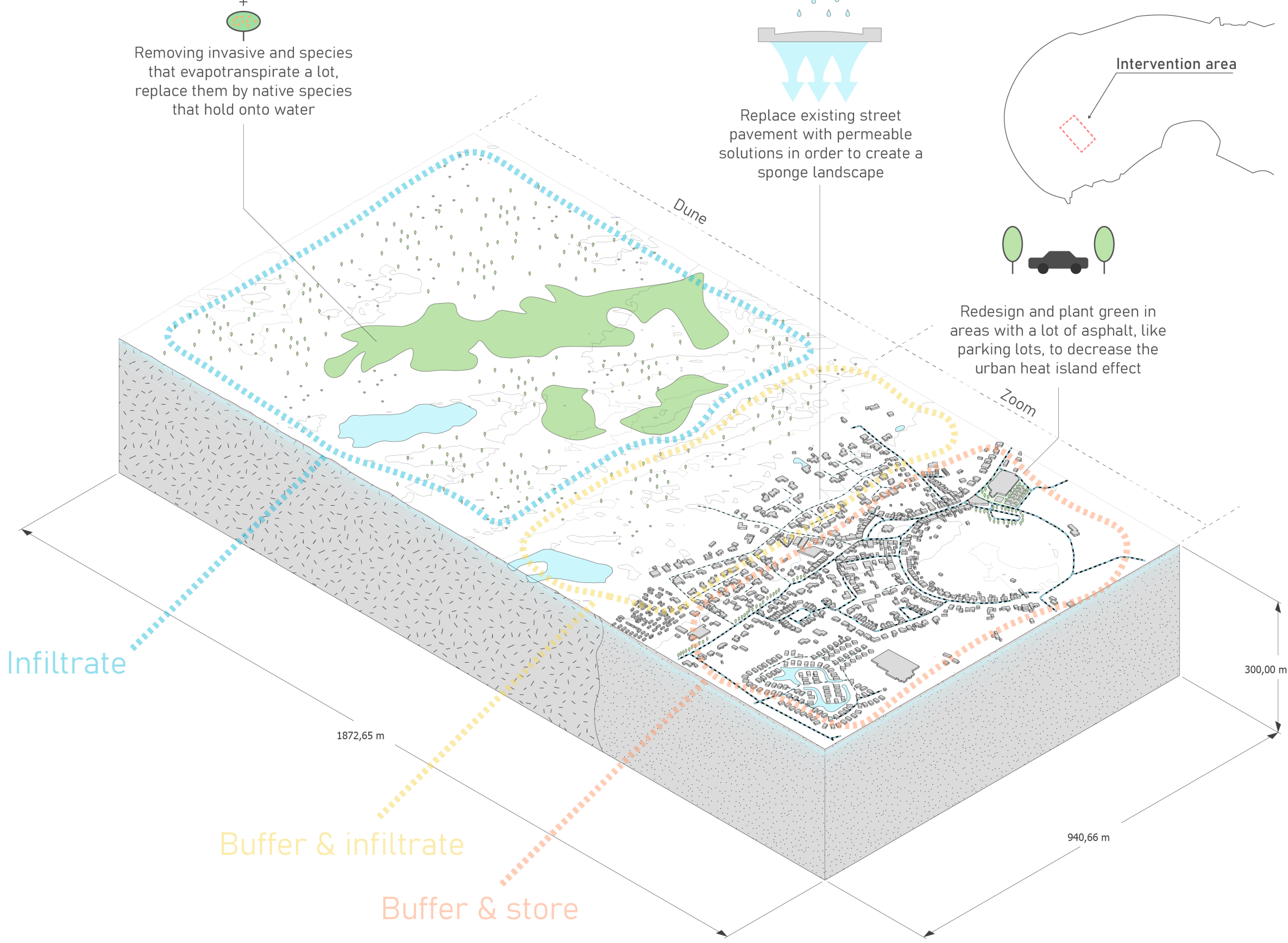
Total surplus = 203,0mm.

Changes = Seepage in + 45mm, increase in urban trees and changes in interception type.



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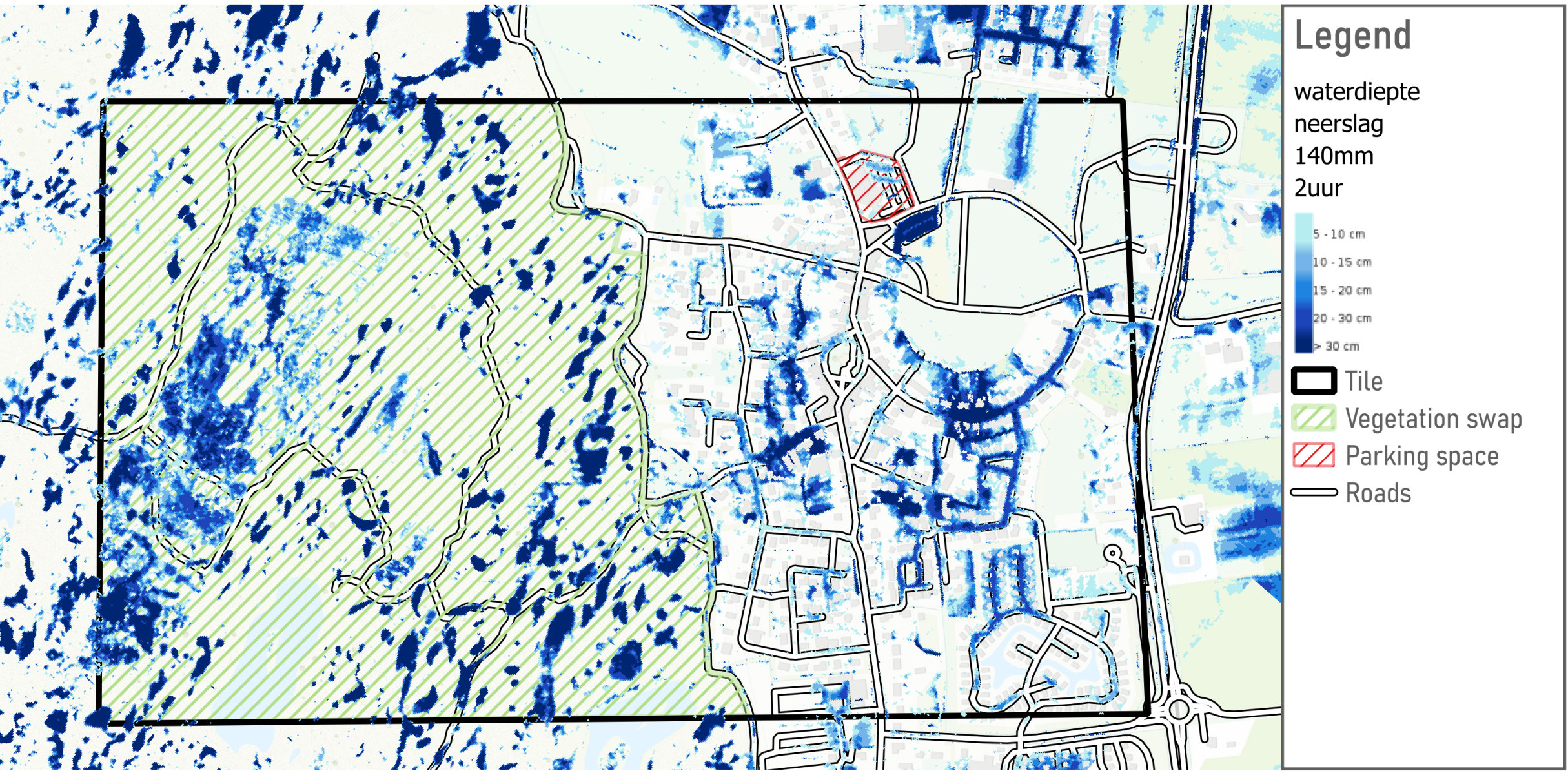
## Desired situation - Schouwen-Duiveland



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## Urban flood analysis - Schouwen-Duiveland



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20-12-2024

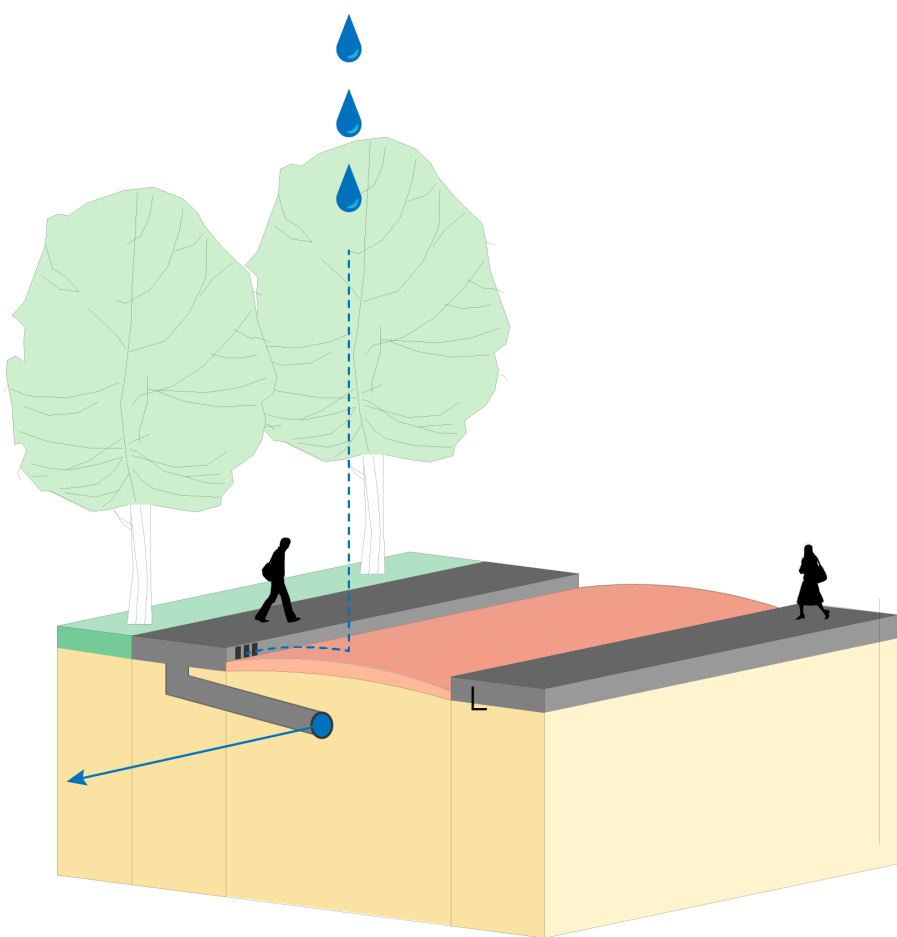
0 100 200 300 400 m



## Infiltration road section

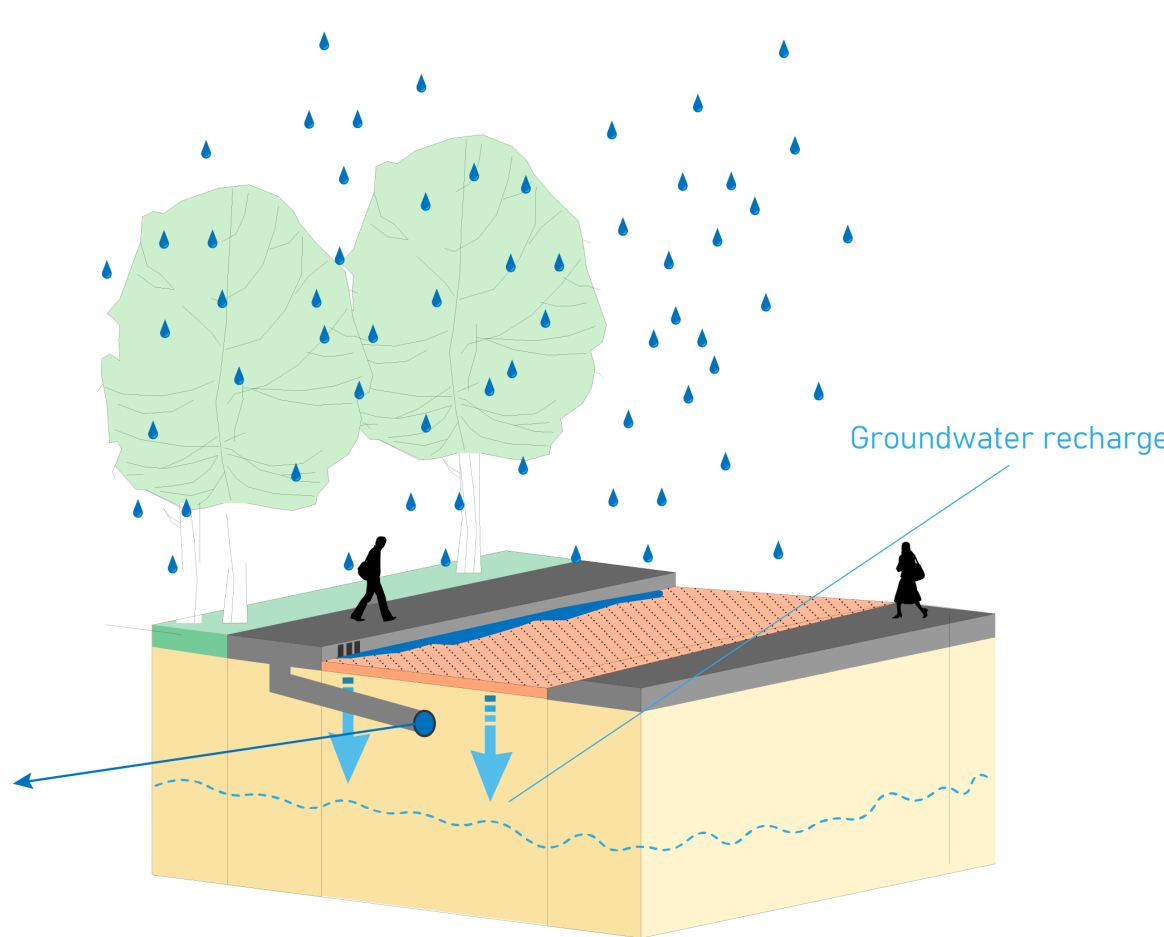
### Current situation

percipitation falls down on the street, gets collected at the side and then is transported out of the system with sewer pipes.



### Intervention

percipitation falls down on the street, bricks with permeable seams allow water to infiltrate into the soil below. This recharges the ground water table and is good for the ecosystem. The water that will infiltrate is fresh.



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17-12-2024