



# Moss Vale Plastics Recycling and Reprocessing Facility

→ Presentation to the IPC  
12 November 2024

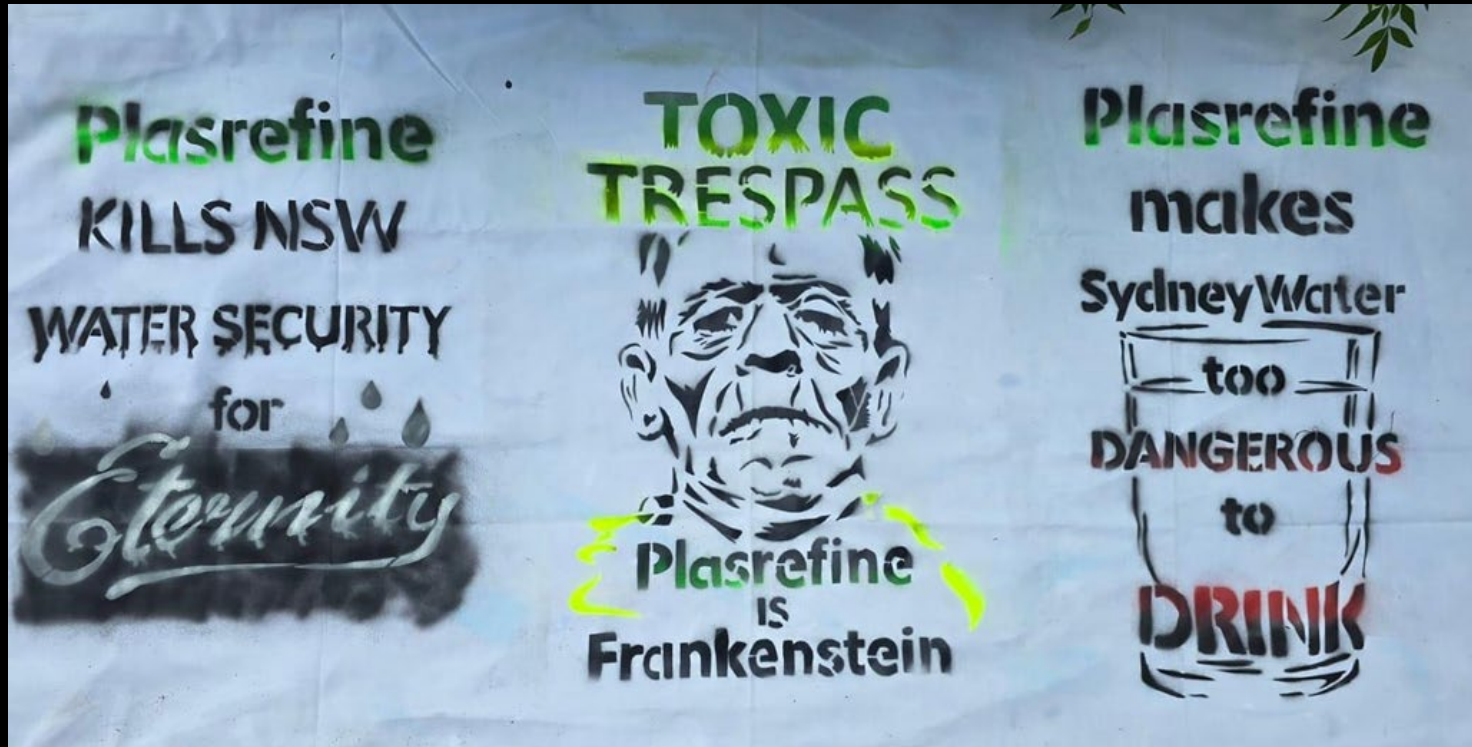
David Gamble – GHD Technical Director Waste

Romina Cavallo – GHD Technical Director  
Engagement

Sofie Mason-Jones – GHD Technical Director  
Planning and Environment



# Microplastics/PFAS



## Perception

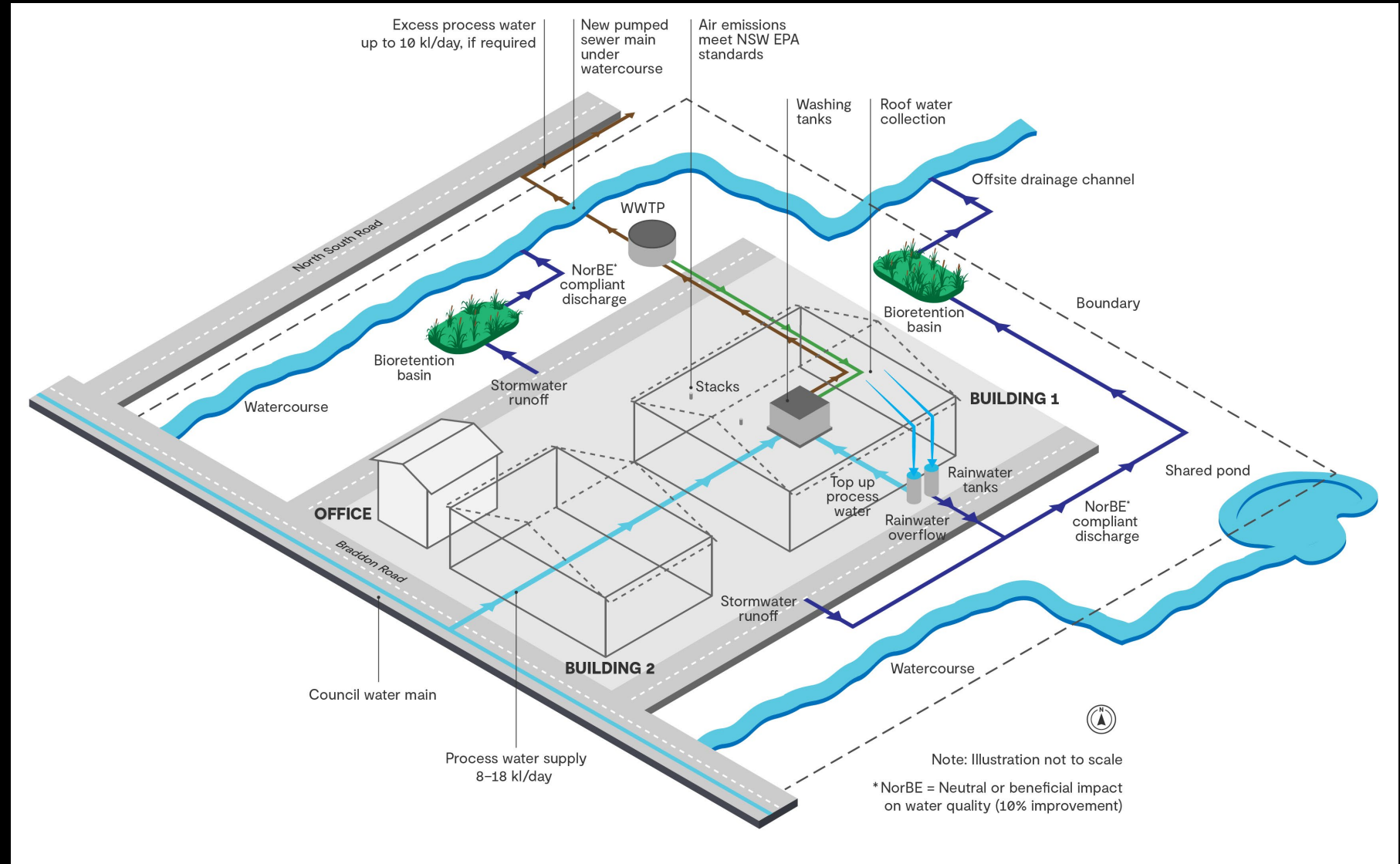
Social media indicates levels of anxiety about PFAS and microplastics from the project affecting the local environment

## Actual

- All emissions to air will meet NSW EPA standards
- No exceedances of EPA air criteria at residential properties or the ABR
- No wastewater discharges to adjacent waterways
- There is no risk to the health of people in Moss Vale from the project

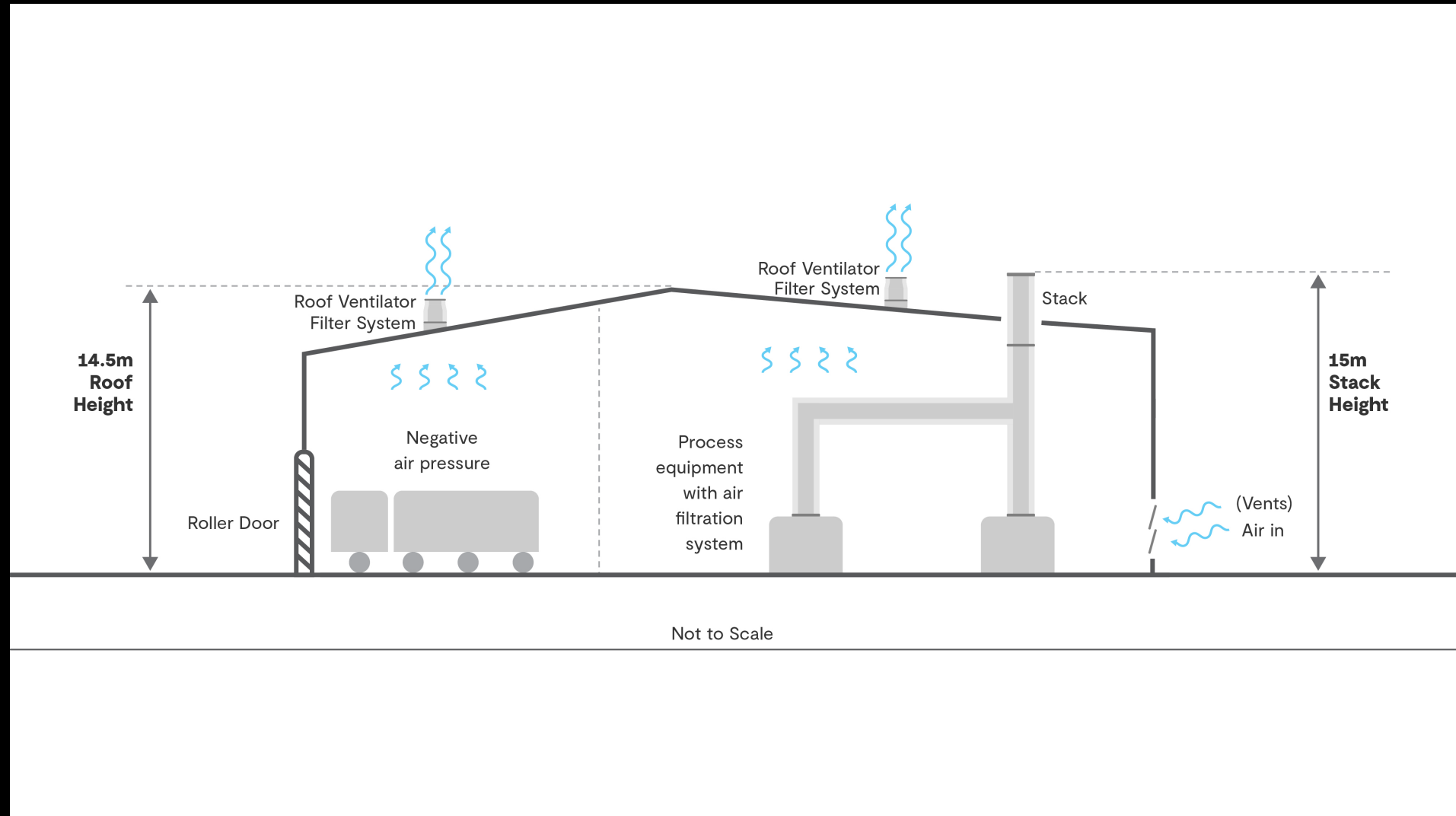
# Water and wastewater management

- Rainwater will be collected from the roof areas and used to top up the process water, used for washing the plastics.
- Water can also be drawn from the Council mains if needed. The facility will be more than 80% self sufficient at full capacity.
- Wastewater will not be disposed of to the on site waterways, but will be treated on site and continuously recirculated.
- Stormwater from the roads will be treated to the NorBE standard, and improved in quality by more than 10% before being discharged to any watercourses.



# Air emissions

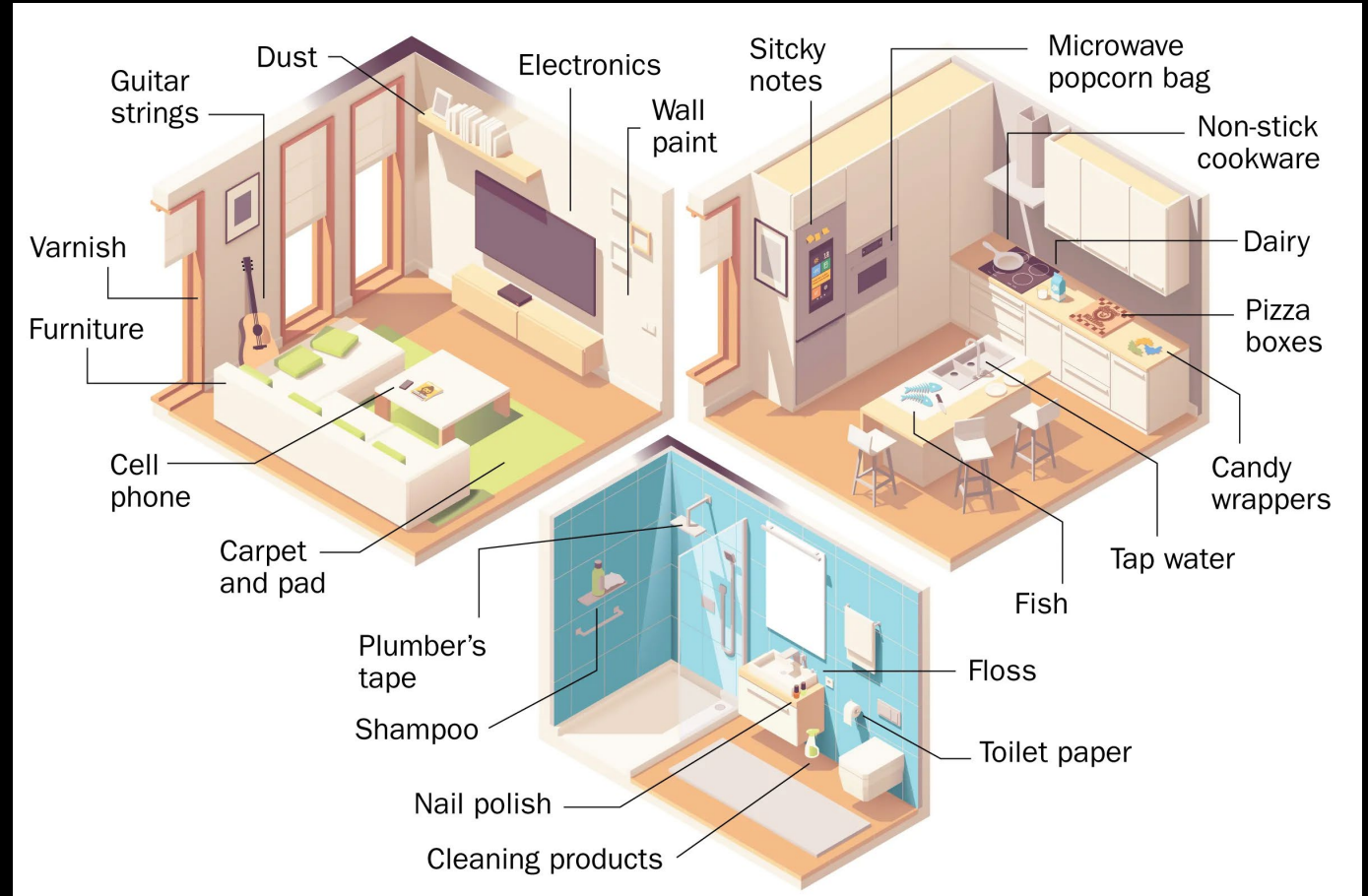
- All air associated with potential microplastics generating processes will be filtered before discharge
- EPA compliant emissions
- Negative air pressure in buildings (draws air in not out)
- Roller doors part of operational design
- Roof ventilators with filters on building roof for ventilation air





# PFAS sources in the home

- Numerous sources of PFAS in the home
- PFAS is used in many items we use daily
- Difficult to avoid exposure to PFAS
- PFAS is being removed from newer products, so it will pose a lesser risk in the future
- Health impacts still being investigated

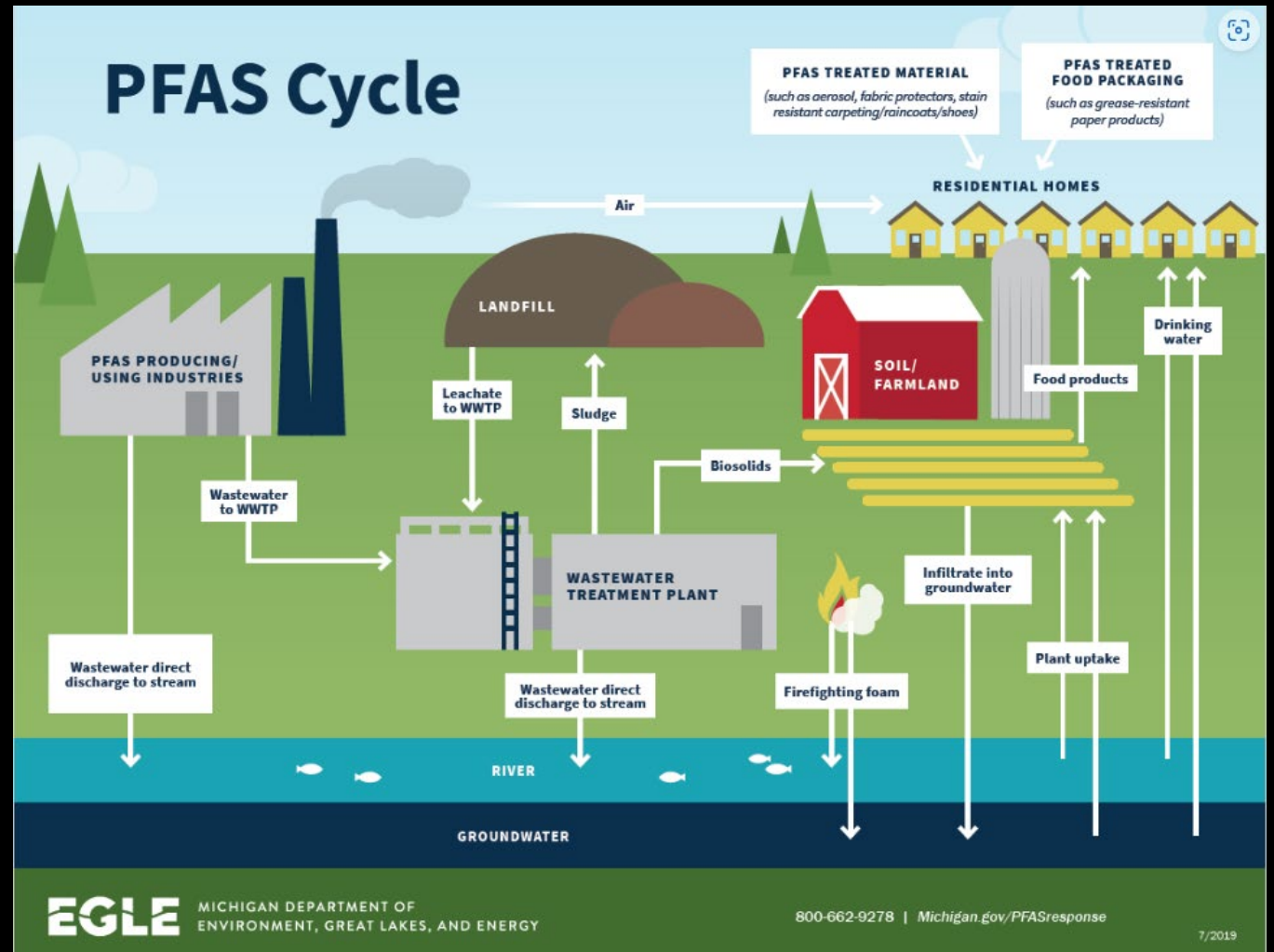


Source: Time Magazine [Everything in Your Home That May Have PFAS Forever Chemicals](#) | TIME

# PFAS sources in the environment

- There are pathways for PFAS to enter drinking water from other sources
- PFAS are highly mobile in water, and can travel long distances from their source
- The Australian Drinking Water Guidelines (ADWG) only apply to treated water. The water found in dams and other catchments is untreated water.
- The level of PFAS in drinking water supplied from Sydney's nine water treatment plants is 'very low' and meets the current ADWG levels
- The project would not affect PFAS levels in Sydney's drinking water

Source: [PFAS and drinking water](#)



Source: [Per- and Polyfluoroalkyl Substances \(PFAS\) - HAZARD EVALUATION & EMERGENCY RESPONSE \(HEER\) OFFICE](#)

# Sydney Drinking Water Catchment

- The Wingecarribee local government area is located wholly within the Sydney drinking water catchment which is 16,000km<sup>2</sup>.
- Every year there is a range of existing, new or modified residential, commercial, industrial and agricultural development and activities in the Sydney drinking water catchment.
- Since all proposed developments in this catchment are required to have a neutral or beneficial effect on water quality
- The project will use bioretention basins to improve storm water quality by at least 10% before discharge.
- The potential impact of the proposed facility on water quality is insignificant due to the proposed EPA compliant water controls, large size of the catchment (16,000km<sup>2</sup>) and associated dilution effects.





# Moss Vale wastewater treatment plant



Source: [moss-vale-stp-upgrade-ref-final-draft.pdf](#)

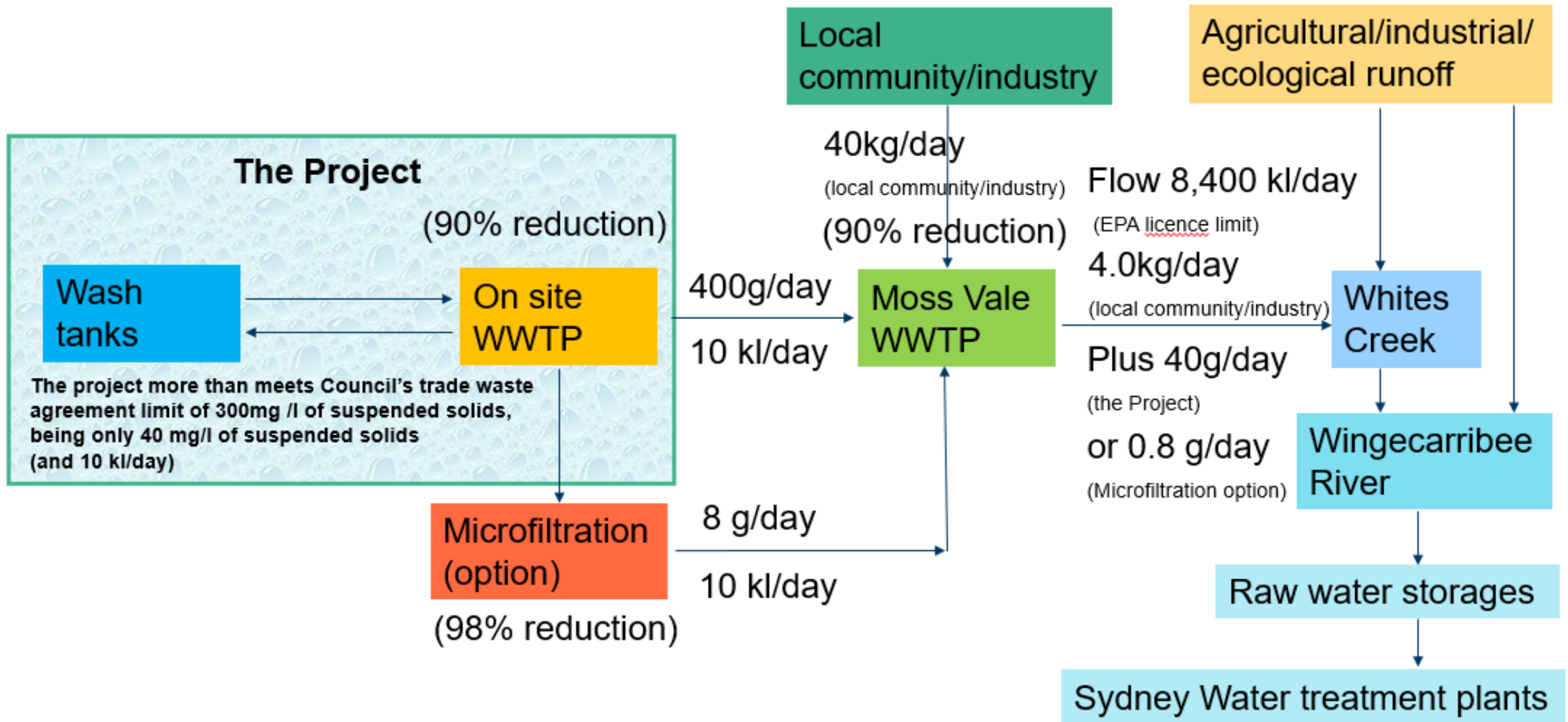


Source: [moss-vale-stp-upgrade-ref-final-draft.pdf](#)

- All wastewater discharged to sewer within the Moss Vale catchment is treated at Council’s Moss Vale wastewater treatment plant (WWTP).
- Some microplastics are currently discharged to Whites Creek after treatment at the current WWTP. Once the current Moss Vale WWTP is upgraded to a tertiary treatment plant (in 2026) it will have an increased ability to remove more microplastics.
- Plasrefine Recycling consulted with Council during the preparation of the wastewater strategy for the project.



# Microplastics and drinking water



# Material storage (in accordance with guidelines)

Unclassified



Fire safety guideline  
**Fire safety in waste facilities**

The facility has been designed in accordance with the NSW Fire and Rescue Fire safety guidelines.

Material would be stored in concrete pens which minimise the potential for fires to spread.

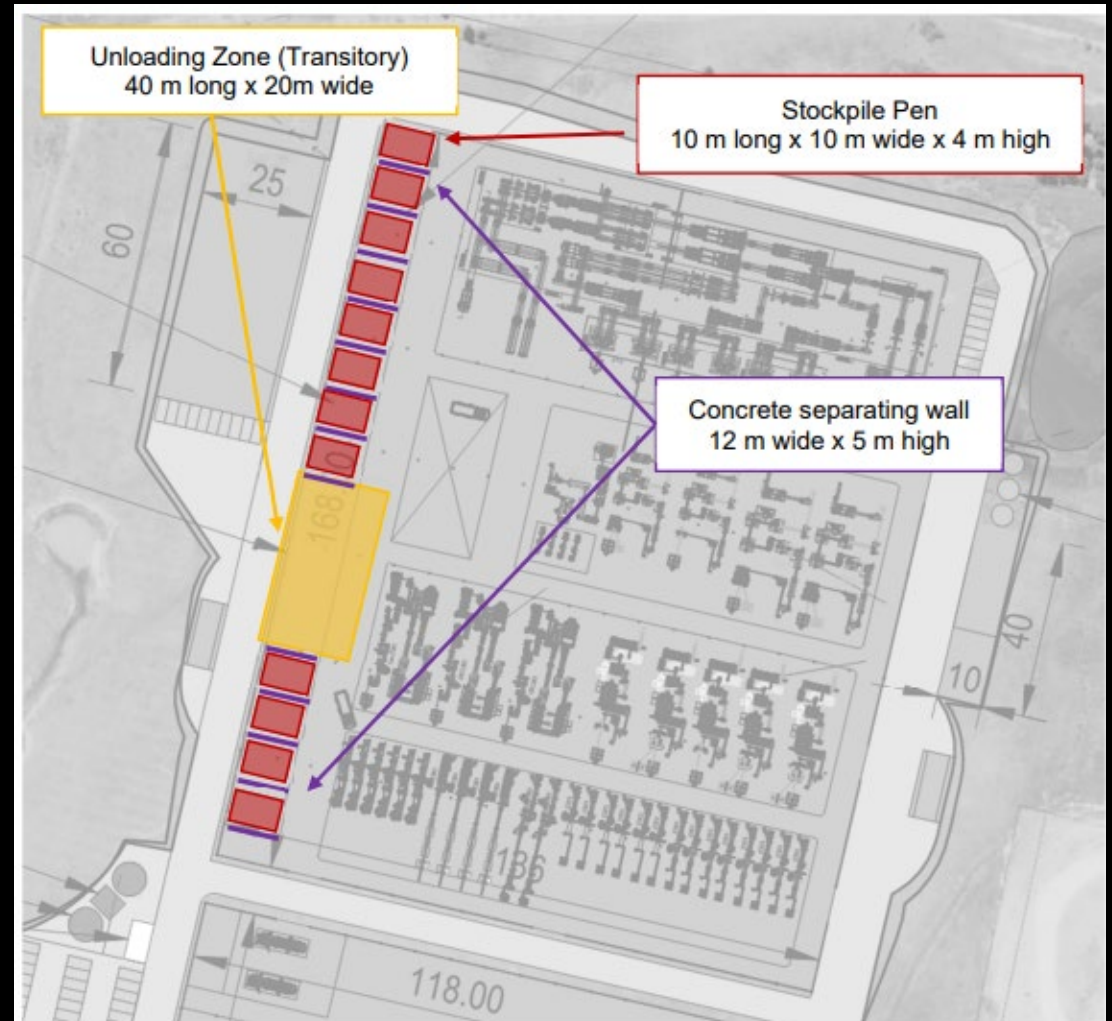


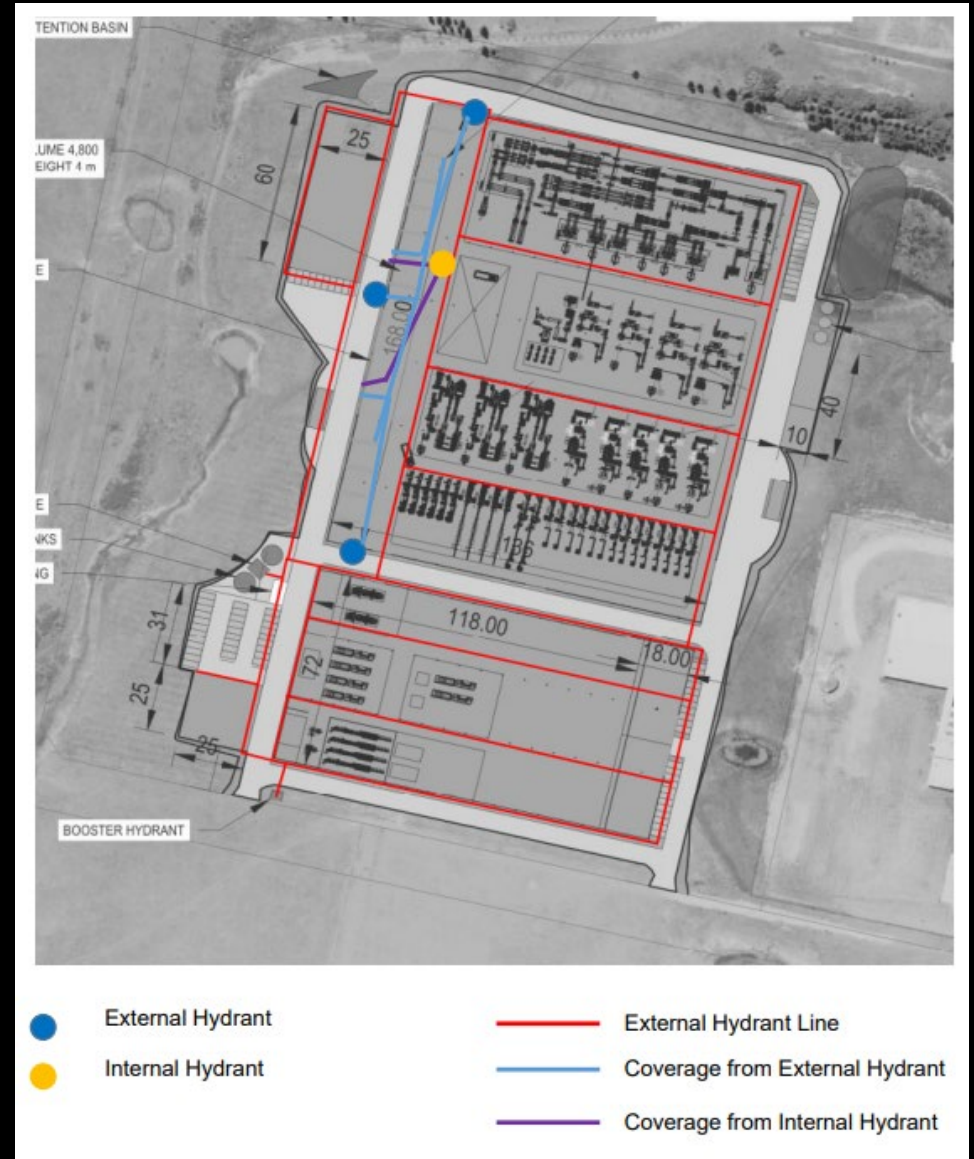
Figure 2.10 Location and dimension of concrete separating walls

# Fire management (suppression/hydrants)



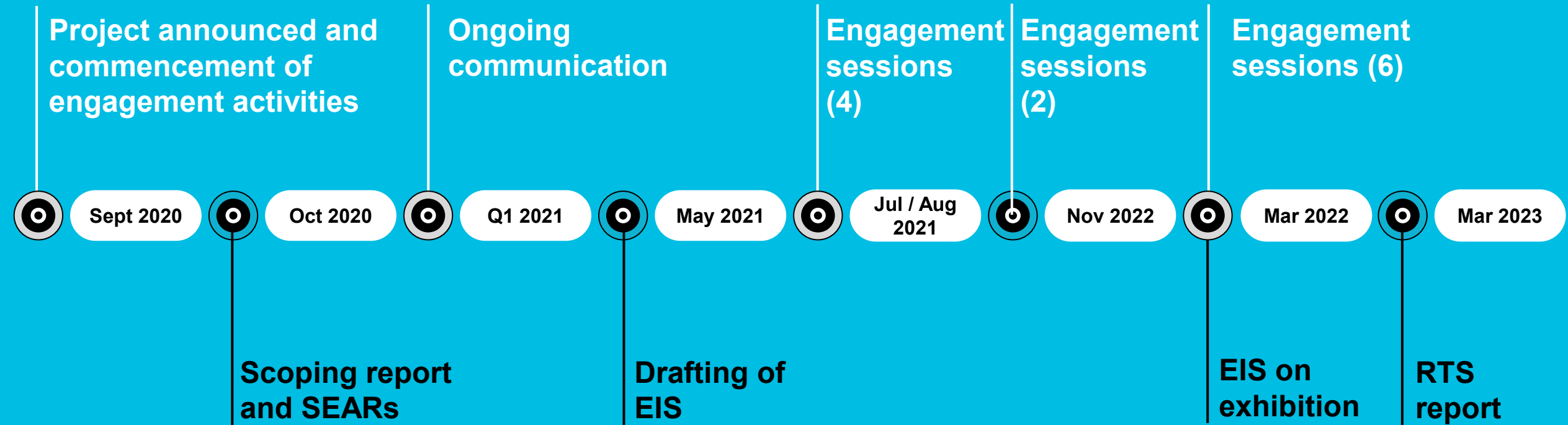
Source: [How Water Supply Factors into the Design of a Fire Sprinkler System](#)

Facility has state of the art fire protection systems including internal roof sprinklers for fire suppression and fire tanks, ring mains for fire hydrants, and booster pumps. Also, it has a ring road for fire vehicle access and entrances that meet fire-fighting requirements.



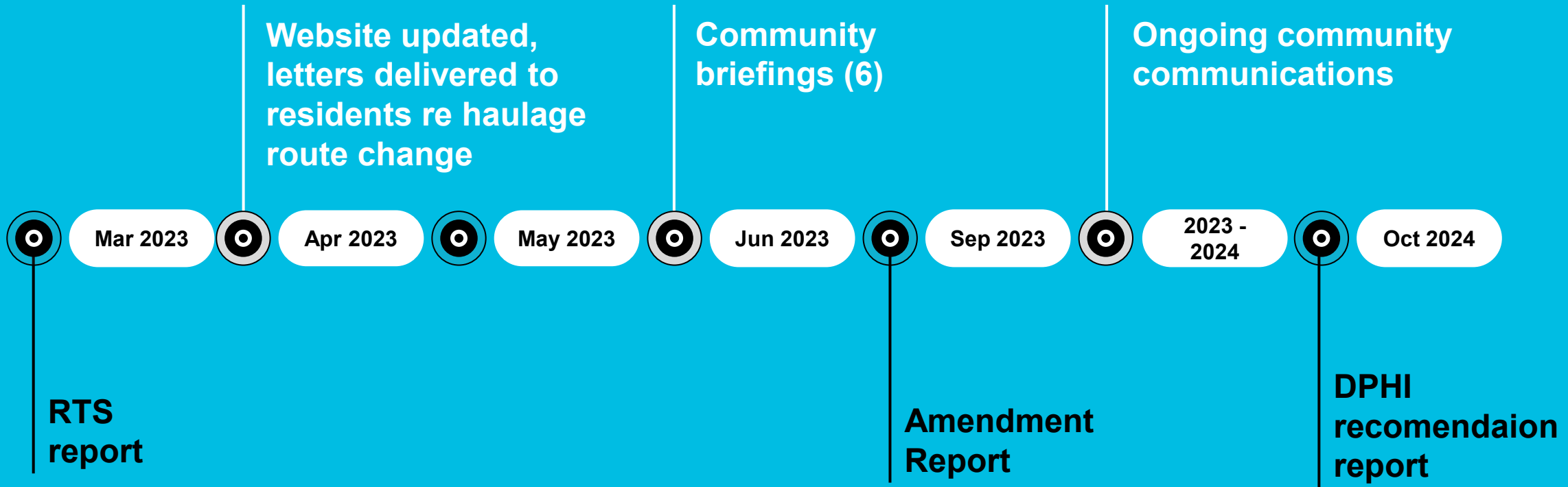


# Engagement



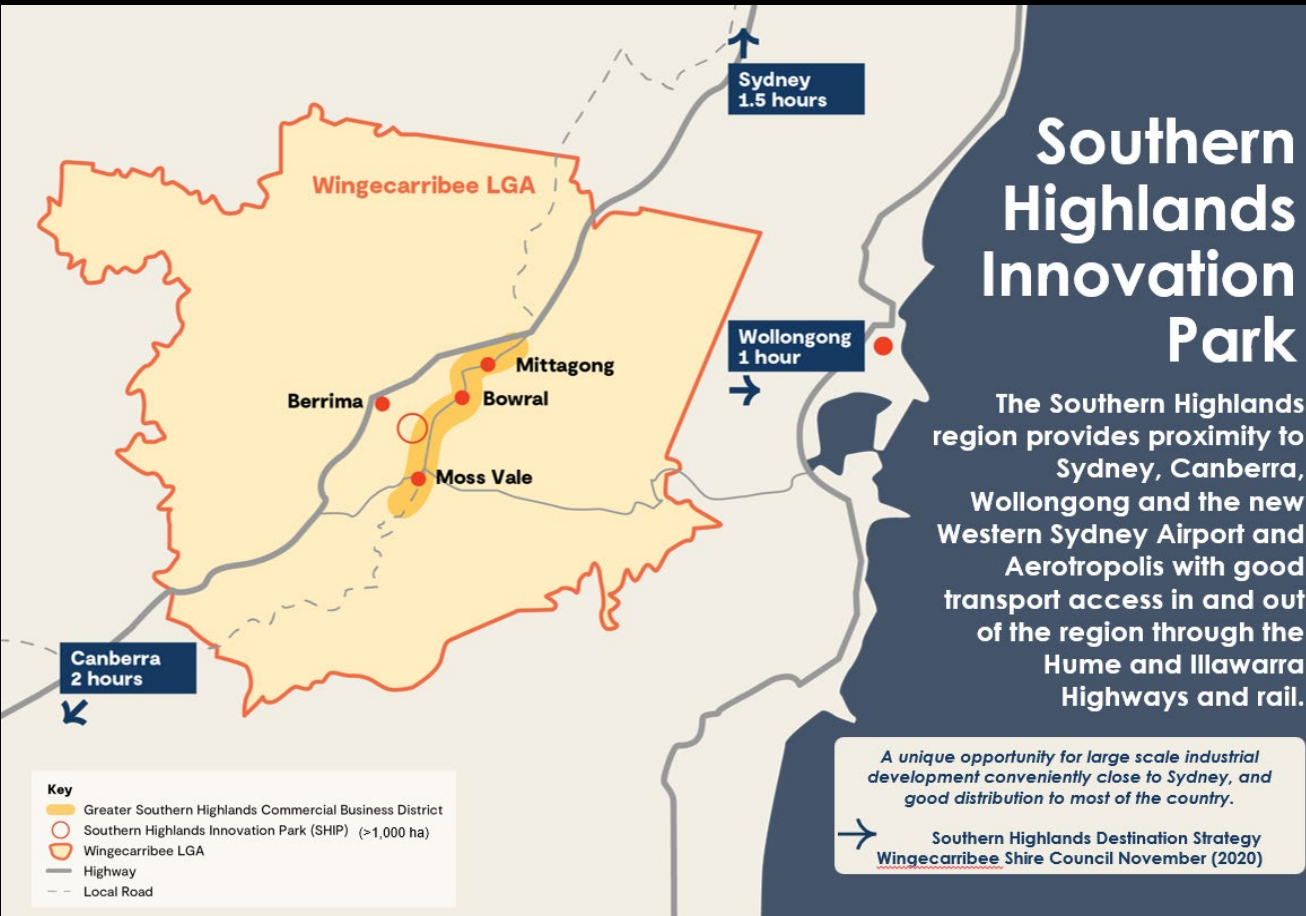
*Ongoing engagement with Wingecarribee Shire Council, DPHI, Australian BioResources and the community*

# Engagement



*Ongoing engagement with Wingecarribee Shire Council, DPHI, Australian BioResources and the community*

# Strategic Context



## South East and Tablelands Regional Plan 2036

- Prioritisation of local manufacturing opportunities
- Maximising economic opportunities arising from the area's proximity to Sydney
- Capitalising on the land availability in the MVEC/SHIP

The development is consistent with these directions.

## Wingecarribee 2040 Local Strategic Planning Statement

- Retention and restoration of the two waterways
- Extensive riparian planting and stormwater infrastructure
- New business within the MVEC/SHIP with a large and diverse workforce

The development is consistent with Planning Priorities 1.5 and 3.1

## Waste and Sustainable Materials Strategy 2041

- Diversion from landfill/resource recovery/circular economy
- Tripling the plastics recycling rate by 2030

The development is consistent with these directions.

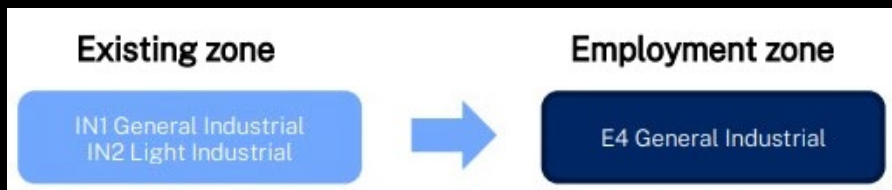
## Wingecarribee Resource and Waste Management Strategy 2023-2032

- Align with regional, NSW and national strategies including strategies to target waste streams not yet recovered e.g. plastics
- Utilise the SHIP to embrace resource recovery

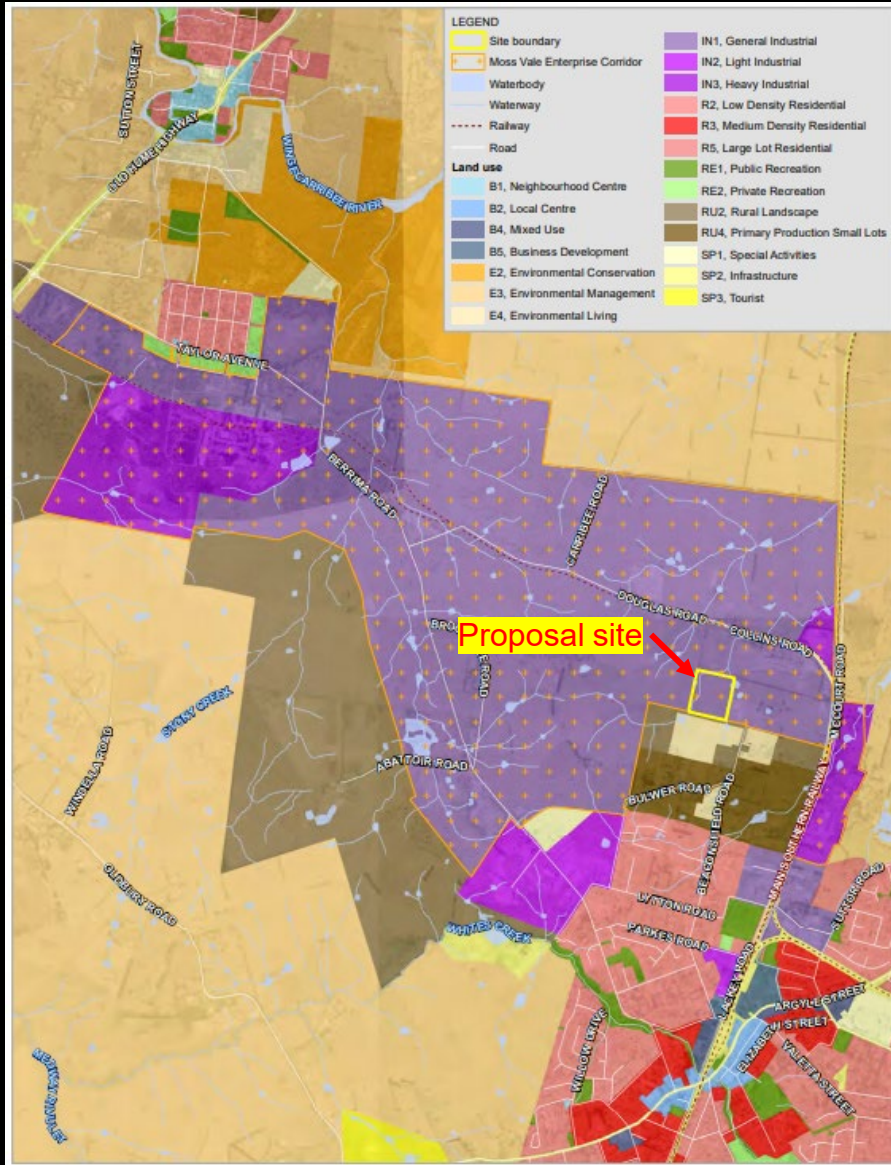
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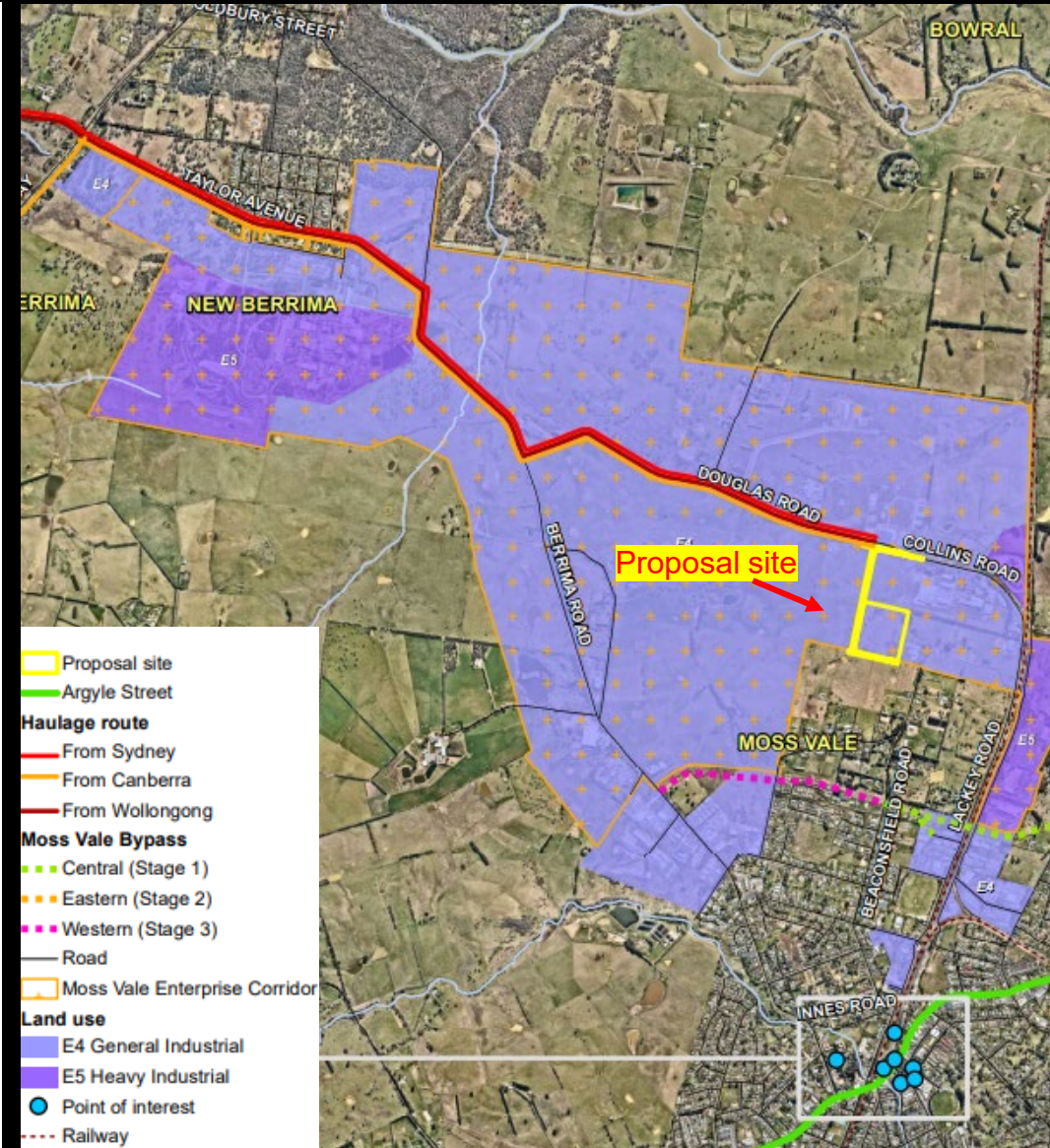
# Statutory Context



IN1 General Industrial Zoning - 2020

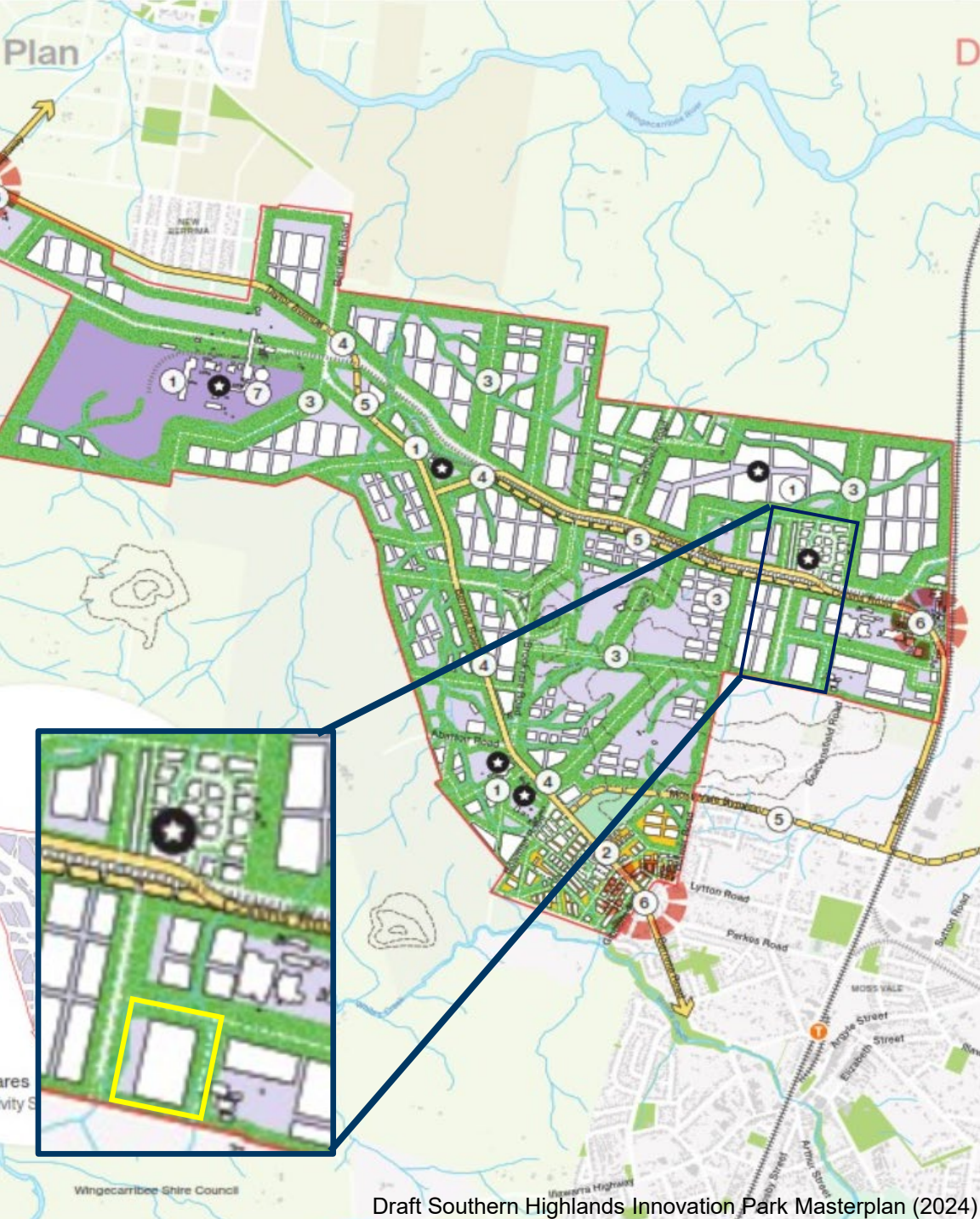


New Employment Zone (E4) took effect - December 2022



- The site has been identified for 'General Industrial' development for more than 15 years.
- 'Waste or resources management facilities' are **permissible with consent** in the E4 General Industrial zone.
- Uses permitted in the E4 General Industrial zone include: depots; freight transport facilities; garden centres; general industries; hardware and building supplies, warehouse or distribution centres.
- Unlike the industrial land to the south-west, the proposal site was never zoned for light industrial by Council as a transition/ buffer with an adjoining residential area.





# Site Suitability

- Located within the broader 1,000ha MVEC/SHIP.
  - Permissible with development consent.
  - Meets the objectives of the E4 General Industrial zone.
  - Consistent with State and local government strategies and directions.
  - Involves advanced manufacturing through the use of robotics for optical sorting, a research and development laboratory to advance recycling technology and an educational facility for improving knowledge about sustainability and circular economy.
  - All environmental impacts can be appropriately managed and mitigated through the design and operation or through recommended conditions of consent.
  - Will generate social and economic benefits through 140 jobs during operation and a capital investment of over \$88 million.
- The Department considers that this development can be realised **without significant amenity or environmental impacts** and therefore, considers the development is in the public interest and could be approved, subject to conditions.



**\* Thank You**