



Notification of approval

Haughton Pipeline Stage 2 Project, Mulgrave, Queensland (EPBC ref 2021/9133)

This decision is made under section 133(1) of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). Note that section 134(1A) of the EPBC Act applies to this approval. That provision 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 conditions.

Proposed action

person to whom the approval is granted (approval holder)	Townsville City Council
ABN of approval holder	44 741 992 072
Action	To construct and operate a buried pressure pipeline, approximately 28.5 km long, and associated infrastructure to provide transfer of about 364 ML/day of raw water from Burdekin River to the Ross River Dam in Townsville, Queensland. [see EPBC Act referral 2021/9133].

Approval decision

decision	My decision on whether or not to approve the taking of the Action for the purposes of the controlling provision for the Action is as follows.	
	Controlling Provision	Decision
	Listed threatened species and communities (section 18 and section 18A)	Approved
period for which the approval has effect	This approval has effect until 31 December 2051.	
conditions of approval	The approval is subject to conditions under the EPBC Act as set out in Annexure A.	

Person authorised to make decision

name and position	Mark Say Acting Branch Head Environment Assessments Qld and Sea Dumping Branch
signature	
date of decision	23 February 2023

Annexure A

Note: Words appearing in **bold** have the meaning assigned to them at PART C – DEFINITIONS.

Part A – Conditions specific to the Action

MAXIMUM CLEARANCE LIMITS

- 1) The approval holder must not **clear** outside the **project area**.
- 2) The approval holder must not **clear** more than the following:
 - a) 96.34 ha of **Southern Black-throated Finch habitat**.
 - b) 134.2 ha of **Koala habitat**.
 - c) 92.23 ha of **Bare-rumped Sheathtail Bat habitat**, comprising no more than:
 - i) 43.12 ha of **Bare-rumped Sheathtail Bat roosting habitat**.
 - ii) 85.54 ha of **Bare-rumped Sheathtail Bat foraging habitat**.

REHABILITATION REQUIREMENTS

- 3) Within 10 **business days** of the substantial completion of **construction**, the approval holder must notify the **department** in writing that **construction** is completed.
- 4) Within 20 **business days** of the substantial completion of **construction**, the approval holder must commence implementing the **Rehabilitation Management Plan**.
- 5) Within 60 **business days** following the 1-year anniversary of the date of commencing implementation of the **Rehabilitation Management Plan**, the approval holder must submit a report to the **department** which provides evidence that **rehabilitation areas** have achieved the **acceptance criteria**.
- 6) Once **acceptance criteria** are achieved, the approval holder must ensure **acceptance criteria** are maintained in all **rehabilitation areas** for at least 12 months following the date on which the report is submitted to the **department** in accordance with condition 5.

ENVIRONMENTAL OFFSET REQUIREMENTS

- 7) To compensate for residual significant impacts to **protected matters**, up to the limits specified in condition 2, the approval holder must commence implementing the **Offset Area Management Plan (OAMP)** prior to the **commencement of the action** and continue to implement it for the remainder of the life of the approval. The approval holder must notify the **department** in writing of the date of commencing **OAMP** implementation within 20 **business days** of the date of commencing **OAMP** implementation.
- 8) If the **Southern Black-throated Finch** has not been detected within the **offset area** within three years of the date of commencing **OAMP** implementation, the approval holder must provide to the **department**, within 20 **business days** of the three-year anniversary of the date of commencing **OAMP** implementation, a report that includes:
 - a) A detailed description of the survey method, timing and effort undertaken to detect the **Southern Black-throated Finch** in the **offset area**;

- b) An assessment of the likelihood of the **Southern Black-throated Finch** being present in the **offset area**, including an analysis of the likely cause(s) for the failure to detect **Southern Black-throated Finch** in the **offset area**; and
 - c) The additional actions the approval holder proposes to undertake to increase the likelihood of detecting **Southern Black-throated Finch** in the **offset area**.
- 9) Within 60 **business days** following each 5-year anniversary of the date of commencing **OAMP** implementation, until the expiry of this approval, the approval holder must submit to the **department** and publish on the **website** for the remainder of the period of the approval, an OAMP Report which assesses progress towards achieving and maintaining each of the **completion criteria**. If the **Southern Black-throated Finch** has not been detected within the **offset area** within five years of the date of commencing **OAMP** implementation the approval holder must inform the **department** of this in writing before or when submitting the OAMP Report and note the requirements of conditions 8 and 10. The report must:
- a) detail performance achieved against all interim performance targets in the period since this approval decision with more detail in respect of the period since the previous (if any) OAMP Report;
 - b) describe the results and effectiveness of all management actions implemented during the period the subject of the current OAMP Report;
 - c) include all monitoring results, including all confirmed sightings of **protected matters** in a format consistent with the **Guidelines for biological survey and mapped data**; and
 - d) detail any interim performance targets not met and describe all corrective actions taken and evaluate their effectiveness.

Once the **completion criteria** are achieved, the approval holder must ensure the **completion criteria** for the **offset area** are maintained for the remainder of the life of the approval.

- 10) If the **Southern Black-throated Finch** has not been detected within the **offset area** within five years of the date of commencing **OAMP** implementation and, after the receipt of the first OAMP Report, the **Minister** writes to the approval holder stating that he/she considers that the **OAMP** is not likely to achieve the confirmed presence of **Southern Black-throated Finch** within the **offset area**, the approval holder must, within 6 months of receiving the **Minister's** notice, submit to the **department** for the **Minister's** approval an Alternative OAMP. The Alternative OAMP must meet the requirements of the **Environmental Offsets Policy** and the **Environmental Management Plan Guidelines** to the satisfaction of the **Minister**.
- 11) Within 60 **business days** following the 20-year anniversary of the date of commencing **OAMP** implementation, the approval holder must submit a report to the **department** which provides evidence that the entire **offset area** has fully achieved and maintained the **completion criteria**. If any **completion criterion** has not been achieved within 20 years from the date of the **OAMP** implementation, the approval holder must provide, within 6 months, additional environmental offsets approved by the **Minister** in writing consistent with the **Environmental Offsets Policy**.

LEGAL SECURING OF ENVIRONMENTAL OFFSETS

- 12) The approval holder must **legally secure** the **offset area** within 12 months from the date of the **commencement of the action**. The **OAMP** must be attached to the legal mechanism used to **legally secure** the **offset area**.

- 13) The approval holder must provide written evidence to the **department** within 10 **business days** of the **offset area** being **legally secured**.
- 14) The approval holder must ensure the **offset area**, once **legally secured**, continues to be **legally secured** for, at least, the remainder of the life of the approval.

REVISION OF ACTION MANAGEMENT PLANS

- 15) The approval holder may, at any time, apply to the **Minister** for a variation to **plan** approved by the **Minister** by submitting an application in accordance with the requirements of section 143A of the **EPBC Act**. If the **Minister** approves a revised **plan** then, from the date specified, the approval holder must implement the revised **plan** in place of the previous **plan**.

SUBMISSION AND PUBLICATION OF PLANS

- 16) Unless otherwise agreed to in writing by the **Minister**, the approval holder must publish each **plan** on the **website** within 15 **business days** of the date:
 - a) of this approval, if the version of the **plan** to be implemented is specified in these conditions; or
 - b) the **plan** is approved by the **Minister** in writing, if the **plan** requires the approval of the **Minister**.
- 17) The approval holder must keep all published **plans** required by these conditions on the **website** until, at least, the expiry date of this approval.
- 18) The approval holder is required to exclude or redact **sensitive ecological data** from **plans** published on the **website** or otherwise provided to a member of the public.
- 19) If **sensitive ecological data** is excluded or redacted from a **plan** in accordance with condition 18, the approval holder must notify the **department** in writing what exclusions and redactions have been made in the version published on the **website**.

Part B – Administrative conditions

NOTIFICATION OF DATE OF COMMENCEMENT OF THE ACTION

- 20) The approval holder must notify the **department** electronically of the date of **commencement of the Action**, within 10 **business days** of **commencement of the Action**.
- 21) If the **commencement of the Action** does not occur within 5 years from the date of this approval, then the approval holder must not **commence the Action** without the prior written agreement of the **Minister**.

COMPLIANCE RECORDS

- 22) The approval holder must maintain accurate and complete **compliance records**.
- 23) 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 by an independent auditor in accordance with section 458 of the **EPBC Act**, and/or be used to verify compliance with the conditions. Summaries of the results of an audit may be published on the **department's** website or through the general media.

- 24) The approval holder must ensure that any **monitoring data** (including **sensitive ecological data**), surveys, maps, and other spatial and metadata required under the conditions of this approval are prepared in accordance with the *Guidelines for biological survey and mapped data*, Commonwealth of Australia 2018, or as otherwise specified by the **Minister** in writing.
- 25) The approval holder must ensure that any **monitoring data** (including **sensitive ecological data**), surveys, maps, and other spatial and metadata required under the conditions of this approval are prepared in accordance with the *Guide to providing maps and boundary data for EPBC Act projects*, Commonwealth of Australia 2021, or as otherwise specified by the **Minister** in writing.
- 26) The approval holder must submit all **monitoring data** (including **sensitive ecological data**), surveys, maps, other spatial and metadata and all species occurrence record data (sightings and evidence of presence) electronically to the **department** in accordance with the requirements of each **plan**.

ANNUAL COMPLIANCE REPORTING

- 27) The approval holder must prepare a **compliance report** for each 12-month period from the date of this approval, or as otherwise agreed to in writing by the **Minister**.
- 28) The approval holder must ensure that each **compliance report** is consistent with the *Annual Compliance Report Guidelines*, Commonwealth of Australia 2014.
- 29) The approval holder must ensure that each **compliance report** includes:
 - a) Accurate and complete details of compliance and any non-compliance with the conditions and the **plans**, and any **incidents**.
 - b) One or more **shapefile** showing all **clearing** of any **protected matters**, and/or their habitat, undertaken within the 12-month period at the end of which that **compliance report** is prepared.
 - c) Include all confirmed sightings, injuries, and mortalities of **listed threatened species** in a format consistent with the **Guidelines for biological survey and mapped data**
 - d) A schedule of all **plans** in existence in relation to these conditions and accurate and complete details of how each plan is being implemented.
- 30) The approval holder must:
 - a) Publish each **compliance report** on the website within 60 **business days** following the end of the 12-month period for which that **compliance report** is required.
 - b) Notify the **department** electronically, within 5 **business days** of the date of publication that a **compliance report** has been published on the **website**.
 - c) Provide the weblink for the **compliance report** in the notification to the **department**.
 - d) Keep all published **compliance reports** required by these conditions on the **website** until the expiry date of this approval.
 - e) Exclude or redact **sensitive ecological data** from **compliance reports** published on the **website** or otherwise provided to a member of the public.
 - f) If **sensitive ecological data** is excluded or redacted from the published version, submit the full **compliance report** to the **department** within 5 **business days** of its publication on the **website** and notify the **department** in writing what exclusions and redactions have been made in the version published on the website.

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

REPORTING NON-COMPLIANCE

- 31) The approval holder must notify the **department** electronically, within 2 **business days** of becoming aware of any **incident** and/or potential non-compliance and/or actual non-compliance with the conditions or commitments made in a **plan**.
- 32) The approval holder must specify in the notification:
- Any condition or commitment made in a **plan** which has been or may have been breached.
 - A short description of the **incident** and/or potential non-compliance and/or actual non-compliance.
 - The location (including co-ordinates), date, and time of the **incident** and/or potential non-compliance and/or actual non-compliance.

Note: If the exact information cannot be provided, the approval holder must provide the best information available.

- 33) The approval holder must provide to the **department** in writing, within 12 **business days** of becoming aware of any **incident** and/or potential non-compliance and/or actual non-compliance, the details of that **incident** and/or potential non-compliance and/or actual non-compliance with the conditions or commitments made in a **plan**. The approval holder must specify:
- Any corrective action or investigation which the approval holder has already taken
 - The potential impacts of the **incident** and/or non-compliance
 - The method and timing of any corrective action that will be undertaken by the approval holder.

INDEPENDENT AUDIT

- 34) The approval holder must ensure that an **independent audit** of compliance with the conditions is conducted for every five-year period following the **commencement of the Action** until this approval expires, unless otherwise specified in writing by the **Minister**.
- 35) For each **independent audit**, the approval holder must:
- Provide the name and qualifications of the nominated **independent** auditor, the draft audit criteria, and proposed timeframe for submitting the **audit report** to the **department** prior to commencing the **independent audit**.
 - Only commence the **independent audit** once the nominated **independent** auditor, audit criteria and timeframe for submitting the **audit report** have been approved in writing by the **department**.
 - Submit the **audit report** to the **department** for approval within the timeframe specified and approved in writing by the **department**.
 - Publish each **audit report** on the **website** within 15 **business days** of the date of the **department's** approval of the **audit report**.
 - Keep every **audit report** published on the **website** until this approval expires.
- 36) Each **audit report** must report for the five-year period preceding that audit report.

37) Each **audit report** must be completed to the satisfaction of the **Minister** and be consistent with the *Environment Protection and Biodiversity Conservation Act 1999 Independent Audit and Audit Report Guidelines*, Commonwealth of Australia 2019.

COMPLETION OF THE ACTION

38) The approval holder must notify the **department** electronically 60 **business days** prior to the expiry date of this approval, that the approval is due to expire.

39) Within 20 **business days** after the **completion of the Action**, and, in any event, before this approval expires, the approval holder must notify the **department** electronically of the date of **completion of the Action** and provide **completion data**.

Part C – Definitions

In these conditions any bolded use of a word or term refers to the below definition of that word or term:

Acceptance criteria means the environmental outcomes for the **rehabilitation areas**, specified in the below table, to be achieved through implementation of the **Rehabilitation Management Plan**.

Rehabilitation area	Acceptance criteria
RE 11.3.25b tubestock revegetation	<ul style="list-style-type: none"> • No presence of restricted invasive weeds • Land is vegetated with endemic groundcover exceeding 70% • >80% of plantings survived
RE 11.3.35 tubestock revegetation	
Hydromulch	<ul style="list-style-type: none"> • No presence of restricted invasive weeds • Land is vegetated with endemic groundcover exceeding 50%

Audit report means a written report of compliance and fulfilment of the conditions attached to this approval, objectively evaluated against the audit criteria approved by the **department**.

Bare-rumped Sheathtail Bat means the **EPBC Act** listed threatened species *Saccolaimus saccolaimus nudicluniatu*s.

Bare-rumped Sheathtail Bat foraging habitat means foraging habitat for the **Bare-rumped Sheathtail Bat**, identified as all remnant and regrowth **regional ecosystems** listed in Table 6-5 of the **MNES Report**.

Bare-rumped Sheathtail Bat roost tree means any **Bare-rumped Sheathtail Bat** roosting tree, including any *Eucalyptus platyphylla* tree bearing any hollow(s) greater than 20 cm in diameter.

Bare-rumped Sheathtail Bat roosting habitat means any area enclosed within a 200 m radius of any **Bare-rumped Sheathtail Bat roost tree**.

Business day means a day that is not a Saturday, a Sunday or a public holiday in the state or territory of the Action.

Clear, cleared or clearing means the cutting down, felling, thinning, logging, removing, killing, destroying, poisoning, ringbarking, uprooting, or burning of vegetation, but does not include the

removal or control of weeds (see *Australian weeds strategy 2017 to 2027*, Commonwealth of Australia 2017 for further guidance).

Commence the Action or **Commencement of the Action** means the date on which the first instance of any activity associated with the Action (including **clearing** and **construction**) is undertaken.

Commencement of the Action does not include minor physical disturbance necessary to:

- a) Undertake pre-clearance surveys or monitoring programs.
- b) Install signage and /or temporary fencing to prevent unapproved use of the project area.
- c) Protect environmental and property assets from fire, weeds, and feral animals, including use of existing surface access tracks.
- d) Install temporary site facilities for persons undertaking pre-commencement activities so long as these are located where they have no impact on any **protected matter**.

Completion criteria means the environmental outcomes for the **offset area**, specified in Table 7.5 of the **OAMP**, to be achieved through implementation of the **OAMP**, and includes the application of innovative regenerative landscape and restoration practices where appropriate.

Completion data means an environmental report and spatial data clearly detailing how the conditions of this approval have been met. The **department's** chosen format for spatial data is a **shapefile**.

Completion of the Action means the date on which all activities associated with this approval have permanently ceased and/or been completed.

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

Compliance report means a written report of compliance with, and fulfilment of, the conditions attached to the approval.

Construction means the erection of a building or structure that is, or is to be, fixed to the ground and wholly or partially fabricated on-site; the alteration, maintenance, repair or demolition of any building or structure; any work which involves breaking of the ground (including pile driving) or bulk earthworks; the laying of pipes and other prefabricated materials in the ground, and any associated excavation work; but excluding the installation of temporary fences and signage.

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

Environmental Offsets Policy means the *Environment Protection and Biodiversity Conservation Act 1999 Environmental Offsets Policy*, Commonwealth of Australia 2012.

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

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

Independent means a person or firm who does not have any individual, financial*, employment* or family affiliation or any conflicting interests with the project, the approval holder or the approval holder's staff, representatives, or associated persons.

*Other than for the purpose of undertaking the role for which an independent person is required

Independent audit means an audit conducted by an **independent** and **suitably qualified person** as detailed in the *Environment Protection and Biodiversity Conservation Act 1999 Independent Audit and Audit Report Guidelines*, Commonwealth of Australia 2019.

Koala means the **EPBC Act** listed threatened species *Phascolarctos cinereus* (combined populations of Qld, NSW and the ACT).

Koala habitat means habitat for the **Koala**, including the **Regional Ecosystems** containing **Koala** food trees listed in Table 6-1 of the **MNES Report**.

Legally secure or **legally secured** means to provide ongoing conservation protection on the title of the land, under an enduring protection mechanism, such as a voluntary declaration under the *Vegetation Management Act 1999* (Qld) or another enduring protection mechanism agreed to in writing by the **department**, to provide in perpetuity protection for the site against development incompatible with conservation.

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

MNES Report means the *Haughton Pipeline Stage 2 Project – MNES Report*, GHD Pty Ltd 2022.

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

Offset area means the area represented on the map at Attachment C by the zone enclosed within the red line designated “Proposed Offset Area”.

Offset Area Management Plan or **OAMP** means the *Offset Area Management Plan – Haughton Pipeline Stage 2*, GHD Pty Ltd 30 January 2023, or as subsequently varied with the approval of the **Minister**.

Plan means any action management plan or strategy that the approval holder is required by these conditions to implement.

Project area means the location of the Action, represented on the map at Attachment A by the pink shaded zone enclosed within the pink line designated ‘Project Disturbance Footprint’.

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

Regional Ecosystem(s) or **REs** means a vegetation community in a bioregion that is consistently associated with a particular combination of geology, landform and soil as classified by the Queensland Government under the *Vegetation Management Act 1999* (Qld).

Rehabilitation area(s) mean the areas within the **project area** to be rehabilitated in accordance with the **Rehabilitation Management Plan**, represented in Attachment B by the areas shaded with pink, green, or blue cross-hatching and labelled ‘RE 11.3.25b tubestock revegetation’, ‘RE 11.3.35 tubestock revegetation’, and ‘Hydromulch’, respectively.

Rehabilitation Management Plan means the *Haughton Pipeline Stage 2 Project - Rehabilitation Management Plan*, GHD Pty Ltd 21 October 2022, or as subsequently varied with the approval of the **Minister**.

Restricted invasive weed(s) means any of the flora species listed in Schedule 2 of the *Biosecurity Act 2014* (Qld).

Sensitive ecological data means data as defined in the *Sensitive Ecological Data – Access and Management Policy V1.0*, Commonwealth of Australia 2016.

Shapefile means location and attribute information about the Action provided in an Esri shapefile format. Shapefiles must contain ‘.shp’, ‘.shx’, ‘.dbf’ files and a ‘.prj’ file that specifies the

projection/geographic coordinate system used. Shapefiles must also include an '.xml' metadata file that describes the shapefile for discovery and identification purposes.

Southern Black-throated Finch means the EPBC Act listed threatened species *Poephila cincta cincta*.

Southern Black-throated Finch habitat means habitat for the **Southern Black-throated Finch**, identified as the **Regional Ecosystems** listed as amongst those suitable for **Southern Black-throated Finch** habitat in Table 6-8 of the **MNES Report**.

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.

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: Project Area



Based on or contains data provided by the State of QLD 2021. In consideration of the State permitting use of this data you acknowledge and agree that the State gives no warranty in relation to the data (including accuracy, reliability, completeness, currency or suitability) and accepts no liability (including without limitation, liability in negligence) for any loss, damage or costs (including consequential damages) relating to any use of the data. Data must not be used for marketing or be used in breach of the privacy laws.



Townsville City Council
Haughton Pipeline Stage 2 - MNES Assessment

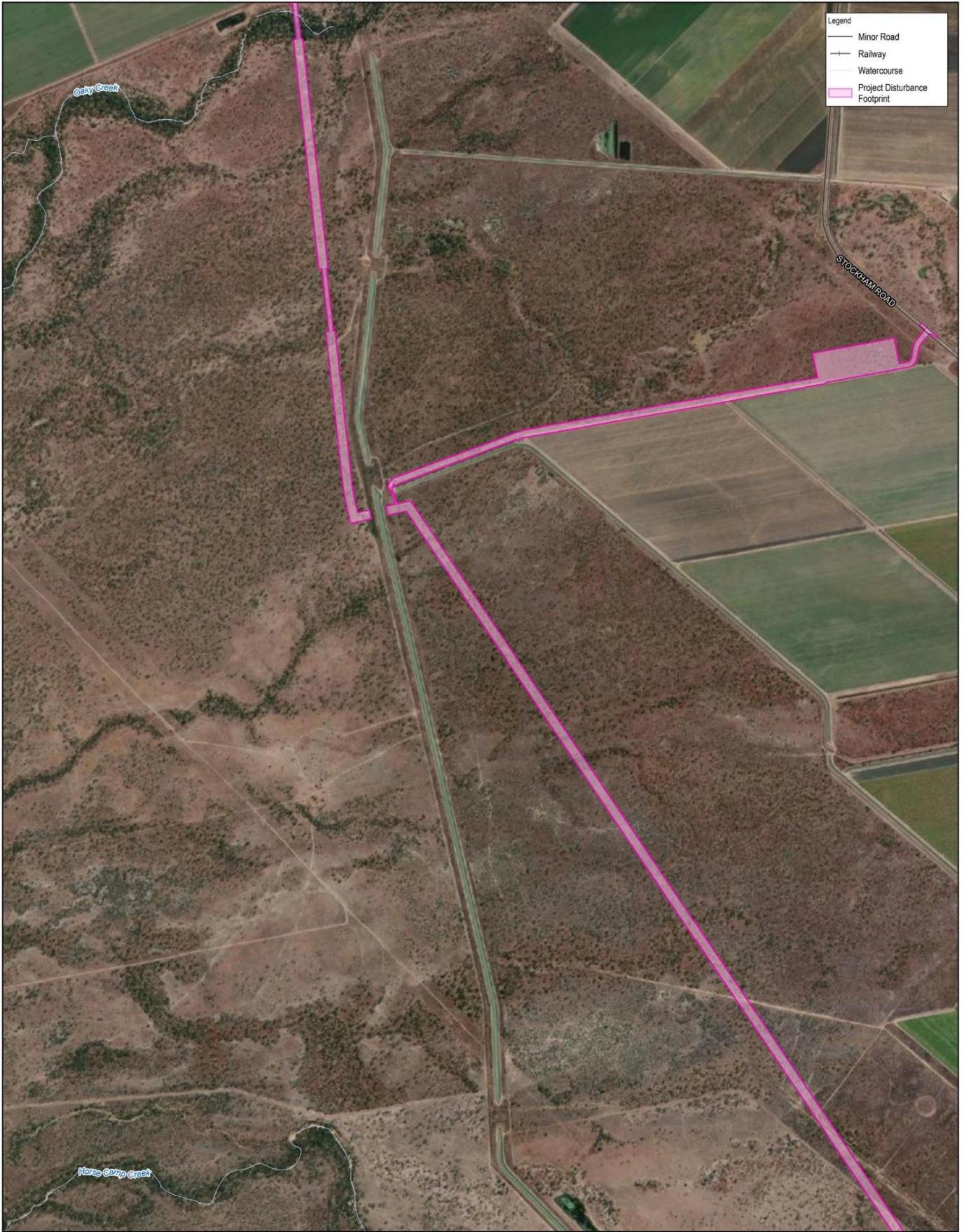
Project No. 12537606
Revision No. 1
Date 8/10/2022

HPS2 project disturbance footprint

FIGURE 2-2

\\townsville\GIS\Townsville\Projects\421\321\606\GIS\Stage\APR01\2517606_1\31017606_Footprint.aprx 12/03/2026 10:30A - 10:30A - Disturbance Footprint - Plan 1
Print date: 15 Aug 2022 - 12:16

Data source: DAR, Roads, Railways, Watercourses (2021); GHD Site Layout, Regional Ecosystems v17 with Past-landfill Data (2022); Wood Project Data
Created by: shaz2



Based on or contains data provided by the State of QLD 2021.
In consideration of the State permitting use of this data you acknowledge and agree that the State gives no warranty in relation to the data (including accuracy, reliability, completeness, currency or suitability) and accepts no liability (including without limitation, liability in negligence) for any loss, damage or costs (including consequential damage) relating to any use of the data. Data must not be used for marketing or be used in breach of the privacy laws.



Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 55



Townsville City Council
Haughton Pipeline Stage 2 - MNES Assessment

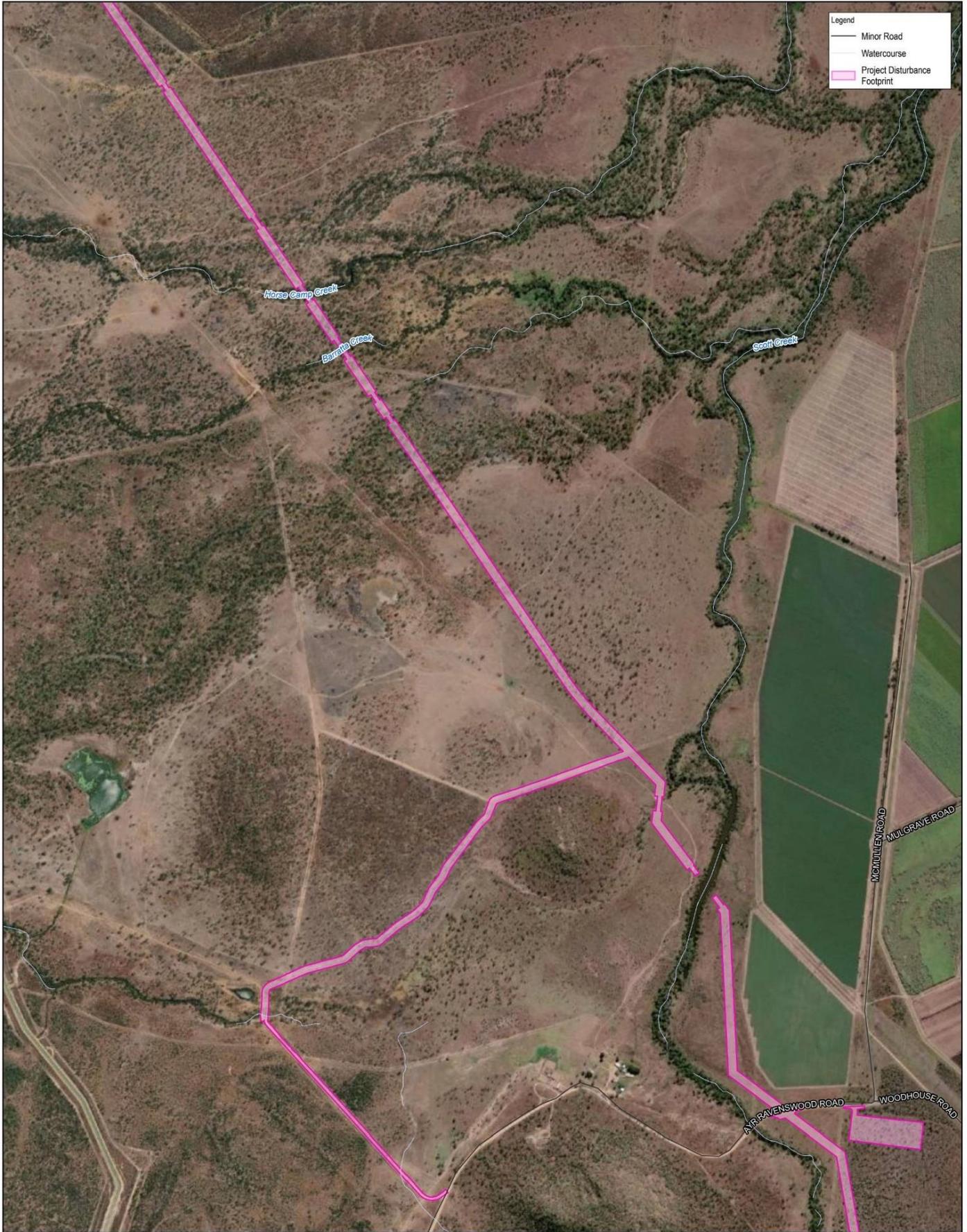
Project No. 12537606
Revision No. 1
Date 8/10/2022

HPS2 project disturbance footprint

FIGURE 2-2

light:\gfd\AU\Townsville\Projects\42\12537606\GIS\Map\APR\12537606_12537606_Ecology.aprx 12537606_RL_004_DisturbanceFootprint_Rev1
Print date: 15 Aug 2022 - 12:16

Data source: DoR: Roads, Railway, Watercourses (2021); GHD: Site Layout, Regional Ecosystems v12 with Field-verified Ecis (2022); World Imagery: Maxar. Created by: smart



Based on or contains data provided by the State of QLD 2021. In consideration of the State permitting use of this data you acknowledge and agree that the State gives no warranty in relation to the data (including accuracy, reliability, completeness, currency or suitability) and accepts no liability (including without limitation, liability in negligence) for any loss, damage or costs (including consequential damage) relating to any use of the data. Data must not be used for marketing or be used in breach of the privacy laws.

Paper Size ISO A3
 0 325 650
 Meters
 Map Projection: Transverse Mercator
 Horizontal Datum: GDA 1994
 Grid: GDA 1994 MGA Zone 55



Townsville City Council
 Haughton Pipeline Stage 2 - MNES Assessment

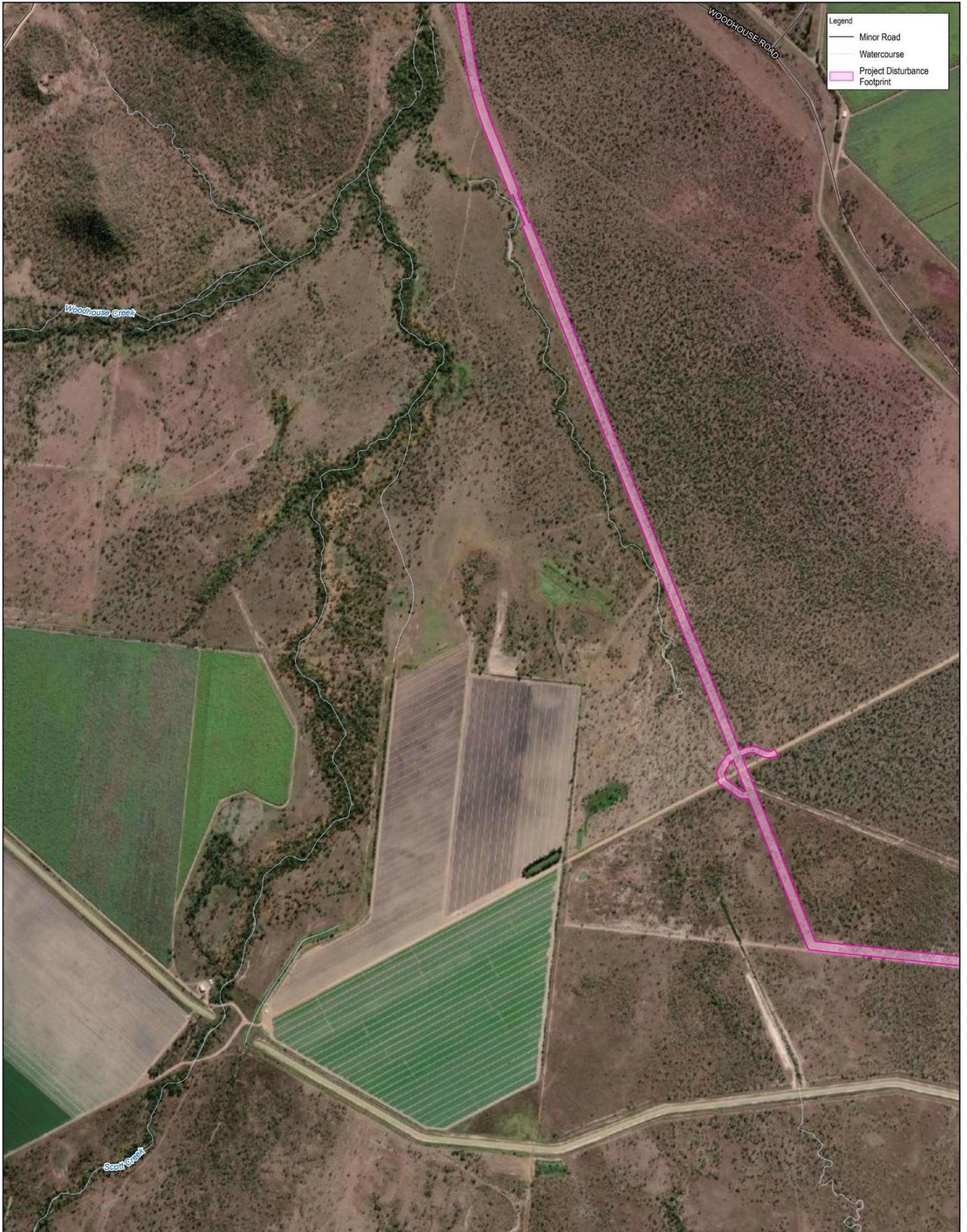
Project No. 12537606
 Revision No. 1
 Date 8/10/2022

HPS2 project disturbance footprint

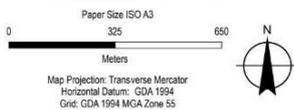
FIGURE 2-2

Lightweight\gha\Townsville\Projects\4212537606\GIS\Map\APR\12537606_Ecology.aprx 12537606_IR_004_DisturbanceFootprint_Rev1
 Print date: 15 Aug 2022 - 12:16

Data source: DoH: Roads, Railways, Watercourses (2021); GHD: Site Layout, Regional Ecosystems v12 with Field-verified Edits (2022); World Imagery: Maxar
 Created by: shan2



Based on or contains data provided by the State of QLD 2021. In consideration of the State permitting use of this data you acknowledge and agree that the State gives no warranty in relation to the data (including accuracy, reliability, completeness, currency or suitability) and accepts no liability (including without limitation, liability in negligence) for any loss, damage or costs (including consequential damage) relating to any use of the data. Data must not be used for marketing or be used in breach of the privacy laws.



Townsville City Council
Houghton Pipeline Stage 2 - MNES Assessment

Project No. 12537606
Revision No. 1
Date 8/10/2022

HPS2 project disturbance footprint

FIGURE 2-2

\\gdrive\gda\Documents\Projects\4212537606\GIS\Map\APR0012537606_Ecology.aprx 12/07/2022_18_04_DisturbanceFootprint_Aer1
Print date: 15 Aug 2022 - 12:18z

Data source: DoK Roads, Railway, Watercourses (2021); GHD Site Layout, Regional Ecosystems v12 with Field-verified Ectis (2022); World Imagery, Maxar. Created by: shaz2



Based on or contains data provided by the State of QLD 2021. In consideration of the State permitting use of this data you acknowledge and agree that the State gives no warranty in relation to the data (including accuracy, reliability, completeness, currency or suitability) and accepts no liability (including without limitation, liability in negligence) for any loss, damage or costs (including consequential damages) relating to any use of the data. Data must not be used for marketing or be used in breach of the privacy laws.

Paper Size ISO A3
 0 325 650
 Meters
 Map Projection: Transverse Mercator
 Horizontal Datum: GDA 1994
 Grid: GDA 1994 MGA Zone 55



Townsville City Council
 Haughton Pipeline Stage 2 - MNES Assessment

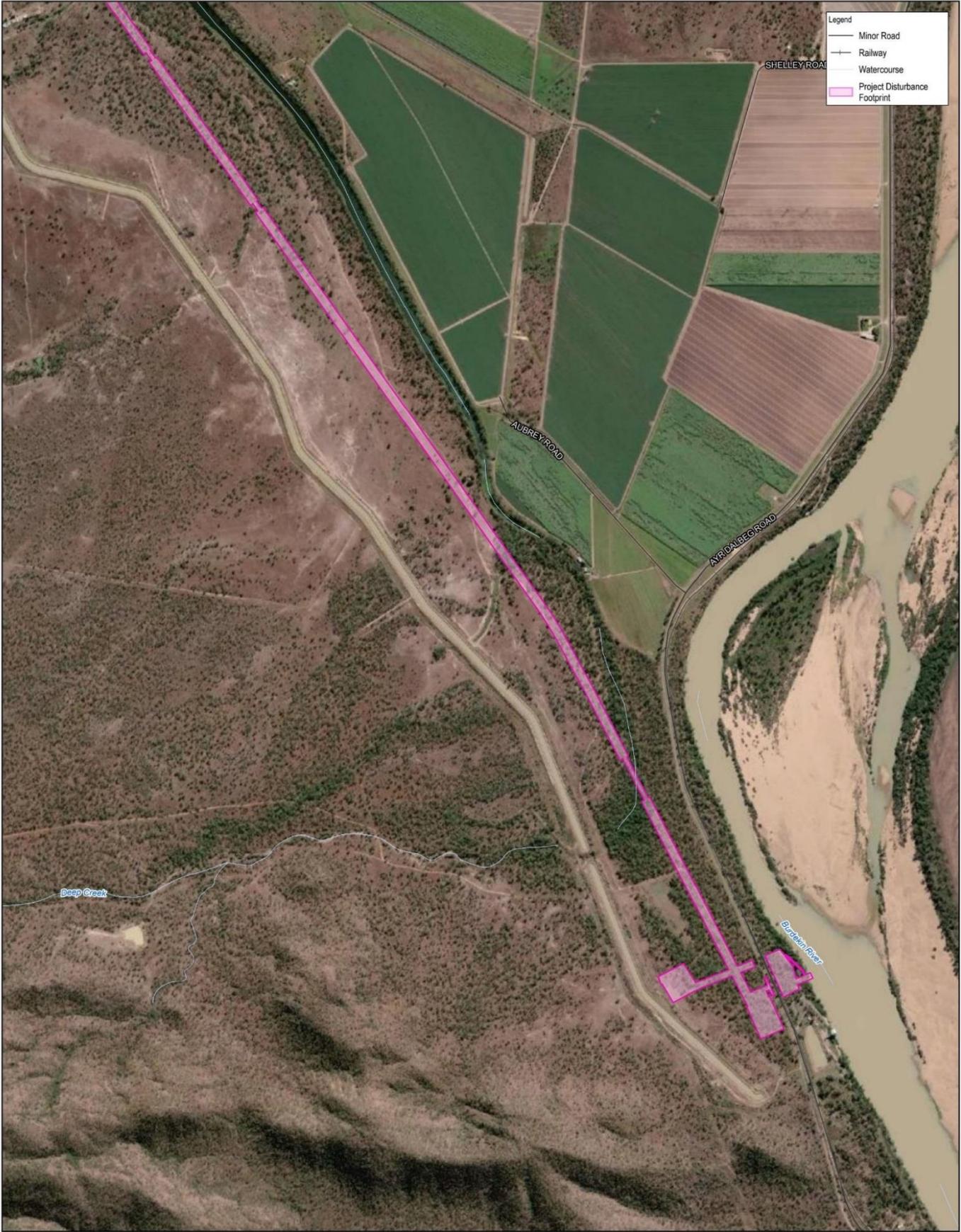
Project No. 12537606
 Revision No. 1
 Date 8/10/2022

HPS2 project disturbance footprint

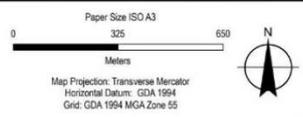
FIGURE 2-2

g:\hps2\ghd\AU\Townsville\Projects\2-12537606\GIS\Maps\APR01\2537606_12537606_Ecology.aprx 12537606_RJ_04_DisturbanceFootprint_Raw1
 Print date: 15 Aug 2022 - 12:16

Data source: DGR: Roads, Railway, Watercourses (2021); GHD: Site Layout, Regional Ecosystems v12 with Field-verified Edits (2022); World Imagery, Measur
 Created by: shw27



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Townsville City Council
Haughton Pipeline Stage 2 - MNES Assessment

Project No. 12537606
Revision No. 1
Date 8/10/2022

HPS2 project disturbance footprint

FIGURE 2-2

ghn:mg:AU:Roos:Data\Projects\4212537606\GIS\Map\APPROX\12537606_Ecology.aprx 12537606_RL04_DisturbanceFootprint_Nov1
Print date: 15 Aug 2022 12:38
Data source: DoR, Roads, Railway, Watercourses (2021); GHD: Site Layout, Regional Ecosystems v12 with Field-verified Cote (2022); World Imagery, Mapbox
Created by: shawc

Attachment B: Rehabilitation Area



Legend

- Major Road
- Minor Road
- Railway

Revegetation Extents

- RE 11.3.25b tubestock revegetation
- RE 11.3.35 tubestock revegetation
- Hydromulch
- 4m wide permanent access track
- 10m wide pipeline zone of influence
- Vegetation Management
- Watercourse

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Paper Size ISO A3
0 325 650
Meters

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 55



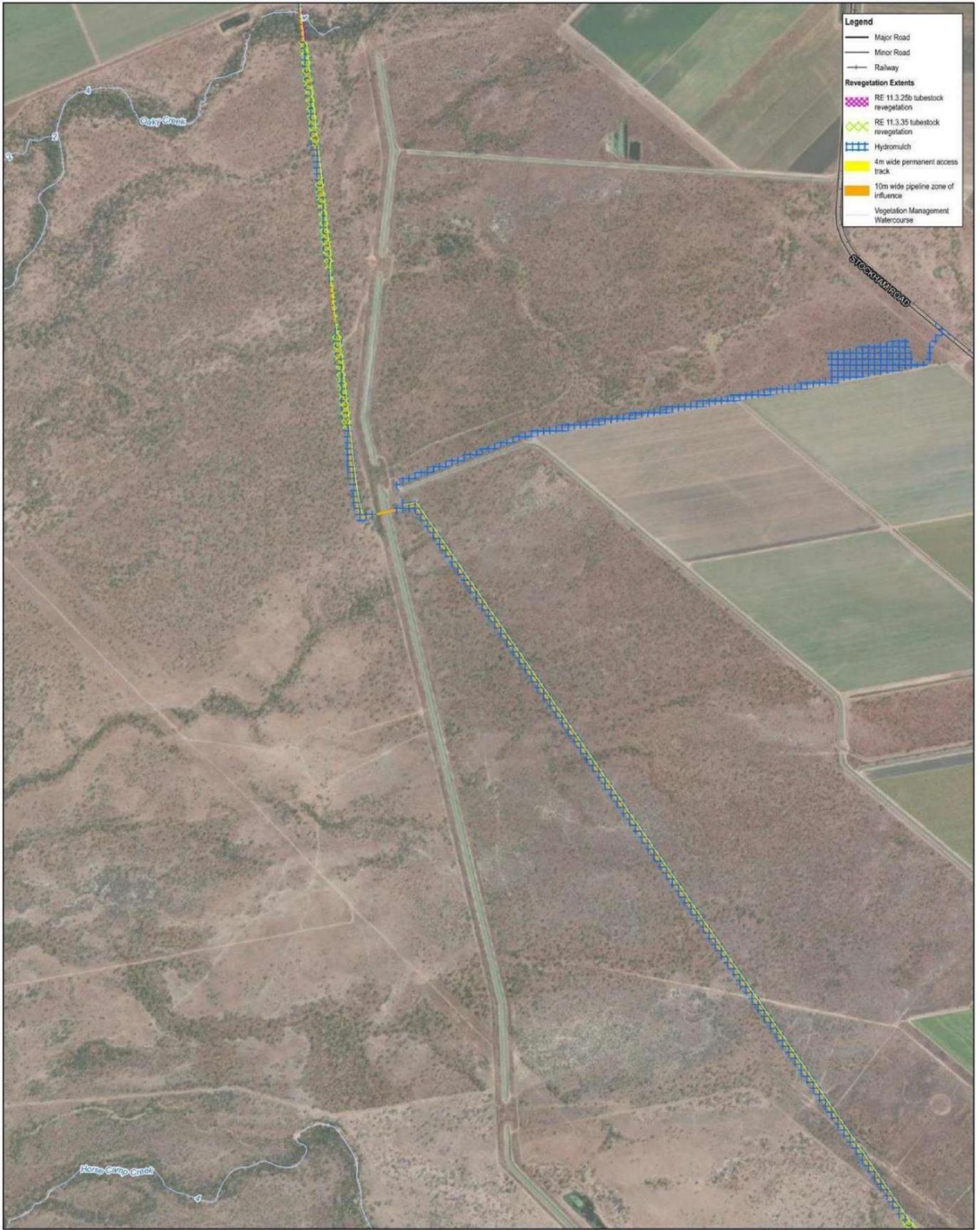
Townsville City Council
Haughton Pipeline Stage 2 - Rehabilitation Plan

Project No. 12537606
Revision No. C
Date 7/28/2022

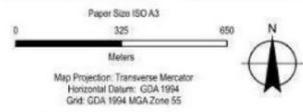
Revegetation extents

Sheet 1 of 6
FIGURE 6

g:\projects\2021\12537606\GIS\MapA\PKA\12537606_12537606_Ecology\am_12537606_Rehab_03_Revegetation_RnC.mxd Data source: DGR, Roads, Railway, Watercourses (2021), GHD, Site Layout, Potential Habitat, Field Record (2022), World Imagery, Vector. Created by: shf2



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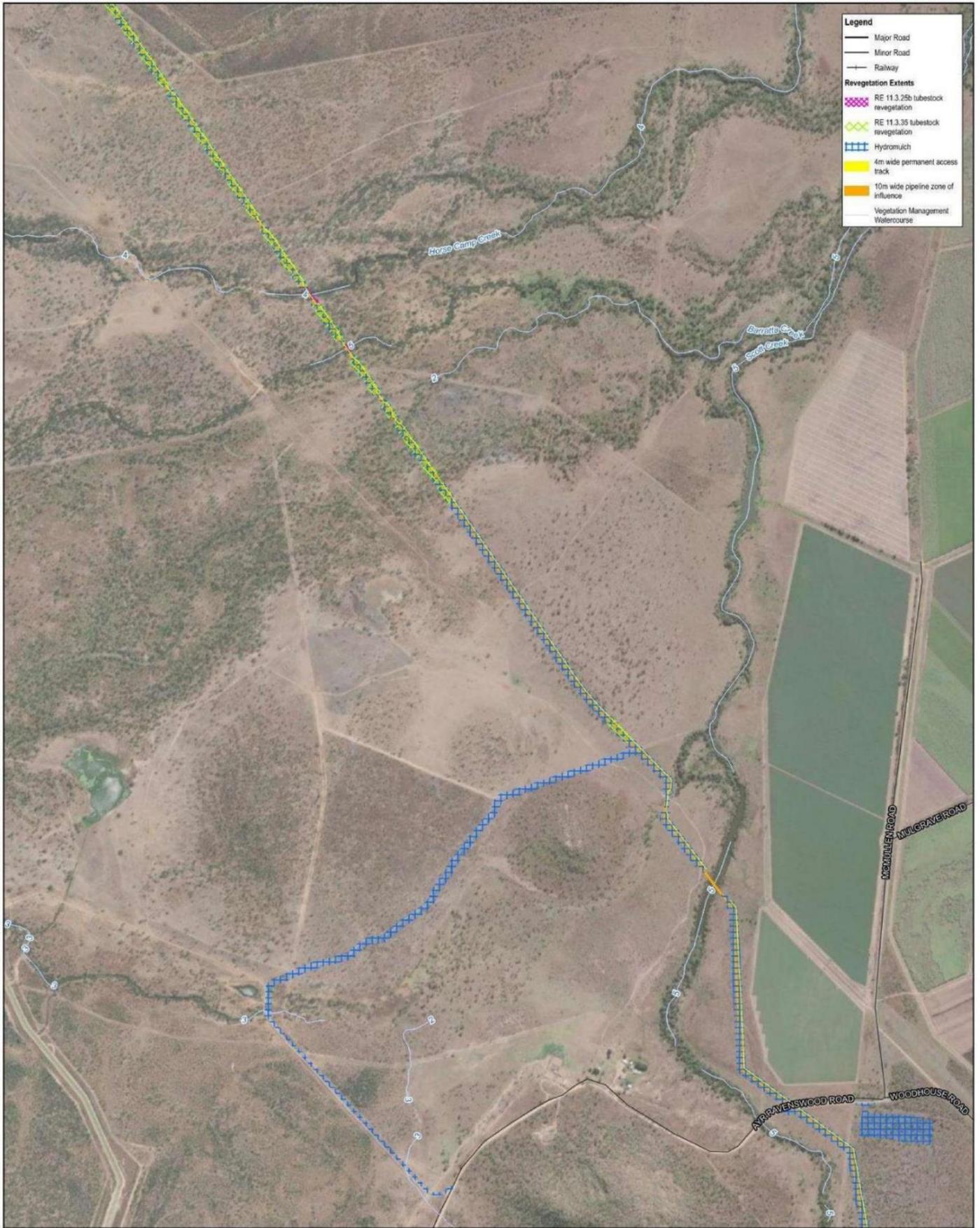
Project No. 12537606
Revision No. C
Date 7/28/2022

Sheet 2 of 6
FIGURE 6

Revegetation extents

lydntmghAL3\Townsville\Projects\12537606\GIS\Map\APR\12537606_Stage2_Rehab_09_Revegetation_RevC
Print Date: 28 Jul 2022 - 13:40

Data source: DMR, Roads, Railway, Watercourses (2021), GHD: Site Layout, Proposed Layout, Field Record (2022), Historic Imagery. Meter. Created by: shwC



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Paper Size ISO A3
0 325 650
Meters

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 55

GHD

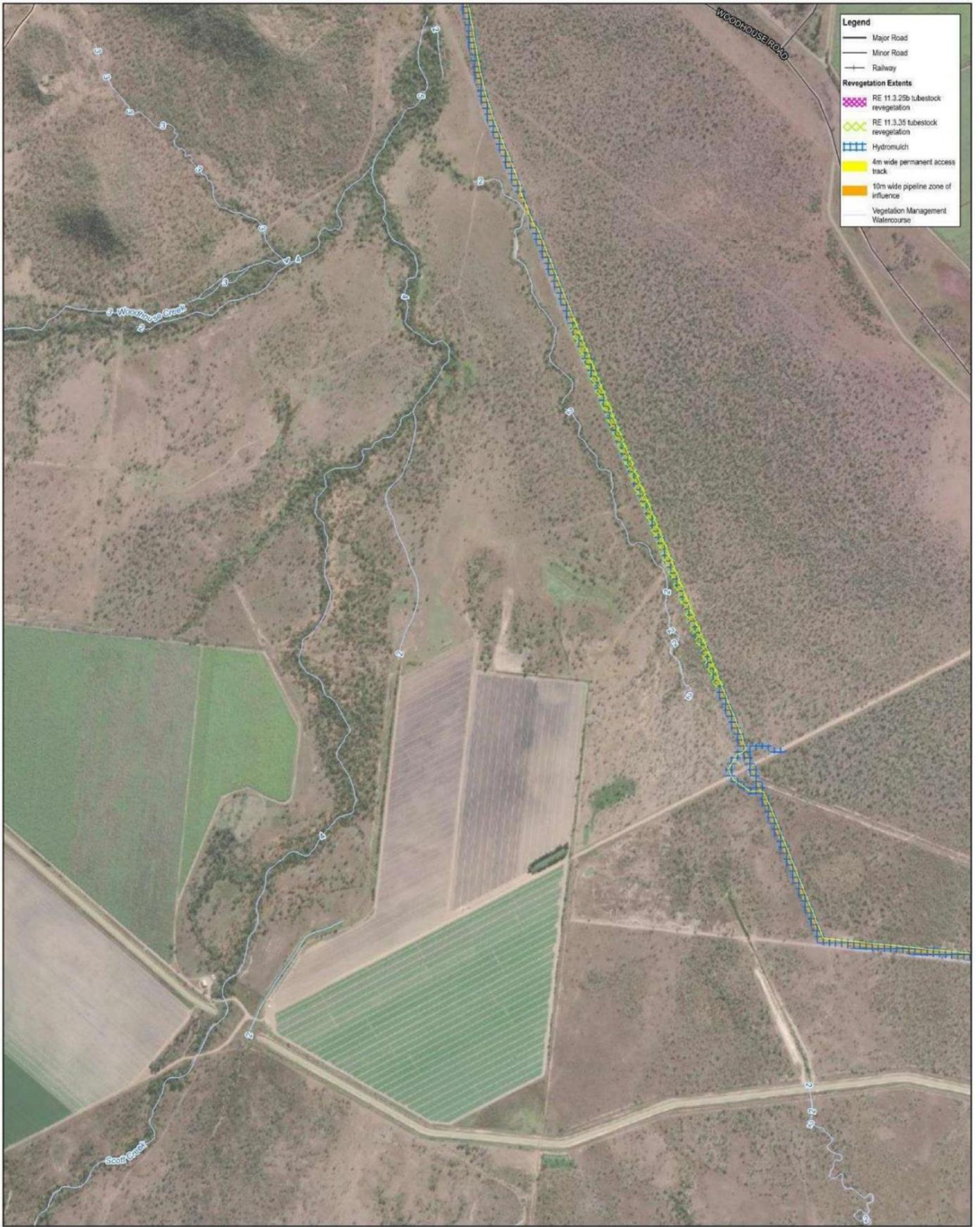
Townsville City Council
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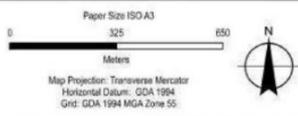
Revegetation extents

Sheet 3 of 6
FIGURE 6

Data source: DoH, Roads, Railway, Watercourses (2021), GHD Site Layout, Potential Habitat, Field Record (2022), Aerial imagery. Source: Created by GHD. Print date: 29 Jul 2022 - 13:00.



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 Houghton Pipeline Stage 2 - Rehabilitation Plan

Revegetation extents

Project No. 12537606
 Revision No. C
 Date 7/28/2022

Sheet 4 of 6
FIGURE 6

g:\houghton\GIS\recovery\Project\212537606\5\Steps\APR\12537606_12537606_Ecology.aprx (12537606_Rev01_Revegetation_RevC)
 Print Date: 28-Jul-2022 - 13:45; Data source: DMR, Roads, Railways, Watercourses (2021); GHD; Site Layout, Pointcloud, Aerial, Field Record (2022); World Imagery; Mosaic; Created by: smc2



Legend

- Major Road
- Minor Road
- Railway

Revegetation Extents

- RE 11.3.25b tubestock revegetation
- RE 11.3.35 tubestock revegetation
- Hydromulch
- 4m wide permanent access track
- 10m wide pipeline zone of influence
- Vegetation Management Watercourse

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Paper Size ISO A3
0 325 650
Meters

Map Projection: Transverse Mercator
Horizontal Datum: GDA 1994
Grid: GDA 1994 MGA Zone 55



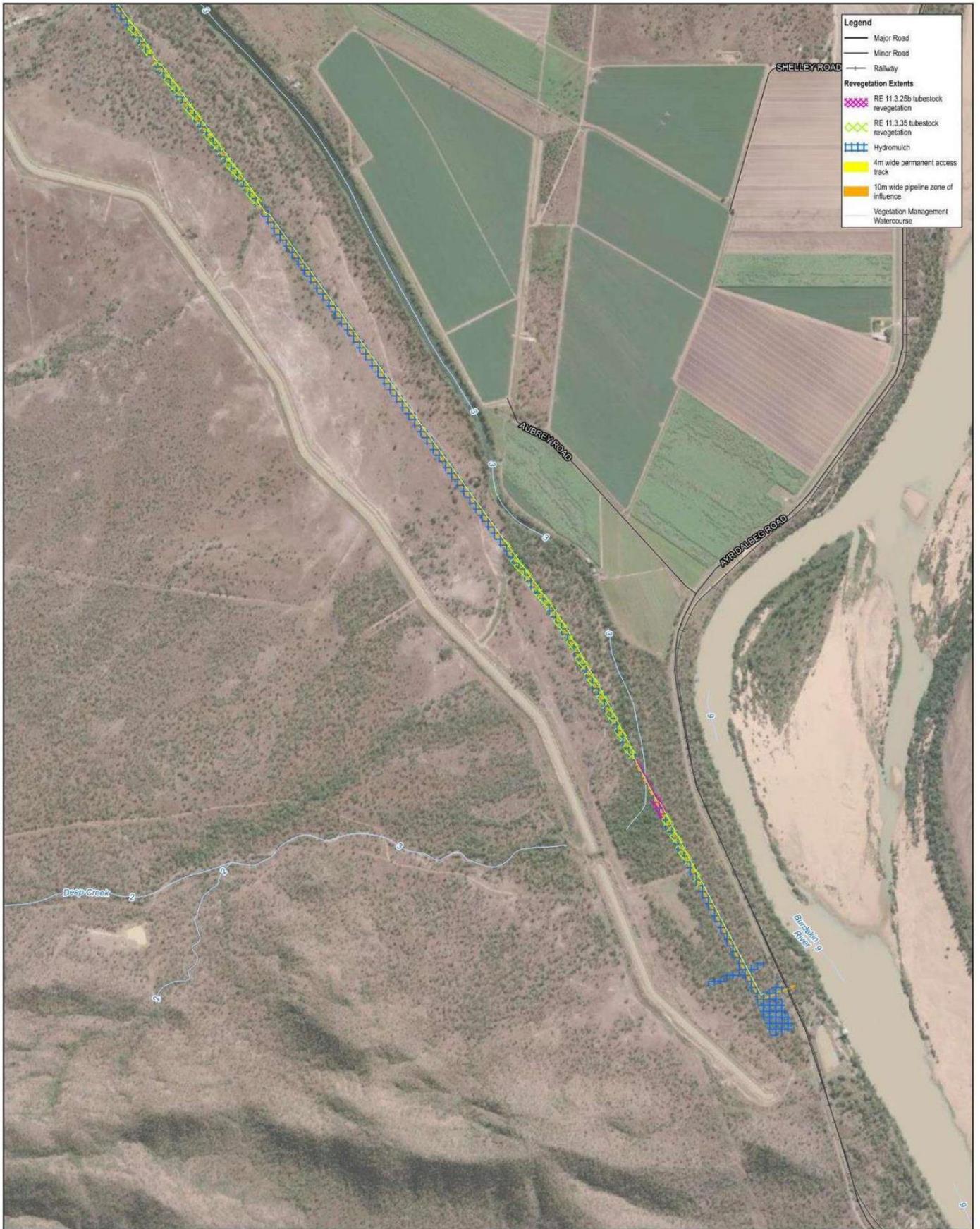
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Revision No. C
Date 7/28/2022

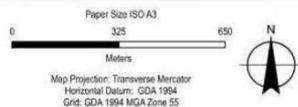
Revegetation extents
Sheet 5 of 6
FIGURE 6

igdhreghdAU\Townsville\Projects\12\12537606\GIS\Map\APRA\12537606\12537606_Ecology.aprx 12537606_Rehab_005_Revegetation_RevC
Print Date: 29 Jul 2022 - 13:40

Data source: DoR, Roads, Railways, Watercourses (2021); GHD: Site Layout, Potential Habitat, Field Record (2022); World Imagery. Mapper: Created by: stard



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Houghton Pipeline Stage 2 - Rehabilitation Plan

Project No. 12537606
Revision No. C
Date 7/28/2022

Revegetation extents

Sheet 6 of 6
FIGURE 6

lightweight\AU\Townsville\Projects\12537606\GIS\Map\APR\12537606_12537606_Rehab_306_Revegetation_RevC
Print date: 29 Jul 2022 - 13:45

Data source: Esri, Road, Railway, Watercourses (2021), GHD, Site Layout, Potential Habitat, Field Record (2022), World Imagery, Mapbox, Created by: mar2

