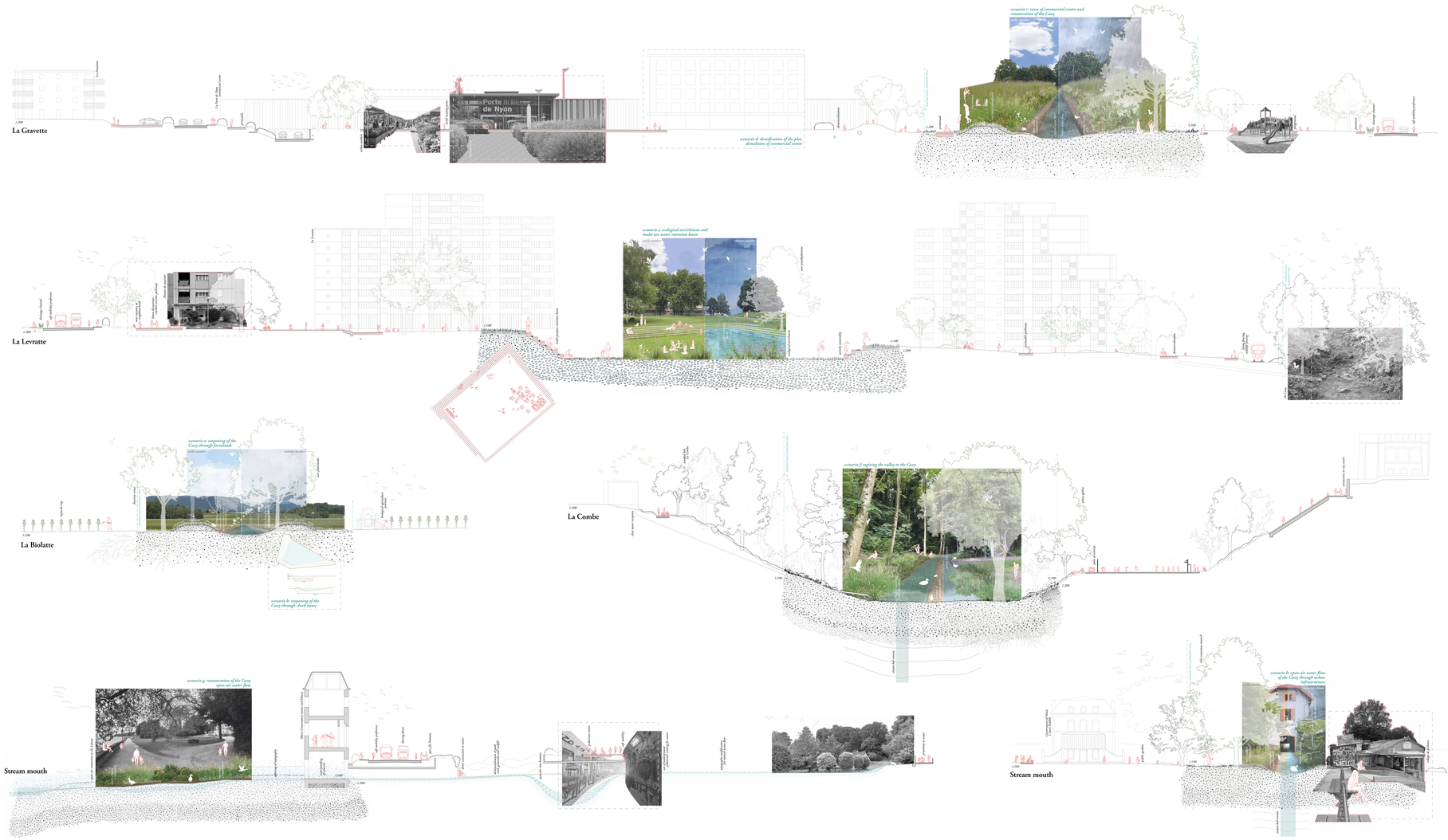
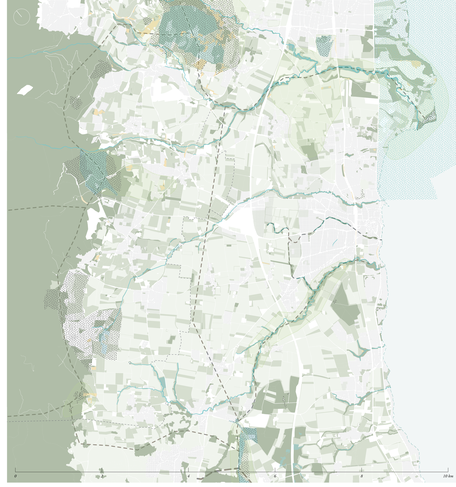


Agro-ecological network in Nyon région and La Frontière

- *forested or wooded lands*
- *biodiversity promotion areas*
- *farmlands*
- *developed lands*
- *watercourses*
- *waterfowl and migratory bird reserves*
- *wildlife reserves*
- *areas of priority biological interest*
- *inventory of alluvial zones*
- *inventory of dry grasslands and pastures*
- *national parks*
- *cantonal ecological corridors*
- *local ecological corridors*



Flood and water runoff hazards

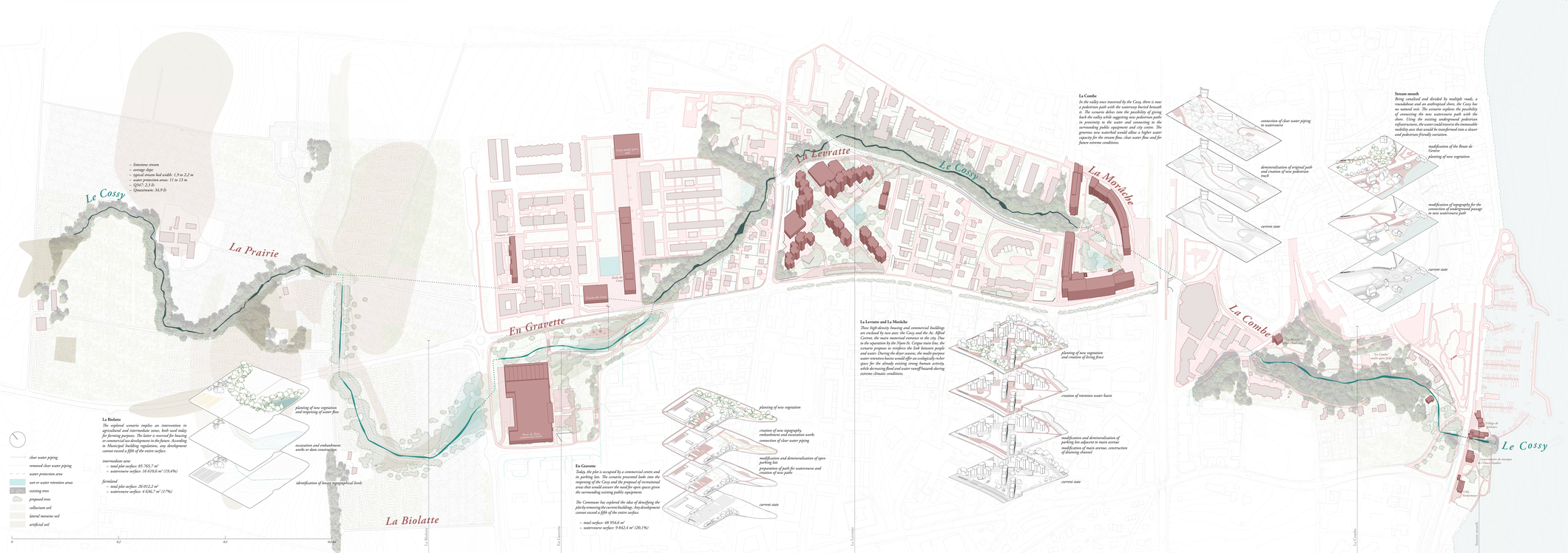
- *watercourses*

Flood hazards

- *high*
- *medium*
- *low*
- *unpredictable*

Water runoff hazards

- *up to 0.25 m water level*
- *from 0.1 to 0.25 m water level*
- *up to 0.1 m water level*



La Biolatte
The explored scenario implies an intervention in agricultural and intermediate zones, both used today for farming purposes. The latter is reserved for housing or commercial use development in the future. According to Municipal building regulations, any development cannot exceed a fifth of the entire surface.

intermediate zone
- *total plot surface: 85 705,7 m²*
- *watercourse surface: 16 610,6 m² (19,4%)*

farmland
- *total plot surface: 26 012,2 m²*
- *watercourse surface: 4 636,7 m² (17%)*

En Gravette
Today, the plot is occupied by a commercial centre and its parking lots. The scenario presented looks into the reopening of the Cossy and the proposal of recreational areas that would answer the need for open spaces given the surrounding existing public equipment.

The Commune has explored the idea of densifying the plot by removing the current buildings. Any development cannot exceed a fifth of the entire surface.

- *total surface: 48 954,6 m²*
- *watercourse surface: 9 842,4 m² (20,1%)*

La Levratte and La Moraîche
These high-density housing and commercial buildings are enclosed by two axes: the Cossy and the Av. Alfred Cortrot, the main motorised entrance to the city. Due to the separation by the Nyon St. Cergue train line, the scenario proposes to reinforce the link between people and water. During the dryer seasons, the multi-purpose water-retention basins would offer an ecologically richer space for the already existing strong human activity, while decreasing flood and water runoff hazards during extreme climatic conditions.

La Combe
In the valley once traversed by the Cossy, there is now a pedestrian path with the waterway buried beneath it. The scenario delves into the possibility of giving back the valley while suggesting new pedestrian paths in proximity to the water and connecting to the surrounding public equipment and city centre. The generous new waterbed would allow a higher water capacity for the stream flow, clear water flow and for future extreme conditions.

Stream mouth
Being canalised and divided by multiple roads, a roundabout and an anthropoid shore, the Cossy has no natural exit. The scenario explores the possibility of connecting the new watercourse path with the shore. Using the existing underground pedestrian infrastructure, the water could reserve the immeasurable mobility axis that would be transformed into a slower and pedestrian-friendly variation.

Precipitation scenarios

Temperature scenarios

Current state

total lenght of streams: 3,4 km
- *open-air: 1,6 km (47%)*
- *underground: 1,8 km (53%)*

Future scenario

total lenght of streams: 3,9 km
- *open-air: 3,2 km (82%)*
- *underground: 0,7 km (18%)*

enhankment and excavation works
- *total enhankment volume: 4 869,49 m³*
- *total excavation volume: 4 881,80 m³*

Explorations of socio-ecological continuities: rethinking the Cossy

Nyon's landscape is characterized by a mix of different ecosystems. The commune is located in a strategic region between two major nature reserves: the Léman and the Jura. The matching watercourse in the region participate as connective tissue between these two reserves, further enhancing their natural significance. Yet, due to urban development and intensive agricultural practices, the richness of Nyon's landscape has been heavily affected since the eighteenth century. Among its watercourse and lakes, we find the Cossy, a stream that traverses the city. This ecological entity has been canalised and fragmented over the years. Investigating today's Cossy's ecological state, this project explores the possibilities of reconnecting the fragmented Cossy for a strategy of young socio-ecological impact answering to a future of uncertainties. The projections shared by the NCCS show the impacts of climate change for the near future (2035), the middle of the century (2060) and towards the end of the century (2085) where temperature and precipitation are two of the main indicators. Hence, extreme climatic conditions are to be expected and therefore analysed.

This counter-project aims to discuss possibilities to respond to a disconnection between water, humans and non-humans, as well as to discuss the climate change that affects water retention and absorption limits today and over time, and how to hinder or decrease them. This series of explorations aims to inspire two potential futures and scenarios of the renaturation and continuum of an urban stream: the Cossy. Five main areas are discussed: la Biolatte, situated in farmlands; En Gravette, located in the periphery of Nyon; la Levratte and la Moraîche, in urban and high density zones; the area of La Combe, close to the city centre; and the stream mouth, located in the shore of the Léman. Each area explores a set of different approaches to trigger a different connection between water and a growing city that would need its resilience. These strategic actions seek to not only reconnect a fragmented waterway but also to address human activity hotspots situated alongside it. The Cossy has the potential to become a dynamic space for human and non-human interactions, an infrastructure of significant social and ecological impact.

Master project in Architecture
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