



Maintenance Dredging at Nelly Bay Harbour

Community Information Session

15 March 2025



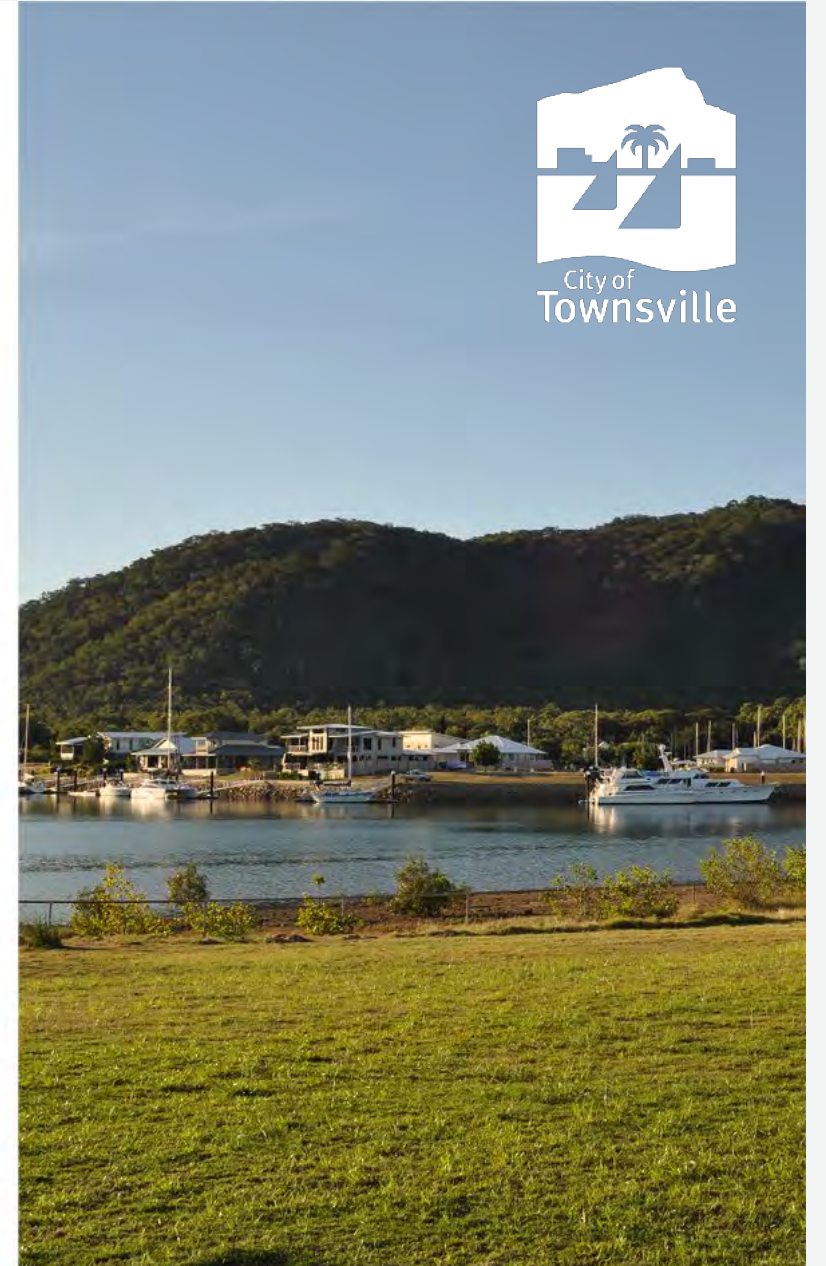
Acknowledgement

Townsville City Council acknowledges the Wulgurukaba of Gurambilbarra and Yunbenun, Bindal, Gugu Badhun and Nywaigi as the Traditional Owners of this land.

We pay our respects to their cultures, their ancestors and their Elders, past, present and all future generations.

Welcome

- Session Outline
 - Background
 - Dredging Operational Plan
 - Storage, treatment and recycling of dredged material
 - Q & A at the end of session
- Presenters
 - Matt Richardson - TCC Director of Infrastructure & Operations
 - Matt Schembri - TCC Principal - Major Projects

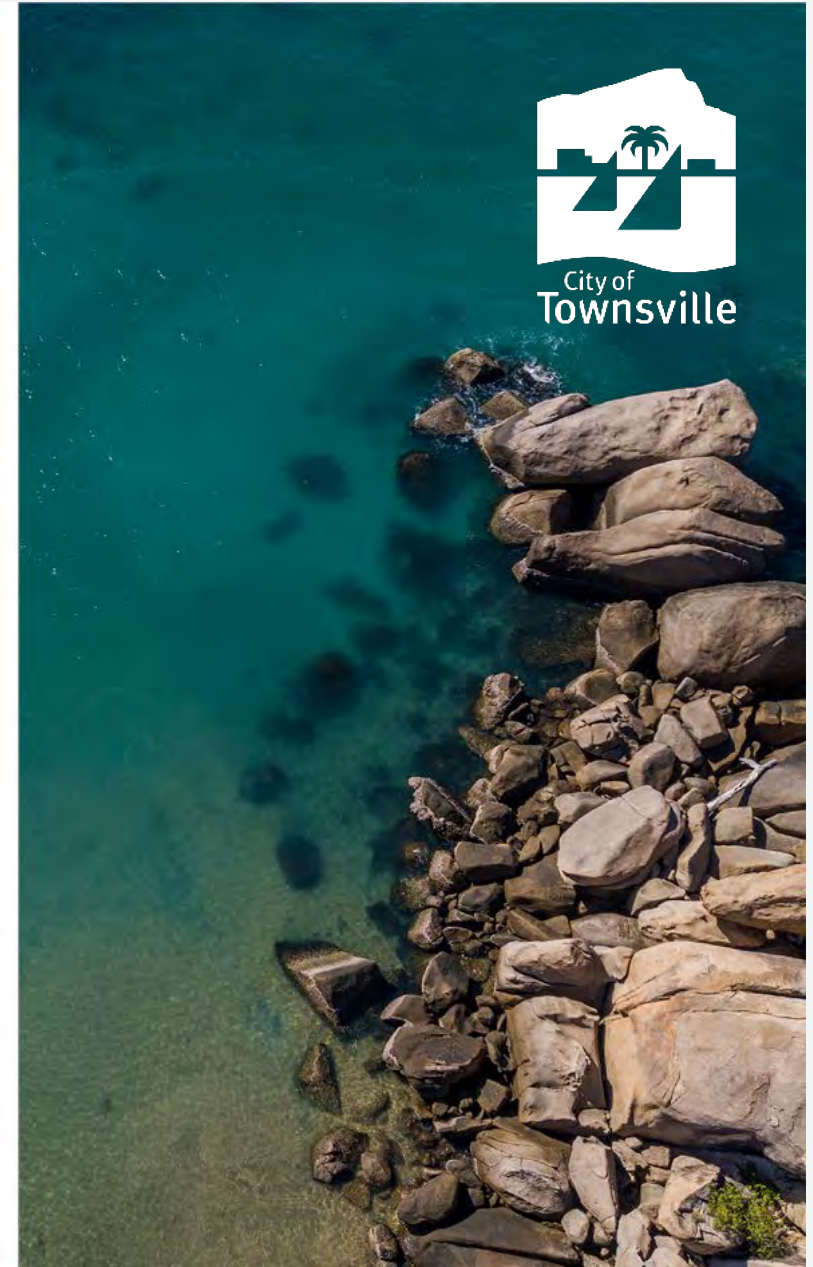




Background

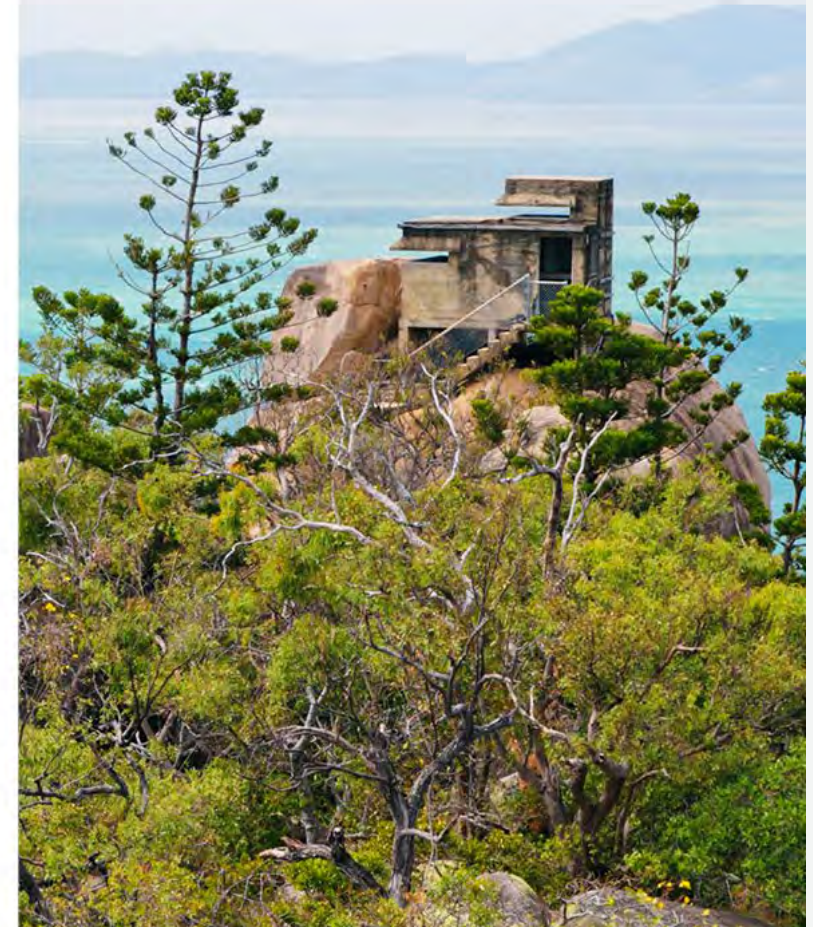
Why are we dredging?

- Council is responsible for maintenance of the canal sections in Nelly Bay Harbour (yellow area)
- Recent investigations show >10,000m³ of material needs to be removed from the canal sections of the Nelly Bay Marina to return to safe, navigable depths



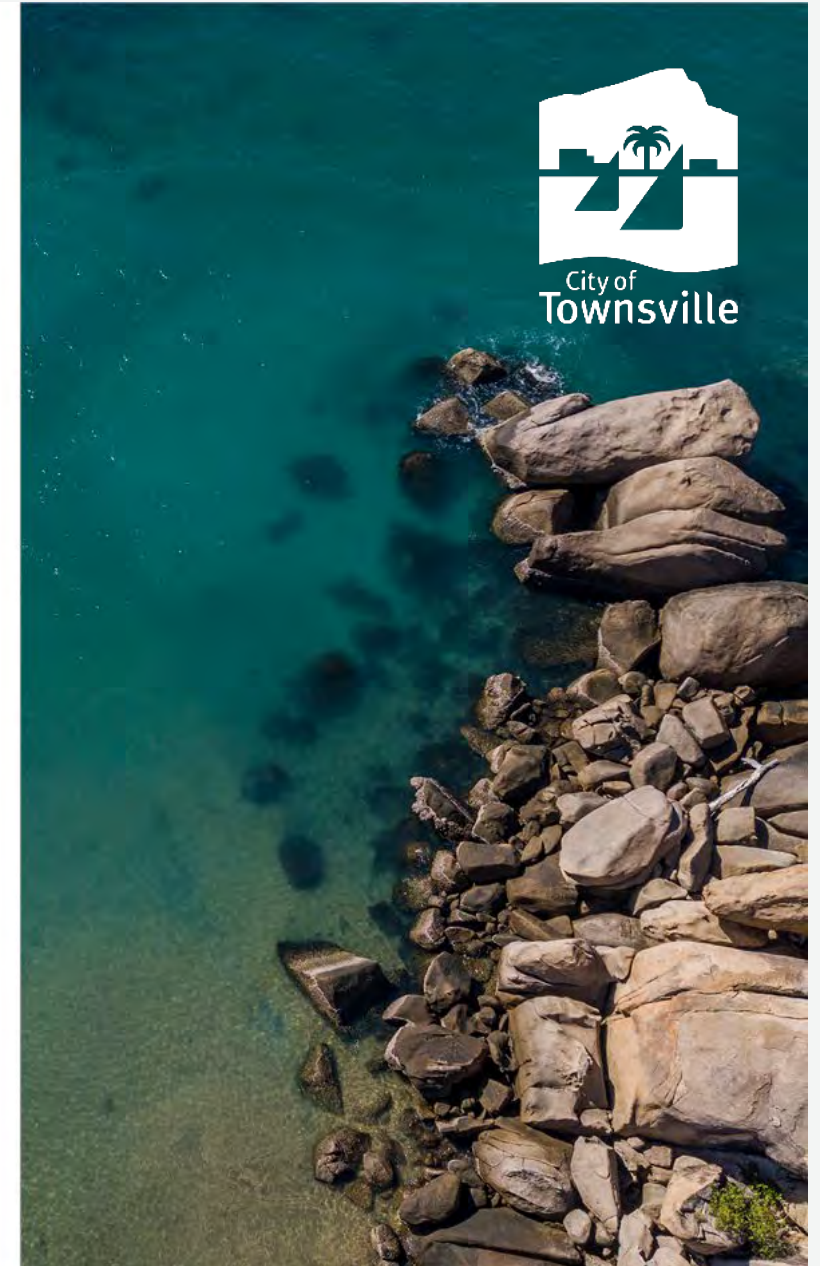
How much material will be removed?

- This year, Council intends remove 7,000m³ - the annual limit in the conditions of our approval.
- Start mid-April - approx two months work



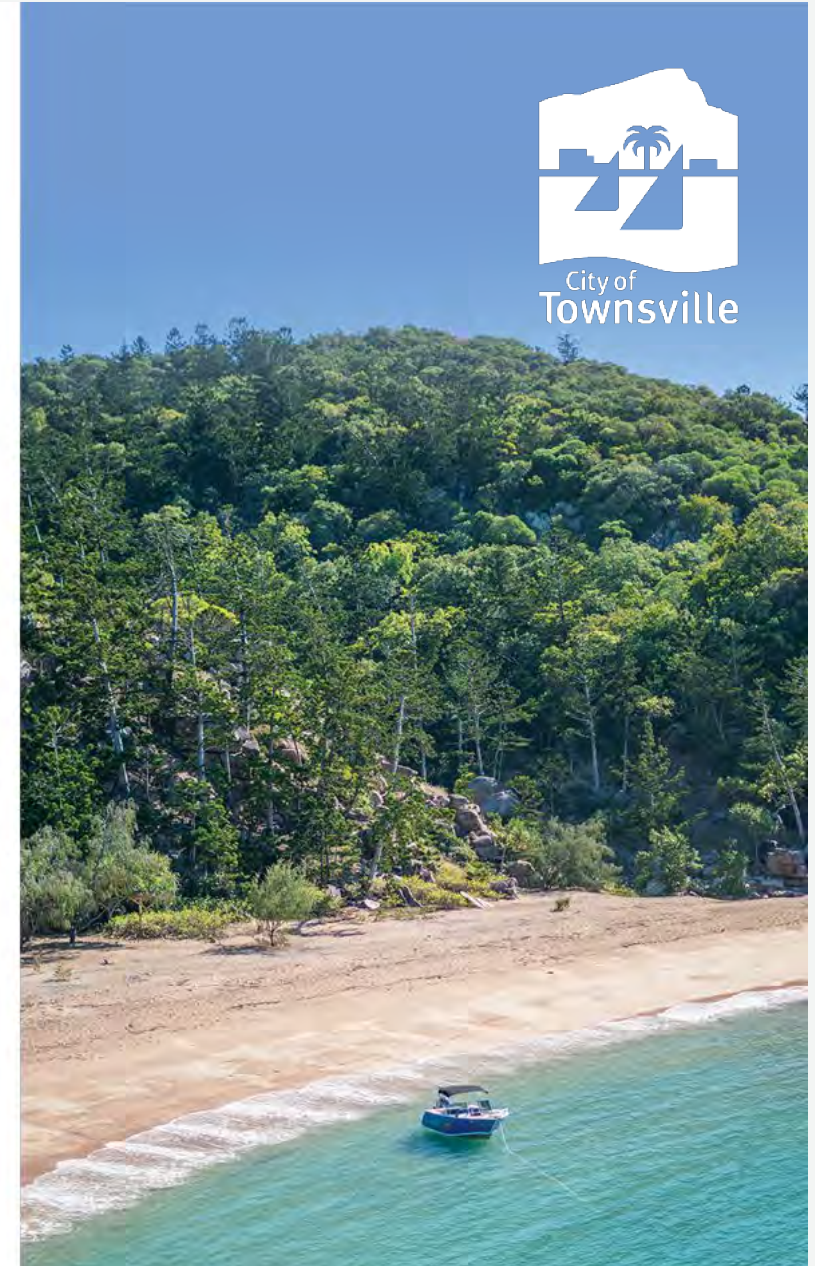
Where are we dredging?

- The area outlined in light blue below indicates the area identified within the GBRMPA Habitat Protection Zone



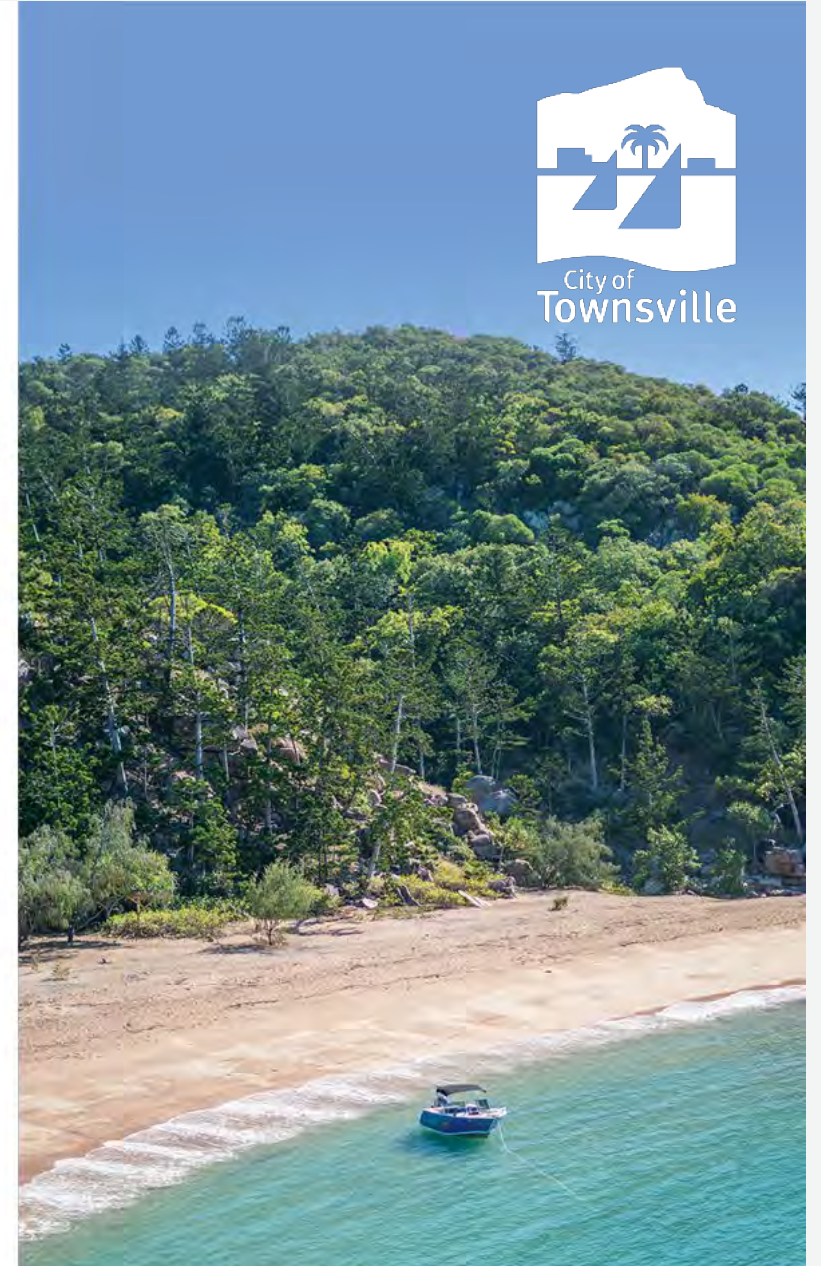
Approvals & considerations

- Council has all required approvals in place for all essential elements of dredging and management of dredged material.
- This includes:
 - Environmental and operational permits
 - Comprehensive assessment process, supported by a suite of technical reporting commissioned by Council.
 - Technical reports prepared by suitably qualified professionals in accordance with regulatory requirements, and assessed against the applicable assessment benchmarks.
 - Approval for appropriate land use in line with the Townsville City Plan.



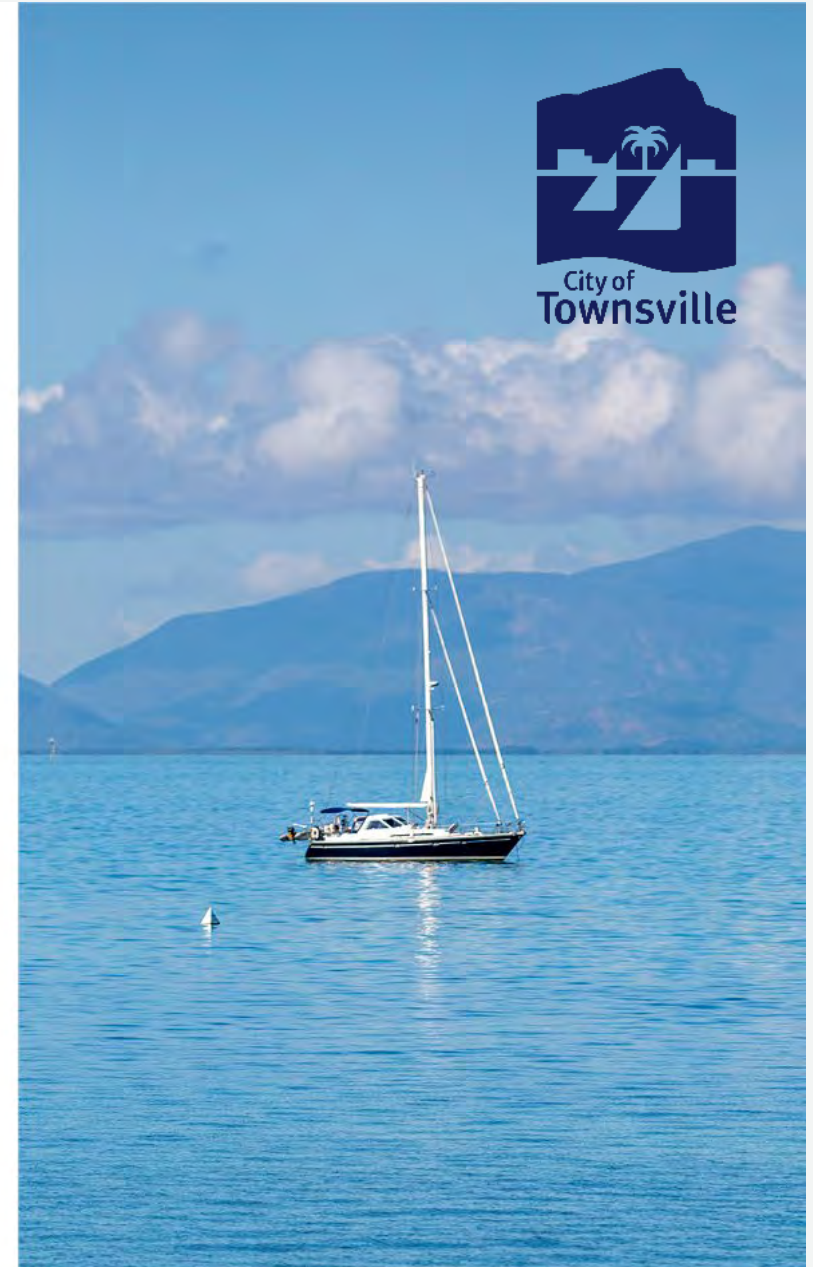
Permits/ Approvals

- Great Barrier Reef Marine Park Authority (GBRMPA) - Marine Park Permit for Maintenance Dredging within Habitat Protection zone. (GBRMPA Ref: G21/43953.1)
- Townsville City Council (TCC) - Decision Notice for Development Permit - Operational Works - Prescribed Tidal Works (TCC ref: OPW23/0028)
- SARA Referral Agency Response - 55-77 Kelly Street, Nelly Bay and Esplanade, Nelly Bay (SARA ref: 2305-34768 SARA)
- Port of Townsville Ltd (POTL) - Advice Referral Agency Response (POTL ref: DA0199)
- Department of Environment, Tourism, Science & Innovation (DETSI) formally DES - Permit for Material Change of Use for ERA 16 - Extraction and Screening 1: Dredging, in a year, between 10,000t and 100,000t (DETSI ref: P-EA-100481414)
- Department of Environment, Tourism, Science & Innovation (DETSI) formally DES - Notice of Decision - Permit for Allocation of Quarry Material - s76 of the Coastal Management Act 1995 (DETSI ref: AQM0133)



EPBC Act

- Council used an independent suitably qualified consultant to assess Potential Impacts to Matters of National Environmental Significance (MNES) listed under the Environmental Protection and Biodiversity Conservations Act 1999 (the EPBC).
- Assessment found that:
 - (a) all dredging works will occur underwater;
 - (b) no clearing will occur at the Kelly Street property; and
 - (c) the dredge spoil will be managed appropriately at the Kelly Street property to prevent contamination of the existing/surrounding environment (through construction methodology controls).
- Conclusion was that the proposed works will not have a significant impact on the environment and no referral to the Commonwealth for assessment under the EPBC Act is required.

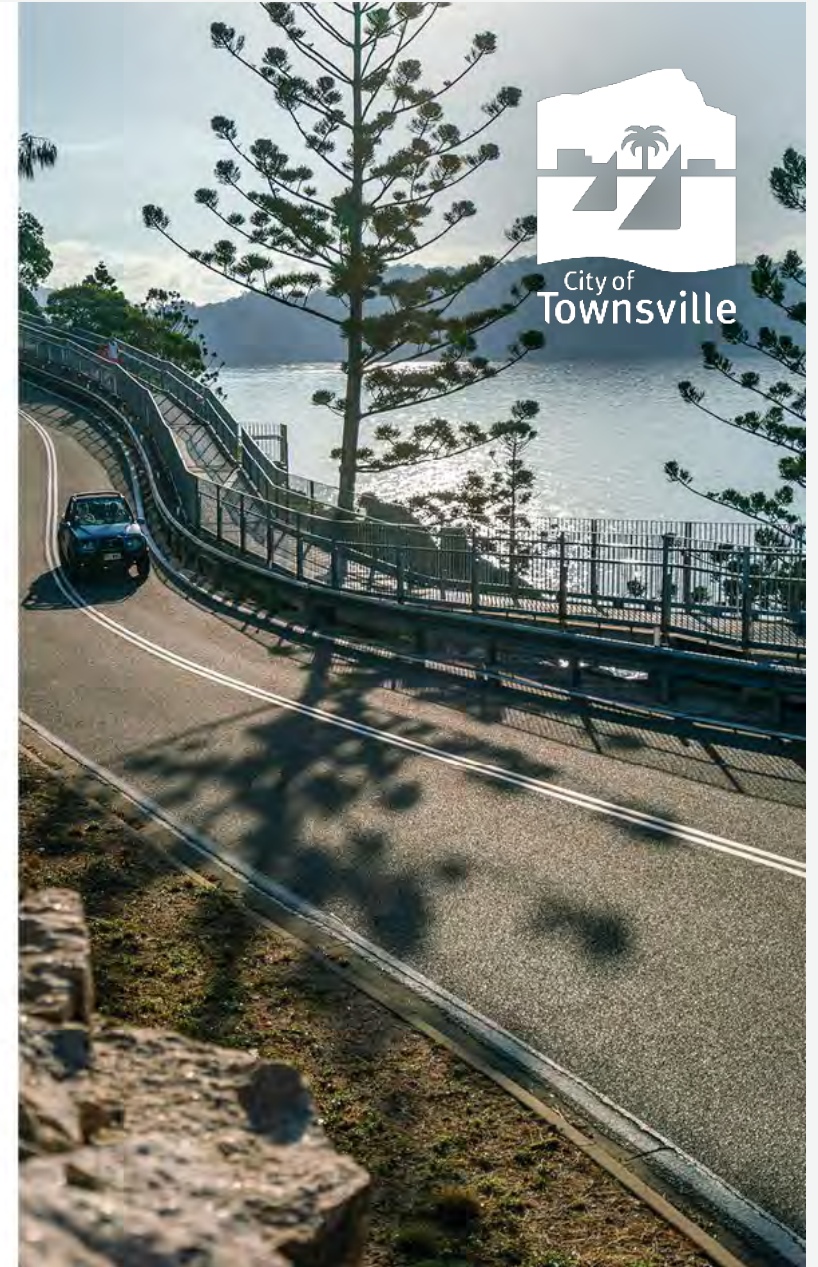




Dredging operations

Project Duration

- Site set-up - late March 2025
- Dredging begins April 2025
- Dredging completed June 2025 (weather permitting)
- All work 7am to 5pm Monday to Saturday, excluding public holidays
- Ongoing, active management of Kelly St (low impact) throughout 25/26 financial year



Site set-up

- Marine plant moved to Nelly Bay Harbour using a 12m Harbour Tug (Swordfish or Sailfish).
- 36m barge with dredge spoil hopper and 45T excavator sitting atop deck mats on the bow.



The proposed Harbour Tug "Sailfish" used to move barges between the Townsville Marine Precinct (PMG's base) and Nelly Bay



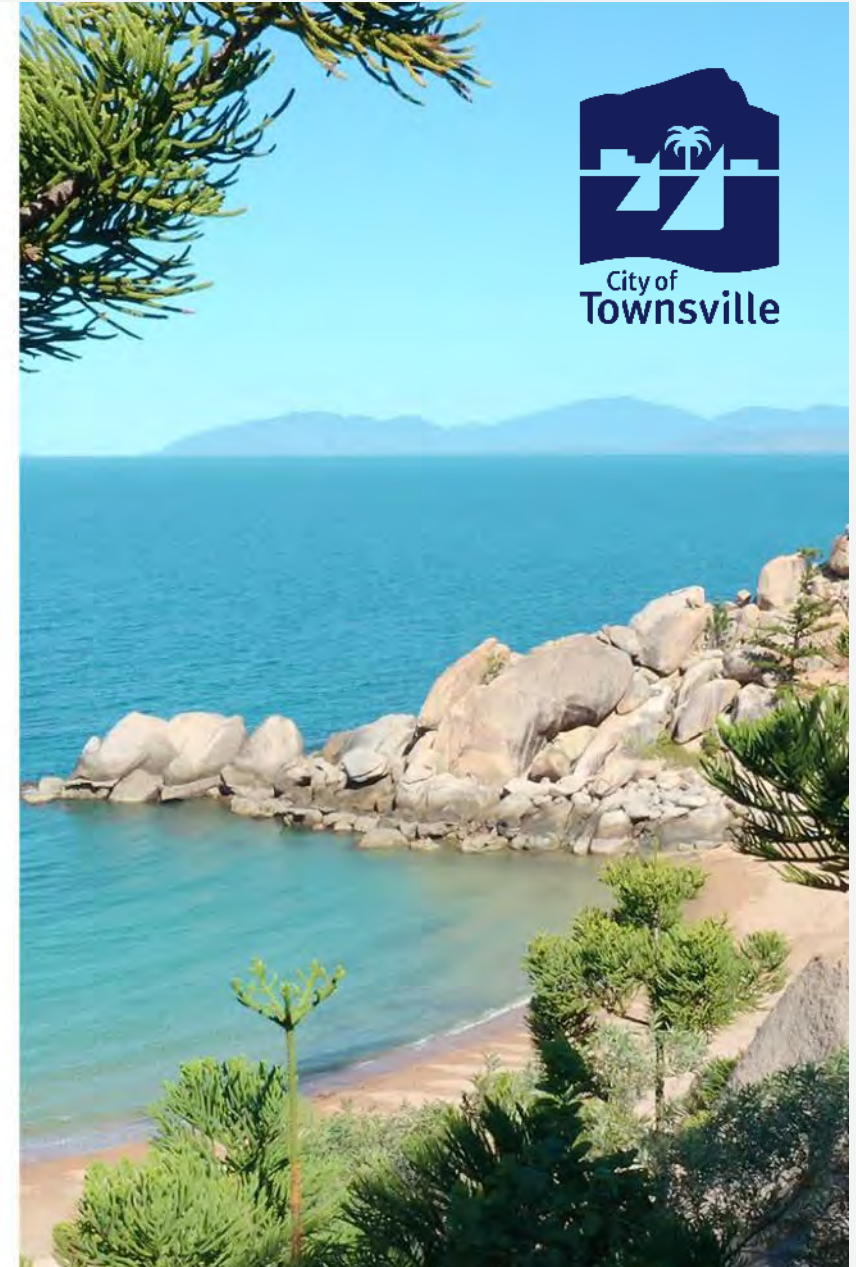
Site set-up

- Second, smaller dredge platform (two 14m pontoons) - 20T excavator on deck. Able to access tight areas (e.g. between the marina berths and rock walls).



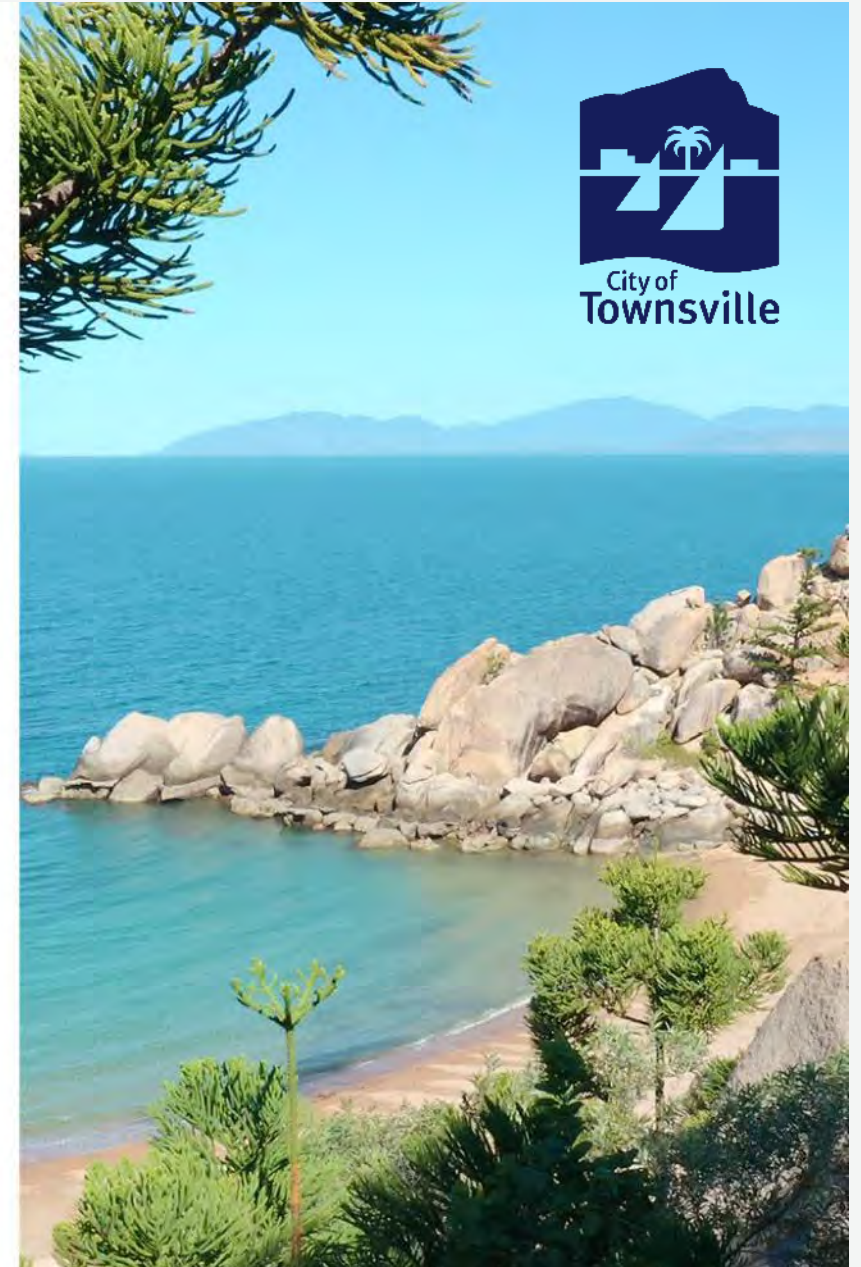
The secondary dredge platform, with 20t Excavator, dredging in Nelly Bay Harbour

Identification	Description
Tugboat	HT 'Sailfish' (16m)
PMG121	120ft 'PMG121' Dredging Barge (34 x 12m)
14m Pontoons	2 x 14m Pontoons Secondary Dredge platform
Excavator	45T Komatsu PC450LC-8 Excavator (GPS Equipped)
Secondary Excavator	21T Hitachi Excavator (GPS Equipped)
PMG Catfish	"PMG Catfish" Aluminium Workboat (7.5m Cat)
PMG Pusher	"PMG Pusher" Aluminium Workboat (5.5m)
Loader and Excavator	20 t digger and 480 front loader at Kelly St disposal area
Trucks	2 x 22.5T Body Trucks
Road Sweeper	Road Sweeper Truck



Main dredging operation

Material will be dredged from three main target areas (outlined in red below).



Main dredging operation

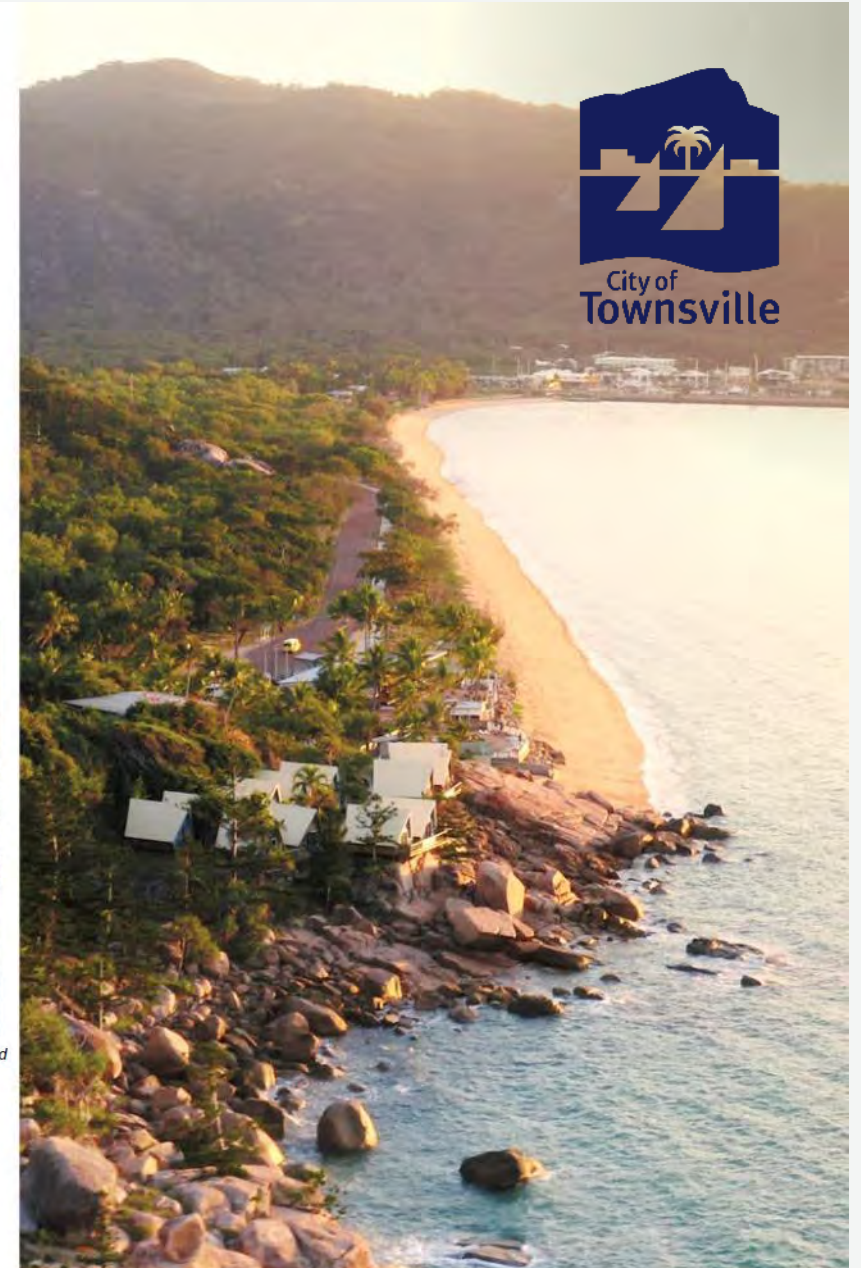
- 2 barges used as digging platforms - bulk of excavation from a spudded 36m x 12m barge (PMG 121) fitted with a hopper capable of holding around 300t of material.
- Excavator will dig from one end of the barge and place material onto its own deck (inside the hopper).
- Material will be moved from smaller barge to larger barge for unloading.



Example of a flat top spudded hopper barge, with an excavator onboard. The excavator digs material and places onto the same barge the excavator is mounted on.



14m x 7m pontoon with 20t excavator onboard which will be used where space is limited

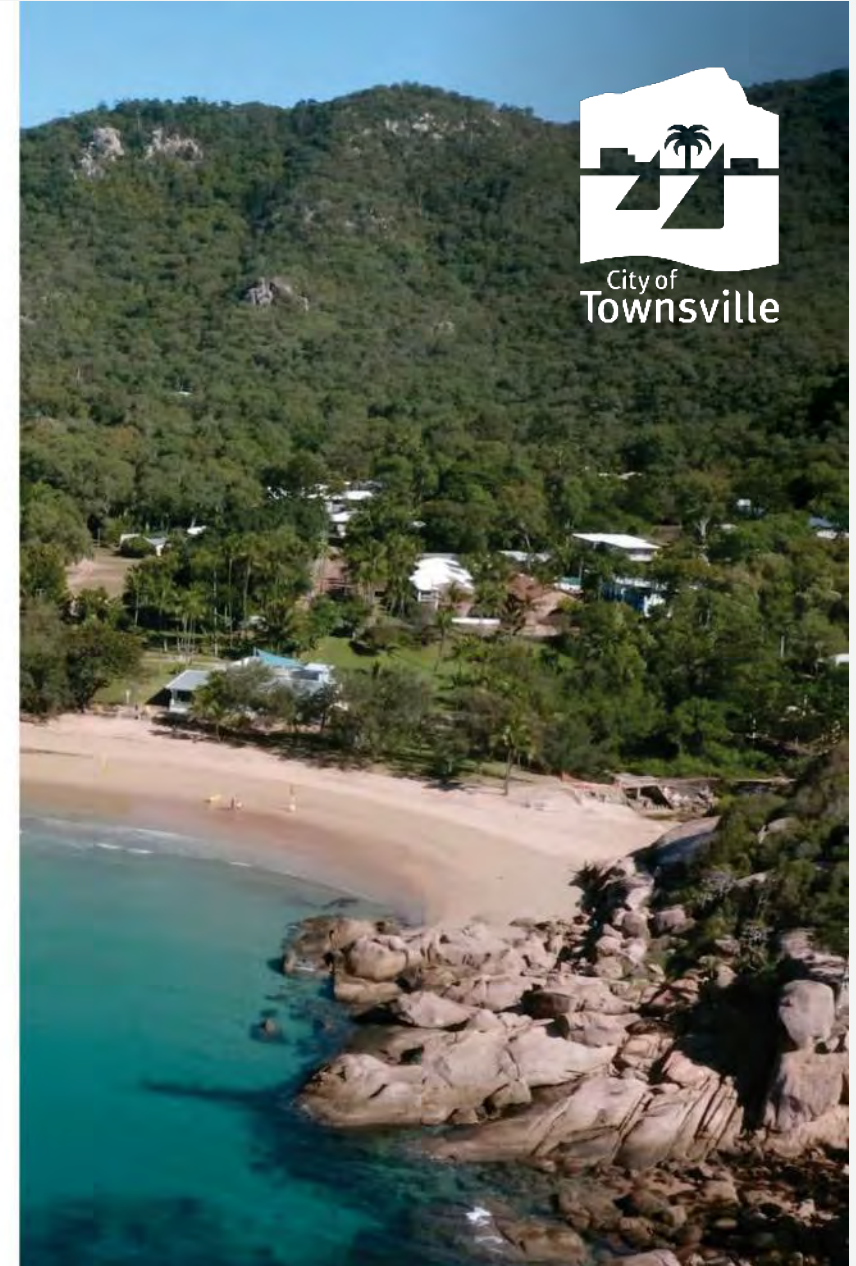


Barge unloading

- Material will be unloaded at the location shown below.
- Site has been selected as it will not need a barge ramp (or boat ramp) - public boat ramp remains open throughout.
- Erosion Sediment Control measures in place throughout all unloading activity.
- Work area, not for public access, will be around 20m x 10m in the corner of the carpark.



Planned barge unloading location. Red dotted line is planned temporary fencing enclosure



From barge to truck...

- One barge load (approx. 300t) filled each morning.
- Barge moves to unloading bay (previous slide) in the afternoon
- 45t long reach excavator onboard barge unloads material into 10t body trucks
- Trucks drive 1km route across causeway to management location at 55-77 Kelly Street.
- Truck movements scheduled in the afternoon only.
- Low traffic impact expected - only 2-3 trucks to be used for transport, approx 25-30 truckloads required each day to empty a single barge load.
- Regular review of any traffic impact throughout project.



Impact on Nelly Bay users

- No general restrictions on use of Nelly Bay Harbour and Marina facilities.
- Boat ramp users should take care when accessing the public boat ramp due to nearby loading activity - public boat ramp remains open.
- Marina Users (Vessel Owners): during dredging operations, there will be restricted access to certain parts of the harbour. Council is working closely with Marina and users to ensure smooth operation of the Harbour continues throughout, and boats are relocated as needed during dredging.
- There will be minimal noise from dredging operations, and no restriction on boat movements in the Harbour area.





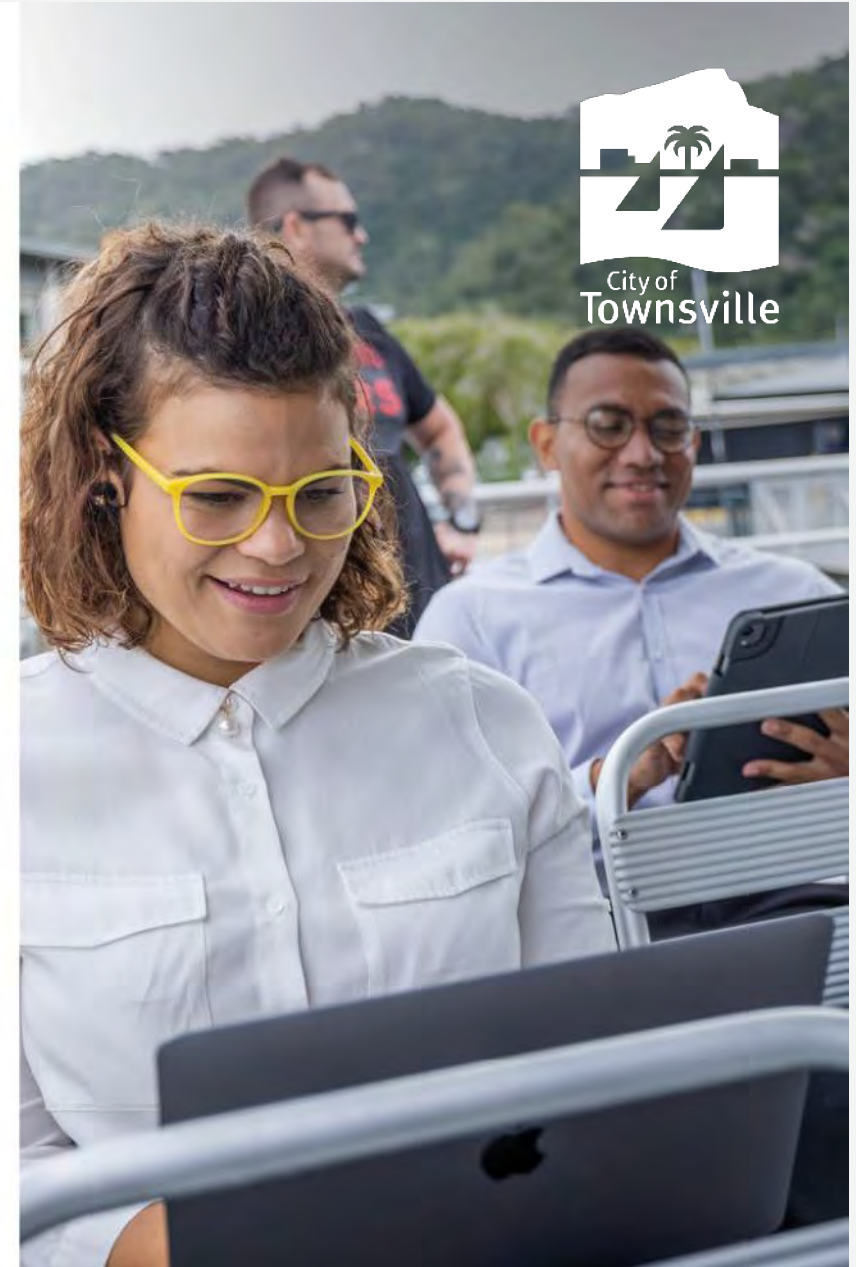
Movement, storage and treatment of material

Haulage Route

- The dredge material will be delivered to Council's site at 55 -77 Kelly Street.
- The Contractor's traffic movements will follow the approved Traffic Management Plan. No disruption to the existing Magnetic Island traffic is expected.

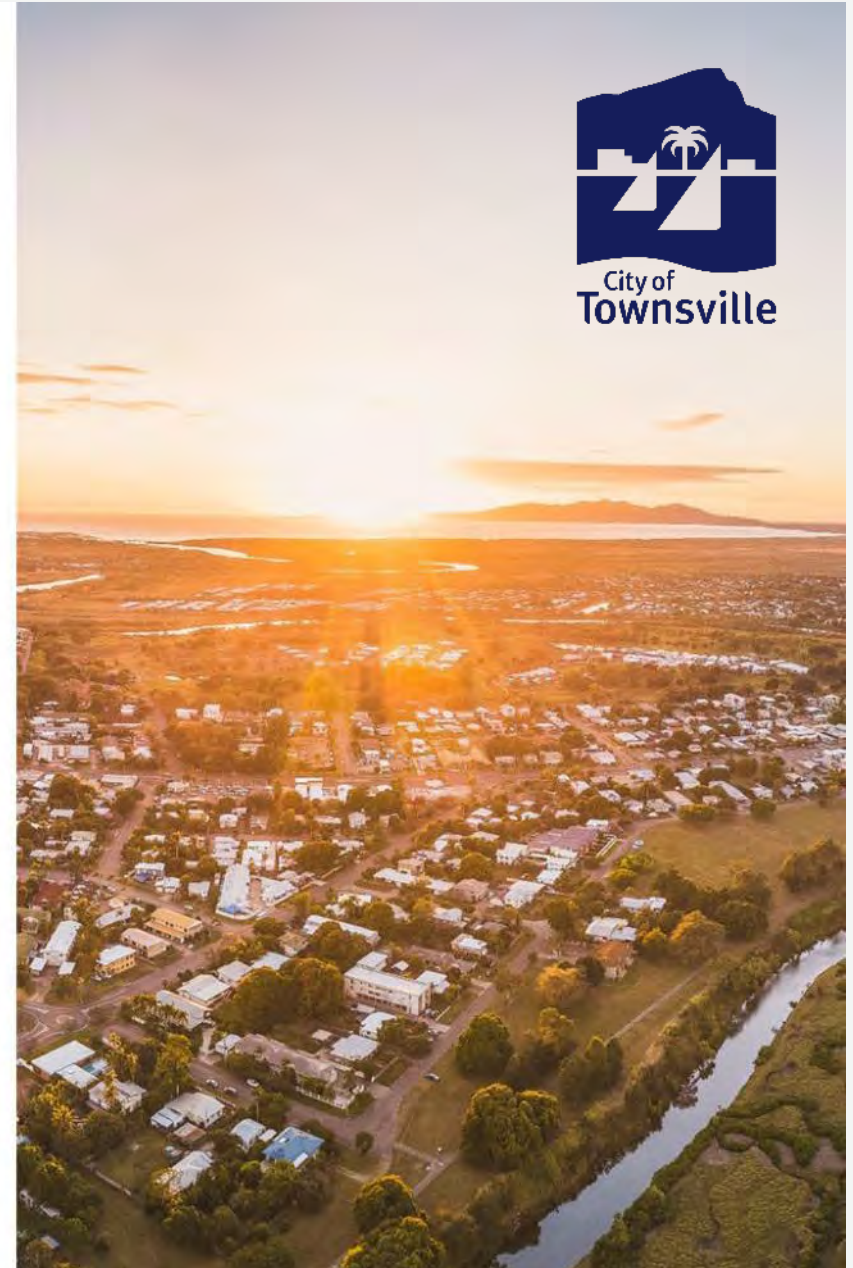


Overview of Nelly Bay showing the key sites and haul route along Kelly Street.



Storage and management

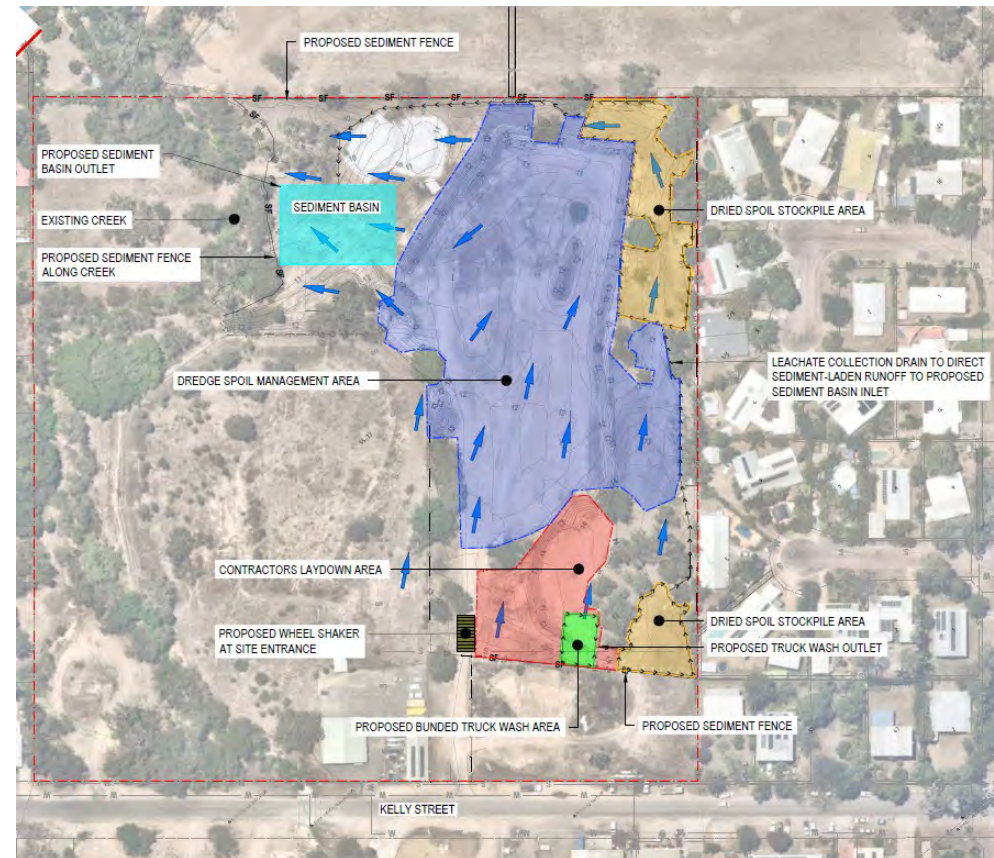
- Material dredged from Nelly Bay Harbour will be managed, treated (where required), dried and stockpiled at the Dredge Material Management Facility at Kelly Street for future reuse on Magnetic Island.
- This site was found the most viable for management and temporary storage of the dredged material after extensive consideration of a range of site options including:
 - Magnetic Island,
 - offshore,
 - Port of Townsville Limited sites, and
 - the mainland
- All decisions were tested against environmental, legislative, economic and logistical considerations.
- This use of Kelly Street is in line with the Townsville City Plan.



Site preparation at Kelly St



- Only one section of 55-77 Kelly Street will be used for dredge management (dark blue).
- Site preparation works will involve the following:
 - Site will be bunded around the stockpile area
 - Minor maintenance works on the existing perimeter bunds
 - An Acid Sulphate Treatment Area (ASTA) will be prepared according to relevant management plans and guidelines.
- There will be no further clearing of the site - existing mature trees and the current natural vegetated buffer (eastern side) will remain.
- The site is currently fenced and secured via locked gate; access to the site will be restricted.



Unloading and moving material



- Haul trucks will transport dredged material to 55-77 Kelly Street in the afternoon.
- Material requiring no further treatment (i.e. non-PASS material) will be carefully managed with suitable drying and stockpiling measures.
- A 21-tonne excavator, a 480 front loader and a water cart will be present onsite for the unloading, moving and management of the dredged material.
- There will be typical construction noise during regular work hours only.
- There will be active management of the Kelly Street site during dredging operations with odour control, dust suppression and erosion control measures in accordance with relevant approved management plans and guidelines.
- The site will be locked by the Contractor at the end of each workday.

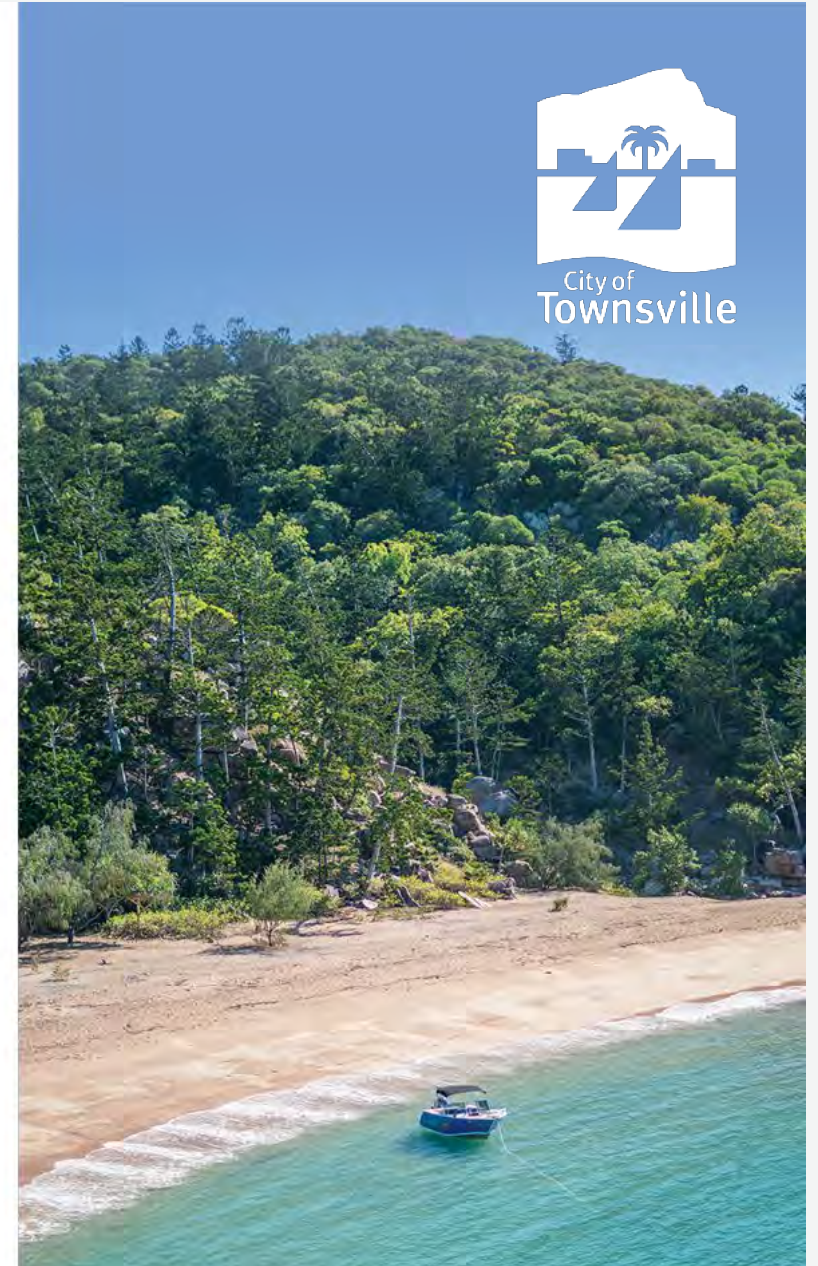
Safe storage and management



- The sediment to be dredged has been assessed and found suitable for land-based storage / use in accordance with required guidelines.
- The sediment assessment tests for contaminants of potential concern, including (but not limited to) potential acid sulphate soils (PASS), heavy metals and hydrocarbons.
- Detectable concentrations of heavy metals and hydrocarbons did not exceed assessment criteria and are not considered a human health or environmental risk.
- PASS material was identified in the sediment assessment in the Gustav Creek area only.
- Where PASS material is detected, the material will be treated/ neutralised in accordance with the appropriate guidelines.
- After treatment the material will be laboratory tested and a suitably qualified person (SQP) will verify the neutralisation.
- The treated material will then be stored with the remainder of the material.
- All Erosion Sediment Control and PASS management devices will be inspected regularly to ensure any impacts are eliminated/ rectified.
- Stockpile height approx. 1.5m - 2m

Odour Control

- We will follow our Environmental and Site Based Management Plans (EMP & SBMP) to minimise any emissions from dredging works.
- Each day, council will apply an organic odour control product to reduce any odour from dredged material. Bio-Fort from Biologik works quickly and at source to neutralise odours.

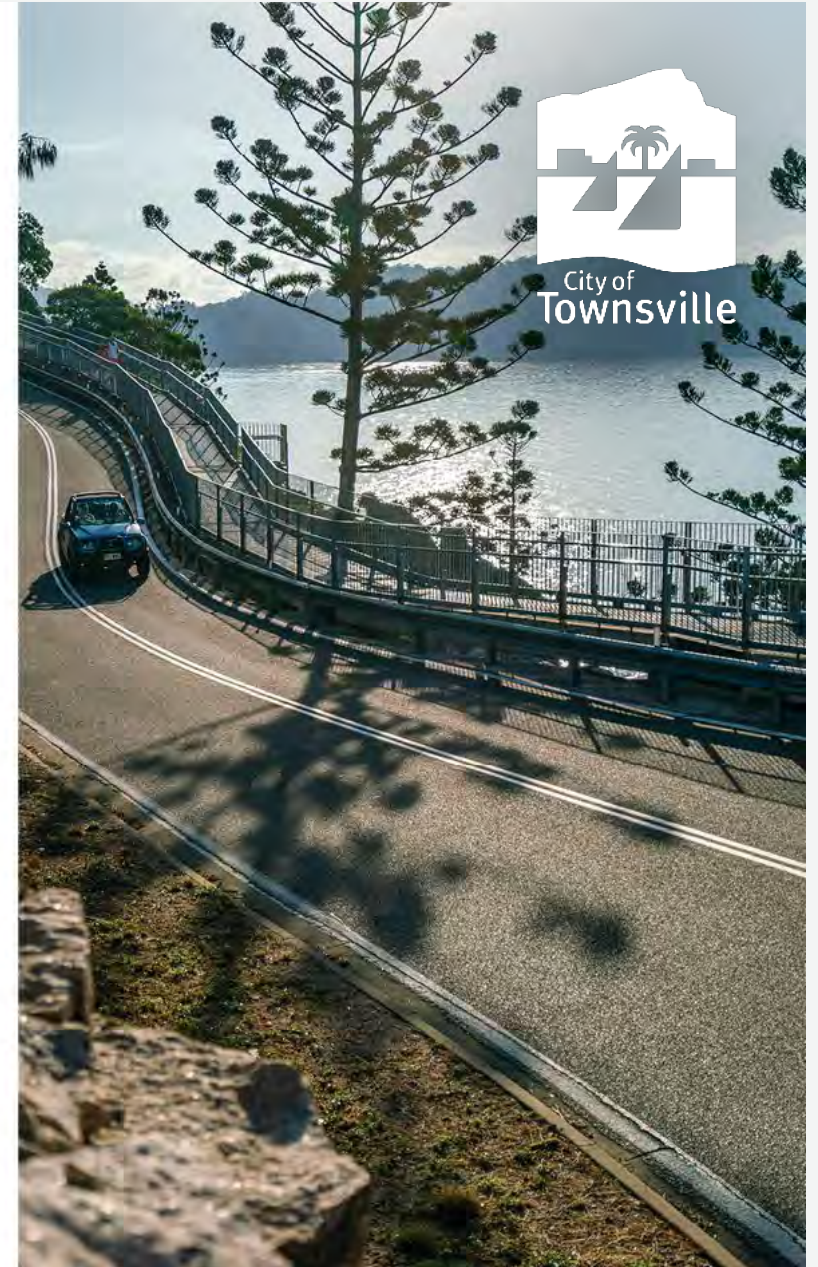


Dust Control

Dust suppression and controls will be in place throughout including:

- Watering disturbed areas
- Applying mulch
- Adhering to strict on-site speed limits
- Covering loads on trucks
- Minimising vehicle movements, especially heavy machinery movements on unpaved surfaces
- Restricting vehicle movements to defined areas

Council will carry out regular reviews of dust management practices, checking that dust emissions are kept as low as possible.



Questions?

