Assessment Report

Environmental Protection Act 1994

Assessment of a site specific application

IMPORTANT INFORMATION—PLEASE READ

This assessment report is for:

- *a site specific application for an environmental authority (EA) for an environmentally relevant activity (ERA)under the* Environmental Protection Act 1994 *(EP Act)*
- *a development application made under the* Sustainable Planning Act 2009 *(SPA) for a material change of use to carry out an ERA, received by the assessment manager after 31 March 2013 but prior to 1 July 2013, where the development application is taken to also be an EA application under s. 115 of the EP Act.*

If you are assessing a:

- *development application made under the* Sustainable Planning Act 2009 *(SPA) for a material change of use to carry out an ERA, received by the assessment manager on or after 1 July 2013; and*
- *the associated application for environment authority (EA) under the Environmental Protection Act 1994 (EP Act)*

Please use EM1212 "Assessment report for a development application involving a prescribed ERA from 1 July 2013" instead.

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PROJECT NAME: Abbot Point Terminal 0 Project – Stage 1	
PRINCIPAL APPLICANT: Adani Australia Coal Terminal Pty Ltd – ACN 163 186 383	
JOINT APPLICANTS: N/A	
AGENT/ SERVICE ADDRESS: Hamish Manzi (Head of Environment and Sustainability) Level 25, 10 Eagle Street, Brisbane QLD 4001	
ERA DESCRIPTION: ERA 50-1(a) – Bulk material handling - loading or unloading 100t or more of minerals in a day or stockpiling 50,000t or more of minerals— within 5km of the highest astronomical tide or 1km of a watercourse. ERA 63-1(b)(ii) – Sewage treatment - operating sewage treatment works, other than no-release works, with a total daily peak design capacity of— more than 100 but not more than 1500EP— otherwise.	
LOCATION DESCRIPTION: Abbot Point	
TENURE DESCRIPTION: n/a	
ECOTRACK PROJECT NO: 429412	**ENVIRONMENTAL AUTHORITY NO:** EPPR03180115
ASSOCIATED DEVELOPMENT APPROVAL NO: n/a – refer to MCU in a state development area	**FILE NO:** 101/0014938

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1) Brief summary of operation

The Abbot Point Coal Terminal (ABCT) is located approximately 25km north-west of Bowen within the Port of Abbot Point boundary, designated as Strategic Port Land (SPL), and within the Abbot Point State Development Area (APSDA). The port operations are controlled by North Queensland Bulk Ports (NQBP). Operating since 1984, the current throughput capacity is 50 million tonnes per annum (mtpa).

In June 2011, Mundra Port Holding Trust which is owned by Mundra Port Pty Ltd (a subsidiary of the applicant - Adani) purchased a 99 year lease for Abbot Point Coal Terminal 1 (the 'T1' facility). T1 is currently operated by Abbot Point Bulkcoal Pty Ltd (APBC), a subsidiary of Glencore and currently operates under site specific environmental authority (EA) EPPR00577113.

This application relates to Adani Australia Coal Terminal Pty Ltd (Adani), as Trustee of Adani Australia Holding Trust, applying to construct and operate Terminal 0 ('T0'). T0's total projected operating capacity will be 70 mtpa, consisting of phase 1 and phase 2, with an anticipated life of no less than 60 years. This application relates specifically to phase 1, resulting in a throughput capacity of 40 million tonnes per annum. The T0 Project will be located immediately east of T1.

Phase 1 of the Project will comprise:

- An upgrade of the existing eastern Materials Offloading Facility (MOF) infrastructure to accommodate Roll on Roll off (RORO) vessels and vehicles for the delivery of materials and modular infrastructure during construction. The MOF is required for all phases of the Project.
- Earthworks and contribution of fill material to support two new narrow gauge rail loops and infrastructure within the existing T1 loop.
- One common concrete dump station vault (designed to house two unloading trains) and an inloading conveyor stream to the coal stockyard.
- Earthworks and contribution of fill material to support development of the stockyard supporting one bund with two stockpile rows and two stacker/reclaimers, with a total capacity of 970,000 tonnes.
- Inloading and outloading stream of conveyors, Stacker Reclaimers, transfer towers, surge bin, sample plant and shiploader.
- Associated infrastructure, including a workshop, administration building, sewerage treatment plant, amenities block.
- Offshore trestle jetty and one wharf berth.
- Jetty and single wharf outloading conveyors feeding the shiploader.

Two ERAs are subject to the T0 phase 1 Project:

- *ERA 50-1(a) – Bulk material handling - loading or unloading 100t or more of minerals in a day or stockpiling 50,000t or more of minerals— within 5km of the highest astronomical tide or 1km of a watercourse.*

- *ERA 63-1(b)(ii) – Sewage treatment - operating sewage treatment works, other than no-release works, with a total daily peak design capacity of— more than 100 but not more than 1500EP—otherwise.*
    - Peak design capacity of 140 persons per day.

Bulk material handling (ERA 50-1(a)) is required for the in loading and out loading of materials to and from the project location. The process includes receiving the product via train and the loading of the product onto the conveyor systems and finally onto the ships.

The ERA 63-1(b)(ii) for sewage treatment is required because sewage and wastewater will be produced on site. The STP infrastructure consists of modular STPs to allow for the flexible numbers in workforce during construction and operation phases. Sewage effluent and wastewater will be treated to a Class C standard as per the Queensland Water Recycling Guidelines 2005, as noted by the applicant within the report by CDM Smith.

On 6 May 2015 Adani applied for an EA for T0 phase 1. The application was assessed and a further information request was sent to Adani on 17 June 2015 regarding the operation and implementation of the water management system, and treatment and disposal methods for treated effluent. Adani's response to the information request was received by EHP on 25 September 2015. Under section 168 of the EP Act, a decision on the application must be made within 20 business days; in this case the decision was extended on 21 October 2015 to 23 November 2015, and further extended on 23

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November 2015 to 7 December 2015. If the application is approved, EHP must issue the EA to the applicant within 5 business days after the decision is made.

Adani have also submitted for assessment a material change of use (MCU) application for the T0 Project in the APSDA with the Office of the Coordinator-General (OCG). The OCG referred the MCU application to EHP on 31 March 2015 - EHP Toowoomba co-contributed to the MCU application with the EHP Brisbane coastal team coordinating a response. A decision by the OCG on the MCU application has not yet been made.

The project also triggered the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) referral, and on 13 December 2011 the Federal Department of the Environment (DotE) decided that the proposed action is a controlled action and that the project would require assessment and approval under the EPBC Act before it can proceed. Following review of the EIS, on 10 December 2013 DotE approved, with conditions, the T0 Project.

In relation to the Qld *Environmental Offsets Act 2014* an information request has been sent from EHP (Coastal team as coordinator) to Adani (via the OCG) in relation to the MCU application requesting details of Matters of State Environmental Significance (MSES). The intention of the information request is to identify any MSES not addressed at the federal level.

The following documents were considered in support of the EA application:

- Adani Australia Coal Terminal Pty Ltd (April 2015) Abbot Point Terminal 0 Project – Supporting information for a site specific environmental authority for environmentally relevant activities. CDM Smith, 596pp.
- Response to the information request issued by EHP 17 June 2015 (response received 25 September 2015).
- Response to the information request for the State Development Area application for material change of use issued by EHP (response received 18 March 2015).

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2) Environmental values and associated environmental impacts

a) List ALL the **Environmental risks, proposed discharges or emissions** as a result of the activity and highlight the level of risk (cumulative/widespread/irreversible). The level of risk should have been determined by the applicant. A good tool is the *Guidelines on risk assessment techniques* produced by Standards Australia. The department also has a risk assessment matrix considering likelihood and consequence in the risk assessment procedure guide.

[This information must be provided by the applicant. The matrix in the environmental manual can provide further information]

Air

Air emissions from coal dust will be the primary source of air contamination from the project. Air modelling for TSP, PM10, PM2.5 and dust deposition was undertaken surrounding all identified ecological sensitive areas, as well as the Bowen township and 5 identified sensitive receptors.

It is also noted that the current air quality conditions placed on the existing T1 EA for dust deposition is 60mg/m^2/day above the background level expressed as a monthly average, which is below the 120mg/m^2/day (averaged over 1 month) suggested in EHP guideline EM960 - *Application requirements for activities with impacts to air,* and also EHPs guideline EM1096 - Common conditions – prescribed environmentally relevant activities. The applicant's modelling predicts the highest 120 day rolling average dust deposition rate of 55.64mg/m^2/day, measured at the GBRWHA receptor zone, which is located directly north of T0, surrounding the trestle and loading berths.

Odour also has the potential to impact environmental values surrounding the project, particularly in relation to the Sewage Treatment Plant (STP). The applicant has stated that '*given the remote location and small size of the STP there is not expected to be any odour nuisance issues*'.

No point source emissions have been identified.

Water

Due to the project's close proximity to the Caley Valley Wetlands (CVW) and also the Great Barrier Reef (GBR), potential

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impacts to water from unplanned or uncontrolled releases can have potentially significant impacts on the receiving environment. The applicant however has noted the recent construction of the stormwater return dam (560ML) at Terminal T1 has greatly reduced the likelihood of an uncontrolled release.

Impacts from storm surges are also possible however the applicant has stated that '*the critical infrastructure supporting the terminal will be at elevation to provide 300 mm freeboard to the 100 year average recurrence interval (ARI) [1% annual exceedance probability (AEP)] static storm surge event, and thus be protected from all but the most extreme storm events*'.

Sewage

Sewage effluent may have an impact on the surrounding land through uncontrolled releases or exceedances of the contaminant criteria listed in the EA. However, through compulsory monitoring requirements and the requirement to only carry out releases at RP1 and RP2, the likelihood of potential impacts is minimal.

Noise and Vibration

Once constructed the project will be operational 27 hours a day 7 days per week. The potential noise sources identified by the applicant include train arrival and unloading (including vibration units); train inloading; coal handling facilities; outloading facilities to offshore infrastructure; stockyard machines, which will be stackers; reclaimers or combined stacker/reclaimers; transfer towers, surge bins and sampling plants; conveyor operation and coal bund maintenance; and ship loading.

The modelling provided by the applicant was based off the proposed 70 mtpa operation (ie, phase 1 and 2 combined), therefore the amount of noise generated from phase 1 should be lower than the figures provided.

Section 3.3.1 states that '*the typical period for unloading a train is approximately 3.5 hours, occurring approximately six times per day*', while Appendix D states '*the development of T0 will require up to 20 trains per day to deliver a throughput of 35 Mtpa*' and '*the typical period for unloading is approximately 70 minutes, however, if the wagon vibrator is used on each train wagon, the time can increase up to 150 minutes per train.*' The inconsistencies in the above statements is noted, and although the achievement of 20 trains per day is unlikely given the unloading times provided, the assessment of a 20 train per day schedule in the report provided in appendix D (Noise and Vibration Assessment) ensures a 'worst case scenario' in the modelling. Appendix D also notes the conveyor's maximum speed is 5.5m/s, moving 6,000 tonnes/hour, whereas section 3.3.1 states that the dump station facilities will include an 'inloading conveyor stream capacity rated at 9,000 tph'.

The applicant has noted that the impact of vibration on 'human comfort and annoyance' and 'damage to buildings' is expected to be negligible and has not been considered by the applicant.

Waste

The applicant has identified a number of issues associated with incorrect or poorly managed waste practices including water, land and groundwater contamination; odour; increased vermin and pest animals; a reduction in visual amenity; greenhouse gas emissions; increased consumption of existing landfill space; potential importation of feign pest and disease, and risks to human health.

The applicant has identified the following waste streams likely to be generated on site: general waste, recyclables, scrap steel, hydrocarbons, chemicals, tyres, sewerage, quarantine wastes, and construction/demolition wastes. A project waste inventory has been provided (see section 3.22.2.3 of the EIS documentation), including the management controls of bilge and ballast water. The applicant notes the Port's existing biosecurity and quarantine strategy, which will be expanded to accommodate the increased shipping volumes associated with the project.

Once sorted on site, the majority of wastes, (i.e. those that cannot be reused on site) will be transferred by licenced operators, to licenced waste management facilities - currently identified as either Proserpine or Bowen Landfills.

Land and Biodiversity

It is estimated that up to 500,000m^3 of imported fill (in place volume) will be required to achieve the design development levels for Phase 1 of the Project. The material is expected to be sourced from existing quarries located south of Saltwater Creek on the eastern side of the Abbot Point Access Road or from other offsite quarries in the region, or via the beneficial reuse of dredged material.

A 20m deep excavation for the dump bin will be installed to accommodate a reinforced concrete vault structure.

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It is estimated that approximately 46.28ha of mapped vegetation will be cleared for site preparation. The applicant has stated (section 5.5) that clearing of the Beach Scrub Threatened Ecological Community (EPBC Act) and Of-concern Regional Ecosystem (*Vegetation Management Act 1999*) will be avoided. The project may clear up to 44.5ha of *Corymbia/Melaleuca* woodland (RE 11.2.5) which is listed as Least Concern under the *Vegetation Management Act 1999*.

b) What are the **Environmental values** that may be affected by the identified risks/discharges? This **must** be considered as per **section 51 of the EP Reg** along with any **quality objectives under an EPP.**

[This information must be provided by the applicant. Officers can also use sources such as ecomaps, the environmental manual and the environmental protection policies]

Air

The environmental values to be enhanced or protected under the *Environmental Protection (Air) Policy 2008* (EPP Air), that may be affected by the proposed activities, are:

- Protecting the health and biodiversity of ecosystems,
- Human health and wellbeing,
- Protecting the aesthetics of the environment, including the appearance of building structures and other property,
- Protecting agricultural use of the environment.

The sensitive receptors and sensitive receptor 'zones' identified by the applicant includes the nearest residential property approximately 4.5 km to the southwest; the nearest town (Bowen) is 19km south-east; while nationally significant CVW to the west, and the GBRWHA to the north and east, lie adjacent to the project.

It is predicted that the impacts to air of TSP, PM10, PM2.5 and dust deposition will be below the EPP Air and EHP recommended criteria. The EPP Air criteria for TSP, PM10 and PM2.5 are, respectively, 90µg/m^3, 50µg/m^3, 25µg/m^3. The recommended criteria for dust deposition, as per the administering authority's guideline, are 120mg/m^3 averaged per day over one month.

Water

The environmental values to be enhanced or protected under the *Environmental Protection (Water) Policy 2009* (EPP Water), that may be affected by the proposed activities, are:

- The biological integrity of the waterbodies,
- Essential habitat for fauna including resident migratory birds,
- Port and industrial use,
- Recreation (limited to the western side of the wetland),
- Cultural and spiritual heritage.

The CVW are of environmental significance as it is listed on the Directory of Important Wetlands in Australia (DIWA), where part of the wetlands is within the APSDA. The only activities proposed inside the APSDA include temporary work areas that will avoid any impacts on the wetland.

The water management system has been designed to minimise impacts to the CVW because it can accommodate all stormwater runoff from the project area to be captured on site and will not be released to the wetland (unless necessary). Note that the wetland can go through periods where it is completely dried up.

The GBRWHA is a Matter of National Environmental Significance under the EPBC Act and the environmental values are considered to be the large number of species and the ongoing ecosystem processes.

Noise and vibration

The environmental values to be enhanced or protected under the *Environmental Protection (Noise) Policy 2008* (EPP Noise), that may be affected by the proposed activities, are:

- Protecting the health and biodiversity of ecosystems,
- Human health and wellbeing, including by ensuring a suitable acoustic environment for individuals to do any of the following:
    - Sleep
    - Study or learn

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- Be involved in recreation, including relaxation and conversation
- Protecting the amenity of the community.

Waste
There are no environmental values for waste.

Land and Biodiversity
The environmental values of the terrestrial area and biodiversity of the Abbot Point project include:
- A diversity of habitat types ranging from rocky headland and grasslands to eucalypt woodlands,
- Riparian areas and freshwater streams,
- Connectivity of the terrestrial areas to a large coastal wetland and riparian areas,
- Presence of threatened and other species,
- Proximity to nearby protected areas e.g. Cape Upstart National Park.

Some of the areas listed above are located within the project area, including threatened species and ecological communities (including semi-evergreen vine thicket listed under the EPBC Act). More detail can be found in Chapter 3.11 of the EIS, sections 3.11.3 to 3.11.7.

c) Have **mitigation measures** been proposed and has an acceptable level of impact been determined if discharges/emissions are unavoidable?

Has the applicant addressed any applicable **management hierarchy**? E.g. emissions, contamination and generation of waste must be avoided first. **Must** be considered as per **Section 51 of the EP Reg**.
Does the application reflect the **management intent** detailed in the appropriate **EPP** for the values? **Must** be considered as per **Section 51 of the EP Reg.**

Does the application meet the **environmental objectives and performance outcomes** in Schedule 5, Part 3 Table 1 of the EP Reg**? **This assessment MUST be done as per Section 51 of the EP Reg**.

[Management objectives for the environmental values must be considered as per section 51 of the EP Reg in determining an acceptable level of impact, refer to relevant EPPs and other publications.]

The applicant has detailed mitigation measures that will be adopted during the operation of the project to minimise impacts to environmental values. Mitigation measures can be found in more detail in each corresponding EIS chapter, and through various sections of the report provided with the application. However, the management hierarchy has been considered as per the relevant EPPs and *Waste Reduction and Recycling Act 2011* for the applicable environmental values:

Air
Avoid: Air emissions cannot be avoided as the movement of coal and operation of equipment using diesel are essential to the operation of the port.
Recycle: There is no option to recycle air on site.
Minimise: The holder of the EA is required to minimise contaminant releases to air in order to comply with the EA limits. PM10 has an objective that is to be achieved, which is based on the EPP Air (50µg/m^3 over a 24 hour averaging time). An objective for dust was included at the level prescribed within the administering authority's guideline (120mg/m^2/day averaged over one month).
Manage: Where PM10 and dust exceed the limits prescribed in the EA, the holder of the EA is required to ensure reasonable and practical measures are implemented to minimise environmental harm. The impacts can be managed through the development and implementation of an air monitoring program which is required within the EA.

The environmental objective and performance outcome for air, as per Schedule 5, Part 3, Table 1 of the EP Reg is:
- Environmental objective: The activity will be operated in a way that protects the environmental values of air.
- Performance outcome: All of the following-
  a) Fugitive emissions of contaminants from storage, handling and processing of materials and transporting materials within the site are prevented or minimised;
  b) Contingency measures will prevent or minimise adverse effects on the environment from unplanned emissions and shut down and start up emissions of contaminants to air;
  c) Releases of contaminants to the atmosphere for dispersion will be managed to prevent or minimise adverse effects on environmental values.

Noise and Vibration

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Avoid: Noise emissions are unavoidable to carry out the activity.
Minimise: The impacts of noise will be minimised on site such as through the use of low noise idlers on the conveyors. The holder of the EA must ensure that noise is within the criteria prescribed by the EA. A noise objective of 55dB(A) ($_{Aeq\ adj,\ 1hr}$) is in the EA for all hours of the day, every day of the week (including public holidays), at the designated noise monitoring point near the CVW. In addition, it is important to note that the EA specifies that an environmental nuisance is not permitted at any sensitive or commercial places, not at the site itself.
Manage: Monitoring of noise at certain locations will determine how well the EA limits for noise are being achieved. Note that the T1 facility occurs between Phase 1 of the T0 project and the CVW so some of the potential adverse impacts to the CVW (the closest sensitive receptor) may be buffered by the T1 project. However, a noise monitoring station is required to be installed on the eastern side of the CVW to monitor the area of the CVW closest to the activity. This requirement came about because the initial monitoring location that the applicant included in the application is not considered to be representative of the effects the activity may have on the wetland. The CVW is of particular importance as it is a nesting area for species such as the Australian Painted Snipe which is an EPBC listed endangered species.

The environmental objective and performance outcome for noise, as per Schedule 5, Part 3, Table 1 of the EP Reg is:

- Environmental objective: The activity will be operated in a way that protects the environmental values of the acoustic environment.
- Performance outcome: The release of sound to the environment from the activity is managed so that adverse effects on environmental values including health and wellbeing and sensitive ecosystems are prevented or minimised.

Waste
Avoid: Waste is unavoidable during the operation of the project but the production of certain waste products will be avoided where necessary, such as paper, plastics, glass. Note that no waste will be disposed of onsite - all wastes will be removed and disposed of by a licenced contractor to a facility that can lawfully accept the waste.
Reduce: Certain products will be used minimally where appropriate, such as paints, chemicals and containers.
Re-use: Water captured on site will be re-used on site and within the water management system.
Recycle: Waste oil, air filters, batteries, will be recycled where appropriate.
Recover: There are no options to recover waste resources from the proposed activity.
Treat: Products such as sewage effluent will be treated at the STP onsite.
Dispose: Products that will be disposed of, because they can't be recycled, include sand blasting waste and general waste including putrescibles.

The environmental objective and performance outcome for waste, as per Schedule 5, Part 3, Table 1 of the EP Reg is:

- Environmental objective: Any waste generated, transported, or received as part of carrying out the activity is managed in a way that protects all environmental values.
- Performance outcome: Both of the following apply-
    a) Waste generated, transported or received is managed in accordance with the waste and resource management hierarchy in the *Waste Reduction and Recycling Act 2011;*
    b) If waste is disposed of, it is disposed of in a way that prevents or minimises adverse effects on environmental values.

Water and Sewage
Conserve/reduce use of water and wastewater production: Water is essential to the operation of the project so the use of water can only be conserved where appropriate.
Waste prevention: Water is not proposed to be wasted and will instead be recycled or discharged where appropriate.
Treat and recycle: Water will be recycled through the water management system between the T0 and T1 operations. Stormwater on T0 and T1 will flow into Sediment Ponds 1 and 2 which can then be pumped into the Stormwater Return Dam (560ML) for use (i.e. dust suppression).
Treat and release to waste facility or sewer: Sewage and wastewater on site will be treated within the STP to a Class C effluent standard (Queensland Water Recycling Guidelines 2005) as a minimum. The application describes that sewage and wastewater on site would be treated to a Class C standard where it would be used in irrigation to land. Although, the applicant noted in the response to the information request received 25 September 2015 that treated effluent would no longer be irrigated to land. The administering authority notes the inconsistency between the application and the response to an information request issued in relation to the SDA application for MCU in the APSDA, which states recycled sewage for use on site would be treated to a Class A+ standard. The STP infrastructure consists of modular STPs to allow for the flexible

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numbers in workforce during construction and operation phases. Water may be released into the water management system for re-use only if it meets the criteria in the EA. If water satisfies the contaminant criteria, water will not need to be treated or released to a waste facility.
Treat and release to land: Water will mostly be contained within the water management system and releases of water will typically occur to the CVW if necessary from Terminal 1. The project area is too small to allow the release of water directly to land. Treated sewage effluent must not be released to land as per condition F1 of the EA and only released to RP1 and RP2.
Treat and release to surface waters or groundwaters: No water will be released from T0 directly into any waters.

The environmental objective and performance outcome for water, as per Schedule 5, Part 3, Table 1 of the EP Reg is:

- Environmental objective: The activity will be operated in a way that protects environmental values of waters.
- Performance outcome: All of the following-
    a) The storage and handling of contaminants will include effective means of secondary containment to prevent or minimise releases to the environment from spillage or leaks;
    b) Contingency measures will prevent or minimise adverse effects on the environment due to unplanned releases or discharges of contaminants to water;
    c) The activity will be managed so that stormwater contaminated by the activity that may cause an adverse effect on an environmental value will not leave the site without prior treatment;
    d) The disturbance of any acid sulfate soil, or potential acid sulfate soil, will be managed to prevent or minimise adverse effects on environmental values;
    e) Acid producing rock will be managed to ensure that the production and release of acidic waste is prevented or minimised, including impacts during operation and after the environmental authority has been surrendered;
    f) Any discharge to water or a watercourse or wetland will be managed so that there will be no adverse effects due to the altering of existing flow regimes for water or a watercourse or wetland;
    g) NA – the project is not a petroleum activity;
    h) The activity will be managed so that adverse effects on environmental values are prevented or minimised.

The environmental objective and performance outcome for wetlands, as per Schedule 5, Part 3, Table 1 of the EP Reg is:

- Environmental objective: The activity will be operated in a way that protects the environmental values of wetlands.
- Performance outcome: The activity will be managed in a way that prevents or minimises adverse effects on wetlands.

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Land and Biodiversity

While there is no management hierarchy for land and biodiversity, the following mitigation and management options will be applied to minimise the impact to the environment:

- Footprint: The onshore component of the Project is located within the declared APSDA, while the offshore component of the Project is within the Port of Abbot Point boundary, designated as SPL.
- Contingency measure: The critical infrastructure supporting the terminal will be at elevation to provide 300 mm freeboard to the 100 year average recurrence interval (ARI) [1% annual exceedance probability (AEP)] static storm surge event, and thus be protected from all but the most extreme storm events.
- Rehabilitation: As the area is designated as strategic port land, decommissioning and rehabilitation requirements will not be conditioned as part of the EA. The applicant has however noted that 'the Project will be decommissioned in accordance with legislative requirements and NQBP specification as the landowner and Port Authority'.
- Monitoring program: The holder of the EA is required to contribute to a monitoring program to prevent adverse impacts to the CVW migratory shorebirds and waterbirds.
- Offsets: There are no offsets relating to this application.

The environmental objective and performance outcome for land, as per Schedule 5, Part 3, Table 1 of the EP Reg is:

- Environmental objective: The activity is operated in a way that protects the environmental values of land including soils, subsoils, landforms and associated flora and fauna.
- Performance outcome: All of the following-
    a) Activities that disturb land, soils, subsoils and landforms and associated flora and fauna will be managed in a way that prevents or minimises adverse effects on the environmental values of land;
    b) Areas disturbed will be rehabilitated or restored to achieve sites that are-
        i. Safe to humans and wildlife;

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ii. Non-polluting; and
iii. Stable; and
iv. Able to sustain an appropriate land use after rehabilitation or restoration;

c) The activity will be managed to prevent or minimise adverse effects on the environmental values of land due to unplanned releases or discharges, including spills and leaks of contaminants;
d) The application of water or waste to the land is sustainable and is managed to prevent or minimise adverse effects on the composition or structure of soils and subsoils.

d) Any **conditions** which need to be placed on the approval?

The conditions on the EA were taken from several sources such as the model mining conditions, common conditions guideline and the model operating conditions for ERA63.

Additional conditions were added, such as the inclusion of a compulsory noise monitoring station on the eastern side of the CVW. The administering authority considered that the monitoring location chosen by the applicant would not be representative of the impacts of noise on the CVW, particularly as the CVW is a nesting spot for the Australian Painted Snipe (endangered under the EPBC Act).

Condition H1 has been included to ensure that the EA holder actively considers the potential light impacts to the marine environment, where offshore light fittings are required.

Condition H2 has been included in the EA to determine if there are any adverse impacts to the migratory shorebirds and waterbird populations that are associated with the CVW.

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3) Land use assessment under Table 2, Schedule 5 of the EP Reg

	Environmental Objective	Performance outcome	How the proposal meets the Environmental Objective and performance outcome **
Site Suitability	Minimise serious environmental harm on adjacent areas of high conservation value/special significance/sensitive land	Identify and evaluate areas of high conservation value/special significance and minimise impacts	NA as per section 51(2)(a) of the EP Reg.
		No adverse effects beyond the site.	
		Critical design requirements will prevent emissions having an irreversible or widespread impact on adjacent sites.	
Location on site	Location on site protects EVs on adjacent land	Activity located to prevent impacts on surrounding land	NA
		Storage of hazardous materials protected from flooding	
Critical Design	Designed for Best Practice Environmental Management	No storage, production, treatment or release of hazardous contaminants	NA
		Storage and management of hazardous materials prevents adverse environmental impacts	
		Regulated structures comply with the 'Manual for Assessing Consequence Categories and Hydraulic Performance of Structures',	NA
		Hazardous material stored to prevent movement offsite during a flood.	NA
		The design of the facility prevents or minimises the production of hazardous contaminants and waste.	
		The design contains and treats hazardous	NA

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	Environmental Objective	Performance outcome	How the proposal meets the Environmental Objective and performance outcome **
		contaminants instead of releasing it.	

** The assessing officer must determine the extent to which the application achieves the environmental objective. The applicant can do this by achieving the performance outcomes stated in Schedule 5 of the EP Reg or by proposing appropriate alternative measures.

3) Standard Criteria

Assessing officers **must** consider the standard criteria before making a recommendation.

Have you considered the Standard Criteria? ☒ Yes

[refer to the department's guideline Assessment requirements for making a decision for an environmental authority or development approval for an environmentally relevant activity, EM1127, for guidance on how to consider the standard criteria]

Standard Criteria	Response
(a) the following principles of environmental policy as set out in the Intergovernmental Agreement on the Environment— (i) the precautionary principle; (ii) intergenerational equity; (iii) conservation of biological diversity and ecological integrity; and	(i) As the T1 project has been operating since the 1980's, the impacts to the environment are not new. Therefore, the monitoring, modelling, and assessment undertaken by the applicant are considered suitable. (ii) Suitable mitigation measures have been proposed and will be conditioned on the EA to ensure the project does not cause significant and/or irreversible harm that is likely to impact on future generations. (iii) Although the project sits adjacent to the GBRWHA and a nationally listed wetland community, significant impacts to either of these areas is unlikely.
(b) any Commonwealth or State government plans, standards, agreements or requirements about environmental protection or ecologically sustainable development; and	An EIS under the EPBC Act was undertaken, with Federal approval granted on 10 December 2013. The EA application was also made utilising relevant EHP and State Government Guidance material.
(d) any relevant environmental impact study, assessment or report; and	As stated above, an EIS under the EPBC Act has been undertaken. The EA application document referred to the EIS to provide further detail. This assessment has utilised the information provided in both documents.
(e) the character, resilience and values of the receiving environment; and	The nature of the receiving environment (including identified sensitive receptors and sensitive 'zones') has been considered by the applicant and provided in the application for consideration and assessment.
f) all submissions made by the applicant and submitters; and	This project does not trigger criteria public comment under the EP Act. The application documents provided by the applicant have been considered.
(g) the best practice environmental management for activities under any relevant instrument, or proposed instrument, as follows— (i)an environmental authority; (ii) a transitional environmental program; (iii) an environmental protection order; (iv) a disposal permit; (v) a development approval; and	Best practice environmental management will form part of the EA by conditioning the project to reflect approved departmental conditions and align with the quality objectives in the respective EPPs.

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(h) the financial implications of the requirements under an instrument, or proposed instrument, mentioned in paragraph (g) as they would relate to the type of activity or industry carried out, or proposed to be carried out, under the instrument; and	It is considered unlikely that the approval of an EA for the project would result in any unforeseen financial implications for the applicant.
(i) the public interest; and	Although no public notification process will occur, the granting of an EA for the project, as well as for the applicant, will likely result in substantial public interest, from a financial, social and environmental perspective.
(j) any relevant site management plan; and	No site management plan regarding contaminated land has been identified by the applicant.
(k) any relevant integrated environmental management system or proposed integrated environmental management system; and	Adani have in place an Environmental Management System in line with the requirements of ISO14001:2004. This includes an assessment of the environmental aspects and impacts, legislative requirements, the development of environmental objectives, targets and management plans, management structure and responsibility, training, awareness and competence, communications, emergency response plan, incident management, monitoring and measurement, reporting, non-compliance, corrective action and preventative action, audit and review, documentation and records, and document management and control.
(l) any other matter prescribed under a regulation.	N/A

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4) Other assessment considerations

Native Title Notification given (PaLM process)	☐ Yes – comments received or period expired. ☐ Not applicable
Strategic Cropping Land Application approved	☐ Yes ☐ No – EA cannot be granted ☒ Not applicable
EIS process and public notification requirements compliant (If applicable)?	☐ Yes ☐ No – EA cannot be granted ☒ Not applicable
Public Notification requirements in Division 2 complied with? Or substantially complied with?	☐ Yes ☐ No – EA cannot be granted ☒ Not applicable
Copy of approval has been sent to: psd.help@qld.gov.au <If this decision includes a monitoring program for a new discharge to waters OR to an amendment of an existing monitoring program of a release to waters, the administrators of the WaTERS database must be notified>	☐ Yes ☒ Not applicable *the conditions will not involve releases to waters.
Applicant is a registered suitable operator? ADANI ABBOT POINT TERMINAL PTY LTD, Suitable operator ref. RSO000109	☒ Yes ☐ No – EA must be refused
The administering authority requests that an associated development approval be refused	☐ Yes– EA must be refused ☒ Not applicable
The applicant relates to a significant project and Coordinator-general	☐ Yes

conditions have been imposed on the EA?	☒ Not applicable
Referral to Land Court – please provide any details which affect the EA in Section 8.	☐ Yes – process complete ☒ Not applicable

5) Consultations

The application required an information request which was issued 17 June 2015. The applicant provided a response to this information request on 25 September 2015 which was considered in this assessment.

The applicant was contacted on a separate instance for the coordinates of the release points so that this information could be detailed in the EA. The applicant was contacted 4 November 2015 and the two release point locations were provided 9 November 2015.

The conditions of the EA have been negotiated with the applicant so that the final conditions on the EA are generally agreed to, between the administering authority and the applicant.

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6) Conditioning

The conditions must reflect the outcomes identified in tables 1 and 2 and should not prescribe how the outcomes are to be achieved unless the risk of environmental harm warrants it. Officers MUST use the conditions approved by the department (for example, model mining conditions) unless the outcome that the applicant must achieve is not included in the guidance material. You **must** consider conditioning for the following where appropriate:

Conditions to be considered as per section 52 of the EP Reg:	**Included in EA?**	**State here conditions that have been used which have not been taken from the conditions guideline.**	**Reason**
Conditions to implement a system for managing risk	☒ Yes ☐ Not necessary	NA – condition A3 requires a system to be implemented to identify risks.	Condition A3 is a model condition taken from the administering authority's common conditions guideline EM1096.
Conditions about the frequency and parameters of monitoring any releases, including any receiving environment monitoring program when appropriate. *(refer to section 53 of the EP Reg for further details on what you must consider)*	☒ Yes ☐ Not necessary	Air – Condition B2 states that the objective for dust and PM10 must be achieved by taking all reasonable and practical measures to do so. Water and sewage – Condition F4 states that treated effluent must be monitored for certain parameters monthly.	Air – Condition B2 has been worded so that the holder is to ensure there are measures being actively implemented to maintain a certain level of dust and PM10 at a location near the CVW (Noise Monitoring Point 1). Water and sewage – This condition is similar to condition F6 of the Abbot Point T1 EA. It has been included in the EA because it is considered important that while the applicant is permitted to release waters but does not have release limits, that the treated sewage effluent be monitored periodically given the proximity of the project to environmentally significant areas such as the GBRWHA and CVW. Periodic monitoring of contaminants should assist in preventing

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Conditions to be considered as per section 52 of the EP Reg:	Included in EA?	State here conditions that have been used which have not been taken from the conditions guideline.	Reason
			environmental harm from occurring.
Conditions prescribing how any high risks identified must be managed, including measures for avoiding or minimising the release of contaminants. This may be appropriate when the contaminant of concern poses a high environmental risk (for example, persistent organic pollutants), the technology being employed is new and not well understood or the receiving environmental values warrant prescriptive conditions to reduce the risk. Conditions may include how contaminants are stored, handled and disposed of.	☒ Yes ☐ Not necessary	Air – Condition B1 states that odours and airborne contaminants released from the activity must not cause an environmental nuisance at any sensitive or commercial place. Sewage – Condition F1 states that treated sewage effluent may only be released to RP1 and RP2.	Air – Condition B1 is considered beneficial because it makes clear to the applicant that it is not acceptable if the activity causes an environmental nuisance at sensitive or commercial places. Sewage – Condition F1 has been included in the EA because the applicant has noted in the information response that treated sewage effluent will not be released to land. This condition clarifies this statement about the circumstances when treated sewage effluent may be released – that it is only permitted to be released to RP1 and RP2. Sewage – Condition F2 has been included to clarify that treated sewage effluent may be released, but only into the stormwater management system via RP1 and RP2.
Conditions requiring buffers to sensitive receptors to ensure the environmental values are protected. For example, riparian buffers	☐ Yes ☒ Not necessary	The existing beach scrub TEC to the east provides a vegetation buffer between T0 and GBRWHA. It is unlikely that a vegetation buffer between T1/T0 and the CVW would not be viable long term, as that area is allocated for the proposed T2 and T3 port developments.	NA
Conditions about the quality, quantity and	☒ Yes	Water – Condition E2 specifies that water releases may only occur	Water – Condition E2 has been included

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Conditions to be considered as per section 52 of the EP Reg:	Included in EA?	State here conditions that have been used which have not been taken from the conditions guideline.	Reason
way in which contaminants are permitted to be released to the environment including any specific requirements which limit/reduce the initial attenuation or mixing zone (e.g. specific dilution required for releases to waters) or prescribe that contaminants must be treated before release (e.g. prescribing a level of treatment of by-pass flows from an STP). The purpose of these conditions is to ensure the on-going protection of environmental values.	☐ Not necessary	after the EA holder of Abbot Point T1 has been notified of the release.	in the EA because it is considered that as a courtesy to the holder of T1 (especially while the operator is not the same company), they be notified prior to receiving water released from T0. This requirement should also help to minimise environmental harm by allowing the holder of T1 to prepare (if necessary) for receiving the release of waters from T0.
Conditions stating the rehabilitation outcomes required.	☐ Yes ☒ Not necessary	NA	NA
Any conditions required to reduce the risk of not achieving the environmental objectives when considering high risk activities.	☒ Yes ☐ Not necessary	Air – Condition B3 states that the holder of the EA must develop, implement and maintain an air monitoring program that achieves compliance with conditions B1 and B2.	Air – Condition B3 was included because it makes clear to the holder of the EA that having an official monitoring program that is maintained, will help to achieve the environmental objectives of air, as described within the EA.
Conditions' relating to environmental offsets (Section 209)?	☐ Yes ☒ Not necessary	NA	NA

Other conditions that may be	Included in	State here conditions that have been used which have not been taken from	Reason

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considered:	EA?	the conditions guideline.	
Conditions about the frequency and parameters of monitoring any releases, including any receiving environment monitoring program when appropriate. *(refer to section 53 of the EP Reg for further details on what you must consider)*	☒ Yes ☐ Not necessary	See above.	See above.
Conditions imposed by the Coordinator General (only relevant if the project is declared a coordinated project under s.26 of the *State Development and Public Works Organisation Act 1971*). *(refer to section 205 and 208 of the EP Act for further details)*	☐ Yes ☒ Not necessary	NA	NA
Conditions relating to remediating environmental harm because of the ERA *(refer to section 207 of the EP Act)*	☒ Yes ☐ Not necessary	NA – Condition A5 requires the EA holder to prevent or minimise environmental harm in the case of an emergency or incident.	Condition A5 is a model condition taken from the administering authority's common conditions guideline EM1096.
Conditions relating to access to land of which the ERA is being carried out *(refer to section 207 of the EP Act)*	☐ Yes ☒ Not necessary	NA	NA
Conditions requiring a statement of compliance about a document or works relating to the ERA. *(refer to section 207 of the EP Act)*	☐ Yes ☒ Not necessary	NA	NA

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Conditions' relating to environmental offsets *(refer to section 209 of the EP Act)*	☐ Yes ☒ Not necessary	NA	NA
Conditions requiring financial assurance *(refer to section 292 of the EP Act)* ALL mining activities authorised under a mining lease and petroleum activities authorised under a petroleum lease **must** include a condition requiring financial assurance.	☐ Yes ☒ Not necessary	NA	NA

The enforceability of any new conditions must be checked BEFORE approval by the delegate can be obtained.

All conditions placed on the EA are necessary or desirable ☒ Yes

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7) Further relevant information

NA

8) Recommendation

It is recommended that the application be:

☒ **Approved**

☐ **Refused** – provide statement of reasons

An application for a site specific EA for the operation of Abbot Point Terminal 0 Operation (Phase 1) was received from Adani Australia Coal Terminal Pty Ltd. The Terminal 0 Operation will be located adjacent to the existing Terminal 1 project.

Phase 1 of the Abbot Point T0 project should be approved by the Delegate for the following reasons:

- The project has gone through an EIS process
- The administering authority has considered the application, EIS and response to the information request in deciding the application
- The administering authority has considered relevant regulatory requirements and the standard criteria in this assessment report

The decision date for the application has been extended once pursuant to section 168(2) of the EP Act, to change the decision date to 23 November 2015. A second extension was agreed to pursuant to section 168(4) of the EP Act, to change the decision date to 7 December 2015.

It is recommended that a decision be made by or before 7 December 2015, the currently agreed decision date, as per section 168(4) of the EP Act.

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You should only consider refusing an application if one or more of the following apply:

- **MUST refuse** if a wetland will be destroyed or reduced in size or its biological integrity may not be maintained as a result of a release of water or waste from the activity;
- **MUST refuse** if waste is not released entirely within a confined aquifer (except for petroleum activities);
- **MUST refuse** if waste directly released to groundwater is or may adversely affect a surface ecological system or will result in deterioration of environmental values of the groundwater;
- Following a request for further information, the applicant has still not provided enough information to allow you to comply with the regulatory requirements, for example, they have not provided any information to demonstrate how they meet the relevant environmental objectives in Schedule 5 of the Regulation;
- The information you have considered shows that it is not possible to conduct the activity without causing unacceptable serious or material environmental harm or unacceptable impact on environmental values. For example, the application involves the destruction of habitat for an endangered species and offsets are not appropriate or possible or the activity cannot be conducted without contaminating large areas of land with persistent organic pollutants. These circumstances will be rare but still possible.

Assessing Officer: Sophie Connors

Position: Environmental Officer (Assessment)

Signed: 49-Sch4 - Personal Information

Date: 7/12/15

4) Review and endorsement

Insert any comments relevant for the delegates consideration:		
Juliana McCosker	49-Sch4 - Personal Information	7/12/15
Manager/Supervisor	**Signed**	**Date**

Approval

I approve the recommendation based on the reasons stated in this report.		
Kate Bennink	49-Sch4 - Personal Information	10/12/15
Delegate	**Signed**	**Date**

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