



APPROVAL

Cairns Shipping Development (Trinity Inlet) Project, Queensland (EPBC 2012/6538)

This decision is made under sections 130(1) and 133(1) of the *Environment Protection and Biodiversity Conservation Act 1999 (Cth)* (EPBC Act). Note that section 134(1A) of the EPBC Act applies to this approval, which provides in general terms that if the approval holder authorises another person to undertake any part of the action, the approval holder must take all reasonable steps to ensure that the other person is informed of any conditions attached to this approval, and that the other person complies with any such condition.

Details

Person to whom the approval is granted (approval holder)	Far North Queensland Ports Corporation Limited
ACN of approval holder	131 836 014
Action	To upgrade the existing shipping channel and associated infrastructure in the Port of Cairns [See EPBC Act referral 2012/6538] subject to the variation of the action accepted by the Minister under section 156B on Tuesday, 25 July 2017

Approval decision

My decisions on whether or not to approve the taking of the action for the purposes of each controlling provision for the action are as follows.

Controlling Provisions

World Heritage properties	
Section 12	Approve
Section 15A	Approve
National Heritage places	
Section 15B	Approve
Section 15C	Approve
Listed threatened species and communities	
Section 18	Approve
Section 18A	Approve
Listed migratory species	
Section 20	Approve
Section 20A	Approve
Commonwealth marine areas	
Section 23	Approve
Section 24A	Approve
Great Barrier Reef Marine Park	
Section 24B	Approve
Section 24C	Approve



Commonwealth land

Section 26	Approve
Section 27A	Approve

Period for which the approval has effect

This approval has effect until 30 September 2028

Decision-maker

Name and position	James Barker Assistant Secretary of Assessments and Governance Branch Department of the Environment and Energy
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Signature

Date of decision	28 / 11 / 2018
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Conditions of approval

This approval is subject to the conditions under the EPBC Act as set out in ANNEXURE A.

ANNEXURE A – CONDITIONS OF APPROVAL

Part A – Conditions specific to the action

1. The approval holder must ensure that no more than 1 million cubic metres (in situ) of material is dredged. Dredging must only occur between 1 March and 30 September (inclusive) of any given year.
2. The approval holder must not place more than:
 - (a) 100 000 cubic metres of **stiff clay** dredged material at the **Tingira St Dredged Material Placement Area**; and
 - (b) 900 000 cubic metres of **soft clay** dredged material at the **Northern Sands Dredged Material Placement Area**.
3. The approval holder must ensure that:
 - (a) dredging does not occur outside the **channel and swing basin footprints**;
 - (b) the **dredged material pipeline** is only constructed within the **pipeline footprint**; and
 - (c) no more than 0.41 hectares of **mangrove habitat** is cleared within the **pipeline footprint**.

Note: To avoid doubt, reference to dredging in this approval means capital dredging undertaken as part of the action.



Dredge management plan

4. The approval holder must submit a Dredge Management Plan (DMP) to the **Minister** for approval. Dredging must not occur unless the DMP has been approved by the **Minister**. If the **Minister** approves the DMP, the approved DMP must be implemented. The DMP must include, but is not limited to:
- (a) the **baseline condition** of any **sensitive receptors** present in the **channel and swing basin footprints** and any **sensitive receptors** present outside of the **channel and swing basin footprints** predicted (by plume modelling) to be within the extent of the detectable plume as a result of dredging;
 - (b) a program to monitor marine water quality before, during and after dredging to validate plume modelling assumptions and to support prediction, detection and prevention of **sub-lethal** or lethal impacts to **sensitive receptors**. The monitoring program must be designed to delineate any impacts as a result of the action from other events and must include:
 - (i) the location of water quality monitoring sites, including control sites;
 - (ii) a description of the water quality parameters to be monitored (including photosynthetic active radiation, turbidity and or total suspended solids in real-time) and the methodology, effort, timing, frequency and responsibility for monitoring those parameters;
 - (iii) **trigger levels** for the water quality parameters to be monitored;
 - (iv) a description of the response measures for each **trigger level**;
 - (v) protocols to record and report (including timeframes) to the **Department** any exceedance of the **trigger levels**, the cause of the exceedance, the response measures taken, the relative success of the response measures, and actions taken to prevent further exceedances;
 - (c) a program, to start once dredging has commenced, to review the plume modelling assumptions and a timeframe to report the outcomes of the program to the **Department**;
 - (d) a **marine fauna** program including:
 - (i) measures to observe **marine fauna** (undertaken by a **suitably qualified marine observer**) and avoid impacts to **marine fauna** during dredging and dredge vessel movements associated with the action; and
 - (ii) protocols to record and report (including timeframes) to the **Department** any **interactions** with **marine fauna** during dredging and dredge vessel movements associated with the action;
 - (e) written evidence of input and peer review by a **suitably qualified person** of the adequacy of the DMP and a table of any changes made in response to the peer review.

Dredge material placement areas

5. The approval holder must ensure that there is no release of tailwater or release of placed dredged material from the **Tingira St Dredged Material Placement Area**.



6. The approval holder must ensure that there is no **uncontrolled release** of placed dredged material from the **Northern Sands Dredged Material Placement Area**.
7. The approval holder must submit a **Northern Sands Dredged Material Placement Area** Management Plan (NSMP) to the **Minister** for approval. Dredging must not occur unless the NSMP has been approved by the **Minister**. If the **Minister** approves the NSMP, the approved NSMP must be implemented. The NSMP must include, but is not limited to:
 - (a) the **baseline condition** of any **sensitive receptors** predicted (by plume modelling) to be within the extent of the detectable plume as a result of tailwater discharge;
 - (b) a program to monitor water quality before, during and after tailwater discharge to validate plume modelling assumptions and to support prediction, detection and prevention of **sub-lethal** or lethal impacts to **sensitive receptors**. The monitoring program must be designed to delineate any impacts as a result of the action from other events, be adequate to demonstrate whether the outcome in condition 6 is being met, and must include:
 - (i) the location of tailwater discharge point(s) and spillway(s);
 - (ii) the location of water quality monitoring sites, including control sites;
 - (iii) a description of the water quality parameters to be monitored and the methodology, effort, timing, frequency and responsibility for monitoring those parameters;
 - (iv) **trigger levels** for the water quality parameters to be monitored;
 - (v) a description of the response measures for each **trigger level**;
 - (vi) protocols to record and report (including timeframes) to the **Department** any exceedance of the **trigger levels**, the cause of the exceedance, the response measures taken, the relative success of the response measures, and actions taken to prevent further exceedances;
 - (c) a program, to start once tailwater discharge has commenced, to review the plume modelling assumptions and a timeframe to report the outcomes of the program to the **Department**;
 - (d) bund wall management measures including:
 - (i) details on how the bund wall will achieve the outcome at condition 6; and
 - (ii) a description of any management measures or requirements for the bund wall imposed by **Queensland**;
 - (e) written evidence of input and peer review by a **suitably qualified person** of the adequacy of the NSMP and a table of any changes made in response to the peer review.

Note: the approval holder may align the DMP and or the NSMP with any plans or other requirements of the Queensland Government, as long as the relevant matters under the conditions of this approval are clearly and adequately addressed.



Fine sediment methodology

8. The approval holder must submit a Fine Sediment Methodology (FSM) to the **Minister** for approval. Dredging must not occur unless the FSM has been approved by the **Minister**. If the **Minister** approves the FSM, the approved FSM must be implemented. The FSM must include, but is not limited to:
- (a) a methodology for quantifying the amount (in tonnes) of **fine sediment** returned to the environment from:
 - (i) the dredging of **stiff clays**; and
 - (ii) the dredging of **soft clays** and from tailwater discharge at the **Northern Sands Dredged Material Placement Area**;
 - (b) written evidence of input and peer review by a **suitably qualified person** of the adequacy of the FSM and a table of any changes made in response to the peer review.

Dredging completion report

9. Within 20 **business days** after the completion of dredging, the approval holder must notify the **Department** of the actual date of completion of dredging.
- 10A. The approval holder must submit a Dredging Completion Report (DCR) to the **Department** within 6 months of the completion of dredging. The DCR must include, but is not limited to:
- (a) details of the type and extent (in hectares) of **sensitive receptors** present in the **channel and swing basin footprints** that were removed as a result of dredging undertaken for the action;
 - (b) an assessment as to whether any **sensitive receptors** (delineated by type and extent) present outside of the **channel and swing basin footprints**:
 - (i) are vulnerable or likely to experience **sub-lethal** impacts as a result of the action; and
 - (ii) have experienced lethal impacts as a result of the action;
 - (c) the amount of **fine sediment** returned to the environment calculated in accordance with condition 8(a)(i) and condition 8(a)(ii); and
 - (d) for any potential impacts identified in accordance with condition 10A(b)(i), details of a program (to be undertaken from submission of the DCR until 24 months after the completion of dredging) capable of monitoring the viability of those **sensitive receptors**.
- 10B. If monitoring is required in accordance with condition 10A(d), the approval holder must submit an updated DCR to the **Department** within 26 months of the completion of dredging. The updated DCR must detail the results of the monitoring program undertaken in accordance with condition 10A(d) and must identify any **sensitive receptors** (delineated by type and extent) that experienced **sub-lethal** impacts as a result of the action.



Offsets

11. To compensate for residual significant impacts of the action and to achieve a net benefit to the outstanding universal value of the Great Barrier Reef World Heritage Area, the approval holder must deliver offsets:
 - (a) to compensate for the extent of any impacts to **sensitive receptors** reported in accordance with condition 10A(a);
 - (b) to compensate for:
 - (i) the amount of **fine sediment** returned to the environment, calculated in accordance with condition 8(a)(i);
 - (ii) any lethal impacts to **sensitive receptors** reported in accordance with condition 10A(b)(ii); and
 - (iii) any **sub-lethal** impacts to **sensitive receptors** reported in accordance with condition 10B.
12. The approval holder may choose to provide a contribution to **Reef Trust** to deliver all or part of offset(s) required under condition 11, condition 13A, condition 13B and condition 13C.
- 13A. Within 12 months of the completion of dredging, the approval holder must submit an Offset Management Plan (OMP) to the **Minister** for approval. If the **Minister** approves the OMP, the approved OMP must be implemented. The OMP must include, but is not limited to:
 - (a) details of offset(s) in accordance with condition 11(a) and condition 11(b)(i);
 - (b) details of offset(s) in accordance with condition 11(b)(ii) and details of the source and amount of **fine sediment** (reviewed by a **suitably qualified person**) considered by the approval holder to have caused the impact;
 - (c) timeframes for delivery and completion of the offset(s); and
 - (d) for any part(s) of the offset(s) not delivered by providing a contribution to **Reef Trust**:
 - (i) details of how the offset(s) align with the broader strategies and programs for the Great Barrier Reef, including but not limited to the **Reef 2050 Long-Term Sustainability Plan**;
 - (ii) a description of the management measures (including timing, frequency and longevity) that will be implemented to deliver the offset(s);
 - (iii) performance and completion criteria for evaluating the success of the management measures and criteria for triggering remedial action (if necessary);
 - (iv) a program, including timelines to monitor and report on the effectiveness of the management measures, and progress against the performance and completion criteria; and



- (v) a description of potential risks to the successful implementation of the management measures and a description of the contingency measures that would be implemented to mitigate against these risks and residual risk ratings.

13B. If impacts are reported in accordance with condition 10B, the approval holder must submit an updated OMP to the **Minister** for approval. The updated OMP must be submitted within 32 months of the completion of dredging. If the **Minister** approves the updated OMP, the approved updated OMP must be implemented. The updated OMP must include, but is not limited to, details of offset(s) in accordance with condition 11(b)(iii) and details of the source and amount of **fine sediment** (reviewed by a **suitably qualified person**) considered by the approval holder to have caused the impact. The updated OMP must also address each of the matters described in condition 13A(c) and condition 13A(d).

13C. In deciding whether or not to approve the OMP or updated OMP, if the **Minister** is not satisfied that the offsets proposed by the approval holder in condition 13A(b) or condition 13B is adequate to account for the relevant impacts, the **Minister** may direct the approval holder (in writing) to revise the OMP or the updated OMP to provide offsets for the entire amount of **fine sediment** calculated in accordance with condition 8(a)(ii) instead.

Piling

14. The approval holder must:

- (a) establish an **exclusion zone** and **observation zone** for piling activities;
- (b) ensure that pre-start visual observations for **marine fauna** are undertaken across the **exclusion zone** and **observation zone**. Observations must be undertaken by a **suitably qualified marine observer** for at least 30 minutes immediately preceding the start of pile driving operations, and continue during pile driving operations;
- (c) not start pile driving operations if **marine fauna** have been identified in the **exclusion zone**;
- (d) initiate **soft-start procedures** at the start of pile driving operations and after breaks of pile driving operations of 30 minutes or more;
- (e) implement stand-by procedures to shut down piling equipment if **marine fauna** are sighted within the **observation zone**;
- (f) cease pile driving operations if **marine fauna** are observed in, or about to enter, the **exclusion zone**. If pile driving ceases due to this condition, pile driving operations must not start again until:
 - (i) all **marine fauna** are observed to move outside the **exclusion zone**; or
 - (ii) 30 minutes have passed since the last sighting of the **marine fauna** within the **exclusion zone**;
- (g) not start pile driving operations between 6:30 pm and 6:30 am.

15. The **exclusion zone** and **observation zone** must be based on relevant scientific evidence about the impact of noise on **marine fauna** likely to be present at the time of pile driving operations. A



report on the adequacy of the **exclusion zone** and the **observation zone** must be published by the approval holder on the **website** prior to any pile driving operations commencing. The report must include evidence of input and peer review by a **suitably qualified person**. Within 10 **business days** after publishing the report, the approval holder must notify the **Department** of the actual date of publication.

Part B – Standard administrative conditions

Commencement of the action

16. The approval holder must notify the **Department** in writing of the date of **commencement of the action** within 10 **business days** after the date of **commencement of the action**.
17. If **commencement of the action** does not occur within 5 years from the date of this approval, then the approval holder must not undertake **commencement of the action** without the prior written agreement of the **Minister**.

Compliance records

18. The approval holder must maintain accurate and complete **compliance records**.
19. If the **Department** makes a request in writing, the approval holder must provide electronic copies of **compliance records** to the **Department** within the timeframe specified in the request.

Note: **Compliance records** may be subject to audit by the **Department** or an independent auditor in accordance with section 458 of the **EPBC Act**, and or used to verify compliance with the conditions. Summaries of the result of an audit may be published on the **Department's** website or through the general media.

Preparation and publication of plans

20. The approval holder must:
 - (a) submit all **plans** and the FSM electronically to the **Department** for approval by the **Minister**;
 - (b) publish each **plan** and the FSM on the **website** within 20 **business days** of the date the relevant **plan** or the FSM is approved by the **Minister**, unless otherwise agreed to in writing by the **Minister**;
 - (c) exclude or redact **sensitive ecological data** from **plans** published on the **website** or provided to a member of the public; and
 - (d) keep all **plans** and the FSM published on the **website** until the end date of this approval.
21. The approval holder must ensure that any **monitoring data** (including **sensitive ecological data**), surveys, maps, and other spatial and metadata required under a **plan**, is prepared in accordance with the **Department's Guidelines for biological survey and mapped data** (2018) and submitted electronically to the **Department** along with annual compliance reporting required at condition 22.

Annual compliance reporting

22. The approval holder must prepare a **compliance report** for each 12 month period following the date of **commencement of the action**, or as otherwise agreed to in writing by the **Minister**. The approval holder must:
 - (a) publish each **compliance report** on the **website** within 60 **business days** following the relevant 12 month period;



- (b) notify the **Department** by email that a **compliance report** has been published on the **website** within 5 **business days** of the date of publication;
- (c) keep all **compliance reports** publicly available on the **website** until this approval expires;
- (d) exclude or redact **sensitive ecological data** from **compliance reports** published on the **website**; and
- (e) where any **sensitive ecological data** has been excluded from the version published, submit the full **compliance report** to the **Department** within 5 **business days** of publication.

Note: **Compliance reports** may be published on the **Department's** website.

Reporting non-compliance

23. The approval holder must notify the **Department** in writing of any: **incident**; non-compliance with the conditions; or non-compliance with the commitments made in **plans**. The notification must be given as soon as practicable, and no later than 2 **business days** after becoming aware of the **incident** or non-compliance. The notification must specify:
- (a) the condition which is or may be in breach; and
 - (b) a short description of the **incident** and or non-compliance.
24. The approval holder must provide to the **Department** the details of any **incident** or non-compliance with the conditions or commitments made in **plans** as soon as practicable and no later than 10 **business days** after becoming aware of the **incident** or non-compliance, specifying:
- (a) any corrective action or investigation which the approval holder has already taken or intends to take in the immediate future;
 - (b) the potential impacts of the **incident** or non-compliance; and
 - (c) the method and timing of any remedial action that will be undertaken by the approval holder.

Independent audit

25. The approval holder must ensure that **independent audits** of compliance with the conditions are conducted as requested in writing by the **Minister**.
26. For each **independent audit**, the approval holder must:
- (a) provide the name and qualifications of the independent auditor and the draft audit criteria to the **Department**;
 - (b) only commence the **independent audit** once the audit criteria have been approved in writing by the **Department**; and
 - (c) submit an audit report to the **Department** within the timeframe specified in the approved audit criteria.
27. The approval holder must publish the audit report on the **website** within 10 **business days** of receiving the **Department's** approval of the audit report and keep the audit report published on the **website** until the end date of this approval.

Revision of plans

28. The approval holder may choose to revise a **plan** approved by the **Minister** without submitting it for approval under the provisions of the **EPBC Act**, if the taking of the action in accordance with the revised **plan** would not be likely to have a **new or increased impact**.



29. If the approval holder makes the choice under condition 28 to revise a **plan** without submitting it for approval, the approval holder must:

- (a) notify the **Department** in writing that the approved **plan** has been revised and provide the **Department** with:
 - (i) an electronic copy of the revised **plan**;
 - (ii) an electronic copy of the revised **plan** marked up with track changes to show the differences between the approved **plan** and the revised **plan**;
 - (iii) an explanation of the differences between the approved **plan** and the revised **plan**;
 - (iv) the reasons the approval holder considers that taking the action in accordance with the revised **plan** would not be likely to have a **new or increased impact**; and
 - (v) written notice of the date on which the approval holder will implement the revised **plan** (the implementation date), being at least 20 **business days** after the date of providing notice of the revision of the approved **plan**, or a date agreed to in writing with the **Department**;
- (b) subject to condition 31, implement the revised **plan** from the implementation date.

30. The approval holder may revoke their choice to implement a revised **plan** under condition 28 at any time by giving written notice to the **Department**. If the approval holder revokes the choice under condition 28, the approval holder must implement the most recent **plan** approved by the **Minister**.

31. If the **Minister** gives a notice to the approval holder that the **Minister** is satisfied that the taking of the action in accordance with the revised **plan** would be likely to have a **new or increased impact**, then:

- (a) condition 28 does not apply, or ceases to apply, in relation to the revised **plan**; and
- (b) the approval holder must implement the **plan** specified by the **Minister** in the notice.

32. At the time of giving the notice under condition 31, the **Minister** may also notify that for a specified period of time, condition 28 does not apply for one or more specified **plans**.

Completion of the action

33. Within 20 **business days** after the **completion of the action**, the approval holder must notify the **Department** in writing and provide **completion data**.

Part C - Definitions

In these conditions, except where contrary intention is expressed, the following definitions are used:

Baseline condition includes, but is not limited to, details of the type, species, location, extent (in hectares), density and condition collected by a **suitably qualified person** over a timeframe that serves as a basis for comparison to data collected after the relevant activity.

Business days means a day that is not a Saturday, a Sunday or a public holiday for the whole of Queensland.

Cetaceans means a member of the sub-order Mysticeti or Odontoceti of the Order Cetacea.

Channel and swing basin footprints is as shown by the map at [Attachment C](#).

Commencement of the action means the point at which physical works associated with dredging, piling, or construction of the **Northern Sands Dredged Material Placement Area**, the **Tingira St**



Dredged Material Placement Area or **dredged material pipeline** are first undertaken. This does not include preparatory works such as the erection of signage or temporary fencing or site surveys or monitoring.

Completion data means an environmental report and spatial data information clearly detailing how the conditions of this approval have been met. The **Department's** preferred spatial data format is shapefile.

Completion of the action means the time at which all conditions have been fully met.

Compliance records means all documentation or other material in whatever form required to demonstrate compliance with the conditions of approval. This includes documents or material in the approval holder's possession or that are within the approval holder's power to obtain lawfully.

Compliance reports means written reports:

- (a) providing accurate and complete details of compliance, **incidents**, and non-compliance with the conditions and the **plans**;
- (b) consistent with the **Department's Annual Compliance Report Guidelines** (2014);
- (c) include a shapefile of any clearance of any **protected matters**, or their habitat, undertaken within the relevant 12 month period; and
- (d) annexing a schedule of all **plans** prepared and in existence in relation to the conditions during the relevant 12 month period.

Department means the Australian Government agency responsible for administering the **EPBC Act**.

Dredged material pipeline means the pipeline to deliver dredged material to the **Northern Sands Dredged Material Placement Area** and the pipeline to discharge tailwater from the **Northern Sands Dredged Material Placement Area**.

EPBC Act means the *Environment Protection and Biodiversity Conservation Act 1999* (Cth).

Exclusion zone means a radius, from the centre of the pile to be driven, to minimise the risk of physiological impacts to **marine fauna** from pile driving operations.

Fine sediment means material less than 15.6 micrometres (μm).

Incident means any event which has the potential to, or does, impact on any **protected matters**.

Independent audit means an audit conducted by an independent and **suitably qualified person** as detailed in the **Department's Environment Protection and Biodiversity Conservation Act 1999 Independent Audit and Audit Report Guidelines** (2015).

Interactions means any strike or other event that causes death or injury.

Mangrove habitat means vegetation surveyed by a **suitably qualified person** and confirmed to conform to Queensland Regional Ecosystem 7.1.1.

Marine fauna means Green Turtle (*Chelonia mydas*), Hawksbill Turtle (*Eretmochelys imbricata*); Flatback Turtle (*Natator depressus*); Loggerhead Turtle (*Caretta caretta*); Olive Ridley Turtle (*Lepidochelys olivacea*); Leatherback Turtle (*Dermochelys coriacea*); Dugong (*Dugong dugon*); Australian Snubfin Dolphin (*Orcaella heinsohni*); Australian Humpback Dolphin (*Sousa sahulensis*); Humpback Whale (*Megaptera novaeangliae*) and all other **cetaceans**.

Minister means the Australian Government Minister administering the **EPBC Act** including any delegate thereof.

Monitoring data means the data required to be recorded under the conditions of this approval.



New or increased impact means a new or increased environmental impact or risk relating to any **protected matter**, when compared to the likely impact of implementing the **plan** that has been approved by the **Minister**, including any subsequent revisions approved by the **Minister**, as outlined in the **Department's Guidance on 'New or Increased Impact' relating to changes to approved management plans under EPBC Act environmental approvals (2017)**.

Northern Sands Dredged Material Placement Area is as shown by the map at [Attachment B](#).

Observation zone means the zone around the **exclusion zone** where the movement of **marine fauna** is monitored to determine whether they are approaching or about to enter the **exclusion zone**.

PGPA Act means the *Public Governance, Performance and Accountability Act 2013* (Cth).

Pipeline footprint is as shown by the map at [Attachment D](#).

Plan(s) means the DMP required under condition 4, the NSMP required under condition 7, and the OMP required under condition 13A and or the updated OMP required under condition 13B.

Protected matter(s) means a matter protected under a controlling provision in Part 3 of the **EPBC Act** for which this approval has effect.

Queensland means the Queensland Government Department responsible for administering the *Environmental Protection Act 1994* (Qld).

Reef 2050 Long-Term Sustainability Plan means the *Reef 2050 Long-Term Sustainability Plan—July 2018, Commonwealth of Australia 2018*.

Reef Trust means the account established through the **PGPA Act** (*Reef Trust Special Account 2014 Determination 01* by the Minister for Finance under section 78 of the **PGPA Act** or any other special account established by the Minister for Finance under section 78 of the **PGPA Act** for the purpose of protecting, repairing or mitigating damage to the Great Barrier Reef World Heritage Area or a fund approved by the **Minister** for an equivalent purpose.

Sensitive ecological data means data as defined in the **Department's Sensitive Ecological Data – Access and Management Policy V1.0**, (2016).

Sensitive receptor(s) means coral reefs, seagrass beds, or mangroves.

Soft clay means any material to be dredged that is not **stiff clays**.

Soft start procedures means a gradual increase in piling impact energy of no more than 50 per cent of full impact energy for 10 minutes.

Stiff clays means sediment to be dredged that has an undrained shear strength of greater than 50 kilopascals (kPa) (as per Australian Standard AS1726-1993).

Suitably qualified marine observer means a dedicated and suitably trained person, with demonstrated experience in **marine fauna** observation, identification and monitoring of **marine fauna**, distance estimation and reporting. The marine observer must only be tasked with undertaking visual observations for **marine fauna** whilst they are engaged to do so, and must not have any other duties while engaging in observations.

Suitably qualified person means a person who has professional qualifications, training, skills and or experience related to the nominated subject matter and can give authoritative independent assessment, advice and analysis on performance relative to the subject matter using the relevant protocols, standards, methods and or literature.

Sub-lethal means where the viability of a **sensitive receptor** (as assessed by a **suitably qualified person**) has decreased to a point where that **sensitive receptor** is unable or unlikely to recover to its **baseline condition** or a similar condition to a comparable non-impacted **sensitive receptor** (being at a control site identified at condition 4(b)(i) or condition 7(b)(ii) as relevant).

Tingira St Dredged Material Placement Area is as shown by the map at [Attachment A](#).



Trigger levels means ecologically relevant water quality limits designed to support prediction, detection and prevention of **sub-lethal** and lethal impacts to **sensitive receptors** including early warning levels and levels to modify and or cease relevant activities.

Uncontrolled release means the release of placed dredged material from the **Northern Sands Dredged Material Placement Area** (including via tailwater or flooding) otherwise than in accordance with the NSMP approved by the **Minister**.

Website means a set of related web pages located under a single domain name attributed to the approval holder and available to the public.

ATTACHMENTS

Attachment A: map showing the **Tingira St Dredged Material Placement Area**

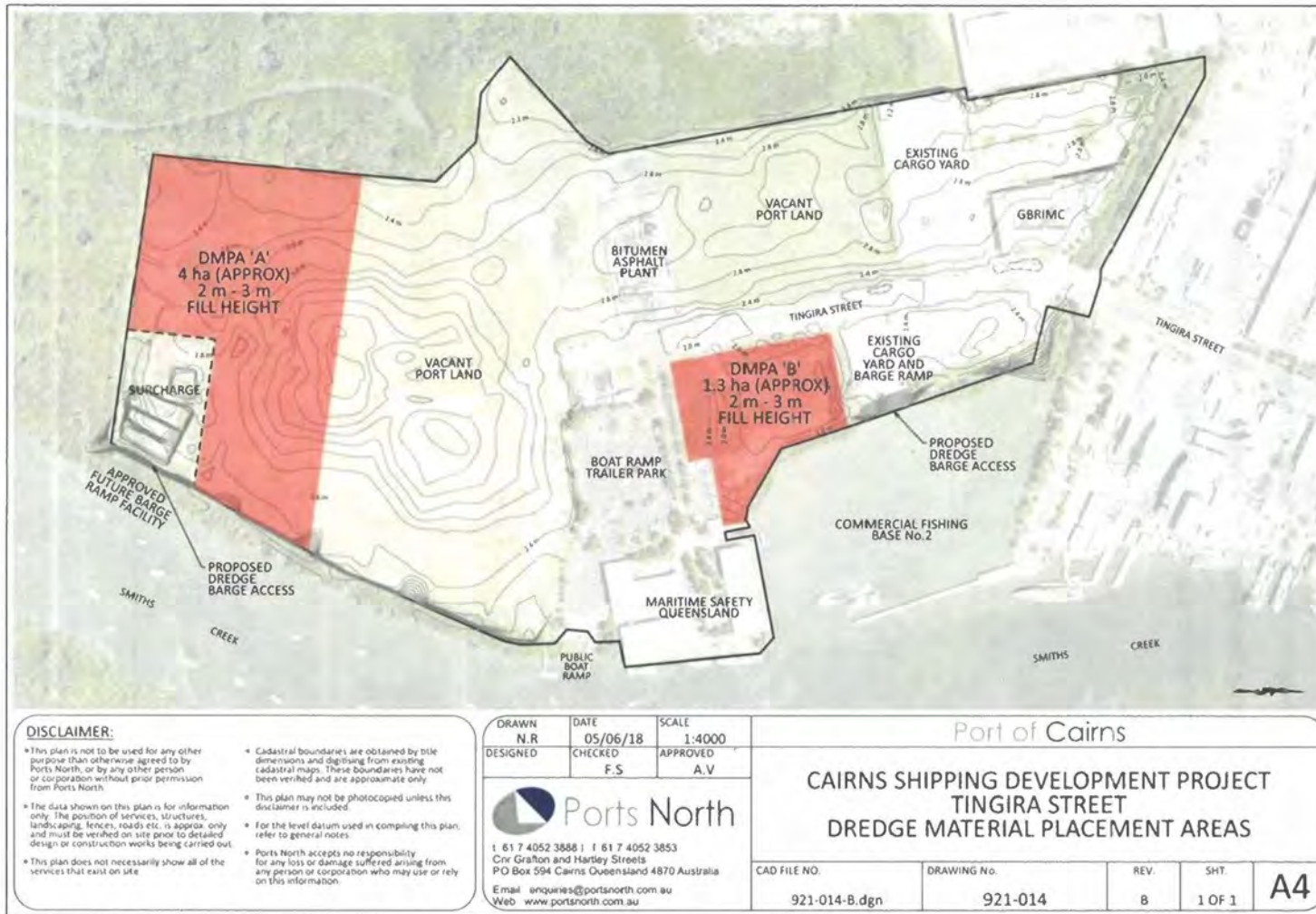
Attachment B: map showing the **Northern Sands Dredge Material Placement Area**

Attachment C: map showing the **channel and swing basin footprints**

Attachment D: maps showing the **pipeline footprint** (over four pages)

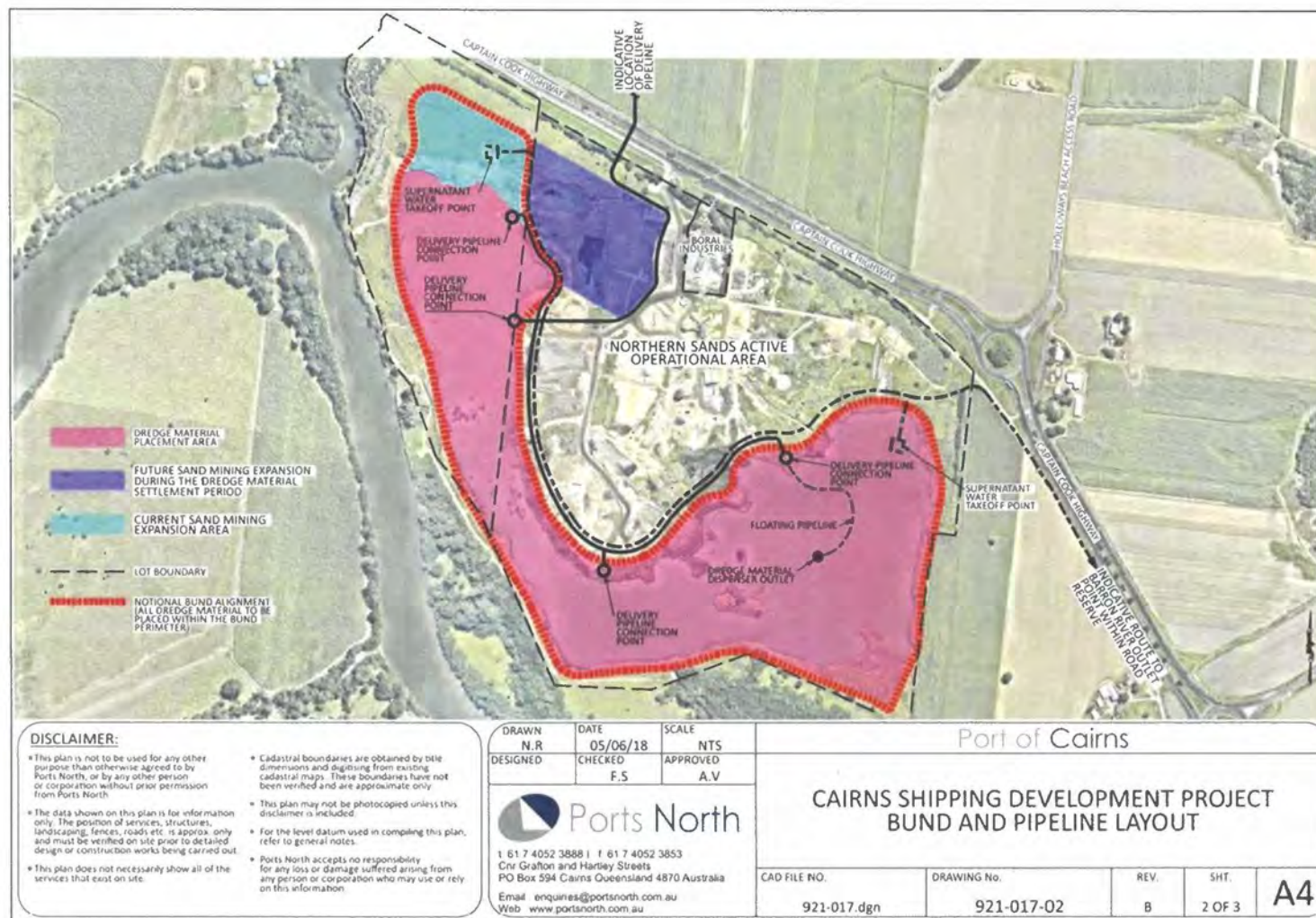


Attachment A: Map showing the Tingira St Dredged Material Placement Area





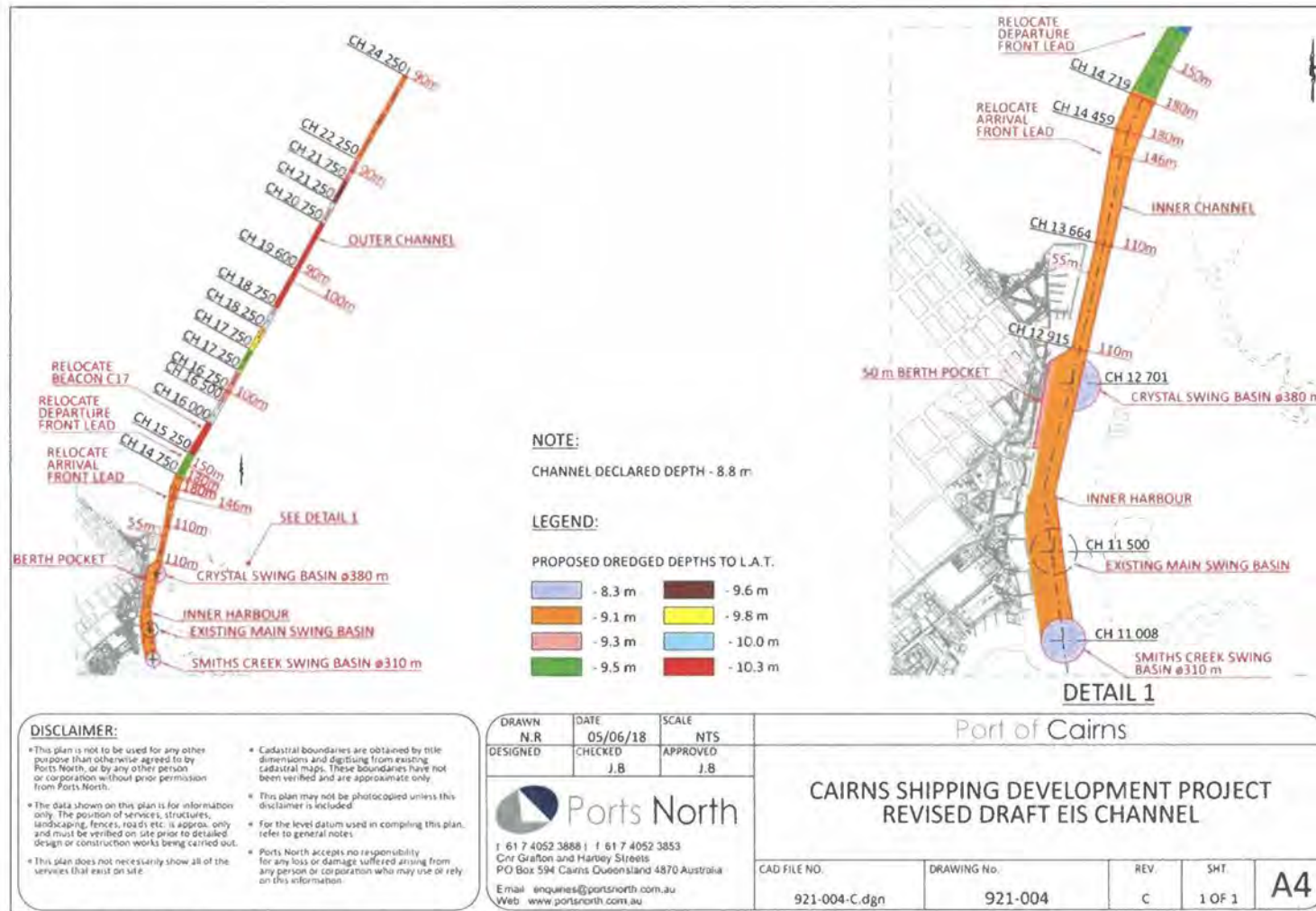
Attachment B: Map showing the Northern Sands Dredge Material Placement Area



921-017.dgn 06/06/2018 08:44:12



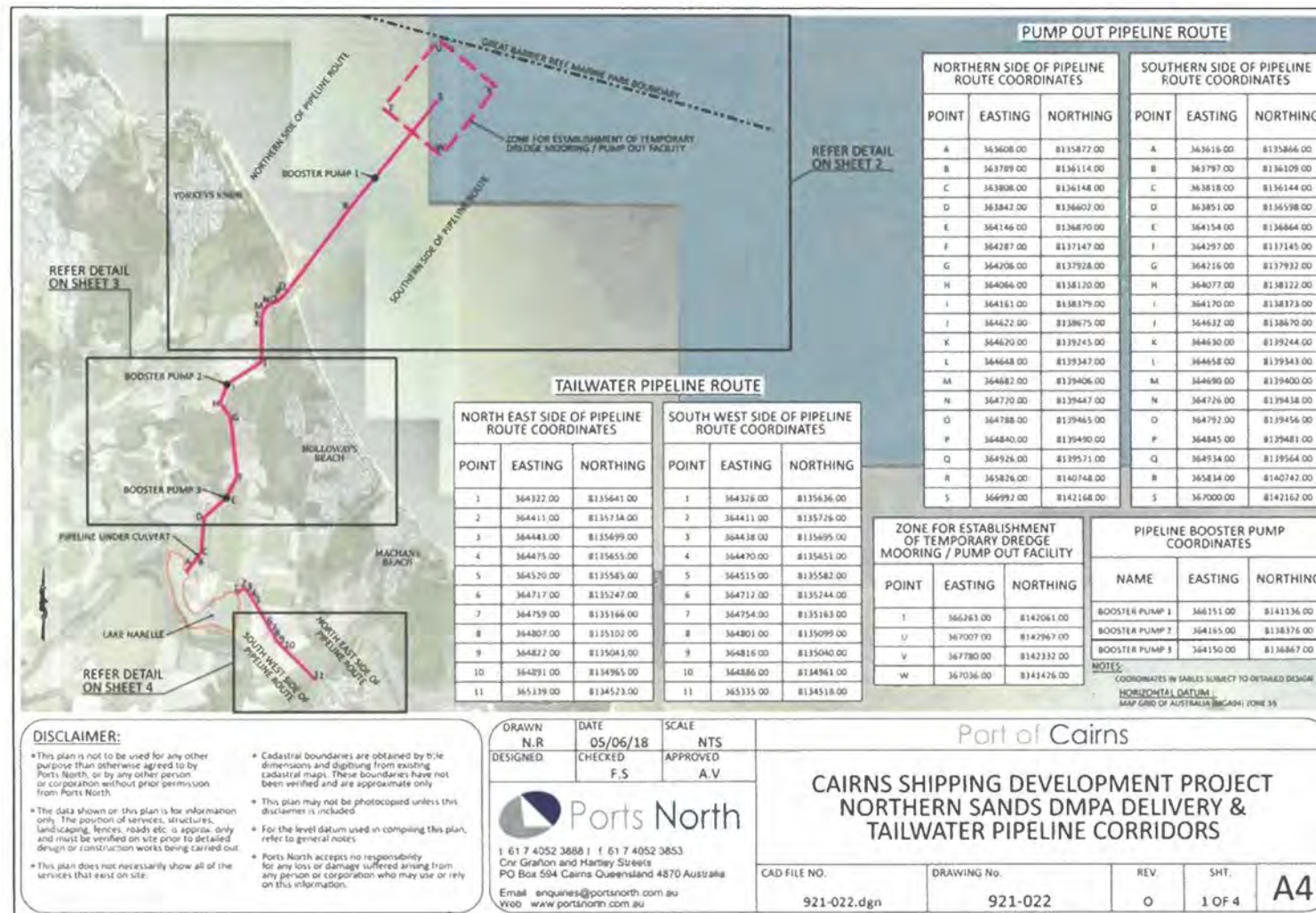
Attachment C: map showing the channel and swing basin footprints

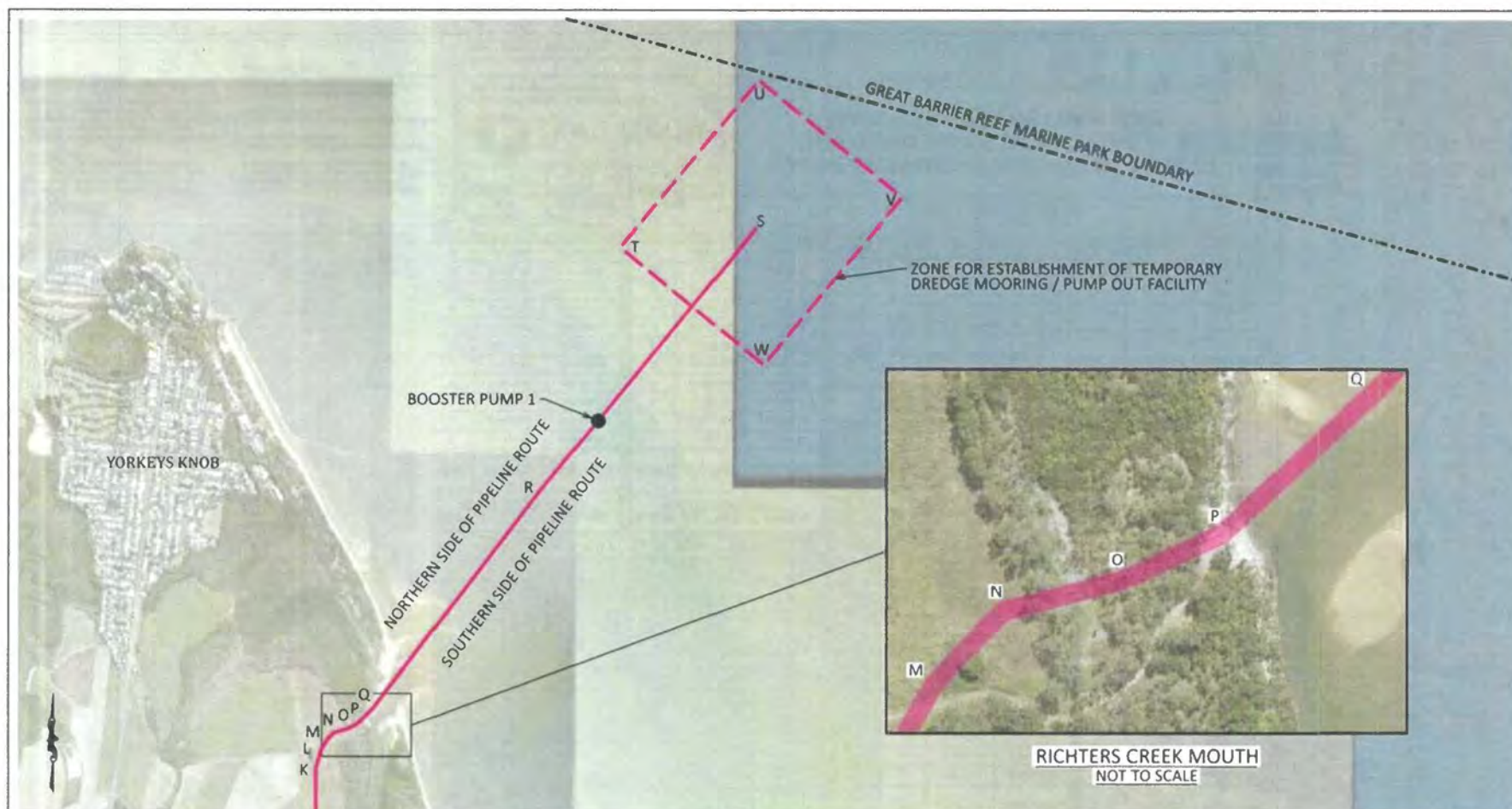


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Attachment D: maps showing the pipeline footprint (over four pages)





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DRAWN	DATE	SCALE
N.R	05/06/18	NTS
DESIGNED	CHECKED	APPROVED
	F.S	A.V

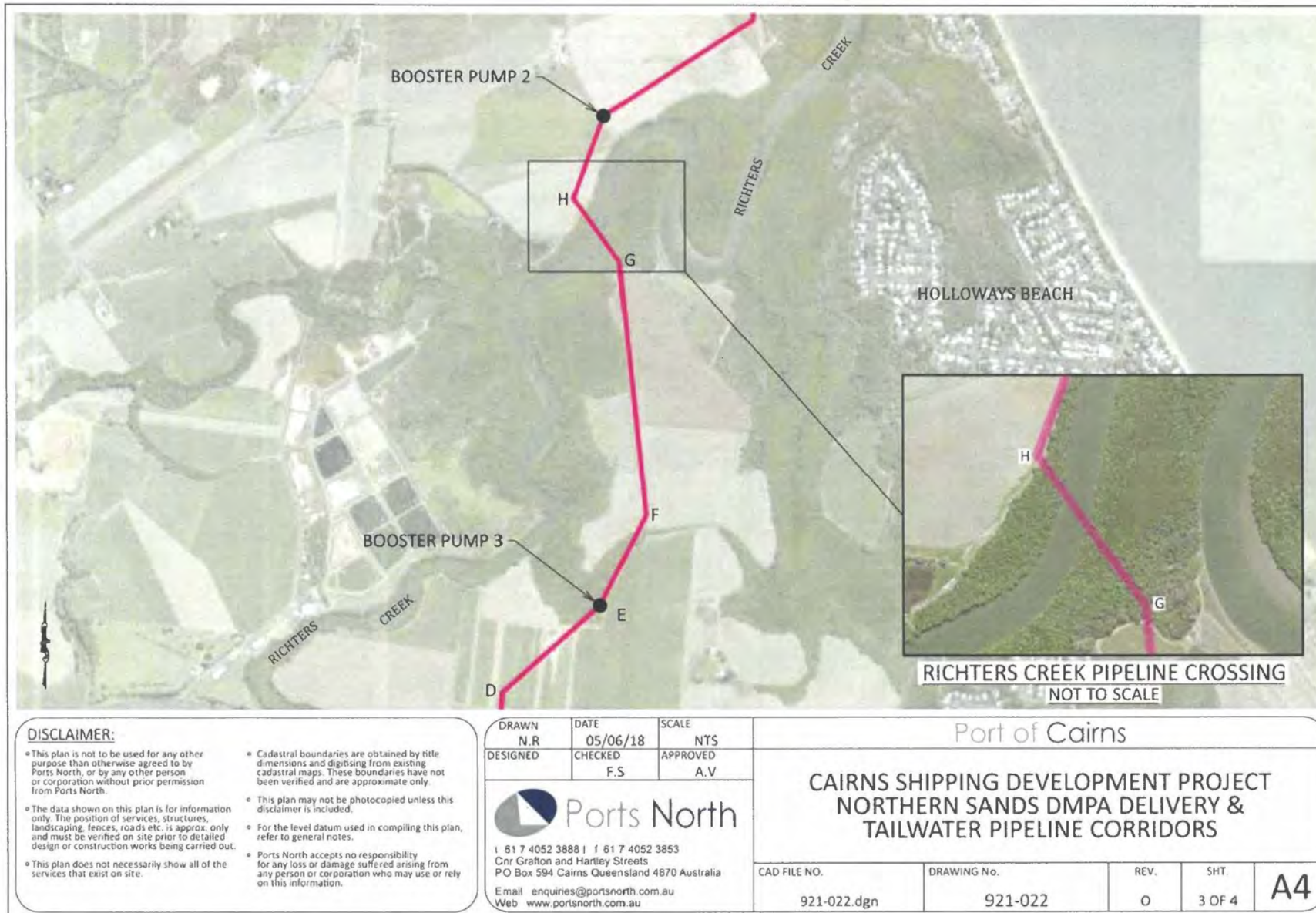


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Port of Cairns

**CAIRNS SHIPPING DEVELOPMENT PROJECT
NORTHERN SANDS DMPA DELIVERY &
TAILWATER PIPELINE CORRIDORS**

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