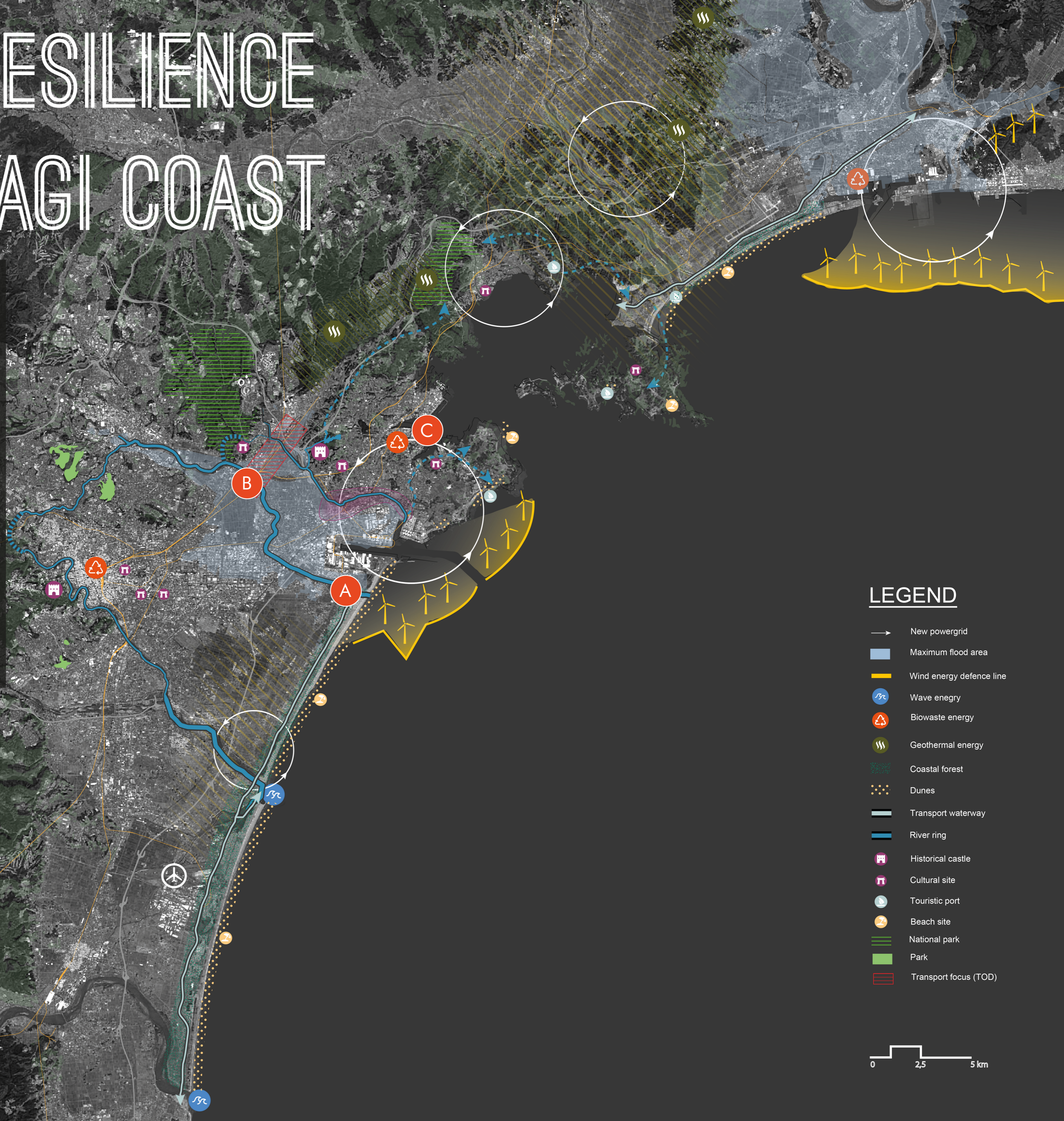


# ACTIVATE RESILIENCE OF THE MIYAGI COAST

Activate resilience of the Miyagi coast is the reintroduction of a regional vision that improves local collaboration between municipalities after a tsunami hit the east coast of Japan in 2011. After analysis the strategy is based on three infrastructures that have a continuous presence throughout the region. This network creates a superimposition of joints where multiple strategies and disperse beyond district borders or pinpoint a single location. The strategies are applied on different scales and translated into a range of urban designs that improve the region on themes such as economy, environment, safety and quality of life. This supportive role of regional design gives handles to a complex problem with the consideration of a wider scope of interdependencies making a region more resilient as a whole for when the next big one strikes.

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Studio: Delta Interventions



## LEGEND

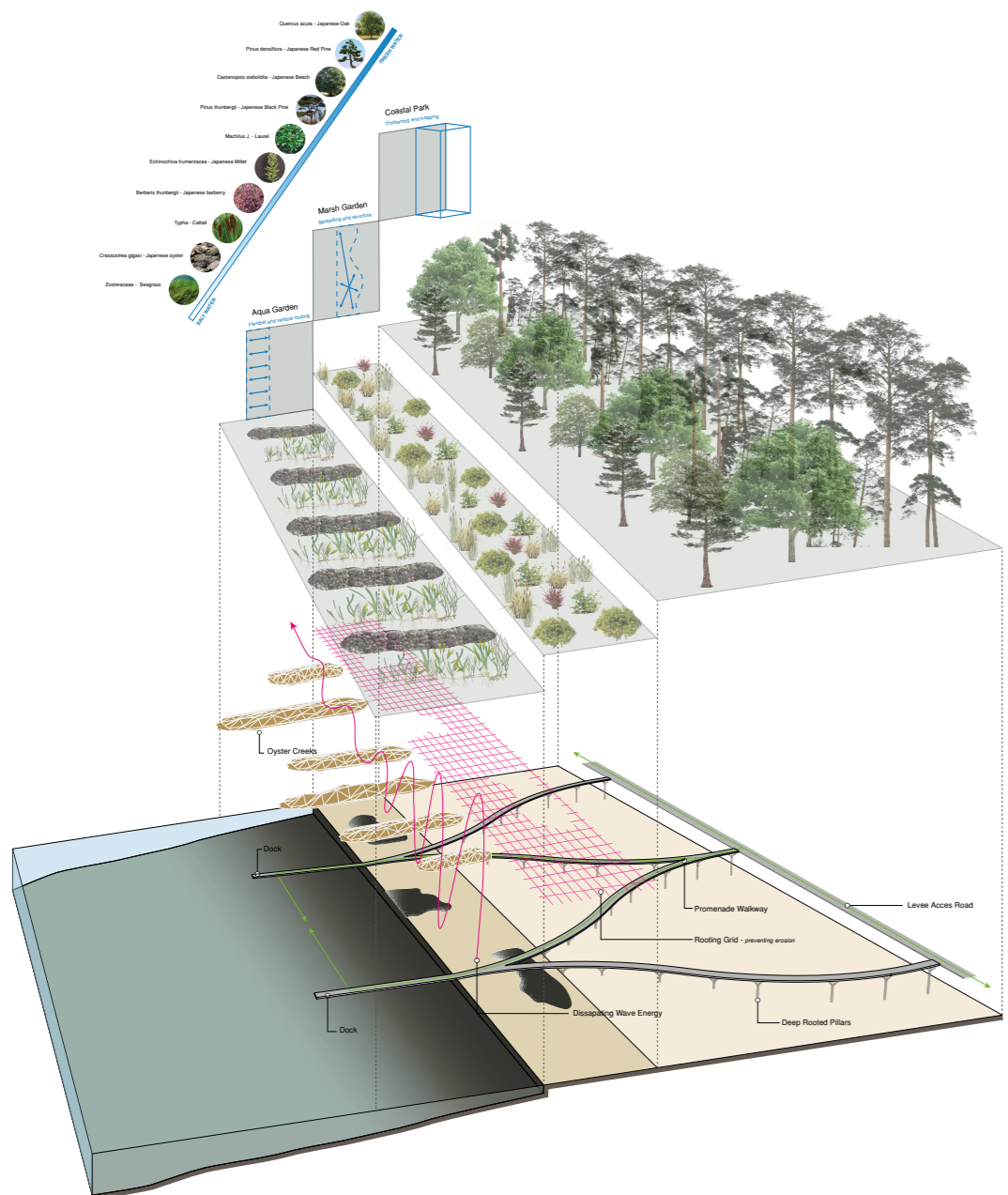
- New powergrid
- Maximum flood area
- Wind energy defence line
- Wave energy
- Biowaste energy
- Geothermal energy
- Coastal forest
- Dunes
- Transport waterway
- River ring
- Historical castle
- Cultural site
- Touristic port
- Beach site
- National park
- Park
- Transport focus (TOD)



A - GREEN AND BLUE INFRASTRUCTURE / ECO JETTY



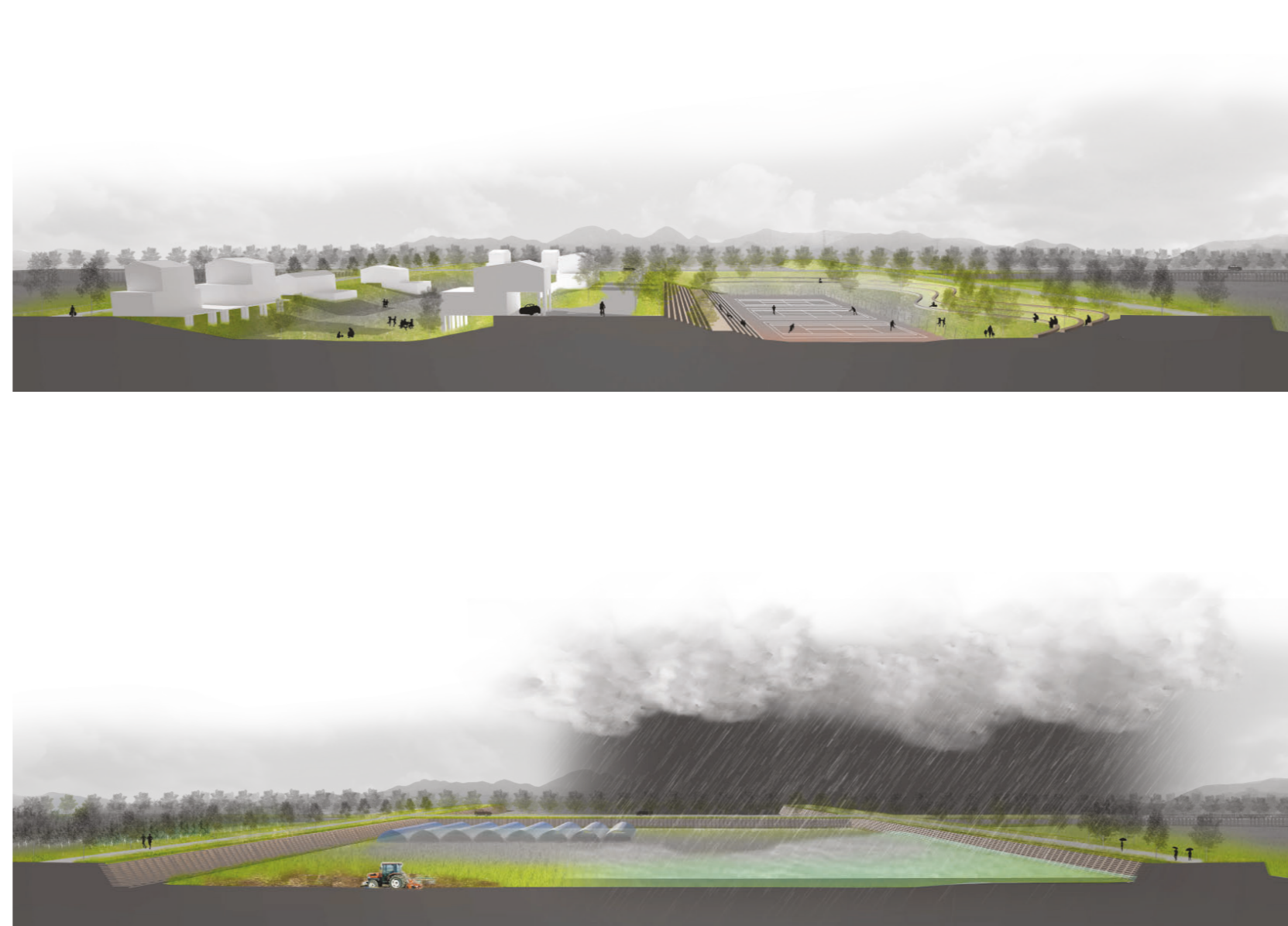
This area is one of the tsunami prone locations where the implementation of a secondary dyke structure is missing. This is partially resolved by increasing the height of the levees flanking the river side. This increases disconnection of the adjacent residential neighbourhoods from the river Nanakita. A groyne like structure is designed with a dual function. 1- Mitigation through the reinforced embankments and coastal forest. 2 - A board walk that invites the locals and visitors to interact with the river throughout the seasons.



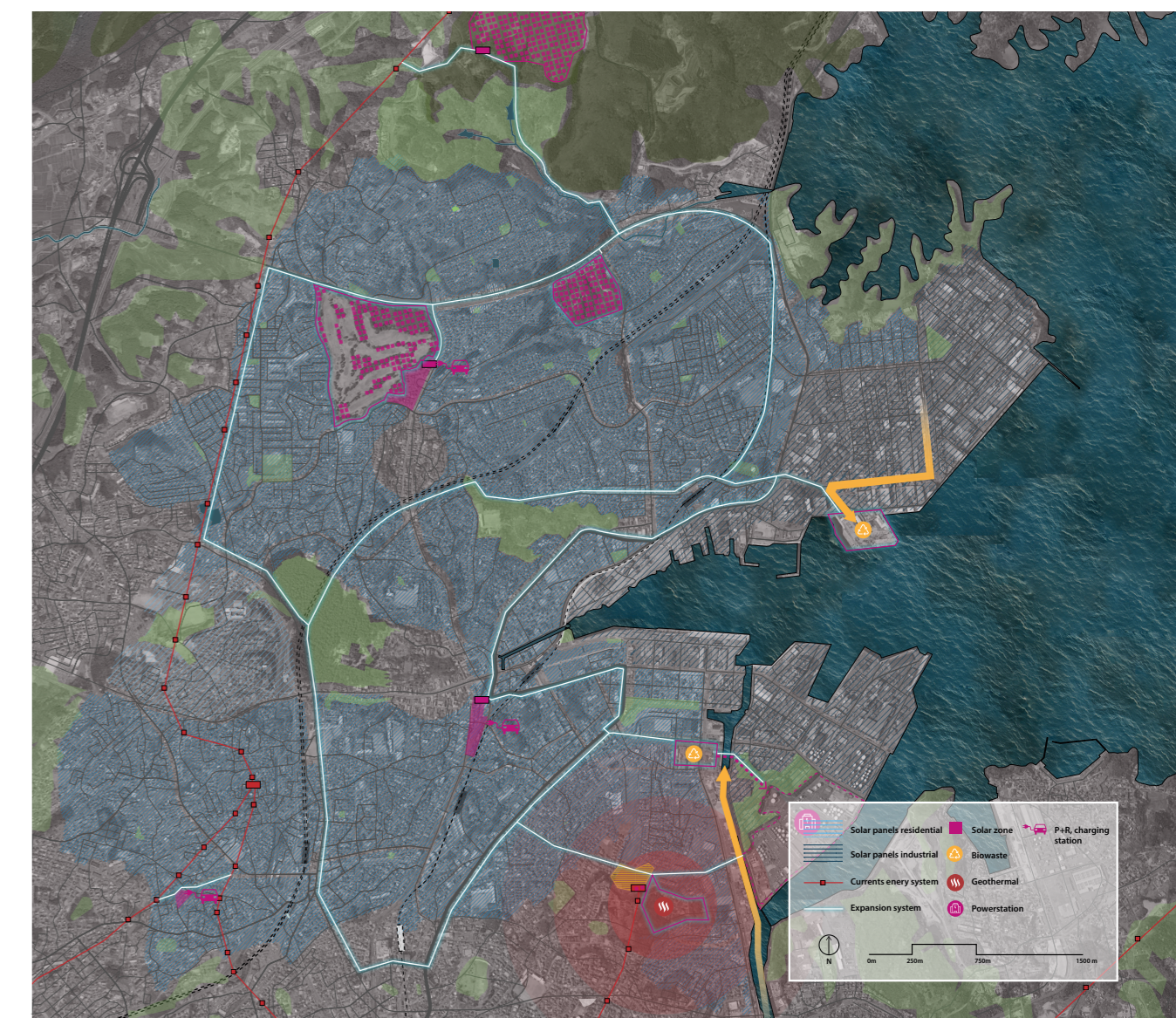
B - TRANSPORT INFRASTRUCTURE/ TRANSIT ORIENTED DEVELOPMENT



The location is ideal to redevelop due to its arterial infrastructure that surrounds the neighbourhood. Complicating factor is the river that floods the neighbourhood due to its impervious urbanisation. To ensure the safety of the investment a store zone is designed with a maximum buffer capacity within its own urban pattern. The principle is based on a branching of dykes where arterial infrastructure is based and housing is elevated. Leaving a bathtub like structure to capture the excessive water during floods and heavy rainstorms.



C - ENERGY INFRASTRUCTURE / ENERGY HARBOUR



Shiogama is known in the region for its near coast tuna fishing. Their port is connected through a canal with the ten times larger Sendai port that is located just 4km southwards. One might question its economic feasibility. Its favourable position between the north and south makes it an excellent candidate for the collection and distribution of residual flows in the region. Profiling itself as an energy transition pioneer in the region and transforming its port to an energy harbour. Introducing a cascading system of diverse renewable energy sources. Located a high and low area's insuring minimal power supply even during tsunamis or landslides.

