



Our Ref: EP-04217

Regulation and Compliance
Division

GPO Box 618
Adelaide SA 5001

ABN 83 768 683 934
DEM.exploration@sa.gov.au
www.energymining.sa.gov.au

08/09/2026

Amy Jacka
Tenement Manager
Iron Genesis Pty Ltd
31 Flemington Street
GLENSIDE SA 5065

Via email: amy.jacka@havilah-resources.com.au

Dear Ms Jacka

Notification of Approved Exploration Program for Environment Protection and Rehabilitation (EPEPR)

In reference to your final submission dated 26 August 2026, the EPEPR has been approved pursuant to section 70B(5) of the [Mining Act 1971](#) (the Mining Act).

The approved EPEPR will be made publicly available on the Mining Register and the Department for Energy and Mining (DEM) website. Details of the approved EPEPR are listed below.

Approval Granted to	Iron Genesis Pty Ltd
Tenement Type & Number	Exploration Licence and number EL 6041
Program Number	EP-04217
EPEPR Description	To explore and develop oxide mineralisation from two areas within EL6041, including the Green and Gold and Wilkins prospects.

You are reminded that you must always implement and comply with this approved EPEPR.

This approval does not constitute endorsement of the systems that you have in place to manage the mining operations in compliance with the Mining Act. Whilst your capability to undertake this activity has been considered in this approval, the responsibility for compliance with the Mining Act always remains with the tenement holder.

The legislative requirements associated with the EPEPR are outlined below, and certain requirements must be actioned prior to commencement of operations authorised by the EPEPR.

1	Public Liability Insurance Pursuant to Regulation 81 of the Mining Regulations 2020 (the Mining Regulations), you are required to provide a copy of a certificate evidencing the insurance coverage over the tenement.
2	Compliance Reporting You are required to submit an annual exploration compliance report. The report is required to be submitted within 2 months after the anniversary of the date the licence

	was granted, or in accordance with joint reporting requirements agreed to with the Minister. Please refer to the DEM website for more information on the reporting requirements. You are reminded that a separate compliance report is required 2 months after the expiry or surrender of the EL.
3	EPEPR Timeframe The EPEPR is approved for a period of twelve months from the date of this letter. A further 3 months after expiry of the 12-month period is provided to complete all rehabilitation.

Please note, proposed changes to exploration operations stated in the approved EPEPR may require a EPEPR review to be submitted for assessment. Where a EPEPR review is required, implementation of the operational changes can only occur after the revised EPEPR is approved. Further information on when an exploration PEPR review is required can be found in Departmental guideline [MG22 Conducting mineral exploration](#).

In addition to the requirements under the Mining Act, you are reminded that your operation will have other legislative requirements that you will need to comply with.

If you have any further queries, please contact DEM staff as below:

General enquiries	Jason Perry Senior Assessment Officer, Exploration Regulation DEM.exploration@sa.gov.au
--------------------------	---

Yours sincerely



Simon Constable

DIRECTOR, MINERALS REGULATION

In accordance with delegated powers and functions

The Department's Regulatory Guidelines, Ministerial Determinations and Information Sheets are available at: <https://energymining.sa.gov.au/industry/minerals-and-mining/forms-legislation-and-guidance>

Exploration PEPR - EPEPR | 12 Month PEPR

Reference Number: EP-04217 • Status: Assessment

Select Applicable PEPR

Previous MERS EPEPR?

☒ No ☐ Yes

Previous PEPR ID

—

Search PEPRs

—

Applicant and General Details

Applicant Details

Amy Jacka

Full Name * Amy Jacka Business Phone
Mobile Phone 0438 822 771 Email * amy.jacka@havilah-resources.com.au (mailto:amy.jacka@havilah-resources.com.au)

Project Supervisor

Prue Kobiolke, Senior Geologist with Pacgold Limited (Mob: 040 213 4747). A professional geologist with a Bachelor of Science from the Queensland University of Technology, Brisbane and approximately 22 years of experience in greenfields and brownfields mineral exploration for a variety of commodities throughout Australia and New Zealand, with a strong focus on epithermal gold exploration and mining. Miss Kobiolke is employed as a full-time geologist with Pacgold and has held several positions with ASX-listed resource companies, including interim Mine Manager with Savannah Gold in Far North QLD and Supervising Project Geologist with Oceana Gold in New Zealand.

General Details

Tenement Details *

Tenement Type	Tenement Name	Tenement Holder
Exploration Licence	EL 6041	Iron Genesis Pty Ltd

Operating Company

Exco Operations (SA) Pty Limited

If there is another Operating Company, please provide

Account Name	Entity Type	Registered Address	Registered Email
There are no records to display.			

Project/prospect name

Green and Gold (Prospect) and Wilkins (Wilkins East and Wilkins West Prospect) Projects

Mineral Model

The primary gold–copper mineralisation at the Green and Gold prospect occurs within a northeast–southwest–striking stratabound magnetite skarn developed within a host sequence of calcareous sandstone, muscovite–biotite schist and pegmatite. Overall, the model interpretation is of a structurally focused, possibly intrusion-related skarn system with strong potential for down-dip sulphide mineralisation, fault-offset strike extensions and concealed continuity beneath alluvium.

The primary mineralisation model for the Wilkins project is copper and gold mineralisation along an east-west-striking siliceous ironstone contact with a granitic dyke of the Wiperaminga Subgroup. Previous drilling has identified a magnetite-bearing body with gold and copper mineralisation primarily as discontinuous pods. The ironstone appears to be a silicified gossan, mainly composed of magnetite, that dips very steeply to the north.

Primary Commodities *

Commodity Name ↑	Commodity Group	Grade
Gold	Exploration	

Secondary Commodities

Commodity Name ↑	Commodity Group	Grade
Copper	Exploration	

Project Description

EL6041 is held by Havilah Resources Ltd ('Havilah'). Pacgold Ltd ('Pacgold') has the rights to explore and develop oxide mineralisation from two areas within EL6041, including the Green and Gold and Wilkins prospects, under an Agreement between Havilah and GBM Resources Ltd ('GBM'). Upon purchasing GBM's subsidiary companies that own and operate the White Dam Gold Operation, Pacgold has assumed GBM's rights under the Agreement. The tenement is located approximately 16 km east of Olary along the Barrier Hwy.
Attached file: Green and Gold and Wilkins Project Description.pdf.
EPEPR Figure 01 - Locality map (Green and Gold and Wilkins Project Areas).

Proposed Project Schedule

Start Date

30/09/2026

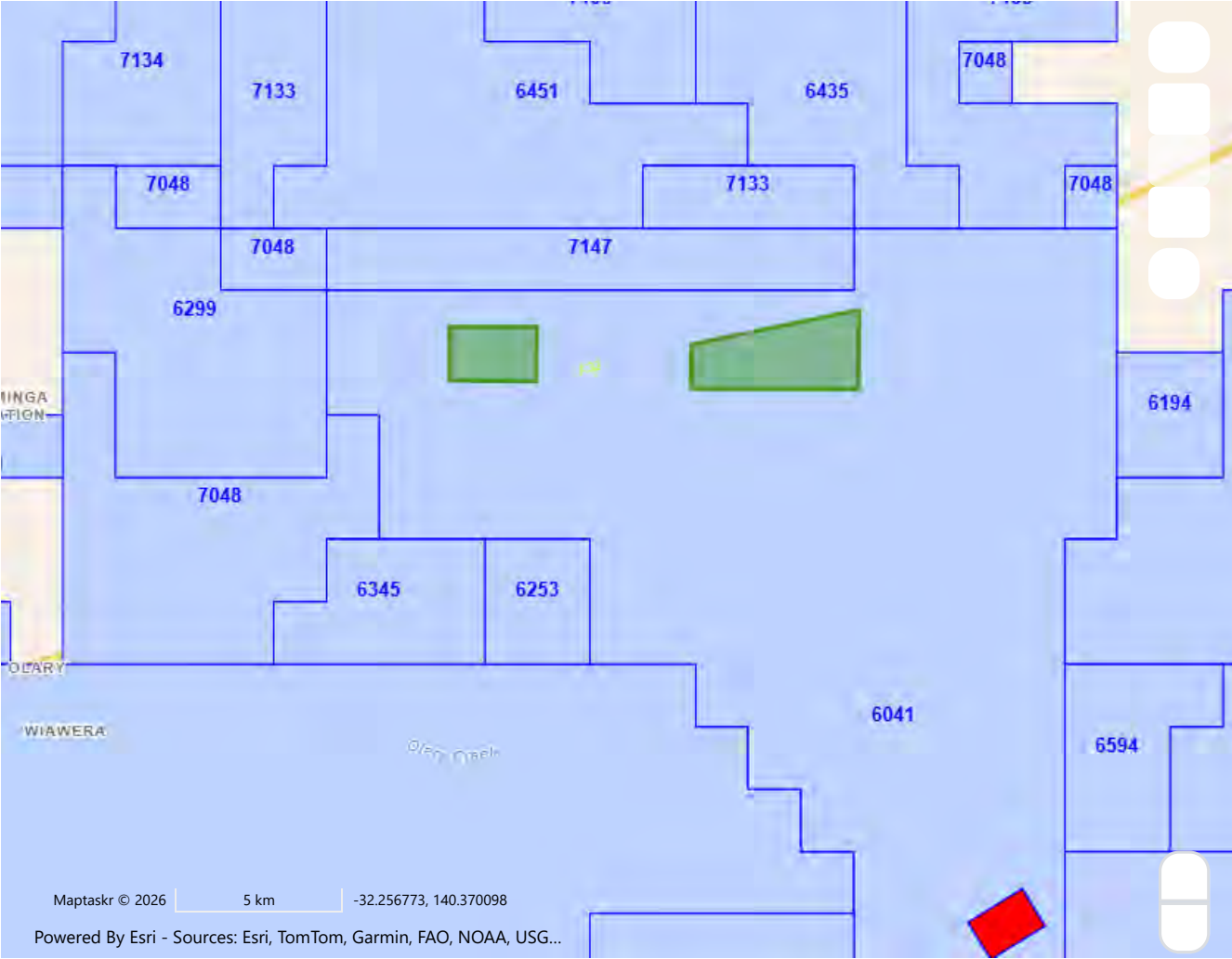
End date

30/09/2027

Clearly describe why a PEPR review is required, summarise all content changes made to the approved PEPR, and provide appropriate justification where a time extension is required.

N/A

Identify Application Area



Map Layer Intersects

Application Area Details

Location Description

within 1 km of Barrier Hwy between the localities of Olary and Cockburn

Area (Sqkm)

13.32

Spatial Data Intersects - Summary Table

Show

10

 entries

Search:

Spatial Layer Name	Category	Referral	Intersect Count
1:250K mapsheets	Other		2
Cadastral Parcels	Other		2
Determinations of Native Title	Other		2
Exploration licences (mineral/opal)	No-Go Area		2

Spatial Layer Name	Category	Referral	Intersect Count
Pastoral Lease Boundaries	Other		3
Registered Native Title Determination Applications	Other		1
Schedule of Native Title Claims	Other		1
Terrestrial - BOM Groundwater Dependant Atlas (GDE Atlas)	Other		4

Showing 1 to 8 of 8 entries

Previous1Next

Spatial Data Intersects - Details Table

Show10▼entries

Search:

Spatial Layer Name	Shape	Primary Attribute	All Attributes	Category
1:250K mapsheets	Shape 1	OLARY	View attributes	Other
1:250K mapsheets	Shape 1	OLARY	View attributes	Other
Cadastral Parcels	Shape 1	H835400BL897	View attributes	Other
Cadastral Parcels	Shape 1	H835400BL655	View attributes	Other
Determinations of Native Title	Shape 1	Adnyamathanha, Ngadjuri and Wilyakali Overlap Claim	View attributes	Other
Determinations of Native Title	Shape 1	Wilyakali	View attributes	Other
Exploration licences (mineral/opal)	Shape 1	EL 6041	View attributes	No-Go Area
Exploration licences (mineral/opal)	Shape 1	EL 6041	View attributes	No-Go Area
Pastoral Lease Boundaries	Shape 1	WIAWERA	View attributes	Other
Pastoral Lease Boundaries	Shape 1	BULLOO CREEK	View attributes	Other

Showing 1 to 10 of 17 entries

Previous12Next

Program Preparation

Work undertaken in preparing the proposal

Data collation, including historical Mines Department and SADME records, Mining Review reports and modern company exploration reports, was completed. Available maps of prospect geology, old mine workings and underground development were spatially located and digitised. Drill program designs and on-the-ground access assessments for all mine leases have also been completed, including assessments of potential impacts on environmentally and culturally sensitive locations.

A review of Native Title and Cultural Heritage clearance requirements, including discussions with Havilah Resources staff and consultants, was completed. A Native Title Mining Agreement is in place, negotiated between the Ngadjuri Adnyamathanha Wilyakali Native Title Aboriginal Corporation and Havilah (for Green and Gold), and a Heritage Survey agreement is in place between the Wilyakali and Havilah Resources (for Wilkins). Cultural Heritage clearances will be required prior to any ground-disturbing works..

Data, information, and maps from publicly available online sources (e.g., SARIG, WaterConnect) were used to collate, present, and interpret relevant environmental data.

Operator Capability

EL 6041 is held by Iron Genesis Pty Ltd (subsidiary of Havilah Resources Ltd), which has executed an agreement with Pacgold Ltd through its subsidiary companies Exco Operations (SA) Pty Ltd and Polymetals (White Dam) Pty Ltd to explore for gold at the Green and Gold and Wilkins prospects.

Pacgold Limited is a mineral exploration and development company that was listed on the ASX on 8 July 2021 and has held, and recently divested, 14 EPMs and 8 MLs for gold in Cape York, with the intention of concentrating solely on the recently acquired White Dam Project in South Australia. Combined, the Pacgold management team has over 100 years of experience in the Australian mineral exploration industry.

Since acquiring the Queensland tenements and commencing exploration in June 2021, Pacgold has drilled over 40,000 metres and has recently published a maiden JORC-compliant Mineral Resource Estimation for its Alice River project in Queensland. In addition, the company has undertaken extensive regional geophysical and geochemical exploration of the tenements and has a pipeline of targets for future drill testing, which are highly prospective for gold mineralisation.

The White Dam Gold Mine site has developed several systems, processes, procedures and plans as part of its operations. Applicable to the exploration program are the following:

- A Safety Management System that includes:
 - ☐ Environmental, Health and Safety, Risk Management and Drug and Alcohol policies
 - ☐ Emergency Management and Response procedures
 - ☐ Incident Investigations procedures
 - ☐ Detailed Safe Work Procedures
 - ☐ Detailed JSEAs for site-specific tasks
 - ☐ Risk registers
 - ☐ Work permit system
 - ☐ Complaints management procedure
- Environmental Monitoring Handbook
- A Radiation Management Plan

All personnel, visitors and contractors arriving at the site are provided with a site induction that covers safety, environment and heritage. A copy of the approved EPEPR will be provided to all personnel involved in the exploration program.

As part of the exploration program, a drillhole rehabilitation register will be maintained to document the rehabilitation effort, together with photos of drill pads before and after drilling.

Landholders will be informed of the planned exploration activities using Form 21B.

Lease Conditions

Land Access

Identify the Owners of Land and authority to access land

Land Title Reference	Plan Parcel Reference	Type of Land	Owner of Land ↑	Land Access Authorisation Method	Date of Form 21 or Agreement Signed	Instrument or Uploaded Document Id	Uncheck land not applicable to your application ar
CL 6171/861	H83540 OBL655	Crown	Andrew and Helen Treloar - Tikalina Station	Service of Notice of Entry	25/06/2026	21 B NT-01285	Checked
CL 6196/752	H83540 OBL897	Crown	Geoff and Lynette Riggs - Bulloo Creek Station	Service of Notice of Entry	28/06/2026	21 B NT-01284	Checked

Is any of the application area over a road, street or highway

No

Woomera Prohibited Area (WPA)

Will activities be conducted within the WPA

No

In which zone will activities be conducted?

Name	Are you intending to undertake work?	Closure start date	Closure end date
There are no records to display.			

Does the tenement holder hold a valid and current Resource Exploration Permit under the WPA Rule?

—

Permit No.

—

What is the expiry date of the permit?

—

Does the Exploration Permit allow the operator to conduct exploration operations in the WPA?

—

Other Land Owned or Controlled by the Commonwealth Department of Defence

Indicate if you are intending to undertake exploration operations within the identified defence land

No

Other Commonwealth defence land

Defence Land	Applicable
There are no records to display.	

Do you have a Deed of Access with Defence?

No

Expiry date of the Deed of Access

—

Date the Range Control Officer granted permission to conduct the proposed exploration operations.

—

Describe the results of consultation and how any concerns raised were addressed

Native Title

Does 'Native Title land' exist within the application area?

Yes

Using the table below, describe how you have complied with the requirements of Part 9B of the Mining Act for each tenement.

Name of Determined / Claimant Group	Agreement Type	Instrument Number	Applicable
Adnyamathanha, Ngadjuri and Wilyakali Overlap Claim	Native Title	NTMA #286	Yes
Wilyakali	Native Title		Yes

Provide any additional relevant information

With respect to the Green and Gold Project, a review of Native Title and Cultural Heritage clearance requirements, including discussions with Havilah Resources staff and consultants, was completed. A Native Title Mining Agreement is in place, negotiated between the Ngadjuri Adnyamathanha Wilyakali Native Title Aboriginal Corporation and Havilah. As per the extract of the Mining Register: Instrument for EL 6041, Mining Native Title Agreement 286 between Havilah Resources NL and The Adnyamathanha Native Title Claim Group was endorsed on 02/07/2013. Pursuant to a determination of the Federal Court on 14 December 2018, Native Title Mining Agreement RI 286 has been novated. Ngadjuri Adnyamathanha Wilyakali Native Title Aboriginal Corporation stands in the place of the Claimants in the Agreement. EPEPR Figure 04 - Native Title (Green and Gold).

With respect to the Wilkins Project, a review of Native Title and Cultural Heritage clearance requirements was completed, and a Heritage Survey agreement is in place between the Wilyakali and Havilah Resources. Pacgold is currently in discussion with relevant parties to undertake an Aboriginal heritage survey of the project area. The survey will be completed prior to the commencement of the exploration drilling program. EPEPR Figure 05 - Native Title (Wilkins Project).

Exempt Land

Exempt Land

Has Exempt land been identified?

No

If a "Waiver of Exemption" has been reached to waive the benefit of the exemption, a notice of the agreement must be given to the Mining Registrar, either within 21 days after the agreement was entered into or when an application for the mineral tenement is made under the Mining Act.

In the table below enter the relevant instrument numbers for any Form 23C - Notice of wavier of exemption provided to the Mining Registrar.*

Land Title	Plan Parcel	Owner of Land that has benefit of exemption ↑	Why is the land exempt land?	Waiver of exemption(s) been negotiated	Instrument Number or Uploaded Document Id
CL 6171/861	H835400 BL655	Andrew and Helen Treloar - Tikalina Station			
CL 6196/752	H835400 BL897	Geoff and Lynette Riggs - Bulloo Creek Station			

Consultation

Consultation

Stakeholder ↑	Land Use	Matters raised	Stakeholder concerns raised and how addressed
Andrew and Helen Treloar - Tikalina Station	Grazing	None raised	A face-to-face meeting was held with the landholder to discuss any concerns with the proposed exploration program. No concerns were raised by the landholder.
Geoff and Lynette Riggs - Bulloo Creek Station	Grazing	None raised	Long-standing positive relationship with the owners of Bulloo Ck Station with GBM and now Pacgold.

If any individual or group of similar affected persons were not able to be consulted, what steps were taken to consult with them?

N/A

Provide any additional relevant information.

N/A

Describe any council policies (or out of council) or development plans that may impact the program area and a description of any known plans for future land use changes by other parties.

N/A

Description of Environment

Proximity to Infrastructure and Housing

Provide the following information:

Settlements: The Green and Gold project application area is located approximately 96 km southwest of Broken Hill, North of the Barrier Highway between the localities of Olary (approximately 16 km to the southwest) and Cockburn (approximately 50 km to the northeast). The Wilkins project application area is located approximately 88 km southwest of Broken Hill, and south of the Barrier Highway and between the localities of Olary (approximately 22 km to the southwest) and Cockburn (approximately 44 km to the northeast).

Roads and Tracks: The Barrier Highway is the main sealed road connecting Adelaide and Broken Hill to the project area. Access to the Green and Gold project area from the Barrier Highway is via unsealed tracks through Bulloo Creek Station. Access from the Barrier Highway to the Wilkins project area is via unsealed tracks through Tikalina Station.

Homesteads/human infrastructure: The Green and Gold project area of agreement with Havilah is located within Bulloo Creek Pastoral Station. There are no houses or built infrastructure within or in the immediate vicinity of the agreement area. The nearest homestead is the Bulloo Creek Homestead, located approximately 5 km northwest of Green and Gold. The Wilkins project area of agreement with Havilah covers only Tikalina Pastoral Station. There are no houses or built infrastructure within or in the immediate vicinity of the agreement area. The nearest homestead is the Tikalina Homestead, located approximately 2.5 km southeast of Wilkins East.

Railway lines, transmission lines, gas and water pipes and communication lines: A 371 km long east-west section of rail freight line runs from Crystal Brook in South Australia to Broken Hill in New South Wales, near parallel to the Barrier Highway. Exploration activities will not interact with this infrastructure. No mobile phone service is available in the project area. No subsurface cables are known to run through the project area.

White Dam Gold Mine: The project areas are located ± 60 km southwest of the White Dam Gold Mine operation, which currently comprises a leaching operation using the material on the existing Heap Leach Pad. No active mining is currently being undertaken at White Dam Gold Mine.

EPEPR Figure 01 - Locality map (Green and Gold and Wilkins Projects)

EPEPR Figure 02 - Land access (Green and Gold).

EPEPR Figure 03 - Land access (Wilkins Project).

EPEPR Figure 06 – Green and Gold Drilling Program (Green and Gold).

EPEPR Figure 07 – Wilkins Drilling Program (Wilkins).

EPEPR Figure 08 – Wilkins East Drilling Program (Wilkins).

EPEPR Figure 09 – Wilkins West Drilling Program (Wilkins).

Attach Files

Expand/Collapse

File Name	File Size (Mb)	Created On	Download
EPEPR Figure 01 - Locality map (Green and Gold and Wilkins Projects).pdf	1.93 Mb	10-08-2026 11:59:30	Download (MERS/EP-04217/Proximity to infrastructure/EPEPR Figure 01 - Locality map (Green and Gold and Wilkins Projects)_2026-08-10T02-29-28.817Z.pdf)

File Name	File Size (Mb)	Created On	Download
EPEPR Figure 02 - Land access (Green and Gold).pdf	0.29 Mb	10-08-2026 11:59:30	Download (MERS/EP-04217/Proximity to infrastructure/EPEPR Figure 02 - Land access (Green and Gold)_2026-08-10T02-29-28.836Z.pdf)
EPEPR Figure 03 - Land access (Wilkins).pdf	0.29 Mb	10-08-2026 11:59:30	Download (MERS/EP-04217/Proximity to infrastructure/EPEPR Figure 03 - Land access (Wilkins)_2026-08-10T02-29-28.819Z.pdf)
EPEPR Figure 06 - Green and Gold Drilling Program (Green and Gold Project).pdf	0.29 Mb	10-08-2026 11:59:56	Download (MERS/EP-04217/Proximity to infrastructure/EPEPR Figure 06 - Green and Gold Drilling Program (Green and Gold Project)_2026-08-10T02-29-54.239Z.pdf)
EPEPR Figure 07 - Wilkins Drilling Program (Wilkins).pdf	0.29 Mb	10-08-2026 11:59:56	Download (MERS/EP-04217/Proximity to infrastructure/EPEPR Figure 07 - Wilkins Drilling Program (Wilkins)_2026-08-10T02-29-54.239Z.pdf)

File Name	File Size (Mb)	Created On	Download
EPEPR Figure 08 - Wilkins East Drilling Program (Wilkins).pdf	0.34 Mb	10-08-2026 11:59:56	Download (MERS/EP-04217/Proximity to infrastructure/EPEPR Figure 08 - Wilkins East Drilling Program (Wilkins)_2026-08-10T02-29-54.228Z.pdf)
EPEPR Figure 09 - Wilkins West Drilling Program (Wilkins).pdf	0.29 Mb	10-08-2026 11:59:56	Download (MERS/EP-04217/Proximity to infrastructure/EPEPR Figure 09 - Wilkins West Drilling Program (Wilkins)_2026-08-10T02-29-54.228Z.pdf)

Landform, topography, soil and surface cover

Describe the topography and soil and surface cover (e.g. gibber) of the general area affected by the exploration program. Include details on the susceptibility to compaction, erosion, dust, runoff and visual attributes (steep or undulating slopes, plains, rocky outcrops, dunes, saltpans, claypans etc) any other characteristics (e.g. acid sulphate soils) that may require control strategies to reduce environmental impacts during operations or rehabilitation.

The Green and Gold project area is located on the Olary Spur and the eastern edge of the Olary upland region, situated north-east of the Olary Ranges. The topography in and around the project area comprises low-lying foothills with vertical relief up to 307 mAHD. Topography in the northern part of the project area is dominated by hills around 280 mAHD, with the terrain sloping south-southeasterly towards Cutana Creek. These hills form the topographical divide between the Cutana Creek and Bullo Creek catchments. The lowest ground level within the project area is at ±249 mAHD, corresponding to Cutana Creek bed along the eastern project area boundary.

EPEPR Figure 10 – Topography (Green and Gold).

The Wilkins project area is located on the Olary Spur, and the eastern edge of the Olary upland region, situated north-east of the Olary Ranges. The topography in and around the project area comprises low-lying foothills with vertical relief up to 245 mAHD. The Wilkins West drill holes are located on a north-north-west-facing slope of a local hill at an elevation of 236 mAHD. The Wilkins East drill holes are located northwest of a local hill at an elevation of 244 mAHD, within the floodplain of the Cutana Creek.

EPEPR Figure 11 – Topography (Wilkins).

The land surrounding the Green and Gold and the Wilkins project areas is comprised of three basic landscape units: drainage lines, bordering flood terraces and foothills (patterned and smooth). Locally, the project area is located on foot slopes near ephemeral drainage lines and bordering flood terraces made up of alluvial and erosion plains and colluvium deposits.

As per the Digital Atlas of Australian Soils:

- The eastern part of the Green and Gold project area is mapped as undulating plains with low hillocks and remnants of dissected tablelands (map unit Na4): crusty loamy soils (Dr1.13 and Dr1.33) with shallow calcareous loamy soils (Um5.11) on plains; rock outcrops and shallow calcareous loamy soils (Um5.11) on hillocks; grey-brown highly calcareous loamy earths (Gc1.12) on tableland remnants; deep calcareous loamy soils (Um5.12) in the creek valleys; and some sand dunes and drifts of brown sands (Uc5.1) close to valleys.
- The western part of the Green and Gold project area is mapped as hills and plains (map unit BB1): hills and ranges of rock outcrops and shallow calcareous loamy soils (Um5.11) and possibly other shallow soils (unclassified); flanked by pediments of crusty loamy soils (Dr1.13 and Dr1.33); and interspersed by broad plains of brown calcareous earths (Gc) with saline soils (unclassified) in the lower-lying situations; a few dune tracts of brown sands (Uc5.11 and Uc5.12).
- The Wilkins project area is mapped as undulating plains with low hillocks and remnants of dissected tablelands (Na4): crusty loamy soils (Dr1.13 and Dr1.33) with shallow calcareous loamy soils (Um5.11) on plains; rock outcrops and shallow calcareous loamy soils (Um5.11) on hillocks; grey-brown highly calcareous loamy earths (Gc1.12) on tableland remnants; deep calcareous loamy soils (Um5.12) in the creek valleys; and some sand dunes and drifts of brown sands (Uc5.1) close to valleys

Pastoral land systems covering the Green and Gold project area include the following :

- Land System Name: Olary. Hills of blackoak or mulga open woodland over rock and narrow leaf emubushes, lobe leaf hopbush and silvertails; low hills of bladder saltbush low shrubland with scattered sugarwood and blackbush; plains of mixed chenopod low shrubland with prickly wattle and river red gum creeks.

EPEPR Figure 12 – Pastoral Land Systems (Green and Gold).

Pastoral land systems covering the Wilkins project area include the following :

- Land System Name: Antro (light blue on Figure 08). Alluvial plains of blackbush low shrubland with bladder saltbush and prickly wattle; sandy plains with tall shrubland of prickly wattle, desert cassia and turpentine; wide stream terraces with shrubland of blackbush, cottonbush, thorny saltbush, bitter saltbush and nitrebush; creeks with river red gum
- Land System Name: Ballara (pink on Figure 08): Pattern plains of bladder saltbush and low bluebush low shrubland, and blackbush or bladder saltbush low shrubland; plains and watercourses of blackbush and nitrebush low shrubland with prickly wattle; low stony rises of bladder saltbush and low bluebush.
- Land System Name: Wompinie (yellow on Figure 08). Undulating gilgai plains of bladder saltbush low shrubland with low bluebush and neverfail or of mixed copperburr and povertybush; watercourse flats of cottonbush low shrubland with blackbush or of mixed copperburr and povertybush.
- Land System Name: Olary (green on Figure 08). Hills of blackoak or mulga open woodland over rock and narrow leaf emubushes, lobe leaf hopbush and silvertails; low hills of bladder saltbush low shrubland with scattered sugarwood and blackbush; plains of mixed chenopod low shrubland with prickly wattle and river red gum creeks.

EPEPR Figure 13 – Pastoral Land Systems (Wilkins).

With respect to the geology, the Green and Gold project area is underlain by Paleoproterozoic calcareous sandstone and muscovite-biotite schist (Willyama Supergroup unit 7, Yw7), with parts of the area covered by shallow Holocene fluvial alluvium (Qha1) associated with Cutana Creek and by Pleistocene alluvial/fluvial sediments (Qpap) on the footslopes. Copper and gold mineralisation is associated with the Paleoproterozoic bedrock. This geological setting contributes to gently undulating topography, with a mix of shallow stony soils over bedrock and sandy to silty surface materials in alluvium-covered areas.

EPEPR Figure 14 – Surface Geology (Green and Gold).

With respect to the geology, the Wilkins project is located in The Wiperaminga Subgroup which is a Palaeoproterozoic geological unit within the Curnamona Province (Willyama Supergroup), primarily composed of albitised, magnetite-

bearing metasediments, leucocratic gneiss, and bimodal volcanic rocks. It is known for hosting gold-copper mineralisation such as the White Dam gold mine. It is characterised by albitite and mafic rocks (amphibolite). The target of this proposed drilling program is a siliceous ironstone within the Wiperaminga Subgroup. The project area is partially covered by Holocene alluvial/fluviial units.

EPEPR Figure 15 – Surface Geology (Wilkins).

Attach Files

			Expand/Collapse
File Name	File Size (Mb)	Created On	Download
EPEPR Figure 10 - Topography (Green and Gold).pdf	0.39 Mb	10-08-2026 12:01:12	Download (MERS/EP-04217/Landform topography/EPEPR Figure 10 - Topography. (Green and Gold) 2026-08-10T02-31-10.013Z.pdf)
EPEPR Figure 11 - Topography (Wilkins).pdf	0.38 Mb	10-08-2026 12:01:12	Download (MERS/EP-04217/Landform topography/EPEPR Figure 11 - Topography. (Wilkins) 2026-08-10T02-31-10.039Z.pdf)
EPEPR Figure 12 - Pastoral Land Systems (Green and Gold).pdf	0.15 Mb	10-08-2026 12:01:12	Download (MERS/EP-04217/Landform topography/EPEPR Figure 12 - Pastoral Land Systems (Green and Gold) 2026-08-10T02-31-10.081Z.pdf)
EPEPR Figure 13 - Pastoral Land Systems (Wilkins).pdf	0.1 Mb	10-08-2026 12:01:12	Download (MERS/EP-04217/Landform topography/EPEPR Figure 13 - Pastoral Land Systems (Wilkins) 2026-08-10T02-31-10.040Z.pdf)

File Name	File Size (Mb)	Created On	Download
EPEPR Figure 14 - Surface Geology (Green and Gold).pdf	0.33 Mb	10-08-2026 12:01:12	Download (MERS/EP-04217/Landform topography/EPEPR Figure 14 - Surface Geology (Green and Gold)_2026-08-10T02-31-10.401Z.pdf)
EPEPR Figure 15 - Surface Geology (Wilkins).pdf	0.1 Mb	10-08-2026 12:01:12	Download (MERS/EP-04217/Landform topography/EPEPR Figure 15 - Surface Geology (Wilkins)_2026-08-10T02-31-10.440Z.pdf)

Surface Water

Will the proposed program interfere with surface water bodies and natural drainage (e.g. drainage lines, creeks, floodplains, wetlands)?

Yes

Describe the potential interference and surface water bodies and natural drainage on maps.

The Green and Gold RC drilling program is expected to result in negligible disturbance to natural drainage features. The planned access track intersects a minor, ephemeral tributary of Cutana Creek. Any interference will be limited to minor, temporary modifications to facilitate drill-rig access and drill pad construction. Interference will be avoided wherever practicable, and where disturbance is unavoidable, the affected areas will be rehabilitated following completion of drilling activities, with original topographic contours reinstated to maintain natural drainage patterns.

The Green and Gold AC drilling program will traverse a minor ephemeral tributary of Cutana Creek at several locations west of the central historic workings and of the first stage of the proposed RC program. As the AC rig is mounted on a Landcruiser and does not require cleared access tracks, disturbance will be restricted to vehicle passage only, resulting in minimal interference with natural drainages.

During the proposed Wilkins drilling program, potential disturbance to natural drainage lines will be negligible. Few proposed drill locations are within 100 m of the minor drainage lines. Disturbances will be limited to minor drainage line modifications for drill rig access and temporary construction of drill pads. This will be avoided to the extent practicable. In the event of a disturbance to a drainage line, the disturbed area will be rehabilitated in a timely manner after completion of the exploration activities, with the original topography contours reestablished.

EPEPR Figure 16 - Regional Hydrology (Green and Gold).
EPEPR Figure 17 - Local Hydrology (Green and Gold).
EPEPR Figure 18 - Regional Hydrology (Wilkins).
EPEPR Figure 19 - Local Hydrology (Wilkins).

Indicate how you will avoid disturbance

—

Is the program area located within water protection areas defined under the River Murray Act 2003?

No

Select the name(s) of protected water areas

Is the program area located within any prescribed watercourses or prescribed surface water areas under the Landscape?

No

Select the name(s) of the prescribed watercourses or prescribed surface water areas under the Landscape South Australia Act 2019.

Attach Files 

				Expand/Collapse
File Name	File Size (Mb)	Created On	Download	
EPEPR Figure 16 - Regional Hydrology (Green and Gold).pdf	0.25 Mb	10-08-2026 12:02:23	Download (MERS/EP-04217/Surface water/EPEPR Figure 16 - Regional Hydrology. (Green and Gold)_2026-08-10T02-32-21.698Z.pdf)	
EPEPR Figure 17 - Local Hydrology (Green and Gold).pdf	0.35 Mb	10-08-2026 12:02:23	Download (MERS/EP-04217/Surface water/EPEPR Figure 17 - Local Hydrology. (Green and Gold)_2026-08-10T02-32-21.183Z.pdf)	
EPEPR Figure 18 - Regional Hydrology (Wilkins).pdf	0.3 Mb	10-08-2026 12:02:23	Download (MERS/EP-04217/Surface water/EPEPR Figure 18 - Regional Hydrology. (Wilkins)_2026-08-10T02-32-21.690Z.pdf)	
EPEPR Figure 19 - Local Hydrology (Wilkins).pdf	0.38 Mb	10-08-2026 12:02:23	Download (MERS/EP-04217/Surface water/EPEPR Figure 19 - Local Hydrology. (Wilkins)_2026-08-10T02-32-21.706Z.pdf)	

Name	Applicable
There are no records to display.	

Groundwater

Is groundwater likely to be intersected when conducting the exploration program?

Yes

Provide evidence or any supporting information demonstrating this.

Description of the localities/areas where different groundwater conditions may be encountered

There is very limited publicly available information regarding groundwater occurrence in and near the project areas. The main aquifer within and near the project areas is described as weathered and fractured rock, i.e. Cambrian and Precambrian rocks comprising quartzite, sandstone, limestone, dolomite, slate, marble, siltstone, phyllite, schist and gneiss. There are no Prescribed Water Resources Areas, Prescribed Wells Areas or Groundwater Networks within or near the project area.

Regionally, groundwater is sourced from the Neoproterozoic (Adelaidean) sediments of the Proterozoic formations associated with the Olary Ranges. Fractured rock, mostly siltstone is the likely source of the aquifers, whether overlain by thin Quaternary sediments or not. The aquifer is unconfined and brackish, mostly utilised for stock water.

The project areas are within the non-prescribed groundwater area within the Olary geological area. There is very limited publicly available information regarding groundwater occurrence and conditions at and near the project area.

With respect to the Green and Gold project area, SARIG indicates that there are no registered water wells within the project area. There is only one registered water well within a 1 km buffer of the project area, i.e. well 6933-018. Two other wells, i.e. 6933-017 and 6933-102 are located within a ± 2.5 km buffer to the west and north of the project area. SARIG information for these well is as follows:

- Well 6933-018 : drilled in 1960; total depth of 36.58 mbgl; unknown lithology/stratigraphy and construction details, but most likely drilled into bedrock (Yw); SWL of 7.92 mbgl (in February 1960); Total Dissolved Solids: 6,355 mg/L; EC: 11,112 μ S/cm.
- Well 6933-017: drilled in 1960; total depth of 12.19 mbgl; unknown lithology/stratigraphy and construction details, but most likely drilled into bedrock (Yw); SWL of 6.71 mbgl (in February 1960); Total Dissolved Solids: 11,281 mg/L; EC: 19,151 μ S/cm.
- Well 6933-102: unknown drill date; total depth of 2 mbgl; no further information.

With respect to the Wilkins project area, SARIG indicates that there is only one registered water well within the project area, i.e. well 703304083. SARIG information on this well is as follows:

- Well 703304083: drilled in 2012; total depth of 76 mbgl; screened from 61 to 73 mbgl in bedrock (Formation Yw); SWL of 35 mbgl (in November 2012); Total Dissolved Solids: 3,643 mg/L; EC: 6,480 μ S/cm.

Groundwater may be encountered during drilling, as drillhole depths reach up to 100. If groundwater is intercepted, any issues will be managed by consideration of the following:

- Planning, i.e. avoidance of known groundwater systems such as paleochannels (although none are known within and around the project area).
- Aquifer management as per DEM's information sheet M21.
- Containment, i.e. managing surface impacts from groundwater reaching the ground.
- Hole completion and rehabilitation in accordance with M21.

EPEPR Figure 20 – Regional Groundwater Settings (Green and Gold).

EPEPR Figure 21 – Local Groundwater Settings (Green and Gold).

EPEPR Figure 22 – Regional Groundwater Settings (Wilkins).

EPEPR Figure 23 – Local Groundwater Settings (Wilkins).

Add the different groundwater conditions for each localities/areas to the table below.

Name ↑	Formation age and/or stratigraphic unit	Stratigraphic intervals (depth range) (m)	Aquifer formation name	Aquifer Interval/thickness (from-to) (m)	Aquifer Type	Aquifer salinity (TDS)	Depth to groundwater (m)	Comments
Green and Gold Project	Paleoproterozoic	7	Willyana Supergroup unit 7	0-10	Unconfined	6,000mg/l	7	Unconfined fracture rock
Wilkins Project	Paleoproterozoic	71	Willyana Supergroup unit 1	Unknown	Unconfined	4,000 mg/L	36	Unconfined fracture rock

Provide the environmental value of each aquifer present determined according to the current Environment Protection (Water Quality) Policy.

According to Schedule 1—Environmental values of waters (clause 6), Section 3—Environmental values of particular waters of the South Australia Environment Protection (Water Quality) Policy 2015, groundwater in the water wells at and near the project area with total dissolved solids (TDS) salinity readings above 4,000 mg/L will have EV value for "Primary Industries - Livestock drinking water".

Provide a description of the existence, location and value of all Groundwater Dependent Ecosystems (GDE) within and immediately surrounding the project area

With respect to the Green and Gold project area, the BOM GDE Atlas did not identify any GDEs (aquatic or terrestrial) within most of the area covered by the exploration drill holes, except for GDE areas associated with Cutana Creek. Cutana Creek, running through the southern part of the project area, has been mapped as a high to moderate potential aquatic GDE. Vegetation areas associated with Cutana Creek have been mapped as moderate potential terrestrial GDEs. It is noted that the proposed drillholes and proposed access tracks are outside the mapped GDEs.

With respect to the Wilkins project area, the BOM GDE Atlas did not identify any GDEs (aquatic or terrestrial) within most of the area covered by the exploration drill holes. Part of Cutana Creek, running through the north-central part of the project area, has been mapped as a moderate potential aquatic GDE. Some terrestrial GDEs have been mapped in the central part of the project area. These terrestrial GDEs comprise high and moderate potential vegetation GDEs associated with Cutana Creek. Few drill holes are located within the moderate potential vegetation GDEs.

EPEPR Figure 20 – Regional Groundwater Settings (Green and Gold).

EPEPR Figure 21 – Local Groundwater Settings (Green and Gold).

EPEPR Figure 22 – Regional Groundwater Settings (Wilkins).

EPEPR Figure 23 – Local Groundwater Settings (Wilkins).

Is the proposed program located within a prescribed wells area?

No

Select the prescribed wells

Is the proposed program located within a prescribed water resource area?

No

Select the prescribed water resource areas

Provide any additional information

Attach Files

				Expand/Collapse
File Name	File Size (Mb)	Created On	Download	
EPEPR Figure 20 - Regional Groundwater Settings (Green and Gold).pdf	0.47 Mb	10-08-2026 12:05:39	Download (MERS/EP-04217/Groundwater/EPEPR Figure 20 - Regional Groundwater Settings (Green and Gold)_2026-08-10T02-35-37.531Z.pdf)	
EPEPR Figure 21 - Local Groundwater Settings (Green and Gold).pdf	0.53 Mb	10-08-2026 12:05:39	Download (MERS/EP-04217/Groundwater/EPEPR Figure 21 - Local Groundwater Settings (Green and Gold)_2026-08-10T02-35-37.615Z.pdf)	
EPEPR Figure 22 - Regional Groundwater Settings (Wilkins).pdf	0.69 Mb	10-08-2026 12:05:39	Download (MERS/EP-04217/Groundwater/EPEPR Figure 22 - Regional Groundwater Settings (Wilkins)_2026-08-10T02-35-37.560Z.pdf)	
EPEPR Figure 23 - Local Groundwater Settings (Wilkins).pdf	0.69 Mb	10-08-2026 12:05:39	Download (MERS/EP-04217/Groundwater/EPEPR Figure 23 - Local Groundwater Settings (Wilkins)_2026-08-10T02-35-37.535Z.pdf)	

Native Vegetation

Will you be working within areas of native vegetation?

Yes

Provide the following information:

SA Vegetation mapping indicates that the Green and Gold project area and immediate surrounds are covered by the following vegetation classes:

- Low (<1 m) open chenopod shrubland (NP0032), with dominant species including *Atriplex vesicaria* ssp. and *Maireana astrotricha*+/*Maireana pyramidata*+/*Rhagodia spinescens*. This vegetation class covers most of the project area and the area of the proposed drill holes and access tracks.
- Tall (>1 m) sparse shrubland (NP0002), with dominant species including *Acacia victoriae* ssp. This vegetation class is associated with Cutana Creek.

SA Vegetation mapping indicates that the Wilkins project area and immediate surrounds are covered by the following vegetation classes:

- Low (<1 m) open chenopod shrubland (NP0032), with dominant species including *Atriplex vesicaria* ssp. and *Maireana astrotricha*+/*Maireana pyramidata*+/*Rhagodia spinescens*. This vegetation class covers most of the project area.
- Low (<1 m) open chenopod shrubland (NP0028), with dominant species including *Maireana pyramidata*, *Rhagodia spinescens*, *Atriplex vesicaria* ssp. and *Maireana astrotricha*. This vegetation class is associated with Cutana Creek.
- Mid Eucalyptus forest and woodland (NP0018), with dominant species including *Eucalyptus camaldulensis* ssp. This vegetation class is associated with Cutana Creek.

EPEPR Figure 24 - SA Native Vegetation (Green and Gold).

EPEPR Figure 25 - SA Native Vegetation (Wilkins).

Green and Gold Project Area

NatureMaps provides no records of plant species mapped within the Green and Gold project area. Numerous plant species have been recorded around the project area. Information from NatureMaps indicates that the following species are present within a 5km buffer of the project area:

Non-native species (within 5km buffer)

- African Boxthorn
- Buffel Grass
- Horehound
- London Mustard
- Malvastrum
- Onion Weed
- Skeleton Weed
- Stinking Roger
- Ward's Weed
- Wild Sage

Native species (within 5km buffer)

- Bitter Saltbush
- Black Bluebush
- Bladder Saltbush
- Bluebush
- Broken Hill Pea
- Brush Three-awn
- Buckbush
- Bullock Bush
- Dark Green Swainson-pea
- Dead Finish
- Desert Lantern-bush
- Dryland Bluebell
- Dwarf Lantern-bush
- Elegant Wattle
- Flat-stalk Senna
- Furrowed New Holland Daisy
- Goat-head Soft-horns
- Goodenia
- Inland Shrubby Groundsel
- Low Bluebush
- Malvastrum
- Mealy Saltbush
- Narrow Plover-daisy
- Native Madder
- Pale Flax-lily
- Purple Love-grass
- Rock Nightshade
- Ruby Saltbush
- Short-leaf Bluebush

- Silver Senna
- Spiny Potato-bush
- Sticky Hop-bush
- Sturt's Nightshade
- Tall Bindyi
- Tangled Bindyi
- Turpentine Bush
- Two-horn Saltbush
- Window Mulga-grass

Threatened species (within 5km buffer)

- Dark Green Swainson-pea
- Pale Flax-lily
- Purple Love-grass

EPEPR Figure 26 - Flora Site Locations (Green and Gold).

EPEPR Figure 27 - National and State Rated Flora (Green and Gold).

Wilkins Project Area

Numerous plant species have been recorded in and around the Wilkins project area. Information from NatureMaps indicates that the following species are present:

Non-native species (within 5km buffer)

- African Boxthorn
- African Rue
- Annual Pearlwort
- Arabian Grass
- Buffel Grass
- Cut-leaf Mignonette
- Horehound
- London Mustard
- Lucerne
- Malvastrum
- Onion Weed
- Pepper-tree
- Pitted Love-grass
- Skeleton Weed
- Ward's Weed
- Wild Sage

Native species (within 5km buffer)

- Black Bluebush
- Black Oak
- Black-head Grass
- Bladder Saltbush
- Bluebush
- Broad-leaf Desert Senna
- Broken Hill Pea
- Brush Three-awn
- Buckbush
- Bullock Bush
- Burr Stickseed
- Bush Minuria
- Clammy Heron's-bill
- Common Bottle-washers
- Dark Green Swainson-pea
- Dead Finish
- Desert Spinach
- Dryland Bluebell
- Dwarf Lantern-bush
- Dwarf Sunray
- Elegant Wattle
- Entire-wing Bluebush
- False Sandalwood
- Flat-stalk Senna
- Furrowed New Holland Daisy
- Goodenia
- Grass Cushion
- Grass Family

- Hairy Burr-daisy
- Hard-head Daisy
- Harlequin Mistletoe
- High Sida
- Inland Shrubby Groundsel
- Lobed Bluebush
- Low Bluebush
- Malvastrum
- Mealy Saltbush
- Narrow Plover-daisy
- Native Apricot
- Native Millet
- Needle Wattle
- Oblique-spined Bindyi
- Opposite-leaved Emubush
- Pale Flax-lily
- Pointed-fruit Climbing Saltbush
- Purple Love-grass
- Rock Isotome
- Rock Nightshade
- Ruby Saltbush
- Satiny Bluebush
- Short-leaf Bluebush
- Silky Blue-grass
- Silver Senna
- Spear-fruit Bindyi
- Spiny Saltbush
- Sticky Hop-bush
- Sturt's Nightshade
- Tangled Bindyi
- Top-fruit Bluebush
- Turpentine Bush
- Two-horn Saltbush
- Veiled Fringe-rush
- Wilga
- Window Mulga-grass

Threatened species (within 5km buffer)

- Dark Green Swainson-pea
- Needle Wattle
- Pale Flax-lily
- Purple Love-grass
- Wilga

Only the Dark Green Swainson pea has been identified as a threatened species within the Wilkins project area itself.

EPEPR Figure 28 - Flora Site Locations (Wilkins).

EPEPR Figure 29 - National and State Rated Flora (Wilkins).

Indicate why you will not be working within areas of native vegetation?

Attach Files 

Expand/Collapse

File Name	File Size (Mb)	Created On	Download
EPEPR Figure 24 - SA Native Vegetation (Green and Gold).pdf	0.31 Mb	10-08-2026 12:07:49	Download (MERS/EP-04217/Native Vegetation/EPEPR Figure 24 - SA Native Vegetation (Green and Gold)_2026-08-10T02-37-47.249Z.pdf)
EPEPR Figure 25 - SA Native Vegetation (Wilkins).pdf	0.33 Mb	10-08-2026 12:07:49	Download (MERS/EP-04217/Native Vegetation/EPEPR Figure 25 - SA Native Vegetation (Wilkins)_2026-08-10T02-37-47.671Z.pdf)
EPEPR Figure 26 - Flora Site Locations (Green and Gold).pdf	0.31 Mb	10-08-2026 12:07:49	Download (MERS/EP-04217/Native Vegetation/EPEPR Figure 26 - Flora Site Locations (Green and Gold)_2026-08-10T02-37-47.293Z.pdf)
EPEPR Figure 27 - National and State Rated Flora (Green and Gold).pdf	0.19 Mb	10-08-2026 12:07:49	Download (MERS/EP-04217/Native Vegetation/EPEPR Figure 27 - National and State Rated Flora (Green and Gold)_2026-08-10T02-37-47.227Z.pdf)
EPEPR Figure 28 - Flora Site Locations (Wilkins).pdf	0.4 Mb	10-08-2026 12:07:49	Download (MERS/EP-04217/Native Vegetation/EPEPR Figure 28 - Flora Site Locations (Wilkins)_2026-08-10T02-37-47.270Z.pdf)

File Name	File Size (Mb)	Created On	Download
EPEPR Figure 29 - National and State Rated Flora (Wilkins).pdf	0.14 Mb	10-08-2026 12:08:41	Download (MERS/EP-04217/Native Vegetation/EPEPR Figure 29 - National and State Rated Flora (Wilkins)_2026-08-10T02-38-39.418Z.pdf)

Fauna

Describe the native and feral fauna that may be present in the application area, including feral species.

Green and Gold Project Area

NatureMaps provides no records of native and feral fauna within the Green and Gold project area. Within a 5km buffer of the Green and Gold project area, NatureMaps records identified the following species:

Non-native species (within 5km buffer)

- Goat (Feral Goat)
- Rabbit (European Rabbit)

Native species (within 5km buffer)

- Australian Shelduck
- Red Kangaroo
- Western Grey Kangaroo
- Sand Goanna

No records of native fauna of significance (NPW Act or EPBC Act rating) have been identified at or within a 5km buffer of the Green and Gold project area.

EPEPR Figure 30 – Fauna Site Locations (Green and Gold).

EPEPR Figure 31 - National and State Rated Fauna (Green and Gold).

Wilkins Project Area

The Wilkins project area and surrounding vicinity are home to numerous native and feral fauna, of varying population sizes, with information obtained through NatureMaps identifying the following species:

Non-native species (within 5km buffer)

- Goat (Feral Goat)
- Rabbit (European Rabbit)

Native species (within 5km buffer)

- Australian Shelduck
- Red Kangaroo
- Western Grey Kangaroo
- Sand Goanna

No records of native fauna of significance (NPW Act or EPBC Act rating) have been identified at or within a 5km buffer of the Wilkins project site.

EPEPR Figure 32 – Fauna Site Locations (Wilkins).

EPEPR Figure 33 – National and State Rated Fauna (Wilkins).

Significant Habitats, Flora & Fauna

Are there any significant habitats, flora and fauna within the project area?

No

Use the table below to list any significant habitats and any rare or endangered flora and fauna species located or reported to have been in the area that may be impacted by the proposed program. Include known sightings of listed species on a locality plan/map.

Species name/habitat	Common name	NPW Act Rating	EBPC Act Rating
There are no records to display.			

Attach Files ⓘ

				Expand/Collapse
File Name	File Size (Mb)	Created On	Download	
EPEPR Figure 30 - Fauna Site Locations (Green and Gold).pdf	0.31 Mb	10-08-2026 12:09:42	Download (MERS/EP-04217/Fauna/EPEPR Figure 30 - Fauna Site Locations (Green and Gold) 2026-08-10T02-39-39.941Z.pdf)	
EPEPR Figure 31 - National and State Rated Fauna (Green and Gold).pdf	0.19 Mb	10-08-2026 12:09:42	Download (MERS/EP-04217/Fauna/EPEPR Figure 31 - National and State Rated Fauna (Green and Gold) 2026-08-10T02-39-39.920Z.pdf)	
EPEPR Figure 32 - Fauna Site Locations (Wilkins).pdf	0.2 Mb	10-08-2026 12:09:42	Download (MERS/EP-04217/Fauna/EPEPR Figure 32 - Fauna Site Locations (Wilkins) 2026-08-10T02-39-39.967Z.pdf)	
EPEPR Figure 33 - National and State Rated Fauna (Wilkins).pdf	0.18 Mb	10-08-2026 12:09:42	Download (MERS/EP-04217/Fauna/EPEPR Figure 33 - National and State Rated Fauna (Wilkins) 2026-08-10T02-39-39.924Z.pdf)	

Weeds and Pathogens

Provide information of the extent the area is affected or potentially affected by weeds and pathogens (e.g. phytophthora; buffel grass *Cenchrus ciliaris*).

A review of NatureMaps did not identify the presence of weeds of national significance, buffel grass, or phytophthora within and immediately near the project area. The nearest buffel grass records are located more than 1,000 metres outside the project areas. Should an area of buffel grass infestation be encountered during the drilling program, cleaning procedures will be implemented when leaving the area of infestation and the area avoided. PIRSA's buffel grass fact sheets are attached to this submission.

Attachments:

PIRSA_factsheet_Buffel_Grass_Identification_FA2_CJ.pdf
buffel_grass_fsheets.pdf

Attach Files ⓘ

				Expand/Collapse
File Name	File Size (Mb)	Created On	Download	
buffel_grass_fsheets.pdf	1.04 Mb	10-08-2026 12:11:12	Download (MERS/EP-04217/Weeds and Pathogens/buffel_grass_fsheets_2026-08-10T02-41-11.009Z.pdf)	
PIRSA_factsheet_Buffel_Grass_Identification_FA2_CJ.pdf	5.87 Mb	10-08-2026 12:10:48	Download (MERS/EP-04217/Weeds and Pathogens/PIRSA_factsheet_Buffel_Grass_Identification_FA2_CJ_2026-08-10T02-40-46.812Z.pdf)	

Aboriginal Heritage

Describe the steps taken to identify Aboriginal heritage sites within the proposed area of exploration. Include a statement advising if an Aboriginal heritage survey has been conducted by the proponent and if so, the results of the survey.

With respect to the Green and Gold project area, a review of Native Title and Cultural Heritage clearance requirements, including discussions with Havilah Resources staff and consultants, was completed. A Native Title Mining Agreement is in place, negotiated between the Ngadjuri Adnyamathanha Wilyakali Native Title Aboriginal Corporation and Havilah. Pacgold is currently in discussion with relevant parties to undertake an Aboriginal heritage survey of the project area. The survey will be completed prior to the commencement of the exploration drilling program.

With respect to the Wilkins project area, a review of Native Title and Cultural Heritage clearance requirements was completed, and a Heritage Survey agreement is in place between the Wilyakali and Havilah Resources. Pacgold is currently in discussion with relevant parties to undertake an Aboriginal heritage survey of the project area. The survey will be completed prior to the commencement of the exploration drilling program.

Any sites identified in the heritage clearance survey report will not be included in exploration activities. Should any new sites be identified or suspected during the exploration activities, the relevant cultural heritage representatives will be notified, and further disturbance will be avoided.

Environmentally Sensitive Locations

Indicate if you are intending to undertake exploration operations within the environmentally sensitive locations listed.

No

Name	Applicable
There are no records to display.	

Are you likely to impact on the environmentally sensitive area identified in the table above?

—

Detail the likely effects the proposed program may have.

—

Attach Files 

					<u>Expand/Collapse</u>
File Name	File Size (Mb)	Created On	Download		
No Files Uploaded					

Exploration Operations

Exploration Scope

Describe all exploration methods to be covered by the PEPR

—

Describe the extent of exploration operations – e.g. drillhole spacing and drill line density.

—

Describe the geographic extent of the area covered by the PEPR, including a general locality plan with tenement details, landowner boundaries and areas with environmental classifications or sensitivities.

—

Describe the specific environments where exploration operations will not be conducted – e.g. parks, reserves, salt lakes etc.

—

Equipment and Personnel requirements

Describe the maximum composition of field crews (operator, contractors, and geologists) and proposed working hours/days for each type of activity.

Using the table below, describe the maximum composition of field crews (operator, contractors, and geologists) and proposed working hours/days for each type of activity.

Type of Personnel	Number	Name of contractor company (if applicable)
Geologists	2	Pacgold Limited
Field assistants/technicians	1	Pacgold Limited
Drilling Crew	4	Centurion Drilling Pty Ltd
Site Preparation and rehabilitation	1	Pacgold Limited

Shifts worked per day	Hours worked per day	Days worked per week
1	12	7

Using the table below, describe the equipment (size, number and contractor details) required to conduct the proposed operations.

Name	Owner/Operator	Description/capacity	Activity/purpose
Single track-mounted Reverse Circulation Rig	Centurion Drilling	Schramm T685 or similar	Drilling reverse circulation (RC) and aircore (AC) holes
Support/Rod Truck	Centurion Drilling	8WD truck, 8-10m in length	Carry water and fuel for drilling
Light vehicle	Centurion Drilling	4WD (diesel)	Support vehicle for drilling contractor
Light vehicle	Pacgold	4WD (diesel)	Support vehicle for Pacgold
Excavator and wheeled loader	Pacgold	Earthmoving equipment	Drill pad rehabilitation

Low impact exploration activities

Will low impact exploration operations be conducted that are not covered by the Generic program for environment protection and rehabilitation – low impact mineral exploration in South Australia, (generic PEPR)?

Yes

Describe each type of low impact operations proposed.

The proposed Green and Gold exploration program focusses on drilling; however, it will involve detailed surface geological mapping of lithology and historical workings, along with rock chip sampling of exposed gold mineralisation within the Green and Gold Project area. The results of this work will inform the design of a targeted drilling program to assess the continuity of gold and copper mineralisation at depth.

The proposed Wilkins exploration program will include detailed mapping of surface geology and workings and rock-chip sampling of historical workings and exposed gold mineralisation at both Wilkins East and West.

Drilling Operations

Will exploration drilling Operations be conducted?

Yes

Identify all the drilling methods that will be used.

Aircore, Reverse Circulation

Fill out the below table

Tene ment	Drillin g Types	Maximum number of drillholes	Maximum drillhole depth (m)	Number of drill pads	Maximum number of sumps required at each site	Maximum size of sumps (lenght x depth x width)	Averag e size of each drill pad	Number of sites requiring pad excavation	Average volume of material to be excavated
There are no records to display.									

Other Drilling Method(s)

Drillsite preparation

If exploration drilling activities are proposed, describe the methods used to prepare sites, including vegetation clearance requirements, site levelling and digging of sumps.

As the Green and Gold program is planned on a 20 x 20 m collar grid and the standard-sized drill pad for RC drilling is 20 m x 20 m, the entire area of the proposed drilling will need to be prepared. The collars are planned in sparsely vegetated terrain. Therefore, the majority of the drill pads will only require a simple vegetation scrape with minimal ground disturbance. However, as the program is staged, initially only Priority 1 pads will be cleared and pads made level for rig access. Volume of pad excavation - 20m³ (0.05m x 20m x 20m).

As the Wilkins program is planned on sparsely vegetated terrain the majority of the drill pads will only require a simple vegetation scrape with minimal ground disturbance (Volume of pad excavation - 20m³ (0.05m x 20m x 20m)). However, as the program is staged, initially every second drill line will be cleared and pads made level for rig access.

Pad preparation for both programs will be as follows:

- Vegetation will be scraped and stockpiled for respreading during rehabilitation as part of erosion control.
- Topsoil will be removed and stockpiled.
- If required, pads will then be cut and filled to less than 10 degrees slope for rig levelling.
- In-ground sumps will be excavated, either within the drill pad or within the natural ground. Dimensions of the sumps will be 2m (L) x 1.5m (D) x 2m (W), with an excavation volume of 6m³ per sump. Sumps will be used to capture any encountered groundwater. Sumps will not be lined to allow any intercepted water to seep back into the ground.
- Pads sited in minor drainage lines will have adequate bunding and surface water diversion construction to maintain natural flow in the gully.
- Where possible, historical mining infrastructure will be avoided (e.g. plant or building foundations, mine shafts and trenches). The South Australia Heritage Places database does not include any listings for the Green and Gold and the Wilkins project areas.

For the AC program component, no pads will be required. A drill section/access track will be graded to access the holes and the compact drill rig will operate from the track and any disturbance will be limited to vehicle access.

Drillhole construction and decommissioning

Drillhole construction and decommissioning

As per below.

Have the personnel responsible for implementing the proposed program read and understood the Earth Resources Information Sheet M21, Mineral exploration drillholes – general specifications for construction and backfilling?

Yes

Describe how drillholes will be constructed, including the casing material to be used, depth of casing, if the casing will be cemented, cementing intervals and the class of driller that will install the casing.

Reverse Circulation drill holes will be constructed using a 5" face sampling bit and 4" drill string (150mm hole diameter). Collar casing only using 150 mm Class 9 PVC, generally 6 m in length, depending on surface conditions. Collar casing is set with A-B foam and remains in-hole following drillhole completion. Class 2 or 3 driller.

Significant groundwater aquifers are not expected to be intersected, with exploration activities to be undertaken in accordance with Earth Resources Sheet M21.

Aircore holes will be drilled using a double or tri-wing bit on NQ-sized rod strings (75 mm hole diameter). Collars will not be cased (open hole from surface). Due to the shallow nature of AC holes (~15-20 m), significant groundwater aquifers are not expected to be intersected, with exploration drilling activities to be undertaken in accordance with Earth Resources Sheet M21.

When describing drillhole decommissioning requirements, include the materials to be used, stratigraphic intervals where cement plugs will be placed, if the casing will be removed and when decommissioning will occur after drilling is completed.

Drill holes will be rehabilitated/decommissioned to standards as specified in Information Sheet M21 Mineral Exploration Drillholes – General specification for Construction and Backfilling.

On completion of the drill hole, the casing will be pulled out of the ground or cut off at least 1 metre below ground level.

Drill holes that penetrate a single unconfined aquifer will be backfilled with drill cuttings and/or cement grout to the top.

Drill holes that penetrate a single confined aquifer will be rehabilitated/decommissioned by grouting the aquifer with a minimum of 15 metres of cement grout on either side (i.e. below and above) of the aquifer position/thickness. Drill cuttings and/or cement grout will be used to backfill below the cement plug and above the cement plug to the surface.

Drillholes that penetrate more than one aquifer will be backfilled to separate each aquifer with a cement grout plug, then backfilled as above. The length of the plug used will be dependent on the aquifer pressure and thickness. The plug will extend through the aquifer back into the confining bed above, with a minimum total grout length of 20 m. In an intermediate aquifer, the plug will be emplaced from 15 m below the aquifer, extending upward through the aquifer to 15 m above the aquifer. Generally, a minimum of 20 m of cement should be positioned between aquifers.

If no groundwater has been encountered, the drill hole will be backfilled with drill cuttings and/or cement grout.

The top 0.3 m of backfill will consist of native soil, and a soil mound will be left over the hole's position to allow for any subsidence.

Attach Files ⓘ

				Expand/Collapse
File Name	File Size (Mb)	Created On	Download	
Drillhole Rehabilitation.jpg	0.06 Mb	10-08-2026 12:20:54	Download (MERS/EP-04217/Drillhole construction and decommissioning/Drillhole Rehabilitation_2026-08-10T02-50-54.889Z.jpg)	

Costeans and bulk sample disposal pits

Will costeans/bulk sample disposal pits be required for the proposed program?

Yes

Tenement	Number of costeans/pits	Size of costean (length x width) (m2)	Average depth (m)	Volume excavated (m3)	Total Volume Excavated (m3)	Total area of disturbance
EL 6041	4	150.0	1.0	150.00	600.0	300.0

Describe site preparation methods, vegetation clearance, and safety and maintenance requirements

Each bulk sample disposal pit will only be excavated within the footprint/disturbed area of the drill pad during the rehabilitation of the drill pad. The site will be selected central to proposed RC program collar pattern and where there is flat topography and minimal vegetation coverage (no trees). A small pit will be excavated within the drill pad as part of the drill pad rehabilitation program, with the bulk sample material being placed immediately within the disposal pit. There will be no additional vegetation clearance for the excavation of a disposal pit. The excavated material and topsoil will be stored within the drill pad area and used for the rehabilitation of the drill pad.

Rehabilitation of the disposal pit will be part of, and as per, the rehabilitation process for the drill pad. There are no safety or maintenance requirements, as the disposal pits will be backfilled immediately with the bulk sample material.

It is proposed that only one costean of this size (10m x 15m x 1m - 150m³) will be excavated for disposal of drilling samples for the whole program, not one costean for each drill pad / hole. There should only need to be 2 costeans of this size - one at Wilkins and one at Green and Gold. they will be dug on one drill pad central to the drilling.

Sample management

Describe the size of samples collected (including drilling samples and bulk sampling), collection methods, materials used when collecting the sample, sample disposal methods (including removal of sample bags), safety management and any other sample management requirements at the exploration site (e.g. tarps or matting used to contain cuttings). Include requirements for on-site geological sample management (splitting of archive samples, bag farms, core processing and storage).

Each RC and AC drillhole will be sampled from surface at 1 m intervals. Three samples will be collected per metre; one bulk sample collected in a bucket then emptied on the ground adjacent to the rig at each site (no green RC bulk bags used), and two calico sample bags (approximately 2 kg each) for laboratory assay collected from the cyclone rotary cone splitter.

Calico sample bags are removed from site at the completion of each drilling day and stored at the White Dam mine site prior to lab dispatch. Bulk sample material will be pushed into a small pit excavated on each drill pattern. Topsoil from each pit will be removed and stacked separately then reinstated on top as part of drill pad rehabilitation.

Access routes to work areas

Will existing tracks require upgrading and/or maintenance?

No

Detail the work required to upgrade/maintain existing tracks.

—

Will access be required across adjoining tenements?

No

Detail the method(s) for gaining access, and if an agreement is in place with all stakeholders. Include the total area of disturbance required (i.e. length (km) and width (m) of tracks) and provide on a locality map.

Green and Gold Project

Access for the Green and Gold project area will be from the Barrier Hwy onto a pre-existing Bulloo Creek station track to access Green and Gold. A proposed access track totalling of 3.06 km will be required to access the RC and AC drilling lines. No additional tracks are proposed outside of the proposed Green and Gold project area within EL 6041. A Notice of Entry has been submitted to the Riggs family. An access and compensation agreement is not required with the pastoral leaseholder.

Wilkins Project

Access for the Wilkins project area will be from the Barrier Hwy onto Tikalina Road to access Wilkins East. Wilkins West will be accessed from Barrier Hwy and onto preexisting station tracks. A total of 1 km worth of pad tracks will be required from existing tracks to access the areas requiring clearing for the RC drilling. No tracks will be required for the Aircore drilling. A Notice of Entry was submitted to Havilah by Pacgold and sent to the Treloar Family. Access and a compensation agreement will be executed with the pastoral leaseholder.

Will access off existing tracks be required?

Yes

Detail the method(s) for gaining access and if vegetation clearance is required. Details of the total area of disturbance (includes drill traverses and seismic lines) required off existing tracks (i.e. length (km) and width (m) of new tracks) must be provided in the program notification.

Green and Gold Project

At the Green and Gold project area, an existing track through the area of historical workings provides access to several of the proposed drill section lines. Access to RC and AC drill holes will be from a new track branching off the central, existing access route. For RC drilling, as drill collar spacing is relatively close—approximately 20 m—drill pads effectively form a continuous line along each section, meaning additional connecting tracks between pads are not necessary. The total meterage of new tracks has been minimised. The regional RC lines, following up the magnetic anomalies, and AC lines, will need an access track totalling 3.06 km in length and 5 m in width to be constructed to reach the drill sections. No trees will be removed, and vegetation clearance will be limited to light scraping of tracks with a grader.

EPEPR Figure 06 – Green and Gold Drilling Program.

Wilkins Project

At the Wilkins project area, a few existing tracks traverse the project area giving excellent access to some of the proposed drill section lines. The exception is the eastern pattern at Wilkins West where tracks totalling 590 m in length and 5 m in width will be constructed to allow access to drill sections in this area. A single track totalling 590 m is required to access the RC drill pattern at Wilkins East. As drill collar spacing is close at approximately 20 m, drill pads are essentially continuous on section lines and tracks connecting drill pads (drill traverse tracks) are not required.

EPEPR Figure 07 – Wilkins Drilling Program.

EPEPR Figure 08 – Wilkins East Drilling Program.

EPEPR Figure 09 – Wilkins West Drilling Program.

Attach Files ⓘ

Expand/Collapse

File Name	File Size (Mb)	Created On	Download
EPEPR Figure 06 - Green and Gold Drilling Program (Green and Gold Project).pdf	0.29 Mb	10-08-2026 12:22:50	Download (MERS/EP-04217/Access routes to work areas/EPEPR Figure 06 - Green and Gold Drilling Program (Green and Gold Project)_2026-08-10T02-52-50.868Z.pdf)
EPEPR Figure 07 - Wilkins Drilling Program (Wilkins).pdf	0.29 Mb	10-08-2026 12:22:50	Download (MERS/EP-04217/Access routes to work areas/EPEPR Figure 07 - Wilkins Drilling Program (Wilkins)_2026-08-10T02-52-50.884Z.pdf)
EPEPR Figure 08 - Wilkins East Drilling Program (Wilkins).pdf	0.34 Mb	10-08-2026 12:22:50	Download (MERS/EP-04217/Access routes to work areas/EPEPR Figure 08 - Wilkins East Drilling Program (Wilkins)_2026-08-10T02-52-50.889Z.pdf)
EPEPR Figure 09 - Wilkins West Drilling Program (Wilkins).pdf	0.29 Mb	10-08-2026 12:22:50	Download (MERS/EP-04217/Access routes to work areas/EPEPR Figure 09 - Wilkins West Drilling Program (Wilkins)_2026-08-10T02-52-50.884Z.pdf)

Campsites and equipment laydown areas

Indicate where staff and contractors will be accommodated during the exploration program.

All staff and contractors will be accommodated in company premises at the White Dam Mine Camp located 1.5 km north of the Barrier Hwy at Bindarra Station.

What is the maximum number of personnel requiring accommodation?

7

Is a campsite required to be established?

No

Provide a description and justification of the camp location (e.g. previously cleared areas etc.), and any other relevant information.

What will be the total area (ha) of the campsite(s)?

0.00

Will native vegetation clearance be required?

No

What will be the total area (ha) of vegetation clearance for the campsite?

0.00

Describe the methods used to prepare the campsite including vegetation requirements and site levelling.

N/A

Will any excavations be required?

No

Describe the purpose of the excavation

N/A

Describe the maximum volume (m3) of material to be excavated.

0.00

Provide confirmation that the proposed ablution facilities have been endorsed for use by the Department of Health or local council, where applicable.

No

Indicate why endorsement approval is not required by the Department of Health or local council.

N/A

Proposed infrastructure (includes caravans, tents, offices, hydrocarbon and water storage requirements etc)

Proposed infrastructure	Quantity	Description / capacity
N/A	0	N/A

Will laydown areas be required?

Yes

Will the laydown area(s) be located at the same location as the campsite?

No

Provide a description and justification of the location (e.g. previously cleared areas), and any other relevant information if required.

Within each project area, a laydown area will be established on a Priority 2 proposed drill pad and moved to another pad once drilled. Minimal equipment will be stored in this location. Minimal vegetation exists and no further disturbance will be required.

What will be the maximum area (ha) required for the laydown area(s)?

0.20

Will native vegetation clearance be required?

No

What will be the total area (ha) of vegetation clearance for the site?

—

Describe the methods used to prepare the laydown area including vegetation requirements and site levelling.

—

Will any excavations be required?

No

Describe the purpose of the excavation.

—

What will be the volume (m3) of material to be excavated.

—

Proposed infrastructure (includes hydrocarbon and water storage requirements)

Proposed infrastructure	Quantity	Description / capacity
Minimal Drilling related equipment	1	Within each project area, a laydown area will be established on a Priority 2 proposed drill pad and moved to another pad once drilled. Minimal equipment will be stored in this location. Minimal vegetation exists and no further disturbance will be required.

File Name	File Size (Mb)	Created On	Download
No Files Uploaded			

Other exploration methods and/or ancillary operations

Are any other proposed exploration methods (e.g. seismic) and/or ancillary exploration operations required?

No

Describe the activity(s), site preparation, vegetation clearance, and safety and maintenance requirements.

Water supply and management

Will camp and/or drilling water be required?

Yes

Describe how and where water will be sourced for drilling, track maintenance and camping purposes (e.g. groundwater, surface water, mains). Indicate how wastewater and/or runoff water will be managed.

All water for drilling and track maintenance will be sourced from the White Dam Gold Mine site. Mine water originates from a series of mine and station dams and from existing production bores within the WDGM site. Minimal water is used as part of the RC and Aircore drilling methods (<1,000l/day). Given the minimal track maintenance requirements (due to the gentle topography and low rainfall), overall water usage throughout the program will be low.

Will surface water and/or mineral drillholes be used as a water source/supply?

Yes

Indicate if a licence for water extraction/usage is required (refer to relevant Natural Resources Management water allocation plan available on the Department for Environment and Water (DEW) website).

No

Attach a copy of the licence or include a statement confirming that a licence will be obtained before the extraction and/or usage of water.

N/A - The exploration project areas are located outside the Far North Prescribed Wells Area and, as such, are not within the relevant Water Allocation Plan. Therefore, there is no requirement for a water extraction/usage licence.

Groundwater investigation and water affecting activities

Will any water investigation (e.g. pump testing, water monitoring sites, water storage, turkey nests/dams) and/or water affecting activities, be undertaken (refer to s. 127 of the Landscape South Australia Act 2019)?

No

Describe the water investigation and/or water affecting activities, including site preparation, vegetation clearance, and safety and maintenance requirements.

Indicate if water affecting activities permits (eg well and water extraction/discharge permits) have been obtained and in accordance with the Landscape South Australia Act 2019.

—

Attached Files ⓘ

[Expand/Collapse](#)

File Name	File Size (Mb)	Created On	Download
No Files Uploaded			

Management of hazardous materials

Will activities be conducted in areas of known uranium and thorium mineralisation?

No

Attach Files ⓘ

[Expand/Collapse](#)

File Name	File Size (Mb)	Created On	Download
No Files Uploaded			

Will any other hazardous material be encountered when exploring in the area?

No

List the types of hazardous materials and provide a management plan on how these materials will be managed.

Rehabilitation

Detail all the activities and strategies relating to the remediation of all impacts associated with the proposed exploration operations (includes exploration camps and laydown areas, tracks). Completion of rehabilitation must be achieved within 3 months after the expiry of each program notification.

As the existing access track network is in place, only minimal new track construction is required, and so track rehabilitation works will be minor in scope. New track rills will be graded back to natural surface contours and stockpiled topsoil/organic material raked over the top.

Rehabilitation of drill sites will include the back-filling of holes with any excess drill chips and cement grout; removal of PVC collar and plugging of collar; the removal of geological and geochemical assay samples from the site; removal of any plastic liners and any remaining drill cutting spillage (if any); restore land to original contours as required, returning material in the reverse order of excavation; and clear site of any introduced rubbish.

A continuous drill pad/site and drill hole rehabilitation campaign using onsite equipment will be undertaken on average every 2 weeks, resulting in no more than 30 drill sites remaining unrehabilitated at any time.

Sumps will be backfilled with the excavated sump material.

Track and drill pad seeding using local native species will be undertaken where required and all sites will be monitored at six-monthly intervals for regeneration.

All waste will be removed from the drill hole site and disposed of in accordance with the WDGM Waste Management Plan.

State the estimated budget required to rehabilitate all impacted sitesState the estimated budget required to rehabilitate all impacted sites. Include a breakdown of the cost associated with each rehabilitation component

Green and Gold: At an estimate of \$500 per RC hole and \$50 per AC hole, \$55,850
Wilkins: At an estimate of \$500 per RC hole and \$50 per AC hole, \$125,200.

Vegetation Clearance

Will any area of cleared native vegetation be unrehabilitated after the authorised period?

No

Provide a map and description of the vegetation present in the application area, the extent of any proposed vegetation clearance and the likelihood of the presence of threatened flora.

State the estimated quantum of significant environmental benefit (SEB) to be gained in exchange for the proposed native vegetation clearance and describe how the SEB will be provided.

Tenemen t Name ↑	Tenement Holder	Tenement Operators	Grant Date	Expiry Date	Tenemen t Type	Location Descripti on	Teneme nt Area	Teneme nt Status	Shape Identifie r
EL 6041	Iron Genesis Pty Ltd	Exco Operations (SA) Pty Limited; Heavy Rare Earths Limited; Polymetals (White Dam) Pty Ltd	16/08/20 17	15/08/20 28	Exploratio n Licence	Tikalina area approximat ely 15km east of Olary	334.00	Active	1000938 0-0001

Management of Environmental Impacts

Applicable environmental aspects and potential impacts

Environmental Aspect	Receptor	Potential Impact	Control Strategies	Risk	Outcomes	Outcome Measurement Criteria
Aboriginal heritage	Aboriginal heritage sites	Disturbance to Aboriginal heritage	With respect to the Green and Gold project, a Native Title Mining Agreement is in place between the Wilyakali and Havilah Resources. With respect to the Wilkins project, a review of Native Title and Cultural Heritage clearance requirements was completed, and a Heritage Survey agreement is in place between the Wilyakali and Havilah Resources. Pacgold is currently in discussion with relevant parties to undertake an Aboriginal heritage survey of the project area. The survey will be completed prior to the commencement of the exploration drilling program. Pacgold is currently in discussion with relevant parties to undertake an Aboriginal heritage survey of the project area. The survey will be completed prior to the commencement of the exploration drilling program. Any sites identified in the heritage clearance survey report will not be included in exploration activities. Should any new sites be identified or suspected during the exploration activities, the relevant cultural heritage representatives will be notified, and further disturbance will be avoided. If	Low	No disturbance to Aboriginal artefacts or sites of significance unless prior approval under the relevant legislation is obtained.	Maintain a database and provide a statement within the 'Compliance with approved programs' section of the annual exploration compliance report demonstrating that: • Heritage sites were not impacted during the conduct of the exploration program, unless prior approval was obtained under the appropriate legislation • Work ceased on discovery of a significant site and recommenced only after authorisation. • Aboriginal heritage sites identified during the exploration program were appropriately recorded and reported to authorities, if not previously known.

Environmental Aspect	Receptor	Potential Impact	Control Strategies	Risk	Outcomes	Outcome Measurement Criteria
			Aboriginal cultural heritage artefacts are observed during fieldwork, log the location, leave the site undisturbed, and avoid any future work at that location. Exploration activities undertaken in accordance with the existing NTMA.			

Environmental Aspect	Receptor	Potential Impact	Control Strategies	Risk	Outcomes	Outcome Measurement Criteria
Stakeholders	Stakeholders	Interference to: • existing or permissible land use (includes loss of income, noise, dust, light and other emissions). • buildings, structures, existing tracks or other infrastructure. • aesthetic values of an area. Noncompliance with legislative requirements.	Native Title Parties: Communicate planned activities and their locations in a timely manner and address any concerns about location or timing prior to program commencement. Avoid any culturally sensitive areas within the work program area. Pastoral Lease Holders: Communicate planned activities and their locations in a timely manner and address any concerns with location or timing prior to program commencement, particularly any concerns around stock management (e.g. mustering activities) Existing station tracks will be used wherever reasonable and practicable to do so. Regular communication will occur between Pacgold staff and station managers to advise of program details, vehicle movements, and any changes to the program in advance. Unnecessary disturbance of vegetation will be avoided. Rehabilitation works will be completed within 3 months of completion of the drilling program. State Government Departments: Non-compliance with legislative requirements: Comply with all legislative requirements for low-impact and	Low	Stakeholders are fully informed and satisfied with the proposed methods used to conduct exploration activities on their land, and all prescribed forms are served and agreements obtained in accordance with the Mining Act.	Provide the information requested within the 'Complaints' section of the annual exploration compliance report demonstrating that all reasonable complaints from stakeholders are resolved to the satisfaction of both parties prior to and ongoing during the course of exploration program, without the involvement of DEM. Provide the information requested within the 'Landowner details and liaison' section of the annual exploration compliance report demonstrating that prescribed forms were served and agreements obtained in accordance with the Mining Act prior to the commencement of exploration activities.

Environmental Aspect	Receptor	Potential Impact	Control Strategies	Risk	Outcomes	Outcome Measurement Criteria
			advanced exploration activities.			
Fire	Community/landowners	Damage to infrastructure and loss of income through fire.	Drilling to comply with DEM guidelines to minimise impact to landholders. Where possible, schedule field programs outside the fire danger period. Field induction to environmental conditions and exploration areas. No smoking policy for all employees and contractors. Drill rig to be equipped with fire extinguishers. Care with vehicle exhaust systems as a potential fire ignition point. As part of pre-start checks, check for grass buildup around vehicle exhaust systems. Take care to park vehicles in areas clear of long dry grass and other flammable vegetation. Avoid petrol small engines; use diesel engines where possible. Avoid any spark-generating activities such as metal grinding, welding or cutting. Contractor hot work procedures.	Low	No loss of infrastructure or income through fire as a result of exploration activities.	Provide a statement within the 'Compliance with approved programs' section of the annual exploration compliance report confirming that no uncontrolled fires* occurred. Alternatively, provide a report on the independent investigation of all uncontrolled fires* demonstrating that the licensee could not have reasonably prevented the fire through the implementation of precautionary measures.
Other	N/A	N/A	N/A	Low	N/A	N/A

Environmental Aspect	Receptor	Potential Impact	Control Strategies	Risk	Outcomes	Outcome Measurement Criteria
Soil	Soil	Disturbance to the soil profile and topography, and accelerated soil erosion caused by exploration activities (e.g. construction of sumps, new tracks and drill pads; ground compaction at laydown areas and camps).	Minimal soil disturbance is anticipated due to the gently sloping topography and presence of surface rock (lag and float layer) within the project area. Only minor vegetation removal will be required in most areas. Where significant change to surface contours will be necessary, a cut and fill method will be employed to minimise depths of excavation. Topsoil, subsoil and weathered bedrock will be excavated and stored separately and reinstated in order Machinery will be confined to planned tracks and pads to avoid adjacent soil disturbance. Where topography may promote erosion rills and scouring on tracks, mitre drains will be installed through windrows and rollovers constructed if required to direct surface water off tracks onto a stable land surface. At the conclusion of the program, windrows will be pulled back onto the tracks, mitre drains filled in and drill pads and existing contours reestablished. Monitor existing track condition where regularly trafficked for track stability and bulldust creation. Restrict driving on existing tracks after significant rainfall to avoid track erosion. Following track/pad rehabilitation, check	Low	Where soil disturbance occurs as a result of exploration activities, ensure that: • topsoil quality and quantity is maintained • the soil profile and topography is reinstated to original conditions • there is no accelerated soil erosion.	Maintain before, during and after photographic evidence of all excavations, drillsites, camps, laydown areas and new tracks demonstrating that: • The soil profile and topography is reinstated to original conditions and is consistent with natural surroundings within 3 months of the expiry of the PEPR approval (for PEPRs approved for a period of 12 months), or 3 months after the expiry of a program notification (for PEPRs approved for an ongoing period), unless otherwise authorised. • Where required, sufficient topsoil is removed (depending on soil profile), stored separately from subsoil and reinstated (in the correct order) within 3 months of the expiry of the PEPR approval (for PEPRs approved for a period of 12 months), or 3 months after the expiry of a program notification (for PEPRs approved for an ongoing period), unless otherwise authorised. • There are no signs of accelerated soil erosion during and post rehabilitation of disturbed sites. Representative photos to be included within the annual exploration compliance report. Provide the information requested within the 'Rehabilitation' section of the annual exploration compliance report.

Environmental Aspect	Receptor	Potential Impact	Control Strategies	Risk	Outcomes	Outcome Measurement Criteria
			for native vegetation establishment and potential weed infestation at 6-monthly intervals until stabilised.			
Groundwater	Soil/vegetation/fauna	Discharge of groundwater into the surrounding environment.	Any groundwater intersected during the drilling will be captured in the sumps on the drill pads. Groundwater discharge to the surface will be contained on the drill pad and diverted to the sumps. Stop drilling if groundwater cannot be managed, and only restart when groundwater discharge is under control. Sumps will not be lined to allow seepage of intercepted groundwater into the underlying formations.	Low	No discharge of groundwater outside of the exploration site (e.g. drillsite) into the surrounding environment and no discharge of water into a watercourse, unless prior approval under the relevant legislation is obtained.	Maintain photographic evidence of all drillsites demonstrating that groundwater was not discharged into the surrounding environment, unless water affecting activity permits were obtained allowing the discharge of groundwater into watercourses and/or lakes. Representative photos and water affecting activity permits (where applicable) to be included within the annual exploration compliance report.

Environmental Aspect	Receptor	Potential Impact	Control Strategies	Risk	Outcomes	Outcome Measurement Criteria
Groundwater users	Groundwater users	Interference to existing water users when extracting water from existing dams, water bores or mineral drillholes.	The exploration program is unlikely to interfere with or affect the groundwater resources in the area. All water for drilling and track maintenance will be sourced from the White Dam Gold Mine site. Mine water originates from a series of mine and station dams and from existing production bores within the WDGM site. Minimal water is used as part of the RC drilling method (<1,000l/day). Given the minimal track maintenance requirements (due to the flat-lying topography and low rainfall), overall water usage throughout the program will be low. Water from the WDGM station dams is collected with the permission of the pastoral lease holder. No exploration drillholes will be used to extract groundwater during drilling.	Low	No public nuisance impacts resulting from the extraction of water for exploration purposes, unless prior approval under the relevant legislation is obtained.	Provide the information requested within the 'Complaints' section of the annual exploration compliance report demonstrating that all reasonable complaints from stakeholders were resolved to the satisfaction of both parties, prior to and ongoing during the course of the exploration program without the involvement of DEM. Where permits are required for the extraction and/or usage of groundwater, provide copies of the licence or permit within the annual exploration compliance report.

Environmental Aspect	Receptor	Potential Impact	Control Strategies	Risk	Outcomes	Outcome Measurement Criteria
Fauna	All fauna	Entrapment of fauna through open drillholes and excavations.	Sumps will be designed/sloped to ensure that fauna can escape if it accidentally falls into a sump. Windrows will be established around the sumps to deter fauna from congregating around the sumps and potentially falling in. Retain drill hole collar casing and secure casing opening with a PVC cap immediately after completion of the hole. During drill pad rehabilitation operations, cut and bury drill hole casing to specifications including permanently capping the drill hole with a conical concrete hole plug. When burying drill cuttings on drill pads, ensure the temporary excavation is not left unattended or unprotected by fencing to prevent fauna or livestock entering the excavation.	Low	No fauna traps created as a result of exploration activities.	Maintain before, during and after photographic evidence of all drillholes and/or excavations demonstrating that: • All drillholes were permanently or temporarily capped/plugged immediately upon completion. • No fauna and livestock became trapped in drillholes and/or excavations throughout the duration of the program. • All rehabilitation was completed within 3 months of expiry of the PEPR approval (for PEPRs approved for a period of 12 months), or 3 months after the expiry of a program notification (for PEPRs approved for an ongoing period), unless otherwise authorised. Representative photos are to be included within the annual exploration compliance report. Provide the information requested within the 'Rehabilitation' section of the annual exploration compliance report.

Environmental Aspect	Receptor	Potential Impact	Control Strategies	Risk	Outcomes	Outcome Measurement Criteria
Groundwater	Groundwater/aquifer	Groundwater contamination: • contamination of aquifers through entry of pollutants from the surface • interconnection between aquifers • degradation of natural hydrostatic conditions (maintain pre-drilling pressures).	Removal of all rubbish, material and other waste from the exploration area following completion of activities for disposal in accordance with local waste regulations and the WDGM Waste Management Plan, with site inspection undertaken to ensure compliance. Proper storage and disposal of all chemical materials used in drilling operations, with onsite storage in secure, pallet-bunded or self-bunded storage tanks. Regular inspection and maintenance of equipment to ensure no leaks or inadvertent spills occur while proposed drilling operations are conducted. Use and ready availability of plastic liners and/ or chemical absorbent material in areas of potential chemical spills. Refuelling of light vehicles to be undertaken at the WDGM operational area. The drill rig will be refuelled with standard operating practices designed to minimise the chances of hydrocarbon spills. Spill kits will be kept on the drill rig and/or drill contractor support vehicles. Adequate training of procedures and requirements to all staff and contractors on chemical handling, safe use, storage,	Low	Drillholes restored to controlling geological conditions that existed before the hole was drilled or, where it is intended to re-enter the hole, the hole must be completed with casing of adequate strength and the casing cemented so that all aquifers are isolated to prevent the movement of any fluids behind the casing.	Maintain evidence demonstrating that drillholes are decommissioned in accordance with Earth Resources Information Sheet M21, Mineral exploration drillholes – general specifications for construction and backfilling, and/or specific conditions from DEW (Groundwater) within 3 months of the expiry of the PEPR approval (for PEPRs approved for a period of 12 months), or 3 months after the expiry of a program notification (for PEPRs approved for an ongoing period), unless otherwise authorised. Provide the information requested within the 'Groundwater' section of the annual exploration compliance report.

Environmental Aspect	Receptor	Potential Impact	Control Strategies	Risk	Outcomes	Outcome Measurement Criteria
			and disposal. Decommissioning and rehabilitation of drill holes in accordance with regulatory guidelines.			

Environmental Aspect	Receptor	Potential Impact	Control Strategies	Risk	Outcomes	Outcome Measurement Criteria
Native Vegetation	Flora and fauna and their habitats; includes Common wealth and state scheduled species.	Loss/modification of native vegetation and associated habitats through the clearance of vegetation.	Use of existing tracks where possible. Gently sloping terrain and low rainfall will minimise the disturbance required to create new access tracks and drill pads. Use minimum pad dimensions to limit pad vegetation disturbance. Delineate new tracks (and drill pads where possible) using a light scrape grader method to minimise surface disturbance. Where vegetation is naturally absent or sparse, mark tracks with survey pegs instead of grading. Scraped vegetation with a thin layer of topsoil from tracks will be pushed up into windrows. At the conclusion of the program, windrows will be pulled back onto the tracks and existing contours reestablished. Regrowth of native vegetation will be monitored over time and if required, seeding with native species will take place. No trees will be removed during track or pad construction. Where excavation is required for drill pads for drill rig levelling, a cut and fill method will be employed to minimise depths of excavation. Topsoil, subsoil and weathered bedrock will be excavated and stored separately and reinstated in order.	Low	No permanent loss/modification of native flora and fauna populations and their habitats through: • clearance • fire • other unless prior approval under the relevant legislation is obtained.	Maintain before, during and after photographic evidence of all exploration sites (e.g. drillsites, new track exit/entry points off existing tracks, costeans, campsites) demonstrating that: • The area and method of disturbance is consistent with that described in the PEPR. • No uncontrolled fires* occurred as a result of exploration activities. Representative photos to be included within the annual exploration compliance report.

Environmental Aspect	Receptor	Potential Impact	Control Strategies	Risk	Outcomes	Outcome Measurement Criteria
			Avoid crossing surface water drainage where possible. No activity on days of Total Fire Ban. Take photographs of representative track locations and all new drill pad locations before program commencement and after completion and rehabilitation. Drill pads and associated infrastructure will be decommissioned, removed and rehabilitated at the completion of the exploration program unless prior approval under the relevant legislation is obtained			
Third party access	Soil/vegetation/fauna	Degradation of rehabilitated access tracks caused by third party access (includes previously closed and rehabilitated access tracks).	No expectation at this stage of using rehabilitated and closed tracks. Any access tracks will be directed in consultation with the landholder.	Low	Rehabilitated access tracks remain permanently closed, unless prior approval under the relevant legislation is obtained.	Maintain before and after photographic evidence demonstrating that all tracks are closed and rehabilitated within 3 months of the expiry of the PEPR approval (for PEPRs approved for a period of 12 months), or 3 months after the expiry of a program notification (for PEPRs approved for an ongoing period), unless otherwise authorised. Representative photos are to be included within the annual exploration compliance report. Provide the information requested within the 'Rehabilitation' section of the annual exploration compliance report.

Environmental Aspect	Receptor	Potential Impact	Control Strategies	Risk	Outcomes	Outcome Measurement Criteria
Weeds and Pathogens	All flora and fauna, especially listed species.	Loss/modification of the environment (biological, social and economic) through the introduction of weeds and pathogens.	All exploration vehicles (including light vehicles and drilling equipment) entering the EPEPR area must undergo washdown procedures to remove weed seeds prior to entry. If vehicles enter other properties during the program, the washdown is to be completed again prior to re-entry. Avoid areas of existing weed infestation when traversing ungraded tracks to prevent further weed seed dispersal. Take photographs of representative track locations and all new drill pad locations before program commencement and after completion and rehabilitation. Inspection of the drill sites to check for any introduced species and removal if found.	Low	No introduction of new species of weeds and plant pathogens, nor increase in abundance of existing weeds species.	Provide a statement within the 'Compliance with approved programs' section of the annual exploration compliance report, confirming that: • Vehicle logs were kept during the exploration program, demonstrating that all vehicles are clean and free of plant and mud material prior to entering properties† within the tenement areas, unless otherwise agreed to with the relevant landowners. • Photographic evidence before and during exploration operations and after rehabilitation of disturbed sites was captured, demonstrating that no new weeds and plant pathogens were introduced, nor an increase in abundance of existing weeds recorded.

Environmental Aspect	Receptor	Potential Impact	Control Strategies	Risk	Outcomes	Outcome Measurement Criteria
Contamination	Soil/vegetation/fauna	Soil/vegetation contamination (e.g. hydrocarbons, rubbish, drill samples/cuttings, ablutions, other sources)	Prestart checks will be undertaken on the plant and equipment to identify any leaks. Hydrocarbon spills or drips from drilling equipment and support vehicles are to be cleaned up immediately upon completion of each hole and disposed of in accordance with the Act and the WDGM Waste Management Plan. All hydrocarbons and chemicals related to drilling operations will be stored in bunded and lined specific-purpose or temporary storage facilities. Field crews to ensure no rubbish or waste from drilling/sampling/surveying activities (e.g. oil rags, sample bags) is left on site. In the unlikely event of hydrocarbon spills from LVs, ATVs, or trailer-mounted generators, spill kits are to be available for cleanup. All drill pads will be photographed at the completion of the program and after rehabilitation.	Low	No contamination of soil and vegetation as a result of exploration activities.	Demonstrate that all domestic or industrial waste (includes general rubbish and hydrocarbons) is disposed of in accordance with the Environment Protection Act 1993 within 3 months of the expiry of the PEPR approval (for PEPRs approved for a period of 12 months), or 3 months after the expiry of a program notification (for PEPRs approved for an ongoing period), and that all fuel and chemicals are stored in accordance with EPA requirements, by providing: • The name, location and contact details of the authorised waste disposal facility. • A statement within the 'Compliance with approved programs' section of the annual exploration compliance report confirming domestic and industrial waste was removed from all exploration sites and disposed of at an authorised waste disposal facility. • Photographic evidence within the annual exploration compliance report demonstrating that all fuel and chemical storage facilities were managed in accordance with EPA requirements. Maintain photographs of all exploration sites and provide representative photos within the annual exploration compliance report demonstrating that drill cuttings are: • removed from site and disposed of at a licensed facility • buried under a minimum of 30 cm of soil, or in accordance with EPA guideline, Radiation protection guidelines on mining in South Australia: mineral exploration, available on the EPA website, or • backfilled down the drillhole, within 3 months of the expiry of the PEPR approval (for PEPRs approved for a period of 12 months), or 3 months after the expiry of a program notification (for PEPRs approved for an ongoing period), unless otherwise authorised. Provide the information requested within the 'Rehabilitation' section of the annual exploration compliance report.

Environmental Aspect	Receptor	Potential Impact	Control Strategies	Risk	Outcomes	Outcome Measurement Criteria
Surface Water	Surface Water	Alteration to surface water – interference to surface drainage.	The terrain is gently undulating, with only an ephemeral water course (Cutana Creek) traversing the project area. Careful drill hole planning has avoided, to the extent practicable, placing drill collar locations within or on the banks of this watercourse. Where this could not be avoided, any temporary changes to watercourse or bank profiles will be rehabilitated to the original state immediately after the completion of drilling at each site.	Low	No permanent modification to hydrological features caused by exploration activities without obtaining a water affecting permit from the relevant Landscape Board (under Landscapes Act SA 2019).	Provide before, during and after photographic evidence within the annual exploration compliance report demonstrating that original drainage contours (watercourses and lakes) are consistent with the natural relief post rehabilitation within 3 months of the expiry of the PEPR approval (for PEPRs approved for a period of 12 months), or 3 months after the expiry of a program notification (for PEPRs approved for an ongoing period). Alternatively, provide copies of water affecting permits within the annual exploration compliance report.
General Public	General Public	Injury or death to members of the public as a result of exploration activities.	All exploration activities are planned on pastoral leasehold land distal to any public roads. When driving on public access roads, drive to conditions and limit speed, especially in dusty or wet conditions. Watch for other vehicles. If operating sampling or geophysical surveys near public roads, use appropriate warning signs on roadsides approaching the work area. Adopt practices to protect personnel, visitors, land users, and the public from dangers to health and safety arising from the exploration activities.	Moderate	No accidents involving the public that could have been reasonably prevented by the licensee.	Provide a statement within the 'Compliance with approved programs' section of the annual exploration compliance report confirming no accidents occurred involving the public during and after the exploration program. If an accident involving the public did occur, provide a copy of the independent investigation report within the annual exploration compliance report demonstrating that the licensee could not have reasonably prevented the accident through the implementation of precautionary measures.

Supporting Information

Photos

Upload Photos ⓘ

				Expand/Collapse
File Name	File Size (Mb)	Created On	Download	
Green and Gold Area.JPG	4.76 Mb	10-08-2026 13:22:30	Download (MERS/EP-04217/Supporting information/Photos/Green and Gold Area_2026-08-10T03-52-31.792Z.JPG)	
Wilkins West Area.JPG	5.04 Mb	10-08-2026 13:22:30	Download (MERS/EP-04217/Supporting information/Photos/Wilkins West Area_2026-08-10T03-52-31.791Z.JPG)	

Site identification	Date taken	Photo number & PEPR section reference	Easting (GDA94)	Northing (DGA94)	Zone	Details and comments	Document ID
Green and Gold Area	09/03/2026	Photo 1, Description of Environment	450000	6347500	54	View SW along line of lode at the central inclined shaft. Coordinates are approximate.	
Wilkins West Area	09/03/2026	Photo 2, Description of Environment	457500	6437000	54	View SW from the main shaft along the central gossan and line of workings. Coordinates are approximate.	

Supporting Maps

Upload Maps

				Expand/Collapse
File Name		File Size (Mb)	Created On	Download
EPEPR Figure 01 - Locality map (Green and Gold and Wilkins Projects).pdf		1.93 Mb	10-08-2026 12:39:25	Download (MERS/EP-04217/Supporting information/Maps/EPEPR Figure 01 - Locality map (Green and Gold and Wilkins Projects)_2026-08-10T03-09-26.380Z.pdf)
Green and Gold and Wilkins Exploration Scope.pdf		0.02 Mb	10-08-2026 12:41:46	Download (MERS/EP-04217/Supporting information/Maps/Green and Gold and Wilkins Exploration Scope_2026-08-10T03-11-47.388Z.pdf)

File Name	File Size (Mb)	Created On	Download
Green and Gold and Wilkins Project Description.pdf	0.04 Mb	10-08-2026 12:41:45	Download (MERS/EP-04217/Supporting information/Maps/Green and Gold and Wilkins Project Description_2026-08-10T03-11-46.764Z.pdf)

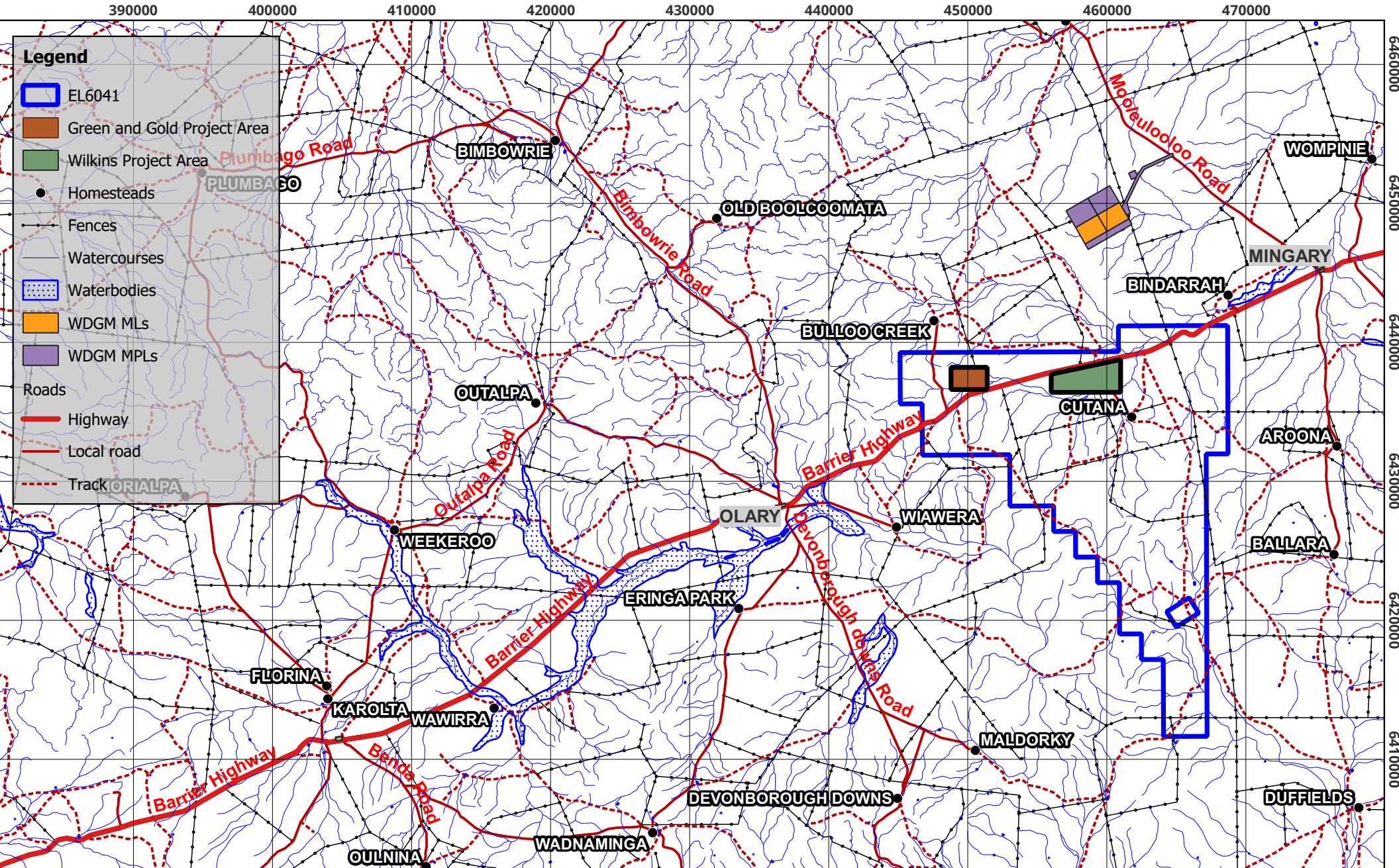
Figure Description	Document ID
Locality map (Green and Gold and Wilkins Projects)	EPEPR Figure 01

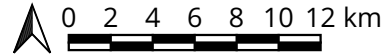
Additional Information

List any other supporting information and/or documents submitted with the application, including land access approvals/permits required to conduct the proposed exploration program.

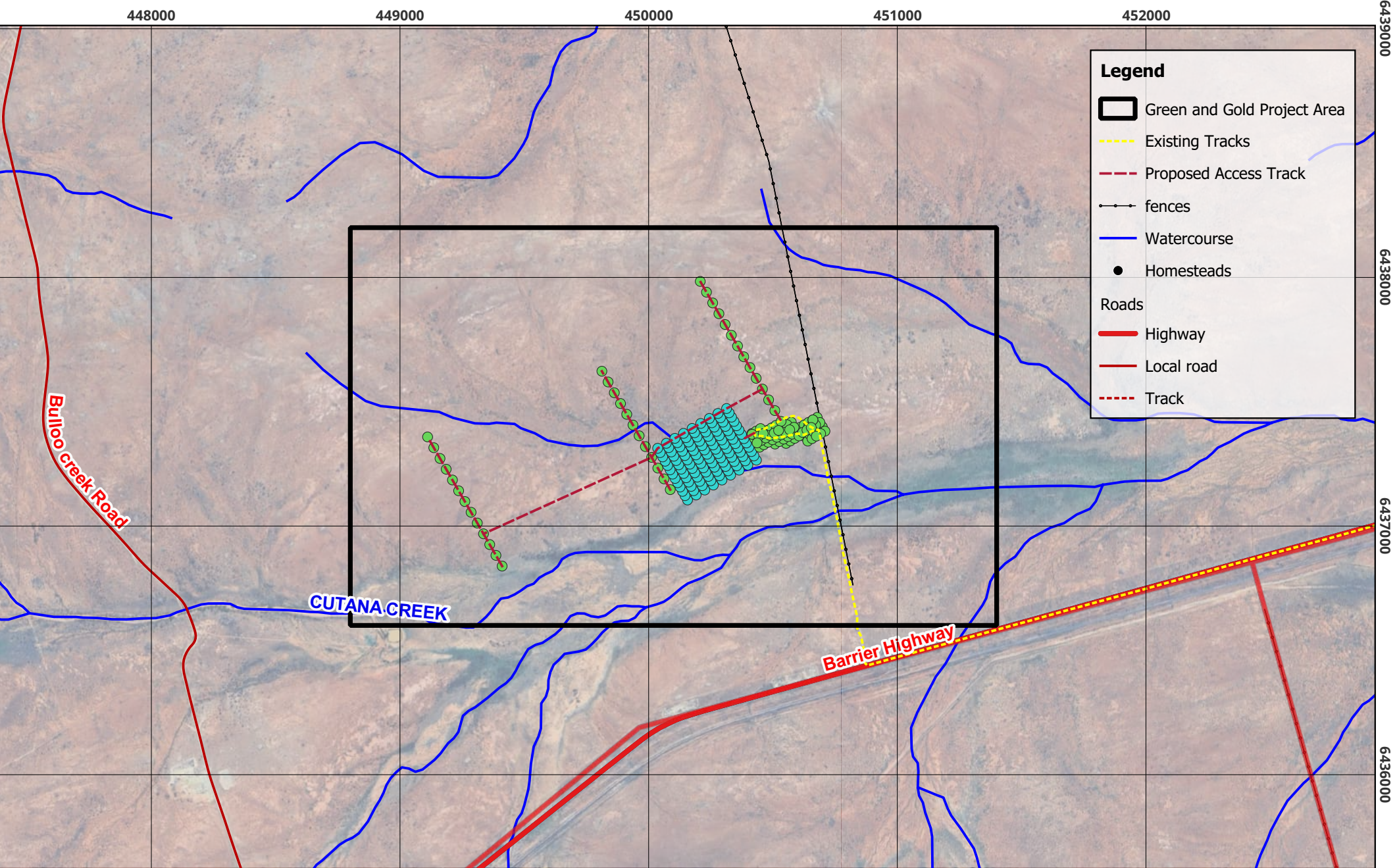
N/A

Pacgold Limited does not warrant the accuracy or completeness of information displayed in this map and any person using it does so at their own risk. Pacgold Limited shall bear no responsibility or liability for any errors, faults, defects, or omissions in the information.



Green and Gold and Wilkins Projects	Date created: 20/07/2026 Created by: Willy Van Vaerenbergh EPSG:28354 Datum:GDA94 / MGA zone 54	Data Attribution © Google 2026 © SA Government 2026 © Pacgold Limited 2026	 Scale (A4) 1:360000	Figure 01 - Locality map (Green and Gold and Wilkins Projects)
--	--	---	--	---

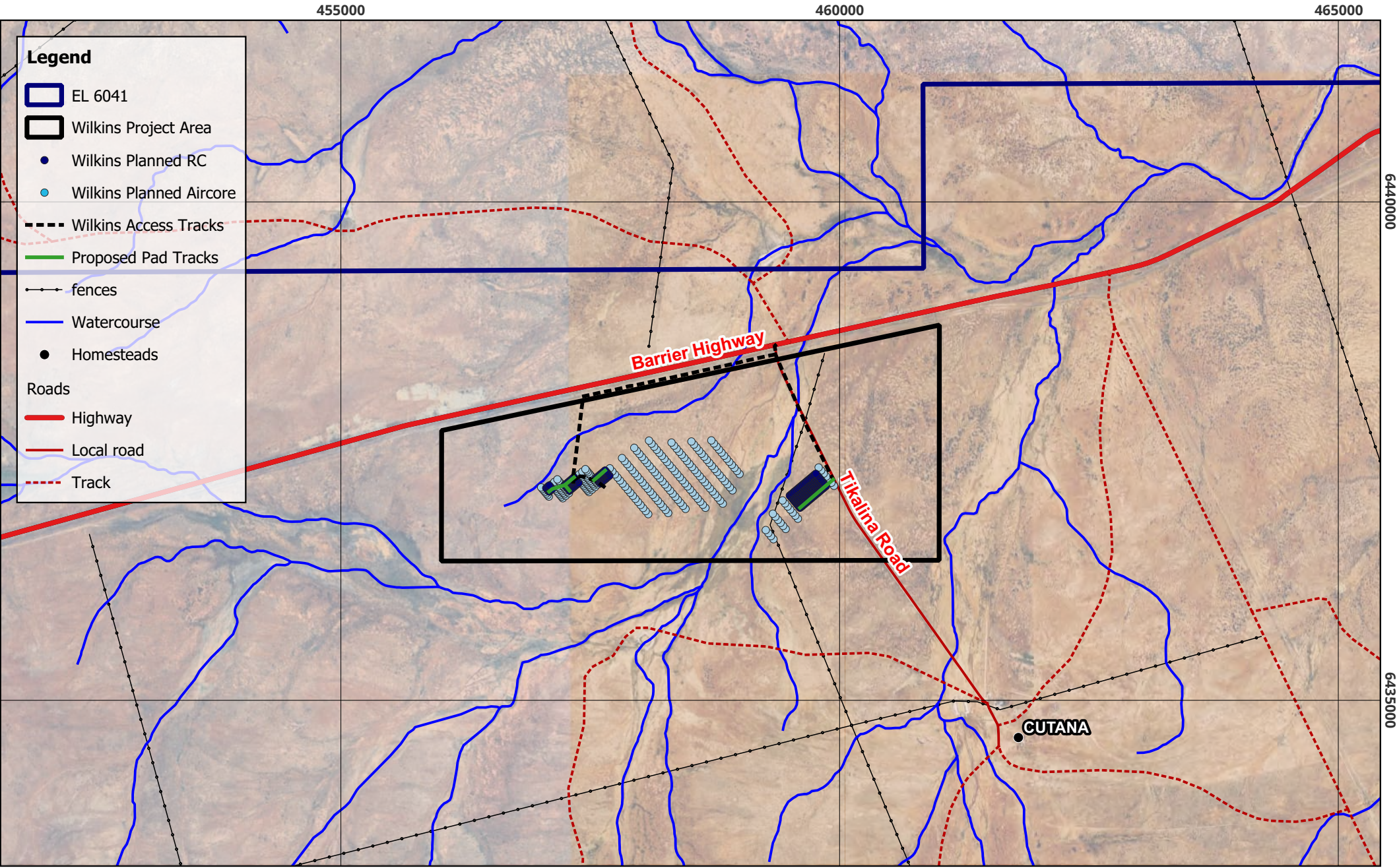
Pacgold Limited does not warrant the accuracy or completeness of information displayed in this map and any person using it does so at their own risk. Pacgold Limited shall bear no responsibility or liability for any errors, faults, defects, or omissions in the information.



Green and Gold and Wilkins Projects 2026-2027 Exploration PEPR	Date created: 16/07/2026 Created by: Willy EPSG:28354 Datum:GDA94 / MGA zone 54	Data Attribution © Google 2026 © SA Government 2026 © Pacgold Limited 2026	0 250 500 750 1,000 m Scale (A4) 1:20000	Figure 02 - Land access (Green and Gold)
--	--	---	--	--

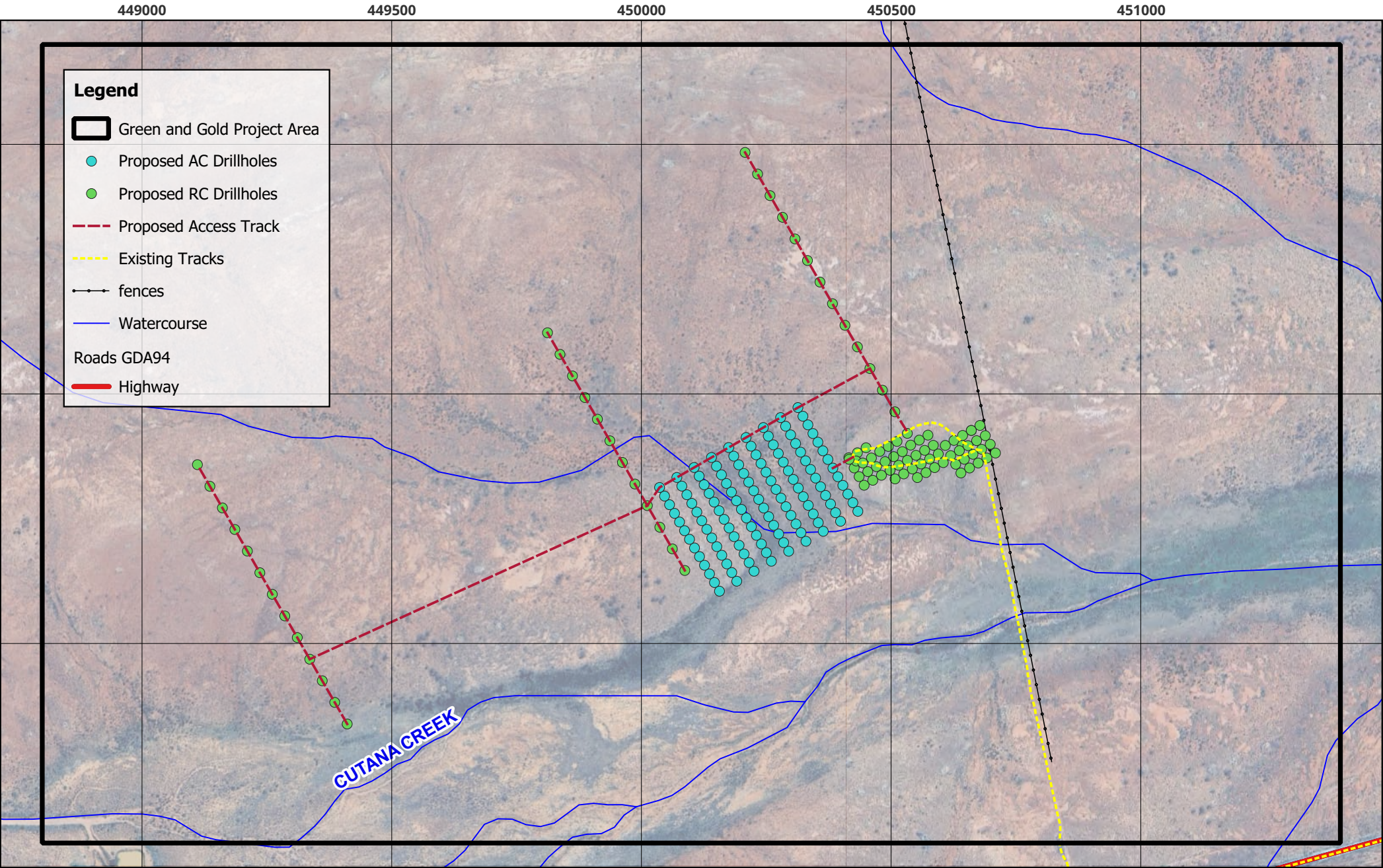
D:\J26001 - WDGM Support (PacGold)\3. GIS\3.07 QGIS\PacGold - Green and Gold EPEPR.qgz

Pacgold Limited does not warrant the accuracy or completeness of information displayed in this map and any person using it does so at their own risk. Pacgold Limited shall bear no responsibility or liability for any errors, faults, defects, or omissions in the information.



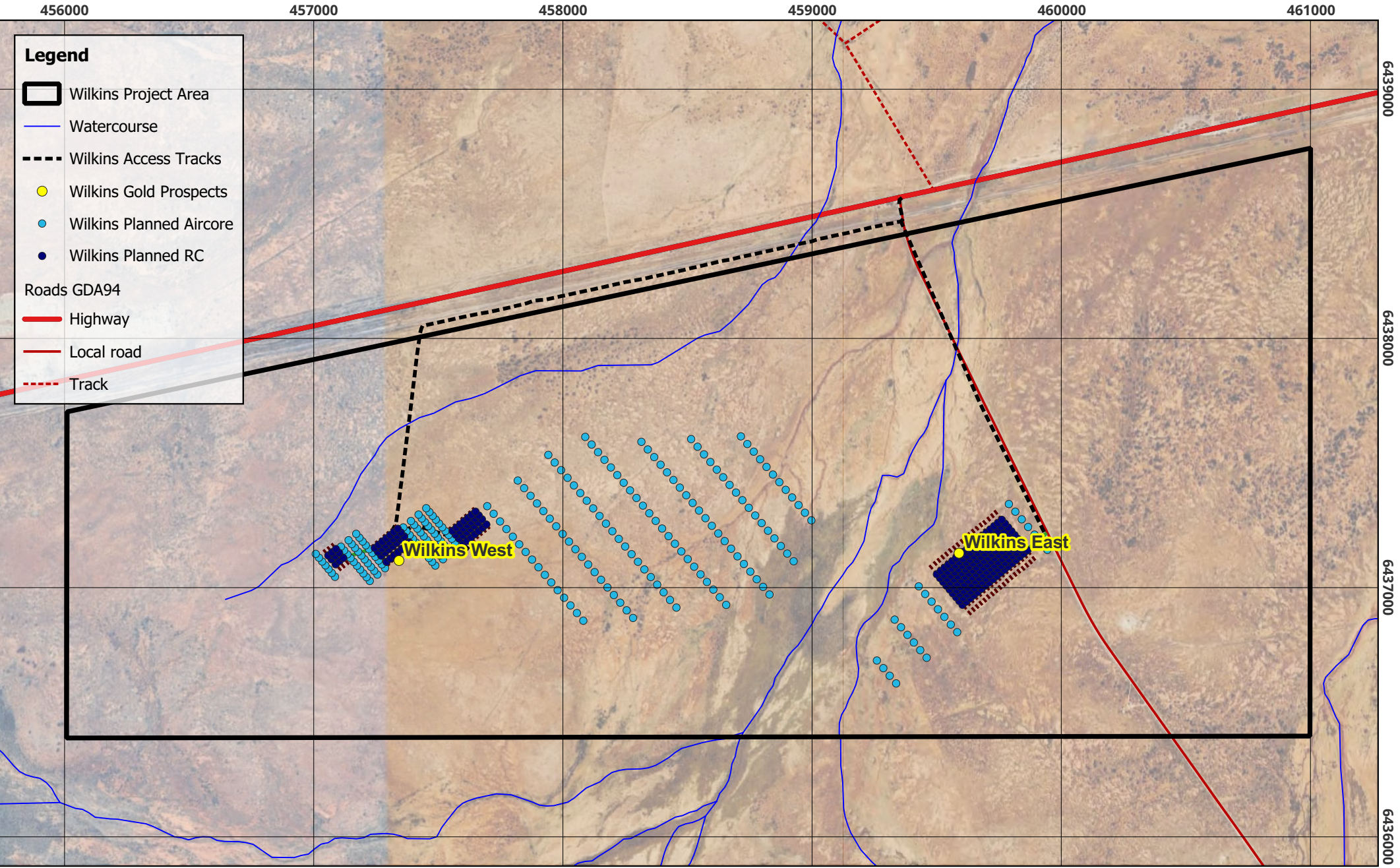
Green and Gold and Wilkins Projects	Date created: 16/07/2026 Created by: Willy Van Vaerenbergh EPSG:28354 Datum:GDA94 / MGA zone 54	Data Attribution © Google 2026 © SA Government 2026 © Pacgold Limited 2026	 Scale (A4) 1:50000	Figure 03 - Land access (Wilkins)
--	--	---	------------------------	--

Pacgold Limited does not warrant the accuracy or completeness of information displayed in this map and any person using it does so at their own risk. Pacgold Limited shall bear no responsibility or liability for any errors, faults, defects, or omissions in the information.



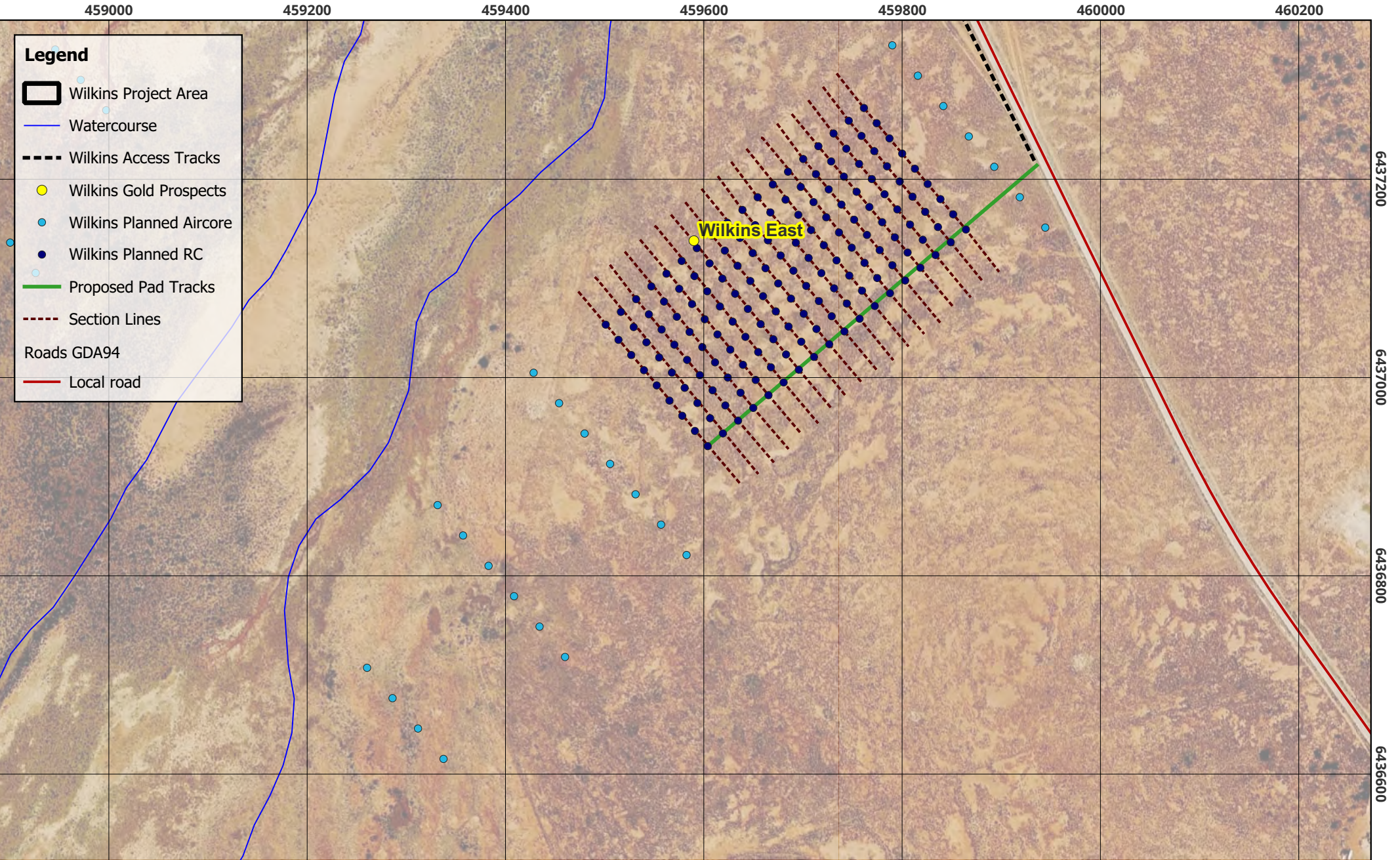
Green and Gold Project 2026-2027 Exploration PEPR	Date created: 08/07/2026 Created by: WVV EPSG:28354 Datum:GDA94 / MGA zone 54	Data Attribution © Google 2026 © SA Government 2026 © Pacgold Limited 2026	 0 100 200 300 400 500 m Scale (A4) 1:10000	Figure 04 - Green and Gold Drilling Program
--	--	---	---	--

Pacgold Limited does not warrant the accuracy or completeness of information displayed in this map and any person using it does so at their own risk. Pacgold Limited shall bear no responsibility or liability for any errors, faults, defects, or omissions in the information.



Green and Gold and Wilkins Projects	Date created: 16/07/2026 Created by: Willy Van Vaerenbergh EPSG:28354 Datum:GDA94 / MGA zone 54	Data Attribution © Google 2026 © SA Government 2026 © Pacgold Limited 2026	 Scale (A4) 1:20000	Figure 07 - Wilkins Drilling Program (Wilkins)
--	--	---	------------------------	---

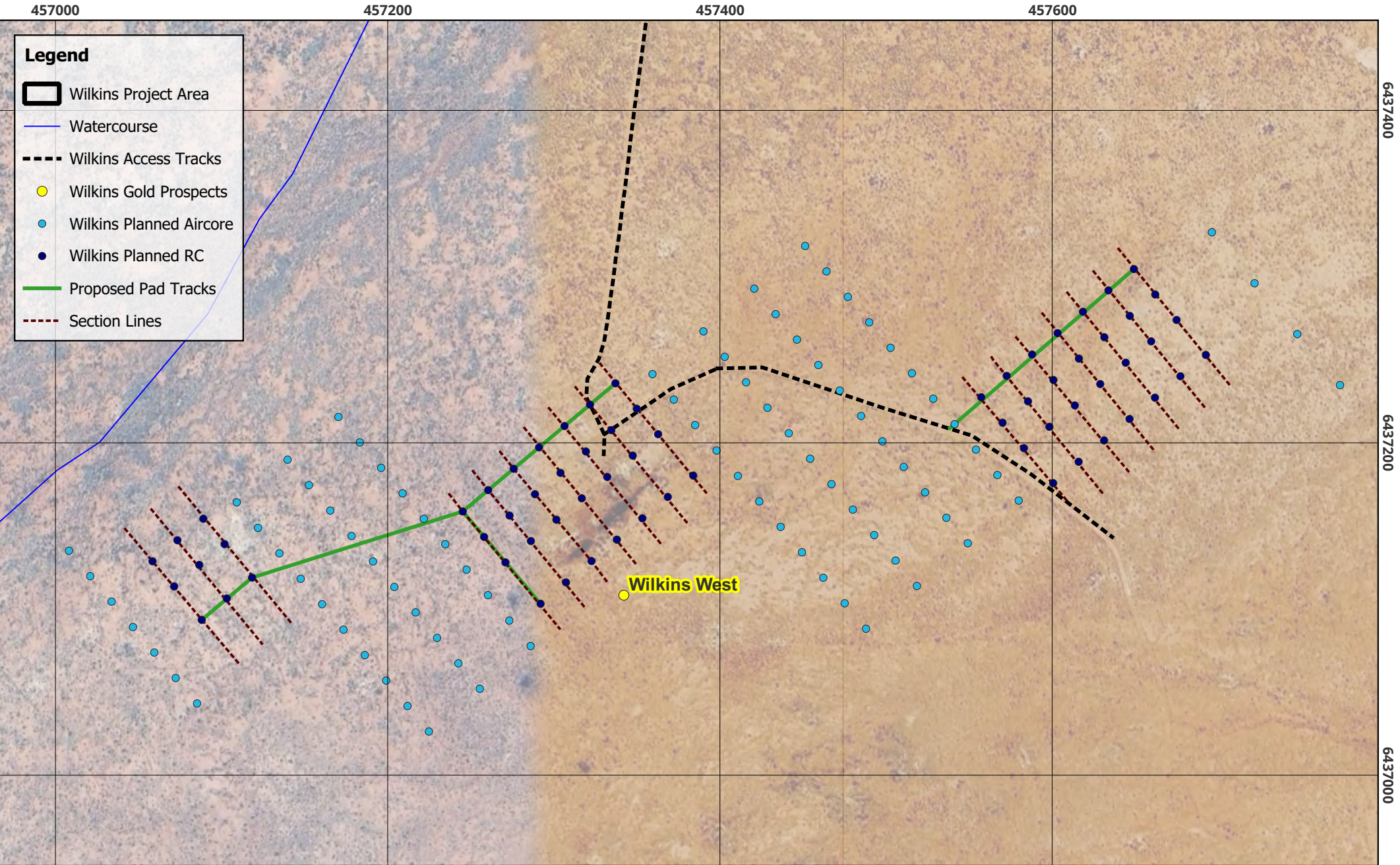
Pacgold Limited does not warrant the accuracy or completeness of information displayed in this map and any person using it does so at their own risk. Pacgold Limited shall bear no responsibility or liability for any errors, faults, defects, or omissions in the information.



Green and Gold and Wilkins Projects 2026-2027 Exploration PEPR	Date created: 16/07/2026 Created by: Willy Van Vaerenbergh EPSG:28354 Datum:GDA94 / MGA zone 54	Data Attribution © Google 2026 © SA Government 2026 © Pacgold Limited 2026	 0 50 100 150 200 m Scale (A4) 1:5000	Figure 08 - Wilkins East Drilling Program (Wilkins)
---	--	---	---	--

D:\J26001 - WDGM Support (PacGold)\3. GIS\3.07 QGIS\PacGold - Wilkins EPEPR.qgz

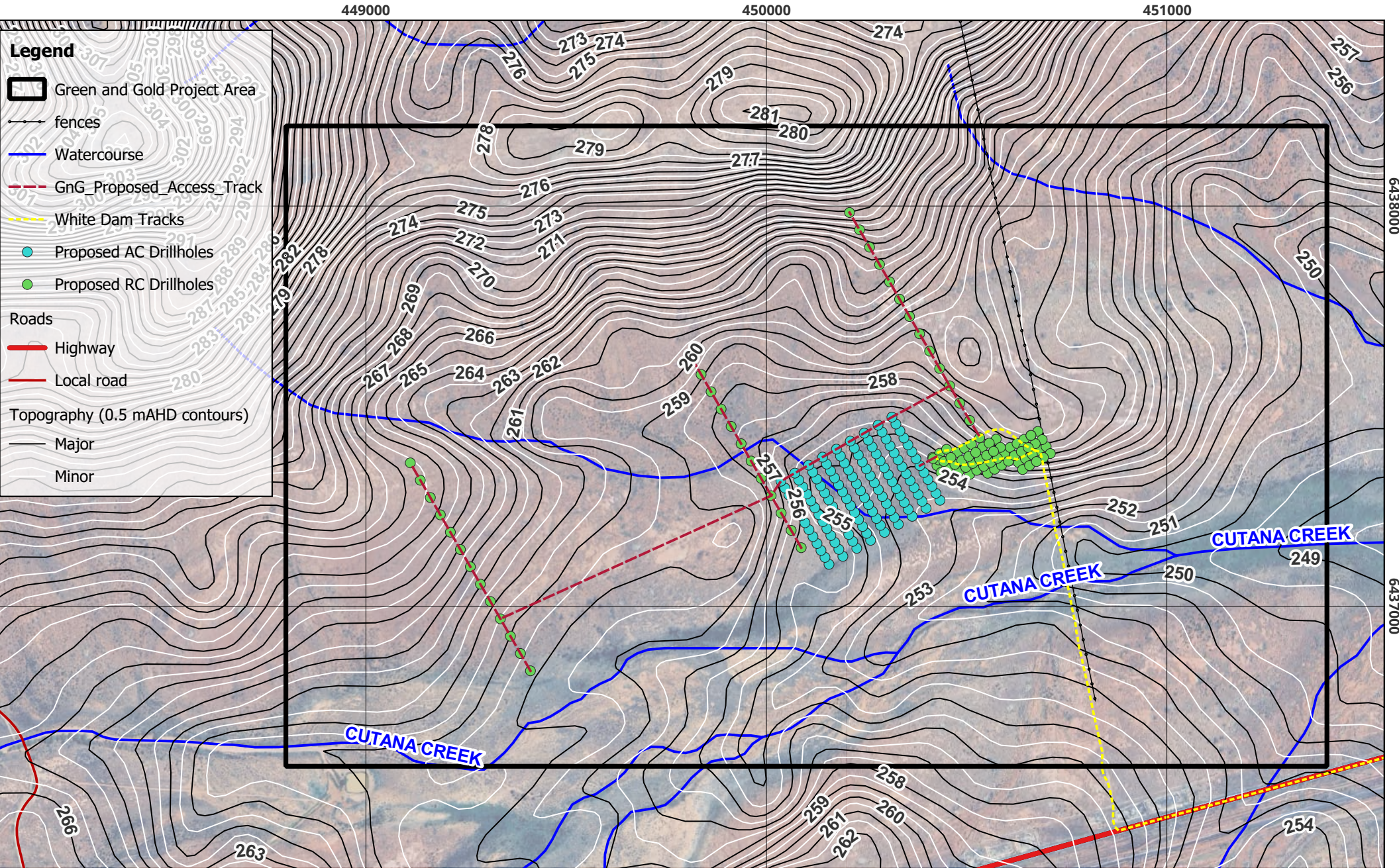
Pacgold Limited does not warrant the accuracy or completeness of information displayed in this map and any person using it does so at their own risk. Pacgold Limited shall bear no responsibility or liability for any errors, faults, defects, or omissions in the information.



Green and Gold and Wilkins Projects 2026-2027 Exploration PEPR	Date created: 16/07/2026 Created by: Willy Van Vaerenbergh EPSG:28354 Datum:GDA94 / MGA zone 54	Data Attribution © Google 2026 © SA Government 2026 © Pacgold Limited 2026	 Scale (A4) 1:3000	Figure 09 - Wilkins West Drilling Program (Wilkins)
--	--	---	--	---

D:\J26001 - WDMG Support (PacGold)\3. GIS\3.07 QGIS\PacGold - Wilkins EPEPR.qgz

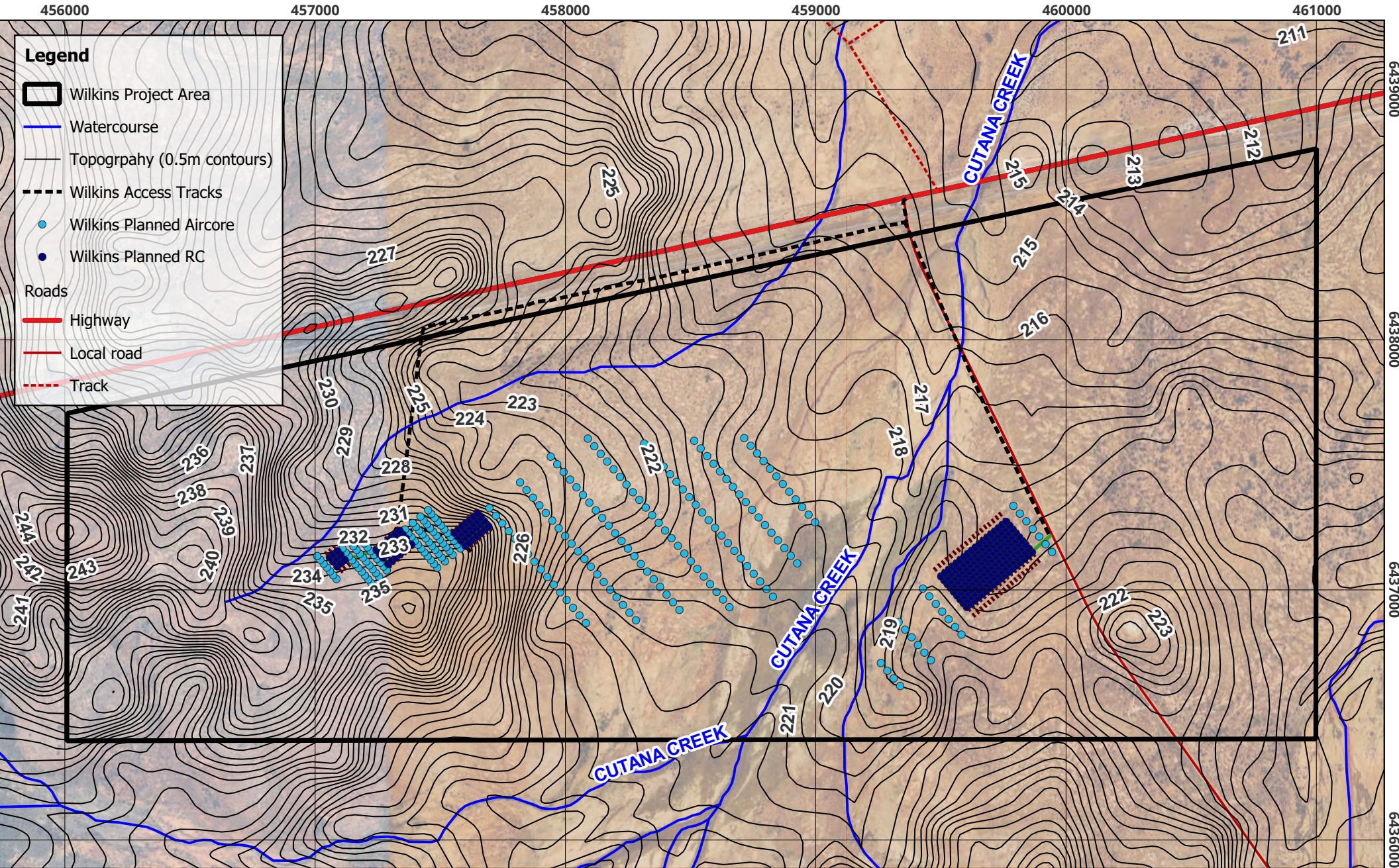
Pacgold Limited does not warrant the accuracy or completeness of information displayed in this map and any person using it does so at their own risk. Pacgold Limited shall bear no responsibility or liability for any errors, faults, defects, or omissions in the information.



Green and Gold and Wilkins Projects 2026-2027 Exploration PEPR	Date created: 16/07/2026 Created by: Willy EPSG:28354 Datum:GDA94 / MGA zone 54	Data Attribution © Google 2026 © SA Government 2026 © Pacgold Limited 2026	 0 200 400 600 m Scale (A4) 1:12500	Figure 10 - Topography (Green and Gold)
---	--	---	---	--

D:\J26001 - WDGM Support (PacGold)\3. GIS\3.07 QGIS\PacGold - Green and Gold EPEPR.qgz

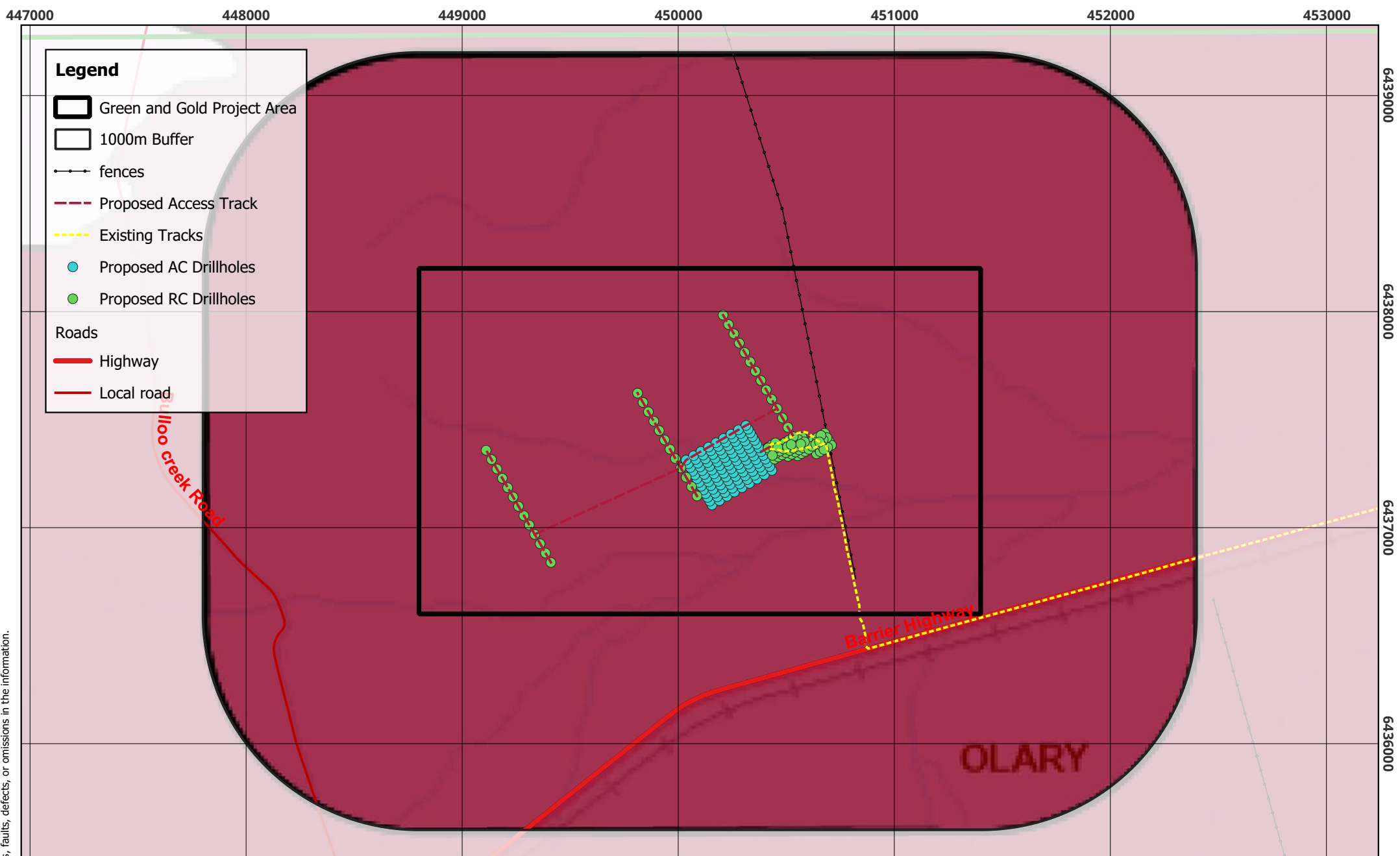
Pacgold Limited does not warrant the accuracy or completeness of information displayed in this map and any person using it does so at their own risk. Pacgold Limited shall bear no responsibility or liability for any errors, faults, defects, or omissions in the information.



Green and Gold and Wilkins Projects	Date created: 16/07/2026 Created by: Willy Van Vaerenbergh EPSG:28354 Datum:GDA94 / MGA zone 54	Data Attribution © Google 2026 © SA Government 2026 © Pacgold Limited 2026	 0 0.25 0.5 0.75 1 km Scale (A4) 1:20000	Figure 11 - Topography (Wilkins)
--	--	---	--	---

D:\J26001 - WDGM Support (PacGold)\3. GIS\3.07 QGIS\PacGold - Wilkins EPEPR.qgz

Pacgold Limited does not warrant the accuracy or completeness of information displayed in this map and any person using it does so at their own risk. Pacgold Limited shall bear no responsibility or liability for any errors, faults, defects, or omissions in the information.

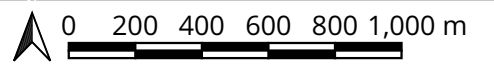


Green and Gold and Wilkins Projects

2026-2027 Exploration PEPR

Date created: 16/07/2026
Created by: Willy Van Vaerenbergh
EPSG:28354
Datum:GDA94 / MGA zone 54

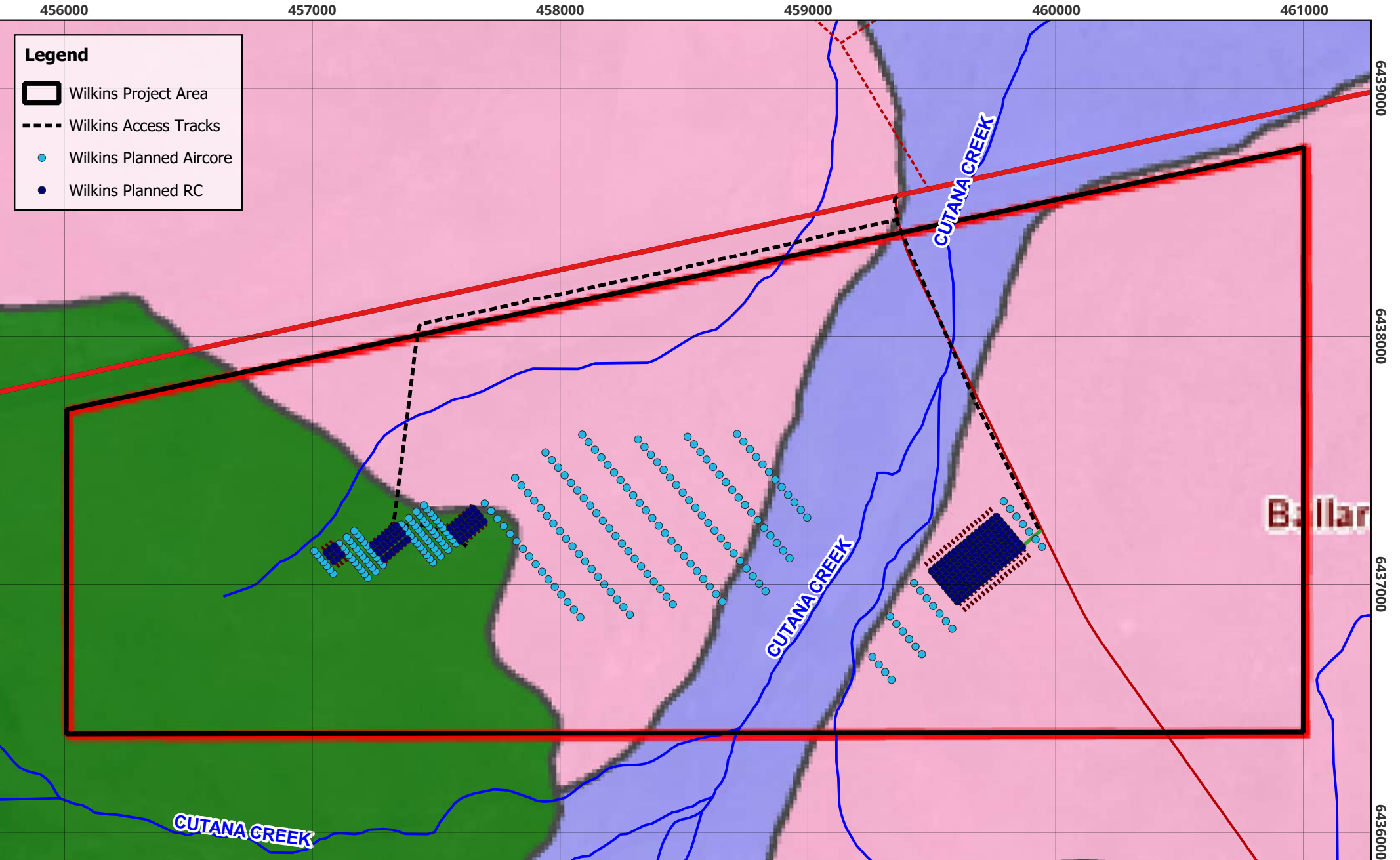
Data Attribution
© Google 2026
© SA Government 2026
© Pacgold Limited 2026



Scale (A4) 1:22701.826909

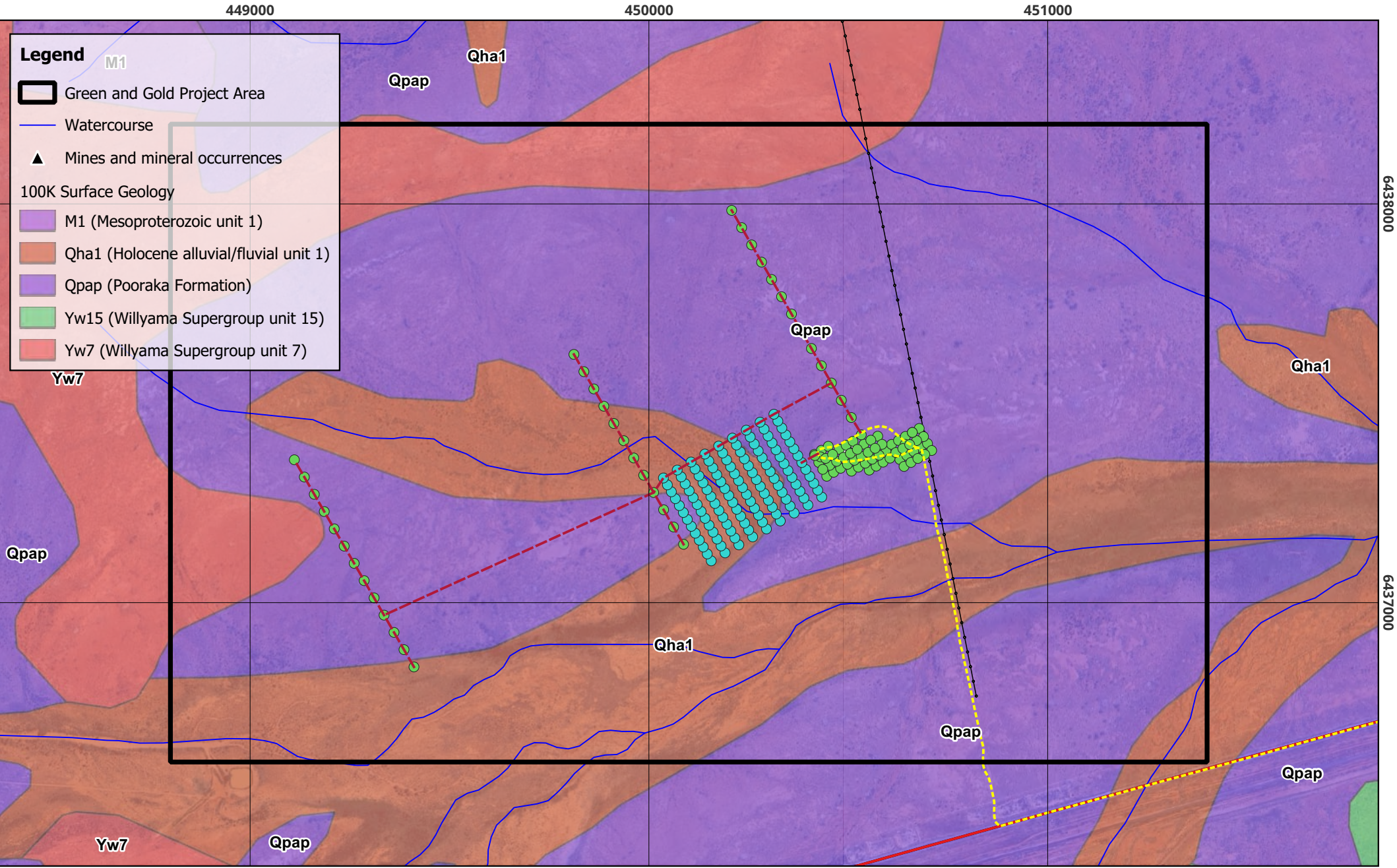
Figure 12 – Pastoral Land Systems (Green and Gold)

Pacgold Limited does not warrant the accuracy or completeness of information displayed in this map and any person using it does so at their own risk. Pacgold Limited shall bear no responsibility or liability for any errors, faults, defects, or omissions in the information.



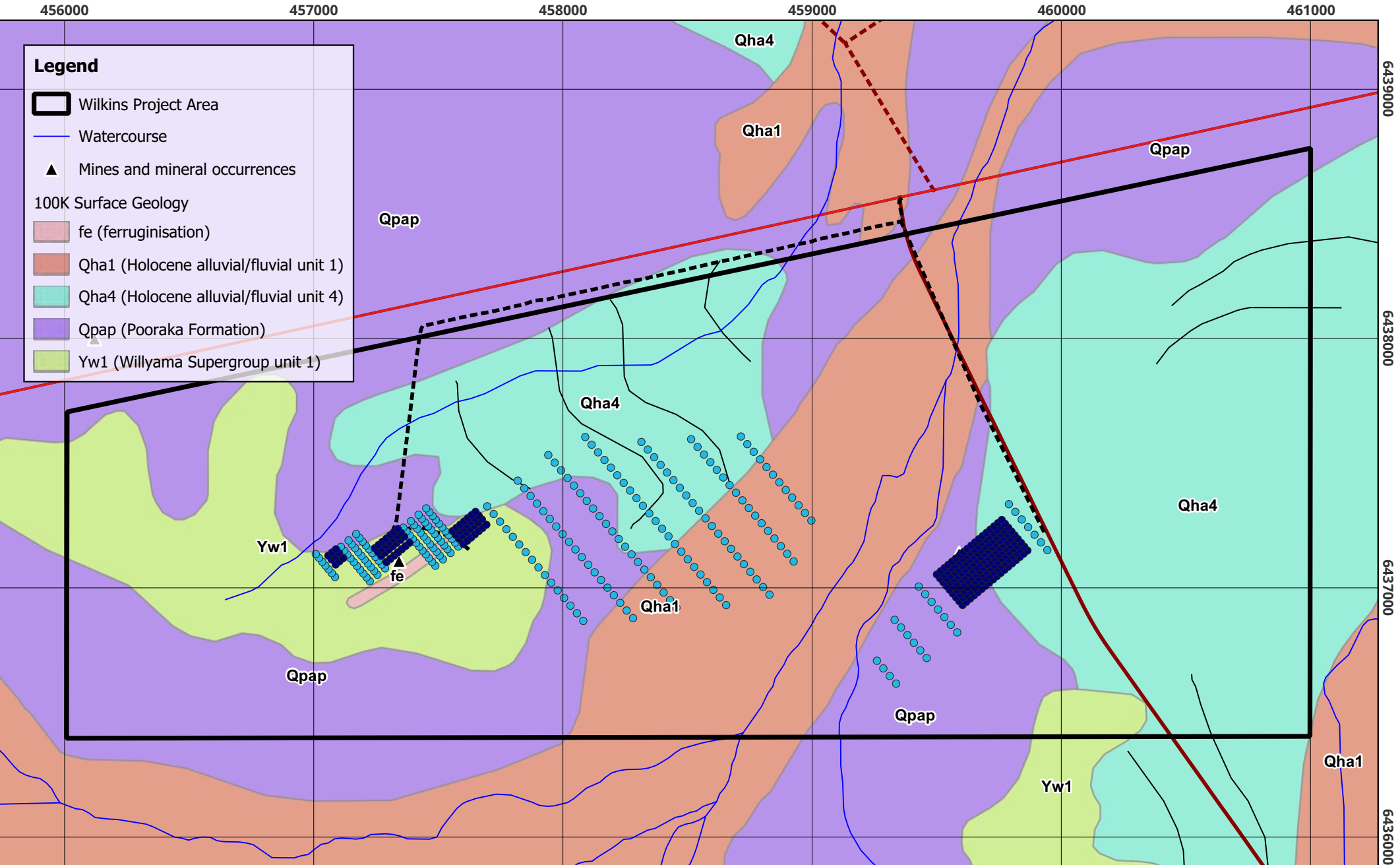
Green and Gold and Wilkins Projects 2026-2027 Exploration PEPR	Date created: 16/07/2026 Created by: Willy Van Vaerenbergh EPSG:28354 Datum:GDA94 / MGA zone 54	Data Attribution © Google 2026 © SA Government 2026 © Pacgold Limited 2026	0 0.25 0.5 0.75 1 km Scale (A4) 1:20000	Figure 13 - Pastoral Land Systems (Wilkins)
--	---	--	---	---

Pacgold Limited does not warrant the accuracy or completeness of information displayed in this map and any person using it does so at their own risk. Pacgold Limited shall bear no responsibility or liability for any errors, faults, defects, or omissions in the information.



Green and Gold and Wilkins Projects 2026-2027 Exploration PEPR	Date created: 16/07/2026 Created by: Willy EPSG:28354 Datum:GDA94 / MGA zone 54	Data Attribution © Google 2026 © SA Government 2026 © Pacgold Limited 2026	 Scale (A4) 1:12500	Figure 14 - Surface Geology (Green and Gold)
---	--	---	------------------------	---

Pacgold Limited does not warrant the accuracy or completeness of information displayed in this map and any person using it does so at their own risk. Pacgold Limited shall bear no responsibility or liability for any errors, faults, defects, or omissions in the information.

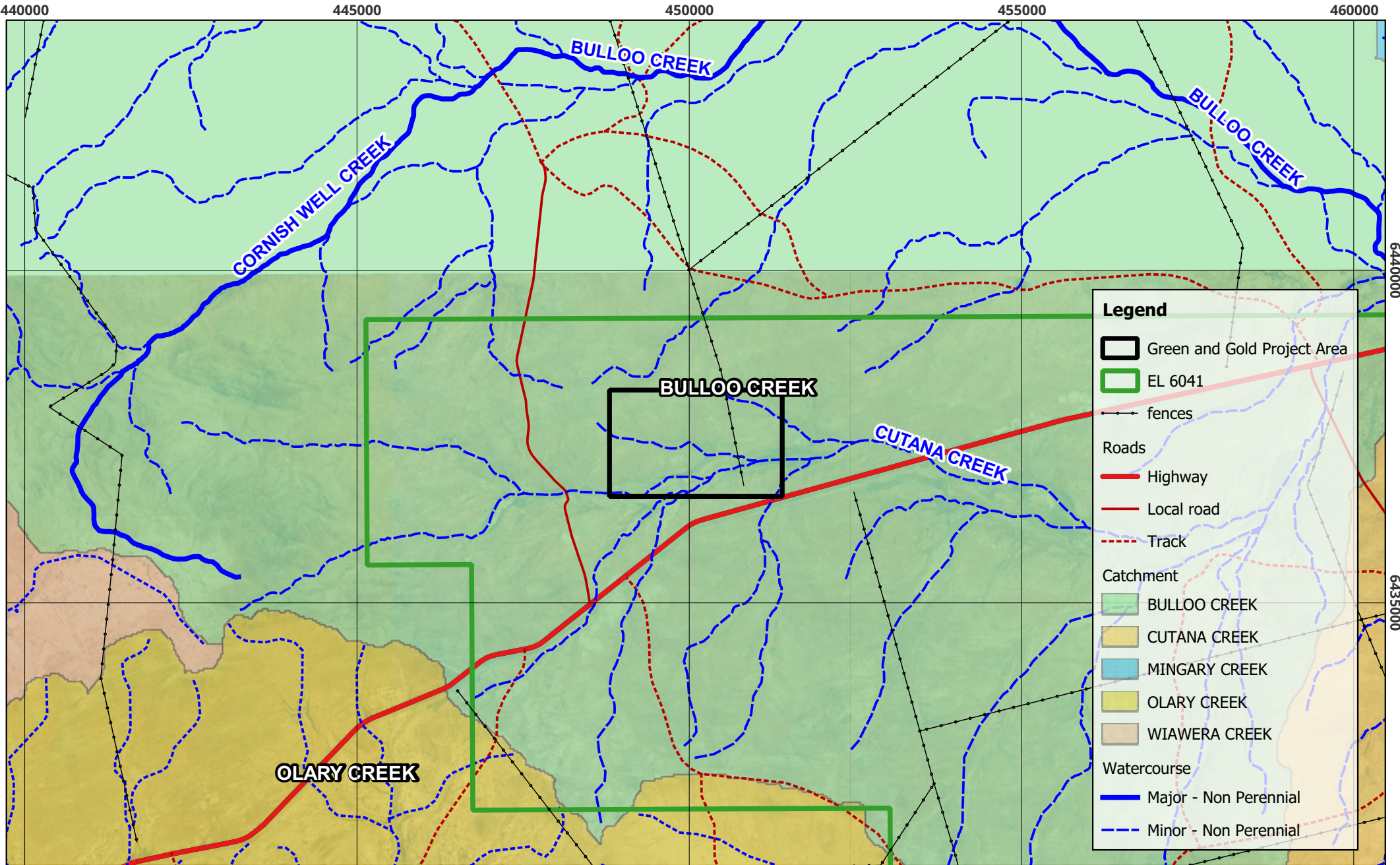


Green and Gold and Wilkins Projects	Date created: 16/07/2026 Created by: Willy Van Vaerenbergh EPSG:28354 Datum:GDA94 / MGA zone 54	Data Attribution © Google 2026 © SA Government 2026 © Pacgold Limited 2026	 0 250 500 750 1,000 m Scale (A4) 1:20000	Figure 15 - Surface Geology (Wilkins)
--	--	---	---	--

D:\J26001 - WDGM Support (PacGold)\3. GIS\3.07 QGIS\PacGold - Wilkins EPEPR.qgz

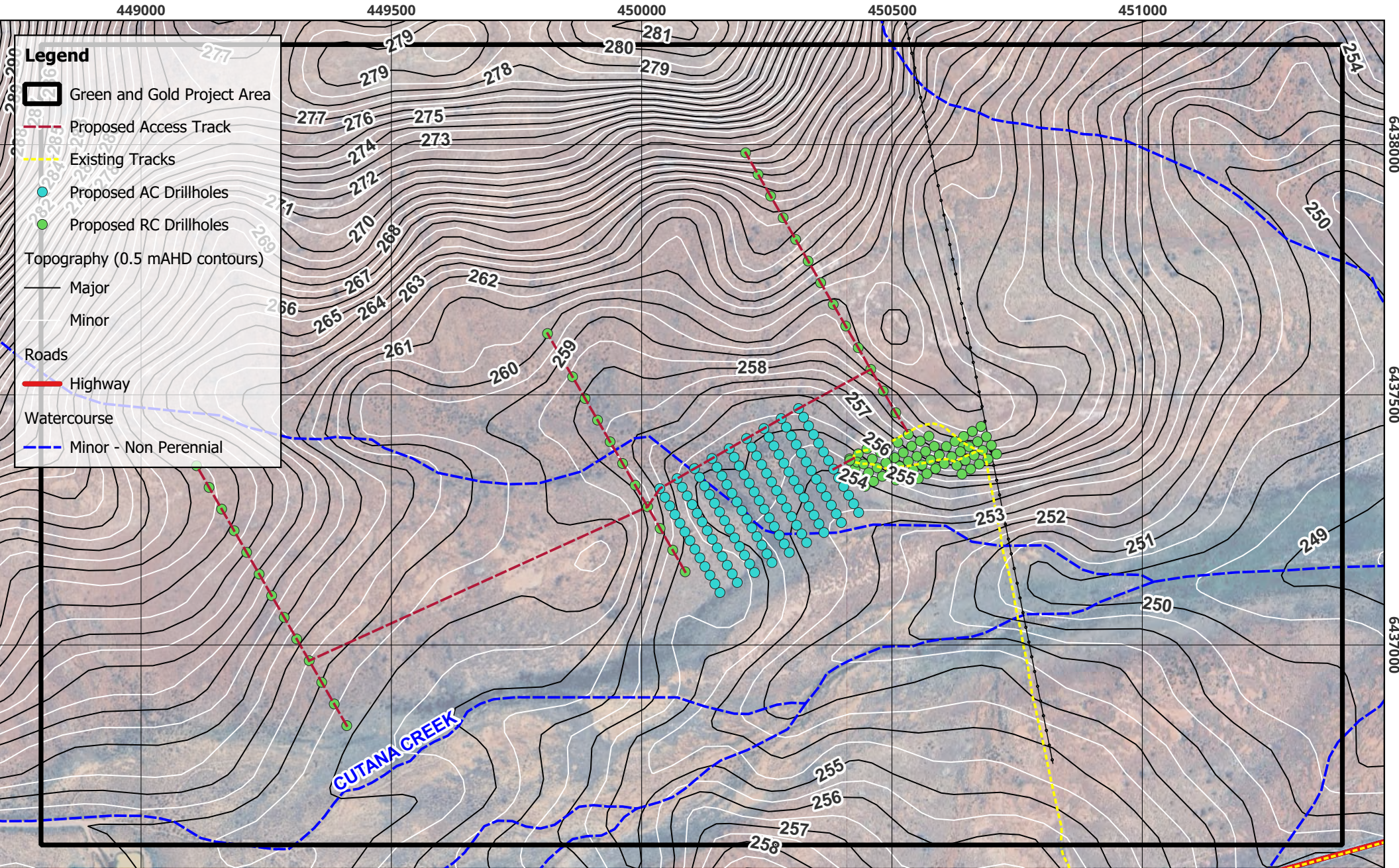


Pacgold Limited does not warrant the accuracy or completeness of information displayed in this map and any person using it does so at their own risk. Pacgold Limited shall bear no responsibility or liability for any errors, faults, defects, or omissions in the information.



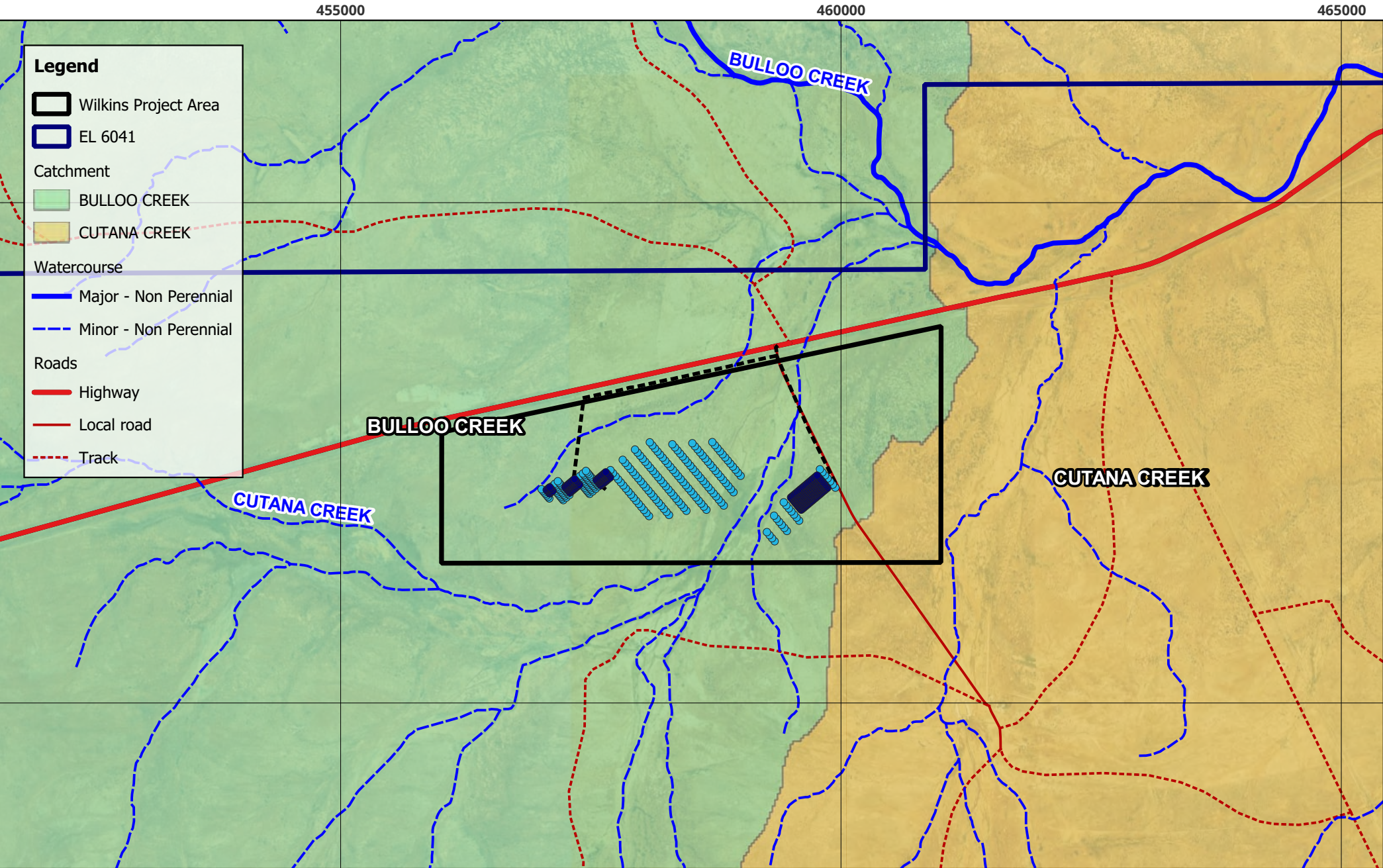
Green and Gold and Wilkins Projects 2026-2027 Exploration PEPR	Date created: 16/07/2026 Created by: Willy EPSG:28354 Datum:GDA94 / MGA zone 54	Data Attribution © Google 2026 © SA Government 2026 © Pacgold Limited 2026	0 1 2 km Scale (A4) 1:75000	Figure 16 - Regional Hydrology (Green and Gold)
--	---	--	---	---

Pacgold Limited does not warrant the accuracy or completeness of information displayed in this map and any person using it does so at their own risk. Pacgold Limited shall bear no responsibility or liability for any errors, faults, defects, or omissions in the information.



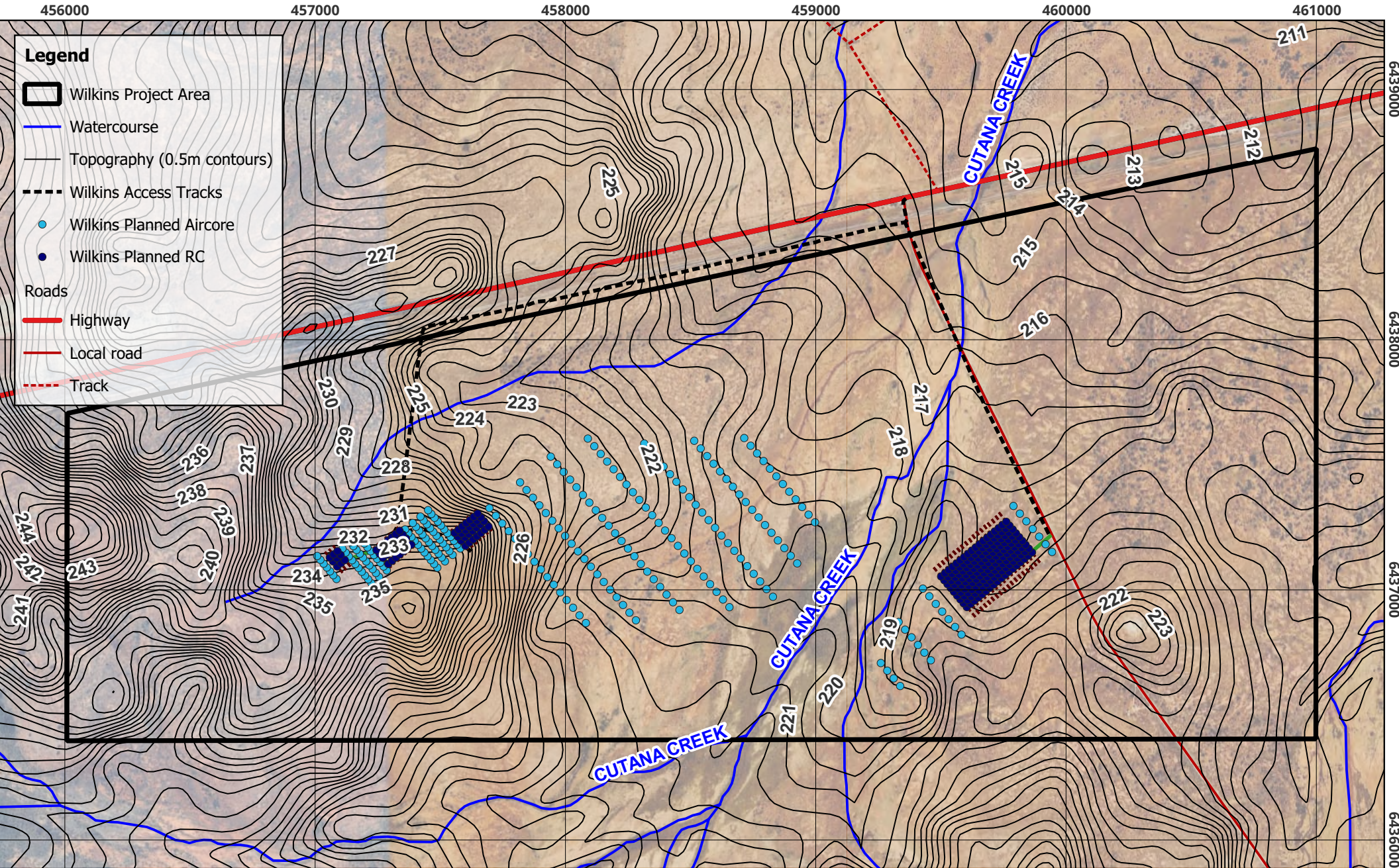
Green and Gold and Wilkins Projects	Date created: 16/07/2026 Created by: Willy EPSG:28354 Datum:GDA94 / MGA zone 54	Data Attribution © Google 2026 © SA Government 2026 © Pacgold Limited 2026	 Scale (A4) 1:10000	Figure 17 - Local Hydrology (Green and Gold)
--	--	---	------------------------	---

Pacgold Limited does not warrant the accuracy or completeness of information displayed in this map and any person using it does so at their own risk. Pacgold Limited shall bear no responsibility or liability for any errors, faults, defects, or omissions in the information.



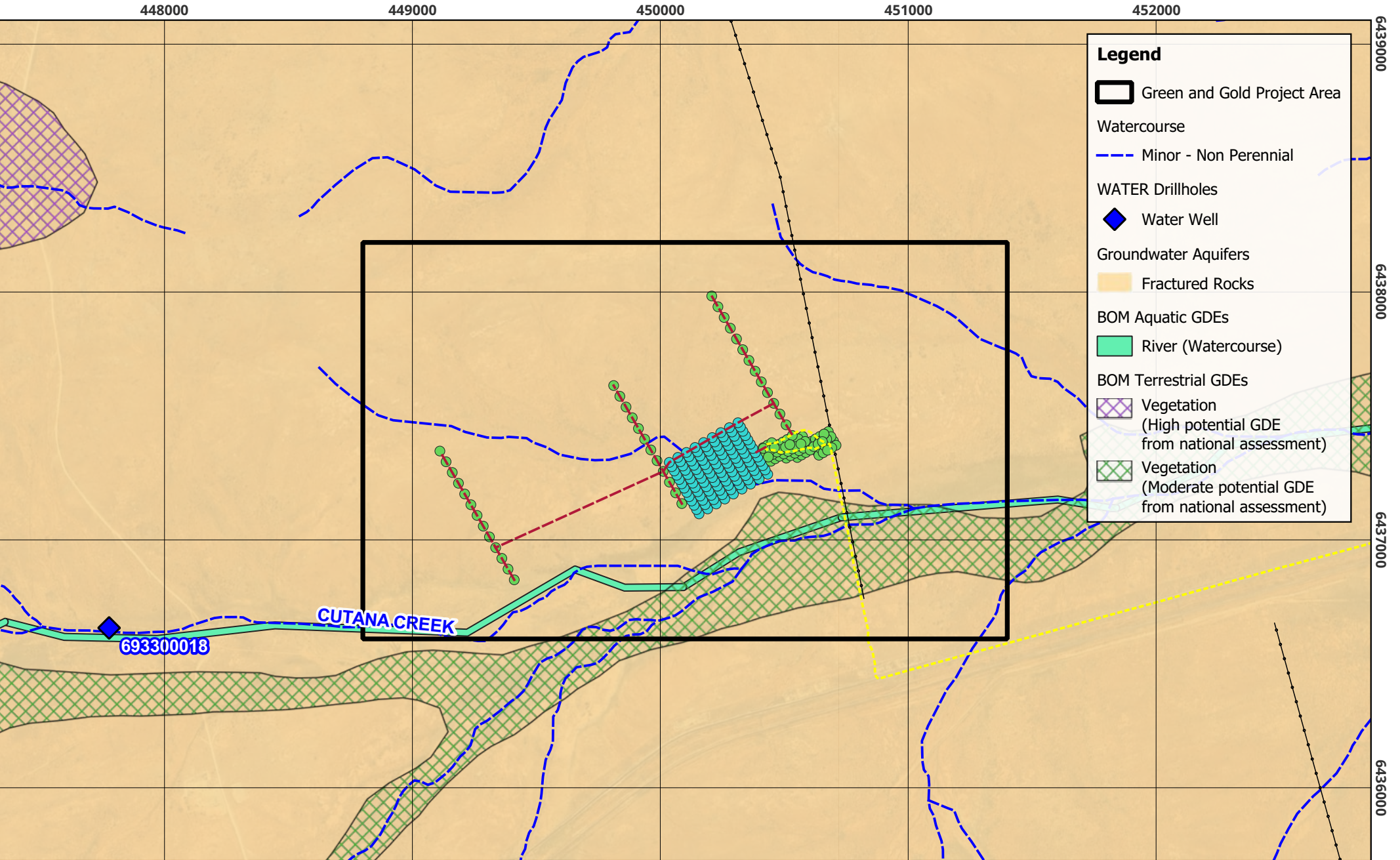
Green and Gold and Wilkins Projects 2026-2027 Exploration PEPR	Date created: 16/07/2026 Created by: Willy Van Vaerenbergh EPSG:28354 Datum:GDA94 / MGA zone 54	Data Attribution © Google 2026 © SA Government 2026 © Pacgold Limited 2026	 Scale (A4) 1:50000	Figure 18 - Regional Hydrology (Wilkins)
---	--	---	------------------------	---

Pacgold Limited does not warrant the accuracy or completeness of information displayed in this map and any person using it does so at their own risk. Pacgold Limited shall bear no responsibility or liability for any errors, faults, defects, or omissions in the information.



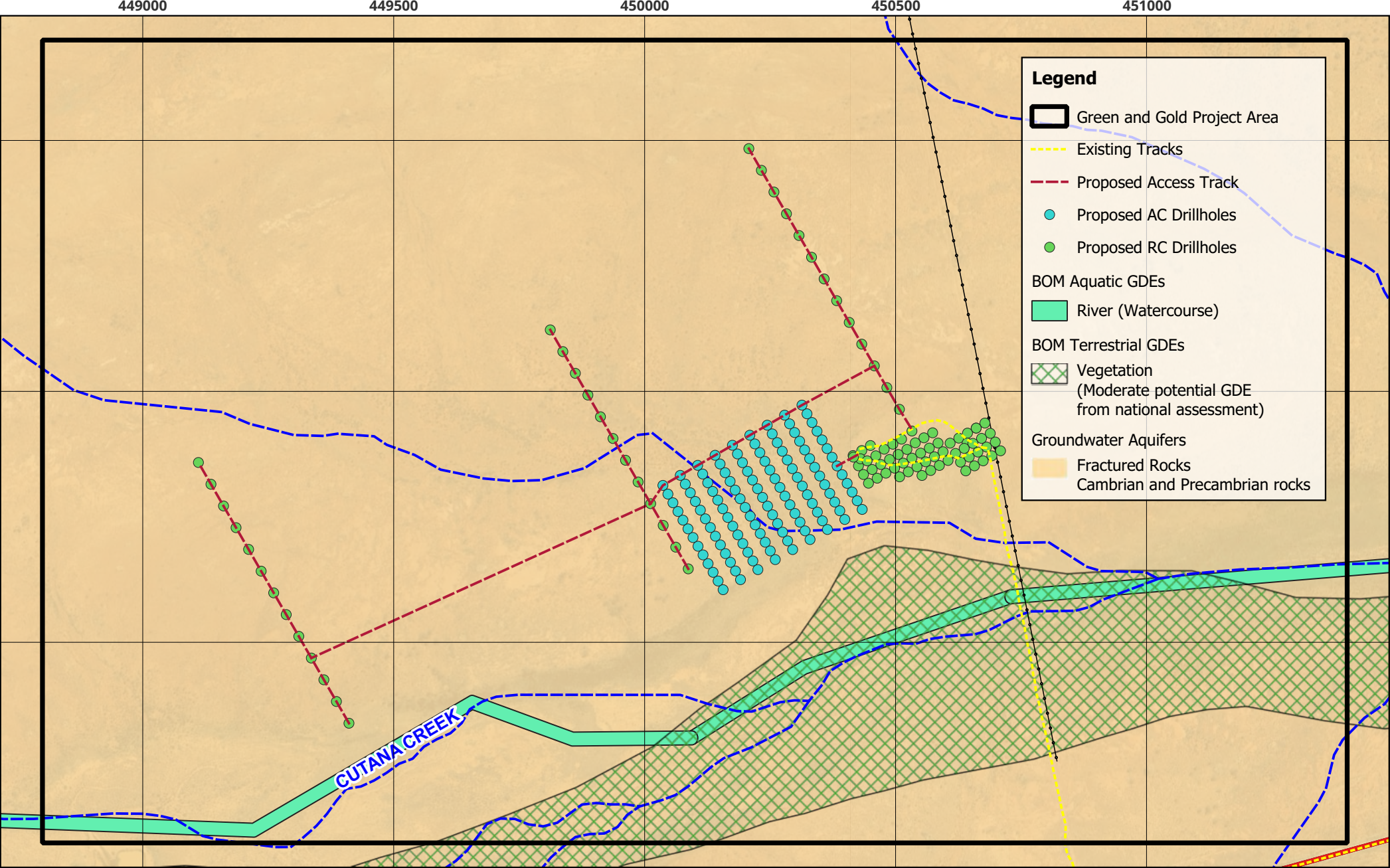
Green and Gold and Wilkins Projects 2026-2027 Exploration PEPR	Date created: 16/07/2026 Created by: Willy Van Vaerenbergh EPSG:28354 Datum:GDA94 / MGA zone 54	Data Attribution © Google 2026 © SA Government 2026 © Pacgold Limited 2026	 Scale (A4) 1:20000	Figure 19 - Local Hydrology (Wilkins)
---	--	---	------------------------	--

Pacgold Limited does not warrant the accuracy or completeness of information displayed in this map and any person using it does so at their own risk. Pacgold Limited shall bear no responsibility or liability for any errors, faults, defects, or omissions in the information.



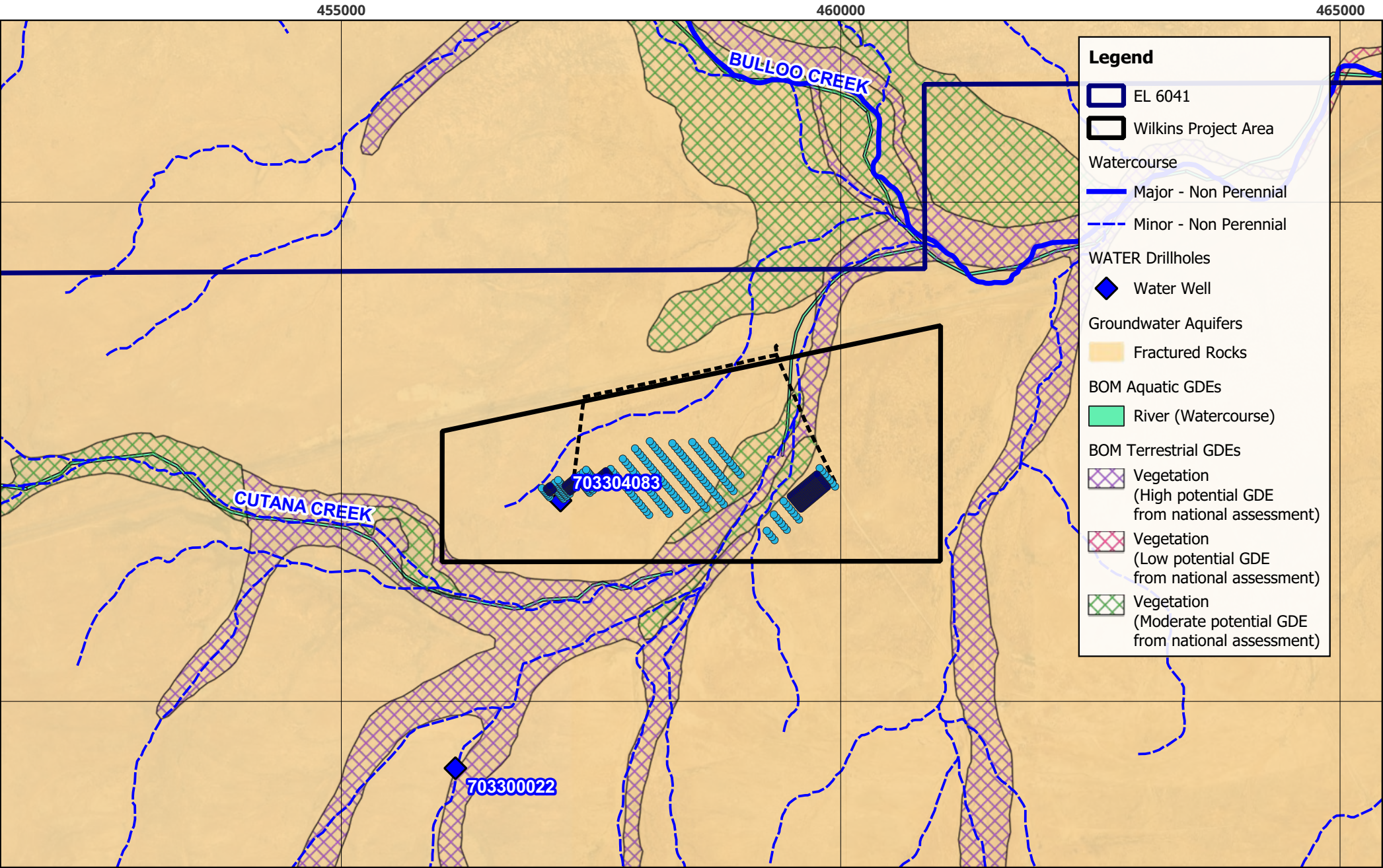
Green and Gold and Wilkins Projects 2026-2027 Exploration PEPR	Date created: 16/07/2026 Created by: Willy EPSG:28354 Datum:GDA94 / MGA zone 54	Data Attribution © Google 2026 © SA Government 2026 © Pacgold Limited 2026	 0 200 400 600 800 m Scale (A4) 1:20000	Figure 20 - Regional Groundwater Settings (Green and Gold)
---	--	---	---	---

Pacgold Limited does not warrant the accuracy or completeness of information displayed in this map and any person using it does so at their own risk. Pacgold Limited shall bear no responsibility or liability for any errors, faults, defects, or omissions in the information.



Green and Gold and Wilkins Projects 2026-2027 Exploration PEPR	Date created: 16/07/2026 Created by: Willy EPSG:28354 Datum:GDA94 / MGA zone 54	Data Attribution © Google 2026 © SA Government 2026 © Pacgold Limited 2026	 Scale (A4) 1:10000	Figure 21 - Local Groundwater Settings (Green and Gold)
---	--	---	------------------------	--

Pacgold Limited does not warrant the accuracy or completeness of information displayed in this map and any person using it does so at their own risk. Pacgold Limited shall bear no responsibility or liability for any errors, faults, defects, or omissions in the information.



Green and Gold and Wilkins Projects

2026-2027 Exploration PEPR

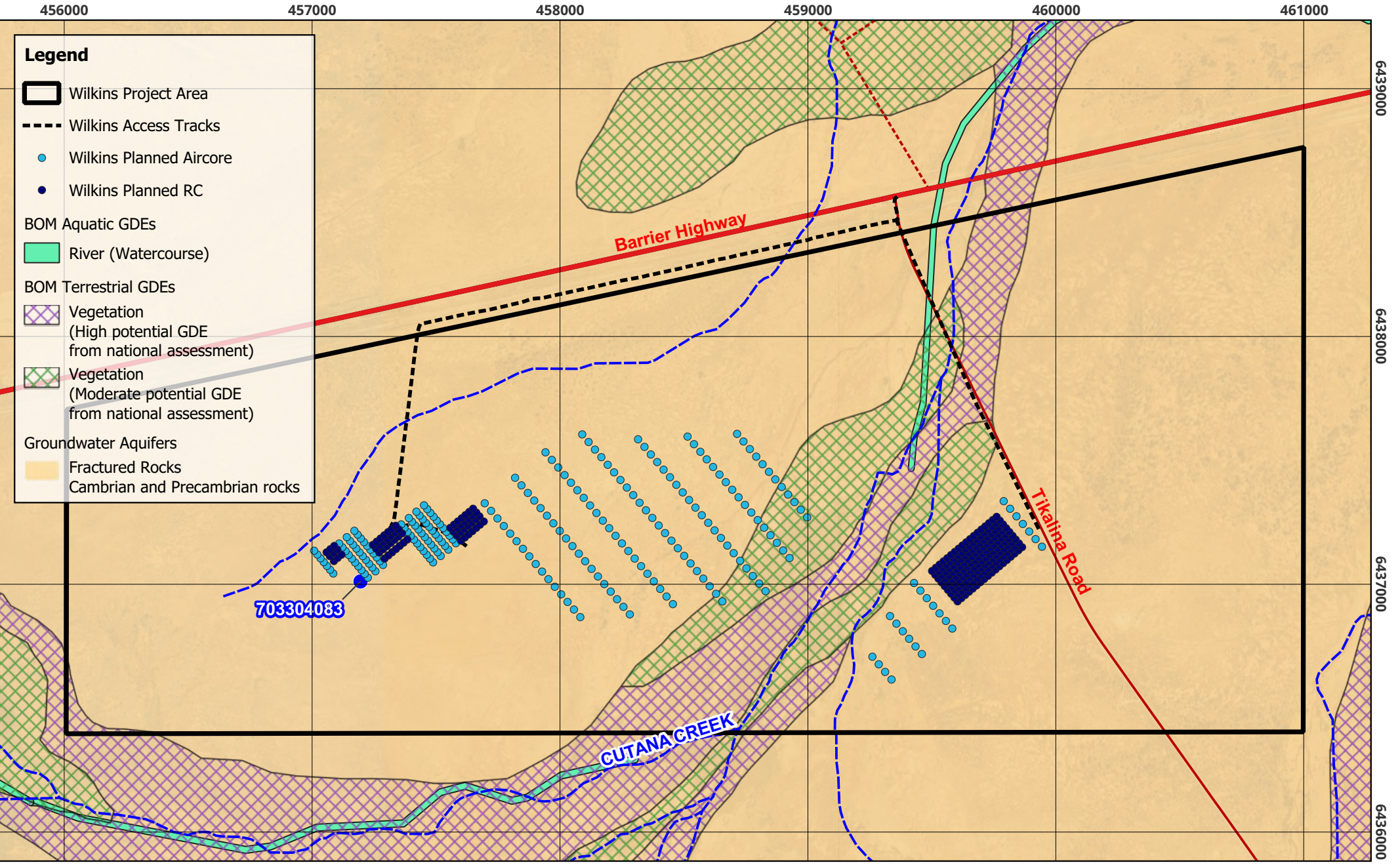
Date created: 16/07/2026
Created by: Willy Van Vaerenbergh
EPSG:28354
Datum:GDA94 / MGA zone 54

Data Attribution
© Google 2026
© SA Government 2026
© Pacgold Limited 2026

0 1 2 km
Scale (A4) 1:50000

Figure 22 - Regional Groundwater Settings (Wilkins)

Pacgold Limited does not warrant the accuracy or completeness of information displayed in this map and any person using it does so at their own risk. Pacgold Limited shall bear no responsibility or liability for any errors, faults, defects, or omissions in the information.



Green and Gold and Wilkins Projects

2026-2027 Exploration PEPR

Date created: 16/07/2026
Created by: Willy Van Vaerenbergh
EPSG:28354
Datum:GDA94 / MGA zone 54

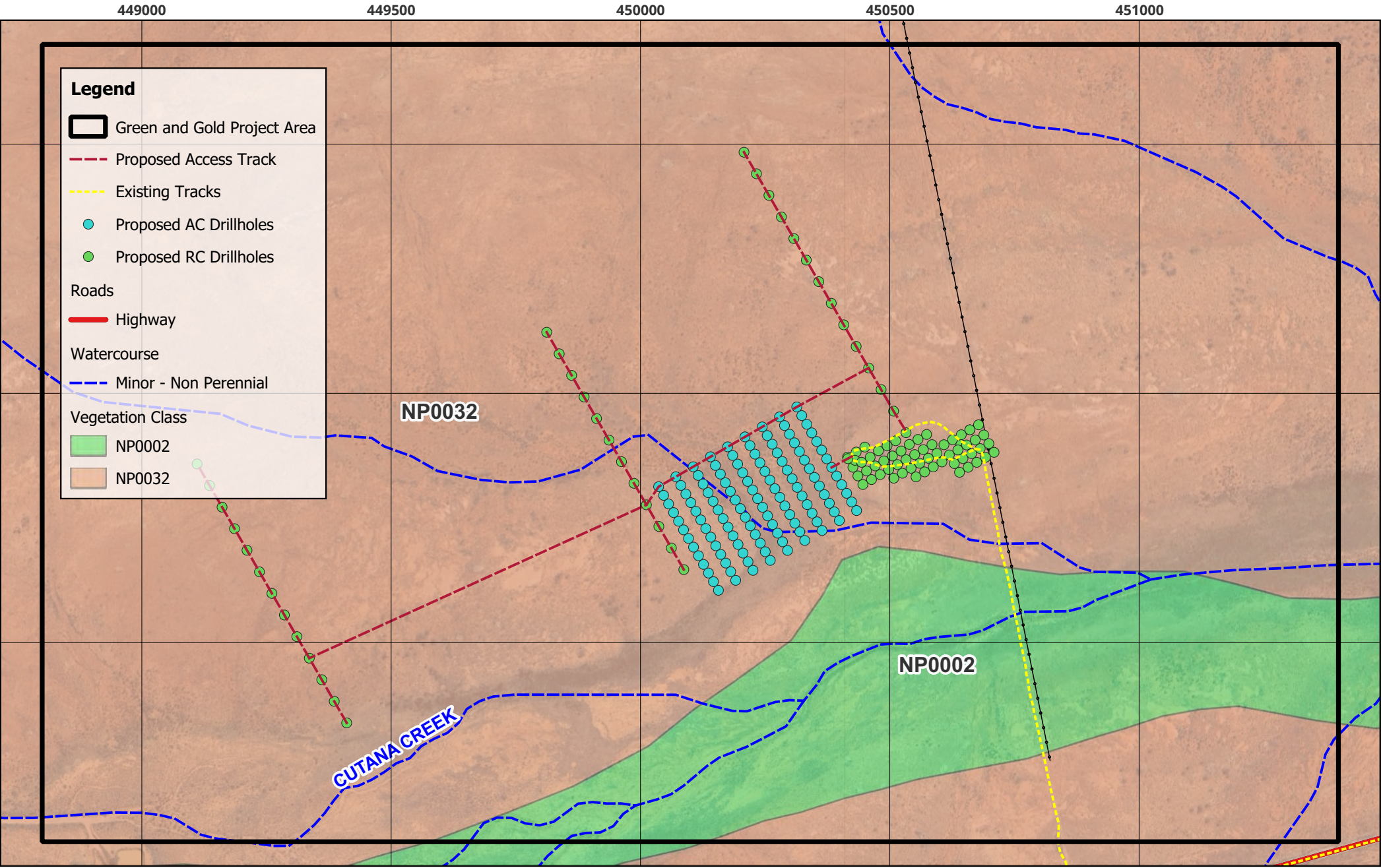
Data Attribution
© Google 2026
© SA Government 2026
© Pacgold Limited 2026



Scale (A4) 1:20000

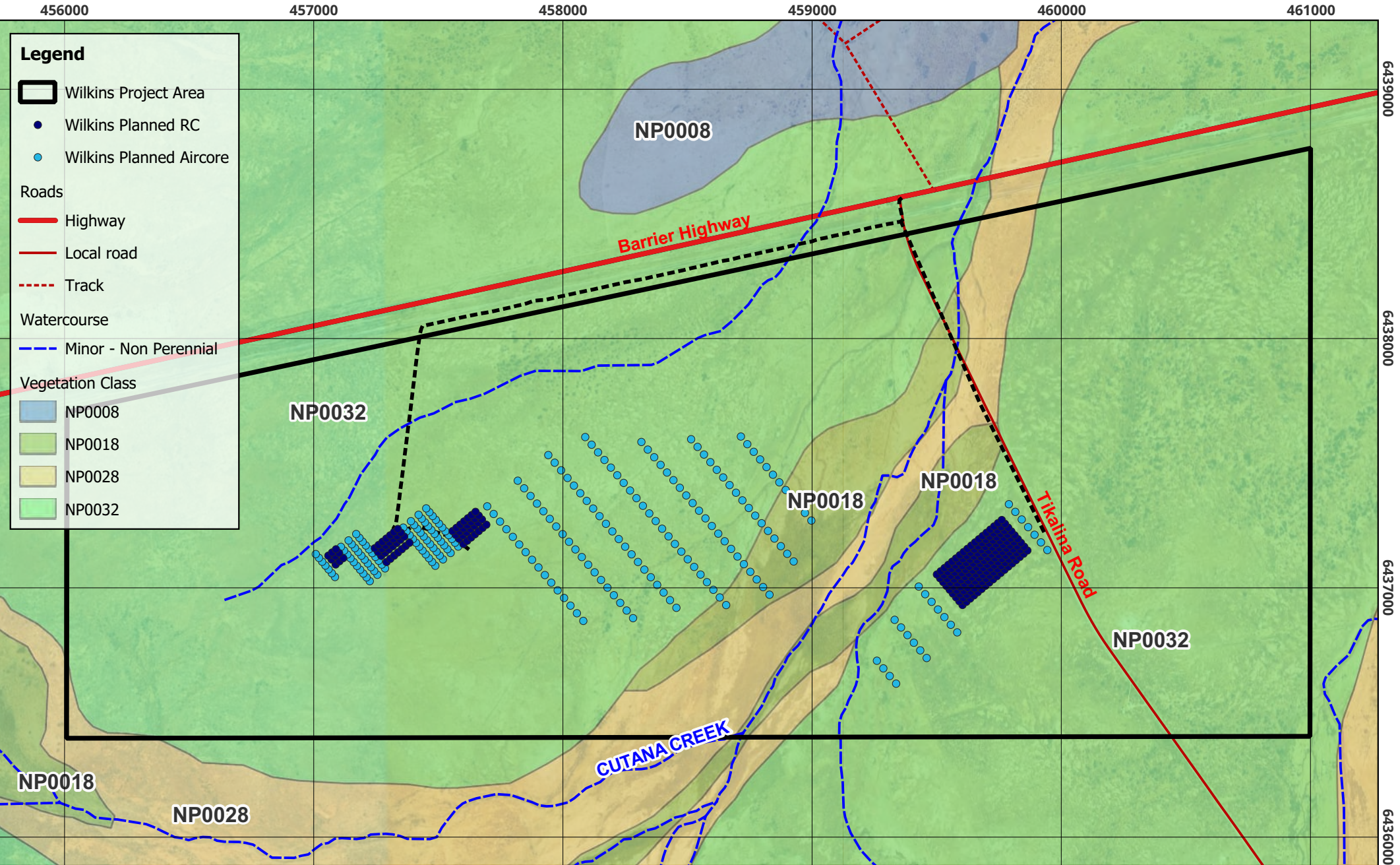
Figure 23 - Local Groundwater Settings (Wilkins)

Pacgold Limited does not warrant the accuracy or completeness of information displayed in this map and any person using it does so at their own risk. Pacgold Limited shall bear no responsibility or liability for any errors, faults, defects, or omissions in the information.



Green and Gold and Wilkins Projects 2026-2027 Exploration PEPR	Date created: 16/07/2026 Created by: Willy EPSG:28354 Datum:GDA94 / MGA zone 54	Data Attribution © Google 2026 © SA Government 2026 © Pacgold Limited 2026	 Scale (A4) 1:10000	Figure 24 - SA Native Vegetation (Green and Gold)
---	--	---	------------------------	--

Pacgold Limited does not warrant the accuracy or completeness of information displayed in this map and any person using it does so at their own risk. Pacgold Limited shall bear no responsibility or liability for any errors, faults, defects, or omissions in the information.

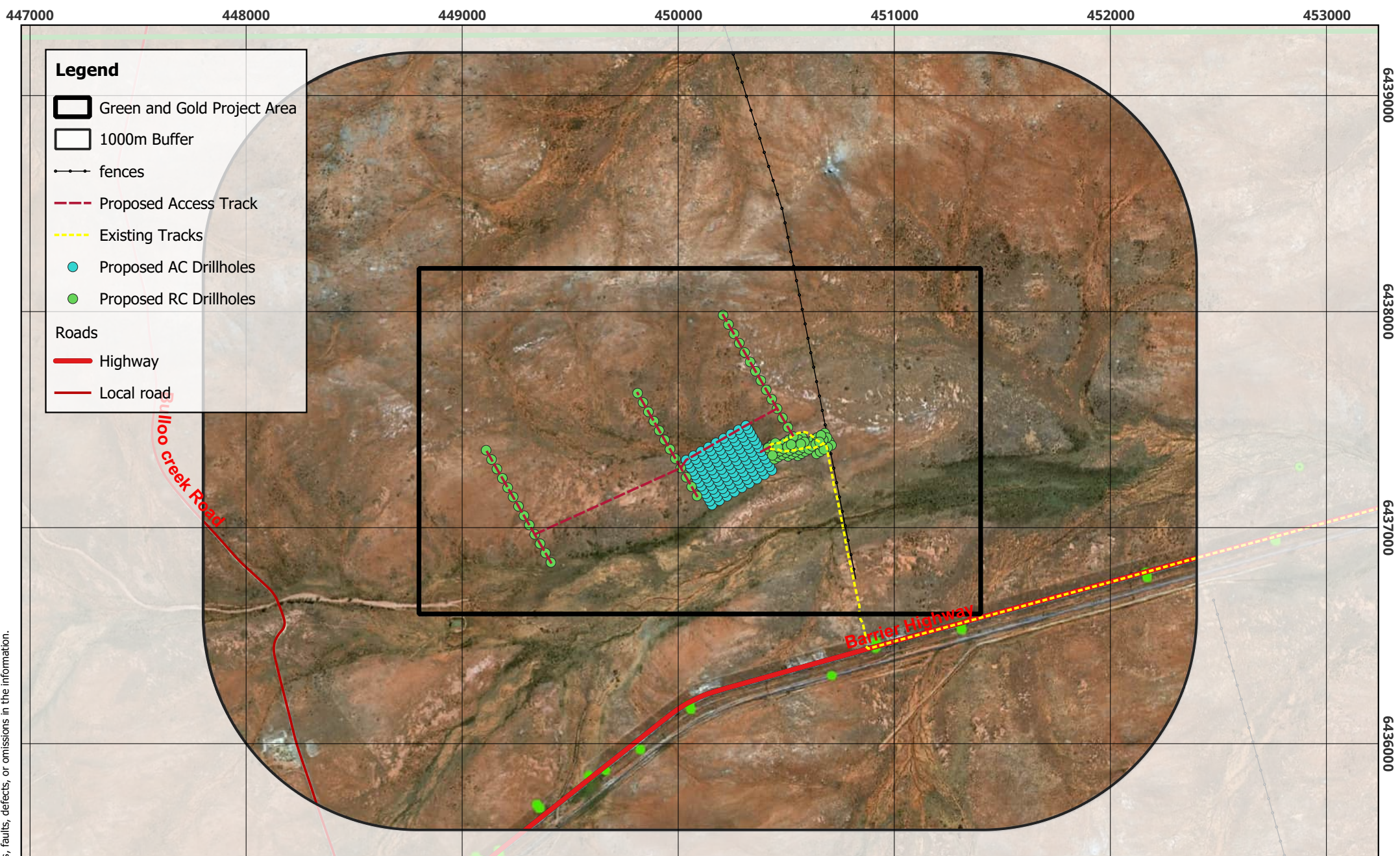


Green and Gold and Wilkins Projects	Date created: 16/07/2026 Created by: Willy Van Vaerenbergh EPSG:28354 Datum:GDA94 / MGA zone 54	Data Attribution © Google 2026 © SA Government 2026 © Pacgold Limited 2026	 Scale (A4) 1:20000	Figure 25 - SA Native Vegetation (Wilkins)
2026-2027 Exploration PEPR				

D:\J26001 - WDGM Support (PacGold)\3. GIS\3.07 QGIS\PacGold - Wilkins EPEPR.qgz



Pacgold Limited does not warrant the accuracy or completeness of information displayed in this map and any person using it does so at their own risk. Pacgold Limited shall bear no responsibility or liability for any errors, faults, defects, or omissions in the information.



Green and Gold and Wilkins Projects

2026-2027 Exploration PEPR

Date created: 16/07/2026
Created by: Willy
EPSG:28354
Datum:GDA94 / MGA zone 54

Data Attribution
© Google 2026
© SA Government 2026
© Pacgold Limited 2026

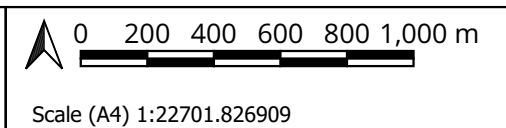
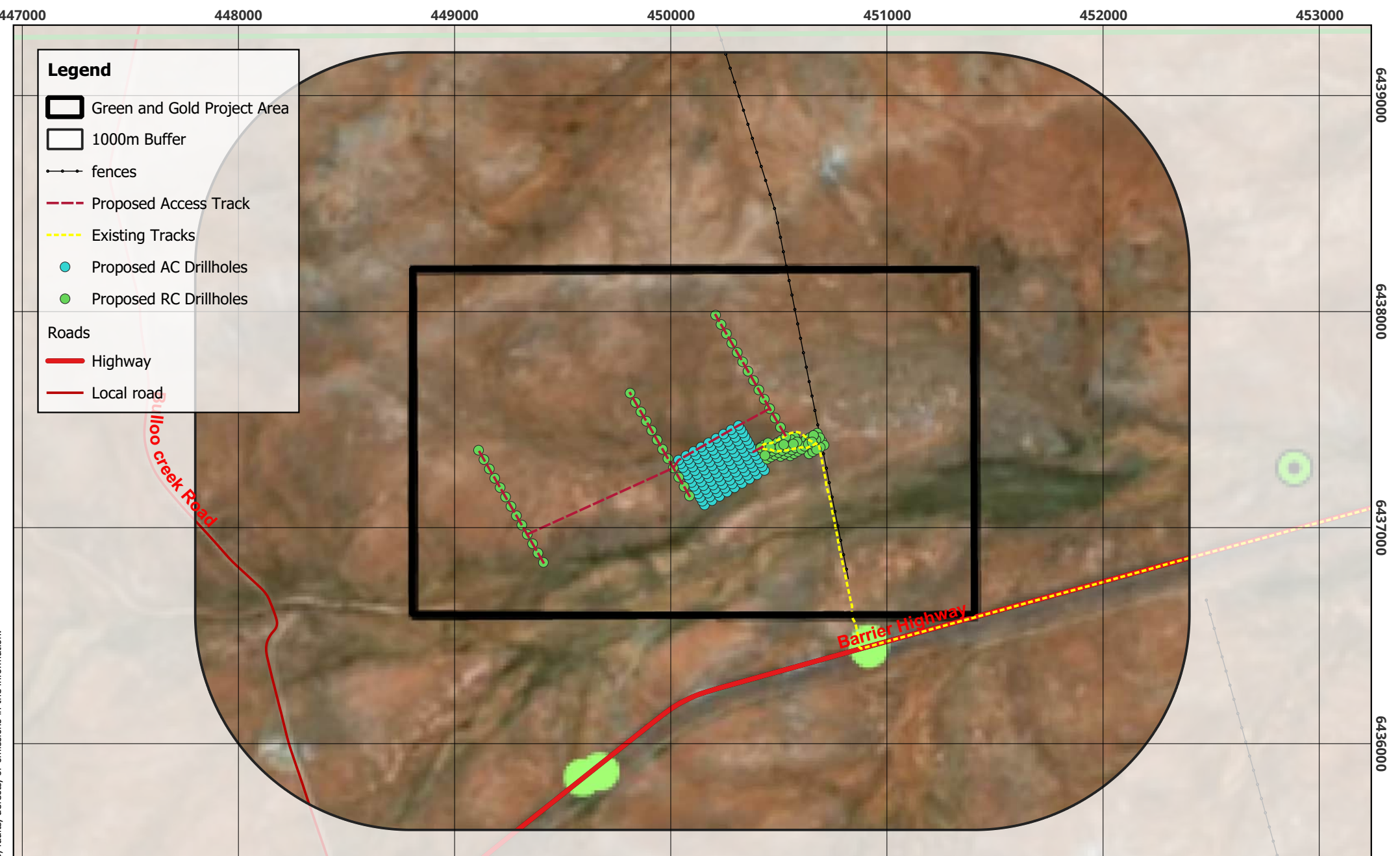


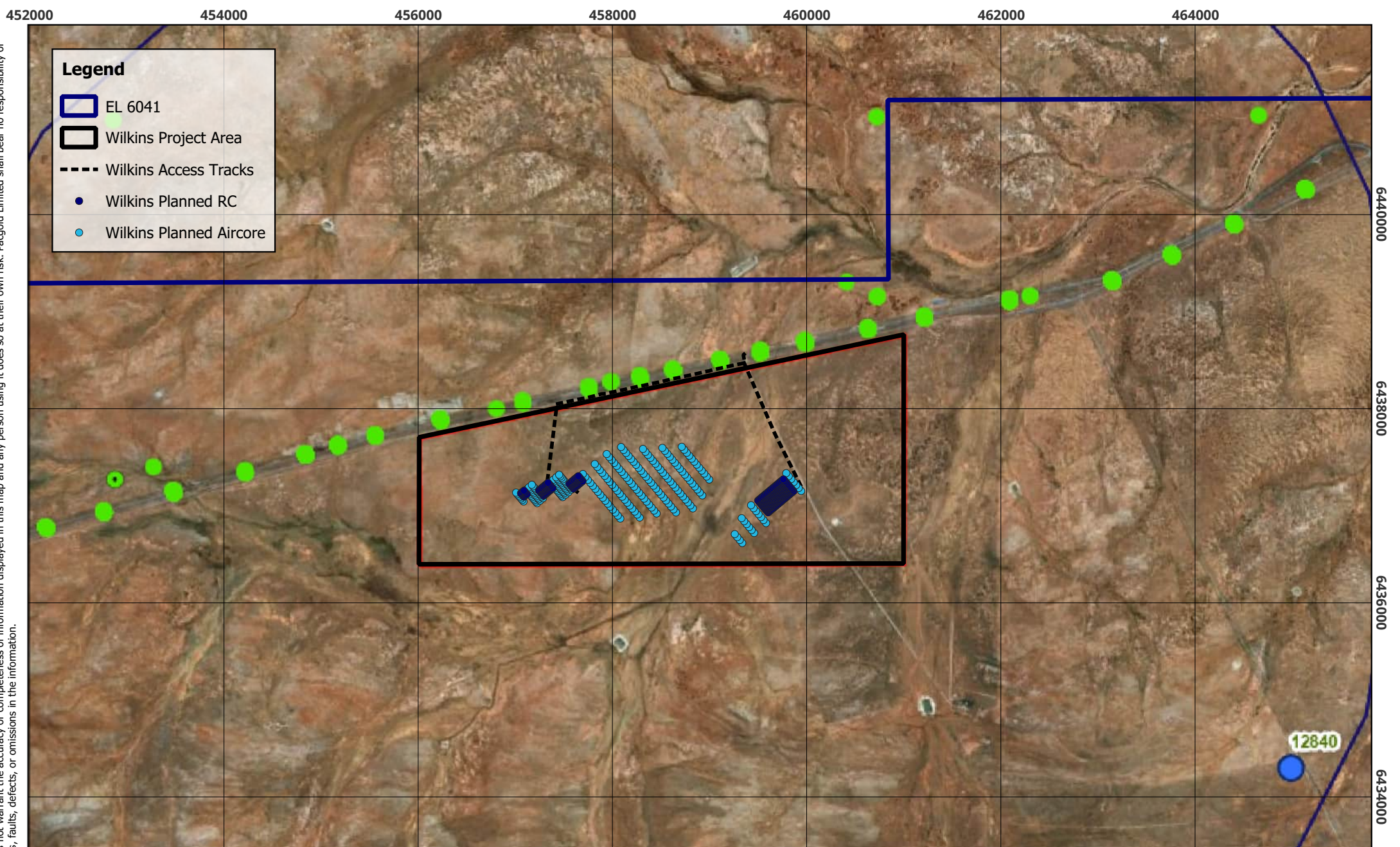
Figure 26 - Flora Site Locations (Green and Gold)

Pacgold Limited does not warrant the accuracy or completeness of information displayed in this map and any person using it does so at their own risk. Pacgold Limited shall bear no responsibility or liability for any errors, faults, defects, or omissions in the information.



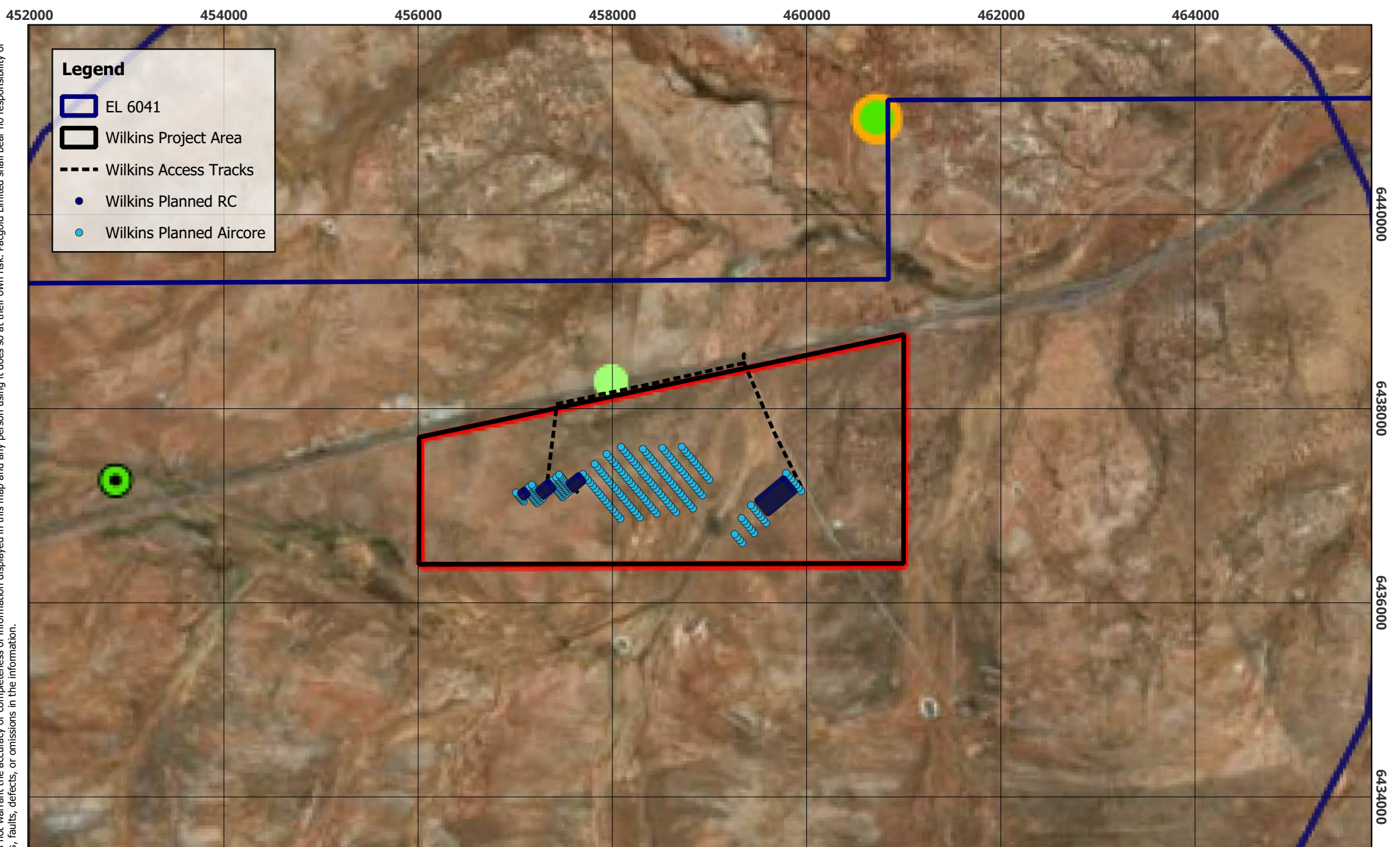
Green and Gold and Wilkins Projects 2026-2027 Exploration PEPR	Date created: 16/07/2026 Created by: Willy EPSG:28354 Datum:GDA94 / MGA zone 54	Data Attribution © Google 2026 © SA Government 2026 © Pacgold Limited 2026	 0 200 400 600 800 1,000 m Scale (A4) 1:22701.826909	Figure 27 - National and State Rated Flora (Green and Gold)
---	--	---	--	--

Pacgold Limited does not warrant the accuracy or completeness of information displayed in this map and any person using it does so at their own risk. Pacgold Limited shall bear no responsibility or liability for any errors, faults, defects, or omissions in the information.



Green and Gold and Wilkins Projects	Date created: 16/07/2026 Created by: Willy Van Vaerenbergh EPSG:28354 Datum:GDA94 / MGA zone 54	Data Attribution © Google 2026 © SA Government 2026 © Pacgold Limited 2026	 0 0.5 1 1.5 2 km Scale (A4) 1:50000	Figure 28 - Flora Site Locations (Wilkins)
--	--	---	--	---

Pacgold Limited does not warrant the accuracy or completeness of information displayed in this map and any person using it does so at their own risk. Pacgold Limited shall bear no responsibility or liability for any errors, faults, defects, or omissions in the information.

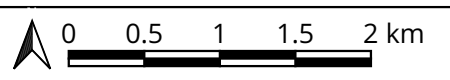


Green and Gold and Wilkins Projects

2026-2027 Exploration PEPR

Date created: 16/07/2026
Created by: Willy Van Vaerenbergh
EPSG:28354
Datum:GDA94 / MGA zone 54

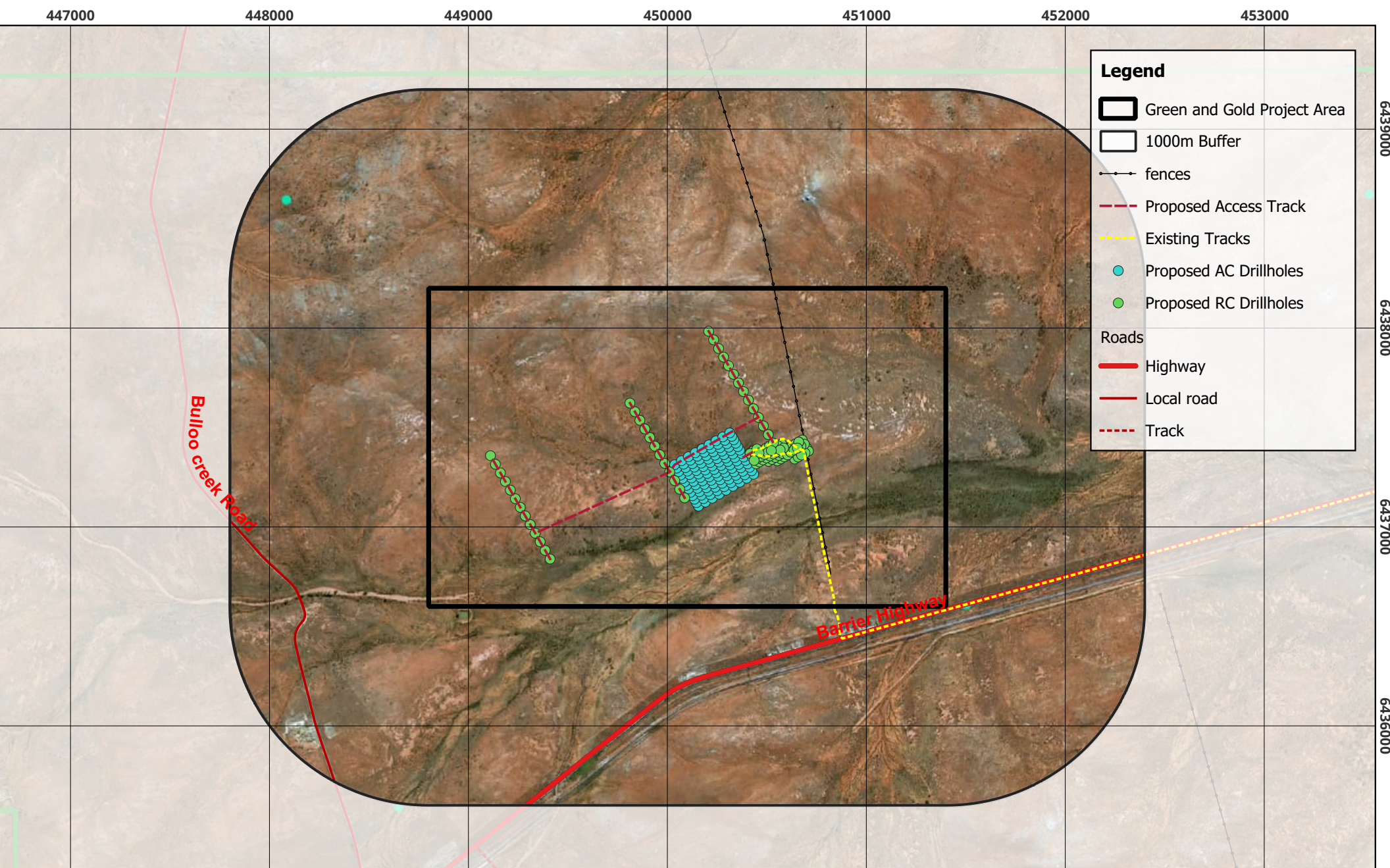
Data Attribution
© Google 2026
© SA Government 2026
© Pacgold Limited 2026



Scale (A4) 1:50000

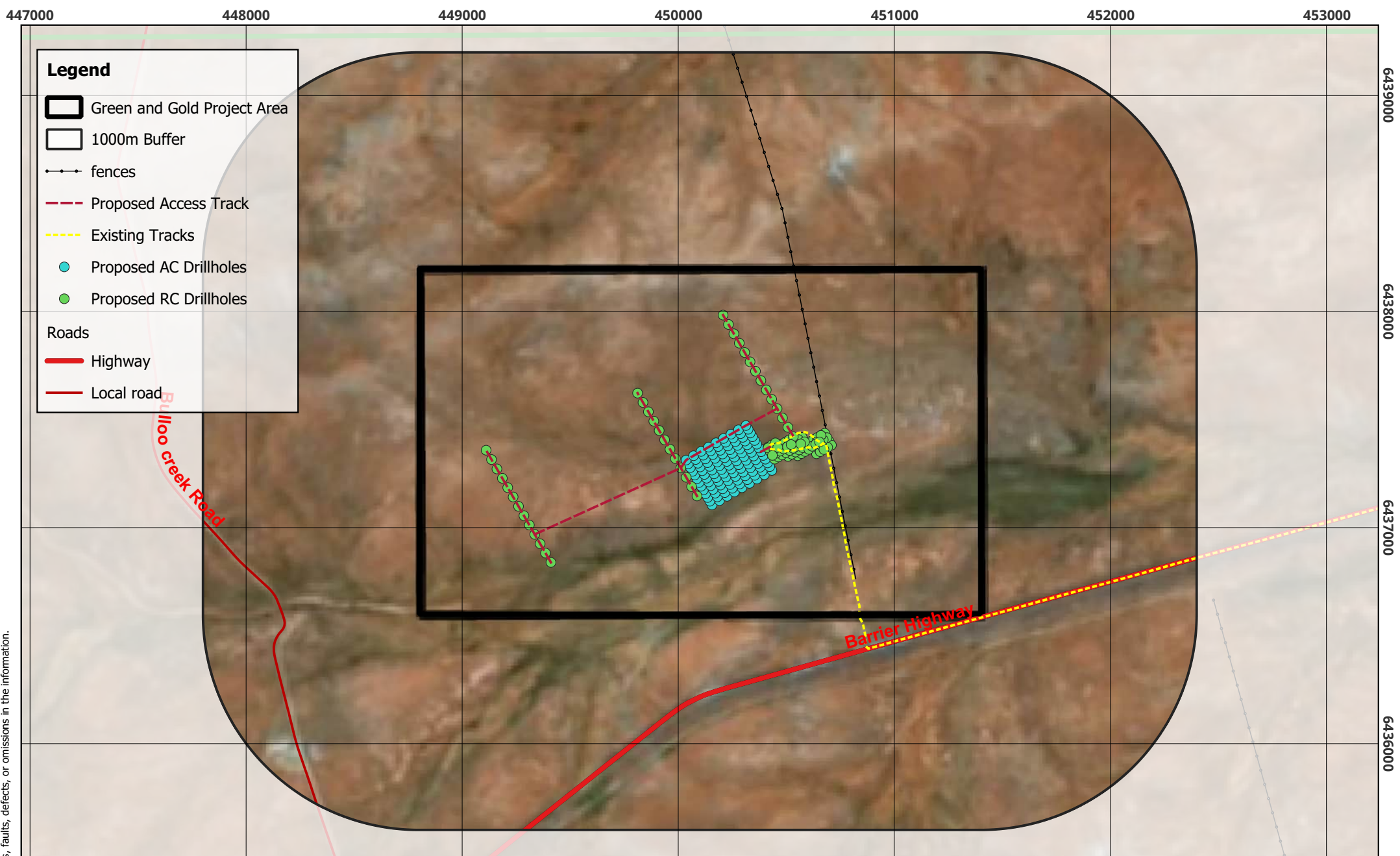
Figure 29 - National and State Rated Flora (Wilkins)

Pacgold Limited does not warrant the accuracy or completeness of information displayed in this map and any person using it does so at their own risk. Pacgold Limited shall bear no responsibility or liability for any errors, faults, defects, or omissions in the information.



Green and Gold and Wilkins Projects 2026-2027 Exploration PEPR	Date created: 16/07/2026 Created by: Willy EPSG:28354 Datum:GDA94 / MGA zone 54	Data Attribution © Google 2026 © SA Government 2026 © Pacgold Limited 2026	 0 200 400 600 800 1,000 m Scale (A4) 1:25000	Figure 30 - Fauna Site Locations (Green and Gold)
---	--	---	---	--

Pacgold Limited does not warrant the accuracy or completeness of information displayed in this map and any person using it does so at their own risk. Pacgold Limited shall bear no responsibility or liability for any errors, faults, defects, or omissions in the information.



Green and Gold and Wilkins Projects 2026-2027 Exploration PEPR	Date created: 16/07/2026 Created by: Willy EPSG:28354 Datum:GDA94 / MGA zone 54	Data Attribution © Google 2026 © SA Government 2026 © Pacgold Limited 2026	0 200 400 600 800 1,000 m Scale (A4) 1:22701.826909	Figure 31 - National and State Rated Fauna (Green and Gold)
--	--	---	---	---

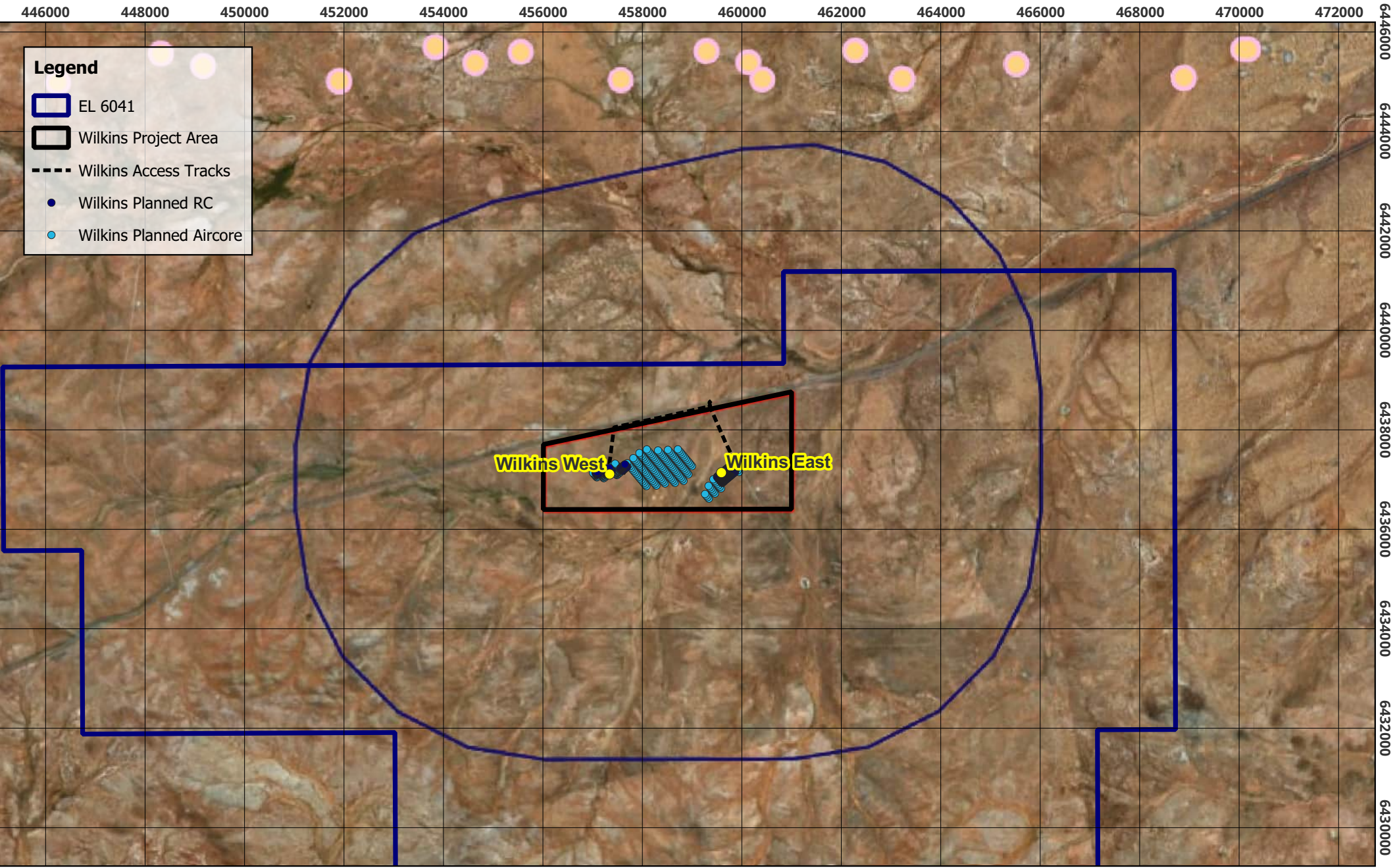
D:\J26001 - WDGM Support (PacGold)\3. GIS\3.07 QGIS\PacGold - Green and Gold EPEPR.qgz

Pacgold Limited does not warrant the accuracy or completeness of information displayed in this map and any person using it does so at their own risk. Pacgold Limited shall bear no responsibility or liability for any errors, faults, defects, or omissions in the information.



Green and Gold and Wilkins Projects 2026-2027 Exploration PEPR	Date created: 16/07/2026 Created by: Willy Van Vaerenbergh EPSG:28354 Datum:GDA94 / MGA zone 54	Data Attribution © Google 2026 © SA Government 2026 © Pacgold Limited 2026	 Scale (A4) 1:70000	Figure 32 - Fauna Site Locations (Wilkins)
---	--	---	------------------------	---

Pacgold Limited does not warrant the accuracy or completeness of information displayed in this map and any person using it does so at their own risk. Pacgold Limited shall bear no responsibility or liability for any errors, faults, defects, or omissions in the information.



Green and Gold and Wilkins Projects	Date created: 16/07/2026 Created by: Willy Van Vaerenbergh EPSG:28354 Datum:GDA94 / MGA zone 54	Data Attribution © Google 2026 © SA Government 2026 © Pacgold Limited 2026	 0 1 2 3 4 km Scale (A4) 1:100000	Figure 33 - National and State Rated Fauna (Wilkins)
--	--	---	---	---

D:\J26001 - WDGM Support (PacGold)\3. GIS\3.07 QGIS\PacGold - Wilkins EPEPR.qgz

DECLARED PLANT

Buffel grass

Cenchrus ciliaris, *C. pennisetiformis*

January 2015

Buffel grass is an introduced, summer-growing, perennial pasture grass 0.2-1.5 m high.

It is now declared under the *Natural Resources Management Act 2004*, with prohibition on sale throughout South Australia, enforced control in the Alinytjara Wilurara, Northern and Yorke, and SA Arid Lands NRM regions, and enforced destruction in the remainder of the State.

- **Other common names:** mamu grass, Rhodesian foxtail, African foxtail, black buffel grass, foxtail buffalo grass, blue buffel grass, anjan grass.
- **Synonyms:** *Pennisetum ciliare*, *Pennisetum cenchroides*
- **Origin:** Africa, Asia, Madagascar.

WHY IS IT A PROBLEM?

Buffel grass has spread from planting for pasture, mine rehabilitation and erosion control across much of northern and inland Australia.

- forms dense monocultures that displace native vegetation and cause habitat loss
- competes with other plants for water and nutrients
- forms a continuous, flammable ground layer that can carry hot fires, affecting native flora and fauna, and threatening infrastructure and public safety
- drought and fire resistant, and can withstand heavy grazing.





buffel grass inflorescence - Biosecurity SA

DESCRIPTION

Habit: erect, tussock-forming, deep rooted grass 0.2 -1.5 m high. **Stems:** grow from a centralised point to form a tuft. **Roots:** deep root system, some with rhizomes up to 50 cm in length. **Leaves:** rough textured due to small stiff hairs, with prominent midribs. Green when actively growing and straw coloured in dry times. Ligule (area where leaf blade diverges from stem) has delicate hairs. **Inflorescence:** spike-like seed heads to 15 cm long containing densely arranged burrs, varying in colour from white to purple. Can appear in all months. Each burr contains 1-3 seeds. **Seed:** small seeds are < 2mm long and can persist in the soil for 5+ years.

HOW IT SPREADS

Buffel grass disperses by burrs containing seeds, which are carried by wind, water, people (pasture sowing and leisure activities), machinery (vehicles, tractors), livestock, birds and other wild animals.

HABITAT

Buffel grass colonises bare or cleared areas in arid and semi-arid areas, on roadsides, railway corridors, pastoral lands, riparian sites and alluvial flats. It grows in a wide range of soils, although soil nutrients have more influence on the ability of buffel grass to establish, preferring medium-high phosphorus and nitrogen levels.

DISTRIBUTION

Found across South Australia in the semi-arid and arid environments, with the highest densities in the north-west. Widespread (from planting) in Western Australia, Northern Territory and Queensland. Also naturalised in New South Wales and Victoria.

WHAT CAN YOU DO?

Seek control advice if you have this weed. For further information on buffel grass consult the *South Australian Buffel Grass Strategic Plan 2012-2017*.

For more information

Contact your local Natural Resources Centre for information on controlling declared weeds:

www.naturalresources.sa.gov.au

Further weed control information is also available at:

www.pir.sa.gov.au/biosecuritysa

Disclaimer: This publication is provided for the purpose of disseminating information relating to scientific and technical matters. The Government of South Australia does not accept liability for any loss and/or damage, including financial loss, resulting from the reliance upon any information, advice or recommendations contained in the publication. The contents of this publication should not necessarily be taken to represent the views of the participating organizations.

FACT SHEET

Buffel Grass Identification

What is it?

Buffel grass is an introduced, summer-growing, perennial grass 0.2 – 1m high. It is often found along roadsides and rail corridors. It has the ability to invade a variety of landscapes throughout South Australia.

What are the key identifying features?

Habit: Erect, tussock-forming, deep-rooted grass 0.2 – 1m high. Buffel grass can vary significantly in appearance depending on the time of the year. Following summer rain and active growth, buffel grass leaves are green and in dry times when the plant is dormant the leaves are straw coloured.



Roadside buffel grass infestation



Cenchrus ciliaris



Cenchrus pennisetiformis



C. ciliaris 'maturing', 'flowering' and 'gone to seed'

Habit: *Cenchrus pennisetiformis* has a sparse tussock formation when compared with *C. ciliaris*.

Leaves: Rough textured due to small stiff hairs, with a prominent vein down the centre of the leaf. Leaves tend to curl when drying.

Ligule: The area where the leaf joins the stem has fine hairs.

Roots: Deep, extensive fibrous root system, some with rhizomes up to 50cm in length. Carbohydrate storage nodules are visible at the base of each stem.

Flower: Spike-like seed heads to 15cm long containing dense burrs, varying in colour from straw coloured to purple. Appear primarily in summer months. A key difference between *C. ciliaris* and *C. pennisetiformis* is the latter's dark purple to black appearance of the seed heads.

Flowering Stem: Obvious zig-zag appearance of the flowering stem. Although this is an indicator that the species may be buffel grass, care should be taken due to the fact that some other grasses also possess this characteristic.

Fruit/Seed: The fruit of buffel grass consists of a small burr 4 – 5mm long, containing a ring of stiff hairs that join the base. Small seeds are < 2mm long and can persist in the soil for up to 5 years. Each burr contains 1 – 3 seeds.

Care should be taken when identifying buffel grass seedlings and juveniles as some other grasses also possess these characteristics.



Hairy ligule



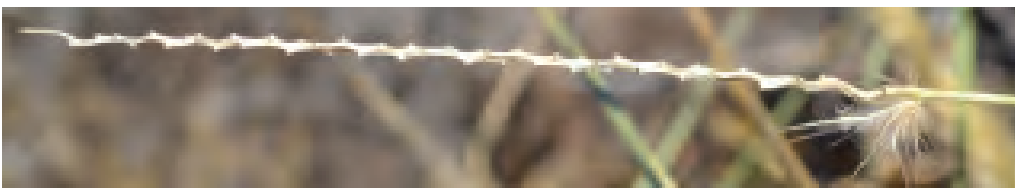
Buffel grass root system



Carbohydrate storage



C. pennisetiformis seed head



C. ciliaris flower stem



C. pennisetiformis flower stem



Prominent vein down the centre of leaves



C. ciliaris fruit and seed



C. pennisetiformis fruit

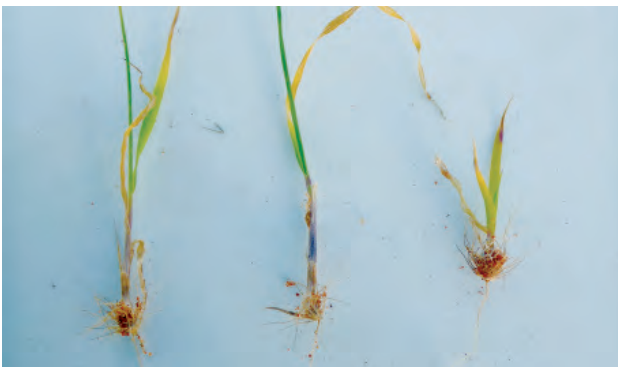


Red/purple tinge at base of stem



Buffel grass (foreground) invading intact native vegetation

What are the growth phases?



Seedling



Juvenile



Mid growth



Mature / Seeding



Hayed-off / Dormant



Dead

Introduced and Native 'Look Alikes'

Introduced

Fountain Grass – *Cenchrus setaceus*

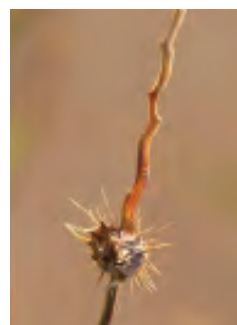
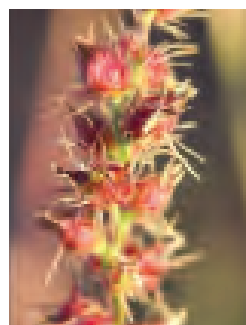


Perennial grass to 1.5m high. Has a long narrow leaf 3.5mm wide and 60cm long, with small forward facing teeth on the leaf surface.

Flower heads are pink to purple 6 – 30cm long (much longer than buffel grass). The cylindrical seed head has spikelets up to 6.5mm long and these are surrounded at the base by white to purplish, feather like bristles mostly 15 – 26mm long with one to 40mm long.

Mossman River Grass – *Cenchrus echinatus*

Tufted annual or perennial grass 10 – 90cm tall. Leaves are long and narrow from 3 – 10mm wide and 4 – 25cm long. Burrs are prickly, pale brown or reddish and are positioned to form cylindrical spikes. The inner bristles are broad and the tips of the longer bristles have small downward-pointing barbs. Flowering stems have an obvious zig-zag appearance similar to that of both *C. ciliaris* and *C. pennisetiformis*.



Birdwood Grass – *Cenchrus setiger*

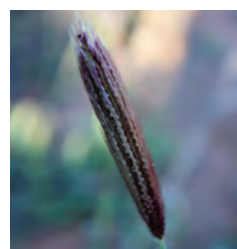


Tufted perennial grass to 80cm tall. Leaves are long and narrow from 2 – 7mm wide and 2 – 30cm long. The burrs are dark purple in color, arranged in dense cylindrical spikes up to 12cm long and closely resemble that of *C. pennisetiformis*. The burrs are solid to touch as opposed to fluffy as is the case with *C. ciliaris*. Birdwood grass has a zig-zag flower stem identical to that of *C. ciliaris* and *C. pennisetiformis*.

Feathertop Rhodes Grass – *Chloris virgata*

Tufted annual grass up to 1m tall with erect and semi-prostrate stems capable of rooting at the joints. Leaves are bluish green, 5 – 25cm long and 3 – 6mm wide.

The seed-heads have 7 – 19 feathery, white-silver spikes that are 3 – 9mm long. The feathery appearance comes from the stiff white hairs on the seeds.



Whorled Pigeon Grass – *Setaria verticillata*

This is an annual, loosely tufted grass to 1m high, usually with stems bent near the base.

Leaves have a sheath. The leaf stalk is smooth, long and upright with a ligule densely hairy (like eyelashes) and a flat, hairless leaf. The base of the leaf-stalks are red tinged.

Flowers are cylindrical and purplish in color. Bristly seed clusters have short spikes. Seeds are green to purple. One bristle is at the base of each spikelet; the bristle has backward-pointing barbs for attaching to animals and clothing.



Native

Barley Mitchell Grass – *Astrebla pectinata*



Summer growing perennial tussock grass to 1.2m high although mostly less than 60cm. Stems are upright, hairless, smooth and often branched.

Leaves are bluey-green, finely pointed and stiff with rough, sharp edges. Leaves often curl or twist as the plant ages.

Flowers in spring-autumn and has two rows of green or straw coloured spikes. The flower stem has a zig-zag appearance very similar to buffel grass.

For Further Information

For resources and state-wide buffel grass management visit Biosecurity SA – Buffel grass webpage:
www.pir.sa.gov.au/buffel-grass

For regional buffel grass management and advice contact your local Natural Resources SA office:
www.naturalresources.sa.gov.au/home

For assistance with buffel grass identification/specimen collection, contact the State Herbarium of South Australia:
www.environment.sa.gov.au/Science/Science_research/State_Herbarium

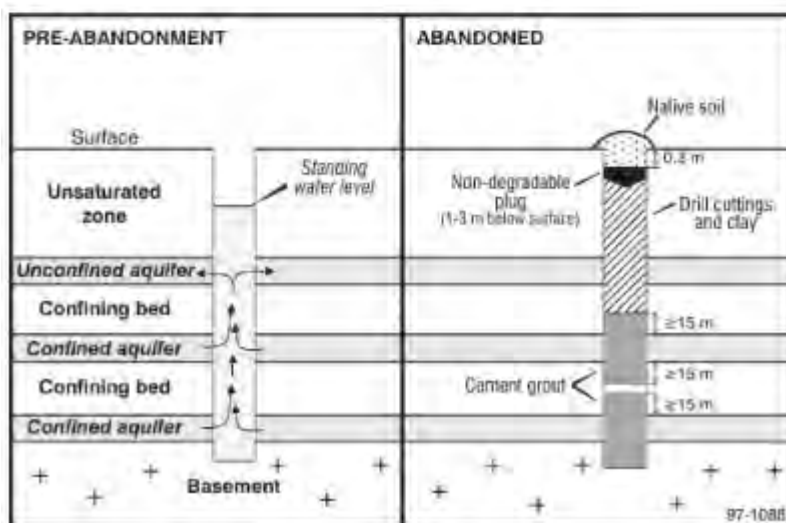
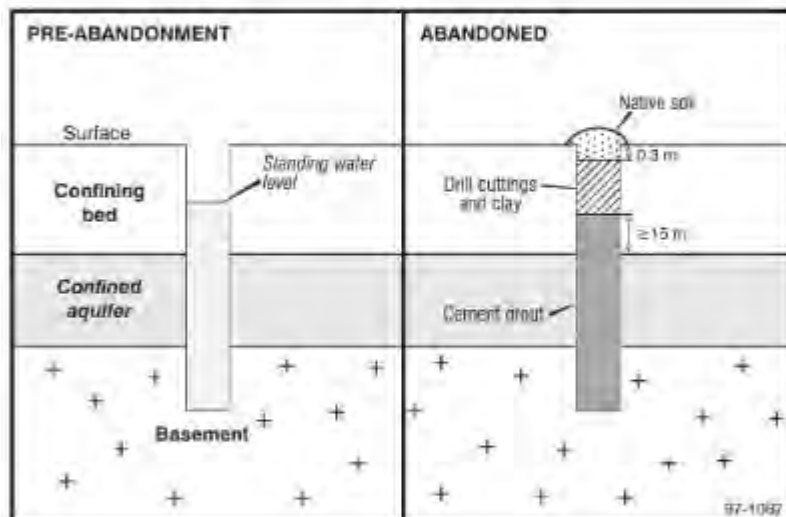
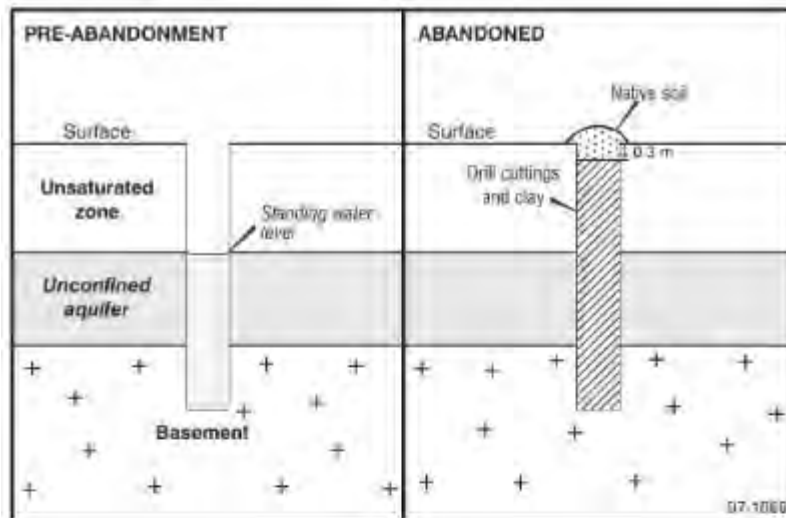
Acknowledgements:

Images used in this fact sheet have been kindly provided by Troy Bowman, Tim Reynolds and Michaela Heinson – Biosecurity SA, Chris Brodie – State Herbarium of South Australia, Jodie Reseigh-O'Brien – Rural Solutions SA, Paul Hodges and Matt Westover – DEW.



Phil Cole – Nature Foundation South Australia.

The development of this fact sheet was funded through the Native Vegetation Councils Significant Environmental Benefits Grant Scheme.



Exploration Scope

Green and Gold Project

The Green and Gold Project will initially be assessed through surface geological mapping and geochemical rock-chip sampling to delineate areas of gold and copper mineralisation potential. The outcomes of this preliminary work will support a targeted RC drilling program comprising up to 100 Reverse Circulation (RC) drill holes, each positioned on individual drill pads, to maximum depths of approximately 80 m, for a total planned RC program of 6,600 m but with a maximum total drilling depth of 8,000 m. RC drilling is planned on a nominal 20 m by 20 m grid, with 20 m spacing between collars along 20 m-spaced drill lines. This drill spacing is considered appropriate to support the estimation of a JORC-compliant Indicated Resource, subject to confirmation of sufficient continuity and grade of the mineralised zones.

In addition, the drilling program includes up to 117 Aircore (AC) drill holes, totalling approximately 1,755 m, drilled to depths of approximately 15 m with a 20 m x 40 m collar spacing. The AC drilling is designed to assess the western strike continuity of the central mineralised zone beneath historical surface workings, to follow up on historical drilling and infill areas between RC drill lines following up magnetic anomalies.

The program will be undertaken in stages, initially completing every second RC drill line. Following the receipt and interpretation of assay results, a decision will be made on whether to proceed with infill drilling to complete the intervening lines.

Wilkins Project

The Wilkins Project is proposed to be explored initially with surface geological mapping and geochemical rock chip sampling, with areas of defined gold and copper mineralisation to be investigated further with a drill program. The program will consist of up to 227 angled Reverse Circulation (RC) drill holes sited on individual drill pads, with a maximum depth of 100 m and a total anticipated drill depth of 14,700 metres, along with 234 Air core (AC) holes with a total of 2,340 m drilled to a depth of approximately 10 m or until refusal to test the strike extent between RC patterns.

The program is designed to test the interpreted line(s) of lode beneath sporadic surface historical workings and to follow up historical drilling along the full length of mineralised exposure within the Wilkins Project area and down-dip on the mineralised structure to 100 m beneath surface. The RC drill program is planned on a 20 m grid (20 m collar spacing on 20 m spaced drill section lines) and this drilling density should be sufficient for the generation of a JORC-compliant Indicated Resource should the drilling prove sufficient continuity and grade of the mineralised zones encountered. The program will be staged whereby every second drill line will be completed and upon receipt of assays the decision will be made to complete the infill lines of drill holes.

Green and Gold and Wilkins Project Description

EL6041 is held by Havilah Resources Ltd ('Havilah'). Pacgold Ltd ('Pacgold') has the rights to explore and develop oxide mineralisation from two areas within EL6041, including the Green and Gold and Wilkins prospects, under an Agreement between Havilah and GBM Resources Ltd ('GBM'). Upon purchasing GBM's subsidiary companies that own and operate the White Dam Gold Operation, Pacgold has assumed GBM's rights under the Agreement. The tenement is located approximately 16 km east of Olary along the Barrier Hwy.

Green and Gold Project

At least two parallel mineralised lodes are exposed in the historical workings at Green and Gold, dipping steeply to the south. The old mine workings have targeted the shallow, oxidised Au–Cu–rich zone, extending for approximately 240 m along strike. The primary workings within the central mineralised zone include a collapsed, inclined shaft with preserved rail tracks, the original windlass, and at least two further vertical shafts, as well as numerous shallow pits and costeans. This central lode is magnetite–manganese rich, highly magnetic, up to 2 m wide where exposed in the workings and contains copper oxide minerals. The mineralisation remains open to both the east and west and is interpreted to have multiple fault offsets along strike, creating breaks in the surface expression.

The central mineralised zone lies on the flank of a magnetic high. Because the surrounding schist–pegmatite outcrops are non-magnetic, the anomaly likely reflects a blind magnetite-rich skarn or intrusive body at depth. There is extensive alluvial covering to the west of the workings, obscuring the geology. A pegmatite swarm appears to be strata-bound within the metasedimentary units.

The proposed exploration program will begin with a detailed on-ground assessment of the historical workings and the surrounding surface geology. This will include systematic geological mapping and rock chip sampling of exposed mineralisation to refine the understanding of the gold–copper system and support final drill hole planning.

A preliminary drilling program may comprise up to 100 RC holes (expected to approximately total 6,600 drilling metres but with a maximum total drilling depth of 8,000 m) targeting the main mineralised trend and several adjacent magnetic anomalies, supported by 117 aircore holes (expected to approximately total 1,755 drilling metres) to assess potential western strike extensions of the central workings. RC drilling will be prioritised into two stages, with secondary holes completed only if justified by early results. The combined mapping, sampling and drilling will test the continuity, depth potential and structural controls of the mineralisation.

Wilkins Project

Gold and copper mineralisation in the area is hosted in the Wiperaminga Subgroup, a Palaeoproterozoic geological unit within the Willyama Supergroup, which in turn is a subgroup within the Curnamona Province. Mineralisation occurs in the contact of a siliceous ironstone within the granitic Wiperaminga Subgroup. Holocene alluvial/fluvial units partially cover the project area.

The proposed exploration program under this EPEPR will involve initial on-ground assessment of historical workings and surface geology at Wilkins West and Wilkins East. Wilkins West consists of several historical east-west tranches and one shaft with east-west drives targeting a silicified gossan at surface. Wilkins East is located ~2.4 km east of the main Wilkins workings. There are no visible workings at this prospect.

The proposed exploration program will entail detailed mapping of surface geology and workings and rock-chip sampling of historical workings and exposed gold mineralisation. This work will contribute to the design of a drill hole program to test the surface gold and copper mineralisation at depth. The initial drilling program is envisaged to comprise up to 227 RC holes, expected to total 14,700 drilling

metres, with a maximum total drilling depth of 22,700 metres. Drilling is proposed along 20m spaced sections, with up to 9 angled holes per section from individual drill pads. A further 234 Aircore holes with a total drill length of 2,340 metres are also proposed to test strike extension between the RC patterns. The RC program will be split into Priority 1 section lines at 40m centres for both prospects, with Priority 2 drilling only if justified.



