

(PROJECT)

THE ELWOOD
INTEGRATED PROJECT

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THE
INTERDISCIPLINARY
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(PROJECT)

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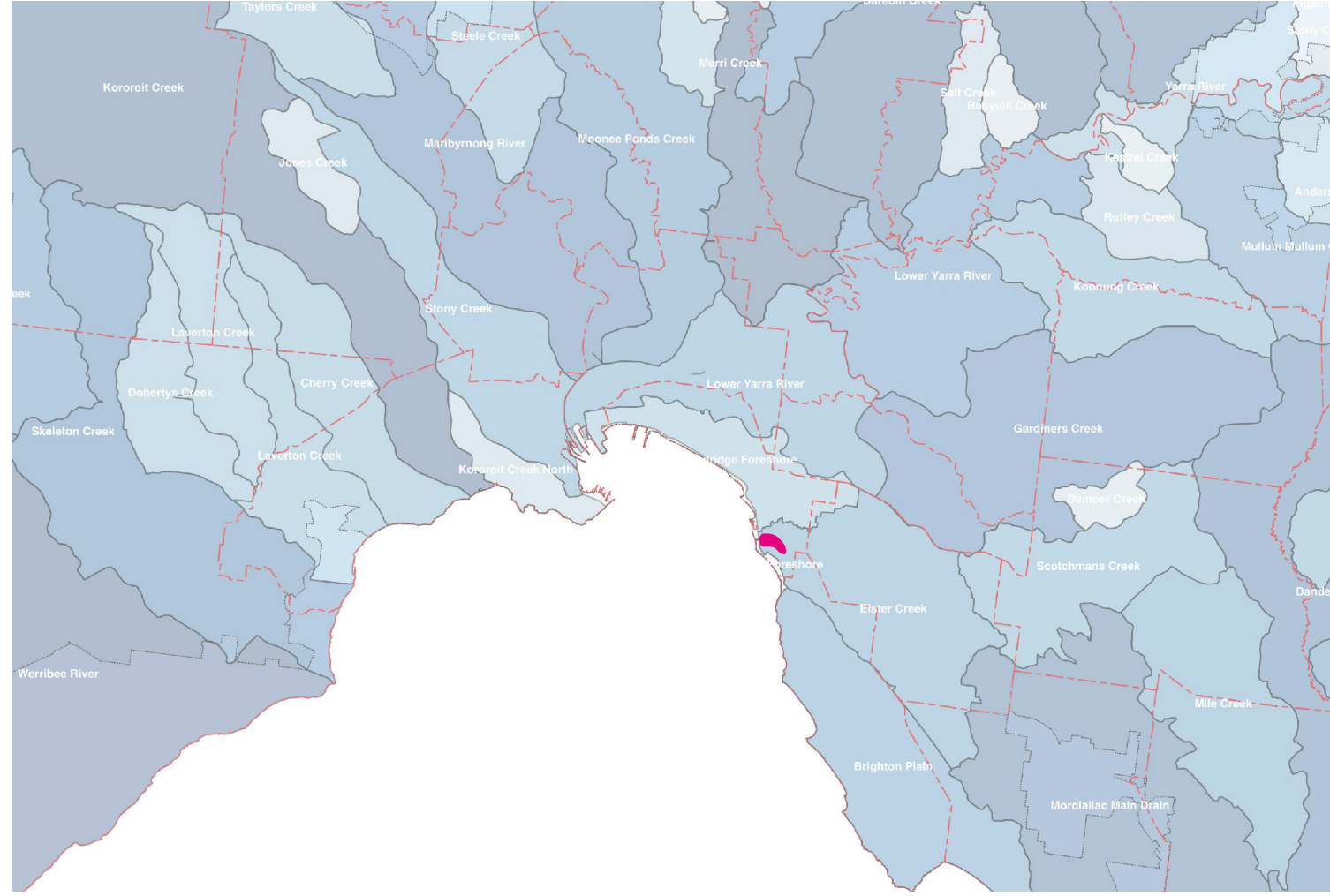
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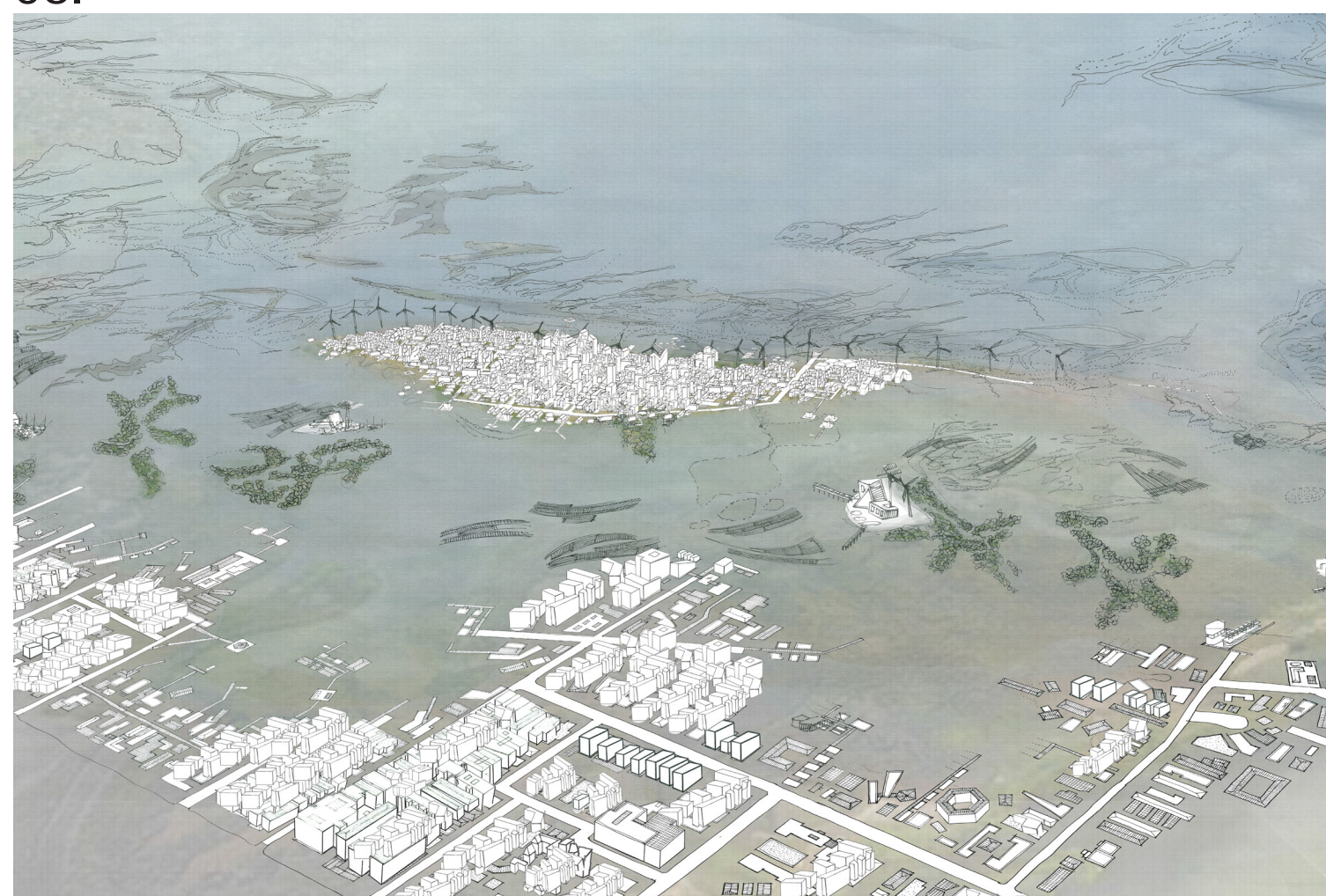
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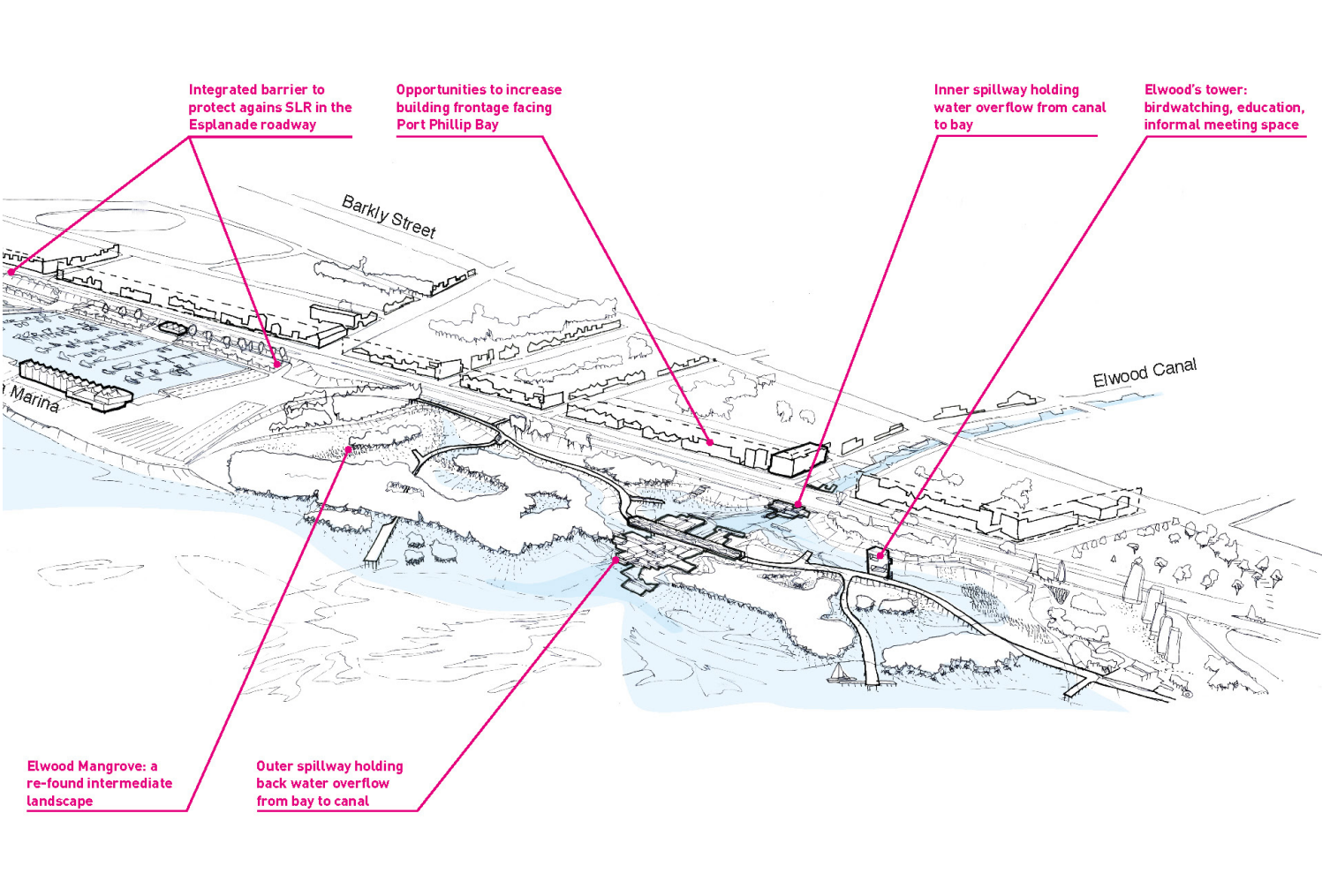
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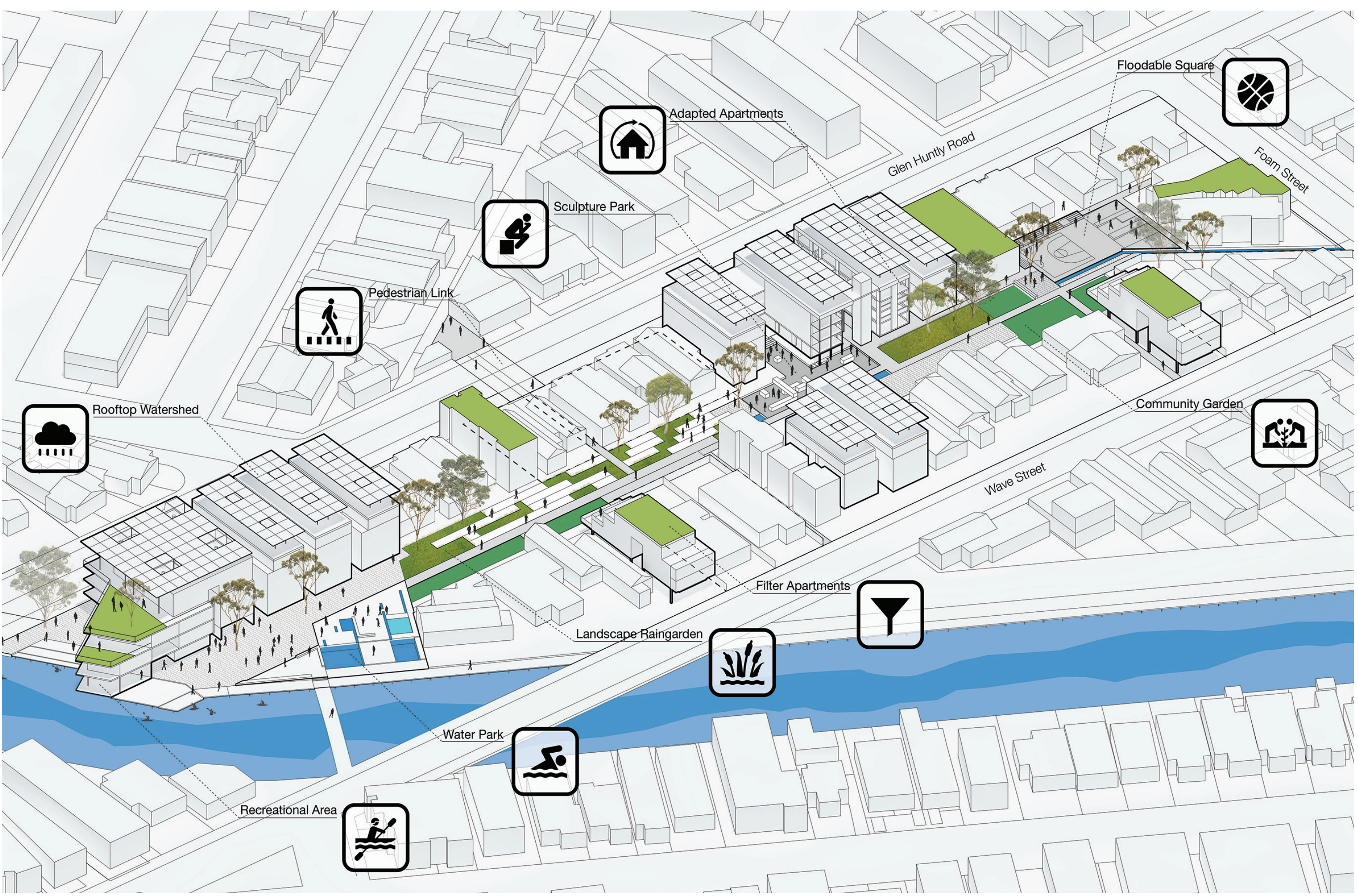


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- 01. Introducing the idea of a 'water body corporate' (image Andrew Wright + Kai Zhu)
- 02. participants in Elwood Community Workshop
- 03. students and community members at the 'SWAMPED' exhibition
- 04. Elwood as part of the 'Catchment City'
- 05. sketch scenario for Elster Creek Mouth
- 06. Modelling an adapted Elwood and Elster Creek Catchment
- 07. students and researchers crossing the Lake Condah weir (image Piers Morgan)
- 08. integrated flood management with adapted social housing (image Piers Morgan)
- 09. remodelling and adapted ground use in existing neighbourhoods (image Abrose Zacharakis)
- 10. Elwood as a series of high density islands (image AV Nguyen)
- 11. localised industrialised adaptation inhabitation models (image Tom Morgan)

SWAMPED: FUTURE SCENARIOS FOR ELWOOD

The Elwood Integrated Project presents an interdisciplinary approach for developing flood resilience measures for Elwood, a suburb of Melbourne, Australia, that is vulnerable to pluvial and coastal flooding. The research draws on methods from social science, architecture and environmental engineering to develop integrated insights into the opportunities for increasing Elwood's liveability and its resilience to flooding. It showed that ensuring a city's flood resilience involves a range of technical, design and social measures to retreat from, adapt to and defend against flooding. Developing and implementing suitable solutions therefore requires an integrated approach, involving interdisciplinary expertise to:

- (1) engage effectively with communities to understand their concerns, aspirations and priorities,
- (2) develop approaches to densify and activate urban forms to make room for water, and
- (3) utilise modelling techniques to test the performance, robustness and economic viability of proposed solutions.

Elwood and the Elster Creek Catchment have been framed as part of the 'Southern Lowlands', and more specifically, as part of the Port Phillip and Westernport 'Sunklands' at the centre of this physiographic region . A low-lying collection of swamps, bogs and marshes, flood plains, drainage schemes and channels, stretches from Gippsland to the Western Basalt Plains. Thinking of the terrain of Elwood in this way affords us a different conception of its place in the city – not only as an inner bayside suburb in a proximal relation to the Melbourne CBD – but also as part of an extended and expansive low-lying swampy region: its friends and colleagues in this discourse being places such as Carrum, Koo-Wee-Rup, West Melbourne and Werribee.

The complementary and synergistic insights from each discipline significantly enhanced the relevance, feasibility and acceptability of identified options, and enabled a broad view that prioritised liveability and sustainability benefits in addition to the core objective of flood resilience.

To imagine Elwood in 2065, a single generation away, we looked backwards to consider such issues as its indigenous past, the drainage of its swamp, its underlying geology and its building types. We then cast forward to understand and imagine how future volatile waters will change the way people and buildings behave. Through this, future buildings and landscapes are defined by water flows, that encourage new approaches to custodianship and cooperation. This foregrounding of the intermittent and dynamic nature of water flows in the low-lying parts of the city provides the foundation for a new type of urban diversity and richness. Such an approach involves a combination of behavioural adaptation measures, physical defence and strategic retreat.

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