CONTEXT: This form should be used for pastoral land clearing (PLC) applications that do not qualify for the simplified assessment process outlined in Schedule 1 of the PLC Guidelines, as published by the Pastoral Land Board in accordance with the *Pastoral Land Act 1992*. The questions in this application form seek to address the 'Matters to be taken into account' by the Pastoral Land Board as specified in the PLC Guidelines. For further information contact the Vegetation Assessment Unit, Department of Environment, Parks and Water Security (DEPWS) on (08) 8999 4454 or refer to the following website https://nt.gov.au/property/land-clearing/pastoral-land/clearing-native-vegetation-on-pastoral-land.

PRE-LODGEMENT: Applications will be screened by the Vegetation Assessment Unit before being accepted for assessment to ensure applications contain all the information required to enable assessment. Incomplete applications will not be accepted. Applicants are encouraged to contact the Vegetation Assessment Unit to discuss their application prior to submission.

LODGEMENT: Submit the completed form with all required attachments and associated spatial data (e.g. proposed clearing shapefile/kml, land types shapefile/kml.) through Development Applications Online.

1. Application details

Station Name:	Deep Well
NT Portion/s:	NT Portion 415
Pastoral District:	**Southern Alice Springs**
Pastoral Lease No:	**966**
Proposed Clearing Area (ha)	180.37 **ha**
Document Version Number:	**1**
Date:	**06/05/2025**

2. Applicant details

For an application to be correctly made under section 91F of the *Pastoral Land Act 1992*, it must be lodged by the pastoral lessee or a person authorised by written consent from the pastoral lessee. Once the application has been accepted, payment of the application fee should be made to the Receiver of Territory Monies and the receipt forwarded to PastoralAssessment.DEPWS@nt.gov.au.

Form completed by:	Department of Logistics and Infrastructure
Name of consultant:	Kimberley Doukas
Name of lessee:	Deep Well
Applicant* name:	Department of Logistics and Infrastructure
Applicant* telephone:	0476118037
Applicant* email:	Kimberley.doukas@nt.gov.au
Applicant* postal address:	Level 3, Highway House, Palmerston, 0830

*All correspondence regarding the application will be directed to the applicant.

☒ Attach Lessee/s Authorisation form. Attachment No: 1

3. Description of proposal

The Department of Logistics and Infrastructure has funding to upgrade the Santa Teresa Road Ch20km to Ch60km to a two-lane bitumen seal.

Clearing is required as an ancillary activity to gravel extraction for these roadworks, DLI therefore applies on behalf of the lessee of the Perpetual Pastoral Lease over NT Portion 415, Deep Well, for a clearing permit to clear land on NT Portion 415 under the Pastoral Land Act 1992.

The area to be cleared consists of five (5) areas totalling 180.37 Hectares (ha), which shown in *Attachment 3 Location Map*, and defined in detail in *Attachments 3a, 3b,3c,3d,3e, 3f*, 3g.

It should be noted that within the 180 ha, clearing will only occur within areas with suitable terrain for camping, areas containing suitable quality gravel resources, or that facilitate access to such gravel resources. The nominated clearing areas are larger than usually required due to inconsistent gravel quality in the area. Within these areas, the application of DIPL standard specifications further reduces the cleared area and require areas to be rehabilitated after extraction.

It is not economically viable to freight gravel long distances, if gravel resources are not available in the vicinity of the works, then the works will not proceed.

4. Existing clearing

4.1 Provide details of the extent of existing clearing within the lease.

Note: All PLC permits are published online at https://nt.gov.au/property/land-clearing/pastoral-land/pastoral-land-clearing-applications-and-permits

Site	Area (ha)	Year cleared	Permit No.	Area within proposed clearing extent (ha)	Description
Example: Site 1 Front paddock	*10.5ha*	*1980*	*NA*	*7.5*	*Western half of front paddock cleared in 1980 for improved pasture, now contains regrowth. This area (excluding stream buffer) is proposed to be cleared.*
Site 1 (Partially within Gravel Pit 1)	10.88	Unknown	NA	7.78	Existing gravel pit
Site 2	2.58	Unknown	NA	2.58	Historical gravel pit
Site 3	3.55	Unknown	NA	3.55	Historical gravel pit
Site 4	0.51	Unknown	NA	0.51	Historical gravel pit
Site 5	1.2	Unknown	NA	0	Existing laydown/ turnaround
Site 6	0.27	Unknown	NA	0	Historical turkeys nest
Site 7	2.53	Unknown	NA	0	Historical gravel pit
Site 8	8.54	Unknown	NA	2.94	Historical gravel pit, turkeys' nest and laydown
Site 9	1.17	Unknown	NA	0	Historical gravel pit
Site 10	4.15	Unknown	NA	4.15	Historical gravel pit
Site 11	0.92	Unknown	NA	0	Historical gravel pit
Site 12	5.71	Unknown	NA	0	Historical gravel pit
Site 13	5.84	Unknown	NA	4.16	Historical gravel pit
Total:	47.85ha			25.67 ha	

☒ Attach a map showing areas of existing clearing within the property

Attachment No: 2

5. Proposed clearing

5.1 Provide details of the proposed clearing extent.

Site Id	Proposed Use	Area (ha)
Pit 1 Ch 31L	Clearing to facilitate gravel extraction for roadworks (ancillary activity). Area to be rehabilitated after extraction	20.18
Pit 2 Ch 32R	Clearing to facilitate gravel extraction for roadworks (ancillary activity). Area to be rehabilitated after extraction	51.54
Pit 3 Ch 39R	Clearing to facilitate gravel extraction for roadworks (ancillary activity). Area to be rehabilitated after extraction	27.33
Pit 4 Ch 41R	Clearing to facilitate gravel extraction for roadworks (ancillary activity). Area to be rehabilitated after extraction	14.67
Camp 1 Ch42 L	Clearing to facilitate camping for roadworks (ancillary activity). Area to be rehabilitated	16
Pit 5 Ch 49R	Clearing to facilitate gravel extraction for roadworks (ancillary activity). Area to be rehabilitated after extraction	40.65
Camp 2 Ch52 L	Clearing to facilitate camping for roadworks (ancillary activity). Area to be rehabilitated	10
Total:		180.37

5.2 Provide a proposed Clearing Plan.

The proposed Clearing Plan is a map showing the geo-referenced location of the proposed clearing areas as identified in Section 5.1. The maps should include:

- The map datum (e.g. GDA94)
- The map projection or zone
- A north arrow
- A grid or scale bar
- A suitable background (e.g. cadastre and aerial/satellite imagery)

☒ Attach proposed Clearing Plan. Attachment No: 3 Location Map, Detail 3a,3b,3c,3d,3e, 3f, 3g

6. Water Resources

6.1 Does the proposed use require irrigation?

☐ Yes ☒ No

6.2 Provide details regarding the proposed water requirements for each proposed crop/use.

Note: If the proposal requires irrigation and a Water Extraction Licence (WEL) has not been issued, refer to https://nt.gov.au/environme nt/water or contact the Water Resources Division, DEPWS by email waterresources@nt.gov.au or telephone: (08) 8999 4455.

Crop/Use & Polygon	Area (ha)	Water required (ML/yr)	Water source	Licence required (yes/no)	Licence No. or application status
TOTAL:					

☐ Attach a copy of any relevant licences or bore reports. Attachment No: _____

7. Land Resources

Note: Most published land resource mapping and soil site data is available on NR Maps at: https://nrmaps.nt.gov.au/nrmaps.html. This broad scale mapping can provide useful information and guidance with respect to planning a more detailed site-specific resource assessment to prepare a Land Type map*. For further information view: https://depws.nt.gov.au/rangelands/information-and-requests/land-soil-vegetation-information

*Applicants may be asked to provide site inspection data (e.g. inspection track, sites and data) to aid assessment.

7.1 Provide a Land Type map for the proposed clearing extent.

Note: Consideration of an application cannot proceed without the collection and orderly presentation of field-verified site-specific data and mapping. In accordance with the Northern Territory Planning Scheme (NTPS) Land Clearing Guidelines (LCG) (refer to Land and Vegetation Resource Assessment - sections 4.2.3 to 4.2.6) all clearing applications need to be accompanied by an appropriate soil, vegetation and land resource assessment in the form of a Land Type map at a scale of 1:5,000 to 1:20,000.

☒ Attach a Land Type map for proposed clearing extent. Attachment No: 4 Land Systems 4a 4b 4c, 4d, 4e

☐ Attach one Land Type description for each Land Type unit (use proforma at Error! Reference source not found.).

Attachment No: Not relevant to gravel extraction for engineered roads

7.2 Determine whether a Land Capability Assessment (LCA) or a Land Suitability Assessment (LSA) is required.

Note: In accordance with Land capability and land suitability classifications (section 4.2.2) of the NTPS LCG; land capability evaluates a common set of broad land-based development constraints and determines the appropriateness of the land in general for a broad range of land uses, whereas land suitability assesses the potential of a soil or land resource for a specific irrigated agricultural land use. To determine the type of assessment required, contact the Land Assessment Branch, DEPWS (08) 8999 4443.

☒ LCA required (complete Question 7.3); **OR**

☐ LSA required (complete Question 7.4)

7.3 Provide a LCA for Land Types within the proposed clearing extent.

Note: In accordance with the LCG, LCA (section 4.2.7) evaluates the key soil and land resource attributes recorded within a Land Type map against a defined set of criteria to determine an overall Land Capability Class.

☒ Attach a LCA table for Land Types within the proposed clearing extent (use proforma at Error! Reference source not found.).

Attachment No: 5

☐ Attach a map of the proposed clearing extent showing the Land Types' overall Land Capability Classes.

Attachment No: Not relevant to gravel extraction for engineered roads

7.4 Provide a LSA report for Land Types within the proposed clearing extent.

Note: In accordance with LCG (section 4.2.8), LSA involves the assessment of the requirements for a particular land use against soil and landscape attributes that influence sustainable production. LSA is crop-specific and uses a defined set of standard land use requirements to evaluate plant growth limitations, machinery use restrictions, land preparation factors, irrigation efficiency and susceptibility to land degradation. DEPWS has published a series of LSA frameworks describing the limitations, attribute values and decision rules required to assess the suitability of soil and land resources within a region for a range of specific irrigated agricultural land uses.

☐ Attach a LSA report for the proposed clearing extent.

Attachment No: Not relevant to gravel extraction for engineered roads

☐ Attach a map of the proposed clearing extent showing the Land Types' overall Land Suitability classes.

Attachment No: Not relevant to gravel extraction for engineered roads

8. Biodiversity

8.1 Describe any records of threatened flora and fauna species or migratory species listed under the *Territory Parks and Wildlife Conservation Act 1976* (TPWC) or the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC) within 10km of the proposed clearing extent. Also describe any such species for which there are no records but have a reasonable likelihood of occurring within the habitats (i.e. Land Types) comprising the proposed clearing extent.

Note: For further information, refer to the following websites or contact the Flora and Fauna Division, DEPWS via email Biodiversity.Assessments@nt.gov.au or telephone: 08 8995 5000. Add additional rows to the table as needed.

http://nrmaps.nt.gov.au/

www.nt.gov.au/environment/animals/classification-of-wildlife

http://www.environment.gov.au/epbc/protected-matters-search-tool

Common name	Species	TPWC	EPBC	Location
See attachment 6 – Threatened Species and 6a - Vegetation				
Australian Painted Snipe	*Rostratula australis*	Endangered	Endangered	PMST – Species or species habitat may occur within area
Central Australian Rock-wallaby	*Petrogale lateralis centralis*	Vulnerable	Vulnerable	NR Maps- approximately 3.5km west of Gravel pit 4
Curlew Sandpiper	*Calidris ferruginea*	Critically Endangered	Critically Endangered	PMST – Species or species habitat may occur within area
Ghost Bat	*Macroderma gigas*	Near Threatened	Vulnerable	PMST – Species or species habitat may occur within area
Great Desert Skink	*Liopholis kintorei*	Vulnerable	Vulnerable	PMST – Species or species habitat may occur within area
Greater Bilby	*Macrotis lagotis*	Vulnerable	Vulnerable	NR Maps – Closest record within the Santa Teresa Community located 13km southeast of Camp 2
Grey Falcon	*Falco hypoleucos*	Vulnerable	Vulnerable	PMST – Species or species habitat may occur within area NR Maps – closest record 2.5km north eat of Gravel Pit 1.
Minnie Daisy	*Minuria tridens*	Vulnerable	Vulnerable	PMST – Species or species habitat likely to occur within area
Night Parrot	*Pezoporus occidentalis*	Endangered	Endangered	PMST – Species or species habitat may occur within area
Plains Rat	*Pseudomys australis*	Endangered	Vulnerable	PMST – Species or species habitat may occur within area
Princess Parrot	*Polytelis alexandrae*	Vulnerable	Vulnerable	PMST – Species or species habitat likely to occur within area
Rainbow Valley Fuchsia Bush	*Eremophila prostrata*	Near Threatened	Vulnerable	NR Maps, closest sighting 5km southeast of Camp 1
Red Goshawk	*Erythrotriorchis radiatus*	Vulnerable	Endangered	PMST – Species or species habitat may occur within area

Sharp-tailed Sandpiper	*Calidris acuminata*	Vulnerable	Vulnerable	PMST – Species or species habitat known to occur within area NR Maps – Closest record within the Santa Teresa Community located 13km southeast of Camp 2
Slater's Skink	*Liopholis slateri slateri*	Vulnerable	Endangered	PMST – Species or species habitat may occur within area
Southern Whiteface	*Aphelocephala leucopsis*	Least Concern	Vulnerable	NR Maps, sightings throughout the proposed development footprint. Closest record within Gravel Pit 1

8.2 Describe potential impacts to species identified above from the proposed clearing.

Note: To determine the risk to threatened species, information should be considered at the scale of the proposed clearing and at a regional context. Consider any associations that the species may have with landforms, vegetation structure or dominant plant species proposed for clearing.

Common name	Potential impact	Likelihood of Occurrence	Risk*	Justification
See attachment 6– Threatened and significant species	Not detectable		Low	• It is a relatively small area • It does not contain sensitive or significant vegetation • It is unlikely to provide habitat for the identified species • It is unlikely to cause offsite impacts to the identified species
Australian Painted Snipe	Not detectable	Possible	Low	• It is a relatively small area • It does not contain sensitive or significant vegetation • It is unlikely to provide habitat for the identified species • It is unlikely to cause offsite impacts to the identified species
Central Australian Rock-wallaby	Not detectable	Possible	Low	• It is a relatively small area • It does not contain sensitive or significant vegetation • It is unlikely to provide habitat for the identified species • It is unlikely to cause offsite impacts to the identified species
Curlew Sandpiper	Not detectable	Possible	Low	• It is a relatively small area • It does not contain sensitive or significant vegetation • It is unlikely to provide habitat for the identified species • It is unlikely to cause offsite impacts to the identified species

Ghost Bat	Not detectable	Unlikely	Low	• It is a relatively small area • It does not contain sensitive or significant vegetation • It is unlikely to provide habitat for the identified species • It is unlikely to cause offsite impacts to the identified species
Great Desert Skink	Not detectable	Possible	Low	• It is a relatively small area • It does not contain sensitive or significant vegetation • It is unlikely to provide habitat for the identified species • It is unlikely to cause offsite impacts to the identified species
Greater Bilby	Although species may occur within the area, due to the transient nature of the species it is likely it would move away from disturbance.	Unlikely	Low	• It is a relatively small area • It does not contain sensitive or significant vegetation • It is unlikely to provide habitat for the identified species • It is unlikely to cause offsite impacts to the identified species
Grey Falcon	Small impact if nesting tree/s are removed. However, impact is likely to be minimal as all trees are surveyed for nests and hollows before removal and appropriate action will be taken if found as per DIPL Standard Specifications for Environmental Management	Unlikely	Medium	• It may support the identified species, however the local occurrence of the species may not be considered significant as the species is widespread. • Risk to the species is lowered based on controls detailed in DIPL Standard Specifications for Environmental Management (DIPL SSEM) which will be implemented throughout clearing.
Plains Rat	Not detectable	Unlikely	Low	• It is a relatively small area • It does not contain sensitive or significant vegetation • It is unlikely to provide habitat for the identified species • It is unlikely to cause offsite impacts to the identified species
Minnie Daisy	Not detectable	Unlikely	Low	• It is a relatively small area • It does not contain sensitive or significant vegetation • It is unlikely to provide habitat for the identified species • It is unlikely to cause offsite impacts to the identified species
Night Parrot	Not detectable	Unlikely	Low	• It is a relatively small area • It does not contain sensitive or significant vegetation • It is unlikely to provide habitat for the identified species • It is unlikely to cause offsite impacts to the identified species

Princess Parrot	Not detectable	Unlikely	Low	• It is a relatively small area • It does not contain sensitive or significant vegetation • It is unlikely to provide habitat for the identified species • It is unlikely to cause offsite impacts to the identified species
Rainbow Valley Fuchsia Bush	Not detectable	Unlikely	Low	• It is a relatively small area • It does not contain sensitive or significant vegetation • It is unlikely to provide habitat for the identified species • It is unlikely to cause offsite impacts to the identified species
Red Goshawk	Not detectable	Unlikely	Low	• It is a relatively small area • It does not contain sensitive or significant vegetation • It is unlikely to provide habitat for the identified species • It is unlikely to cause offsite impacts to the identified species
Sharp-tailed Sandpiper	Not detectable	Possible	Low	• It is a relatively small area • It does not contain sensitive or significant vegetation • It is unlikely to provide habitat for the identified species • It is unlikely to cause offsite impacts to the identified species
Slater's Skink	Not detectable	Unlikely	Low	• It is a relatively small area • It does not contain sensitive or significant vegetation • It is unlikely to provide habitat for the identified species • It is unlikely to cause offsite impacts to the identified species
Southern Whiteface	Not detectable	Known	Low	• It is a relatively small area • It does not contain sensitive or significant vegetation • It is unlikely to provide habitat for the identified species • It is unlikely to cause offsite impacts to the identified species

*Use the following risk matrix (adapted from Table 17 in the LCG):

Risk rating	Characteristics
Low	The proposed clearing extent is characterised by a combination of factors such as: • It is a relatively small area • It does not contain sensitive or significant vegetation • It is unlikely to provide habitat for the identified species • It is unlikely to cause offsite impacts to the identified species.
Medium	The proposed clearing extent has characteristics between the Low and High-risk classes. (e.g. it may support the identified species, however the local occurrence of the species may not be considered significant or the extent of clearing as a proportion of habitat available to the species may be sufficiently small enough to not pose a High risk).

High	The proposed clearing extent is important habitat for the identified species. Note: If the clearing has the potential to negatively impact the species identified, even a small clearing extent could be categorised as high risk.

8.3 Identify which of the following types of sensitive features are present within proximity of the proposed clearing extent.

Feature	LCG	Present/Absent
Drainage depressions and streams	Section 4.4.7	Present
Wetlands	Section 4.4.8	Absent
Groundwater Dependent Ecosystems	Section 4.4.8	Absent
Sinkholes	Section 4.4.9	Absent
Other sensitive or significant vegetation	Section 4.4.6	Absent

8.4 Identify the individual sensitive features within proximity of the proposed clearing extent and the associated Land Type.

Note: Refer to the relevant sections of the LCG (identified above) for information regarding recommended native vegetation buffer widths and value attribution.

Feature	Land Type	Value / Order	Location in relation to proposed clearing extent	LCG recommended buffer width (m)	Proposed buffer width (m)
See attachment 7, 7a,7b, 7c, 7d Stream Buffers					
Pit 1- Drainage depressions and intermittent streams		1	To the east of Gravel Pit 1	25	25m surrounding drainage depressions and intermittent stream
Pit 3- Drainage depressions and intermittent streams		1	Directly adjacent to Gravel Pit 3, to the east	25	25m surrounding drainage depressions and intermittent stream
Pit 4- Drainage depressions and intermittent streams		1	To the north of Gravel Pit 4	25	25m surrounding drainage depressions and intermittent stream

Pit 5- Drainage depressions and intermittent streams		1	To the northwest of Gravel Pit 5	25	25m surrounding drainage depressions and intermittent stream

Buffer widths are taken from edge of riparian vegetation or from the channel bank where no vegetation is present. In the case of braided streams, the outermost channel bank is used.

8.5 Provide reasons for discretion and describe proposed mitigation measures for any proposed buffers that are not consistent with LCG recommendations.

Note: Additional supporting evidence should be attached.

Feature	Reasons for discretion	Proposed mitigation

☐ Attach relevant supporting evidence. Attachment No: _____

8.6 Identify the wildlife corridors to be retained within proximity of the proposed clearing extent and reasons for siting and design.

Note: A corridor of 100m is considered the minimum width to be viable in the NT context for general application and as a default, corridor density should be at a rate of one corridor per linear kilometre of clearing or equivalent – refer to LCG section 4.4.10. Question 3 in the Land Management Plan (template available at **Error! Reference source not found.**) addresses property boundary buffers.

Corridor Id.	Location	Proposed width (m)	Justification
NA			

8.7 Assess the risk of the proposed clearing to regional biodiversity and provide an overall risk rating.

Note: To determine the risk to regional biodiversity, information is to be considered at the scale of the proposed clearing footprint and evaluated within a regional context. Refer to Section 4.2 and 4.3 of the LCG or contact the Flora and Fauna Division, DEPWS (telephone: 08 8995 5000).

Consideration	Yes/No	Explain

Are there any important biodiversity values within the proposed clearing extent?	No	• It is a relatively small area • It does not contain sensitive or significant vegetation • It is unlikely to provide important habitat for the identified Threatened and significant species • It is unlikely to cause offsite impacts to the identified species Refer **attachment** ***6– Threatened species and Attachment 6a - NDVIS***
Are there any important biodiversity values within proximity of the proposed clearing extent?	No	No sites of Conservation Significance within the area. Finke Site of Botanical Significance is located to the north of the project area. ***Refer to Attachment 6b – Finke Bioregion.***
Does the proposed clearing have the potential to impact any important biodiversity values?	No	• It is a relatively small area • It does not contain sensitive or significant vegetation • It is unlikely to provide habitat for the identified species • It is unlikely to cause offsite impacts to the identified species • Any potential impacts are mitigated Refer **Attachment** ***6 – Threatened species***
Have all reasonable alternatives been considered to avoid impacts to important biodiversity values?	NA	The Santa Teresa road cannot be upgraded without access to gravel.
What is the overall biodiversity risk rating (Low, Medium High)?	Low	• It is a relatively small area • It does not contain sensitive or significant vegetation • It is unlikely to provide habitat for the identified species • It is unlikely to cause offsite impacts to the identified species • Any potential impacts are mitigated

9. Infrastructure and Amenity

9.1 Describe any public facilities, utilities or infrastructure within the locality and how any potential impacts from the proposed clearing development will be managed.

Infrastructure	Location	Potential impacts	Proposed mitigation
Santa Teresa Road	Chainage 20km to 60km	Road safety improved. Transport costs reduced.	NA – Impact positive

9.2 Identify any public roads or public facilities within 200m of the proposed clearing extent.

Note: Refer to LCG sections 4.3.5 and 4.3.5.1.

Feature	Distance from proposed clearing extent (m)
Santa Teresa Road 20km to 60km	100m

9.3 Assess the risks posed to the following public values and the proposed mitigation measures.

Note: Risk assessment should describe the likelihood of impacts occurring and the potential consequences.

Value	Risk	Mitigation
Amenity	Roadside visual amenity	Vegetation buffers to the greater of line of sight or 50 metres. Gravel pits to be offset a minimum of 125m from the road centreline
Recreation	Nil	NA
Tourism	Access and safety improved.	NA
Parks / Reserves	Nil	NA

10. Land Management

10.1 Attach a proposed Establishment Plan (see template at Error! Reference source not found.).

☒ Attach the Establishment Plan Attachment No: 7

10.2 Attach a proposed Staging Plan (see template at Error! Reference source not found.).

☒ Attach the Staging Plan Attachment No: 8

10.3 Attach a proposed Land Management Plan (see template at Error! Reference source not found.).

☒ Attach a proposed Land Management Plan Attachment No: 9 and 9a

11. Weed Management

11.1 List all weeds declared under the *Weeds Management Act 2001* present within the property and describe the proximity of species to the proposed clearing extent.

Note: For information refer to: https://nt.gov.au/environment/weeds and NR Maps https://nrmaps.nt.gov.au/nrmaps.html.

Weed species	Class	Location	Density
Example: Grader grass	*Class B*	*Along verge of main station road; 200m upslope of proposed clearing polygon X at closest point.*	*Uncommon. Occasional individual plants only.*

See attachment 10 Weeds			
Buffel Grass	Declared Weed	Records scattered throughout the area. Closest record is located within Pit 2.	Category 6 - Present but density not known
Couch Grass	NA	Two records in the general area, closest record located approximately 3.3km west of Pit 3.	Category 6 - Present but density not known
Lovegrass- Pitted	NA	One record located 4.4km west of Pit 5.	Category 6 - Present but density not known
Ruby Dock	NA	One record within the general project area located within Pit 2.	Category 6 - Present but density not known

11.2 Provide details of weed management on the property.

Note: Consider whether the weed has a statutory Weed Management Plan https://nt.gov.au/environment/weeds/how-to-comply-with-the-law/statutory-weed-management-plans

Weed species	Management Aim	Method	Current / Proposed

All	Prevent spread	- Survey for declared weeds on site and assess risk of spread, - Consult with Local Council and the Department of Lands Planning and Environment - Weed Management Branch about management procedures to be implemented by the Contractor which will including the following: - Eliminate the seed source where possible, - Establish weed control protocols to prevent spread of weeds and their seeds, and - Clean machines before moving between sites, - Don't use or move materials contaminated with weeds and/or their seeds, - Avoid travelling through weeds that are seeding. See *Attachment 11 Standard Specifications*	Proposed

12. Cultural Heritage

12.1 Provide details of any heritage or archaeological surveys conducted within the property and any findings relevant to the proposed clearing extent.

Survey name	Year conducted	Completed by	Findings relevant to the proposed clearing extent

AAPA certificate C2021/105	February 2022	AAPA	AAPA certificates for proposed works
Heritage search	2023	NTG Heritage Unit	Possible/ likely that heritage locations are within the project footprint

☒ Attach relevant information (e.g. maps, site descriptions, etc.) from the survey relevant to the proposed clearing extent.

Attachment No: 12, 12a, 12b

12.2 Provide details of any known (i) places, (ii) archaeological places, or (iii) Aboriginal or Macassan archaeological places, within the meaning of the *Heritage Act 2011* located within the property.

Note: Risk assessment should describe the likelihood of impacts occurring and the potential consequences. For more information go to https://nt.gov.au/property/land/heritage-listings/heritage-register-search-for-places-or-objects .

Place / Site	Location in relation to the proposed clearing extent	Risk	Mitigation
			•
			•

☒ Attach a map showing the location of any declared sites/places in proximity to the proposed clearing extent.

Attachment No: NA

12.3 Contact the Heritage Branch, Department of Territory Families, Housing and Communities for advice regarding the proposed clearing in relation to the *Heritage Act 2011*.

Note: The Heritage Branch can be contacted via email: heritage.branch@nt.gov.au or telephone 08 8999 5039.

☒ Attach a copy of the advice. Attachment No: 12

12.4 Provide details of any sacred sites within the meaning of the *Northern Territory Aboriginal Sacred Sites Act 1989* located within proximity of the proposed clearing extent.

Note: Risk assessment should describe the likelihood of impacts occurring and the potential consequences. For more information go to https://www.aapant.org.au/ .

Site	Location in relation to the proposed clearing extent	Risk	Mitigation
NA	NA	NA	NA

☒ Attach a map showing the location of any declared sites in proximity to the proposed clearing extent.

Attachment No: 12a

12.5 Aboriginal Areas Protection Authority

Contact the Aboriginal Areas Protection Authority to obtain an Abstract of Records and consent to use the information for the purposes of this application.

☒ Attach the Abstract of Records Attachment No: Not relevant as the AAPA Certificate relevant to the works is less than 5 years old (issued in 2022)

Have you, or do you intend to apply for an Authority Certificate?

☒ Yes Attachment No: 12b

If yes, please provide a copy of the Authority Certificate as part of the application or before the Pastoral Land Board determines the application.

☐ No

If an Authority Certificate is not provided and you do not intend to apply for an Authority Certificate, please explain why an Authority Certificate has not been included as part of the application.

NA

13. Greenhouse Gas Emissions

13.1 Estimate the emissions (tonnes $CO_{2\text{-}e}$) from the clearing.

6,885.14 **tCO_2-e**

Note: Under the NT Government's Greenhouse Gas Emissions Management for New and Expanding Large Emitters' Policy, which came into effect in September 2021, a land use project generating over **500 000 tCO_2-e** from a single clearing event, OR cumulatively from multiple land clearing actions on a property over time is required to develop a Greenhouse Gas Abatement Plan (GGAP) which demonstrates how emissions will be managed and reduced.

Information on how to obtain an estimate of the average emissions ($tCO_{2\text{-}e}$) per hectare for your project can be found here or by accessing the link at https://nt.gov.au/property/land-clearing/pastoral-land/clearing-native-vegetation-on-pastoral-land

14. Environment Protection

14.1 Has the application been referred for assessment under the *Environment Protection Act 2019?*

Note: Refer to the document 'Referring a proposal to the NT EPA' available on the following website https://ntepa.nt.gov.au/your-business/environment-impact-assessment or contact the Environment Division, DEPWS via telephone 08 8924 4218 or email eia.ntepa@nt.gov.au

☒ Not referred;

☐ Attach a completed referral checklist located in Appendix 1 of Referring a proposal to the NT EPA

Attachment No: Does not reach screening requirements, see Attachment 13

☐ Referred;

☐ Attach advice from the NT EPA Attachment No: 13

14.2 Assess the risks associated with the following potential pollutants from clearing and development works and describe the proposed mitigation measures. Consideration of risk should include potential sources, the likelihood of impacts occurring and the potential consequences.

Note: Under the *Waste Management and Pollution Control Act 1998* everyone in the NT has a 'general environmental duty' to not carry out any activity that causes or is likely to cause environmental harm, unless measures to prevent or minimise the harm have been taken. For more information refer to the following website https://ntepa.nt.gov.au/your-business/environmental-obligations-and-duties or contact the Environment Division, DEPWS via telephone 08 8924 4218 or email pollution@nt.gov.au.

For information regarding spray drift and the *Agricultural and Veterinary Chemical (Control of Use) Act 2004* contact Chemicals Services, DITT via email chemicals@nt.gov.au or telephone 08 8999 2344.

Potential pollutants	Risk	Mitigation
Dust	Low	See *Attach 12 Standard Specifications*
Chemical spray drift	NA	NA
Chemical runoff (to surrounding land or riparian systems)	NA	NA
Groundwater contamination	Low	See *Attach 12 Standard Specifications*

15. Other relevant information

15.1 Provide any additional relevant information not addressed above and outline in the table below.

Attachment No.	Description
Attach 12 Standard Specifications	Minimum contractual standard for environmental management

16. Checklist of Attachments and Required Spatial Data

Complete the following checklist.

Note: Spatial data for the items indicated must be provided before the application will be accepted. ESRI shapefile is the preferred format - kml/kmz also accepted. Contact: PastoralAssessment.DEPWS@nt.gov.au

Attachment No.	Name	Question No.	Item attached	Spatial data
	Lessee/s Authorisation form	2	1	NA
	Map of existing clearing	4.1	2	**Required**
	Proposed Clearing Plan	5.2	3,3a,3b,3c,3d,3e, 3f, 3g	**Required**
	Water licence &/or bore reports	6.2		NA
	Land Type map	7.1	4,4a,4b,4c,4d,4e	**NA**
	Land Type descriptions	7.1		NA
	LCA table	7.3	5	NA
	LCA map	7.3		NA
	LSA report	7.4		NA
	LSA map	7.4		NA
	Buffer discretion – supporting evidence	8.5	6, 6a, 6b 7, 7a, 7b, 7c, 7d, 7e	NA
	Establishment Plan	10.1/Appendix C	7	NA
	Staging Plan	10.2/ Appendix D	8	NA
	Land Management Plan	10.3/ Appendix E	9	NA
	Slope & runoff map	10.3/ Appendix E-2	9a	NA
	ESC map	10.3/ Appendix E-9		NA
	ESC details	10.3/ Appendix E-10		NA
	Map of heritage/archaeological places	12.2	NA	NA
	Heritage Branch advice	12.3	12	NA
	Map of sacred sites	12.4	12a 12b	NA
	Abstract of Records or Authority Certificate	12.5	12b	NA
	EPA referral checklist	13.1	13	NA
	EPA advice	13.1		**Optional**
	Other additional info	14	11, 14	**Optional**

NORTHERN TERRITORY GOVERNMENT
Department of LOGISTICS AND INFRASTRUCTURE

Level 1
Greenwell Building
50 Bath Street Alice Springs NT 0870

Postal address
P O Box 2130
Alice Springs NT 0870

E Benjamin.Dugay@nt.gov.au

T 08 8951 5233

30 April 2025

Viv Oldfield – Deep Well Station Owner

66 Smith Street,
Alice Springs, NT, 0870

Dear Viv

Re: Santa Teresa Road Upgrades - Extraction of Water and Gravel

The Department of Logistics and Infrastructure (DLI) are in the process to upgrade a 40km section on Santa Teresa Road between chainage 20-60km. To achieve this work successfully, we are required to have agreement between DLI and Deep Well Station to construct a camp and extract water and gravel at nominated locations.

On 3 November 2023, DLI sent email correspondence to you, as the owner of Deep Well Station, requesting your permission to conduct a bore drilling campaign at the prospective target sites within Deep Well Station, as identified during our hydrogeological investigation. DLI is also seeking your permission to utilise the nominated gravel pits and extract water from the nominated bores. This letter is to formalise the agreement.

This agreement will form part of the contract T25-1207 with a contractor to carry out all the works with specific details to extract water and gravel to complete the project.

An Environmental Risk Assessment document has been developed and implemented specifically to this project. This document forms part of the contract and contractor is to review and understand the document.

Scope of Works;

The proposed upgrade section is between 20km to 60km.

The upgrade generally involves the construction of a 9.0m sealed rural arterial road on a 10.0m formation, within the extents of the existing road alignment.

Gravel Extraction

ominated gravel pits are detailed below:

Location / Description	Chainage (km)	X	Y	Size of Pit Area (Ha)
Gravel Area 1	31	134.076322	-24.009752	20.18
		134.073862	-24.006208	
		134.077596	-24.004247	

Location / Description	Chainage (km)	X	Y	Size of Pit Area (Ha)
		134.080044	-24.007605	
Gravel Area 2	32	134.080387	-24.024491	51.54
		134.073785	-24.015261	
		134.077286	-24.013078	
		134.083701	-24.022256	
Gravel Area 3	39	134.127924	-24.049363	42.51
		134.11877	-24.049813	
		134.11887	-24.045614	
		134.125351	-24.045354	
		134.127906	-24.045286	
Gravel Area 4	41	134.143605	-24.049027	16.28
		134.14342	-24.050494	
		134.134161	-24.049762	
		134.134454	-24.04813	
Gravel Area 5	49	134.239137	-24.057934	41.61
		134.23844	-24.061408	
		134.228065	-24.06003	
		134.229017	-24.056519	

Please note that although the size of these pits is significant, actual area cleared will not be this substantial.

Camping

Two camping locations have been proposed. See locations below:

Location / Description	Chainage (km)	X	Y	Size of Area (Ha)
Camp 1	42	134.154287	-24.044157	16
		134.160756	-24.044578	
		134.160713	-24.046809	
		134.154135	-24.04628	
Camp 2	52	134.248498	-24.058886	10
		134.252443	-24.060541	
		134.251835	-24.062449	
		134.247648	-24.060746	

Water Extraction

Two bores have been proposed within Deep Well Station. See locations in the table below:

Bore	Chainage (km)	X	Y
RN018385 Road Bore	35.5	-24.053239	134.089084
RN019019 Road Bore	48	-24.69048	134.204615

Remote Camp

Nominated camp will be in a cleared section of one of the gravel pits at the GPS Coordinates detailed above. Exact location will be determined by the contractor upon contract award in consultation with the station.

Detour

A detour is proposed to be constructed within the proposed road reserve, offset 40-50m from the road centreline.

Contractors Responsibilities

Contractor will have all the necessary resources, equipment and plant to carry out and complete the works.

Contractor will supply their own equipment to drill bores and extract water for the upgrade works.

This agreement includes permission for the contractor to establish a remote camp on Santa Teresa Road. Location will be determined after award of contract and will be within one of the above defined locations.

The contractor on site will be advised to coordinate with Deep Well Station on cattle movements in and out of the station to minimise delays.

At completion of works the contractor will rehabilitate areas that were disturbed.

DLI request agreement with Deep Well Station extract water and gravel along Santa Teresa Road including permission for the contractor establish remote camp at no cost to DLI or contractor.

Agreed from Deep Well Station:

Name: VW OLDFIELD

Signed: 

Date: 30.04.2025

Yours sincerely,

30/04/2025

Benjamin Dugay
Project Manager

Lessee/s Authorisation to lodge an application – Pastoral Land Act 1992

PASTORAL LAND BOARD
NORTHERN TERRITORY

The lessee and/or persons duly authorised as signatory on behalf of the lessee hereby authorise:		
Applicant / Consultant:	Environmental and Sustainability Unit, Department of Logistics, and Infrastructure	
Telephone:	(08) 8999 4440	
Email:	Environment.DLI@nt.gov.au	
To lodge an application under the *Pastoral Land Act 1992* over the property described as:		
Station Name:	Deep Well Station	
NT Portions/s:	NT Portion 415	
Pastoral District:	Southern Alice Springs	
Pastoral Lease No:	966	
For the purpose of:		
Application type:	☒ Pastoral Land Clearing (PLC) ☐ PLC Permit Variation	☐ Non-Pastoral Use (NPU) ☐ NPU Permit Variation

Declaration:

I make this application as the pastoral lessee for the pastoral lease indicated above. If the pastoral lease is a company I warrant that I am properly authorised by the pastoral lessee to make this application.

Signatures of lessee / authorised person:	
Name:	VIV OLDFIELD.
Company position (if required):	DIRECTOR
Company (if required):	G & C PASTORAL COMPANY P/L.
Date:	30 APRIL 2025.
Supporting evidence (if required):	*Applicants should include sufficient evidence in support of their authorisation to make the application on behalf of the body corporate pastoral lessee.*

Attach supporting evidence:

☐ Other: _____

Note: Add additional signature blocks as required.

Pit 1 Ch31 L
1
2
Pit 2 Ch32 R
3
4
5
6
7
Pit 3 Ch39 R
8
9
11
Pit 4 Ch41 R
Camp 1 Ch42 L
NT Por 415
Perpetual Pastoral Lease
DEEP WELL
*SANTA TERESA
*PASTORAL ROAD
12
Pit 5 Ch49 R
13
Camp 2 Ch52 L
*PASTORAL ROAD
*PASTORAL ROAD
N
Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

Legend

- Gravel
- Camping
- Existing Disturbed
- Cadastre
- Roads

Santa Teresa Road Ch20-60km
Land Clearing Application
Attach 2- Existing Clearing

Northern Territory Government

Projection: Universal Transverse Mercator (UTM) - Map Grid of Australia (MGA), Zone 52
Horizontal Datum: Geodetic Datum of Australia (GDA94)

1.1 0.55 0 1.1
Kilometres
Scale @ A4 size: 1:55,000
Map Compiled: 12/05/2025

DATA SOURCE:
Water Resources - Natural Resources Division, DLPE
Cadastre / Roads - Land Information, DLI
Drainage - 1:250,000 Geoscience Australia

For further information, please contact;
Environment Services
Department of Logistics and Infrastructure (DLI)
Phone: (08) 8999 4779
Level 3, Highway House. Palmerston
Web: www.nt.gov.au/infrastructure

File Path: F:\Project Clearances\Project Management\AA_Alice Springs Region\Alice Springs_Santa Teresa Ch20-62km_KD_KB\Native Vegetation Application\Native Vegetation Application\Native Vegetation Application.aprx

Pit 1 Ch31 L

Pit 2 Ch32 R

NT Por 415
Perpetual Pastoral Lease
DEEP WELL

Camp 1 Ch42 L

Pit 3 Ch39 R

Pit 4 Ch41 R

*SANTA TERESA

*PASTORAL ROAD

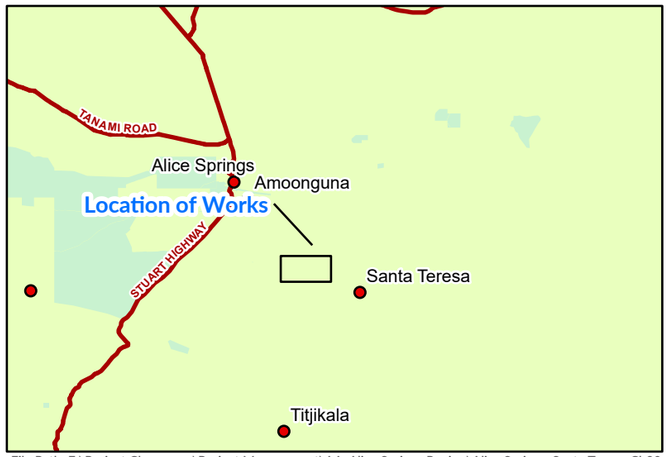
Pit 5 Ch49 R

Camp 2 Ch52 L

*PASTORAL ROAD

Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

N



Legend

- Camping
- Gravel
- Cadastre
- Roads

Northern Territory Government

Projection: Universal Transverse Mercator (UTM) - Map Grid of Australia (MGA), Zone 52
Horizontal Datum: Geodetic Datum of Australia (GDA94)

1 0.5 0 1
Kilometres
Scale @ A4 size: 1:55,000
Map Compiled: 12/05/2025

DATA SOURCE:
Water Resources - Natural Resources Division, DLPE
Cadastre / Roads - Land Information, DLI
Drainage - 1:250,000 Geoscience Australia

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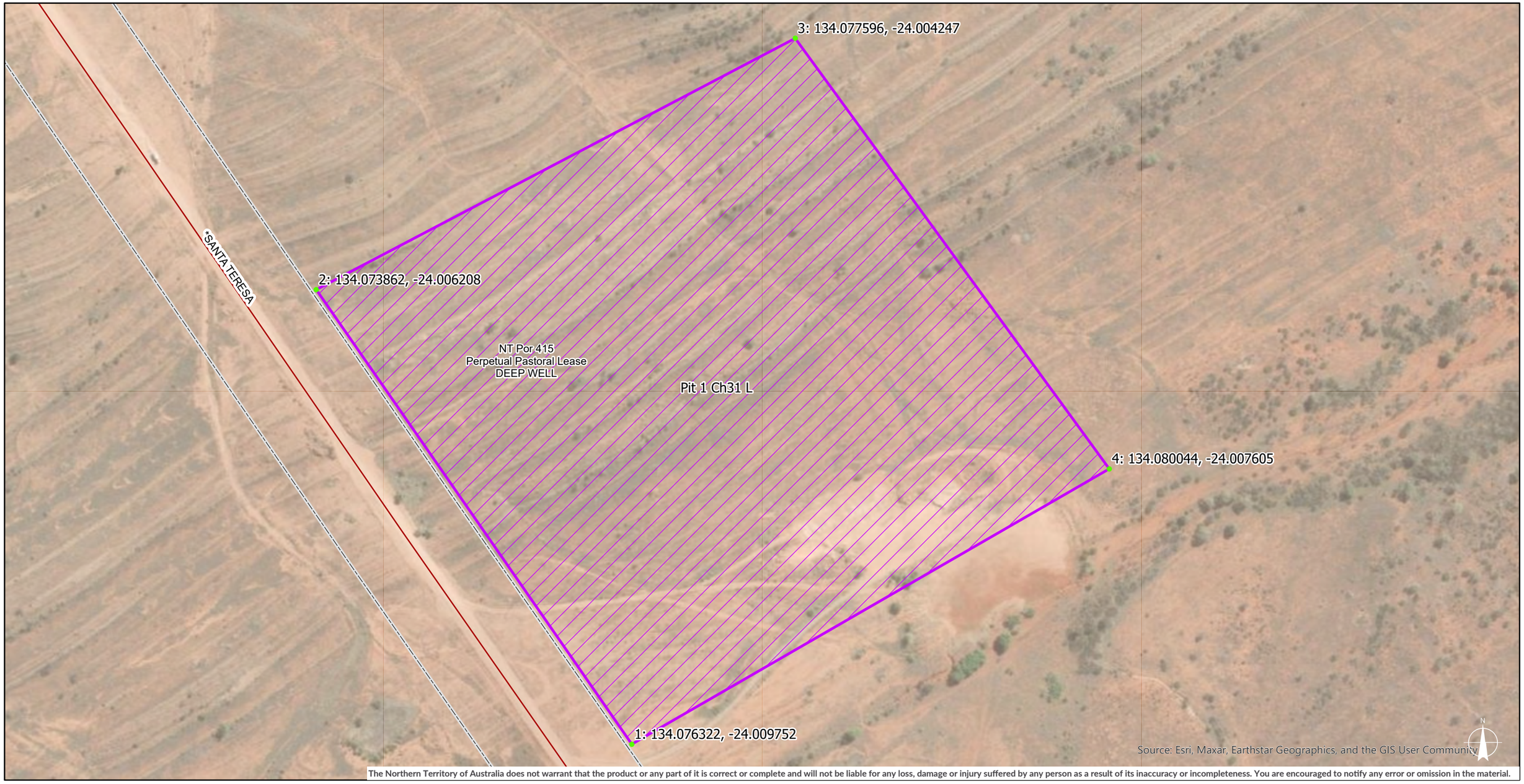
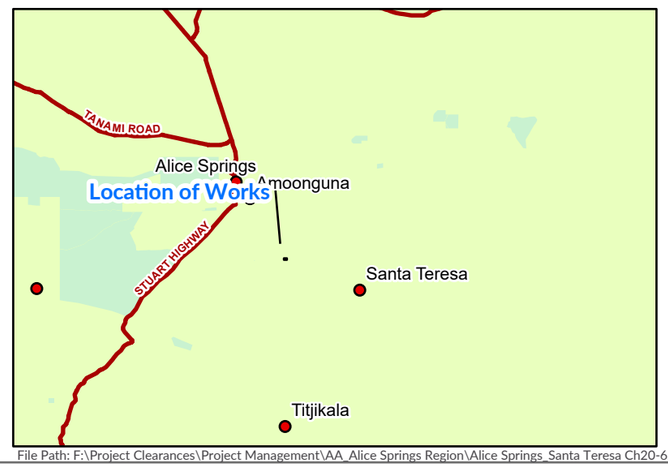
Santa Teresa Road Ch20-60km
Land Clearing Application
Attach 3- Gravel and Camps

File Path: F:\Project Clearances\Project Management\AA_Alice Springs Region\Alice Springs_Santa Teresa Ch20-62km_KD_KB\Native Vegetation Application\Native Vegetation Application\Native Vegetation Application.aprx





Legend

- Gravel Pit Coordinates
- Roads
- Gravel
- Cadastre

Santa Teresa Road Ch20-60km
Land Clearing Application
Attach 3a- Gravel Pit 1 Coordinates

Northern Territory Government

Projection: Universal Transverse Mercator (UTM) - Map Grid of Australia (MGA), Zone 52
Horizontal Datum: Geodetic Datum of Australia (GDA94)

75 37.5 0 75
Metres

Scale @ A4 size: 1:3,300
Map Compiled: 22/04/2025

DATA SOURCE:
Water Resources - Natural Resources Division, DLPE
Cadastre / Roads - Land Information, DLI
Drainage - 1:250,000 Geoscience Australia

For further information, please contact:
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Web: www.nt.gov.au/infrastructure

File Path: F:\Project Clearances\Project Management\AA_Alice Springs Region\Alice Springs_Santa Teresa Ch20-62km_KD_KB\Native Vegetation Application\Native Vegetation Application\Native Vegetation Application.aprx

3: 134.077286, -24.013078

2: 134.073785, -24.015261

*SANTA TERESA

Pit 2 Ch32 R

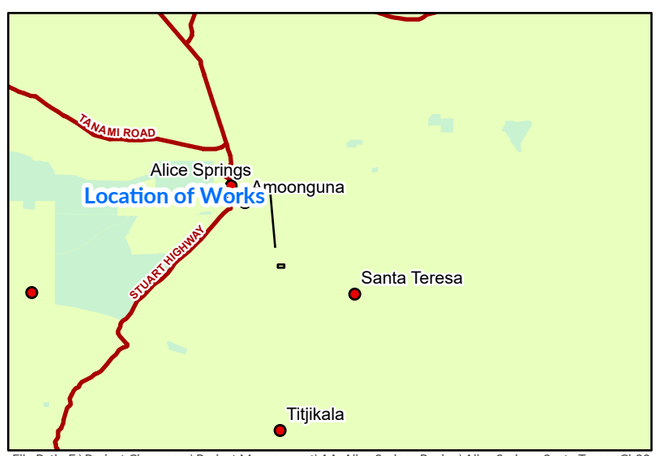
NT Por 415
Perpetual Pastoral Lease
DEEP WELL

4: 134.083701, -24.022256

1: 134.080387, -24.024491

N

Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community



Legend

- Gravel Pit Coordinates
- Roads
- Gravel
- Cadastre

Santa Teresa Road Ch20-60km
Land Clearing Application
Attach 3b- Gravel Pit 2 Coordinates

Northern Territory Government

Projection: Universal Transverse Mercator (UTM) - Map Grid of Australia (MGA), Zone 52
Horizontal Datum: Geodetic Datum of Australia (GDA94)

150 75 0 150
Metres

Scale @ A4 size: 1:7,200
Map Compiled: 22/04/2025

DATA SOURCE:
Water Resources - Natural Resources Division, DLPE
Cadastre / Roads - Land Information, DLI
Drainage - 1:250,000 Geoscience Australia

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*SANTA TERESA

0: 134.11887, -24.045614

0: 134.12268, -24.04546

Pit 3 Ch39 R

0: 134.122742, -24.047921

0: 134.122742, -24.0479210

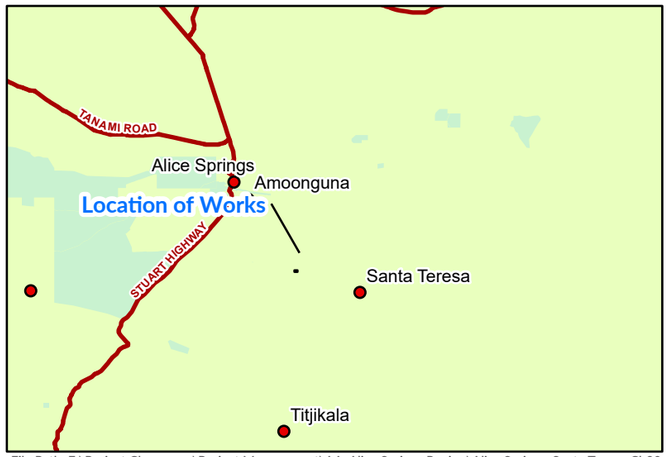
NT Por 415
Perpetual Pastoral Lease
DEEP WELL

0: 134.127918, -24.047987

0: 134.127924, -24.049363

0: 134.11877, -24.049813

N



Legend

- Roads
- Gravel
- Cadastre
- Camping
- Gravel Pit Coordinates

Santa Teresa Road Ch20-60km
Land Clearing Application
Attach 3c- Gravel Pit 3 Coordinates

Northern Territory Government

Projection: Universal Transverse Mercator (UTM) - Map Grid of Australia (MGA), Zone 52
Horizontal Datum: Geodetic Datum of Australia (GDA94)

74 37 0 74
Metres

Scale @ A4 size: 1:3,500
Map Compiled: 12/05/2025

DATA SOURCE:
Water Resources - Natural Resources Division, DLPE
Cadastre / Roads - Land Information, DLI
Drainage - 1:250,000 Geoscience Australia

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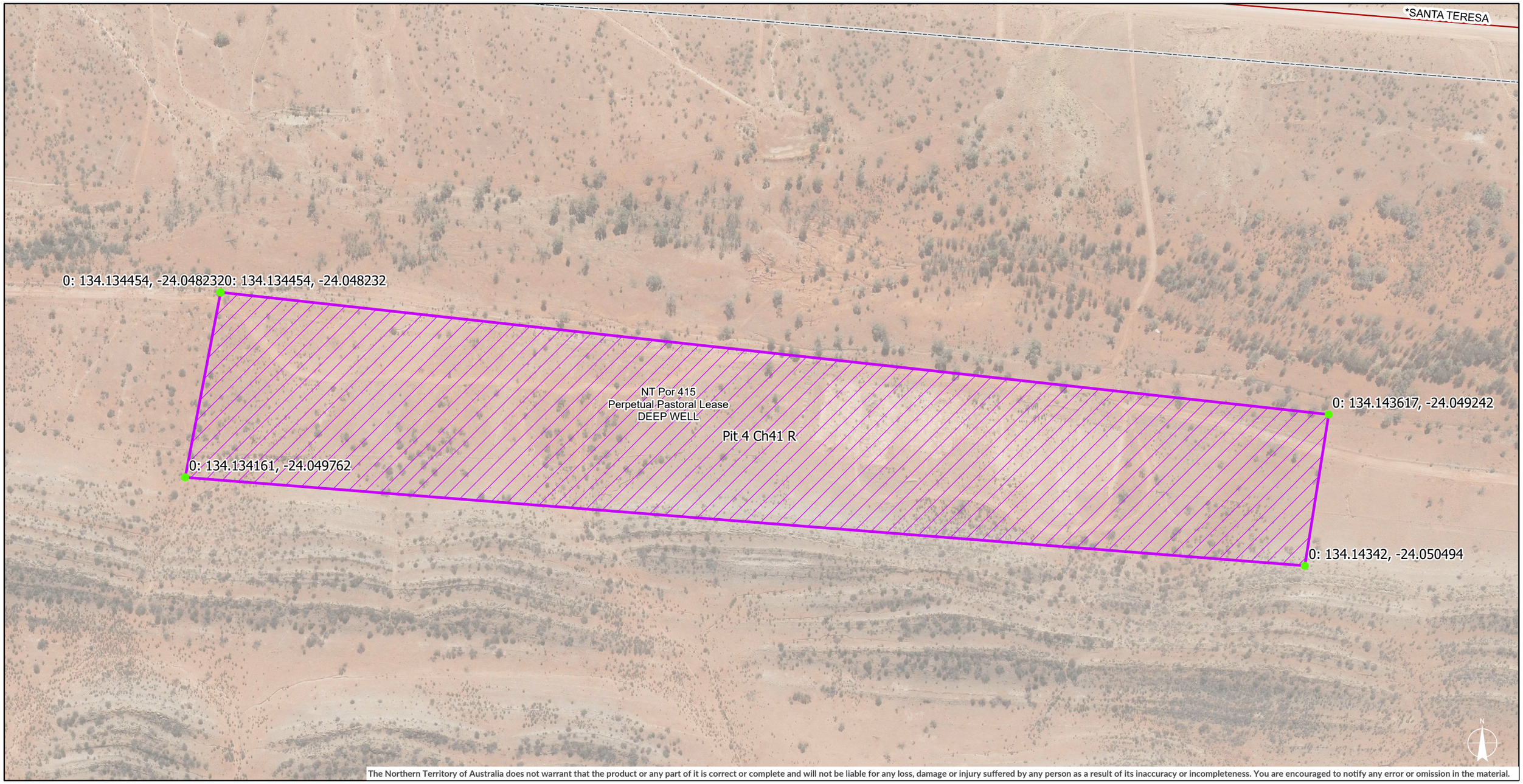

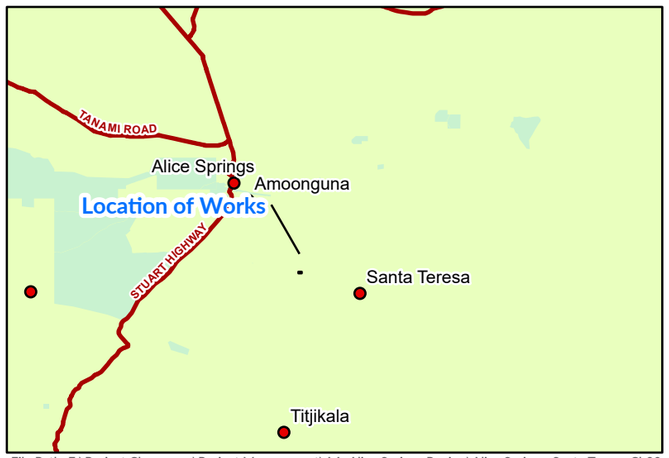

Legend

- Roads
- Gravel
- Cadastre
- Camping
- Gravel Pit Coordinates

Santa Teresa Road Ch20-60km
Land Clearing Application
Attach 3d- Gravel Pit 4 Coordinates

Northern Territory Government

Projection: Universal Transverse Mercator (UTM) - Map Grid of Australia (MGA), Zone 52
Horizontal Datum: Geodetic Datum of Australia (GDA94)

74 37 0 74
Metres
Scale @ A4 size: 1:3,500
Map Compiled: 12/05/2025

DATA SOURCE:
Water Resources - Natural Resources Division, DLPE
Cadastre / Roads - Land Information, DLI
Drainage - 1:250,000 Geoscience Australia

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*SANTA TERESA

0: 134.230155, -24.056694

0: 134.229413, -24.0572550: 134.229413, -24.057255

0: 134.228688, -24.057769

0: 134.239137, -24.057934

Pit 5 Ch49 R

NT Por 415
Perpetual Pastoral Lease
DEEP WELL

0: 134.228065, -24.06003

0: 134.23844, -24.061408

N

Legend

- Roads
- Gravel
- Cadastre
- Camping
- Gravel Pit Coordinates

Santa Teresa Road Ch20-60km
Land Clearing Application
Attach 3e- Gravel Pit 5 Coordinates

Northern Territory Government

Projection: Universal Transverse Mercator (UTM) - Map Grid of Australia (MGA), Zone 52
Horizontal Datum: Geodetic Datum of Australia (GDA94)

75 37.5 0 75
Metres

Scale @ A4 size: 1:3,500
Map Compiled: 12/05/2025

DATA SOURCE:
Water Resources - Natural Resources Division, DLPE
Cadastre / Roads - Land Information, DLI
Drainage - 1:250,000 Geoscience Australia

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File Path: F:\Project Clearances\Project Management\AA_Alice Springs Region\Alice Springs_Santa Teresa Ch20-62km_KD_KB\Native Vegetation Application\Native Vegetation Application\Native Vegetation Application.aprx

1: 134.154287, -24.044157

2: 134.160756, -24.044578

NT Por 415
Perpetual Pastoral Lease
DEEP WELL

Camp 1 Ch42 L

4: 134.154135, -24.04628

3: 134.160713, -24.046809

*SANTA TERESA

Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

Legend

- Camping Coordinates
- Roads
- Gravel
- Cadastre
- Camping

Santa Teresa Road Ch20-60km
Land Clearing Application
Attach 3f- Camp 1 Coordinates

Northern Territory Government

Projection: Universal Transverse Mercator (UTM) - Map Grid of Australia (MGA), Zone 52
Horizontal Datum: Geodetic Datum of Australia (GDA94)

55 27.5 0 55
Metres

Scale @ A4 size: 1:2,500
Map Compiled: 23/04/2025

DATA SOURCE:
Water Resources - Natural Resources Division, DLPE
Cadastre / Roads - Land Information, DLI
Drainage - 1:250,000 Geoscience Australia

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1: 134.248498, -24.058886

2: 134.252443, -24.060541

3: 134.251835, -24.062449

4: 134.247648, -24.060746

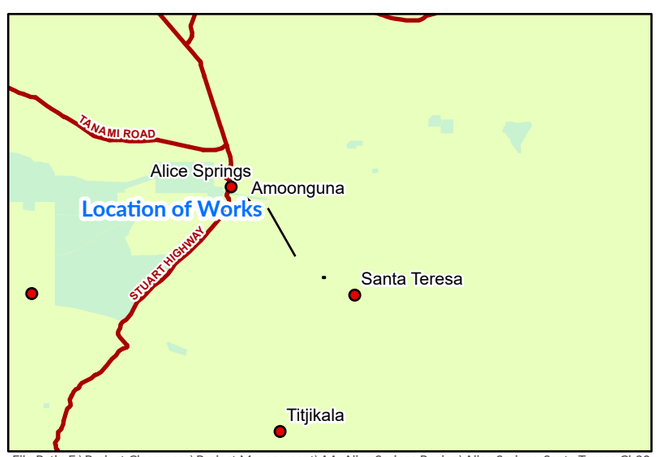
*PASTORAL ROAD

*SANTA TERESA

NT Por 415
Perpetual Pastoral Lease
DEEP WELL

Camp 2 Ch52 L

Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community



Legend

- Camping Coordinates
- Roads
- Gravel
- Cadastre
- Camping

Santa Teresa Road Ch20-60km
Land Clearing Application
Attach 3g- Camp 2 Coordinates

Northern Territory Government

Projection: Universal Transverse Mercator (UTM) - Map Grid of Australia (MGA), Zone 52
Horizontal Datum: Geodetic Datum of Australia (GDA94)

55 27.5 0 55
Metres

Scale @ A4 size: 1:2,500
Map Compiled: 23/04/2025

DATA SOURCE:
Water Resources - Natural Resources Division, DLPE
Cadastre / Roads - Land Information, DLI
Drainage - 1:250,000 Geoscience Australia

For further information, please contact:
Environment Services
Department of Logistics and Infrastructure (DLI)
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Level 3, Highway House, Palmerston
Web: www.nt.gov.au/infrastructure

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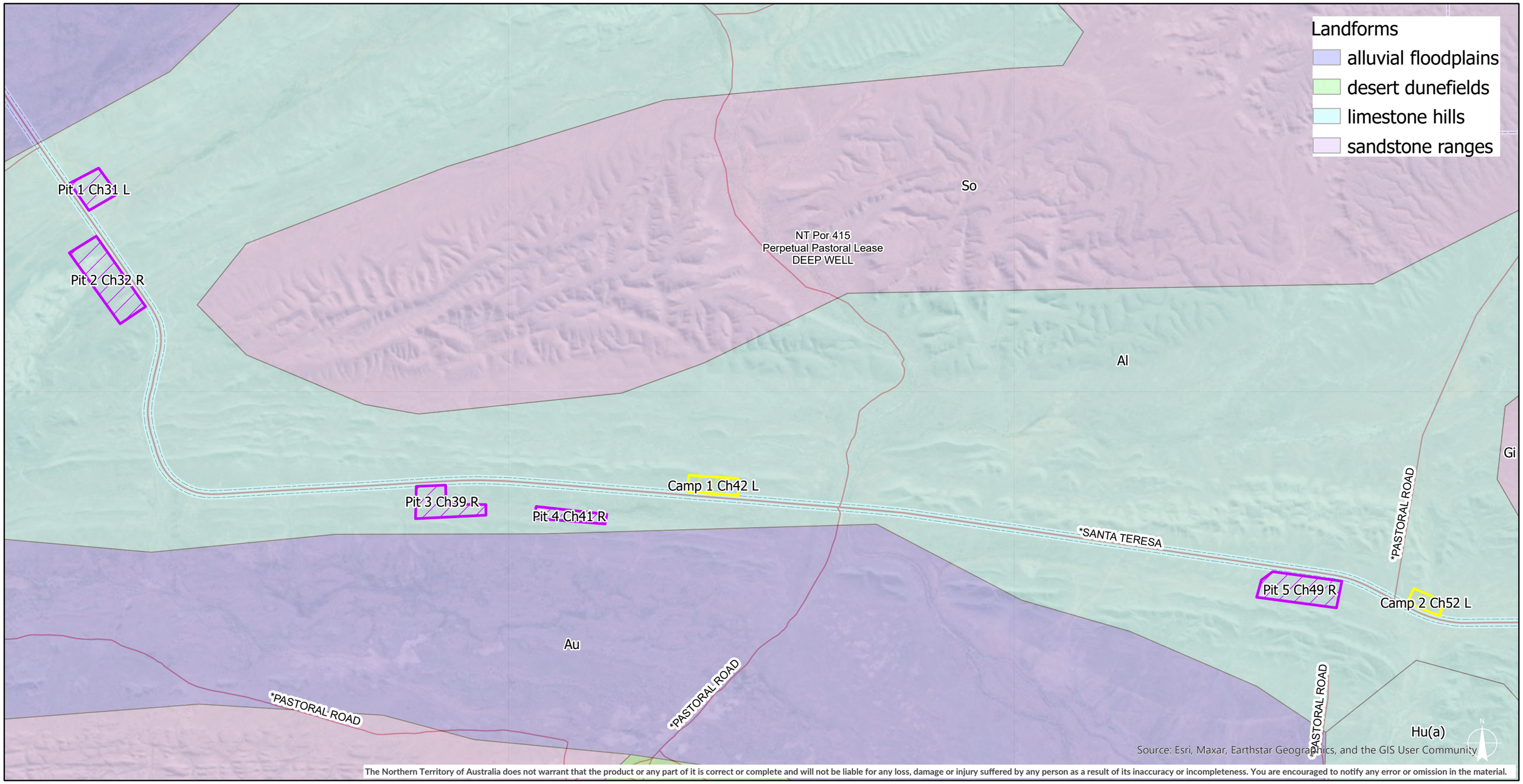

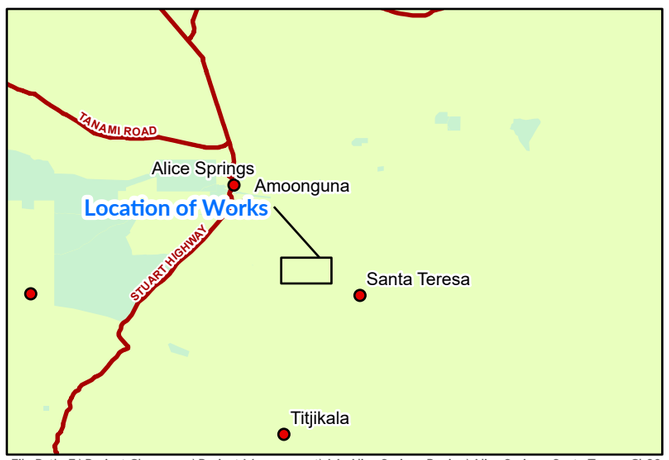

Legend

- Gravel
- Camping
- Cadastre
- Roads

Santa Teresa Road Ch20-60km
Land Clearing Application
Attach 4- Land Capability

Northern Territory Government

Projection: Universal Transverse Mercator (UTM) - Map Grid of Australia (MGA), Zone 52
Horizontal Datum: Geodetic Datum of Australia (GDA94)

1.1 0.55 0 1.1
Kilometres
Scale @ A4 size: 1:55,000
Map Compiled: 12/05/2025

DATA SOURCE:
Water Resources - Natural Resources Division, DLPE
Cadastre / Roads - Land Information, DLI
Drainage - 1:250,000 Geoscience Australia

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File Path: F:\Project Clearances\Project Management\AA_Alice Springs Region\Alice Springs_Santa Teresa Ch20-62km_KD_KB\Native Vegetation Application\Native Vegetation Application\Native Vegetation Application.aprx

Al- Triodia hummock grassland
Dissected hills on Cambrian limestone and dolomite; shallow soils with rock outcrop

Au

Pit 1 Ch31 L

SANTA TERESA

Al

NT Por 415
Perpetual Pastoral Lease
DEEP WELL

Pit 2 Ch32 R

So

Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

Legend

- Gravel
- Cadastre
- Roads

Santa Teresa Road Ch20-60km
Land Clearing Application
Attach 4a- Gravel Pit 1 and 2 Land Capability

Northern Territory Government

Projection: Universal Transverse Mercator (UTM) - Map Grid of Australia (MGA), Zone 52
Horizontal Datum: Geodetic Datum of Australia (GDA94)

250 125 0 250
Metres

Scale @ A4 size: 1:13,000
Map Compiled: 22/04/2025

DATA SOURCE:
Water Resources - Natural Resources Division, DLPE
Cadastre / Roads - Land Information, DLI
Drainage - 1:250,000 Geoscience Australia

For further information, please contact:
Environment Services
Department of Logistics and Infrastructure (DLI)
Phone: (08) 8999 4779
Level 3, Highway House, Palmerston
Web: www.nt.gov.au/infrastructure

File Path: F:\Project Clearances\Project Management\AA_Alice Springs Region\Alice Springs_Santa Teresa Ch20-62km_KD_KB\Native Vegetation Application\Native Vegetation Application\Native Vegetation Application.aprx

Al- Triodia hummock grassland
Dissected hills on Cambrian limestone and dolomite; shallow soils with rock outcrop

*SANTA TERESA

Al

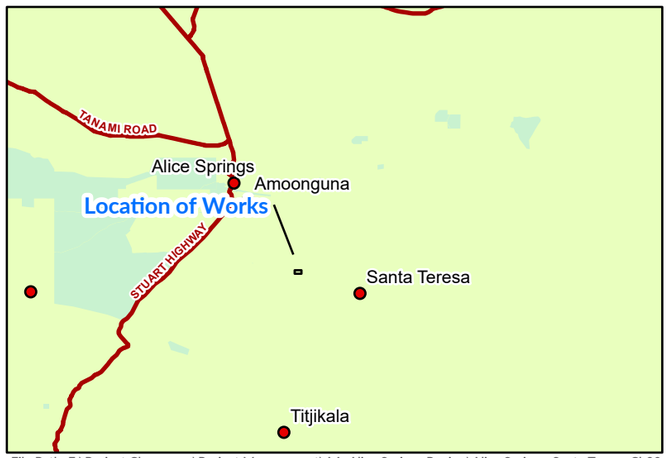
Pit 3 Ch39 R

NT Por 415
Perpetual Pastoral Lease
DEEP WELL

Pit 4 Ch41 R

Au

Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community



Legend

- Gravel
- Cadastre
- Roads

Santa Teresa Road Ch20-60km
Land Clearing Application
Attach 4b- Gravel Pit 3 and 4 Land Capability

Northern Territory Government

Projection: Universal Transverse Mercator (UTM) - Map Grid of Australia (MGA), Zone 52
Horizontal Datum: Geodetic Datum of Australia (GDA94)

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Scale @ A4 size: 1:7,500
Map Compiled: 12/05/2025

DATA SOURCE:
Water Resources - Natural Resources Division, DLPE
Cadastre / Roads - Land Information, DLI
Drainage - 1:250,000 Geoscience Australia

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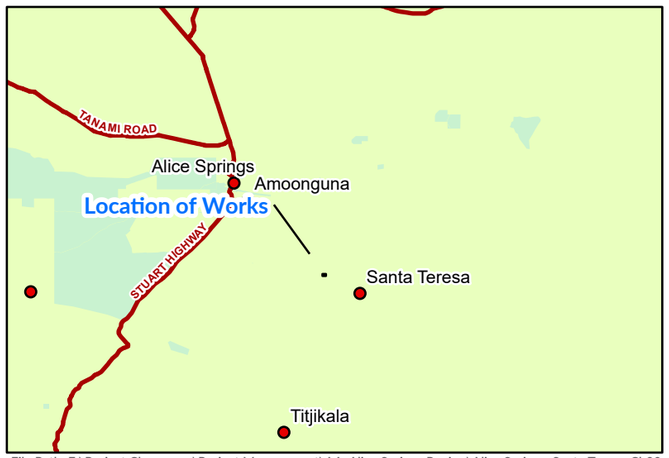
Al- Triodia hummock grassland
Dissected hills on Cambrian limestone and dolomite; shallow soils with rock outcrop

*SANTA TERESA

Al
Pit 5 Ch49 R

NT Por 415
Perpetual Pastoral Lease
DEEP WELL

Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community



Legend

- Gravel
- Cadastre
- Roads

Santa Teresa Road Ch20-60km
Land Clearing Application
Attach 4c- Gravel Pit 5 Land Capability

Northern Territory Government

Projection: Universal Transverse Mercator (UTM) - Map Grid of Australia (MGA), Zone 52
Horizontal Datum: Geodetic Datum of Australia (GDA94)

85 42.5 0 85
Metres

Scale @ A4 size: 1:4,000
Map Compiled: 12/05/2025

DATA SOURCE:
Water Resources - Natural Resources Division, DLPE
Cadastre / Roads - Land Information, DLI
Drainage - 1:250,000 Geoscience Australia

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Al- Triodia hummock grassland
Dissected hills on Cambrian limestone and dolomite; shallow soils with rock outcrop

NT Por 415
Perpetual Pastoral Lease
DEEP WELL

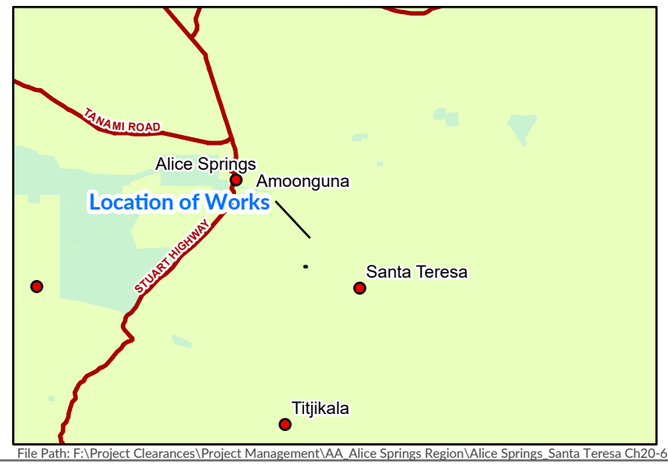
Al

Camp 1 Ch42 L

*SANTA TERESA

N

Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community



Legend

- Gravel
- Cadastre
- Camping
- Roads

Santa Teresa Road Ch20-60km
Land Clearing Application
Attach 4d- Camp 1 Land Capability

Northern Territory Government

Projection: Universal Transverse Mercator (UTM) - Map Grid of Australia (MGA), Zone 52
Horizontal Datum: Geodetic Datum of Australia (GDA94)

55 27.5 0 55
Metres

Scale @ A4 size: 1:2,700
Map Compiled: 23/04/2025

DATA SOURCE:
Water Resources - Natural Resources Division, DLPE
Cadastre / Roads - Land Information, DLI
Drainage - 1:250,000 Geoscience Australia

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Al- Triodia hummock grassland
Dissected hills on Cambrian limestone and dolomite; shallow soils with rock outcrop

*PASTORAL ROAD

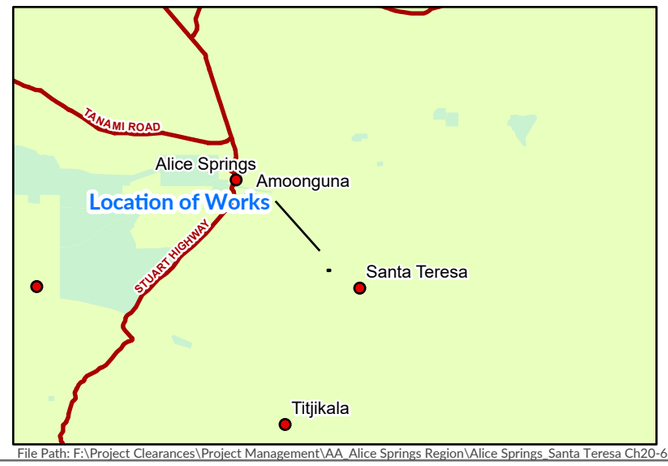
*SANTA TERESA

NT Por 415
Perpetual Pastoral Lease
DEEP WELL

Al

Camp 2 Ch52 L

Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community



Legend

- Gravel
- Cadastre
- Camping
- Roads

Santa Teresa Road Ch20-60km
Land Clearing Application
Attach 4e- Camp 2 Land Capability

Northern Territory Government

Projection: Universal Transverse Mercator (UTM) - Map Grid of Australia (MGA), Zone 52
Horizontal Datum: Geodetic Datum of Australia (GDA94)

55 27.5 0 55
Metres

Scale @ A4 size: 1:2,700
Map Compiled: 23/04/2025

DATA SOURCE:
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Attachment 5– Land Capability Assessment table

Note: Refer to the LCG – Land Capability Assessment (section 4.2.7.1).

Land Type	ASS	Flooding	Microrelief	Salinity	Sodicity	Slope	Soil depth	Drainage	Surface Rock	Wind erosion	Initial capability class	Overall capability class

The land capability assessment table above is not relevant in the context of gravel extraction areas for engineered roads.

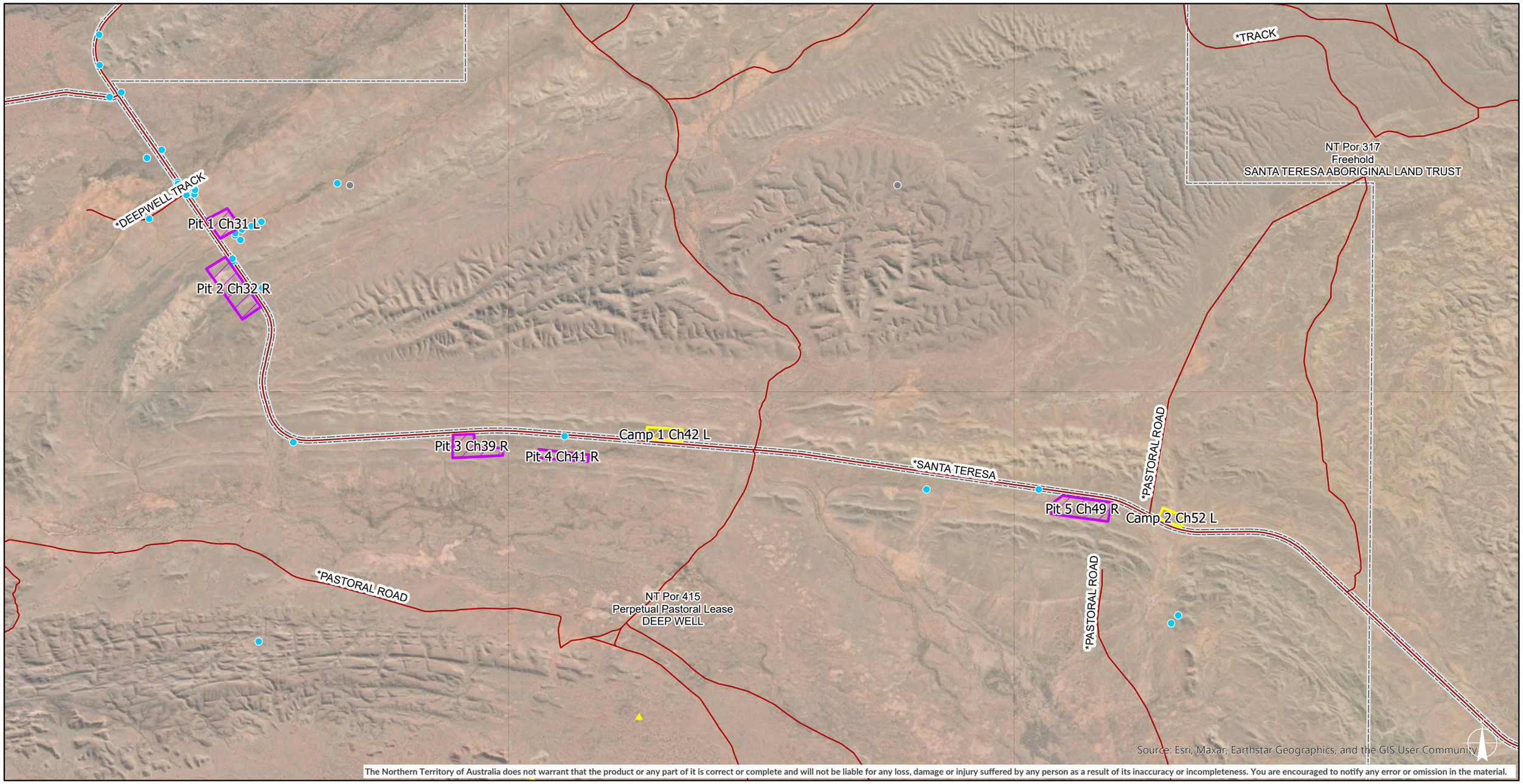
Addressing key concerns

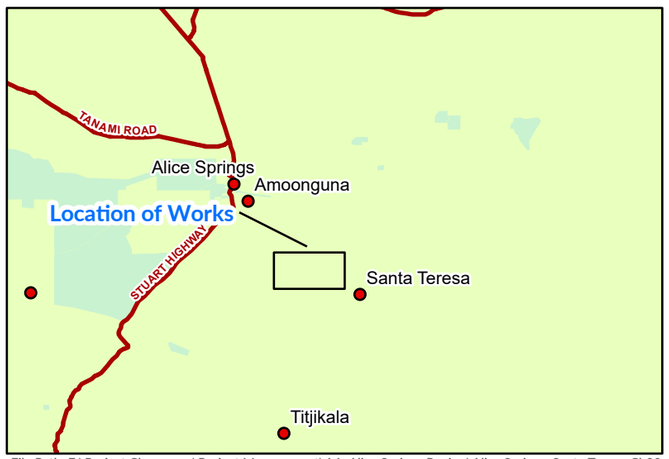
Suitability

1. Clearing areas have been selected on the basis of geotechnical studies to provide adequate volume and quality of material to complete the specified road upgrade works. The areas provide material that meets specific road engineering requirements.
2. Acid sulfate soils, and adverse Sodicity are incompatible with acceptable road material
3. Flooding does not impact operations. The wet season is not suitable for roadworks, seasonal operational closure is the standard practice.

Erosion

1. Drainage areas are excluded as per recommended buffers.
2. Deep Well Station is located Southern parts of the NT and experiences a semi-arid climate. The wettest months fall between December and February. The works are expected to start in August 2025 during the drier months. If the project extends into the wet season then an ESCP is required to manage all aspects of the project where required.
3. Pits are not operational during the wet season, erosion is managed by either pit closure or rehabilitation or, where large projects stage over a wet season, an ESCP measures are required.
4. Slope, soil depth, surface rock are subject to the extraction operation. The pre-extraction slope of gravel resource areas frequently have slopes in excess of 2%; however, after extraction these slopes are less than 2%, or are inverted. Rock is valuable component of gravel. Top soil is removed and replaced after gravel extraction.
5. Soils selected for road construction typically present low erosion risks.
6. Standard Specification For Environmental Management and contract requirements specify management of dust for both amenity and erosion.





Legend

- Gravel
- Cadastre
- Camping

Threatened Fauna (TPWCA)

- Greater Bilby, VU
- Grey Falcon, VU
- Sharp-tailed Sandpiper, CE
- Southern Whiteface, LC

Threatened Flora (TPWCA)

- Rainbow Valley Fuchsia Bush, NT

Santa Teresa Road Ch20-60km
Land Clearing Application
Attach 6- Threatened Species

Northern Territory Government

Projection: Universal Transverse Mercator (UTM) - Map Grid of Australia (MGA), Zone 52
Horizontal Datum: Geodetic Datum of Australia (GDA94)

1.5 0.75 0 1.5
Kilometres
Scale @ A4 size: 1:77,300
Map Compiled: 12/05/2025

DATA SOURCE:
Water Resources - Natural Resources Division, DLPE
Cadastre / Roads - Land Information, DLI
Drainage - 1:250,000 Geoscience Australia

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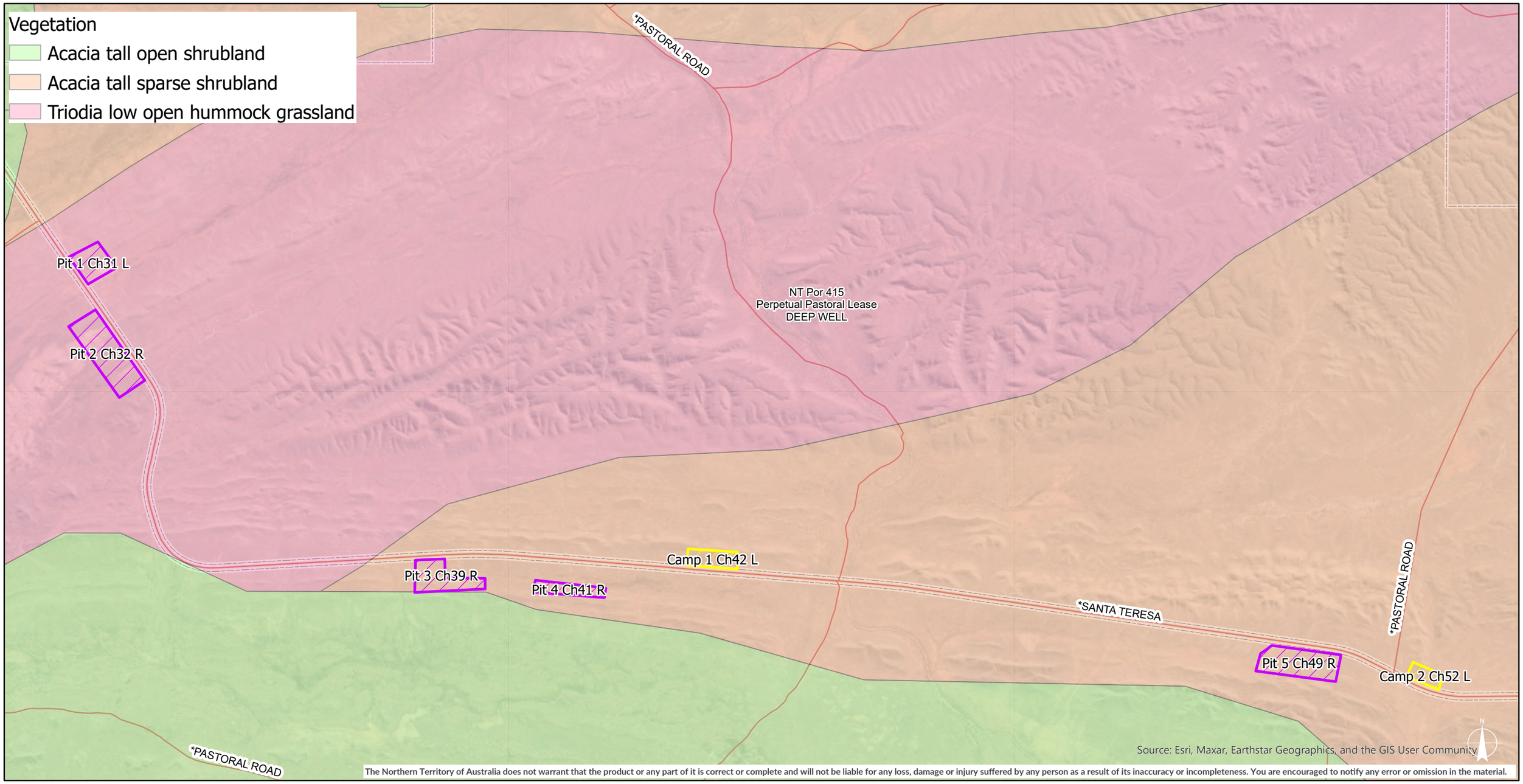

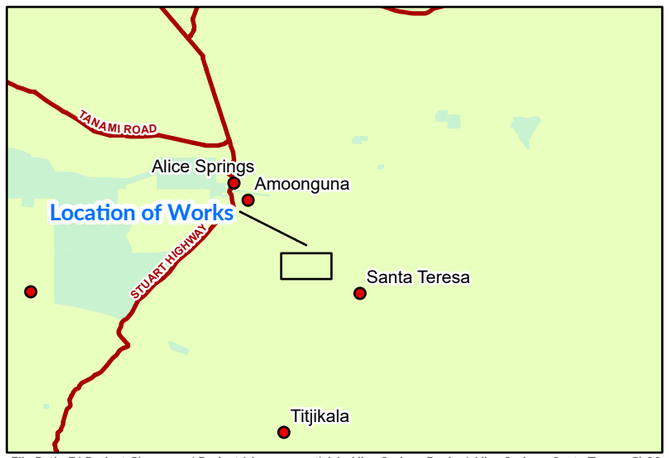

Legend

- Gravel
- Cadastre
- Camping
- Roads

Northern Territory Government

Projection: Universal Transverse Mercator (UTM) - Map Grid of Australia (MGA), Zone 52
Horizontal Datum: Geodetic Datum of Australia (GDA94)

1 0.5 0 1
Kilometres
Scale @ A4 size: 1:55,000
Map Compiled: 12/05/2025

Santa Teresa Road Ch20-60km
Land Clearing Application
Attach 6a- Vegetation

DATA SOURCE:
Water Resources - Natural Resources Division, DLPE
Cadastre / Roads - Land Information, DLI
Drainage - 1:250,000 Geoscience Australia

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Finke bioregion

Description

Area: 73 800 km^2

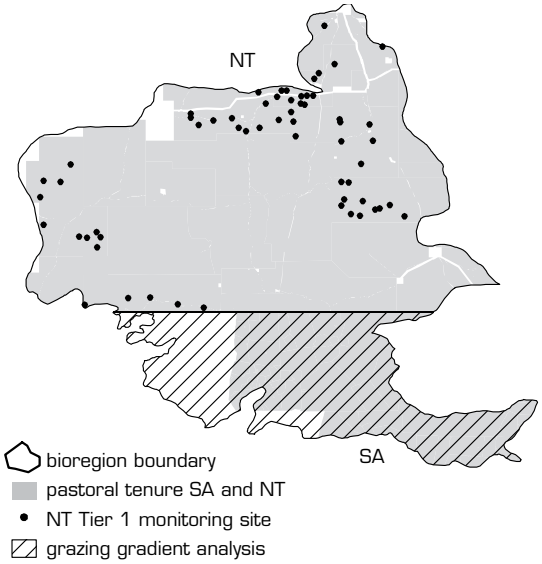
The main land types of the Finke bioregion are arid sand plains with dissected uplands and valleys, including some major rivers (Finke, Hugh and Palmer rivers). The bioregion is dominated by mulga with various *Senna*, *Eremophila* and other *Acacia* species present over short grasses and forbs. Major land uses are cattle grazing and Aboriginal land management. Major population centres are Finke and Imanpa.

Location

The Finke bioregion crosses the border of the Northern Territory (NT) and South Australia (SA; 74% of area in the NT, 26% in SA). Figures 1 and 2 show the location of the bioregion.

Figure 1 Location of the Finke bioregion

Figure 2 Monitoring sites and pastoral tenure



Data sources available

Data sources include:

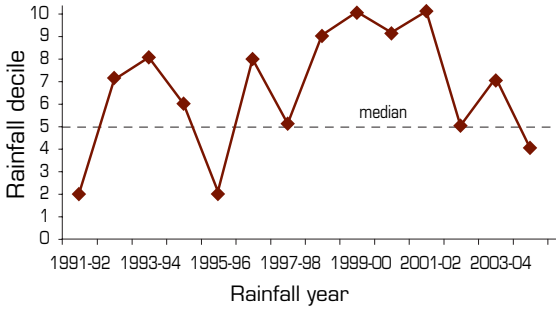
- NT Tier 1, which provides moderate reliability for reporting change, with a moderate number of sites but with patchy distribution, estimated (rather than quantitative) data, and a focus on perennial herbage species
- SA — grazing gradient analysis (see **Appendix** for a description of methods and regional results)
- domestic stocking density, which provides moderate reliability
- fire extent, intensity and frequency, which provides high reliability

- dust
- distance from water
- distribution and relative abundance of invasive animals and weeds
- land use
- land values.

Climate

The Finke bioregion is arid and hot, with very low rainfall and high evaporation. Spatially averaged median (1890–2005) rainfall is 152 mm (April to March rainfall year; see Figure 3).

Figure 3 Decile rainfall for the period 1991–1992 to 2004–2005



Annual rainfall is for the 12-month period 1 April to 31 March.

Decile rainfall was above the long-term median for most years in the reporting period. The period 1998–1999 to 2001–2002 had higher rainfall, while 1991–1992 and 1995–1996 were drier.

Note that regional averaging of rainfall conceals spatial variability. Some parts of the Finke bioregion may have experienced better ***seasonal quality*** and others worse during the 1992–2005 period.

Landscape function

Northern Territory

Tier 1, index based on composition (by biomass) and cover of perennial herbage species

No sites showed a decline in the index of landscape function when *seasonal quality* was above average. It is not possible to report change following below-average *seasonal quality*.

Seasonal quality	Number of sites	Percentage of reassessed sites showing: Decline: > 3 decrease in index	No change	Increase: > 3 increase in index
Above average	24	0%	71%	29%
Average	34	3%	65%	32%
Below average	n/a	n/a	n/a	n/a

South Australia

Grazing gradient analysis, % cover production loss index

The Finke bioregion areas of FIN3 Mooriyanna, FIN4 Alberga and FIN4 Pedirka sub-Interim Biogeographic Regionalisation for Australia (IBRA) regions had minimal persistent grazing gradients following large rainfall events in 1989 and 2000–2001. This indicates near-complete recovery from grazing following these wet periods and no loss of landscape function (see Appendix for a description of methods).

Note that sub-IBRA names refer to refined mapping of subregions within the Finke bioregion by the SA Government. These mapping additions are not included in the Interim Biogeographic Regionalisation for Australia (v6.1).

Sustainable management

Critical stock forage

Northern Territory

Tier 1, composition (by biomass) of palatable perennial herbage species

When ***seasonal quality*** was above average, 1% of sites showed a decline in composition of **palatable perennial** (2P) herbage species. It is not possible to report change following below-average *seasonal quality*.

Seasonal quality	Number of sites	Percentage of reassessed sites showing:		
		Decline: > 20% decrease in 2P grasses	No change	Increase: > 20% increase in 2P grasses
Above average	95	1%	76%	23%
Average	55	0%	82%	18%
Below average	n/a	n/a	n/a	n/a

South Australia

There are no suitable data for reporting change.

Plant species richness

There are no suitable data for reporting change in plant species richness.

Change in woody cover

Forest cover, based on the Australian Greenhouse Office definition and mapping[1], is minor in the bioregion (less than 0.6% of the total area) and there were very small changes in forest extent between 1991 and 2004. There is good coverage of Landsat data for reporting this result.

[1] See http://www.greenhouse.gov.au/ncas/reports/tech09.html

Distance from stock water

The percentage of sub-IBRA area within three kilometres of permanent and semipermanent sources of stock water is summarised in the following table. The locations of stock waterpoints were sourced from the lease infrastructure mapping of each jurisdiction. Watered area is reported as a percentage of the pastorally tenured area within each sub-IBRA.

Sub-IBRA	South Australia		Northern Territory	
	% sub-IBRA within 3 km of water	% sub-IBRA area analysed	% sub-IBRA within 3 km of water	% sub-IBRA area analysed
Finke P1 (FIN1)			49.2	81.8
Finke P2 (FIN2)			58.3	87.7
Tieyon, Finke P3 (FIN3)	28.2	53.8	49.0	81.7
Pedirka (FIN4)	15.5	90.0		

FIN = Finke; IBRA = Interim Biogeographic Regionalisation for Australia

The locations of natural water supplies are included for SA but not for the NT. These additional temporary supplies can provide additional sources of water for stock, particularly following good rains. It is not possible to report change in watered area for the 1992–2005 period for either jurisdiction.

Weeds

Weeds known to occur in the Finke bioregion include:

Common name	Scientific name
Athel pine	*Tamarix aphylla*
Bathurst burr	*Xanthium spinosum*
Bellyache bush	*Jatropha gossypifolia*
Parkinsonia	*Parkinsonia aculeata*

See www.anra.gov.au for distribution maps

Components of total grazing pressure

Domestic stocking density

Domestic stocking density data report for the whole bioregion. Most (92%) of the Finke bioregion is pastoral leasehold. Data from the Australian Bureau of Statistics showed that domestic stock density was close to the 1983–1991 average between 1992 and 2000. Stocking density then increased substantially over the next two years (29% above the 1983–1991 base in 2002) before declining to approximately 15% above the base in 2003 and 2004. Increased stocking density in the first part of this decade probably resulted from better *seasonal quality* in the 1999–2002 period. Note that spatial averaging conceals likely variation in stocking density trends across the bioregion.

Kangaroos

There are no suitable data for reporting change in kangaroo populations.

Invasive animals

Invasive animal species known to occur in the Finke bioregion include:

Common name	Scientific name
Fox	*Vulpes vulpes*
Rabbit	*Oryctolagus cuniculus*
Wild dog	*Canis* spp.
Feral cat	*Felis cattus*
Donkey	*Equus asinus*
Horse	*Equus caballus*

See www.anra.gov.au for distribution maps

Products that support reporting of landscape function and sustainable management

Fire

Fire data report for the whole bioregion. Wildfire was significant in 2002, most likely caused by fuel accumulation in the wetter years of 2000 and 2001. Most fire occurred in the cooler months of April to November.

Year	1997	1998	1999	2000	2001	2002	2003	2004	2005
% area burnt	0.0	0.0	0.0	0.0	0.2	25.1	0.2	0.0	0.0

The frequency of fire between 1997 and 2005 was very low, with a mean frequency (log_{10} transformed) of 0.01.

Dust

Dust data report for the whole bioregion. The mean Dust Storm Index value (1992–2005) was 2.91, which was moderate compared with all rangeland bioregions. Dust levels were slightly lower in the centre of the bioregion compared with elsewhere.

Biodiversity

In the NT part of the Finke bioregion, there were more than 200 bird species recorded by 2005, while in SA there were more than 3400 records of birds (Biodiversity Working Group indicator: Fauna surveys; see **Section 7 of Chapter 3** of *Rangelands 2008 — Taking the Pulse*). Also in SA, there are more than 3000 flora records of about 580 taxa from approximately 50 survey sites.

For both the NT and SA parts of the Finke bioregion, a case study (see **Buffel grass, Transformer weeds in Chapter 3**) exists on how buffel grass is transforming habitats (Biodiversity Working Group indicator: Transformers).

A systematic regional biodiversity survey has been conducted in the NT portion of the bioregion.

In this bioregion, there are (Biodiversity Working Group indicator: Threatened species):

- 3 threatened plant species
- 16 threatened mammal species (including 5 extinct species)
- 7 threatened bird species
- 2 threatened reptile species
- 1 threatened invertebrate species.

Socioeconomic characteristics

Land use and value

Most (92%) of the Finke bioregion is held as pastoral leasehold. This area has not changed appreciably over the 1992–2005 reporting period.

In the NT part of the bioregion, the unimproved land value of pastoral leases increased by approximately 8% between 1991 and 2003.

In the SA part of the bioregion, the unimproved value of pastoral land increased, on average, by about 80% between 1998 and 2004 (values expressed in 2005 dollars).

Key management issues and features

Key features and issues of the Finke bioregion include the following:

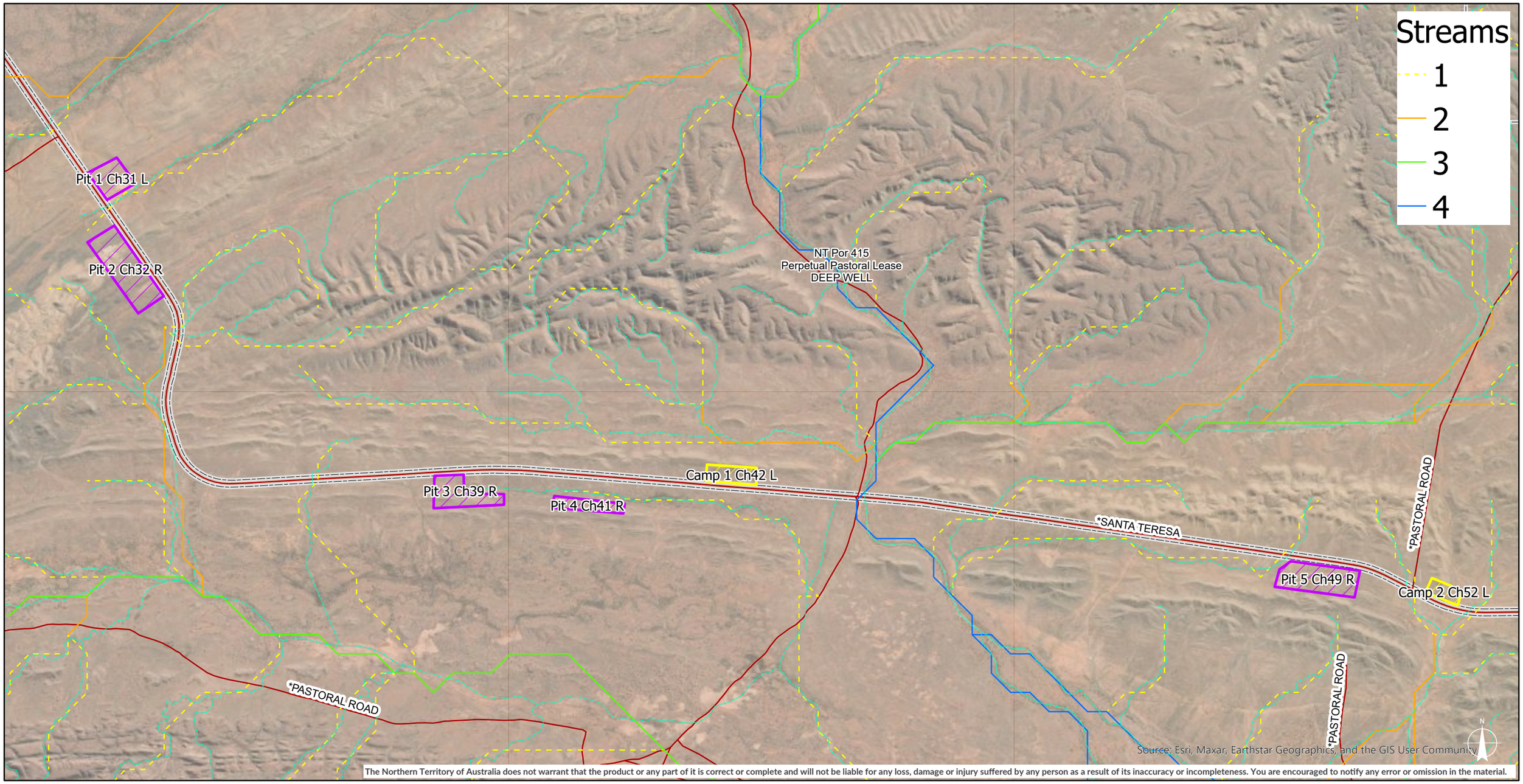
- NT:
  - The expansion of *Tamarix aphylla* (Athel pine) west of the Finke River is of major concern within the bioregion. Recordings have been made as far west as Karinga Creek. Efforts to manage the weed have been successful in small concentrated pockets only.
  - Due to characteristics of the landscape, the grass cover and biomass levels respond dynamically to rainfall events. Short-lived perennials are important species for landscape function.
- SA:
  - Thickening of woody cover has occurred due to significant recruitment during the 1970s after a run of good seasons. The fire regime appears to have altered, also contributing to thickening of woody cover.
  - There is generally a good response of grasses and perennials to rainfall events. However, some production loss has occurred due to grazing in recent times. This trend, while minor at this stage, should be carefully monitored.
  - Invasion of buffel grass is evident.

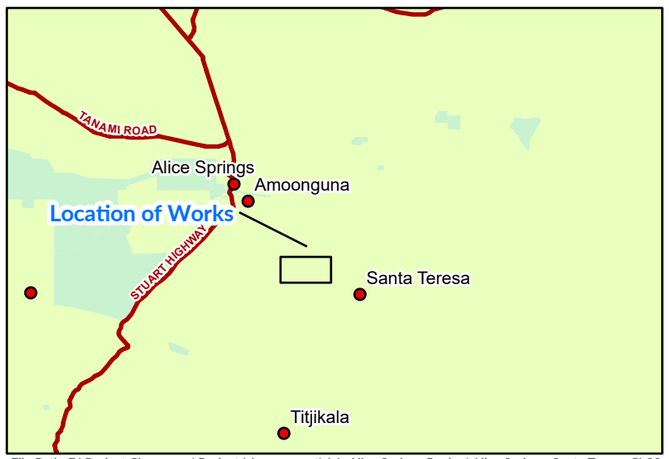
Appendix 7 – Establishment Plan

Note: Refer to LCG sections 4.3.2.3 and 4.3.2.4.

Activity	E.g.	Timing (month & year)	Method (describe)
Preparatory works	Boundary marking, implementation of erosion and sediment controls, weed management	2025 July	See Attachment 11 Standard Specification For Environmental Management section 8, 19.1, 26.3
Felling of vegetation	Machinery and techniques	Progressive – August 2025 – December 2025 August 2026 to December 2026	See Attachment 11 Standard Specification For Environmental Management section 19.1, 26.3
Removal of felled vegetation	Machinery and techniques, in-situ or pushed-up, burning, mulching, windrow management, etc.	Progressive – August 2025 – December 2025 August 2026 to December 2026	See Attachment 11 Standard Specification For Environmental Management section 19.1, 21, 26.3
Site preparation	Machinery and techniques, levelling/contouring, installation of banks or soil conservation measures, cultivation	Progressive – August 2025 – December 2025 August 2026 to December 2026	See Attachment 11 Standard Specification For Environmental Management section 19.1, 21, 26.3
Planting	Method for each pasture / crop type, spelling, rotations, cover crops, etc.	NA	No Planting. Pits to be rehabilitated by re-establishment of preserved topsoil
Harvesting	Method for each pasture / crop type, stubble retention	NA	No Harvesting
Grazing	Cattle introduction and subsequent stocking regime	NA	No grazing

Maintenance	Regrowth control, weed management, erosion monitoring	NA	Pit closure and rehabilitation is a contractual requirement





Legend

- Camping
- Gravel
- Cadastre
- Roads
- Steams

Northern Territory Government

Projection: Universal Transverse Mercator (UTM) - Map Grid of Australia (MGA), Zone 52
Horizontal Datum: Geodetic Datum of Australia (GDA94)

1 0.5 0 1
Kilometres
Scale @ A4 size: 1:55,000
Map Compiled: 12/05/2025

Santa Teresa Road Ch20-60km
Land Clearing Application
Attach 7- Drainage Lines

DATA SOURCE:
Water Resources - Natural Resources Division, DLPE
Cadastre / Roads - Land Information, DLI
Drainage - 1:250,000 Geoscience Australia

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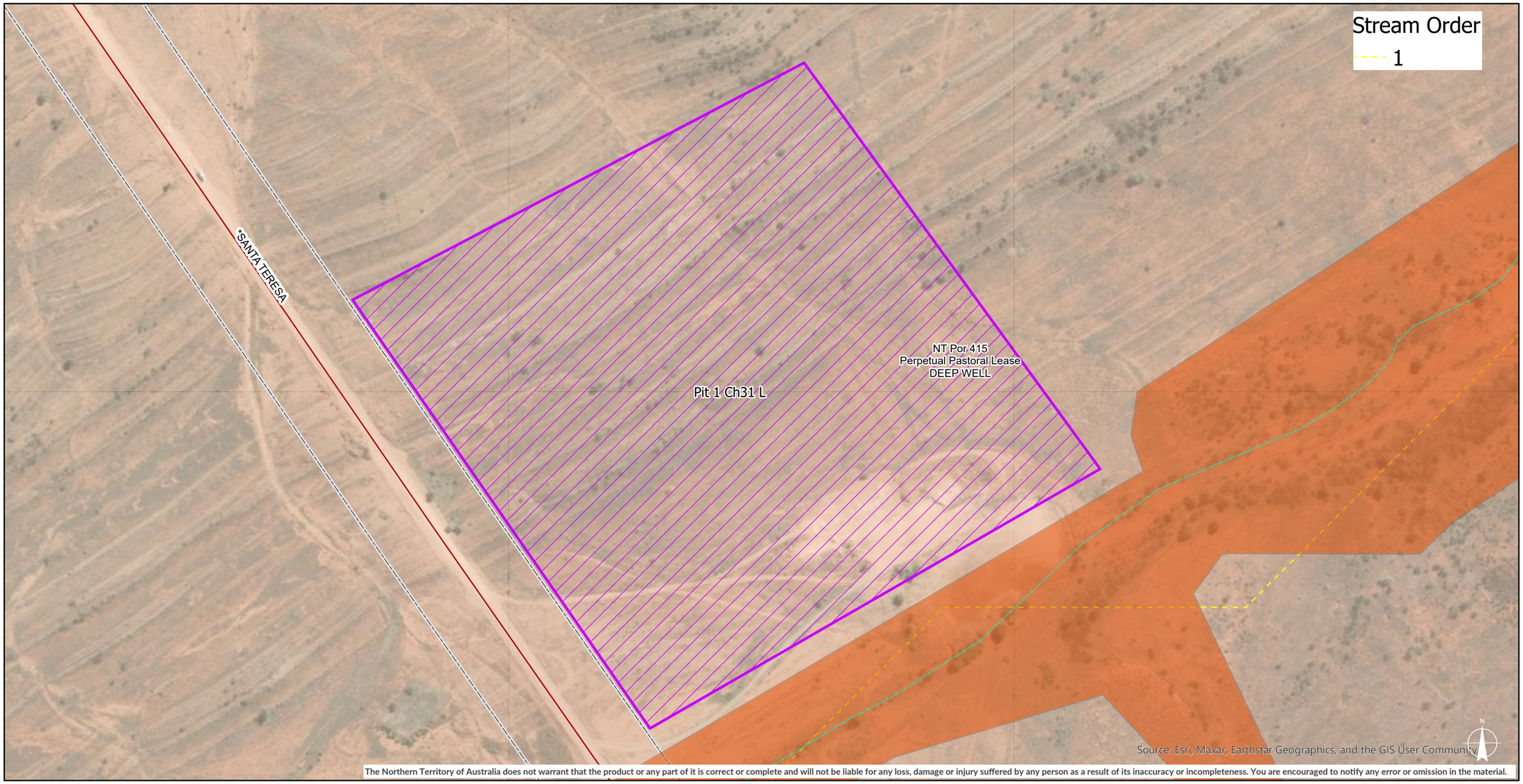

Legend

- Gravel
- Stream Buffer
- Cadastre
- Roads
- Steams

Santa Teresa Road Ch20-60km
Land Clearing Application
Attach 7b- Gravel Pit 1 Drainage Buffer

Northern Territory Government

Projection: Universal Transverse Mercator (UTM) - Map Grid of Australia (MGA), Zone 52
Horizontal Datum: Geodetic Datum of Australia (GDA94)

70 35 0 70
Metres
Scale @ A4 size: 1:3,500
Map Compiled: 12/05/2025

DATA SOURCE:
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Cadastre / Roads - Land Information, DLI
Drainage - 1:250,000 Geoscience Australia

For further information, please contact;
Environment Services
Department of Logistics and Infrastructure (DLI)
Phone: (08) 8999 4779
Level 3, Highway House. Palmerston
Web: www.nt.gov.au/infrastructure

File Path: F:\Project Clearances\Project Management\AA_Alice Springs Region\Alice Springs_Santa Teresa Ch20-62km_KD_KB\Native Vegetation Application\Native Vegetation Application\Native Vegetation Application.aprx

*SANTA TERESA

Pit 3 Ch39 R

NT Por 415
Perpetual Pastoral Lease
DEEP WELL

Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

Legend

- Gravel
- Stream Buffer
- Cadastre
- Roads
- Steams

Northern Territory Government

Projection: Universal Transverse Mercator (UTM) - Map Grid of Australia (MGA), Zone 52
Horizontal Datum: Geodetic Datum of Australia (GDA94)

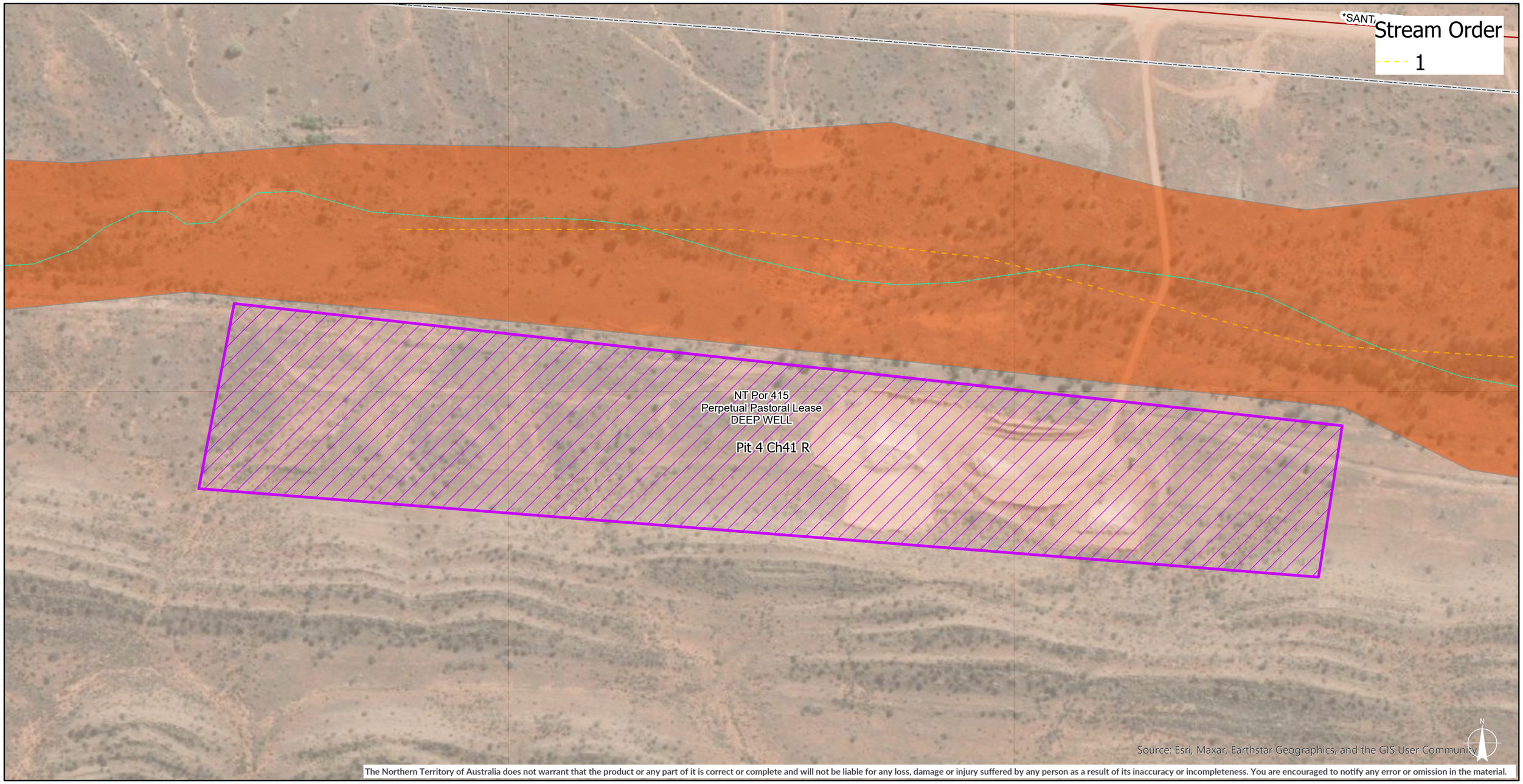
70 35 0 70
Metres
Scale @ A4 size: 1:3,500
Map Compiled: 12/05/2025

DATA SOURCE:
Water Resources - Natural Resources Division, DLPE
Cadastre / Roads - Land Information, DLI
Drainage - 1:250,000 Geoscience Australia

For further information, please contact;
Environment Services
Department of Logistics and Infrastructure (DLI)
Phone: (08) 8999 4779
Level 3, Highway House. Palmerston
Web: www.nt.gov.au/infrastructure

Santa Teresa Road Ch20-60km
Land Clearing Application
Attach 7c- Gravel Pit 3 Drainage Buffer

File Path: F:\Project Clearances\Project Management\AA_Alice Springs Region\Alice Springs_Santa Teresa Ch20-62km_KD_KB\Native Vegetation Application\Native Vegetation Application\Native Vegetation Application.aprx



Legend

- Gravel
- Stream Buffer
- Cadastre
- Roads
- Steams

Santa Teresa Road Ch20-60km
Land Clearing Application
Attach 7d- Gravel Pit 4 Drainage Buffer

Northern Territory Government

Projection: Universal Transverse Mercator (UTM) - Map Grid of Australia (MGA), Zone 52
Horizontal Datum: Geodetic Datum of Australia (GDA94)

70 35 0 70
Metres
Scale @ A4 size: 1:3,500
Map Compiled: 12/05/2025

DATA SOURCE:
Water Resources - Natural Resources Division, DLPE
Cadastre / Roads - Land Information, DLI
Drainage - 1:250,000 Geoscience Australia

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Level 3, Highway House. Palmerston
Web: www.nt.gov.au/infrastructure

File Path: F:\Project Clearances\Project Management\AA_Alice Springs Region\Alice Springs_Santa Teresa Ch20-62km_KD_KB\Native Vegetation Application\Native Vegetation Application\Native Vegetation Application.aprx

Stream Order
1

*SANTA TERESA

Pit 5 Ch49 R

NT Por 415
Perpetual Pastoral Lease
DEEP WELL

N

Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

Legend

- Gravel
- Stream Buffer
- Cadastre
- Roads
- Steams

Northern Territory Government

Projection: Universal Transverse Mercator (UTM) - Map Grid of Australia (MGA), Zone 52
Horizontal Datum: Geodetic Datum of Australia (GDA94)

70 35 0 70
Metres
Scale @ A4 size: 1:3,500
Map Compiled: 12/05/2025

DATA SOURCE:
Water Resources - Natural Resources Division, DLPE
Cadastre / Roads - Land Information, DLI
Drainage - 1:250,000 Geoscience Australia

For further information, please contact;
Environment Services
Department of Logistics and Infrastructure (DLI)
Phone: (08) 8999 4779
Level 3, Highway House. Palmerston
Web: www.nt.gov.au/infrastructure

Santa Teresa Road Ch20-60km
Land Clearing Application
Attach 7e- Gravel Pit 5 Drainage Buffer

File Path: F:\Project Clearances\Project Management\AA_Alice Springs Region\Alice Springs_Santa Teresa Ch20-62km_KD_KB\Native Vegetation Application\Native Vegetation Application\Native Vegetation Application.aprx

Attachment 9 – Land Management Plan

Note: The following Land Management Plan (LMP) should be developed with reference to the proposed Establishment and Staging Plan. It is not an Erosion and Sediment Control Plan (ESCP). For large or complex clearing areas, preparation and implementation of an Erosion and Sediment Control Plan (ESCP) can be an effective way of managing erosion risk - however it is not an alternative to retaining native vegetation which should otherwise be retained in accordance with the LCG, or used as a "catch-all" means of mitigating other risks the clearing may pose (see LCG section 4.3.2.5). Whether a formal ESCP is required as a condition of a PLC permit will be at the discretion of the PLB/Delegate based on the advice of the Land Management Unit, DEPWS and will depend on the level of detail provided in this LMP and the erosion risk associated with the proposal. For further information, contact the Land Management Unit on 08 8999 4404.

1. Provide a general description of the soil loss factors for the proposed clearing extent:
   Note: Refer to Section 4.3.2 of the LCG

Factor:	E.g.	Description
Rainfall	Consider the climatic zone, seasonal outlook and proposed timing of works.	Deep Well Station is located in a semi-arid climate region. The region does not receive a lot of rainfall with long-term average rainfall amount only 296mm. The highest rainfall amounts occurring from November through to March. If the project occurs during the wetter months a ESCP will be required.
Soil	Consider the erodibility of soil types present based on soil type texture and structure. Note whether soils are dispersive or sodic.	Geotechnical studies will be undertaken prior to gravel extraction to ensure the proposed pits provide adequate volume and quality of material to complete the specified road upgrade works. Soils selected for road construction typically present low erosion risks. Where large projects stage over a wet season an ESCP is required.
Length of slope	Indicate the average length of slope within the proposed clearing extent and areas that exceed this.	Clearing areas will be subject to gravel extraction which disrupts existing slopes. Rehabilitation and closure requires consideration of surface flows.
Slope gradient (%)	Indicate the range of slope within the proposed clearing extent (e.g. 0-2%) and areas that exceed 2%.	The pre-extraction slope of gravel resource areas frequently have slopes in excess of 2%. However, after extraction these slopes are less than 2%, or are inverted.
Groundcover	Consider the timing, duration and frequency of soil exposure.	See Attachment 11 Standard Specification For Environmental Management section 19.1, 21, 26.3
Management	Consider the level of soil disturbance associated with the proposed method of clearing and land use.	See Attachment 11 Standard Specification For Environmental Management section 19.1, 21, 26.3

2. Describe where rainfall runoff flows within the proposed clearing extent.

Property Boundary	Proposed buffer width (m)	Reasons for discretion

☒ Attach map showing slope % and the direction of runoff within the proposed clearing extent.
Attachment No: 9a

3 Identify whether property boundary buffers will be retained in accordance with the LCG and provide reasons for discretion (if required)

Note: Valid reasons must be provided for instances where no property boundary buffers or buffers less than 210m wide (including 10m wide firebreaks) will be retained. Refer to section 4.3.3 of the LCG.

Vegetation buffers from the road are, from the DLI perspective, measured from the road edge with the location of the property boundary not being relevant to this measure. This is because the road centreline is not a consistent distance from the property boundary and the DLI amenity guidelines are for no direct line of sight to the pit or a distance of 50 metres.

Property Boundary	Proposed buffer width (m)	Reasons for discretion

4 Describe any land management buffers to be retained within proximity of the proposed clearing extent.

Note: A land management buffer is different to a wildlife corridor or property boundary buffer – refer to section 4.3.4 of the LCG.

Buffer Id.	Location	Width (m)	Purpose and design justification

5 Describe any existing erosion within the proposed clearing extent.

Note: Erosion types include: wind, sheet, rill, gully or tunnel erosion.

Erosion Site	Location	Cause	Erosion type & description	Mitigation

6 Considering all information provided above; describe the potential risk, likelihood and impact of erosion associated with the proposed development.

Source of risk	Likelihood of occurring	Potential impacts

7 Considering all information provided above; describe the proposed erosion and sediment control (ESC) measures to be implemented during the clearing and establishment phase of the development.

ESC is to be managed in accordance with the DIPL SSEM 2019.

ESC measure	Location	Temporary/Permanent	Description

8 Considering all the information provided above; describe the proposed erosion and sediment control (ESC) measures to be implemented during the operational phase of the development.

ESC is to be managed in accordance with the DIPL SSEM 2019.

ESC measure	Location	Temporary/Permanent	Description

9 Provide an erosion and sediment control (ESC) map showing the location of the following information.

ESC is to be managed in accordance with the DIPL SSEM 2019.

☐ Attach an ESC map showing the location of the following within the proposed clearing extent:

- Land management buffers (Question 4)
- Existing erosion (Question 5)
- Temporary ESC measures to be installed (Question 7 & 8)
- Permanent ESC measures to be installed (Question 7 & 8)
- Firebreaks, tracks and fences.

Attachment No: _____

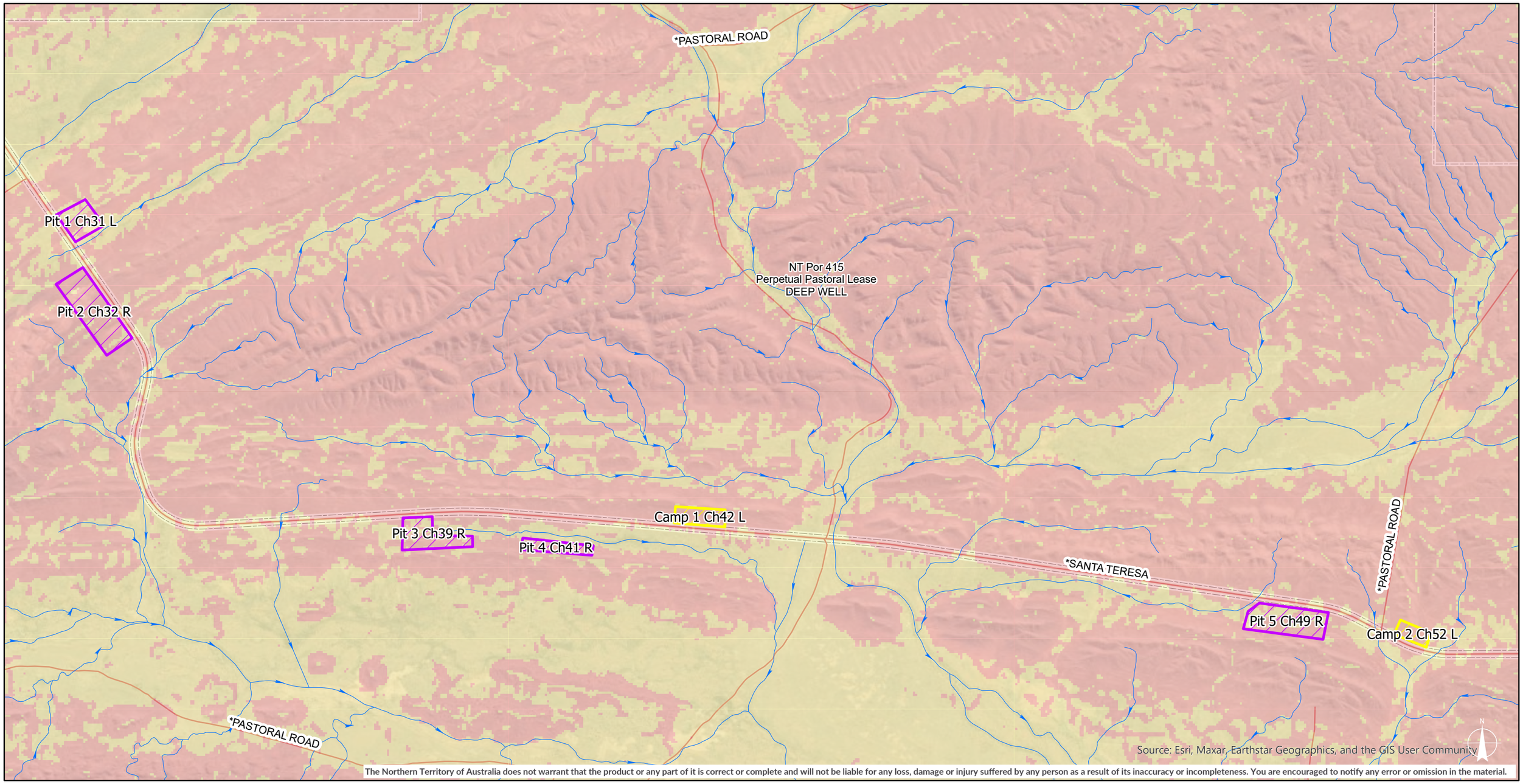
10 Provide any ESC standard drawings or design details.

ESCP is to be managed in accordance with the DIPL SSEM 2019.

Note: The level of information required will depend on the complexity of the proposed measures. Information is available on the following website: https://nt.gov.au/environment/soil-land-vegetation

☐ Attach ESC standard drawings / design details

Attachment No: _____



Legend

- Camping
- Gravel
- Cadastre

Slope Percent - 2 classes

- Slope less than or equal to 2%
- Slope greater than 2%
- Roads
- Streams

Santa Teresa Road Ch20-60km
Land Clearing Application
Attach 9a- Slopes

Northern Territory Government

Projection: Universal Transverse Mercator (UTM) - Map Grid of Australia (MGA), Zone 52
Horizontal Datum: Geodetic Datum of Australia (GDA94)

1 0.5 0 1
Kilometres
Scale @ A4 size: 1:55,000
Map Compiled: 12/05/2025

DATA SOURCE:
Water Resources - Natural Resources Division, DLPE
Cadastre / Roads - Land Information, DLI
Drainage - 1:250,000 Geoscience Australia

For further information, please contact;
Environment Services
Department of Logistics and Infrastructure (DLI)
Phone: (08) 8999 4779
Level 3, Highway House, Palmerston
Web: www.nt.gov.au/infrastructure

File Path: F:\Project Clearances\Project Management\AA_Alice Springs Region\Alice Springs_Santa Teresa Ch20-62km_KD_KB\Native Vegetation Application\Native Vegetation Application\Native Vegetation Application.aprx

Kelly-Marie Benham

To: Kimberley Doukas
Subject: RE: Request for Heritage Check - Santa Teresa Road - Ch20-60km

---

From: Sarah Hubbard on behalf of Heritage Branch
Sent: Monday, 19 May 2025 4:33 PM
To: Kimberley Doukas
Cc: Doukas, Kimberley L.
Subject: RE: Request for Heritage Check - Santa Teresa Road - Ch20-60km

Hi Kimberley,

Confirming previous advice sent for this query.

The Heritage Branch administers the *Heritage Act 2011* which protects all Aboriginal and Macassan archaeological sites and all declared and provisionally declared heritage places.

For requests related to sacred sites, contact the Aboriginal Areas Protection Authority https://www.aapant.org.au.

Work details

Name of proponent (company or department)	Department of Logistics and Infrastructure
Contact person (name and title)	Kimberley Doukas <Kimberley.Doukas@nt.gov.au>
Date enquiry received	12/05/2025
Location of work	Santa Teresa Road - Ch20-60km
Brief description of work as provided	Drilling of bores for road construction; Extraction and import of water; Extraction and import of gravel materials; Clearing of vegetative regrowth on the verge and windrows and for a detour; Construction of detours within the road reserve; Reforming the road; Construct road pavement; Spray seal wearing course; and Install signs, road furniture.
Date of Heritage Branch response	19/05/2025
Our reference	42-F25-98

The context of Heritage Branch advice

The Northern Territory Government's Heritage Branch administers the *Heritage Act 2011* and provides authoritative advice about obligations under the *Heritage Act 2011,* including steps to take to manage the impact of proposed work on Aboriginal and Macassan archaeological places and objects

It is important that advice given by the Heritage Branch is followed. A failure to follow advice received from the Heritage Branch may be considered as evidence in an investigation if damage occurs to an Aboriginal or Macassan archaeological place or object.

Relevant parts of the Northern Territory's *Heritage Act* 2011

Under the Northern Territory's *Heritage Act 2011* (the Act):

1. All provisionally declared and declared heritage places and objects are protected under the Act;
2. All Aboriginal or Macassan archaeological places and objects are automatically protected - this includes places and objects not previously recorded;
3. Places and objects include an artefact or thing given shape by a person - examples include stone tools, stone arrangements, fish traps, rock art, modified trees, and shell middens;
4. Ancestral remains are also protected;
5. Underwater Cultural Heritage is protected, up to three nautical miles from the coast;
6. There is an obligation to notify of the discovery of Aboriginal or Macassan archaeological places or objects;
7. Work carried out to a heritage place or object must follow the Heritage Act 2011.

Conditions of advice

1. This advice is based on the description of the work provided to the Heritage Branch. If the work expands or changes significantly seek further advice.
2. In preparing this advice, the Heritage Branch has referred to an archaeological database which includes information about Aboriginal and Macassan archaeological places and objects in the Northern Territory. However, the database only includes information about known archaeological places. The fact that there are no known archaeological places recorded may be because no archaeological surveys have been conducted in that particular area, and is not necessarily an indication they do not exist.

Actions

The following actions have been taken in relation to the enquiry.

- A search of the Northern Territory Heritage Register;
- A search for known archaeological places located within the subject site on the Heritage Branch archaeological database;
- A search for known archaeological places located within the proximity of the subject site on the Heritage Branch archaeological database;
- The extent of pre-existing ground disturbance;
- The scale and nature of the work proposed (major, moderate or minor);
- Areas identified as being excluded from the work footprint e.g. riparian buffers; and
- An assessment of the likelihood of unrecorded archaeological places existing within the subject site, based on landscape features, known archaeological places in the vicinity, and other predictive tools.

Advice for Aboriginal or Macassan archaeological places and objects

The search has found that there are no known Aboriginal or Macassan archaeological places and objects within the subject site. However, the likelihood of possible unrecorded Aboriginal or Macassan archaeological places has been assessed as *possible*. The extent of pre-existing disturbance and the nature of the work itself has also been considered.

Noting the level of ground disturbance proposed for this work, the Heritage Branch recommends that an archaeological survey and cultural heritage management plan are required to identify and mitigate the impact to Aboriginal or Macassan archaeological places and objects.

1. The Heritage Branch can provide a list of qualified archaeologists on request.
2. The Heritage Branch can provide advice in regard to the scope of the survey and plan on request.
3. The Heritage Branch must receive a copy of the final report for our records.

Advice for declared or Provisionally Declared heritage places and objects

The search has found that there are no nominated, provisionally declared or declared heritage places or objects within the subject area.

Further comments

Further information can also be found on our website:

https://nt.gov.au/property/building/heritage-properties/heritage-properties-building-works-and-development

Aboriginal heritage information | NT.GOV.AU

Regards,

Sarah Hubbard

Senior Heritage Officer

Heritage Branch

Department of Lands, Planning and Environment

Northern Territory Government

Ground floor, Arnhemica Building

16 Parap Road, Parap 0820

PO Box 3675, Darwin, NT 0801

P: **+61 8 8999 5055**

E: sarah.hubbard@nt.gov.au

From: Kimberley Doukas <Kimberley.Doukas@nt.gov.au>
Sent: Monday, 12 May 2025 12:27 PM
To: Heritage Branch <Heritage.Branch@nt.gov.au>
Cc: Doukas, Kimberley L. <doukaskl@cdmsmith.com>
Subject: Request for Heritage Check - Santa Teresa Road - Ch20-60km

Good Afternoon Heritage Team,

The upgrade works on Santa Teresa between Ch20-60km are proposed to be undertaken later this year. I understand that a heritage check was done in 2023 however given the age of this advice could I please get a new check done for the works? Please see shapefiles attached.

The proposed works includes:

- Drilling of bores for road construction;
- Extraction and import of water;
- Extraction and import of gravel materials.
- Clearing of vegetative regrowth on the verge and windrows and for a detour.
- Construction of detours within the road reserve;
- Reforming the road;
- Construct road pavement
- Spray seal wearing course; and
- Install signs, road furniture.

Don’t hesitate to get in touch if you need anything further.

Kind regards,

Kimberley

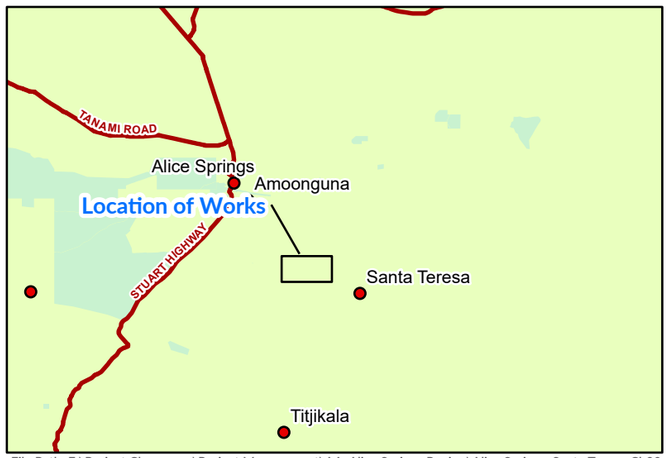
Available Tuesday and Wednesday

Consultant Project Officer | Environment Services | Department of Logistics and Infrastructure

P 0476 118 037 | E Kimberley.doukas@nt.gov.au P Think green before you print this screen

Floor 1, Greenwell Building, 50 Bath Street, Alice Springs
GPO Box 2130, Alice Springs, NT 0871

Pit 1 Ch31 L
Pit 2 Ch32 R
NT Por 415
Perpetual Pastoral Lease
DEER WELL
C2021/105
RWA 5
C2021/105
RWA 6
Camp 1 Ch42 L
Pit 3 Ch39 R
Pit 4 Ch41 R
*SANTA TERESA
*PASTORAL ROAD
Pit 5 Ch49 R
Camp 2 Ch52 L
*PASTORAL ROAD
*PASTORAL ROAD
N



Legend

- C2021/105 RWAs
- AAPA Certificate C2021/105
- Gravel
- Camping
- Cadastre
- Roads

Santa Teresa Road Ch20-60km Land Clearing Application Attach 12a- AAPA Maps

Northern Territory Government

Projection: Universal Transverse Mercator (UTM) - Map Grid of Australia (MGA), Zone 52
Horizontal Datum: Geodetic Datum of Australia (GDA94)

1 0.5 0 1
Kilometres
Scale @ A4 size: 1:55,000
Map Compiled: 12/05/2025

DATA SOURCE:
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Drainage - 1:250,000 Geoscience Australia

For further information, please contact;
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Aboriginal Areas Protection Authority
protecting sacred sites across the territory

Our File: **RA2021/145**
In Reply Please Quote: **202114001**

Department of Infrastructure, Planning and Logistics*
Highway House
Lvl 3 14 Palmerston Circuit Street
PALMERSTON NT 0830

ATTENTION: DAVID CASH

RE: ISSUE OF AUTHORITY CERTIFICATE FOR MAINTAIN AND UPGRADE SANTA TERESA ROAD FROM CHAINAGE 0.0KM TO 66.97KM - 202114001

I refer to your application for an Authority Certificate received on the 11th October 2021 for the above location.

Accordingly, under the powers delegated to me under Section 19 of the *Northern Territory Aboriginal Sacred Sites Act 1989* (NT) I am pleased to issue the attached Authority Certificate.

Please read the conditions outlined in the Certificate carefully. In particular, you should note that it has been issued for an indefinite period of time, providing that the works covered by the Certificate start within the period stipulated in condition 3.

Please note that the cost of this Authority Certificate will be $30,429 exclusive of GST and an invoice will be issued to you by the Department of Corporate and Digital Development. The terms and conditions of the invoice will require you to make payment within 30 days of receipt.

I have issued you with a map which should be retained with your original Certificate. This should also be supplied for use by contractors to avoid unnecessary photocopying of a colour coded document.

If you have any further queries regarding this Authority Certificate please email enquiries.aapa@nt.gov.au or contact Janelle White on (08) 89515034.

Yours faithfully

DR. BEN SCAMBARY
Chief Executive Officer
3 February 2022

Darwin
P: +61 (08) 8999 4365
F: +61 (08) 8999 4334
www.aapant.org.au
enquiries.aapa@nt.gov.au
4th Floor, R.C.G Centre
47 Mitchell Street DARWIN NT
GPO Box 1890, DARWIN NT 0801

Alice Springs
P: +61 (08) 8951 5023
F: +61 (08) 8951 7398
www.aapant.org.au
enquiries.aapa@nt.gov.au
1st Floor, NT House
44 Bath Street ALICE SPRINGS NT
All mail to Darwin GPO

ABORIGINAL AREAS PROTECTION AUTHORITY

AUTHORITY CERTIFICATE

Issued in accordance with Section 22 of the *Northern Territory Aboriginal Sacred Sites Act 1989* (NT)

REFERENCE: **RA2021/145 (Doc: 202114001)** **C2021/105**

Department of Infrastructure, Planning and Logistics*
Highway House

Lvl 3 14 Palmerston Circuit Street
PALMERSTON NT 0830

SUBJECT LAND: Santa Teresa Road from CH 0.0km to CH66.97 km plus the length of Alice Street up to Church Street (Santa Teresa Community intersection) - 500m either side of the road centre including 500m radius from end points., as shown on the map which is Annexure 'A' hereto.

PROPOSED WORK OR USE: All works associated with major road works including all pre-construction, construction, re-construction, upgrading and maintenance activities associated with roads, infrastructure and all earth disturbing works including road widening and reforming; survey/investigation for and extraction of raw materials; road works, turn arounds, haul road, temporary and permanent access roads/detours; floodways, drainage works/culverts; landscaping, environmental protection and monitoring measures; fencing; bridges; relocation/installation/connection to above and below ground services; clearing; campsites; stockpile and laydown (including temporary storage of machinery); access to and extraction of water from bores, dams and natural water sources; construction of new bores and dams; and all works ancillary to the above mentioned works including routine and ongoing maintenance of any infrastructure and or services.

PREAMBLE: All Authority Certificate Annexures form a part of the Authority Certificate and are to be read in conjunction with the conditions below. This Authority Certificate includes the following Annexures:

Annexure 'A' - Maps

Annexure 'B' - Authority Certificate Particulars – Road Definitions

To the extent of any inconsistency between the terms of the Authority Certificate herein, and the terms of any previous Authority Certificate issued over the same area to the applicant for the proposed works, the terms of this Authority Certificate shall prevail.

CONDITIONS:

1. The applicant shall ensure that the conditions of this Certificate are included in any subsequent contract or tender documents for the works or use described herein.
2. The applicant shall ensure any agent, contractor or employee is aware of the conditions of this Certificate and the obligations of all persons (who enter on, or carry out works or use land on which there is a sacred site) under Part IV of the *Northern Territory Aboriginal Sacred Sites Act 1989* (NT).

3. This Certificate shall lapse and be null and void if the works in question or the proposed use is not commenced within 24 months of this Certificate.

4. The applicant shall ensure any agent, contractor or employee is aware of the content of section 40(1) of the *Northern Territory Aboriginal Sacred Sites Act 1989* (NT) which provides that this Certificate does not negate the need for consent, approval or permission for the subject works or use of the land which may be required under another statute.

5. Within the area marked Restricted Works Area 1 (RWA1) on Annexure 'A', associated with sacred site 5650-489, no work shall take place directly on or no damage shall occur to any ghost gum tree (Eucalyptus Corymbia).

   The features of sacred site 5650-489 include: ghost gum tree (Eucalyptus Corymbia).

6. Within the area marked Restricted Works Area 2 (RWA2) on Annexure 'A', associated with sacred site 5750-10, no work shall take place or no damage shall occur.

   The features of sacred site 5750-10 include: a gap, two hills either side of the gap, and a rockhole.

7. Within the area marked Restricted Works Area 3 (RWA3) on Annexure 'A', associated with sacred site 5750-12, no works or no damage shall occur to any gap or hill.

   RWA3 abuts the Already Disturbed Road Formation on both sides of the road.

   The features of sacred site 5750-12 include: a gap and two prominent hills either side of the gap.

8. Within the area marked Restricted Works Area 4 (RWA4) on Annexure 'A', associated with sacred site 5750-41, no person shall enter or no work shall take place or no damage shall occur.

   The features of sacred site 5750-41 include: a rocky outcrop surrounded by a sand dune.

9. Within the area marked Restricted Works Area 5 (RWA5) on Annexure 'A', associated with sacred site 5749-14, no work shall take place directly on or no damage shall occur to any Coolibah trees.

   RWA5 abuts the Already Disturbed Road Formation on both sides of the road.

   The features of sacred site 5749-14 include: Coolibah trees.

10. Within the area marked Restricted Works Area 6 (RWA6) on Annexure 'A', associated with sacred site 5749-14, no work shall take place directly on or no damage shall occur to any Coolibah trees.

    RWA6 abuts the Already Disturbed Road Formation on both sides of the road.

    The features of sacred site 5749-14 include: Coolibah trees.

11. Within the area marked Restricted Works Area 7 (RWA7) on Annexure 'A', associated with sacred site 5749-31, no work shall take place or no damage shall occur.

    The features of sacred site 5749-31 include: Beefwood trees.

12. Within the area marked Restricted Works Area 8 (RWA8) on Annexure 'A', associated with sacred sites 5749-35 and 5749-32, no work shall take place and no damage shall occur.

    The features of sacred site 5749-35 include: a spring.

    The features of sacred site 5749-32 include: two rocks.

The COMMON SEAL of the
ABORIGINAL AREAS PROTECTION AUTHORITY
was hereto affixed on the 3 day
of February 2022

ABORIGINAL AREAS PROTECTION AUTHORITY
THE
COMMON SEAL
OF

DR. BEN SCAMBARY
Chief Executive Officer

Maintain and Upgrade Santa Teresa Road from Chainage 0.0km to 66.97km - 202114001

ANNEXURE "A" MAP 1 of 2 FORMING PART OF

AUTHORITY CERTIFICATE C2021/105

ISSUED TO:
Department of Infrastructure, Planning and Logistics*

CHECKED BY:.....DATE 22/12/2021
XLI - SENIOR LAND INFORMATION OFFICER

J2021-0903

0 13,130
metres
Scale 1:218,900
Coordinate system: GDA94

KEY

- Subject Land
- Extent of Registered Sacred Site
- Extent of Recorded Sacred Site
- Restricted Works Area
- Registered Sacred Site
- Recorded Sacred Site
- Burial

** The Sacred Site point is not indicative of the specific site location and does not represent the location of any features of the site.*

Aboriginal Areas Protection Authority
protecting sacred sites across the territory

Prepared and produced by Aboriginal Areas Protection Authority (AAPA), Darwin, Northern Territory of Australia
13½ Northern Territory of Australia

This map forms part of a Certificate issued by the Authority under section 22 of the *Northern Territory Aboriginal Sacred Sites Act 1989*. No reliance should be put on the accuracy of the information on the map except as it relates to the land the subject of the Certificate and the fact that sites are not shown in other areas shall not be taken as a definitive indication of the existence or lack of existence of sites.

Maintain and Upgrade Santa Teresa Road from Chainage 0.0km to 66.97km - 202114001

ANNEXURE "A" MAP 2 of 2 FORMING PART OF

AUTHORITY CERTIFICATE C2021/105

ISSUED TO:
Department of Infrastructure, Planning and Logistics*

CHECKED BY:.....DATE 22/12/2021

XLI - SENIOR LAND INFORMATION OFFICER

J2021-0903

0 3

kilometres

Scale 1:50,000

Coordinate system: GDA94

KEY

- Subject Land
- Extent of Recorded Sacred Site
- Restricted Works Area
- Recorded Sacred Site

UNDOOLYA

5750-10

RWA 2

RWA 3

RWA 3

5750-12

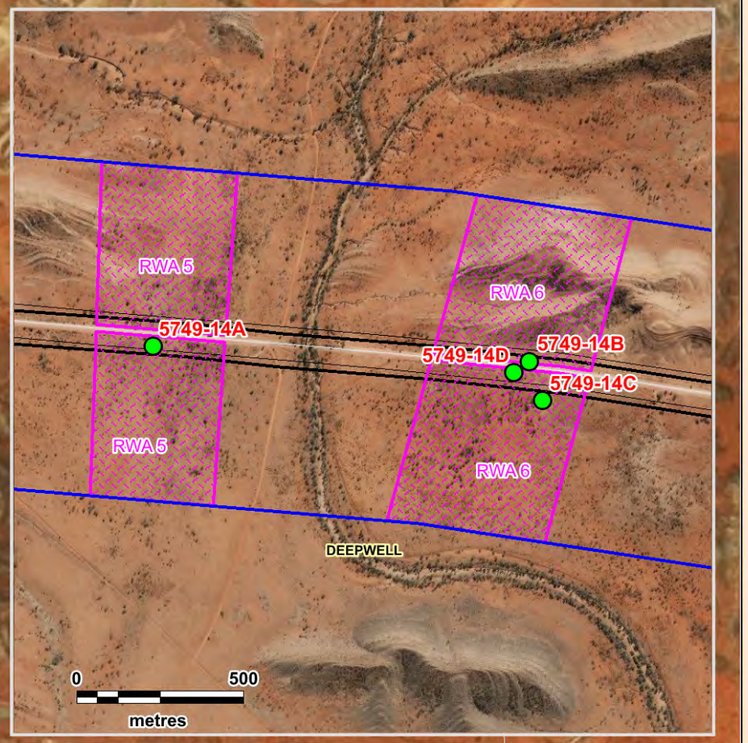
5750-41

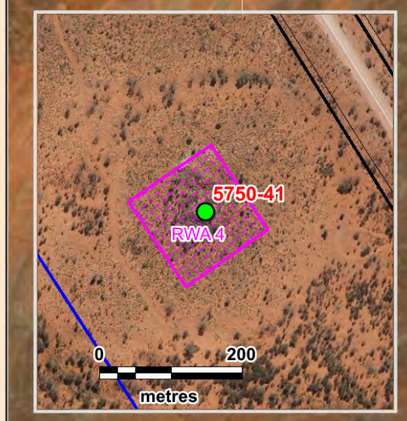
RWA 4

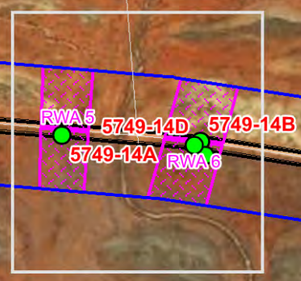
DEEPWELL TRACK

DEEPWELL

SANTA TERESA







* *The Sacred Site point is not indicative of the specific site location and does not represent the location of any features of the site.*

Aboriginal Areas Protection Authority
protecting sacred sites across the territory

Prepared and produced by Aboriginal Areas Protection Authority (AAPA), Darwin, Northern Territory of Australia

ANNEXURE 'B' - AUTHORITY CERTIFICATE PARTICULARS – DEFINITIONS

C2021/105 - 202114001

For the purpose of this Authority Certificate, the following definitions apply:

Sacred Sites beyond the Subject Land:

Sacred Sites beyond the Subject Land of the Application may not be shown on the map(s) that comprise Annexure 'A' to the Authority Certificate. A lack of information about sacred sites beyond the Subject Land should not be taken to mean that sacred sites do not exist beyond the Subject Land.

Restricted Works Area (RWA):

A Restricted Works Area (RWA) means any area where the "Proposed Works or Use" stated in the Authority Certificate is restricted by way of conditions set out in the Authority Certificate. Restricted Work Areas are diagrammatically shown as areas with a pink border and pink pattern on map(s) which comprise Annexure 'A' to the Authority Certificate.

Where necessary, the size and location of each Restricted Works Area under this Authority Certificate is further defined by Annexure 'B', in particular by reference to the definition of 'The Already Disturbed Road Formation' or 'The Already Disturbed Road Carriageway' or 'The Table Drain Invert'.

RWA Commencement Point Definitions:

Three key road terms are used in Authority Certificate conditions to aid in the definition of the point at which a Restricted Works Area (RWA) abutting the road commences. These are:

1. The Already Disturbed Road Carriageway (Figure 1)

2. The Table Drain Invert (Figure 2)

3. The Already Disturbed Road Formation (Figure 3)

The location and extent of sacred sites or sacred site features near the road will determine whether a Restricted Works Area is defined in an Authority Certificate condition as commencing at any one of these three points. Note that 'The Already Disturbed Carriageway' provides the narrowest definition of the road and the widest Restricted Works Area, where The Table Drain Invert provides a wider description of the road and slightly narrower Restricted Works Area, and The Already Disturbed Road Formation provides the widest definition of the road and the narrowest Restricted Works Area, as per the drawings attached.

The Already Disturbed Road Carriageway:

The Already Disturbed Road Carriageway means the road surface area already disturbed by previous road works in the space between the guideposts (or their normal position) at the edge of the road shoulder. The Already Disturbed Road Carriageway applies to sealed and unsealed roads. Where Authority Certificate conditions are designed to protect sacred sites or sacred site features very close to the already disturbed road carriageway (or anywhere in the subject land where this definition applies), the Restricted Works Area will be defined as commencing at or abutting the Already Disturbed Road Carriageway.

The Table Drain Invert: The Table Drain Invert means the lowest point in the table drain before the commencement of the outer batter. It includes the road surface area and part of the table drain already disturbed by previous road works. The table drain invert applies to sealed and unsealed roads. Where Authority Certificate conditions are designed to protect sacred sites or sacred site features occurring within the table drain, outer batter or windrows (or anywhere in the subject land where this definition applies), the Restricted Works Area will be defined as commencing at or abutting the Already Disturbed Road Carriageway.

The Already Disturbed Road Formation:

The Already Disturbed Road Formation means the road surface area disturbed by previous road works from outer batter to outer batter. It includes the already disturbed area associated with drains, including offlet drains (which may run at an angle from the road into the road corridors on either side of the road). The Already Disturbed Road Formation applies to sealed and unsealed roads. For the purposes of this Authority Certificate, The Already Disturbed Road Formation does **not** include:

- The natural verge area beyond the outer batters and windrows; or
- Areas where any new ground disturbing works are proposed; or
- The construction of any new drain(s) including any table, catch or offlet drain(s); or
- Any extension, including by widening or lengthening, of any existing drain(s) including table, catch or offlet drain(s).

Where Authority Certificate conditions are designed to protect sacred sites or sacred site features occurring beyond the outer batter(s) (or anywhere in the subject land where this definition applies), the Restricted Works Area will be defined as commencing at or abutting the Already Disturbed Road Formation.

Existing Infrastructure:

Existing infrastructure includes any road related infrastructure already in place at the date of issue of this Authority Certificate including: the already disturbed road formation and associated already disturbed drains, already disturbed areas within existing gravel pits, already disturbed bores, already disturbed access tracks and airstrips and existing fencing, signage and permanent markers or barriers within, or on the perimeter of, the subject land where no new earth disturbance is required for the use and maintenance of this infrastructure.

Temporary Protection Barriers:

Where required by Authority Certificate conditions, Temporary Protection Barriers shall be installed prior to the commencement of works and shall remain in place until the completion of all works and associated activities. Temporary Protection Barriers are to be installed between proposed works areas and the sacred site feature being protected.

Authority Certificate conditions which require the Applicant to install of a Temporary Protection Barrier means the installation of a visible physical barrier erected by the Applicant, its agents, contractors or employees to mark and identify an area beyond which specific works may not occur or use of the land may not be made.

Select certificate conditions specify that a Temporary Protection Barrier shall be installed prior to the commencement of Major Works. In this context, 'Major Works' is taken to mean any major earth disturbing works associated with the maintenance of the already disturbed road or associated infrastructure, including drains. Major works includes moving heaped earth from the windrows back over the road to resurface the road. Major Works does not include routine grading of the already disturbed road carriageway or the already disturbed surface of associated drain(s).

Maintenance Works and Activities:

Maintenance works and activities are to be confined to already disturbed areas.

Tree:

A tree means all parts of the tree including the trunk, roots, branches and foliage.

Section 1 Development Overview

The Department of Infrastructure, Planning and Logistics (DLI) are proposing to undertake upgrades of the Santa Teresa Road between Chainage (Ch) 20km and Ch 60km.

To facilitate the works gravel extraction and subsequent vegetation clearing is required.

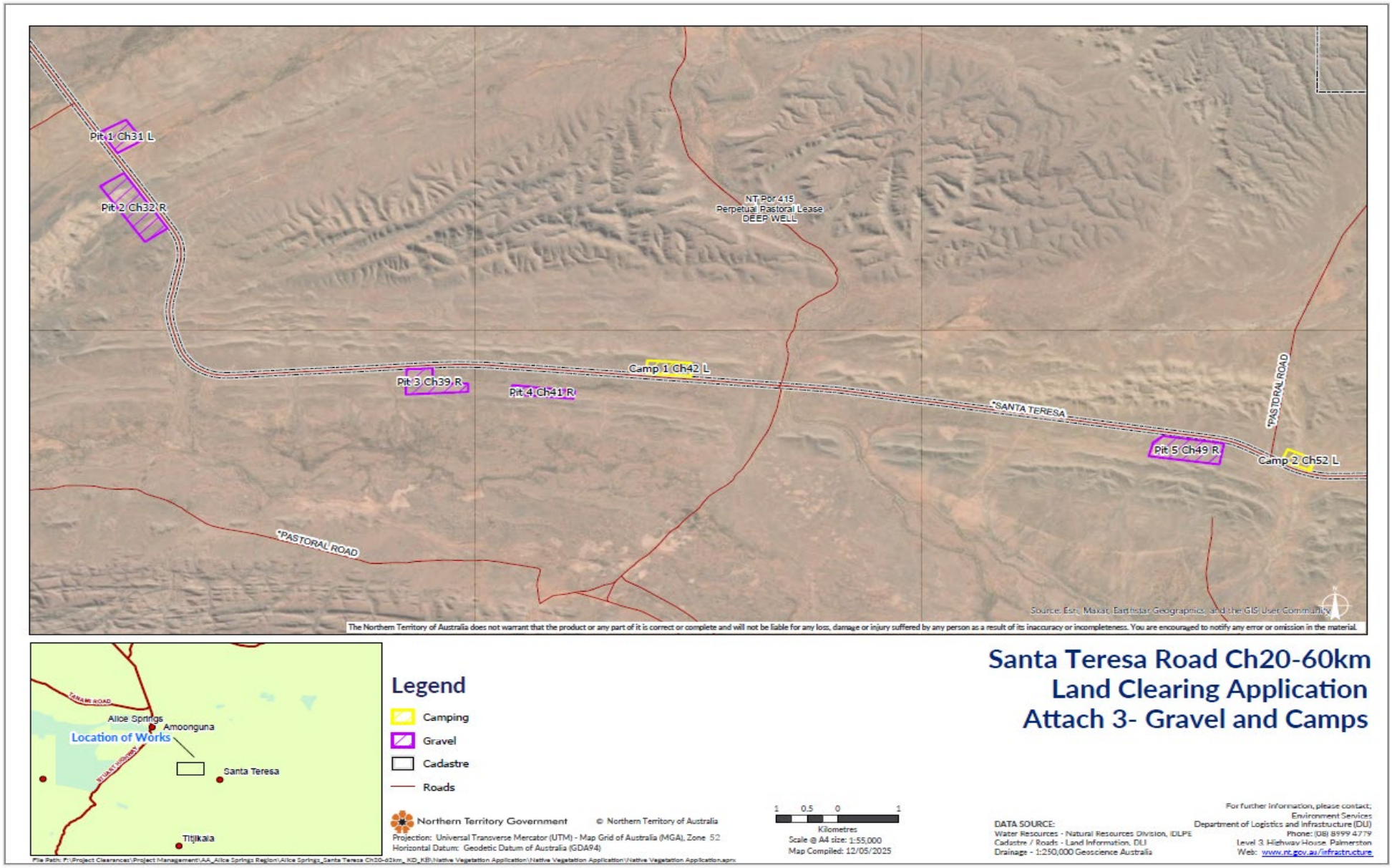
The road is the only service road for the growing community of Santa Teresa and is a popular tourist attraction and access route for people visiting Mount Dare, the MacDonnell Ranges as well as providing alternative access route to the Simpson Desert.

The scope of works includes (but is not limited to) the following:

- Drilling of bores for road construction;
- Extraction and import of water;
- Extraction and import of gravel materials.
- Clearing of vegetative regrowth on the verge and windrows and for a detour.
- Construction of detours within the road reserve;
- Reforming the road;
- Construct road pavement
- Spray seal wearing course; and
- Install signs, road furniture.

1.1 Clearing Extent

Five gravel pits and two camps are proposed to facilitate the works, consisting of a total 180.37ha. It should be noted that within the 180.37ha, clearing will only occur within areas containing suitable quality gravel resources, or that facilitate access to such gravel resources. ***The nominated clearing areas are larger than usually required due to inconsistent gravel quality of the area.*** Within these areas, the application of DLI standard specifications further reduces the cleared area and require areas to be rehabilitated after extraction.


Pit 1 Ch31 L
Pit 2 Ch32 R
NT Por 415
Perpetual Pastoral Lease
DEEP WELL
Camp 1 Ch42 L
Pit 3 Ch39 R
Pit 4 Ch41 R
*SANTA TERESA
*PASTORAL ROAD
Pit 5 Ch49 R
Camp 2 Ch52 L
*PASTORAL ROAD
Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community
The Northern Territory of Australia does not warrant that the product or any part of it is correct or complete and will not be liable for any loss, damage or injury suffered by any person as a result of its inaccuracy or incompleteness. You are encouraged to notify any error or omission in the material.
TANAMI ROAD
Alice Springs
Amoonguna
Location of Works
STUART HIGHWAY
Santa Teresa
Titjikala
Legend
Camping
Gravel
Cadastre
Roads
Northern Territory Government
© Northern Territory of Australia
Projection: Universal Transverse Mercator (UTM) - Map Grid of Australia (MGA), Zone 52
Horizontal Datum: Geodetic Datum of Australia (GDA94)
1 0.5 0 1
Kilometres
Scale @ A4 size: 1:55,000
Map Compiled: 12/05/2025
DATA SOURCE:
Water Resources - Natural Resources Division, DLPE
Cadastre / Roads - Land Information, DLI
Drainage - 1:250,000 Geoscience Australia
For further information, please contact;
Environment Services
Department of Logistics and Infrastructure (DLI)
Phone: (08) 8999 4779
Level 3 Highway House, Palmerston
Web: www.nt.gov.au/infrastructure
File Path: F:\Project Clearances\Project Management\AA_Alice Springs Region\Alice Springs_Santa Teresa Ch20-60km_ KD_KB\Native Vegetation Application\Native Vegetation Application\Native Vegetation Application.aprx
Santa Teresa Road Ch20-60km
Land Clearing Application
Attach 3- Gravel and Camps

Section 2 Northern Territory – Screening Tool

The Northern Territory Environmental Protection Authority (NT EPA) has developed a screening tool to assist proponents in determining whether a proposed action requires formal referral (NT EPA, 2021a).

The screening tool is comprised of two parts namely, Part 1 (Screening questions) (Figure 2-1) and Part 2 (Checklist). Part 1 and Part 2 have been completed below in the establishing gravel pits and camping areas within Deep Well Pastoral Lease.

2.1 Part 1 – Screening Questions

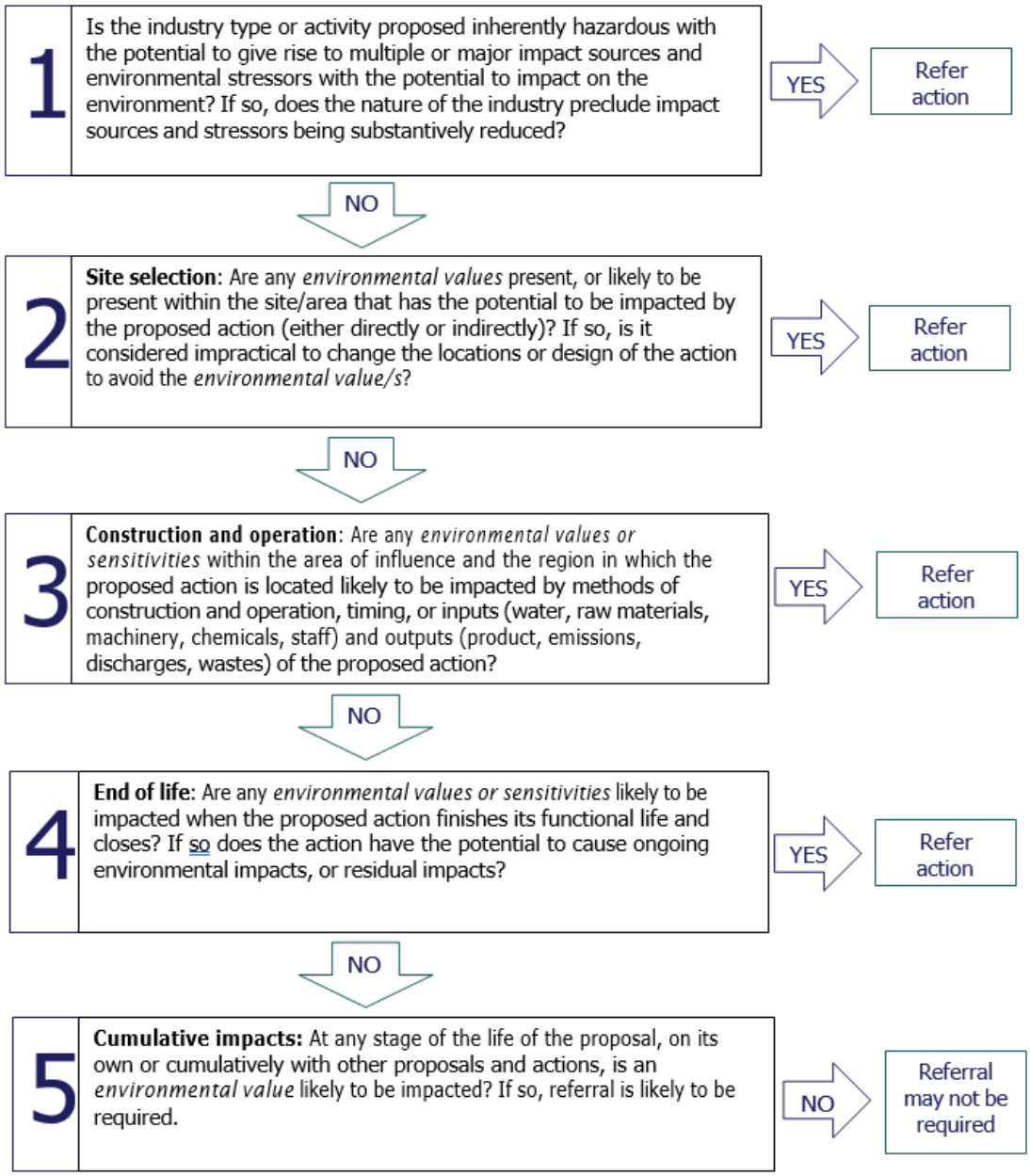


Figure 2-1 NT EPA Pre-referral screening tool Part 1 Screening questions for the Development (NT EPA, 2021a)

2.2 Part 2 – Checklist

Table 2-1 has been adapted from the NT EPA Pre-referral screening tool checklist (NTEPA, 2021a). It provides a preliminary evaluation of whether the camp and logistics area has the potential to result in a significant impact on the environment and if formal referral to the NT EPA is necessary. Table 2-1 has been reviewed within the context and framework of the NT EPA's environmental factors and objectives (NTEPA, 2021b).

To undertake a preliminary evaluation of impacts on the NT EPA factors and objectives of the proposed development, it is important to understand the definition of 'significant impact'. Refer to Section 2.3 for the definition of a 'significant impact' in relation to the Northern Territory *Environment Protection Act 2019* (EP Act) and the NT EPA's contemporary guidance.

Explanation: *Use questions 1-5 from part 1 of the screening tool. Indicate answer to questions 1-5 in corresponding checkbox. The table below gives an indication of the possible environmental values for each environmental factor that should be considered when considering each question. If the answer to a question is 'yes', it is possible that the proposal may have the potential to have a significant impact on the environment and the proposal should, the proponent should consider, justify, and/or assess the significance of the impact. If there is potential for significant impact the proponent must refer the proposal to the NT EPA (NTEPA, 2021a).*

Table 2-1 NTEPA Pre-referral screening tool Part 2 Checklist for the Deep Well Gravel Pits and Camping Areas (adapted from NTEPA, 2021a)

Theme	Environmental factor and objective	Indicative environmental values and sensitivities relevant to each environmental factor	Summary of key environmental values and sensitivities of relevance to the development	Proponent's answer to screening questions 1-5. If answer is 'yes' consider, justify or assess the significance (Yes/ No/ Uncertain or Not Applicable (N/A))					Preliminary evaluation of significance (Nature, scale, context and sensitivity; refer definition provided below table)
				Q1	Q2	Q3	Q4	Q5	
LAND	1) Landforms Objective: Conserve the variety and integrity of distinctive physical landforms.	• distinctive features in the landscape, either geological or anthropogenic • subterranean karstic terrain and faults • craters, gorges, ranges, caves, massifs, escarpments, plateaus • monuments • tourism related to landforms	The proposed gravel pits and camping areas are within the Finke bioregion which can be considered scenic. However, the landforms in this region are widespread and not distinctive. The site is not in close proximity to National Parks nor high tourism areas.	N/A	N/A	N/A	N/A	N/A	**Potential impacts are not considered significant.** • No key distinctive physical landforms relevant to the development for the NT EPA 'Landforms' factor. • The extent of disturbance to the non-distinctive plains and rises landform is not considered significant.
	2) Terrestrial environmental quality Objective: Protect the quality and integrity of land and soils so that environmental values are supportedand maintained.	• good quality soils, including chemical, physical, biological and aesthetic qualities thatsupport life • the biological processes that depend on soil quality	• Soils within development area is consistent with the broader Santa Teresa region. • There are no known areas of contaminated soils within the development area as it has not been previously developed. There has been limited previous disturbance to the area involving access tracks.	N/A	No-	No	No	No	**Potential impacts are not considered significant.** • The development type is not inherently hazardous and will not contain activities or chemicals that would degrade soil quality. Small volumes of diesel will be stored for the equipment; however, this will be managed in accordance with the DIPL Standard Specifications for Environmental Management (DIPL SSEM) guidelines. Standard manufacture maintenance procedures are sufficient to maintain a low risk of leaks. • There is no known presence of contamination that could be mobilised to air or water during land clearing and construction.
	3) Terrestrial ecosystems Objective: Protect terrestrial habitats to maintain environmental values including biodiversity, ecological integrity and ecological functioning.	• 'sensitive or significant' vegetation or buffers (as defined in the NT Land ClearingGuidelines) • vegetation that provides an important ecological function • listed threatened species and their habitat (NT and Commonwealth) • listed migratory species and their habitat (Commonwealth) • listed threatened ecological communities (Commonwealth) • locally endemic species or species with restricted habitat • species of social, cultural, livelihood and/or economic significance • species that are data deficient and their status is unknown • protected area or reserve, including Indigenous Protected Area • existing conservation and management activities	• The development area is outside mapped 'significant vegetation' as per NR Maps and ecological surveys. • There have been no protected flora species identified in the area. Closest record is the Rainbow Valley fushia bush located over 10km away. • Listed Migratory species under the EPBC Act have been sighted adjacent to the development area (Common greenshank, Curlew sandpiper and Sharp-tailed sandpiper) but the environment of the gravel pits and camping areas area not suitable to migratory species. • Introduced plants were observed at several locations within the study area. The most commonly observed species at these locations were Buffel Grass. • Several threatened fauna species listed under the *Territory Parks and Wildlife Conservation Act 2001* (NT) (TPWC Act) are	N/A	No – refer to eval	No	No	No	**Potential impacts are not considered significant.** • Potential for increase in dust, noise and light emissions during construction, which may indirectly effect fauna within the area. However, most impacts are temporary or can be managed through standard controls. • General construction environmental management controls will be developed and include controls for introduced species (weeds), dust and noise as per DIPL SSEM guidelines.

Theme	Environmental factor and objective	Indicative environmental values and sensitivities relevant to each environmental factor	Summary of key environmental values and sensitivities of relevance to the development	Proponent's answer to screening questions 1-5. If answer is 'yes' consider, justify or assess the significance (Yes/ No/ Uncertain or Not Applicable (N/A))					Preliminary evaluation of significance (Nature, scale, context and sensitivity; refer definition provided below table)
				Q1	Q2	Q3	Q4	Q5	
		• introduced species and/or invasive species • integrity of terrestrial ecosystems and the ecological services they provide • biological and functional diversity • provision of refuge • food supply	known to occur with others having potential to occur within the area and surrounds: - Sharp-tailed Sandpiper - Grey falcon - Southern Whiteface It is not anticipated that gravel extraction or camping activities will have significant impacts on the species. • No protected areas or reserves occur within the vicinity of the development area. • No nominated, provisional or declared heritage places located within, or directly adjacent to, the gravel pits or camps.						
WATER	1) Hydrological processes Objective: Protect the hydrological regimes of groundwater and surface water so that environmental values including ecological health, land uses and the welfare and amenity of people are maintained.	• the supply and quantity of water in surface water features including rivers, lakes, wetlands, swamps, creeks, billabongs, intermittent streams, floodplains, mangroves and drainage lines • the supply and quantity of water in groundwater features including aquifers, aquitards and water tables • declared beneficial uses • present and future uses, and users of water • current or potential water supplies, including regional scale aquifers • culturally important water features or other features affected by water level	• The proposal area would only be subject to sheet flow during precipitation events. • Water consumption is not sufficient to have a measurable impact • The proposal area is not within a Water Control District, Water Allocation Plan Area or Water Plan Management Zone, Water Plan Protection Area.	N/A	No	No	No	No	**Potential impacts are not considered significant.** • Only limited groundwater will be taken during construction activities. • The extraction areas have experienced some disturbance. • No permanent surface water features within the development area and surrounds. • No mapped groundwater dependent ecosystems within the area. • The development is outside all use and management control areas. • All activities will be undertaken in a limited disturbance footprint with limited scale and extent. There will be no significant, permanent changes to the surfaces and therefore no risk of significantly altering the existing hydrological regime. • General construction environmental management controls will be developed and implemented (including erosion and sediment controls) (as per DIPL SSEM Guidelines).
	2) Inland water environmental quality Objective: Protect the quality of groundwater and surface water so that environmental values including ecological health, land uses and the welfare and amenity of people are maintained.	• the quality of water in surface water features including rivers, lakes, wetlands, swamps, creeks, billabongs, intermittent streams, floodplains, mangroves and drainage lines • the quality of water in groundwater features including aquifers and water tables • declared beneficial uses • present and future uses and users of water • current or potential water supplies, including regional scale aquifers • potability / drinkability • culturally important water features	• The closest surface water features are unnamed drainage lines. • The site is outside areas suspectable to flooding although could experience overland sheet flow and some localised pooling during extreme rainfall events.	N/A	No	No	No	No	**Potential impacts are not considered significant.** • Stream and drainage buffers prevent clearing in proximity to waterways • The gravel pits and camping areas are outside major flood hazard areas. • The development is outside all use and management control areas. • All activities will be undertaken in a limited disturbance footprint with limited scale and extent. There will be no significant changes to the surfaces and therefore no risk of significantly altering the existing hydrological regime. • General construction environmental management controls will be developed and implemented (including erosion and sediment controls) (as per DIPL SSEM guidelines).

Theme	Environmental factor and objective	Indicative environmental values and sensitivities relevant to each environmental factor	Summary of key environmental values and sensitivities of relevance to the development	Proponent's answer to screening questions 1-5. If answer is 'yes' consider, justify or assess the significance (Yes/ No/ Uncertain or Not Applicable (N/A))					Preliminary evaluation of significance (Nature, scale, context and sensitivity; refer definition provided below table)
				Q1	Q2	Q3	Q4	Q5	
	3) Aquatic ecosystems Objective: Protect aquatic habitats to maintain environmental values including biodiversity, ecological integrity and ecological functioning.	• threatened species • the health of the biota in inland waterways • the habitats that support the lifecycle of aquatic biota • groundwater dependent ecosystems • Ramsar wetlands • species of social, cultural, livelihood and/or economic significance • integrity of aquatic ecosystems and the ecological services they provide • biological and functional diversity • provision of refuge	• No inland aquatic habitats (i.e. lakes, wetlands, creeks) present within the development area and surrounds. • No known groundwater dependent ecosystems present. • No Ramsar wetlands occur within the vicinity of the development area. • The closest surface water features include highly ephemeral drainage lines	N/A	No	No	No	No	**Potential impacts are not considered significant.** • There are no inland aquatic environments within the boundaries of the development area or in close proximity. • Stream buffers will be implemented to exclude the streams and subsequent riparian vegetation. • With the implementation of standard construction and operational management controls there is little to no identifiable risk to downstream aquatic ecosystems values, should there be any that occur (DIPL SEEM).
SEA	1) Coastal processes Objective: Protect the geophysicaland hydrological processes that shape coastal morphology so thatthe environmental values of the coast are maintained.	• processes that support marine ecosystems (see Marine Ecosystems Factor below) such as coral reefs, mangroves, salt marshes, seagrass meadows and sponge gardens • primary productivity • nutrient cycling • carbon storage • climate regulation • conservation significant low-lying areas including tidal creeks, deltas and river mouths • storm surge protection • unique coastal landforms • cultural and aesthetic values • active or passive recreation	• N/A - Works will not be undertaken in proximity to the coast.	N/A	N/A	N/A	N/A	N/A	**Potential impacts are not considered significant.** • N/A - Works will not be undertaken in proximity to the coast.
	2) Marine Environmental Quality Objective: Protect the quality and productivity of water, sediment and biota so that environmental valuesare maintained.	• quality of the water, sediment and biota • ecosystem health condition • physical parameters that support fishing and aquaculture • physical parameters that support recreation and aesthetics • industrial water supply • cultural and spiritual values	• N/A - Works will not be undertaken in proximity to the marine environment.	N/A	N/A	N/A	N/A	N/A	**Potential impacts are not considered significant.** • N/A - Works will not be undertaken in proximity to the marine environment.
	3) Marine ecosystems Objective: Protect marine habitats to maintain environmental values including biodiversity, ecological integrity and ecological functioning.	• conservation significant marine and coastal fauna and critical habitat such as nesting, breeding or foraging habitat • conservation significant marine and coastal benthos, flora and vegetation (seagrass meadows, sponge gardens, coral reefs, mangrove communities and salt marshes) • groups of species (species richness and assemblages of species) • ecological functions and processes • species of social, cultural, livelihood and/or economic significance. • integrity of marine ecosystems and the ecological services they supply • biological diversity • functional diversity	• N/A - Works will not be undertaken in proximity to the marine environment.	N/A	N/A	N/A	N/A	N/A	**Potential impacts are not considered significant.** • N/A - Works will not be undertaken in proximity to the marine environment.

Theme	Environmental factor and objective	Indicative environmental values and sensitivities relevant to each environmental factor	Summary of key environmental values and sensitivities of relevance to the development	Proponent's answer to screening questions 1-5. If answer is 'yes' consider, justify or assess the significance (Yes/ No/ Uncertain or Not Applicable (N/A))					Preliminary evaluation of significance (Nature, scale, context and sensitivity; refer definition provided below table)
				Q1	Q2	Q3	Q4	Q5	
		• provision of refuge • food supply							
AIR	1) Air quality Objective: Protect air quality and minimise emissions and their impactso that environmental values are maintained.	• the chemical, physical and biological characteristics of quality air • the biological processes that depend on the air quality	• There are no permanent sources of air pollution in the existing environment of Deep Well. Air quality is likely to be high quality. • Minor influence may include vehicles, seasonal bushfires.	N/A	No	No	No	No	**Potential impacts are not considered significant.** • Impacts from the project are to be managed as per DIPL Standard Specification for Environmental Management. • Air emissions from vehicles will be localised and temporary (during construction) with no impact on the ambient air quality. • There are no proposed point source emissions from the development. • Given the relatively remote location of the site air quality is expected to be good most of the year and the development would not alter the local or regional quality. • Generation of dust associated with construction of, however, impacts will be minimal and clearing will be progressive with limited exposure of soils. • Appropriate dust control measures (DIPL SSEM Guidelines) are considered to be effective in mitigating potential impacts.
	2) Atmospheric processes Objective: Minimise greenhouse gas emissions so as to contribute to the NT Government's goal of achieving net zero greenhouse gas emissions by 2050.	• a contribution to the NT's greenhouse gas emissions • adaptation to a changing climate • capacity of communities and country to respond or adapt to climate change	• Emissions from the development will be minimal in a local scale greenhouse emissions context.	N/A	No	No	No	No	**Potential impacts are not considered significant.** • Increase in greenhouse gas emissions associated with proposal related vehicle movements and construction will be minimal and certainly not significant. • The development would not exceed trigger values in the large emitter policy. • Worst case GHG calculated in order of 6,885.14 tCO2, however as clearing will likely be significantly less than the 180.37 ha being applied for, emissions are likely to be much lower.

PEOPLE	1) Community and economy
	
	Objective: Enhance communities and the economy for the welfare, amenity and benefit of current and future generations of Territorians.
		• dwellings, homelands, communities, towns and suburbs where people live
		• liveable environment
		  ○ good amenity – air quality, noise, aesthetics
		  ○ access to natural resources including bush food
		  ○ recreational use of the natural or built environment (e.g. fishing, cycling, sports, picnics)
		  ○ access to social infrastructure and services including transport and logistics
		• Healthy lifestyles
		  ○ sense of wellbeing
		  ○ good mental health
		  ○ community aspirations
		• Financial security
		  ○ affordable access to food, water, electricity, transport and communication networks
			• N/A	N/A	No	No	No	No	**Potential impacts are not considered significant.**
									
									• The are no existing commercial operations in the development area or that will be impacted by the development.
									• No sites of cultural heritage significance within the gravel pits or camping areas.
									• The development may increase employment opportunities within the local community during the construction period. The proposal will not propose a significant change to the existing activities/uses and are unlikely to result in a long-term adverse impact on the local community and economy.
									• Temporary increase in vehicles during construction activities, but manageable impacts on locals.
									• The operation provides potential social and economic benefits associated with the upgrading of the road.
									• Temporary increase in traffic, including heavy haulage for machinery and equipment.

Theme	Environmental factor and objective	Indicative environmental values and sensitivities relevant to each environmental factor	Summary of key environmental values and sensitivities of relevance to the development	Proponent's answer to screening questions 1-5. If answer is 'yes' consider, justify or assess the significance (Yes/ No/ Uncertain or Not Applicable (N/A))					Preliminary evaluation of significance (Nature, scale, context and sensitivity; refer definition provided below table)
				Q1	Q2	Q3	Q4	Q5	
		○ livelihoods • participation in jobs, businesses and education • existing industries such as agriculture, pastoralism, tourism, fisheries • vulnerable sectors of the community • connections to culture and community (that are not explicitly protected under cultureand heritage legislation addressed in the Culture and heritage factor) ○ Aboriginal rights and interests, including right of access ○ cultural practices ○ sense of belonging, inclusion, connectedness and cohesion ○ healthy social relationships							
	2) Culture and heritage Objective: Protect sacred sites,culture and heritage.	• sacred sites • historic heritage and places • world heritage	• A recent AAPA Certificate has been obtained in 2021 and did not detail any restrictions within the proposed gravel pits or camping areas. • There are no significant European heritage sites within the proposed gravel pits or camping areas.	N/A	No	No	No	No	**Potential impacts are not considered significant.** • There are no Aboriginal sites of significance within the development area. • Potential for accidental entry to sacred sites during construction is low. • The development will not extend into the marine environment and therefore considerations such as shipwrecks are not necessary. • AAPA authority certificates have been obtained for the gravel pit areas or camping areas. The authority contains a conditions to prevent adverse impacts to culture and heritage.
	3) Human health Objective: Protect the health of the Northern Territory population.	• drinking water • recreational water • air quality • bush tucker • radiological limits • biting insects	• The site is not within a Public Drinking Water Area. • Air quality in the area is anticipated to be relatively unimpacted from anthropogenic activities (i.e., no point source emissions as part of the development)	N/A	No	No	No	No	**Potential impacts are not considered significant.** • Given the location it is considered unlikely that significant impacts would occur to human health. • The development works are not expected to cause a significant long-term change to the existing activities/uses of the area and are therefore unlikely to impact on human health.

2.3 Definition of 'Significant Impact'

The Northern Territory *Environment Protection Act 2019* (EP Act) defines a significant impact as:

"A significant impact of an action is an impact of major consequence having regard to:
(a) the context and intensity of the impact; and
(b) the sensitivity, value and quality of the environment impacted on and the duration, magnitude and geographic extent of the impact".

The NT EPA guidance on referral of a proposal (NTEPA, 2021a) outlines how the NT EPA determines that environmental impact assessment of a proposal is not required. The NT EPA will consider the proposal in terms of its potential for significant environmental impacts. In its consideration, the NT EPA will examine:

- Context and intensity of the impact.
- Duration, magnitude and geographic extent of the impact.
- Sensitivity, value and quality of the environment impacted on.

Environmental impact assessment is unlikely to be required where:

- The type of proposal is not considered hazardous in nature.
- Environmental impacts from activities associated with a proposal are readily understood.
- The potential impacts are limited in extent and duration.
- Environmental values and sensitivities are not present or are unlikely to be significantly impacted by proposed activities.
- Impact mitigation is readily available and proven to be effective in limiting significant impacts to the environment.
- Relevant stakeholders have been identified and engaged.

The proposed gravel pits and camping areas are considered to align with the above criteria.

Section 3 Commonwealth Government - Matters of National Environmental Significance Screening

Under the EPBC Act an action will require approval from the commonwealth minister if the action has, will have, or is likely to have, a significant impact on a Matter of National Environmental Significance (MNES). A search of the Commonwealth Protected Matters Search Tool (PMST) (including a 10 km buffer) was undertaken for the Project (DCCEEW 2025). A summary of the results of the PMST are provided in Table 3-1 and Table 3-2. The full PMST results are provided in Attachment 1. The MNES relevant to the Project included listed threatened species and listed migratory species. An assessment of the likelihood of these threatened and migratory species to occur on site and an assessment of the action against Significant Impact Guidelines 1.1 criteria was undertaken.

Table 3-1 Matters of National Environmental Significance (10 km Buffer)

Matters of National Environmental Significance	Relevant	Description
World Heritage Properties	No	There are no world heritage properties in close proximity to the proposal area. The closest world heritage place is Finke Gorge National Park , approximately 130 km south-west of the Project area.
National Heritage Properties	No	There are no national heritage places in close proximity to the proposal area. The closest national heritage place is Finke Gorge National Park, approximately 130 km south-west of the proposal area.
Wetlands of international importance/Ramsar wetlands	No	There are no wetlands of international importance / Ramsar wetlands in close proximity to the Project area.
Great Barrier Reef Marine Park	No	The proposal area is not within the Great Barrier Reef Marine Park. The proposal area is located approximately 1550 km northeast of the proposal area.
Commonwealth Marine Area	No	The proposal is not located within a Commonwealth marine area.
Nationally Threatened Ecological Communities	No	No threatened ecological communities have been identified in the proposal area and none are considered likely to occur.
Nationally Threatened Species	Yes	The PMST identified 15 threatened species as potentially occurring within 10 km of the Project area (refer to Attachment 1). Search of existing data determined 4 terrestrial threatened fauna species are known to occur or possibly occur within the development area.
Migratory Species	Yes	The Project area is not listed on the Ramsar Convention, in which Australia has entered into international agreements to protect the breeding and summer grounds of migratory birds. A PMST showed there were nine migratory species with the potential to occur within 10 km of the proposed Gravel pits and camping areas (refer to Attachment 4).
Nuclear Actions (including Uranium Mining)	No	Not applicable
A water resource, in relation to coal seam gas development and large coal mining development	No	Not applicable

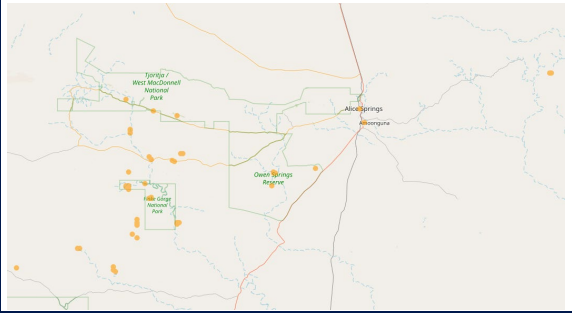
Table 3-2 Likelihood of Occurrence of Threatened Species in the PMST and Other Potential or Confirmed Species

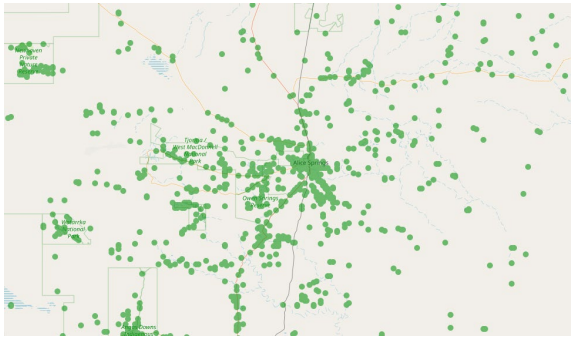
Common Name	Scientific Name	EPBC Status	TPWC Status	Potential Occurrence	Species Summary
Australian Painted Snipe	*Rostratula australis*	E	E	Possible	The Australian Painted-snipe is endemic to Australia, where it is widely distributed; though the species is most frequently recorded in the Murray-Darling Basin. Records from last century are scattered across the Northern Territory (NT). Contemporary NT records have come from McMinns Lagoon near Darwin, Yellow Waters in Kakadu, the Sturt Plateau, the Barkly, the Tanami Desert, and the Alice Springs waste stabilisation ponds. Australian Painted snipes were recorded breeding at Tarrabool Lake on the Barkly Tablelands in 1993. The species occurs in a wide variety of shallow freshwater (and occasionally brackish) wetlands, both permanent and ephemeral, including swamps, inundated claypans and waterlogged grasslands. No preferred habitat in project area however the species may use the proposed gravel pits/ camping areas for foraging (DEPWS 2021a).
Central Australian Rock-wallaby	*Petrogale lateralis centralis*	V	NT	Possible	The central Australian subspecies is centred on the MacDonnell Ranges bioregion of the southern Northern Territory (NT). In the NT, its range extends north to the Davenport and Murchinson Ranges, east to the Jervois Range, west to the Western Australian border and south to the South Australian border. The species occurs in rocky ranges, cliffs, gorges outcrops and associated steep rocky slopes and boulder fields. Preferred habitat including rocky ranges and slopes occur in the project area however there are no known records within the project area or greater surrounds (DEPWS, 2021b).
Curlew Sandpiper*	*Calidris ferruginea*	E	CE	Possible	Curlew sandpipers have a widespread distribution in Australia during the non-breeding season; most birds occupy coastal areas, but records of the species are scattered across most inland regions. In the Northern Territory (NT), Curlew Sandpipers have been recorded from most coastal areas, which are important non-breeding and staging grounds. Shorebird, no preferred habitat in project area (DEPWS 2021c). Regional records at Santa Teresa but present in low numbers. Habitat within the gravel pits / camping areas does not represent significant habitat for the species.

Common Name	Scientific Name	EPBC Status	TPWC Status	Potential Occurrence	Species Summary
Ghost Bat	*Macroderma gigas*	V	NT	Unlikely	The Ghost Bat has a limited distribution across the Northern Territory (NT), It predominantly occurs at the Top End of the NT. The species also occurred widely, albeit sparsely, across Central Australia, but became extinct there in the 1960s to 1980s. Ghost Bats use several roosts or perches each night, but often return to the same daytime roost. Daytime roosts are often in a deep crack or cave and may change seasonally. Females usually aggregate in maternity roosts when breeding, but few such sites are known. The largest known site is near Pine Creek. No preferred roosts of cracks or caves within the project area. Additionally, majority of the records within the greater area date back to the 1980s (DEPWS, 2021d).
Greater Bilby	*Macrotis lagotis*	V	V	Unlikely	The Greater Bilby once occurred widely across Australia, primarily in arid and semi-arid regions, but declined dramatically following European settlement, disappearing from 80% of its former range. It is now restricted to the western deserts region of the NT and Western Australia (Silcock et al., 2023). The Greater Bilby now occurs primarily in open tussock grasslands, Mulga Acacia aneura woodlands and shrublands (including mixed associations with Witchetty Bush A. kempeana), and hummock grasslands. These habitats occur on a variety of landforms, including uplands, rises, sand plains, dunes, drainage systems and other alluvial areas (Abbott, 2001). Although there are known records in the area of clearing, in recent years the populations on the east of the NT have disappeared. Currently the species is predominantly located to the west of the Stuart Highway.
Grey Falcon	*Falco hypoleucos*	V	V	Known	The species has been recorded across the Northern Territory (NT), including on the Tiwi Islands and Groote Eylandt, but the majority of records have been collected from southern arid areas. Prefers areas of sparsely timbered lowland plains, typically on inland drainage systems, where the average annual rainfall is less than 500 mm. Records are scattered across central Australia. Although the species may use the proposed disturbance areas for foraging, the areas are not likely to represent significant habitat for the species. Due care to be taken around large trees with potential hollows as per DIPL SSEM Guidelines. (DEPWS 2021e).

Common Name	Scientific Name	EPBC Status	TPWC Status	Potential Occurrence	Species Summary
Minnie Daisy	*Minuria tridens*	V	V	Unlikely	Apart from a single occurrence in the Murchison Bioregion of Western Australia, *Minuria tridens* is restricted to the arid southern region of the Northern Territory (NT)1. The majority of records are from the MacDonnell Ranges Bioregion, with one other in the Simpson-Strzelecki Dunefields Bioregion. This daisy occurs on dolomite, limestone and calcrete impregnated sandstone hills, rises and ranges. It is typically found on southerly aspects in low shrublands dominated by species such as *Acacia kempeana*, *Senna artemisioides* and/or *Indigofera leucotricha* (DEPWS, 2021g). Although preferred habitat is within the area, no known records are within the proposed disturbance areas or greater surrounding areas.
Night Parrot	*Pezoporus occidentalis*	E	E	Unlikely	The Night Parrot was evidently distributed widely across arid and semi-arid regions of Australia in the mid-1800s to early 1900s. Its current distribution is poorly known. Confirmed contemporary records of Night Parrots have come from widely separated localities in Western Australia and western Queensland. The Night Parrot occurs in spinifex grasslands in stony or sandy areas, and in ephemeral herb-lands, samphire, and chenopod shrublands on floodplains, salt lakes and clay pans. A landscape scale mosaic of foraging, roosting and nesting habitats may be an important determinant of the suitability of an area for the species. No preferred habitat occurs within the project area. Only a single, undated record within the project area/ greater region with no known populations in the project area (DEPWS 2021h).
Plains Rat	*Pseudomys australis*	V	E	Unlikely	The Plains Rat was historically widespread throughout arid and semi-arid Australia and now is only known to occur in the stony deserts of south Australia and the Southern Northern Territory (DEPWS, 2021i) Little is known about the species habitat and food sources however some literature has determined that the rat is mostly herbivorous feeding on seeds and green pick along with insects. A National Recovery Plan has been developed for the species to better understand the distribution of the Plains Rat and the habitat use across the species range. The closest known record is over 100km southeast of the nearest disturbance area. Based on what is currently known about the species it is not likely to be present within the project area.

Common Name	Scientific Name	EPBC Status	TPWC Status	Potential Occurrence	Species Summary
Princess Parrot	*Polytelis alexandrae*	V	V	Possible	This species has a patchy and irregular distribution across the Northern Territory, it occurs in the southern section of the Tanami Desert south to Angas Downs and Yulara and east to Alice Springs. The exact distribution within this range is not well understood, and it is unclear whether the species is resident in the NT. The Princess Parrot usually occupies swales between sand dunes and is occasionally seen on the slopes and crests of dunes. This habitat consists mostly of shrubs with scattered trees. Some records are from riverine forest, woodland and shrubland (DEPWS, 2021j) Species may use the habitat within the proposed disturbance areas for foraging or nesting with the preferred habitat consisting of shrubs and scattered trees located within the disturbance areas.
Rainbow Valley Fuchsia Bush	*Eremophila prostrata*	V	NT	Possible	Rainbow Valley Fuchsia is a perennial shrub endemic to the Northern Territory. Seven populations of the species are currently known two from the Mt. Ooraminna area, four from between Deep Well and Mt Ooramina and another from the Rainbow Valley area (DEPWS, 2021k). The species occurs on sandplains and lower dune slopes that characteristically support hummock grasses and a variety of shrubs and trees. Closest record dated back to 2009 located 5km south of Camp 1. Although not likely it is possible that the species is located within the disturbance footprint.
Red Goshawk	*Erythrotriorchis radiatus*	V	V	Unlikely	The red goshawk occurs across much of northern Australia, from near Broome in the south-west Kimberley to south-eastern Queensland. Within this range it generally occurs in taller forests characteristic of higher rainfall areas, but there are some isolated recent records from central Australia. The preferred habitat is tall open eucalypt forest and riparian areas (including paperbark forest and gallery forests). The conspicuous basket-shaped stick nest is typically placed in large trees near watercourses. No records since the 1990s within Central Australia (Woinarski, 2006). No previous records within the project area.

Common Name	Scientific Name	EPBC Status	TPWC Status	Potential Occurrence	Species Summary
Sharp-tailed Sandpiper*	*Calidris acuminata*	VU	LC	Possible	In the Northern Territory (NT), this species mostly occurs in the northern coastal regions, generally in the east around Groote Eylandt and Gove Peninsula but also around the McArthur River and east of Borroloola. The species is widely but sparsely scattered inland. The species utilises fresh and hypersaline environments, feeding along the edge of water on mudflats, coastal and inland wetlands, and sewage ponds. On migration, the species forages and roosts on rocky and sandy beaches, freshwater habitats, and inland saltwater habitats. Although the species may be present on occasion, the habitat within the disturbance areas does not represent significant habitat for the species (DCCEEW, 2024b).
Slater's Skink	*Liopholis slateri slateri*	E	V	Unlikely	The NT subspecies has been collected from four locations in the Finke and MacDonnell Ranges bioregions centred on Alice Springs. In the 1960s, the subspecies appears to have been abundant around Alice Springs. Fifty-eight specimens were collected at the type locality 5 km South of Alice Springs (1964-65), another 32 specimens at the junction of Ellery Creek and Jerimah Creek, adjacent tributaries of the Finke River near Hermannsburg (1964), and a single specimen on the Palmer River on Tempe Downs Station (1965). Since the 1960s numbers have declined dramatically at several of these sites. Limited records of the species have been recorded since 2005. In general, little is known about the ecology of this lizard. At most sites, Slater's skink occurs in shrubland and open shrubland on alluvial soils close to drainage lines. Although all historical sites have been in open floodplain type situations, a number of the more recently located populations, including Loves Creek, occur on minor drainages in among stony hills (DENR, 2012). Although preferred habitat is within the proposed disturbance areas, based on the historical distribution of the species it appears unlikely that the species would be present noting that majority of the records are to the west of the Stuart Highway. 

Common Name	Scientific Name	EPBC Status	TPWC Status	Potential Occurrence	Species Summary
Southern Whiteface	*Aphelocephala leucopsis*	VU	LC	Known	This species has a wide distribution across all of Australia south of the tropics, from the north- eastern edge of the Western Australian wheatbelt, east to the Great Dividing Range. In the Northern Territory (NT) the species is marked as known or likely to occur in the southern, arid regions (DCCEEW, 2023) Southern whitefaces live in a wide range of open woodlands and shrublands where there is an understorey of grasses or shrubs, or both. These areas are usually in habitats dominated by acacias or eucalypts on ranges, foothills and lowlands, and plains. The species is known to have a broad distribution throughout Central Australia and is known to reside in proximity to the proposed disturbance areas. Distribution detailed by the blue dots below: 

*Listed as migratory at the species level

^Species not in the PMST, but included as other potential or confirmed threatened species

Section 4 Management Measures and Controls

Numerous desktop studies have informed the self-assessment. The self-assessment assumes the accuracy of the information obtained in the studies and is predicated on implementing both standard management and control measures. The following is a compilation of measures that should be implemented. If the development inclusions or extent change, or the following management measures cannot be implemented, the conclusions in this self-assessment should be reviewed for accuracy:

- The following management reports/ guides will be strictly adhered to for all construction and operational activities associated with the Project:
  - DIPL Standard Specification for Environmental Management (2019)
  - Site Specific Environmental Risk Assessment
- Erosion and Sediment Controls will be kept on site at all times and implemented when rain is forecast.
- Limit clearing to the minimum extent required to extract gravel and retain the existing natural environment throughout where possible.
- Identified moderate and high-quality hollow-bearing trees within the gravel pits/camping areas will be retained as part of the onsite natural vegetation and landscape.
- Where possible, avoid removal or disturbance of hollow logs, standing dead trees and large hollow bearing habitat trees, as these provide potential denning sites for wildlife.
- Clearly mark limits of clearing and the clearing or earthworks activities
- Revegetation of exposed areas post gravel extraction.
- In order to facilitate fauna movement, there shall be no fences installed during clearing.
- Monitor roads, introduce controls to minimise roadkill as per DIPL SSEM Guidelines.

Section 5 References

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Attachment 1 – Protected Matters Search Tool Report

EPBC Act Protected Matters Report

This report provides general guidance on matters of national environmental significance and other matters protected by the EPBC Act in the area you have selected. Please see the caveat for interpretation of information provided here.

Report created: 22-Apr-2025

Summary

Matters of National Environment Significance

This part of the report summarises the matters of national environmental significance that may occur in, or may relate to, the area you nominated. Further information is available in the detail part of the report, which can be accessed by scrolling or following the links below. If you are proposing to undertake an activity that may have a significant impact on one or more matters of national environmental significance then you should consider the Administrative Guidelines on Significance.

World Heritage Properties:	None
National Heritage Places:	None
Wetlands of International Importance (Ramsar	None
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	None
Listed Threatened Ecological Communities:	None
Listed Threatened Species:	15
Listed Migratory Species:	9

Other Matters Protected by the EPBC Act

This part of the report summarises other matters protected under the Act that may relate to the area you nominated. Approval may be required for a proposed activity that significantly affects the environment on Commonwealth land, when the action is outside the Commonwealth land, or the environment anywhere when the action is taken on Commonwealth land. Approval may also be required for the Commonwealth or Commonwealth agencies proposing to take an action that is likely to have a significant impact on the environment anywhere.

The EPBC Act protects the environment on Commonwealth land, the environment from the actions taken on Commonwealth land, and the environment from actions taken by Commonwealth agencies. As heritage values of a place are part of the 'environment', these aspects of the EPBC Act protect the Commonwealth Heritage values of a Commonwealth Heritage place. Information on the new heritage laws can be found at https://www.dcceew.gov.au/parks-heritage/heritage

A permit may be required for activities in or on a Commonwealth area that may affect a member of a listed threatened species or ecological community, a member of a listed migratory species, whales and other cetaceans, or a member of a listed marine species.

Commonwealth Lands:	None
Commonwealth Heritage Places:	None
Listed Marine Species:	13
Whales and Other Cetaceans:	None
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	None
Australian Marine Parks:	None
Habitat Critical to the Survival of Marine Turtles:	None

Extra Information

This part of the report provides information that may also be relevant to the area you have

State and Territory Reserves:	None
Regional Forest Agreements:	None
Nationally Important Wetlands:	None
EPBC Act Referrals:	1
Key Ecological Features (Marine):	None
Biologically Important Areas:	None
Bioregional Assessments:	None
Geological and Bioregional Assessments:	None

Details

Matters of National Environmental Significance

Listed Threatened Species			[Resource Information]
Status of Conservation Dependent and Extinct are not MNES under the EPBC Act. Number is the current name ID.			
Scientific Name	Threatened Category	Presence Text	Buffer Status
BIRD			
Aphelocephala leucopsis Southern Whiteface [529]	Vulnerable	Species or species habitat known to occur within area	In feature area
Calidris acuminata Sharp-tailed Sandpiper [874]	Vulnerable	Species or species habitat may occur within area	In feature area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area	In feature area
Erythrotriorchis radiatus Red Goshawk [942]	Endangered	Species or species habitat may occur within area	In feature area
Falco hypoleucos Grey Falcon [929]	Vulnerable	Species or species habitat known to occur within area	In feature area
Pezoporus occidentalis Night Parrot [59350]	Endangered	Species or species habitat may occur within area	In feature area
Polytelis alexandrae Princess Parrot, Alexandra's Parrot [758]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Rostratula australis Australian Painted Snipe [77037]	Endangered	Species or species habitat may occur within area	In feature area
MAMMAL			

Scientific Name	Threatened Category	Presence Text	Buffer Status
Macroderma gigas			
Ghost Bat [174]	Vulnerable	Species or species habitat may occur within area	In feature area
Petrogale lateralis centralis			
Warru, Central Australian Rock-wallaby [90831]	Vulnerable	Species or species habitat may occur within area	In feature area
Pseudomys australis			
Plains Rat, Palyoora, Plains Mouse [108]	Vulnerable	Species or species habitat may occur within area	In buffer area only
PLANT			
Eremophila prostrata			
Rainbow Valley Fuchsia Bush [56749]	Vulnerable	Species or species habitat known to occur within area	In feature area
Minuria tridens			
Minnie Daisy [13753]	Vulnerable	Species or species habitat likely to occur within area	In feature area
REPTILE			
Liopholis kintorei			
Great Desert Skink, Tjakura, Warrarna, Mulyamiji, Tjalapa, Nampu [83160]	Vulnerable	Species or species habitat may occur within area	In feature area
Liopholis slateri slateri			
Slater's Skink, Floodplain Skink [83163]	Endangered	Species or species habitat may occur within area	In feature area

Listed Migratory Species [Resource Information]

Scientific Name	Threatened Category	Presence Text	Buffer Status
Migratory Marine Birds			
Apus pacificus			
Fork-tailed Swift [678]		Species or species habitat likely to occur within area	In feature area
Migratory Terrestrial Species			
Motacilla cinerea			
Grey Wagtail [642]		Species or species habitat may occur within area	In feature area
Motacilla flava			
Yellow Wagtail [644]		Species or species habitat may occur within area	In feature area
Migratory Wetlands Species			

Scientific Name	Threatened Category	Presence Text	Buffer Status
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat likely to occur within area	In feature area
Calidris acuminata Sharp-tailed Sandpiper [874]	Vulnerable	Species or species habitat may occur within area	In feature area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area	In feature area
Calidris melanotos Pectoral Sandpiper [858]		Species or species habitat may occur within area	In feature area
Charadrius veredus Oriental Plover, Oriental Dotterel [882]		Species or species habitat may occur within area	In feature area
Glareola maldivarum Oriental Pratincole [840]		Species or species habitat may occur within area	In feature area

Other Matters Protected by the EPBC Act

Listed Marine Species			[Resource Information]
Scientific Name	Threatened Category	Presence Text	Buffer Status
Bird			
Actitis hypoleucos Common Sandpiper [59309]		Species or species habitat likely to occur within area	In feature area
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area overfly marine area	In feature area
Bubulcus ibis as Ardea ibis Cattle Egret [66521]		Species or species habitat may occur within area overfly marine area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Calidris acuminata](#) Sharp-tailed Sandpiper [874]	Vulnerable	Species or species habitat may occur within area	In feature area
[Calidris ferruginea](#) Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area overfly marine area	In feature area
[Calidris melanotos](#) Pectoral Sandpiper [858]		Species or species habitat may occur within area overfly marine area	In feature area
[Chalcites osculans as Chrysococcyx osculans](#) Black-eared Cuckoo [83425]		Species or species habitat known to occur within area overfly marine area	In feature area
[Charadrius veredus](#) Oriental Plover, Oriental Dotterel [882]		Species or species habitat may occur within area overfly marine area	In feature area
[Glareola maldivarum](#) Oriental Pratincole [840]		Species or species habitat may occur within area overfly marine area	In feature area
[Merops ornatus](#) Rainbow Bee-eater [670]		Species or species habitat may occur within area overfly marine area	In feature area
[Motacilla cinerea](#) Grey Wagtail [642]		Species or species habitat may occur within area overfly marine area	In feature area
[Motacilla flava](#) Yellow Wagtail [644]		Species or species habitat may occur within area overfly marine area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Rostratula australis as Rostratula benghalensis (sensu lato)			
Australian Painted Snipe [77037]	Endangered	Species or species habitat may occur within area overfly marine area	In feature area

Extra Information

EPBC Act Referrals				[Resource Information]
Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Not controlled action				
Improving rabbit biocontrol: releasing another strain of RHDV, sthrn two thirds of Australia	2015/7522	Not Controlled Action	Completed	In feature area

Caveat

1 PURPOSE

This report is designed to assist in identifying the location of matters of national environmental significance (MNES) and other matters protected by the Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act) which may be relevant in determining obligations and requirements under the EPBC Act.

The report contains the mapped locations of:

- World and National Heritage properties;
- Wetlands of International and National Importance;
- Commonwealth and State/Territory reserves;
- distribution of listed threatened, migratory and marine species;
- listed threatened ecological communities; and
- other information that may be useful as an indicator of potential habitat value.

2 DISCLAIMER

This report is not intended to be exhaustive and should only be relied upon as a general guide as mapped data is not available for all species or ecological communities listed under the EPBC Act (see below). Persons seeking to use the information contained in this report to inform the referral of a proposed action under the EPBC Act should consider the limitations noted below and whether additional information is required to determine the existence and location of MNES and other protected matters.

Where data is available to inform the mapping of protected species, the presence type (e.g. known, likely or may occur) that can be determined from the data is indicated in general terms. It is the responsibility of any person using or relying on the information in this report to ensure that it is suitable for the circumstances of any proposed use. The Commonwealth cannot accept responsibility for the consequences of any use of the report or any part thereof. To the maximum extent allowed under governing law, the Commonwealth will not be liable for any loss or damage that may be occasioned directly or indirectly through the use of, or reliance on the contents of this report.

3 DATA SOURCES

Threatened ecological communities

For threatened ecological communities where the distribution is well known, maps are generated based on information contained in recovery plans, State vegetation maps and remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

Threatened, migratory and marine species

Threatened, migratory and marine species distributions have been discerned through a variety of methods. Where distributions are well known and if time permits, distributions are inferred from either thematic spatial data (i.e. vegetation, soils, geology, elevation, aspect, terrain, etc.) together with point locations and described habitat; or modelled (MAXENT or BIOCLIM habitat modelling) using point locations and environmental data layers.

Where little information is available for a species or large number of maps are required in a short time-frame, maps are derived either from 0.04 or 0.02 decimal degree cells; by an automated process using polygon capture techniques (static two kilometre grid cells, alpha-hull and convex hull); or captured manually or by using topographic features (national park boundaries, islands, etc.).

In the early stages of the distribution mapping process (1999-early 2000s) distributions were defined by degree blocks, 100K or 250K map sheets to rapidly create distribution maps. More detailed distribution mapping methods are used to update these distributions when time permits.

4 LIMITATIONS

The following species and ecological communities have not been mapped and do not appear in this report:

- threatened species listed as extinct or considered vagrants;
- some recently listed species and ecological communities;
- some listed migratory and listed marine species, which are not listed as threatened species; and
- migratory species that are very widespread, vagrant, or only occur in Australia in small numbers.

The following groups have been mapped, but may not cover the complete distribution of the species:

- listed migratory and/or listed marine seabirds, which are not listed as threatened, have only been mapped for recorded breeding sites; and
- seals which have only been mapped for breeding sites near the Australian continent

The breeding sites may be important for the protection of the Commonwealth Marine environment.

Refer to the metadata for the feature group (using the Resource Information link) for the currency of the information.

Acknowledgements

This database has been compiled from a range of data sources. The department acknowledges the following custodians who have contributed valuable data and advice:

-Office of Environment and Heritage, New South Wales
-Department of Environment and Primary Industries, Victoria
-Department of Primary Industries, Parks, Water and Environment, Tasmania
-Department of Environment, Water and Natural Resources, South Australia
-Department of Land and Resource Management, Northern Territory
-Department of Environmental and Heritage Protection, Queensland
-Department of Parks and Wildlife, Western Australia
-Environment and Planning Directorate, ACT
-Birdlife Australia
-Australian Bird and Bat Banding Scheme
-Australian National Wildlife Collection
-Natural history museums of Australia
-Museum Victoria
-Australian Museum
-South Australian Museum
-Queensland Museum
-Online Zoological Collections of Australian Museums
-Queensland Herbarium
-National Herbarium of NSW
-Royal Botanic Gardens and National Herbarium of Victoria
-Tasmanian Herbarium
-State Herbarium of South Australia
-Northern Territory Herbarium
-Western Australian Herbarium
-Australian National Herbarium, Canberra
-University of New England
-Ocean Biogeographic Information System
-Australian Government, Department of Defence
Forestry Corporation, NSW
-Geoscience Australia
-CSIRO
-Australian Tropical Herbarium, Cairns
-eBird Australia
-Australian Government – Australian Antarctic Data Centre
-Museum and Art Gallery of the Northern Territory
-Australian Government National Environmental Science Program
-Australian Institute of Marine Science
-Reef Life Survey Australia
-American Museum of Natural History
-Queen Victoria Museum and Art Gallery, Inveresk, Tasmania
-Tasmanian Museum and Art Gallery, Hobart, Tasmania
-Other groups and individuals

The Department is extremely grateful to the many organisations and individuals who provided expert advice and information on numerous draft distributions.

Please feel free to provide feedback via the Contact us page.

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Unexpected Finds Protocol – Aboriginal archaeological places and objects

Aboriginal archaeological places and objects may be discovered at any point, including in areas that have been previously assessed as being free of archaeological materials. Under the *Heritage Act 2011*, all Aboriginal archaeological places and objects are protected in-situ. The following steps should be actioned if a suspected Aboriginal archaeological place or object is discovered:

1. Refer to **Discovery of Potential Human Remains** procedure below if the discovery is suspected of being human remains.

2. All work within the vicinity of suspected archaeological materials must cease immediately and the area flagged/fenced appropriately to ensure that no further work can be undertaken within it.

3. The discovery must be reported immediately to the Site Supervisor, who must notify the Department of Logistics and Infrastructure (DLI) Superintendent

4. The DLI Superintendent will report the matter to the Environment and Sustainability Unit of DLI who notify the NT Heritage Branch on (08) 8999 5039 or at Heritage.Branch@nt.gov.au.

   A report in writing on the discovery will be submitted by the ESU, as soon as practical, to the CEO of the Heritage Branch (Section 114). The report must include:

   a. a description of the place or object [ideally photographs with a scale];

   b. its location [including spatial data];

   c. the person's name and address; and

   d. if known by the person – the name and address of the owner or occupier of the place or place where the object is located.

5. Work is not to recommence in the vicinity of the find until directed by the DLI Superintendent. The DLI will not be able to provide a direction to proceed until approval is provided by the Heritage Branch of the Northern Territory Government.

Note the following:

1. It is an offence to remove or engage in conduct that results in damage to Aboriginal archaeological places or objects (Section 112).

2. If works are to continue within the area of an identified archaeological place or object, an Application to Carry out Works must be submitted on the approved form to the Northern Territory Heritage Council for consideration (Section 72).

   The recognised Aboriginal traditional owners or custodians of a place or object should be consulted as part of the Application to Carry Out Work process.

3. For major works, the Minister will consider the recommendations of the Heritage Council and determine whether a protected Aboriginal archaeological place or object can be impacted. Works cannot recommence within the area until this determination is made.

Unexpected Finds Protocol: Suspected Human Remains

If suspected human remains are discovered:

1. All work within a 50 m radius of potential human remains must stop immediately.
2. The discovery must be immediately reported to the Site Supervisor who must immediately notify the Northern Territory Police on 131 444 and the Department of Logistics and Infrastructure (DLI) Superintendent.

   No temporary fencing should be erected unless directed to do so by the police.
3. The Police will take control of the site as a potential crime scene.
4. If there are reasonable grounds to believe that the remains are:
   a. A crime scene – the Police will provide direction on the management of the discovery.
6. If remains are suspected to be Aboriginal ancestral or historical remains rather than a crime scene, The DLI Superintendent will report the matter to the Environment and Sustainability Unit of DLI.

   The ESU will immediately notify:

   i. A Heritage Officer at NT Heritage Branch on (08) 8999 5039 or at Heritage.Branch@nt.gov.au, and;

   ii. The Aboriginal Areas Protection Authority at (08) 8999 4365, and;

   iii. A report in writing on the discovery must be made as soon as practical to the CEO of the Heritage Branch (Section 114). The report must include:

      1. a description of the place or object [ideally photographs with a scale];
      2. its location [including spatial data];
      3. the person's name and address; and
      4. if known by the person – the name and address of the owner or occupier of the place or place where the object is located.

      This report can be sent directly to heritage.branch@nt.gov.au
5. Work is not to recommence in the vicinity of the find until directed by the DLI Superintendent. The DLI will not be able to provide a direction to proceed until direction is provided by the relevant authorities (NT Police, Aboriginal Areas Protection Authority, and the NT Heritage Branch).