

BEIL6010 – Sydney Urban Lab T3C 2025

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Balanced City: Biodiversity with Wiser Barriers

Acknowledgement of Country

I would like to acknowledge that this project was created on the land of various First Nations people who traditionally occupied the land. I acknowledge Aboriginal or Torres Strait Islander people, and I pay my respects to Elders past and present.



Figure 1. Distant View of Sydney Harbour, Joseph Lycett, 1817 NLA. (Source: Pyrmont History Group. First People.)



Figure 2. New Sydney Fish Market sign for the new fish market, set to open in 2026.
(Source: Author, 22/11/2025)

Introduction

For BEIL6010 – Sydney Urban Lab T3C 2025, we were asked to assess the old fish market area at Blackwattle Bay and in groups with Japanese university students from Waseda University & Tokyo Metropolitan University, develop a design project to solve the problems identified at the site. The old fish market was a poignant location for this assessment, especially with the new fish market set to open in 2026 and a number of the current problems at the site still not having been addressed. This report is a summation of our groups research, site observations and analysis of the old fish market, highlighting the problems identified at the site, our group’s solution to these problems, a design proposal for a more balanced city, one that is more biodiversity friendly, addresses a number of the social challenges found at the site and is developed with people and environment in mind, and a future plan for the further expansion of these solutions to other areas of the city.

Our group was comprised of four university students from Waseda University, Kazuma Nagata, Saki Nakatani, Shione Matsushima and Shota Nakauchi, and me, Ewen Munro, from UNSW. I'd personally like to acknowledge the hard work, ingenuity and thoughtfulness that the Waseda students in my group showed in developing the proposal for this project.

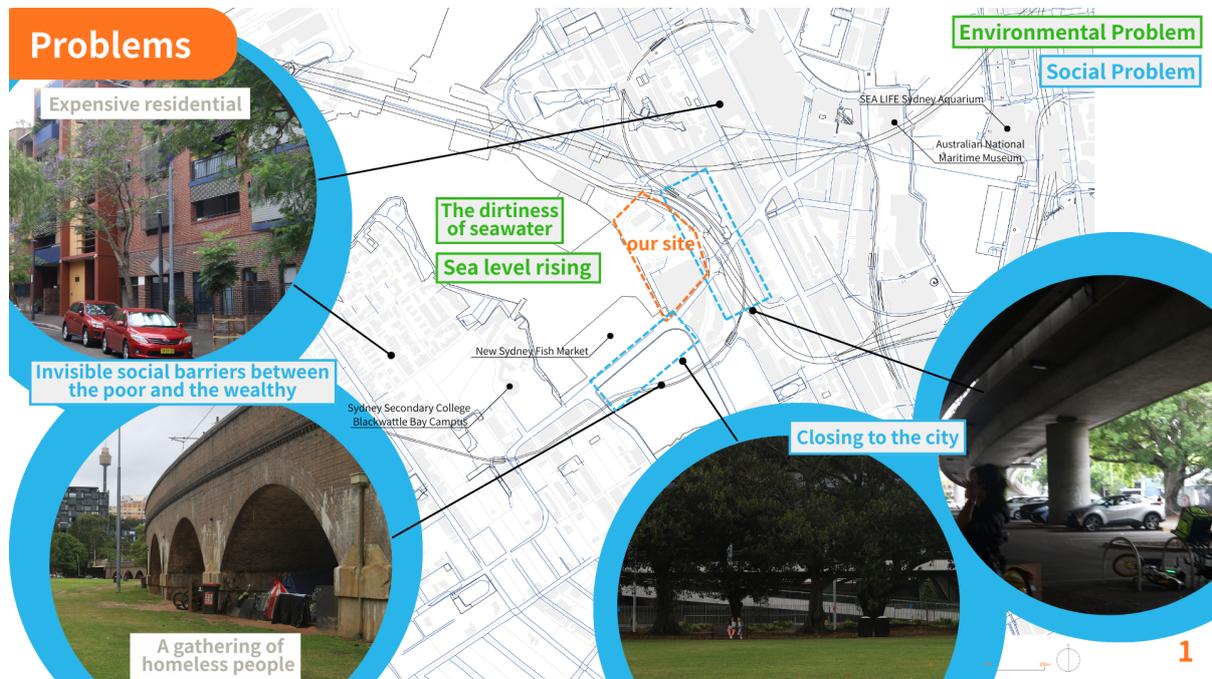


Figure 3. 'Problems' slide from group presentation. (Source: Group Presentation, Edited by Saki Nakatani, 28/11/2025)

Problems

Observing the old fish market and the areas around the site, we identified a number of environmental and social problems. Environmentally, the water in Blackwattle Bay is dirty, with the water having a dark murky texture to it, and our group observing lots of litter near and around the water, especially near the old fish market car park, and due to the lowland levels, the site is susceptible to flooding. While socially, there appeared to be a wide disparity between the wealthy and the not so wealthy. We observed a number of homeless people lingering beneath the elevated tracks in the close by open public space at Wentworth Park while the apartments located north-east of the site appear to be well kept, with one of the complexes even having its own garden courtyard, and we deduced that the residents living in this area are better

off. Looking further into these issues, we realised that the environmental problems required a sustainable solution with biodiversity in mind while the social problems required a reduction in the physical and social barriers that currently make up the site and greater accessibility from both the eastern and southern edges of the old fish market.

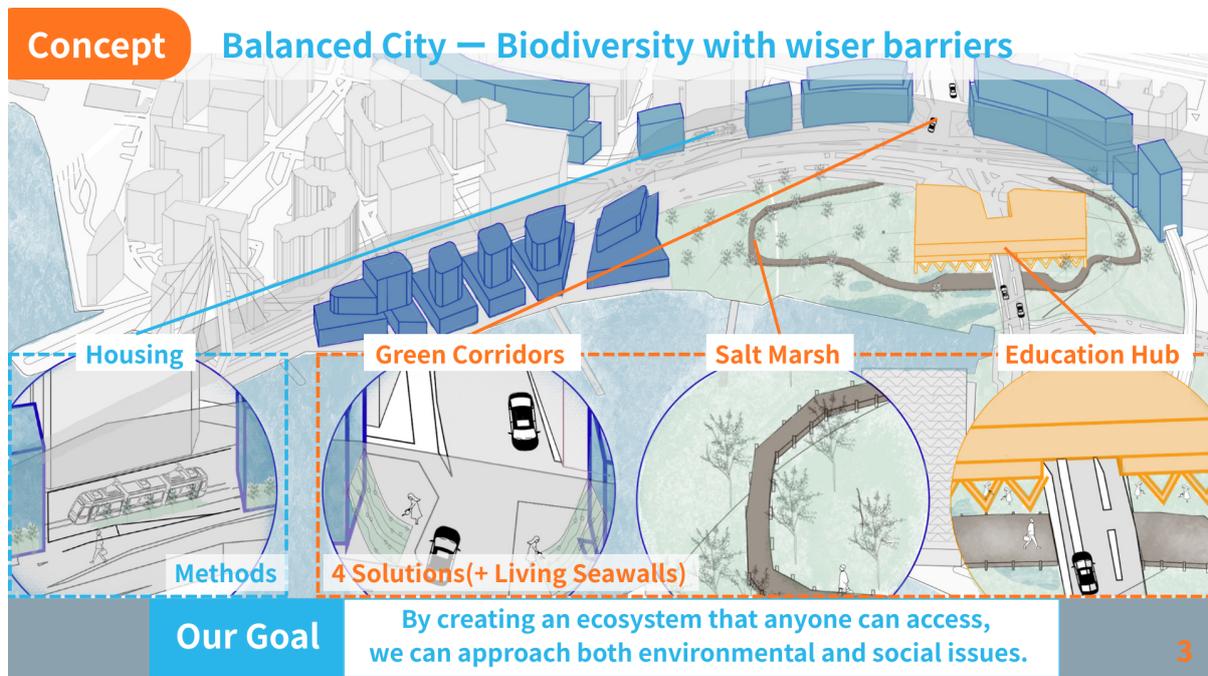


Figure 4. ‘Concept’ slide from group presentation. (Source: Group Presentation, Edited by Kazuma Nagata & Saki Nakatani, 28/11/2025)

The Goal

The overall concept that we developed to solve these environmental and social issues was the concept of the ‘Balanced City’, a city that establishes wiser barriers to preserve the balance of society and the environment of the city. By doing this, we aim to solve the environmental and social issues at Blackwattle Bay and gradually expand the impact to other areas to further regenerate the urban ecosystem and enable accessibility for all. To achieve this ‘Balanced City’, we propose a number of environmental and social solutions that complement each other. While this goal is currently in place for Blackwattle Bay and the old fish market site because of the environmental and social issues we observed there, and its potential to interconnect with

other popular sites in the Sydney CBD, this goal is not exclusive to this site and its philosophy can be utilised for other areas in Sydney, NSW, Australia, and beyond.

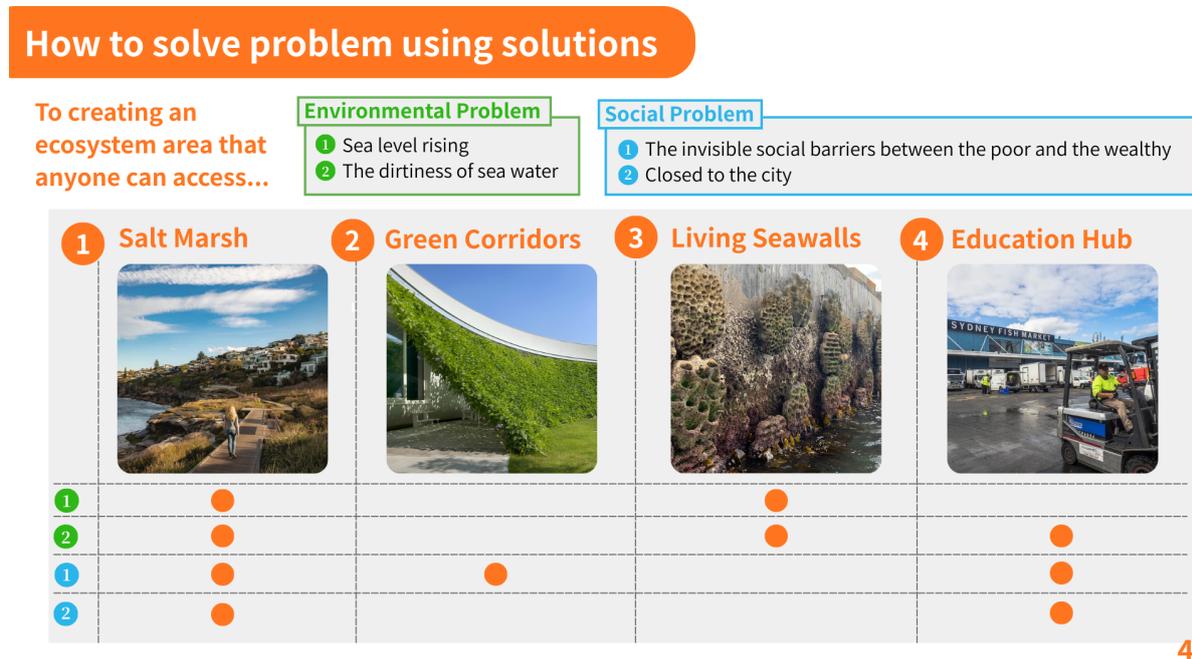


Figure 5. ‘How to solve problem using solutions’ slide from group presentation. (Source: Group Presentation, Edited by Kazuma Nagata, 28/11/2025)

Solutions

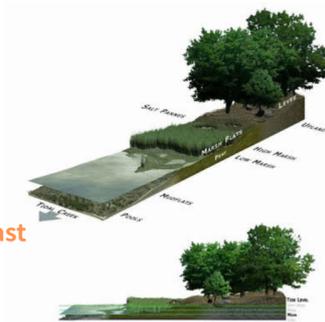
The solutions we came up with to solve the environmental and social issues at the site are a combination of salt marsh development, the implementation of Living Seawalls designs, strategic placements of green corridors and an education hub at the centre of the other three solutions.

“**Salt marshes** are coastal wetlands regularly flooded with salty seawater brought in by ocean tides. Salt-tolerant plants, such as grasses, sedges, and reeds, sprout up from the soggy ground, painting the landscape with shades of gray, brown, and green. Their mucky soils are composed of mud and peat, the latter of which is a spongy material made up of decomposing plants.” (Sustainable Travel International)

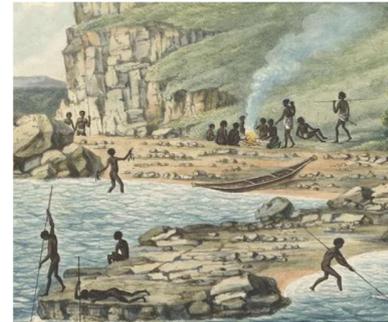
1 Salt Marsh

- Feeding grounds for animals
- Protect coast from flooding and storm
- Stores carbon in the soil
- Recognise the mistakes of the past
- Encourage values lost over time

Source: National Oceanic and Atmospheric Administration



Aborigines Spearing Fish, Joseph Lycett 1817
Source: Pyrmont History



Source: NSW Government. New Fish Market Sydney

Figure 6. 'Salt Marsh' slide from group presentation. (Source: Group Presentation, Edited by Ewen Munro & Shione Matsushima, 28/11/2025)

1. Salt Marsh

We propose to build a salt marsh in both the old fish market car park and at the space at the corner of the old fish market and Wentworth Park, and move the buildings that are currently in that corner to 14-26 Wattle St, an empty space, enabling a connected salt marsh system around the old fish market. To connect the salt marshes together across Pyrmont Bridge Rd, we propose an underground water system, similar to the water system under the new fish market (NSW Government. New Fish Market Sydney. 2025.).

Salt marshes filter water and protect the coastline from flooding and storm damage (Sustainable Travel International), helping us to solve the environmental issues of dirty water and flooding at the site. As well as this, salt marshes help to store carbon in the soils and slow climate change, and enhance biodiversity by supporting animals and food webs (Sustainable Travel International).

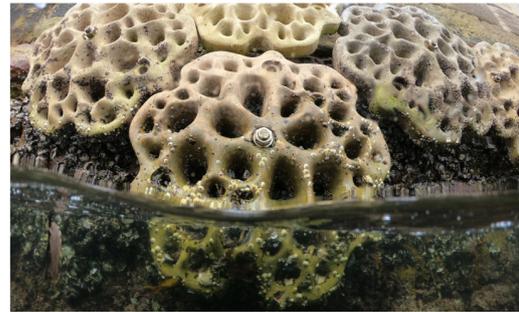
It is also worth noting that First Nations people used to use the Blackwattle Bay area for fishing and lived there sustainably before the colonialists came to the site and disrupted the

bay significantly (Pyrmont History Group. Blackwattle Bay Foreshore.). It is our view that by bringing back the biodiversity in this area that has been lost we can have two positive impacts for First Nations people: 1) recognise and learn from the mistakes of the past and 2) promote the values that have been lost.

2 Living Seawalls

- Revives species in marine ecosystems
- Enables fish to shelter and benefit from food sources
- Improves water clarity and quality

<https://www.livingseawalls.com.au/mission>



<https://www.livingseawalls.com.au/mission>



<https://www.livingseawalls.com.au/about>

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Figure 7. 'Living Seawalls' slide from group presentation. (Source: Group Presentation, Edited by Ewen Munro & Shione Matsushima, 28/11/2025)

2. Living Seawalls

Living Seawalls is a company that has recognised the problem of overdevelopment in urban areas and has come up with a solution to blend ecological concepts and engineering in creative design, helping the revival of species in these marine ecosystems (Living Seawalls). With 20 years of scientific research behind them, their designs mimic the features of natural shoreline ecosystems in urban spaces, helping fish and other marine life to shelter and benefit from additional food sources found on the panels, and to improve water clarity and quality by enhancing particle removal from the water (Living Seawalls). We propose implementing these designs along the coast on the other side of the old fish market at Blackwattle Bay to

complement our salt marsh solution in order to further enhancing biodiversity and water quality.

3 Green Corridors

- Development of urban biodiversity
- Biodiversity mitigates heat and reduces stress
- Development of trees absorbs stormwater, filters pollutants from air and provides cooling effect

<https://researchoutreach.org/blog/ecology-cities-urban-biodiversity-matters-2>



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Figure 8. ‘Green Corridors’ slide from group presentation. (Source: Group Presentation, Edited by Ewen Munro & Shione Matsushima, 28/11/2025)

3. Green Corridors

Green corridors help to develop urban biodiversity, which in turn help to mitigate heat and reduce stress, and the development of these trees along these corridors also helps to absorb stormwater, filter pollutants from the air and provide a cooling effect (City of Sydney). We propose developing green corridors towards the Darling Harbour area on the east side of the old fish market to better direct traffic between the Education Hub and Daring Harbour. It will be mentioned at the end of this report as to why we recommend producing green corridors in this area.

4 Education Hub

- Centerpiece to encourage community to value sustainability and co-living with biodiversity
- The ecosystem is becoming more diverse and its range can expand

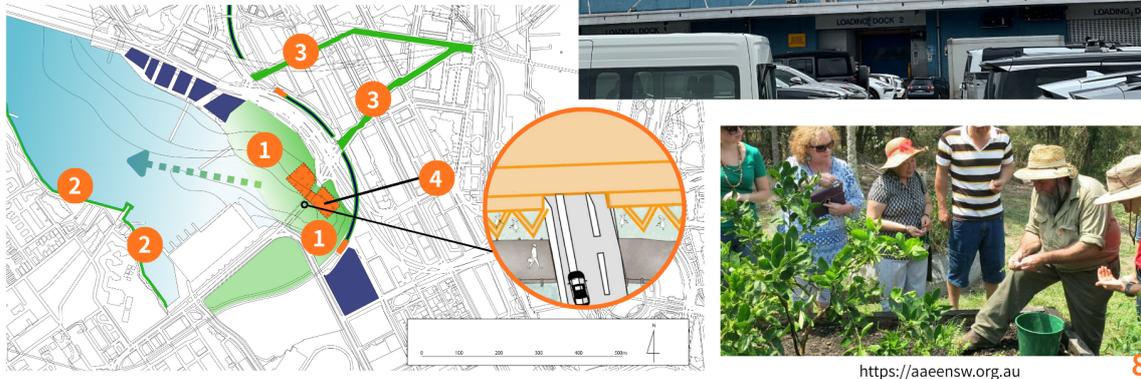


Figure 9. 'Education Hub' slide from group presentation. (Source: Group Presentation, Edited by Ewen Munro & Shione Matsushima, 28/11/2025)

4. Education Hub

At the centre of the other three solutions is the Education Hub, replacing the old fish market building. The intent behind having this education hub is to educate people on the importance of looking after their environment, even in urban spaces, through free art exhibits, seminars, workshops, and more, whilst also breaking down social barriers by providing a central point that welcomes and is accessible to all. We propose that this centerpiece be designed to encourage visitors to value sustainability and co-living with biodiversity, and in turn enhance a Connection to Country.

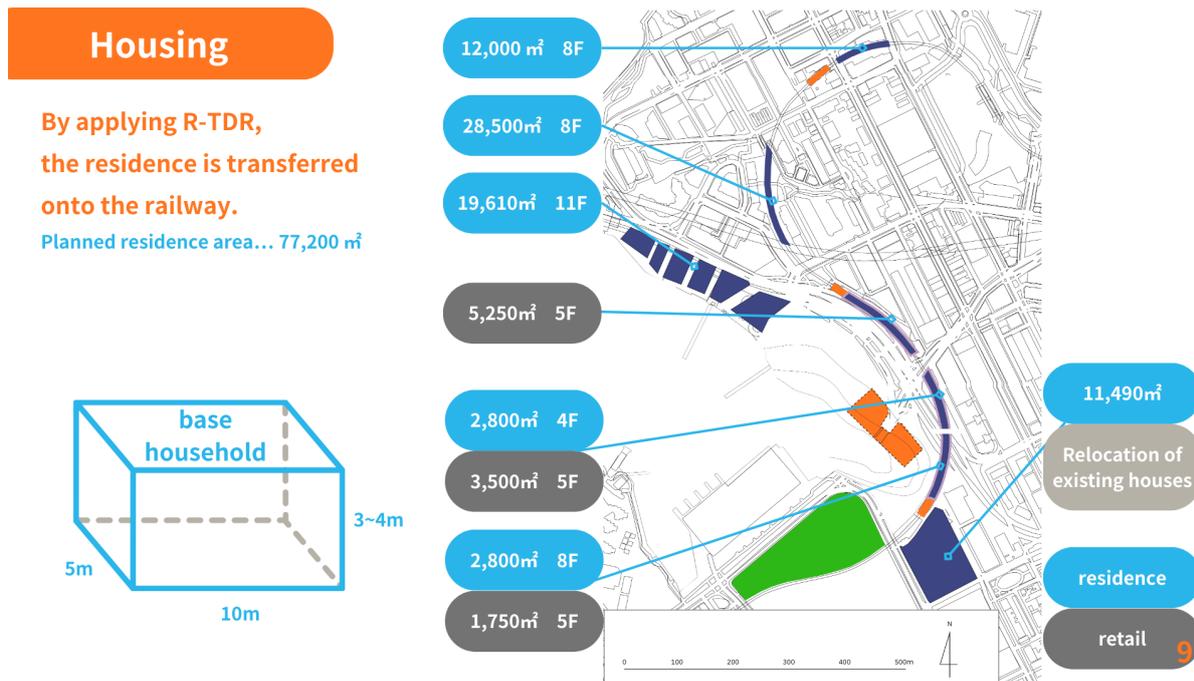


Figure 10. First ‘Housing’ slide from group presentation. (Source: Group Presentation, Edited by Saki Nakatani & Shione Matsushima, 28/11/2025)

Housing Conflict

Our group is aware that the NSW Government has finalised changes to planning controls and is about to build 1,500 new homes where the old fish market currently resides (ABC News). However, we recommend moving these homes elsewhere in order to implement the solutions we’ve proposed thus far. We suggest relocating some of these homes above the railway, where space isn’t being occupied, and relocate the remaining homes to the northern and southern sides of the site. We also propose introducing retail stores in these sections.

Housing

R-TDR planning

The height and functionality were determined based on the surrounding buildings.

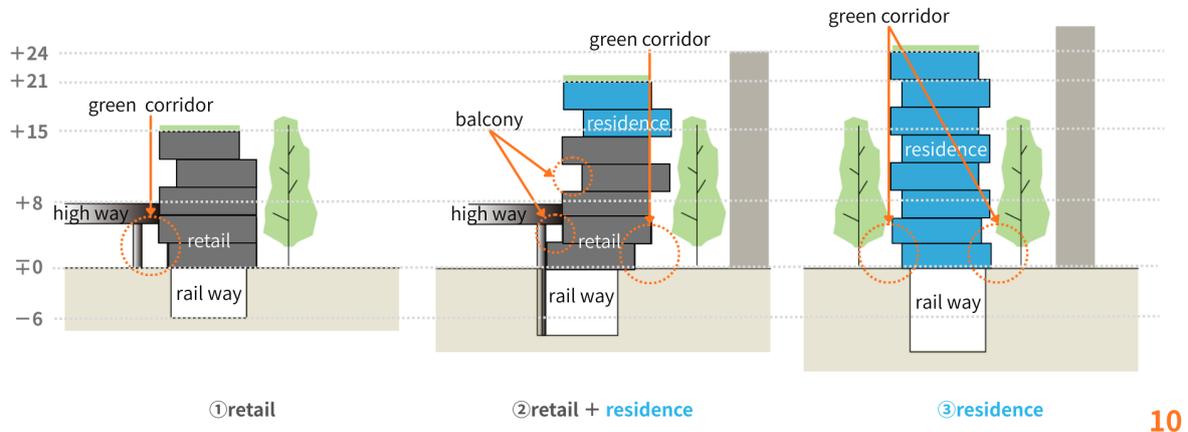
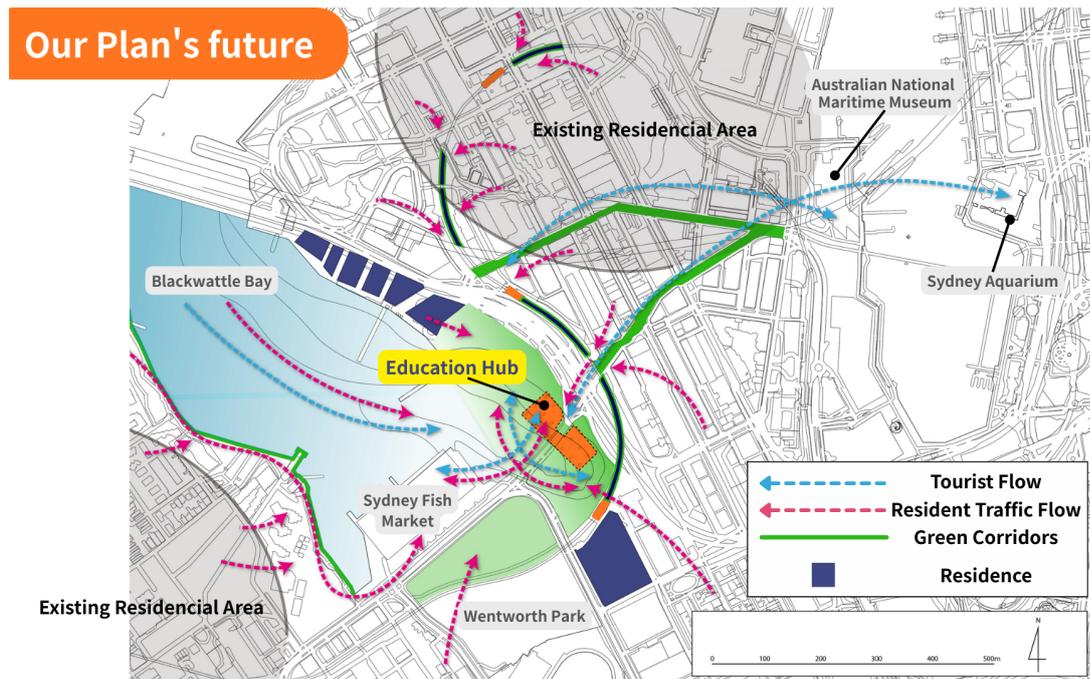


Figure 11. Second ‘Housing’ slide from group presentation. (Source: Group Presentation, Edited by Saki Nakatani & Shione Matsushima, 28/11/2025)

Based on the surrounding buildings and highway, we suggest that the retail units be located near the highway, so that the residential units be placed in areas where the sound and sunlight conditions are more suitable for living. We also suggest that residential units be placed in high-rise sections for comfortable living, and that some of these units be for social and affordable housing, as they’re much smaller and affordable to live in compared to the much larger homes that are currently around the old fish market. We also propose that green corridors be built below these residences and that there be lifts to make it easier for seniors or less capable people to get up to their units. The current design for these units are like blocks, but we also see the potential for us to develop the units in-line with the design of the railway so that the units match the railway aesthetically and make the units more visually pleasing.



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Figure 12. 'Our Plan's Future' slide from group presentation. (Source: Group Presentation, Edited by Saki Nakatani & Shione Matsushima, 28/11/2025)

Our Plan's Future

Looking ahead, what all of these ideas culminates in is a story between Sea Life Sydney Aquarium, the Australian National Maritime Museum, the Education Hub and the new Fish Market. This story is fitting for tourists and anyone else who is new to the area. The story begins at Sea Life and the Maritime Museum, where they are introduced to a variety of sea creatures, to then move towards the Education Hub, where they have the opportunity to interact with marine life and learn about co-living with these creatures to improve both the environment and society, and then to finally end up at the new fish market, where get the opportunity to taste the harvest of the sea, but this time with a much greater appreciation for marine life, biodiversity and the environment. This story will create a connection between Blackwattle Bay and Darling Harbour and increase the possibility of spreading these innovative environmental and social solutions to other areas of Sydney.

Conclusion

Our group's proposal was designed with people in mind to solve the environmental and societal problems that are currently evident at the old fish market site. The proposal reduces the area's flood risks while also aiming to create a society where everyone has access to the waterfront through green corridors and constructive solutions, enabling connections between people from all walks of life: tourists, residents, wealthy and not so wealthy, everyone. By developing these wiser barriers to solve the environmental and societal problems at the old fish market, we can create a more balanced City for All.

References

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