

# LORD HOWE ISLAND

## CRITICAL INFRASTRUCTURE PROGRAM

Thank you for joining us today to find out more about the next phase of community consultation on the Lord Howe Island Critical Infrastructure Program (the Program).

The Program is underway in discussion with the community, to deliver improvements and upgrades that are critical to everyday life for Islanders, and to support the Island's long-term future as a sustainable tourism destination. It includes precinct planning services, an upgraded waste management facility, new marine infrastructure and cargo laydown area, a new marine vessel, and related biosecurity arrangements.



### WE'RE KEEN TO HEAR FROM YOU.

Find out more and share your feedback by scanning the QR code or visiting

[www.lhib.nsw.gov.au/infrastructure/critical-infrastructure-program](http://www.lhib.nsw.gov.au/infrastructure/critical-infrastructure-program)

## YOUR EARLY INPUT

We thank all members of the community who participated in the first phase of consultation earlier this year.

Feedback indicated general support for an upgrade of the existing waste management facility and procurement of a new vessel, with various ideas about the specific design of these elements of the Program.

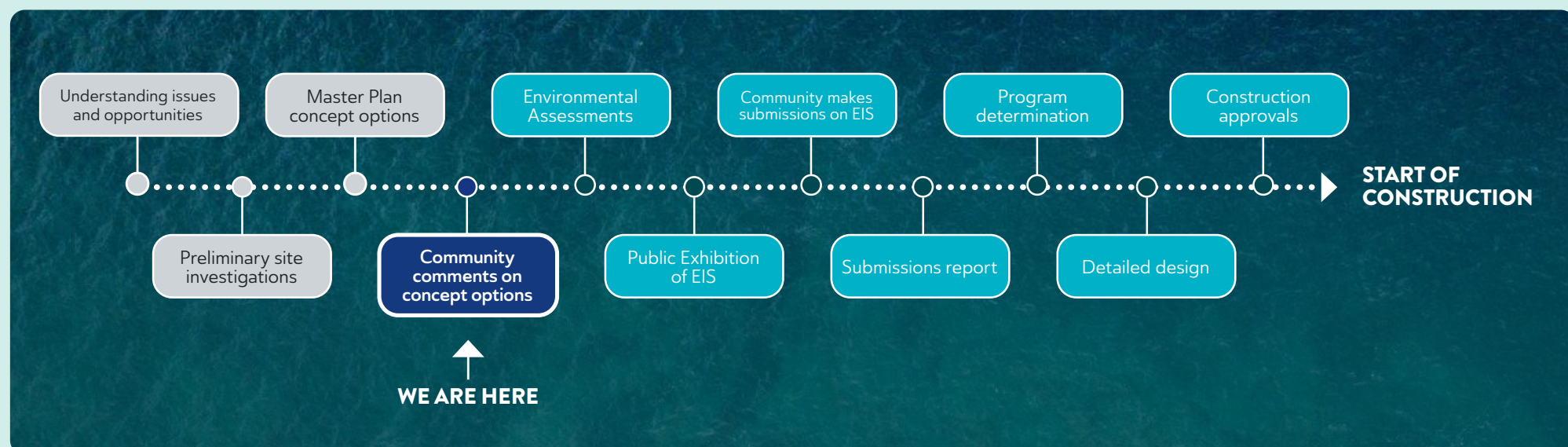
A key issue raised by members of the community was the viability of the South Zone for locating the marine infrastructure, dependent on the outcomes of relevant technical studies. These studies have now been conducted and further details are presented here today.

## PROGRESS SINCE THE CONSULTATION EARLIER THIS YEAR

The Program is currently at the 'community comments on concept options' of the planning process. Preliminary site investigations and analysis commenced earlier this year and have been used to develop the design concepts, which will inform preparation of a master plan.

### We're now seeking your feedback on the concept options.

Your insights and feedback will be considered by the project team as development of the master plan progresses, with community and stakeholder feedback one of several important inputs.



## WE'RE KEEN TO HEAR FROM YOU

We look forward to hearing from you. Please share your feedback by:

- › Speaking with a member of the project team here today
- › Sending us a submission before **Friday 31 January 2025** including your feedback (via email or hard copy) [CIP@lhib.nsw.gov.au](mailto:CIP@lhib.nsw.gov.au).

We'll also be conducting a number of interviews with community leaders to obtain their feedback as part of the consultation process. Beyond this current phase of engagement, members of the community and stakeholders will have a further opportunity to provide feedback on the draft master plan as part of the public exhibition process for the Environmental Impact Statement (EIS).

You can stay up to date and get in touch with the project team via the Lord Howe Island Board webpage at [lhib.nsw.gov.au/infrastructure/criticalinfrastructure-program](http://lhib.nsw.gov.au/infrastructure/criticalinfrastructure-program).



# DETAILED SITE INVESTIGATIONS

## ECOLOGICAL SURVEYS



## CONTAMINATION INVESTIGATIONS



## MEASUREMENT OF WAVE MOVEMENTS



Setup

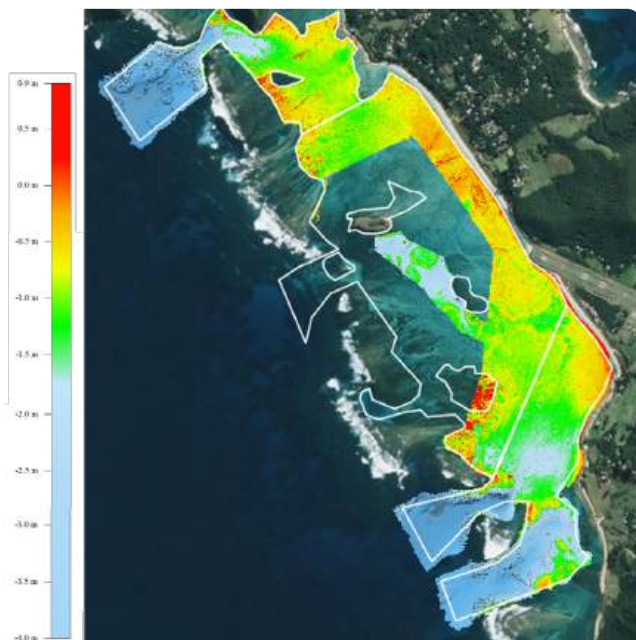


Towing to site



Deployment

## HYDROGRAPHIC (BATHYMETRIC) SURVEY



## DEVELOPING A STRONG UNDERSTANDING OF THE SITE AND CONDITIONS

A number of important site investigations have been undertaken to determine the most appropriate approach to deliver an improved level of service as part of the Critical Infrastructure Program.

- › **Hydrographic (Bathymetric) Survey**

This survey was conducted to determine the seabed profile in a defined area within the Lord Howe Island lagoon. This information is critical to inform the design and location of the marine infrastructure, and to identify a suitable navigation channel for the marine freight vessel.
- › **Acoustic Doppler Current Profiler (ADCP) Measurements**

The purpose of the survey was to measure current velocity profiles (wave movement) inside and outside the Lord Howe Island lagoon. This has been used to develop the design and location of the marine infrastructure.
- › **Waste Management Facility Site Contamination Investigations**

The purpose of these investigations was to assess the potential for contamination to be present at the site, from past or present activities. The investigations also assess if contamination at the site poses a risk to human health or the environment.
- › **Ecological Surveys (Vegetation Mapping and Threatened Species Surveys)**

The purpose of these surveys is to assess the presence of threatened species within the Project Areas, and to undertake vegetation mapping.
- › **Terrestrial Surveys**

The purpose of the feature and level surveys is to allow for design development to be considerate of site configuration, existing assets and constraints.

The findings of these studies have been used to inform development of the design concepts, which are presented for your feedback.

As part of the next phase of work, the project team will continue to undertake additional surveys and investigations to inform a preferred master plan.





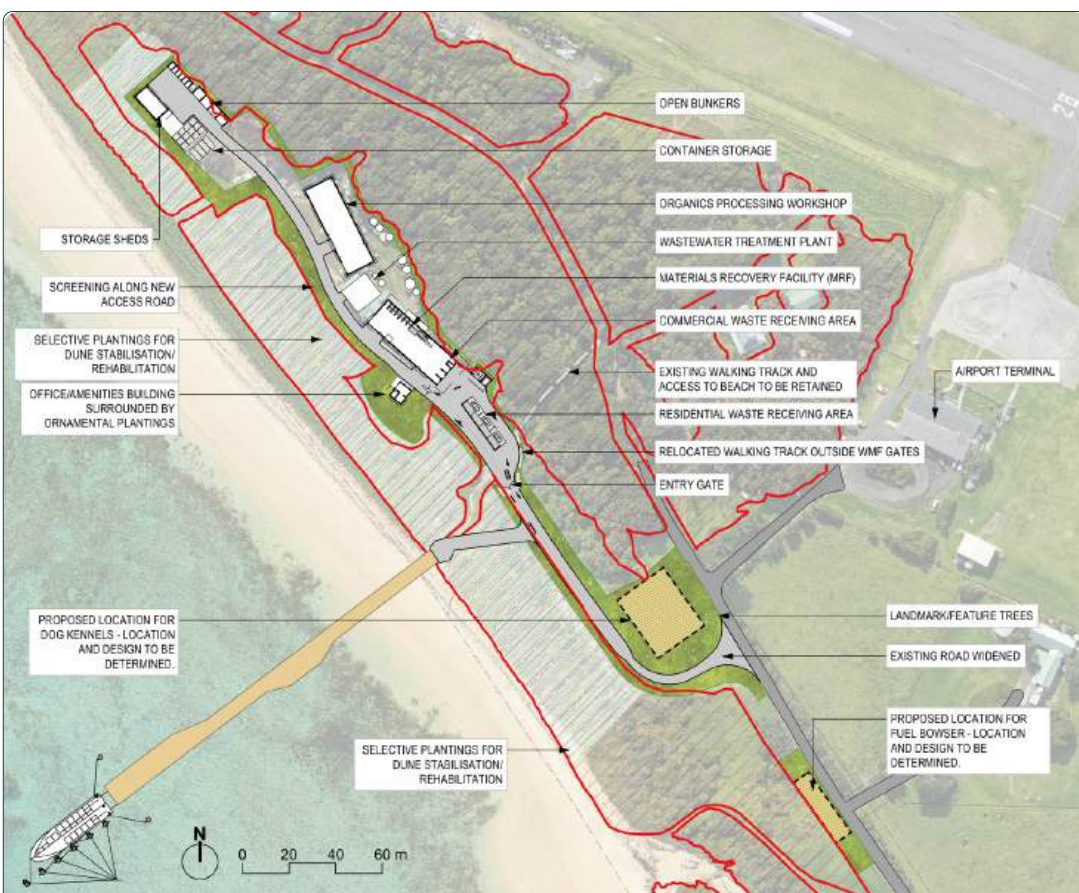
# SOUTH ZONE MARINE INFRASTRUCTURE ASSESSMENT



Extensive work has been undertaken to progress the Program since the consultations earlier this year. This includes site investigations, environmental, engineering and operational assessments which have identified a number of important considerations.

On the basis of the findings from the various investigations and studies, it has been determined that the initial proposal to locate marine infrastructure in the South Zone is not viable, for the following reasons:

- › Challenges associated with **marine freight operations** due to exposure to weather and wave conditions in the South Zone.
- › Delivery would be likely to become **cost prohibitive** as a result of the increase in ramp length.
- › **Significant environmental impacts** on the lagoon environment relating to the use of Erscotts Passage, for both construction of the marine infrastructure and ongoing operation of the marine freight service.
- › **World Heritage and Marine Park** considerations and constraints.
- › **Physical requirements** for the marine infrastructure which would mean a vessel jetty length of more than 170 metres, in order to achieve keel clearance for the new vessel in the shallow lagoon, resulting in a significantly greater cost than initially anticipated.
- › **Visual impacts** of a vessel jetty structure, at the above scale, on the lagoon environment.
- › **Community sentiment** which indicated the majority of people who participated in the earlier consultations did not support establishment of marine infrastructure in the South Zone.
- › Challenges associated with obtaining **environmental planning approvals** due to the environmental and visual impacts.



## SOUTH ZONE MARINE INFRASTRUCTURE ASSESSMENT PLAN

### LEGEND

- |                                   |                             |
|-----------------------------------|-----------------------------|
| LEP-Significant Native Vegetation | Proposed New Sealed Surface |
| Existing Sealed Surface           | Proposed Landscaped Areas   |
| Existing Unsealed Surface         | Dune Rehabilitation         |



SOUTH ZONE LAGOON



# NORTH ZONE MASTER PLAN DESIGN



Artist impression of North Zone during vessel loading / unloading

The North Zone Master Plan has been prepared based on progression of marine infrastructure in the North Zone to receive the new vessel and accommodate cargo and biosecurity requirements, and what we heard as part of the consultation process, and ongoing engagement with Government Agencies and the Community Consultation Group.

The North Zone Master Plan includes a proposed foreshore walk and viewing platform that connects in Lagoon Road in the north through to Thompson Memorial Park in the south. The Master Plan includes broader landscaping to improve public amenity.

The North Zone Master Plan Design includes:

- › A new redesigned cargo laydown area including container storage and biosecurity shed.
- › Marine infrastructure located adjacent to the upgraded jetty, which is currently under engineering and operational assessment.
- › A new foreshore walk connecting with Lagoon Road at the north and the gravel track to Thompson Memorial Park to the south\*.
- › A new viewing platform and picnic area\*.
- › Day parking for trailers to the south and north of the jetty is in the water.
- › Car parking along the south side of Lagoon Road.
- › An upgrade to the boat ramp is also under assessment\*.

\*subject to funding



## NORTH ZONE MASTER PLAN

### LEGEND

- |                                   |                          |
|-----------------------------------|--------------------------|
| Proposed Unit Paving              | Proposed Landscaped Area |
| Existing Sealed Surface           | Proposed Turf/Lawn       |
| Temporary Secured area            | Existing Tree            |
| Proposed Retaining Wall           | Proposed Tree            |
| Proposed Timber Deck              | Proposed Feature Tree    |
| Proposed Gravel Track             |                          |
| LEP-Significant Native Vegetation |                          |





# NORTH ZONE CONCEPT DESIGN



Artist impression of North Zone during recreational period

The North Zone Concept Design includes marine infrastructure, biosecurity infrastructure and a multi-use area which can be utilised as a cargo laydown area during vessel, operations and a space for community when it is not in use.

**We'd like to hear from you about how you think this space can be used by community outside of vessel operations.**

The North Zone Concept Design includes:

- › The heritage amenities building, and Norfolk Island Pines retained in their current locations.
- › Adaptive reuse of the heritage building for office and amenities\*.
- › Marine Rescue retained in its current location.
- › New office building and storage for Marine Parks, TfNSW and LHIB\*.
- › The biosecurity shed positioned on the south side of the jetty.
- › Considering "multi-purpose use" of all areas.
- › The container unstuffing shed which also serve as a storage for forklifts and other equipment when not in use.
- › A portion of the container storage area can be used for boat maintenance when not in use for container storage.

\*subject to funding



## NORTH ZONE CONCEPT PLAN

Vessel operations not in progress

### LEGEND

- Proposed Unit Paving
- Existing Sealed Surface
- Proposed Retaining Wall
- Proposed Timber Deck
- Proposed Gravel Track
- LEP-Significant Native Vegetation
- Proposed Landscaped Area
- Proposed Turf/Lawn
- Proposed Bioswale Area
- Proposed Truck Queuing [4 spaces]
- Proposed Truck Parking [10 spaces] and Car Parking [1 space]
- Existing Tree
- Proposed Tree
- Proposed Feature Tree
- Tree to be removed
- Water Tank



## NORTH ZONE CONCEPT PLAN

Vessel operations in progress

### LEGEND

- Proposed Unit Paving
- Existing Sealed Surface
- Proposed Retaining Wall
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# SOUTH ZONE MASTER PLAN



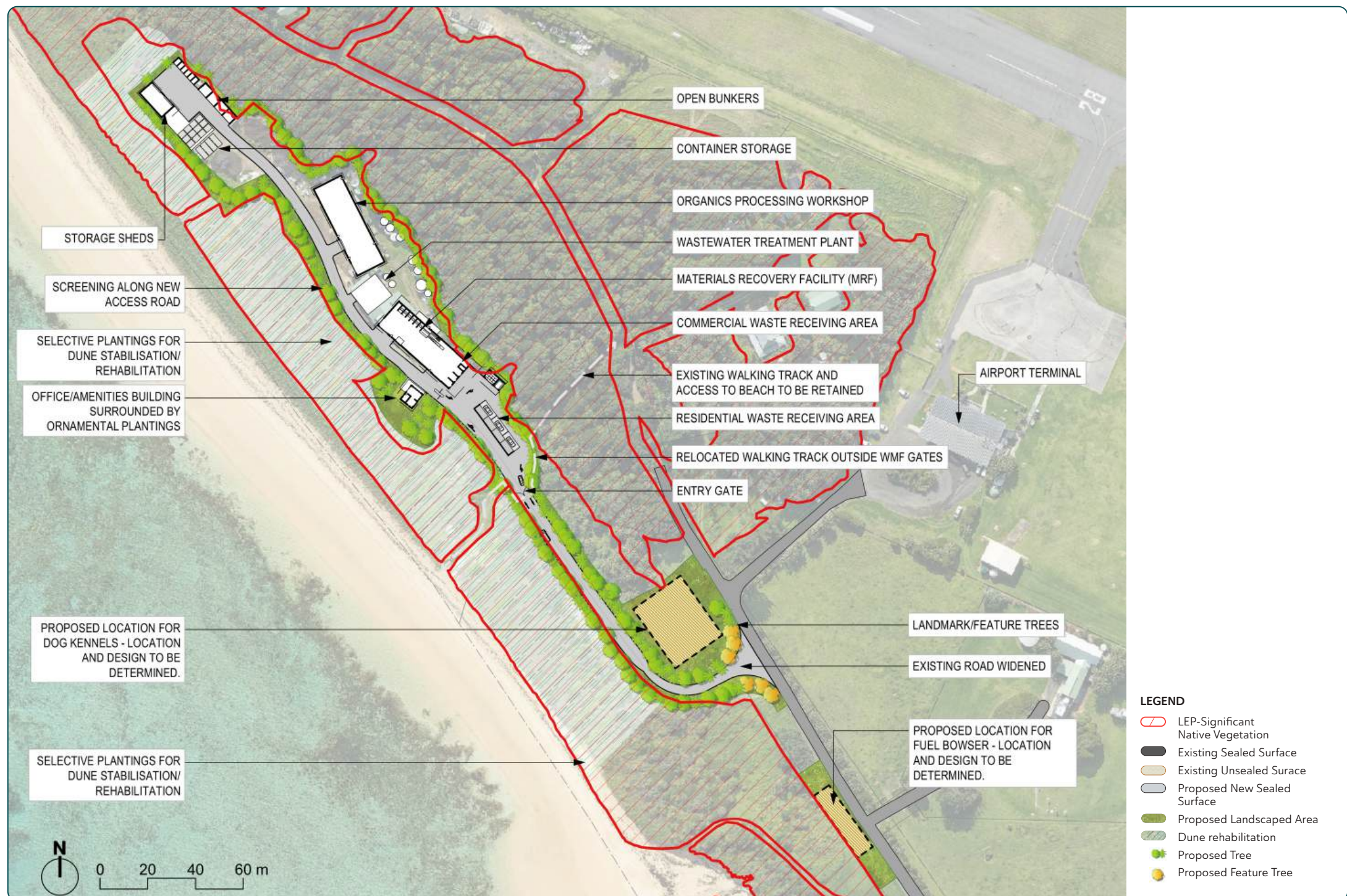
Artist impression of entry gates

Building on what we heard from the community as part of the earlier consultations, the concept design for the upgraded Waste Management Facility has been progressed.

The South Zone Master Plan incorporates the upgraded Waste Management Facility and potential locations for dog kennels and fuel bowser (subject to further investigation to funding).

The South Zone Master Plan aims to avoid Significant Native Vegetation, is designed within the existing footprint of the existing facility, and proposes to retain the dunes for both wind protection sand and to provide visual screening.

## SOUTH ZONE WASTE MANAGEMENT FACILITY MASTER PLAN





# WASTE MANAGEMENT FACILITY CONCEPT DESIGN



Building on what we heard from the community as part of the earlier consultations, the concept design for the upgraded Waste Management Facility has been progressed.

The objective of the upgraded facility is to achieve:

- › Effective separation of waste reception and waste processing to control public access to the facility.
- › Improved efficiency in waste processing and management (recyclables, organics, septic waste) by implementing new infrastructure and technology with a high level of automation to reduce dependence on manual labour and personnel.
- › Effective and safe waste storage for materials directly transported to the mainland.

Construction of the new waste management facility will be staged to ensure compliant operations, with further community consultation to be undertaken as part of its detailed design.

## 1. Residential Waste Receiving Area & 2. Commercial Waste Receiving Area

The new facility will consist of drive-through drop-off areas, split into commercial drop off zone and residential drop off zone. The drop off areas will feature labelled, secure containers designated for specific types of waste.

The area is to be separated from the processing area to limit public access to the processing part of the facility, avoid contact with equipment or stored material, and prevent unauthorised waste dumping inside the processing site. Direct access will be allowed to the septic truck contractor and for special delivery/collections which is to be coordinated with the facility's personnel.

The design will consider various types of vehicles and their required turning circle and to facilitate traffic flow.

## 3. Chemical Shed

Reception and storage of chemicals will take place in the reception area where an IBC will collect used cooking oil and motor oil. A special section will also receive solid chemicals in drums, cans, or other. This area will be equipped with bunding and designed securely to handle various hazardous materials.

## 4. Office

The staff office will be located apart and detached from the processing area and close to the reception hall to facilitate inspection of incoming materials and assist visitors if required.

## 5. Materials Recovery Facility

A new Materials Recovery Facility (MRF) will be established, featuring a redesigned working platform to ensure secure and safe operating conditions. Equipment will include a feeding hopper, conveyors, glass screen, magnet, a picking station, six capture bunkers, a baler, and wrapper.

## 6. Waste Water Treatment Plant

The waste water treatment system will be replaced by a new automated treatment facility to reduce the need of operators to manually operate the different stages of wastewater treatment.

## 7. Organics Processing Workshop

The organics processing workshop will encompass a fully enclosed building which will confine the organics feed processing, HotRot equipment (or similar), a workshop for staff and storage for equipment.

## 8. Storage Piles

The storage piles will be in an open area and on hardstand.

## 9. Open Bunkers

Bunkers will receive material disposed in the reception area to accumulate enough volume that justify its processing or feed into transport bins. Bunkers will also be considered for post processed material storage.

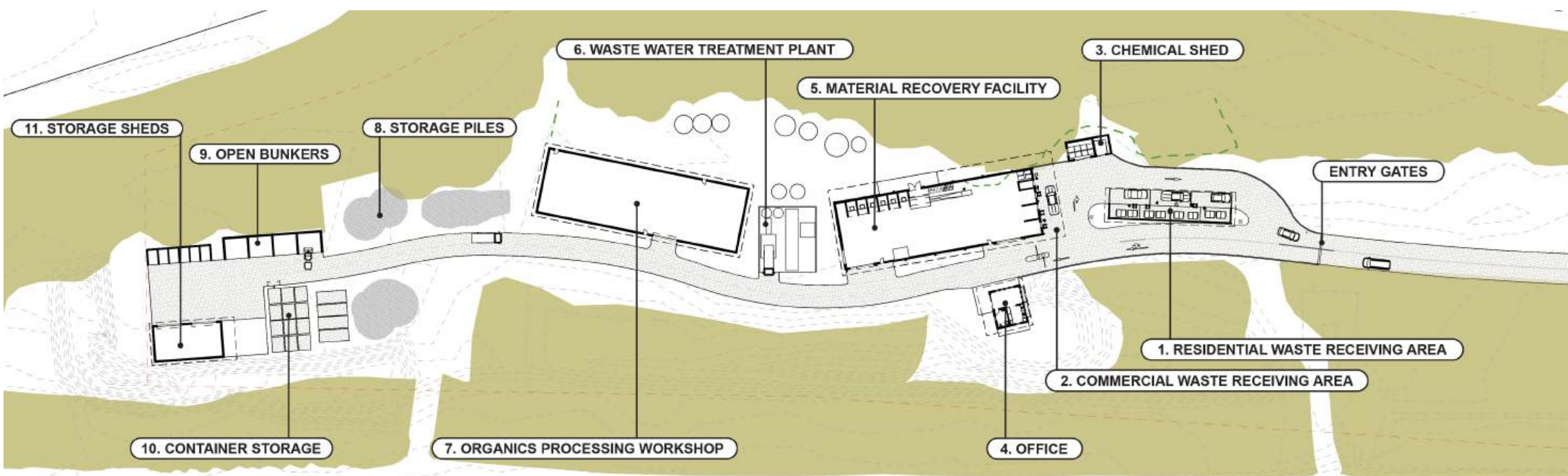
## 10. Container Storage

The container storage area will be a dedicated space to store containers ready for transporting to and from the vessel.

## 11. Storage Sheds

The storage sheds are located at the back end of the facility and will protect new mobile equipment from weather, like the wood shredder and crusher.

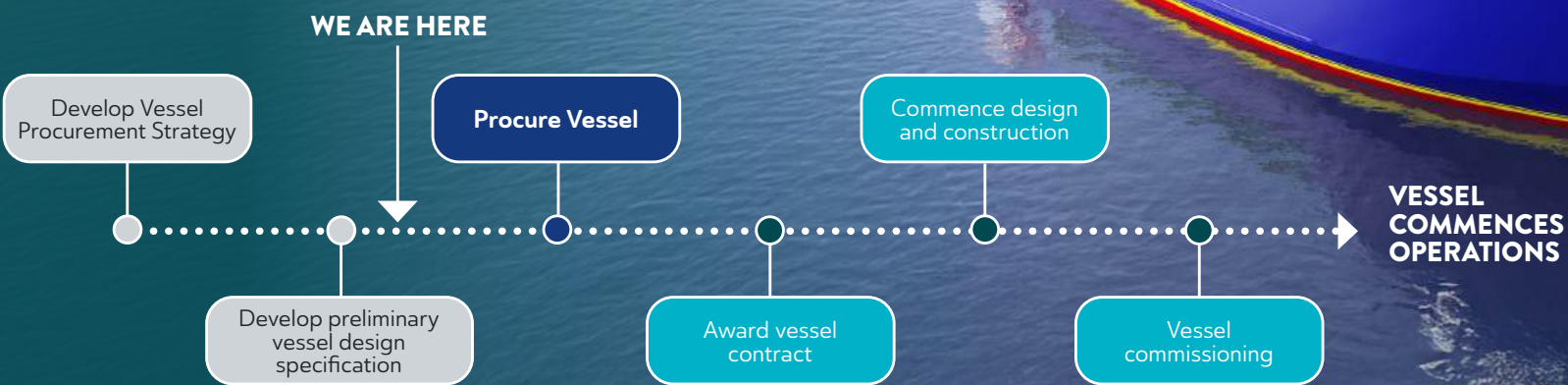
There is existing infrastructure at the Waste Management Facility (bunkers) that can be reused and expanded to accommodate the additional waste streams demands and process as indicated. A new equipment shed to store and protect new mobile equipment from weather, like wood shredder and crusher, is considered.





# NEW VESSEL OPERATIONS AND MAINTENANCE

## NEXT STEPS FOR NEW VESSEL - AT A GLANCE



### A FIT FOR PURPOSE MARINE VESSEL

Discussions with Stakeholders and the market Over the last few months, we have met with key stakeholders to develop a clear understanding of the issues for consideration regarding the new marine vessel and the unique operating environment of the Lord Howe Island lagoon. We have spoken to representatives of the Department of Primary Industries and Regional Development, Island residents with an in depth understanding of current vessel operations, the lagoon and sea conditions, as well as Island stevedores and other community members.

We have also undertaken a number of important market engagement and procurement activities to inform the Request for Tender stage for the new marine vessel and freight service.

#### Market sounding process

A market sounding has been undertaken with shipbuilders and marine freight operators who expressed an interest in participating in the procurement process. This market sounding involved an online questionnaire and meetings with ship builders and vessel operators from around the world. The findings from the market sounding exercise have been used to inform the dates and timeframes for procurement and delivery of the new vessel and operator.

### Expression of Interest

An open market Expression of Interest (EOI) process was also undertaken, where suitably experienced and capable entities from Australia and around the world, were invited to register to participate in the Request for Tender (RFT) Stage, to:

- > design and build the new marine vessel (Package 1) or
- > to operate and maintain the marine freight service (Package 2)
- > or both.

The EOI process has now concluded and successful participants have been notified that they are eligible to participate in the upcoming RFT packages – for either the new marine vessel or marine freight service or both.

#### Request for Tender (RFT) for New Marine Vessel

The Request for Tender documents for design and build of the new marine vessel package are now being prepared and will be released to market in early 2025. One of the key documents for the RFT stage is the Technical Specification for the new vessel. The Technical Specification is being developed by a specialist naval architect from Sherwood Marine Design.

The vessel specification is now well developed and 3D renders illustrating the proposed vessel are shown below.

### Key considerations for the new vessel

The vessel design must respond to a range of factors, such as:

- > Bathymetry of the lagoon in the North Zone on approach to the existing jetty
- > Tidal window and anomalies affecting access into the lagoon
- > Wave height and surge as impacted by weather, wind and other variables
- > Current and future level of scour in the berthing pocket at the existing jetty
- > Interface with the Island wharf infrastructure: Existing jetty, and/or new vessel ramp/link-span
- > Mooring and berthing arrangements to suit different jetty/ramp structures and or scenarios
- > Loading/unloading methods for vessel cargo Roll On/Roll Off (RO-RO), and/or Lift On/Lift Off (LO-LO)
- > Cargo management including: Cargo storage (containerisation vs pallets) Cargo volume and composition
- > Biosecurity controls at a range of mainland departure ports
- > Biosecurity controls required for the vessel itself
- > Cargo loading/unloading equipment (shoreside and on-vessel).

### CONCEPT DESIGN FOR NEW MARINE VESSEL



### The Benefits of Containerisation

Containerisation offers an effective, modern solution to organise, store and distribute goods to Lord Howe Island. Consolidating goods into shipping containers offers a more streamlined and secure freight shipping process. Goods can be inventoried and packed on the mainland using efficient digital systems, then fumigated and sealed within the containers to prevent exposure to pests or contaminants. The fumigation of containers would be done to international standards to ensure food safety.

Once they arrive on Lord Howe Island, pre-packed containers also simplify the distribution process, as items are easy to locate and handle. Refrigerated goods can be maintained at the correct temperature throughout the journey, ensuring safe delivery.

Additionally, use of containers reduces the manual handling required for freight operations. Each container acts as a single, manageable unit, for transporting a variety of goods while minimising risk of damage. Containerisation not only protects Lord Howe Island's unique environment but also ensures that residents receive their goods in an organised, efficient, and reliable manner—bringing significant benefits to

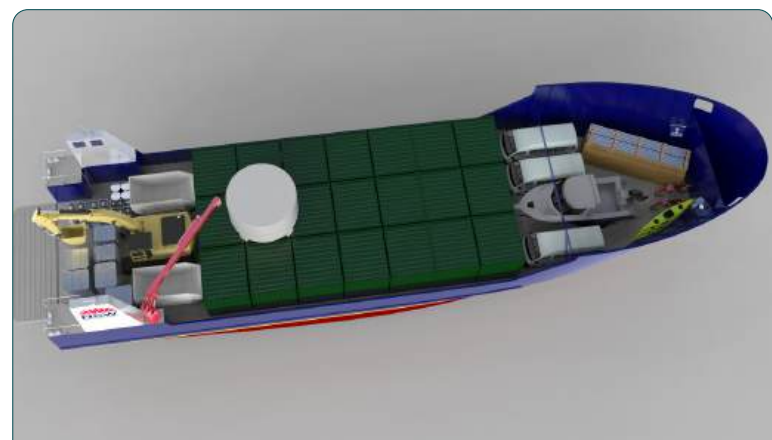


Example 10ft shipping container

both the Lord Howe community and ecosystem.

#### But what about odd-shaped cargo items?

While most goods will be able to be neatly packed into a standard ten foot container, the vessel freight service needs to meet the needs of all goods. Larger, odd-shaped items such as cars, boats, rainwater tanks and construction materials will be organised and managed alongside containerised cargo on the main deck. Similar and equally stringent biosecurity procedures would apply to oversize and odd-shaped items, to ensure the Island's fragile ecosystem is protected. See below for an example of how a mix of containerised cargo and odd-shaped items can be managed.



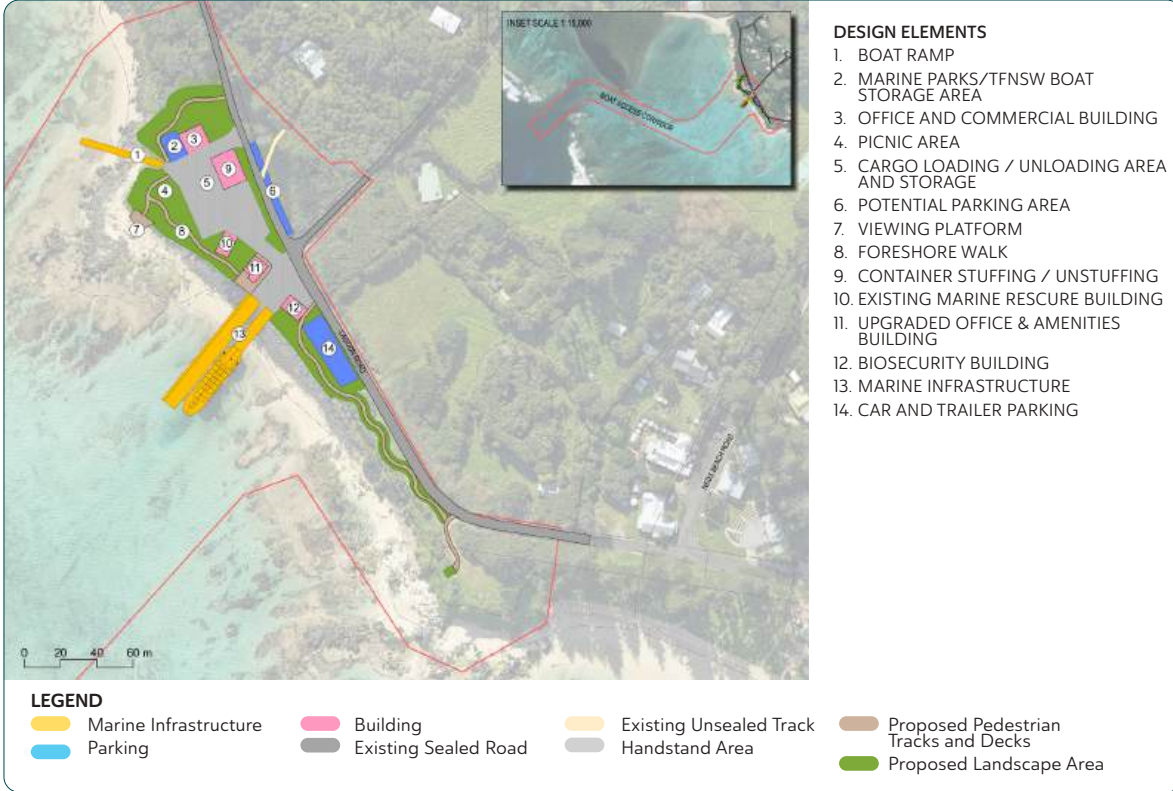
Vessel transporting containers and odd shaped cargo items such as vehicles, a 7m boat on trailer, packs of timber and roofing materials, motorbikes, kayaks, water tank, skip bins, IBCs, gas bottles, large excavator, etc.

### NEXT STEPS

- > Finalise Technical Specification and RFT documents – December 2024
- > Release of RFT for new marine vessel – early 2025
- > Contract award for New Marine Vessel – October 2025
- > Vessel design and build commences – October 2025
- > Release of RFT for new marine freight operator – April 2026
- > Contract award for new marine freight operator – late 2026
- > Delivery of new marine vessel – February 2027
- > First revenue service of new marine vessel – March 2027



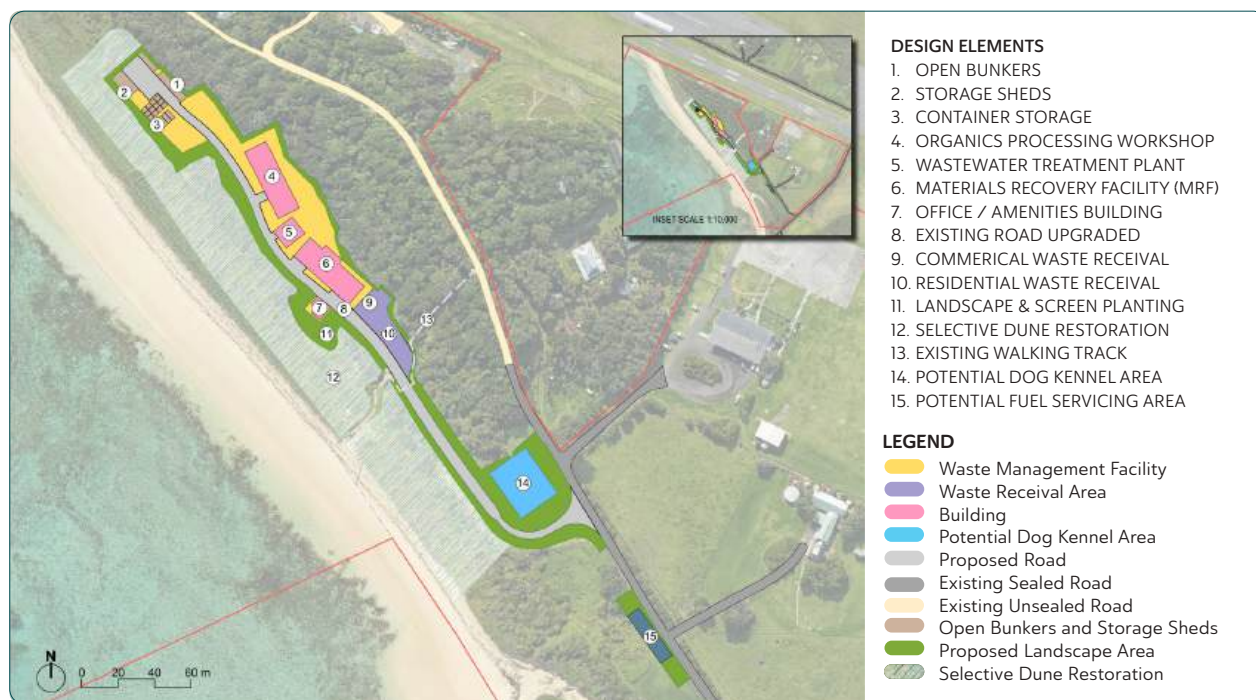
# PLANNING AND ENVIRONMENT



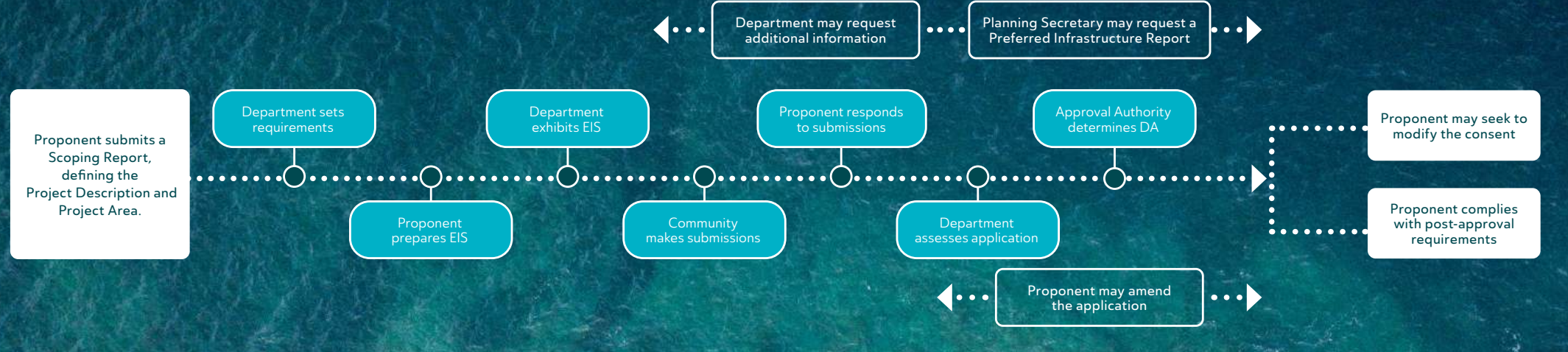
The project team worked closely with the Department of Planning, Housing and Infrastructure (DPHI) to establish the planning pathway as Critical State Significant Infrastructure (CSSI). The CSSI process shown below involves determining and obtaining all relevant planning and environmental approvals, before construction can begin in early 2026.

Projects under the CSSI Program are subject to more stringent requirements than those under the Development Application process and will be designed and delivered with a view to minimise potential impacts to the natural environment including marine life. The project team will continue to regularly engage with DPHI and other government stakeholders to consider and minimise impacts.

The CSSI Planning Pathway was considered the most suitable planning pathway following extensive review of the Program by the project team. This planning pathway allows the consolidation of construction and operation phases under a single assessment process providing greater efficiency.



## PLANNING PROCESS



There will be a number of opportunities for members of the community and other stakeholders to share their ideas and feedback as part of the Program. The community engagement process commenced in May 2024 and will continue throughout planning and delivery of the Critical Infrastructure Program.

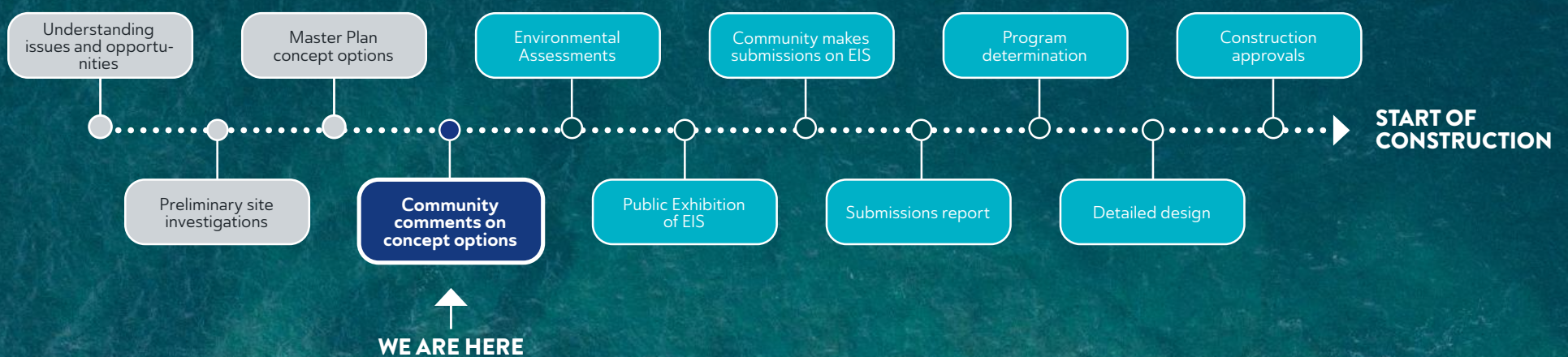
Your feedback on the Critical Infrastructure Program as part of the consultation process is welcomed from Monday 2 December 2024 to Friday 31 January 2025. Please keep an eye on the Lord Howe Island webpage and communications to find out more and have your say or contact [CIP@lhib.nsw.gov.au](mailto:CIP@lhib.nsw.gov.au).



DRAFT FOR CONSULTATION PURPOSES



# NEXT STEPS AND HOW TO GET INVOLVED



## SHARE YOUR FEEDBACK ON THE DESIGN CONCEPTS

We welcome your questions, ideas and suggestions. Please speak to a member of the team today to find out more and share your feedback.

## YOU CAN ALSO:

Join us in the Community Hall at the following times:

**Tuesday 3 December:**  
10am-12.30pm, 2.00-4.00pm,  
and 5.00-7.00pm

**Wednesday 4 December:**  
10am-12.30pm and 2:00-  
4.00pm.



### WE'RE KEEN TO HEAR FROM YOU.

Find out more about the Critical Infrastructure Program by scanning the QR or visiting the Lord Howe Island Board website at [lhib.nsw.gov.au/infrastructure/criticalinfrastructure-program](http://lhib.nsw.gov.au/infrastructure/criticalinfrastructure-program).

We encourage all members of the community and others with an interest in the future of Lord Howe Island to get involved. Your feedback on the Critical Infrastructure Program as part of the upcoming consultations is welcomed from Monday 2 December to Friday 31 January 2025.

Please keep an eye on the Lord Howe Island webpage and communications to find out more and continue to have your say by contacting [CIP@lhib.nsw.gov.au](mailto:CIP@lhib.nsw.gov.au).