



UWIR 2025-2028

PL 214 - Utopia Oilfield

Oilwells Inc of Kentucky
ABN 40 161 627 345
Registered Operator Number: 601240

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Acronym	Definition
ANZECC	Australia New Zealand Environment and Conservation Council
ALARP	As Low as Reasonably Possible
ALS	Australian Laboratory Services
AS/NZS	Australia New Zealand Standard
BTEX	Benzene, Toluene, Ethyl-benzene and Xylene
DETSI	Department of Environment, Tourism, Science and Innovation
DNRM	Department of Natural Resources and Mines, Manufacturing and Regional and Rural Development
EA	Environmental Authority
ESA	Environmentally Sensitive Area
EPM	Equivalent Porous Medium
GAB	Great Artesian Basin
GDE	Groundwater Dependent Ecosystem
IAA	Immediately Affected Area
LTAA	Long-Term Affected Area
ML	Mega litres
NATA	National Association of Testing Authorities
OWC	Oil Water Contact
PL	Petroleum Lease
STB	Stock Tank Barrel
SET	Senior Executive Team
SWL	Connate water saturation
TDS	Total Dissolved Solids
UWIR	Underground Water Impact Report

Executive Summary

This report outlines potential impacts of petroleum-related extraction on groundwater and related ecological and social values concerning the State of Queensland's water resources.

The Utopia Oilfield is situated 84 km west of Eromanga and is currently in production. Groundwater is produced as a byproduct of oil extraction. To assess potential impacts of underground water extraction, this Underground Water Impact Report (UWIR) uses historical and projected production rates for PL 214. The UWIR includes results from site-specific hydrogeological modelling to forecast water level drawdown in the geological units surrounding the Utopia oil wells. The analytical groundwater model was updated in 2026 to incorporate actual and forecast water and oil production data from 2009 to 2035. Given the mature state of the oilfield, forecasts cannot be made with confidence beyond 2035.

Model outputs indicate historic and future potential drawdown of water pressure associated with underground water extraction. In the model, geological formations are divided into five layers, with the top layers (Layer 1 and 2, represented by Layer 2 in the model) being the most accessible and relevant to landholders and environmental values. In these uppermost layers, modelling predicts zero historic drawdown across all timeframes 2009 to 2035.

Petroleum production in PL 214 targets Layer 4, which is more than 1,000 m deep. The predicted drawdown in Layer 4 exhibits a steady state trend of 5.5m for both 2026-2028 and 2026-2035.

Impacts on groundwater, groundwater users, groundwater-dependent ecosystems, environmental values, or other water-related criteria surrounding PL 214 Utopia are unlikely for the following reasons:

- Large geological separation between the target production formations and the upper formations used by landholders and environmental values.
- The presence of impermeable boundary layers in the geology.
- The relatively small production extraction rates compared to the reservoir volume.
- The consistent very low-pressure drawdowns predicted by the modelling.

A standard risk assessment was used to evaluate the likelihood of impacts from water extraction. The assessment determined that there is no risk of direct impact on groundwater,

groundwater users, groundwater-dependent ecosystems, environmental values, or other water-related criteria.

Bridgeport concludes there would be no direct impact on landholders or any other groundwater-related values resulting from extraction from PL 214 Utopia.

Statement of Compliance

This Underground Water Impact Report (UWIR) has been prepared in accordance with the requirements of the *Water Act 2000* and the Guidelines for Underground Water Impact Report and Final Reports (**ESR/2016/2000**).

The report:

- Identifies the tenure areas and petroleum and gas activities to which it applies;
- Assesses existing information on underground water levels and quality;
- Predicts the impacts of petroleum and gas activities on underground water in relevant aquifers;
- Identifies Immediately Affected Areas (IAAs) and Long-term Affected Areas (LAAs); and
- Outlines strategies for monitoring, make good obligations, and ongoing information management.
- The UWIR has been prepared by suitably qualified persons, using the best available science and data at the time of reporting, to ensure compliance with all legislative and regulatory requirements.

Since the approval of the Beach Energy UWIR in 2014 and subsequent submissions by Bridgeport in 2018 and 2022, the analysis of the collected data reveals limited material changes in the information, predictions, or impacts outlined in previous UWIR reports. The primary change in this report is the updated analytical model.

Legislation

The following legislation and guidelines were used to prepare the contents of this UWIR:

- *Water Act 2000* (reprint current from 19 June 2025)
- Underground water impact reports and final reports – ESR/2016/2000 Version 3.04
Effective 04 JUL 2025

As requested by DETSI in the approved UWIR 2025, “A UWIR must contain the information that has been outlined in each of the following parts of this guideline”, including;

- Part A: Underground water extractions
- Part B: Aquifer Information and underground water flow
- Part C: Predicted water level declines for affected aquifers
- Part D: Impacts on environmental values
- Part E: Water monitoring strategy
- Part F: Spring Impact management strategy
- Part G: For a CMA assign responsibilities to resource tenure holders

Project Setting

Oilwells Inc of Kentucky, a subsidiary of Bridgeport Energy Pty Limited, is the holder of the PL 214 tenement. For the purposes of this UWIR, the operator will be referred to as a Bridgeport.

The PL 214 Utopia Oilfield is located 84 km southwest of the township of Quilpie and 50 km southeast of the town of Eromanga, within the local Quilpie Shire Council area, Queensland (Figure 1).

Utopia was removed from the original ATP 560P permit when PL 214 was granted in 2006. The tenement covers an area of approximately 220 km². Within this 220 km² area, the oil production facility, or oilfield, occupies approximately 25.4 km², with 8 wells currently in operation. Coordinates for the Utopia production facility are 27°2'21.64" S, 143°34'1.14" E (Figure 1).

Table 1: Oilwells Inc of Kentucky Utopia Field Summary.

Oilfield Name	Oilfield Type	PL Number	Number of Wells currently producing (as at July 2025)
Utopia	Conventional Oil	PL 214	8

The infrastructure at Utopia includes a small demountable camp and office, beam pumps, flowlines, a production manifold, a separation tank, oil storage tanks, load-out facilities, and a series of ponds for the treatment of produced water.

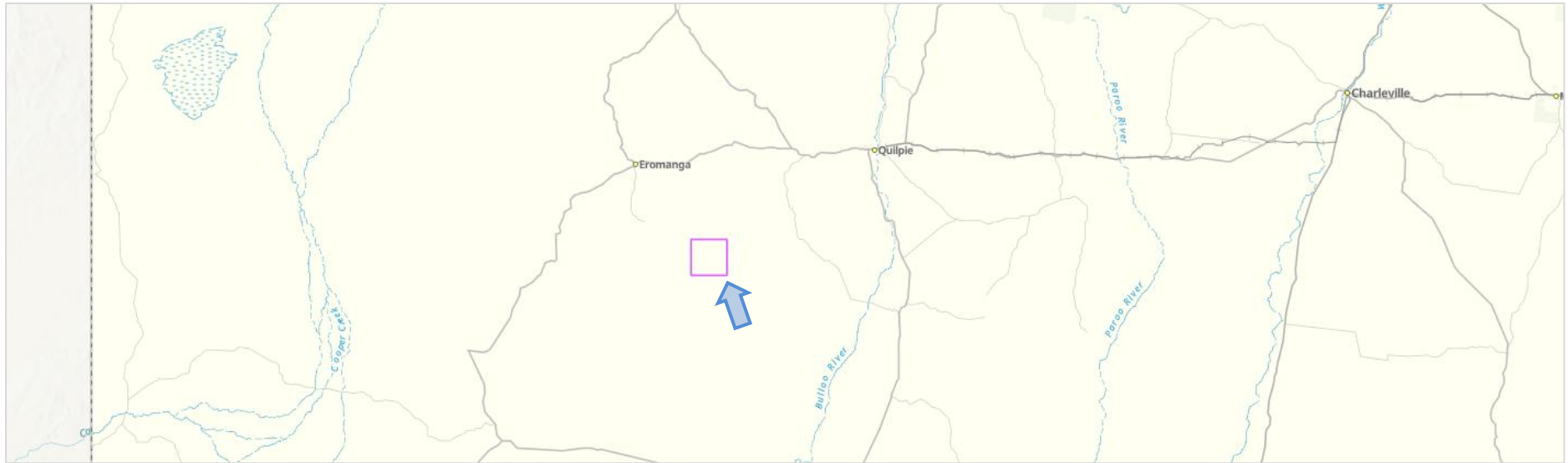


Figure 1: The location of PL 214 (Utopia) 84 km to the west of Quilpie.

Part A*: Underground water extractions

Requirements under section 376(a) of the Water Act

To meet the requirements under section 376(a) of the Water Act, an UWIR must include the following:

1. The quantity of underground water produced or taken from the area because of the exercise of underground water rights; and
2. An estimate of the quantity of water to be produced or taken because of the exercise of underground water rights for a three-year period starting on the consultation day of the report.

*Part A refers to Section 5.1.1 (page 9) of the guideline (DETSI 2025).

This section details the quantity of water produced or taken from the area because of the exercise of underground water rights.

Bridgeport has developed a monitoring strategy that meets the requirements of Section 376(a)(1) of the Water Act. This section provides specific details of how water-related parameters are collected, including water produced or taken as part of exercising underground water rights.

Bridgeport's monitoring strategy is based on three primary parameters:

- Formation water production
- Reservoir oil/water level depth
- Shut-in tubing head pressure (SITHP)

The volumetric measurements of oil and produced water are essential for operational purposes, supporting facility optimisation. These measurements involve monitoring productivity to ensure separation processes are efficient, processing capacity is enhanced, and oil production is maximised.

Oil and water production have been monitored since 2015. This has allowed for the calculation of water volumes extracted per well, standardised according to beam pump operating time. Each well undergoes flow testing into an isolated test tank. After a settlement period, the tank contents are volumetrically measured using a dipstick and water-indicating paste. Volumes of both oil and water produced are recorded based on these measurements. These volumetric calculations are used to determine production rates of oil and water over time.

Daily water and oil production rates (total fluid rates) are also correlated to the beam pump operation time to provide a more accurate measurement of water/oil production per unit of operation across the field.

Historical water production data are available for the field and on a per-well basis (Appendix 2). Consequently, Bridgeport has a detailed understanding of extraction rates throughout its operatorship history.

Methods for measuring the underground water level

To understand how water extraction relates to underground water levels, Bridgeport has adopted two methods for assessing water depth.

The first method involves analysing current wells and their production status. Underground water levels tend to rise as oil is depleted. Therefore, when an existing well “waters out” (ceases to produce oil and only produces water), it indicates that in the immediate localised area, the underground water level has risen to the depth of the well’s perforations. For the wells drilled in Utopia, this is approximately 1000 m below the surface.

The second method involves identifying the oil-water contact (OWC) through petrophysical analysis during well drilling. When new wells are drilled, the oil-water contact is determined during drilling by log analysis conducted by independent third-party contractors. Since the depth of the oil/water contact marks the top of the aquifer, this identification indicates the aquifer's water level. Keeping records of these parameters establishes the original reservoir water level and helps track how the water level might change over the field's production life as water displaces oil. However, the geological characteristics of the targeted Murta or other

formations do not allow for consistent determination of the OWC, a topic discussed in detail below.

Cumulative assessment of water extracted

From November 2014 to October 2025, a total of 193.58 ML of water was extracted at Utopia. Annual water extraction has declined from 32.85 ML in 2015 to 8.79 ML in 2025. The proposed future production includes 9.29, 13.31 and 13.35 ML in 2026, 2027 and 2028, respectively (Table 2).

Table 2: Annual water extracted from Utopia between 2015 and 2028.

Year	Total water extracted (ML)
2015	32.85
2016	23.98
2017	25.63
2018	14.85
2019	19.35
2020	16.03
2021	17.29
2022	15.76
2023	12.67
2024	10.95
2025*	8.79
2026	9.29
2027	13.31
2028	13.53
Total	229.71

*2025 contains actual and predicted values for the entire year.

Cumulative water production per well (in ML) between November 2014 and October 2028 in Utopia is detailed in Table 3. There are three major contributors to Utopia's cumulative water production: Utopia 06 with 36.36 ML (11.26%), Utopia 08 with 68.43 ML (21.19%), and Utopia 10 with 77.38 ML (23.96%). The next largest well contributes 9.01% of the total production, Utopia 14 with 29.11 ML. Many other wells make smaller contributions to the overall water

extraction (Data is reported from the 1st of November of the previous year through to 31st October of the reporting year (e.g., 2025 data include 1st November 2024 to 31st October 2025). Where data is unavailable, predicted values are used.

Table 3).

Data is reported from the 1st of November of the previous year through to 31st October of the reporting year (e.g., 2025 data include 1st November 2024 to 31st October 2025). Where data is unavailable, predicted values are used.

Table 3: Cumulative water (ML) extracted per well between 2015 and 2028.

Well	Cumulative water (ML)	Cumulative portion (%)
Utopia 01	7.62	2.36
Utopia 02	2.66	0.82
Utopia 03		
Utopia 06	36.36	11.26
Utopia 07	14.65	4.54
Utopia 08	68.43	21.19
Utopia 09	20.19	6.25
Utopia 10	77.38	23.96
Utopia 11	14.67	4.54
Utopia 12	8.40	2.60
Utopia 14	29.11	9.01
Utopia 15		
Utopia 16		
Utopia 17		
Utopia 19	4.58	1.42
Utopia 20	5.12	1.58
Utopia 21	0.36	0.11
Utopia 22	30.63	9.48
Utopia 23	2.80	0.87
Total	229.71 ML	100

Annual water production (ML) per well across the Utopia field is presented in Figure 2.

Utopia PL 214 UWIR 2025-2028

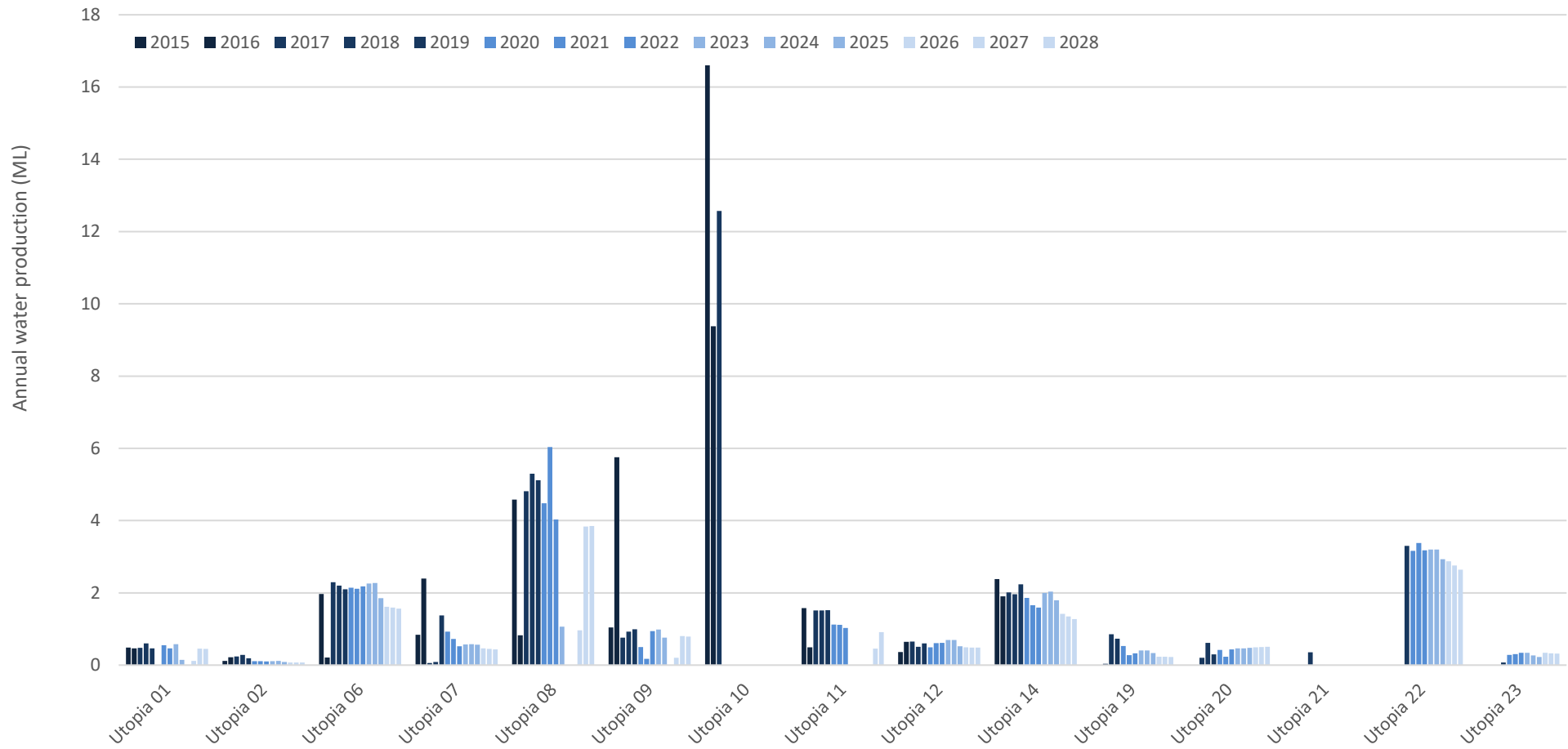


Figure 2: Annual water (ML) production per well at Utopia from 2015 to 2025.

Previous Production Estimates

In previous UWIRs, Bridgeport provided a forecast of future years of production based on extrapolation by a qualified Reservoir Operations Engineer. A comparison of actual versus predicted water production is displayed in Table 4.

Table 4: A comparison between the predicted water production from each year from the Bridgeport Utopia UWIR (2018-2024).

Type	Year	Utopia Total (ML)
Predicted	2019	17.36
Actual	2019	19.35
Predicted	2020	18.24
Actual	2020	16.03
Predicted	2021	18.96
Actual	2021	17.28
Predicted	2022	19.11
Actual	2022	15.76
Predicted	2023	19.41
Actual	2023	12.67
Predicted	2024	19.29
Actual	2024	10.95

Future Production Estimates

Where there was sufficient and consistent production history, the method of decline curve analysis (DCA) was applied using ValNav software, an industry-based reservoir engineering platform. Since most wells have been producing for many years, DCA was carried out on a well-by-well basis for each of Bridgeport's producing fields.

Predictions indicate that the annual water production will be 9.29, 13.31, and 13.53 ML at Utopia in 2026, 2027, and 2084, respectively (Table 5 and Figure 3).

Utopia PL 214 UWIR 2025-2028

Table 5: Actual and predicted water extraction (ML) from the Utopia oilfield from 2015 to 2028.

Year	Total extracted (ML)
2015	32.85
2016	23.98
2017	25.63
2018	14.85
2019	19.35
2020	16.03
2021	17.28
2022	15.76
2023	12.67
2024	10.95
2025	8.79
2026	9.29
2027	13.31
2028	13.53
Combined Total	229.71

Utopia PL 214 UWIR 2025-2028

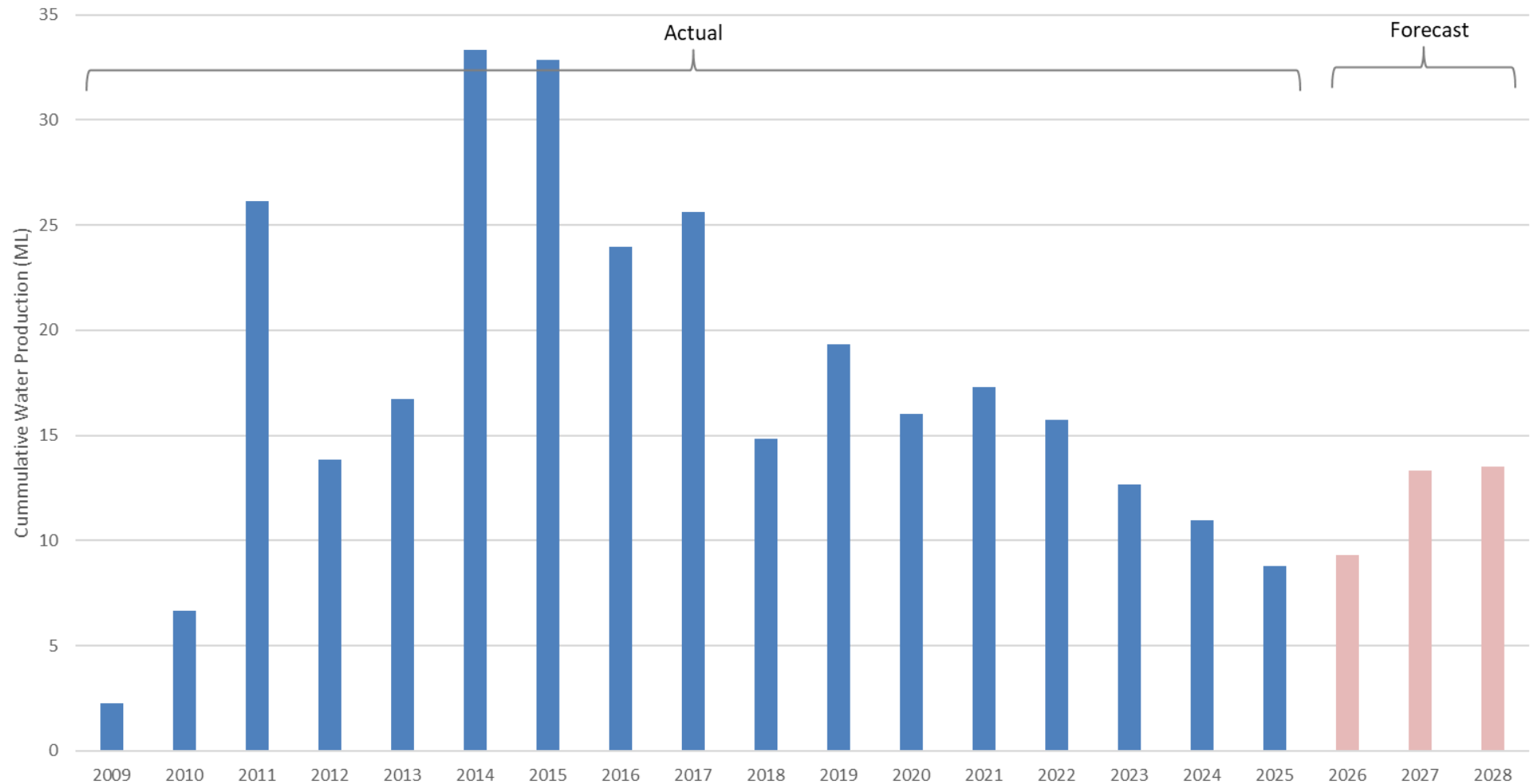


Figure 3: Cumulative water production (ML) per field at Utopia, including three years of forecasts till 2028.

Production Comparisons

Bridgeport operations target confined aquifers associated with geological traps that contain petroleum. At each field, the total volumes extracted are a key consideration and are monitored as described above. Bridgeport analysed the impacts from the Greater Kenmore and Bodalla Area (GKBA, another Bridgeport-owned and operated field) using a reservoir model run by Golder Associates (Golder Associates, 2025). The model found that production extraction resulted in extremely limited drawdowns in the isolated reservoir related to petroleum extraction, with no vertical propagation due to the presence of geological sealing units. Vertical impact propagation was limited to the immediate geological layers within the model because of the effectiveness of the seals. The modelled impacts did not extend to the near-surface layers, which are the primary target of private landholders for livestock watering bores and are not in pressure communication with petroleum reservoirs.

The total annual water extracted under associated water rights since 2015 at Utopia is approximately ~2% of the water extracted from GKBA (Figure 4). The notable difference in water extraction volume, combined with the fact that water is drawn from a similar depth, under comparable conditions, with similar geological boundaries that restrict vertical movement of liquids, limits the extent of water level drawdown at Utopia.

These assumptions and hypotheses are tested by running the model for PL 214 to quantify water pressure drawdown in the associated and surrounding aquifers.

Utopia PL 214 UWIR 2025-2028

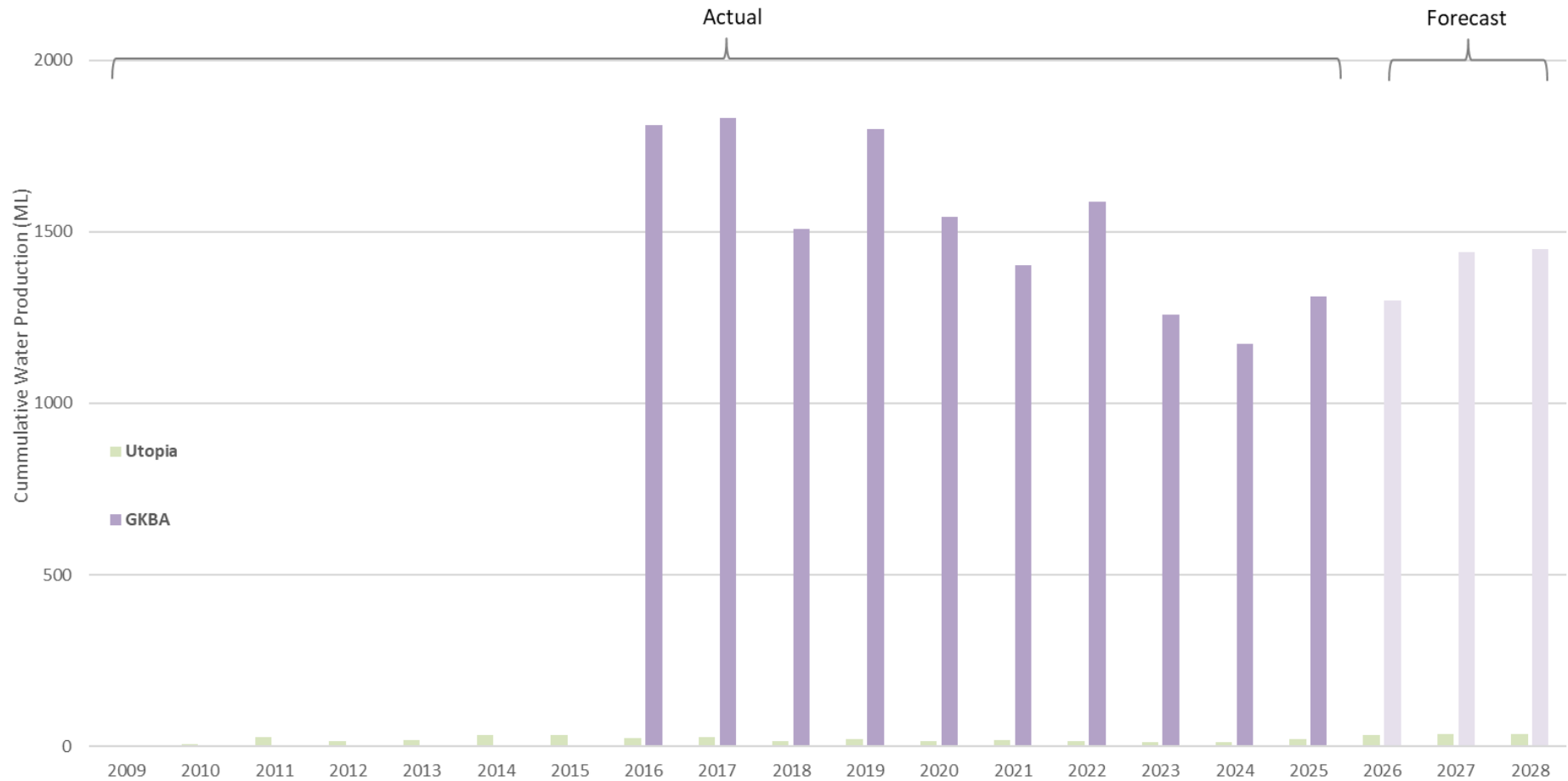


Figure 4: Cumulative water production at Utopia compared to Greater Kenmore & Bodalla Area (ML), including three-year forecasts till 2028.

Part B*: Aquifer information and underground water flow

Requirement under sections 376(b)(i) to 376 (b)(iii) of the Water Act

For each aquifer affected, or likely affected, by the exercise of the relevant underground water rights, an UWIR must include:

- 1. A description of the aquifer;**
- 2. An analysis of the movement of underground water to and from the aquifer, including how the aquifer interacts with other aquifers; and**
- 3. An analysis of the trends in water level change for the aquifer because of the exercise of underground water rights.**

*Part B refers to Section 5.1.2 (page 10) of the guideline (DETSI 2025).

Location

Utopia is located 84 km southwest of the township of Quilpie and 50 km southeast of the town of Eromanga, in the local Quilpie Shire Council area, Queensland (Figure 1). Coordinates for the Utopia production facility are 27°2'21.64" S, 143°34'1.14" E.

Geological setting

Utopia is situated within the Great Artesian Basin, crossing the Cooper Basin and covering the Eromanga Basin. The Cooper Basin spans approximately 130,000 km² in central and eastern Australia and is characterised by a consistent arid climate. It includes a diverse array of land and ecosystem types, shaped by geological, geomorphological, and hydrological factors. The Eromanga Basin spans over a million square kilometres across western Queensland, north-western New South Wales, north-eastern South Australia, and south-eastern Northern Territory.

The Eromanga Basin is overlain by the Lake Eyre Basin, a succession of Tertiary and Quaternary-age sediments that occur extensively throughout central Australia. In the northeast of South Australia, sediments from the Lake Eyre and Eromanga Basin were

deposited during the Jurassic-Cretaceous period, reaching a maximum thickness of between 1,200 m and 2,700 m over the Cooper Basin. These sediments were deposited under fluvial, lacustrine and (later) shallow-marine conditions, and are broadly continuous across the basin. These sediments are gently folded in some areas and contain a succession of aerially extensive sandstone formations that serve as oil reservoirs and regional aquifers. The Eromanga Basin is the largest basin that constitutes part of the Great Artesian Basin (GAB), one of the world's largest subterranean aquifers. The Eromanga Basin is located within South Australia, with additional components in Queensland and New South Wales. Beneath, and entirely covered by the Eromanga Basin, is the Permo-Triassic Cooper Basin, limited in its distribution by bounding faults and pinch-out edges.

The tectonic history of the Cooper and Eromanga basins is complex and has been characterised by several periods of rift-related subsidence, compressional uplift, and erosion. This history has resulted in the Cooper Basin being subdivided into numerous large-scale sub-troughs separated by fault-bounded ridges (Figure 5).

The Utopia feature is an anticlinal structure; the geological section consists of a standard Eromanga sequence overlying a thin, undifferentiated Triassic sediment package. Current production targets extraction only from the Cretaceous Murta Member, between depths of 1,000 and 1,400 meters subsea.

Interbedded low-permeability sandstones, siltstones and claystones of the lower part of the Murta Formation form a seal between the Murta and the Namur Sandstone. These seals are not always effective, as water from the Namur Sandstone can migrate upwards into the Murta Formation. Where communication exists between the Murta and Namur, water in the Murta can be replenished from the Namur. The upper zone of the Murta Formation and the lower part of the Cadna-owie Formation form a large, regionally thick seal, which ensures that there is no migration of fluids of any type above the Murta Formation.

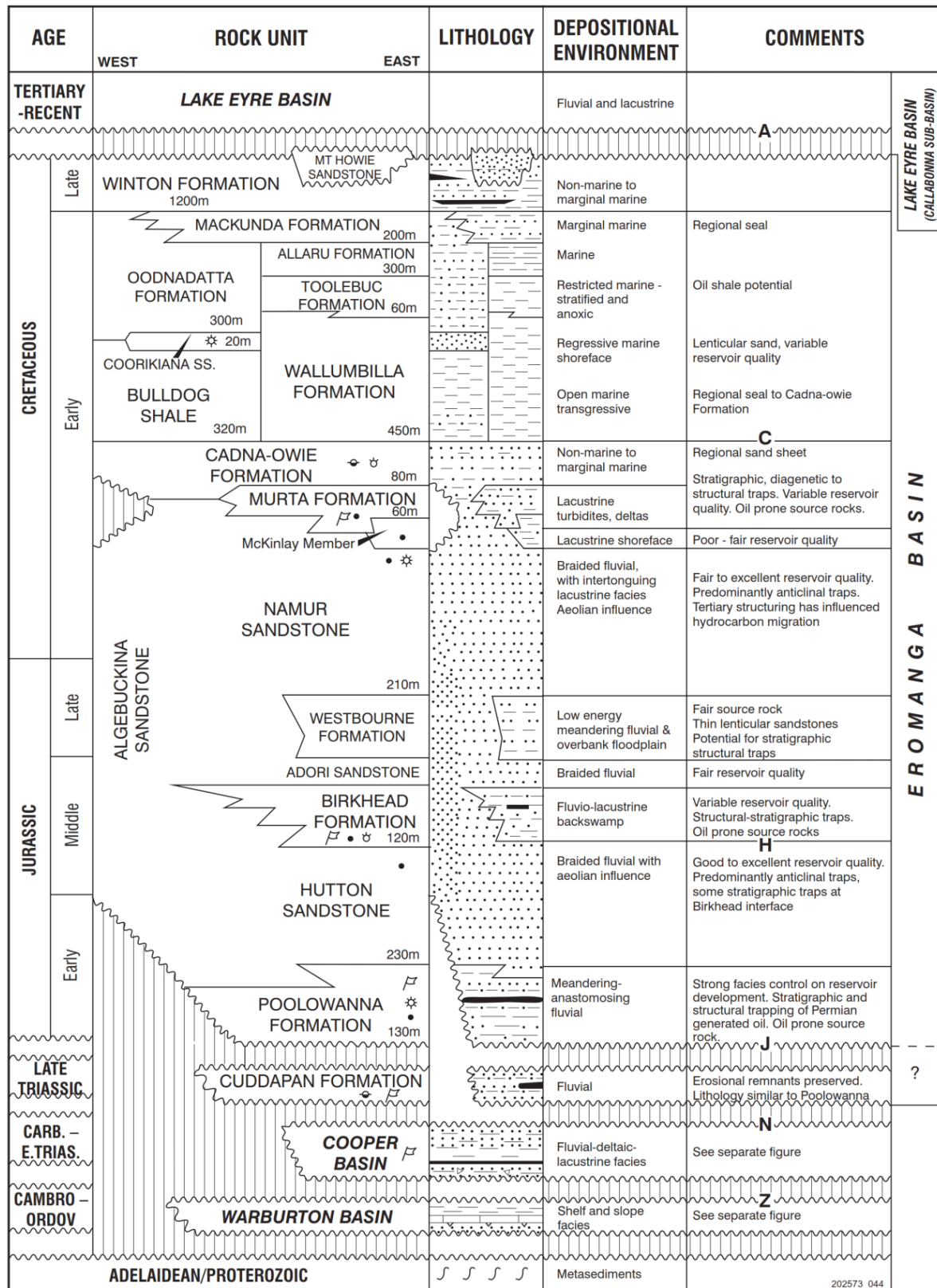


Figure 5: Stratigraphic column of the Eromanga Basin, Utopia targets the Murta Formation.

Hydrogeological setting

Utopia is located within the Great Artesian Basin (GAB). The aquifers of the GAB are composed of predominantly continental sandstones, confined by aquitards of both fluvial and marine mudstone and siltstone of Jurassic and Cretaceous age. The geological basins within the GAB share a similar depositional history and tectonic evolution. However, slight differences in the rates of subsidence and deposition are caused by structures inherited from older, underlying basins, especially in the Eromanga and Surat basins. These structural elements create the depocentres, ridges, and troughs that are the foundation for the hydrogeologic basin observed today (CSIRO, 2012). The Water Plan for the Great Artesian Basin (2006) established 25 management areas, within which several management units were defined. Utopia's target formation used to fall under the Warrego West management area and under the Warrego West 3 management unit. In September 2017 the Water Plan (Great Artesian Basin) 2006 was superseded by the Water Plan (Great Artesian Basin and Other Regional Aquifers) 2017. The current plan area is divided into groundwater units, which are further subdivided into groundwater sub-areas. PL 214 is located within the Hooray groundwater unit. The primary target of the Utopia field is the Murta. A description follows:

Eromanga South Hooray (includes former Warrego West 3)

The Eromanga South Hooray sub-area encompasses the Hooray Sandstone, comprising the Murta Formation, McKinley Member, and the Namur Sandstone. The entire unit ranges in thickness from approximately 120-130m

"The Hooray sandstone and its hydrogeological equivalents are generally the deepest major artesian aquifer intercepted by water bores in the GAB in Queensland. The Late Jurassic Hooray Sandstone aquifer is defined only within the Eromanga Basin" (DNRM, 2005).

"Basin margin facies of the Jurassic and early Cretaceous sandstones and siltstones occur in...the Eromanga sedimentary sequence (Namur Sandstone, McKinlay Member and Murta Formation). These basin margin facies are hydrogeologically equivalent to the Hooray sandstone aquifer" (DNRM, 2005).

Murta Formation

The Murta Formation consists of very fine to fine-grained sandstone with interbedded hard siltstone. The sandstone is sub-angular to sub-rounded, moderately to well-sorted, with a moderate to abundant clay matrix. Moderate amounts of silica cement are present, and it is moderately hard with poor porosity. This unit is the oil-producing zone in Utopia.

McKinlay Member

The McKinlay Member is a fine to medium-grained siltstone with minor firm siltstone. The sandstone is subangular to sub-rounded, moderately sorted, with occasional carbonaceous laminae. There is a moderate clay matrix that is slightly calcareous and moderate silica cement. The formation is moderately hard, with poor to occasionally fair porosity. This unit is non-producing in Utopia.

Namur Sandstone

The Namur Member consists of sandstone with interbedded siltstone. The sandstone ranges from very fine to coarse-grained sizes. It is moderately sorted, containing a clay matrix with moderate silica and calcareous cement, and varies from friable to moderately hard. Porosity is generally poor to fair, with occasional good porosity observed. The siltstone is argillaceous, containing moderately to abundantly carbonaceous material. Once again, this unit is non-producing in Utopia.

Elevations and relative position

The Murta Formation is an Early Cretaceous sedimentary unit within the Hooray Sandstone, with a depth range across the field of -790 to -795 m below sea level (mSS).

Location of any significant faults that intersect the aquifer

There are no significant faults in the Utopia field (Figure 6).

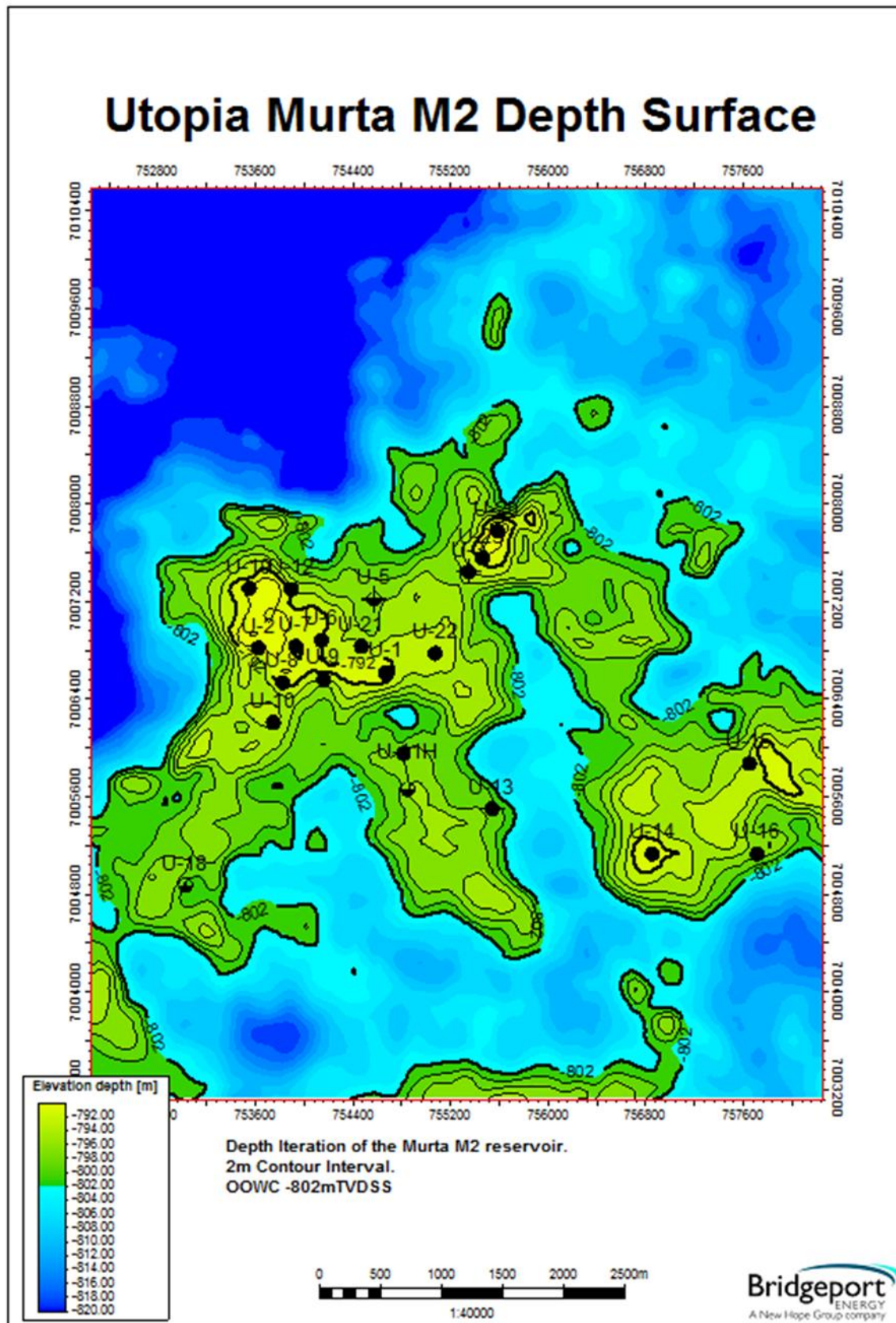


Figure 6: The M2 member of the Murta Formation structure, no significant faults.

Well histories

The structure of the Utopia field has been mapped using 3D seismic data. The free water level at the producing Murta reservoir has been measured through petrophysical analyses of the wells, using wireline logs and water associated with oil production entering wellbore perforations.

There are currently 23 drilled wells, with some abandoned and others producing. All wells drilled and planned within Utopia are detailed in Table 6. Up-to-date and relevant history is displayed.

Table 6: Individual well histories at PL 214 Utopia

Well	Formation	Status	History
Ufouria 1 (Abandoned)	Murta	Water bore	December 1987 drilled January 1988 plugged back to 990 m, little water production, shut in November 2010 Well transferred to landowner for irrigation purposes
UTA 1	Murta	P&A'd	May 1997 DST recovered 167.6 m of predominantly muddy water. the well was plugged and abandoned
Utopia 1	Murta	Online	March 1997 drilled, production string run and well was suspended June 1997 Murta was perforated in two intervals, a bridge plug was then set above the lowest interval, Mid Basal Jurassic April 2009 work over replacing rods in the hole December 2014 work over replacing rods in the hole December 2017 work over replacing rods and pump, still on production
Utopia 2	Murta	Online	September 1997 drilled October 1997 completed in the Murta June 2004 workover, rod pull and change January 2013 workover: tubing pulled and replaced March 2015 remedial operations to inspect rod, casing and pump. Still on production

Utopia PL 214 UWIR 2025-2028

Well	Formation	Status	History
Utopia 3	Murta	Suspended	November 1997 drilled, completion string run and well suspended October 2001 perforated October 2005 workover, rod pull and change April 2007 well was shut in due to wellhead problems
Utopia 4	Murta	P&A'd	December 1997 drilled DST recovered 79 L (7.9x10 ⁻⁵ ML) mud and 842.6L (8.4x10 ⁻⁴ ML) water in the drill string, sample chamber collected 3.5 L (3.5x10 ⁻⁶ ML) of water. The well was plugged and abandoned
Utopia 5	Murta	P&A'd	August 2005 drilled September 2005 DST recovered 0.0029 ML of formation water. The well was plugged and abandoned
Utopia 6	Murta	Online	September 2005 drilled DST 1 recovered mud and filtrate; DST 2 recovered oil and mud, no water October 2005 the Murta was perforated. Still on production
Utopia 7	Murta	Online	December 1997 drilled and perforated September 2013 workover, tubing and rod string were replaced. Still on production January 2016 work over replacing rods and pump, still on production
Utopia 8	Murta	Online	December 2009 drilled January 2010 perforated and completed into Murta October 2014 workover, replaced parted rods February 2017 replaced tubing. Still on production
Utopia 9	Murta	Shut in	January 2010 drilled and perforated into Murta March 2016 replaced rod string December 2016 rod string failed; workover in January 2017. Still on production
Utopia 10	Murta	Shut in	December 2010 drilled, perforated, fraced to enhance flow October 2014 work over, replaced parted rods. August 2017 parted rods, shut in.

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Well	Formation	Status	History
Utopia 11H	Murta	Online	May 2011 drilled, short radius horizontal well, completed with perforated casing October 2014 work over, replaced rod string. July 2016 work over, replaced rod string. Still on production
Utopia 12	Murta	Online	February 2013 drilled June 2013 completed, perforated in the Murta February 2016 reperforation. Still on production
Utopia 13	Murta	Not completed	February 2013 drilled, logged cased and suspended
Utopia 14	Murta	Online	February 2013 drilled June 2013 completed, perforated in the Murta July 2017 work over, replaced rod string. Still on production
Utopia 15	Murta	Shut in	November 2013 drilled January 2014 completed with perforation in the Murta Production ceased in September 2016
Utopia 16	Murta	Shut in	November 2013 drilled Completed and suspended May 2014
Utopia 17	Murta & Hutton	Shut in & Plugged	November 2013 drilled December 2013 completed with perforation into the Hutton. Free flow with water however no signs of oil January 2014 re-completed with perforation into the Murta. Put on production, no signs of oil. Shut in
Utopia 18	-	Shut in	
Utopia 19	Murta	Online	June 2017 drilled June 2017 completed and perforations into the Murta. Still on production
Utopia 20	Murta	Online	July 2017 drilled June 2017 completed and perforations into the Murta. Still on production
Utopia 21	Murta	Online	Well drilled November 2018 Online
Utopia 22	Murta	Online	Well drilled November 2018 Online

Well	Formation	Status	History
Utopia 23	Murta	Online	Well drilled December 2018 Online

An analysis of the movement of underground water to and from the aquifer, including how the aquifer interacts with other aquifers

Bridgeport does not collect quantitative data on the movement of underground water into or out of other aquifers. Bridgeport focuses on the volumes of crude oil and water extracted, as well as the reservoir pressure of hydrocarbon-producing reservoirs. Bridgeport does not have wells or resources that target or isolate other aquifers not associated with petroleum, and therefore, its monitoring capability is limited.

Data for this section were collected from the Ecological and Bioregional Assessment Program, compiled by the Department of the Environment and Energy, the Bureau of Meteorology, CSIRO, and Geoscience Australia (Evans et al. 2020). The program aims to provide independent geological and environmental scientific advice on bioregions, including the Cooper Basin (which covers the Greater Kenmore and Bodalla Area). The hydrogeological assessment used data from petroleum-related activities. Bridgeport has summarised key points from Evans et al. 2020¹ that highlight movement to and from targeted aquifers.

The Cooper Basin report also includes the entire Eromanga Basin, which is part of the Great Artesian Basin (GAB). Evans et al. (2020) state, “From bottom to top, these include the artesian GAB aquifers (e.g., Hutton Sandstone and Cadna-owie–Hooray aquifer), the Rolling Downs aquitard, and the Winton–Mackunda partial aquifer.” Both the Rolling Downs aquitard and the Westbourne aquitard separate artesian GAB aquifers from shallower aquifers. In the deeper artesian GAB aquifers, hydraulic gradients and flow rates are likely close to stagnant.

The primary source of groundwater (for landholder bores) occurs from the Winton-Mackunda aquifer, which is topographically controlled. There are a lower number of bores that target

¹ access at; https://www.bioregionalassessments.gov.au/sites/default/files/gba-coo-stage2-appendix_hydrogeology_final.pdf; as of 2021

depths below the Winton-Mackunda aquifer. Those that do would typically target resources such as gas, coal and oil. Petroleum fields likely contribute to localised depressurisation (especially on the western flank of the Cooper Basin), leading to variable hydraulic head levels. Other attributes may also influence hydraulic head, including progress of petroleum production over time, reservoir compartmentalisation, permeability and recharge. Evans et al. (2020) go on to conclude that pressure and salinity suggest there is some degree of connectivity between artesian aquifers of the Eromanga and Cooper Basins, and that hydrochemistry and dissolved gas concentrations may indicate some connectivity between deep and shallow system components. However, the “uncoupled nature of both deep fault sets and polygonal fault systems is one impediment for direct connectivity pathways to the near-surface unconfined aquifers”.

Evans et al. (2020) acknowledge the limitations of data and the assumptions made due to the limited temporal and spatial sample points, as well as the conclusions drawn from data from wells targeting specific uses (e.g., petroleum). A consistent theme in Evans et al. (2020) is the recognition of significant data gaps and knowledge deficiencies. One key consideration is the lack of data from locations other than petroleum wells, specifically those aimed at hydrocarbons. Petroleum wells have unique limitations, as they target only specific top zones or peaks of a particular aquifer. The knowledge gap also includes the shallower Winton-Mackunda aquifer, where few sites are regularly tested, and the perforation or open-producing depths are not well understood.

Bridgeport acknowledges that the primary focus of petroleum operations limits the ability to determine movement to and from other aquifers. Hydrocarbon traps are, by their nature, capped by impermeable geological layers, which restrict the movement of both hydrocarbons and water. These structures are deliberately targeted for resource extraction. Conclusions about lateral or vertical movement depend on pressure gradients, which may be influenced by historic and ongoing production. A lack of wells and perforations in alternative reservoirs limits the conclusions Bridgeport can draw about reservoir interactions. A useful summary of groundwater interactions between aquifers in the Cooper Basin can be found in a report that includes a more complete data set and provides independent research, such as that by Evans

et al. (2020). This report is likely the most recent and comprehensive analysis of groundwater movement in the region².

The target reservoirs from which oil and water are co-produced are separated from other aquifers by thick regional to basin-scale aquicludes, ensuring no movement from or to other aquifers. A regional cross-section shows the sedimentary section in key wells across Bridgeport permit areas (Figure 7). The section from the Mackunda formation down to the top Candna-owie consists mainly of marine shales about 600 metres thick, which form an effective aquiclude trapping hydrocarbons below and separating the target oil-bearing sands below the Cadna-owie from the shallow groundwater aquifers above the Mackunda, used by landowners and water users regionally. For this reason, there is no local inflow or outflow to or from these aquifers. Empirical data support this conceptual model and are described in this UWIR.

² The report can be found here: https://www.bioregionalassessments.gov.au/sites/default/files/gba-coo-stage2-appendix_hydrogeology_final.pdf

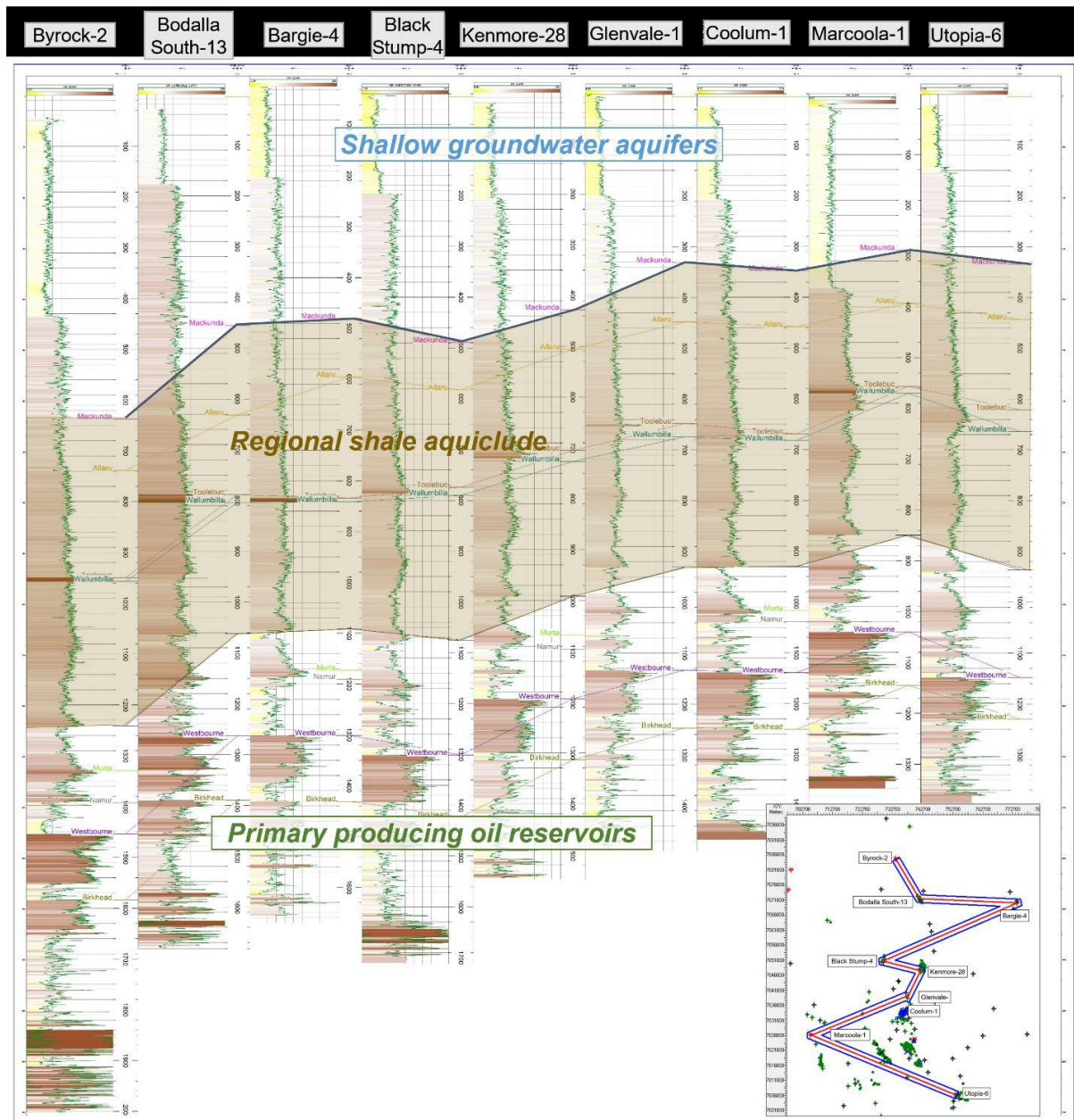


Figure 7: Gamma ray log cross section, correlated with depth from Byrock-2 to Utopia-6 (which covers Bridgeport operated tenements), showing the amount of shale and sand through the geological formations.

Localised Impact, connectivity and impact pathway summary

Localised impacts of petroleum extraction, the connectivity of reservoirs, and potential impact pathways between reservoirs are summarised as follows:

The target reservoir within the permit area is a Cretaceous sandstone. It consists of highly laminated sandstone and siltstone, containing irregularly distributed thin channel sands with varying lateral and vertical continuity. These low-energy lacustrine sediments are overlain by the Early Cretaceous Upper Murta Formation Shales, which mark a major flooding event and form a regional seal. Above this, the transgressive shales of the Cadna-owie Formation are present, along with the thick marine shales from the Walumbilla up to and including the Mackunda Formations.

The shale sequence is approximately 500m thick in the Utopia area, acting as a regional aquiclude that separates the shallow aquifer reservoirs from those targeted for oil extraction, thereby preventing vertical water movement.

The effectiveness of this aquiclude is evidenced in the trapping of the oil and water at depth in the oilfields of the permit area over the last 60 million years.

A detailed, tenement-level approach within this basin and these specific tenements would not be feasible due to the lack of finer-scale quantitative data available. This is due to the age of all wells drilled, the lower number of new wells compared to existing ones, and the information required to sustain ongoing production. Collecting such data would not be practicable given the context of this UWIR, including the basin-wide scope of the resource, the physical separation from the Eromanga reservoir to the shallow groundwater aquifers targeted by landholders, the age and existing extraction history of the fields, the information already included in the accepted model, and the geology summary provided by Bridgeport's Principal Geoscientist above. The data provided by Beach Energy and Bridgeport to the third-party specialist (WSP) for building the appropriately scaled model — which has already been accepted — is likely of the highest possible resolution. Neither Beach Energy nor Bridgeport possess data from any other well perforated into different target aquifers, especially those not primarily used for oil extraction. Dedicated wells would be necessary to monitor these other aquifers, but this has not traditionally been a licence requirement due to the nature of

conventional oil reservoirs in the Eromanga Basin, where there is no connection or impact on near-surface aquifers. Coal Seam Gas (CSG) fields can impact shallow aquifers, which is why dedicated monitoring boreholes have become a condition of licence for such fields. However, this approach does not suit the fields in question.

Part C: Predicted water level declines for affected aquifers

Requirements under sections 376(b)(iv) to 376(e) of the Water Act

To meet the requirements of the Water Act, an UWIR must include the following:

1. Maps showing the IAA and the LTAA (sections 376(b)(iv) and 376(b)(v) of the Water Act
2. A description of the methods used to produce these maps (section 376(c) of the Water Act)
3. Information about all water bores in the IAA (including the number of bores in the area, maps showing the location of these bores and the authorised use of each bore) (section 376(d) of the Water Act); and
4. A program for conducting an annual review of the accuracy of maps produced and giving the chief executive a summary of the outcome of each review, including a statement of whether there has been a material change in the information of predictions used to prepare the maps (section 376(e) of the Water Act).

*Part C refers to Section 5.1.3 (page 12) of the guideline (DETSI 2025).

1. Maps showing the IAA and the LTAA (sections 376(b)(iv) and 376(b)(v) of the Water Act

This section details predicted maximum groundwater drawdown (for the IAA and LTAA periods) for the five layers modelled for this UWIR. Maximum predicted drawdown results are shown in Table 7.

Table 7: Tabulated maximum predicted drawdown

Layer number	Layer description	Maximum predicted drawdown (m)		
		2009–2025	2026–2028 (forecast)	2026–2035 (forecast)
2	Quaternary and Tertiary sediments, Winton and Mackunda formations Unconsolidated	0	0	0
3	Allaru, Toolebuc and Wallumbilla formations Consolidated	0.5	0.4	0.4
4	Cadna-owie Formation and Hooray Sandstone Consolidated	6.5	5.5	5.5
5	Westbourne, Adori, Birkhead and Poolowanna formations and Hutton Sandstone Consolidated	0.4	0.3	0.3

Trigger levels for establishing the significance of impact on an aquifer in the event of a decline in water levels are:

- a 5 m decline in water levels within a consolidated aquifer;
- a 2 m decline in water levels within an unconsolidated aquifer

The Immediate Affected Area (IAA), defined in the Water Act (2000) as the area where groundwater drawdown exceeds the bore trigger threshold within three years after the consultation day for the report (2026-2028).

The predicted drawdown in modelled Layer 2 is below the 2m threshold for an unconsolidated aquifer. The predicted drawdown modelled for Layer 3 and Layer 5 are below the 5m threshold for consolidated aquifers. There is therefore no IAA for Layers 2, 3 or 5. It should be noted that all pastoral bores are located within the Winton formation modelled under Layer 2.

The only layer with predicted drawdown above the threshold is Layer 4, the target for petroleum production. The IAA map for Layer 4 is shown in Figure 8.

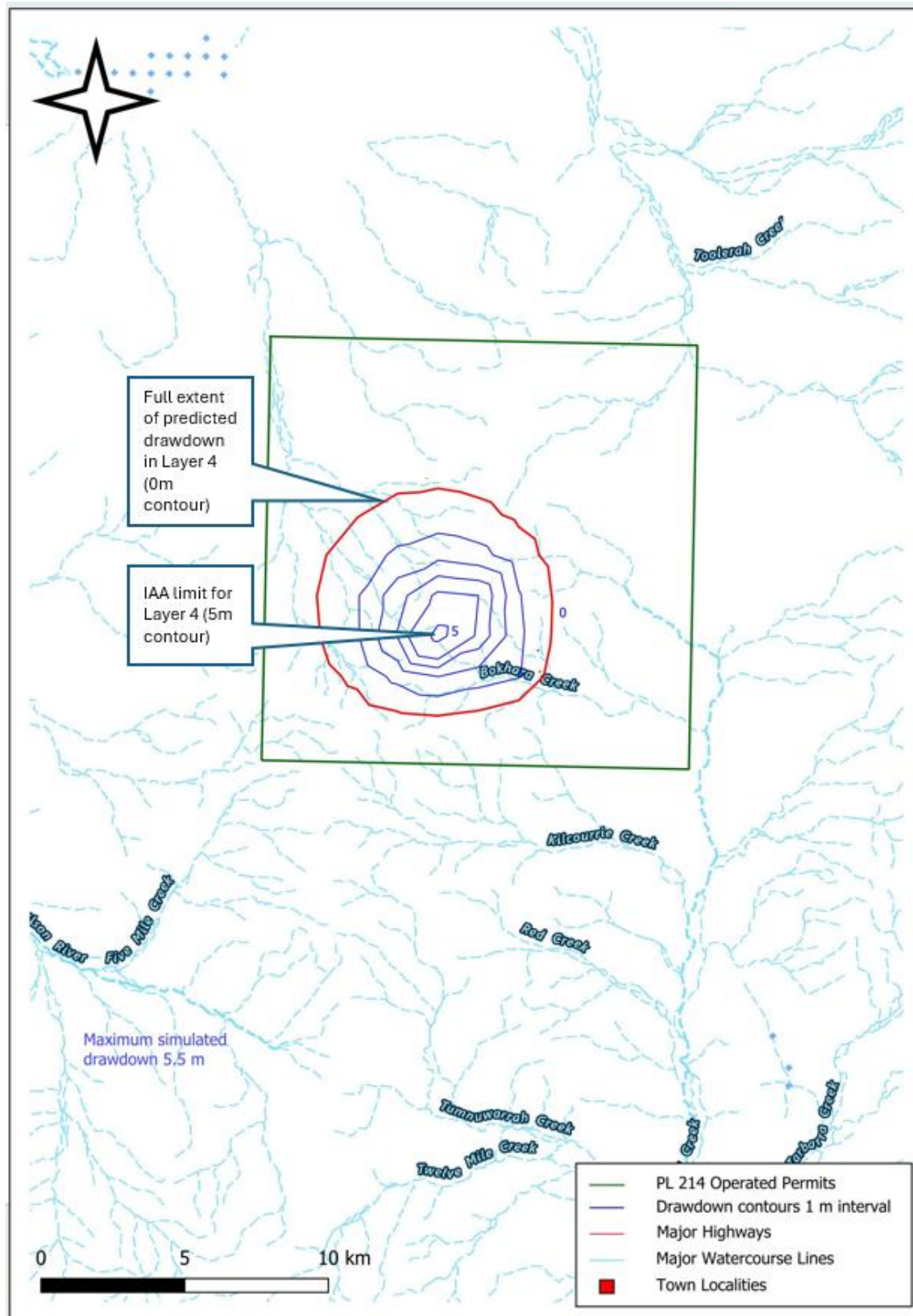


Figure 8: Predicted drawdown in Layer 4 for 2026-2028. Contours in 1m intervals

The Long-Term Affected Area (LTAA), defined as the area where groundwater drawdown exceeding the trigger threshold is predicted to occur at any time due to the exercise of relevant underground water rights (forecast to 2035).

The predicted drawdown in modelled Layer 2 is below the 2m threshold for an unconsolidated aquifer. The predicted drawdown modelled for Layer 3 and Layer 5 are below the 5m threshold for confined aquifers. There is therefore no LTAA for Layers 2, 3 or 5. It should be noted that all pastoral bores are located within the Winton formation modelled under Layer 2.

The only layer with predicted drawdown above the threshold is Layer 4, the target for petroleum production. The LTAA map for Layer 4 is shown in Figure 9.

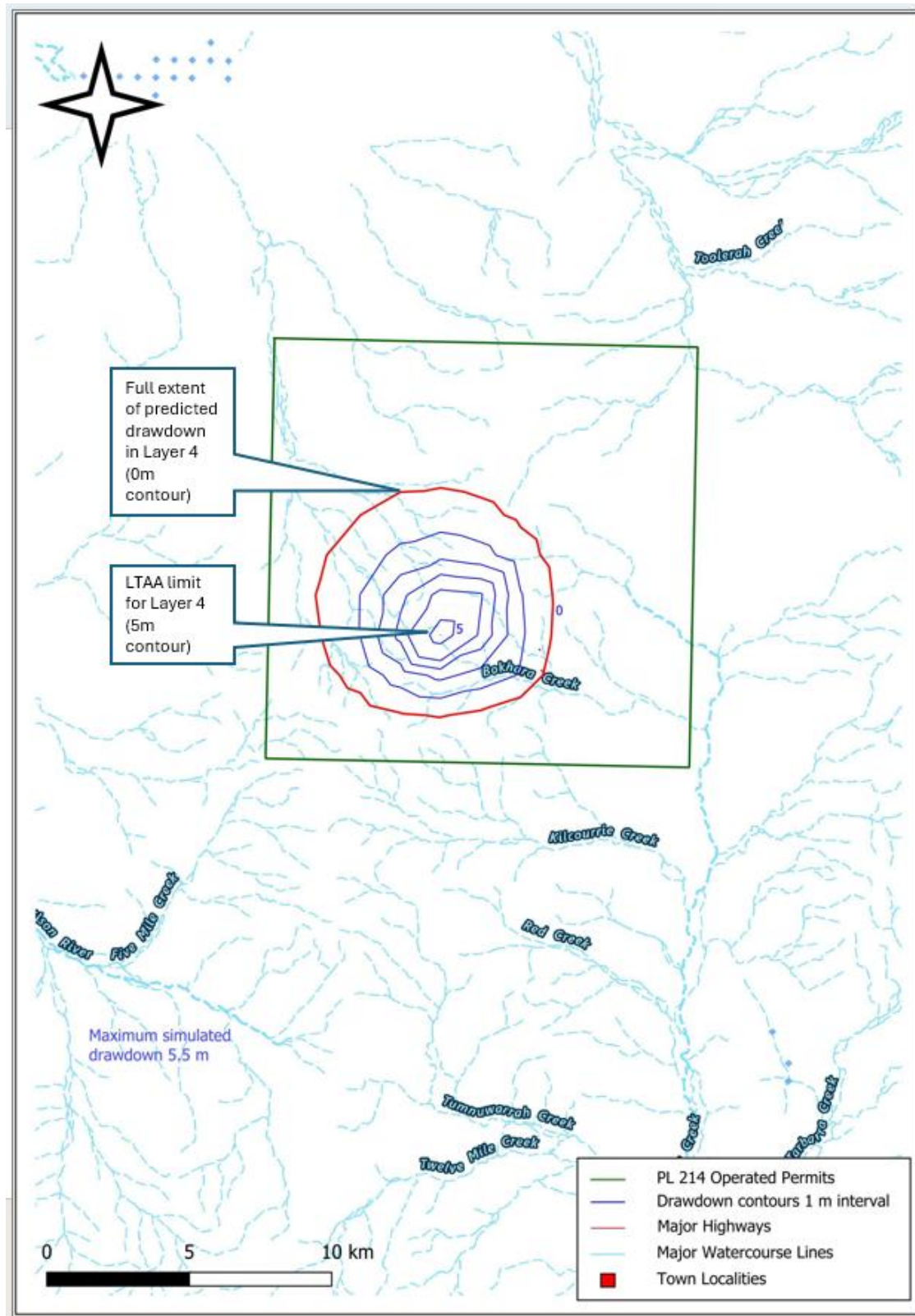


Figure 9: Predicted drawdown in Layer 4 for 2026-2035. Contours in 1m intervals.

2. A description of the methods used to produce these maps (section 376(c) of the Water Act)

The conceptual and analytical models used in this assessment and updated UWIR were initially developed by Golder during the preparation of the 2012 UWIR (Golder, 2012). Both were based on information provided by Beach Energy, information available in the public domain and hydrogeological concepts, with a summary of the conceptual and analytical models developed by Golder (2012) presented in the following sections.

Conceptual Model

The Eromanga Basin is the largest sub-basin of the Great Artesian Basin (GAB). It is a multi-layered system comprising layers of moderate permeability (K) sandstone, interbedded with generally low-K shale, mudstone and siltstone formations. These formations are assumed to be laterally continuous and hydraulically connected (Golder, 2012).

The main hydrostratigraphic units of the Eromanga and Cooper Basin are shown in Table 8, noting the information in this table served as the primary basis of model conceptualisation in 2012 (Golder, 2012), most notably informing the stratigraphic layering adopted in both the conceptual and analytical models.

In the Eromanga Basin five layers were allocated to different groups of formations (Table 8). Due to the low production rates and the thickness of low-K layers at the top of the Cooper Basin, a separate numerical model with three layers was developed for the Cooper Basin. Previous model results (Golder, 2012) suggested that the impact from production in the Cooper Basin cannot be detected beyond the top of the Tinchoo Formation.

Analytical Model

To assess potential impacts to groundwater by Bridgeport's operations between 2025 and 2035, the analytical groundwater model developed by Golder in 2012 was updated by WSP for this UWIR and accompanying assessment.

The analytical model was developed using the application AnAqSim™. This application relies on the use of analytical equations to simulate groundwater flow in two dimensions but it can also be used to simulate three-dimensional scenarios on multiple planar levels, including those with vertical leakage occurring between adjacent levels.

With respect to the analytical model used in this assessment, it should be noted that those simulations reported in this UWIR were carried out considering steady state conditions; i.e., no time-varying processes (such as changes in extraction rates throughout production) were considered.

For this assessment, three scenarios were simulated for both sub-basins, namely:

- a historical scenario considering the average measured water and oil production rates between 2009 and 2024
- a near future forecast scenario using forecasted total water and oil production rates for the interval between 2026 and 2028, and
- a long-term forecast scenario using forecasted total water and oil production rates for the interval between 2026a and 2035.

Several hydrostratigraphic layers were incorporated in one model (refer to Table 8) as summarised in the following bullet points:

Eromanga Basin model:

- Layer 1 and Layer 2: Quaternary and Tertiary deposits coupled with the Glendower Winton and Mackunda Formations.
- No oil or water abstraction was assigned to these layers.
- Layer 3: Allaru, Tolebuc and Wallambilla formations, which are considered to collectively act as an aquitard.
- Layer 4: Cadna-owie Formation and Hooray Sandstone, both of which largely comprise sandstone, siltstone with coarse grained, brecciated and pebble beds and exhibit similar geological and hydrogeological characteristics.
- Layer 5: Westbourne, Adori and Birkhead and Poolowanna formations and Hutton Sandstone, all of which comprise siltstone, shale, fine sandstone and coal seams. Oil and gas wells are often screened over these formations, with the highest production rates associated with the Hutton Sandstone and the Poolowanna Formation.

The extents for the Eromanga basin model are shown in Figure 10. The hydraulic parameters assigned to the individual model layers are summarised in Table 8 (Golder, 2012).

The top layer was set up to model (replicate) the observed groundwater elevations (essentially a watertable aquifer) in an unconfined aquifer setting. Model layers below this were defined as confined aquifers, to replicate the confined conditions of the various aquifers 'condensed' and homogenised into each model layer. Where no groundwater level data was available in the vicinity of the site, inferred values were used, as is the typical procedure for these deep, confined basins.

When considering the conceptualisation and accompanying 'build' of the numerical model in AnAqSimTM, the following assumptions and limitations should be considered.

- The grouping of geological formations on the basis of their known and inferred hydraulic characteristics into model layers which are then numerically represented in the model as a single unit (layer) with 'homogenised' bulk hydraulic parameters may over-estimate vertical drawdown propagation.
- Homogenised estimates of bulk hydraulic conductivity of individual layers may not adequately capture some of the lower permeability units (aquitards) present in the basin,

even though some vertical hydraulic resistance is implicitly represented in these layers as vertical hydraulic conductivity values are significantly lower than horizontal hydraulic conductivity values (Golder, 2012). In stating this however, this approach is considered conservative (that is, it presents a worst-case scenario) as it is likely to over-estimate changes in groundwater elevations (in this case aquifer water pressures) given the bulk hydraulic conductivity may not fully capture the effects of low-K units which would tend to 'lessen' the magnitude of groundwater elevation changes (Golder, 2012).

- Oil and water were considered as a single phase, with water comprising most of fluid extracted.
- Water temperature and oil parameters (density, viscosity) were not considered in the calculations.
- Given the low oil content and the modest effects of water temperature on hydraulic conductivity, these are not expected to have a significant effect.
- The oil formation volume factor, relating to aquifer compaction, was not assigned to flow rates. This though is not expected to significantly influence or impact estimates of groundwater drawdown.
- The following boundary conditions, as reported in Golder (2012, 2018, 2021, 2022 and 2025), were applied to the models.
- No-flux boundaries were applied along the lateral perimeter of each model domain.

Groundwater elevations applied to boundary conditions were as follows:

- Eromanga Basin model: 154 m Australian height datum (AHD) was assigned at the top of the model, with the calibrated flux at the base of the model being 2.5×10^{-5} m/day.
- Cooper Basin model: 315 m AHD was assigned at the top of the model, with the calibrated flux at the base of the model being 2.0×10^{-5} m/day.

No vertical recharge was applied to the model due to the fixed head boundary condition at the top of the model.

For scenarios simulating water and oil extraction, specified flow rate boundary conditions were applied at the well locations.

Table 8: Hydrostratigraphy of the study area (Golder, 2012)

Model Layers	Basin	Unit name	Sub-unit			
1 & 2	Lake Eyre Basin	Tertiary and Quaternary alluvium				
	Eromanga Basin	Glendower Formation				
		Winton Formation				
		Mackunda Formation				
3		Allaru Mudstone				
		Toolebuc Formation				
		Wallumbilla Formation	Coreena Member			
			Doncaster Member			
4		Cadna-owie Formation	Wyandra Sandstone Member			
			Lower Cadna-owie			
		Hooray Sandstone	Murta Formation			
			Namur Sandstone			
5		Westbourne Formation				
		Adori Sandstone				
		Birkhead Formation	Upper Birkhead			
			Middle Birkhead			
			Lower Birkhead			
		Hutton Sandstone				
		Poolowanna Formation – Basal Jurassic Formation	Upper Poolowanna			
			Lower Poolowanna			
Non-conformity						
1 & 2	Cooper Basin	Nappamerri Group	Tinchoo Formation	Gilpepee Shale		
				Doonmulla Member		
			Arraburry Formation	Wimma Sandstone Member		
				Panning Member		
Callamurra Member						
3				Gilgealpa Group	Toolachee Formation	

Notes:

Major aquifer
Water-bearing unit
Aquitard (confining unit)

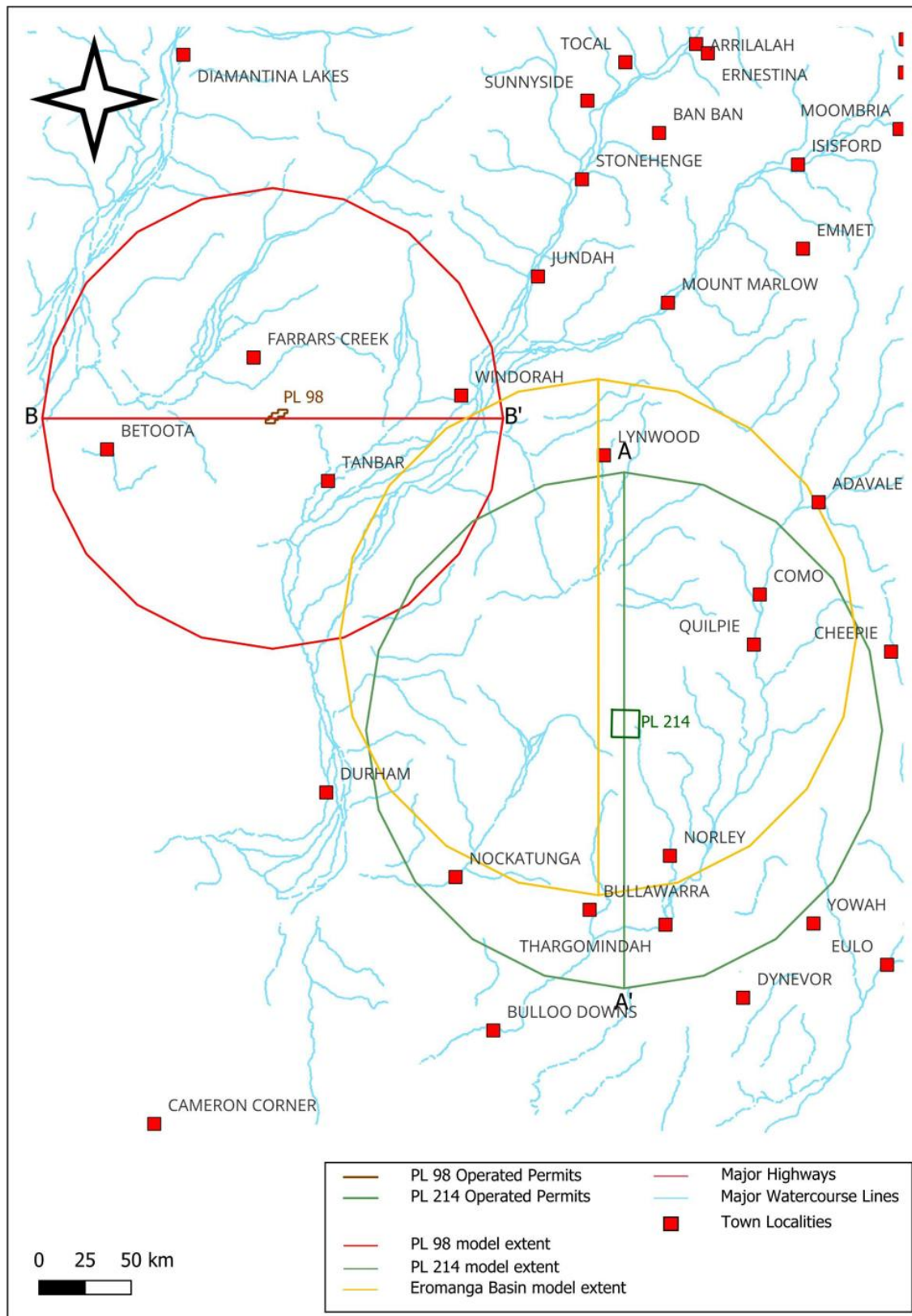


Figure 10: Extent of the Eromanga (orange) Basin model for PL214

Table 9: Hydraulic parameters used in the analytical calculations (Golder, 2012)

Eromanga Basin Analytical Calculation Parameters						
Layer	Top Elevation (mAHD)	Bottom Elevation (mAHD)	Average Head (mAHD)	Horizontal Hydraulic Conductivity (m/d)	Vertical Hydraulic Conductivity (m/d)	Hydraulic Properties
TOP OF MODEL – ground level						
1 – UPPER: Tertiary and Quaternary strata, Winton Formation and Mackunda Formation (UNCONFINED)	160 (Ground level)	-120	154	5.0×10^{-2}	5.0×10^{-4}	Aquifer
2 – LOWER: Tertiary and Quaternary strata, Winton Formation and Mackunda Formation (CONFINED)	-120	-400	154	5.0×10^{-2}	5.0×10^{-4}	Aquifer
3 – Allaru, Toolebuc and Wallumbilla Formations	-400	-870	162	1.0×10^{-2}	1.0×10^{-4}	Aquitard
4 – Cadna-owie Formation and Hooray Sandstone	-870	-1080	255	1.0×10^{-3}	1.0×10^{-5}	Aquifer and Aquitard (part)
5 – Westbourne, Adori and Birkhead Formations and Hutton Sandstone and Poolowanna Formation	-1080	-1390	480	1.2×10^{-1}	1.0×10^{-4}	Aquifer

Calibration of the analytical models was carried out by Golder in 2012 by comparing simulated (i.e., estimated) groundwater elevations with observed/inferred groundwater elevations under ‘non-pumping’ conditions, with inferred average heads for each model layer tabulated in Table 9. During calibration, both the bottom flux and hydraulic parameters of the various layers in the model were altered within reasonable ranges until a ‘best fit’ between observed and simulated groundwater elevations had been achieved, with the following adjustments made during the calibration of the Model 1 (Eromanga Basin model):

- horizontal hydraulic conductivity of Layer 4 was increased to 1.0×10^{-2} m/day
- vertical hydraulic conductivity of Layer 4 was increased to 1.0×10^{-4} m/day, and
- horizontal hydraulic conductivity of Layer 5 was lowered to 1.0×10^{-1} m/day.

No changes to starting values were made by Golder during the calibration of the Cooper Basin Model in 2012. Additionally, no changes or revisions to the calibration of the model have been carried out since that by Golder in 2012, with all scenarios assessed in this and earlier reports using the calibrated model from 2012.

A plot showing modelled (i.e., numerically estimated) versus observed groundwater heads for the Eromanga Basin model is given in Figure 11.

In the case of the Cooper Basin model, average head values in Layers 1 and 2 were inferred values. In Layer 3, the average head value was based on monitoring data (662 m AHD) (Golder, 2012), whilst the model estimated groundwater elevation in Layer 3 was 446 m AHD (Golder, 2012).

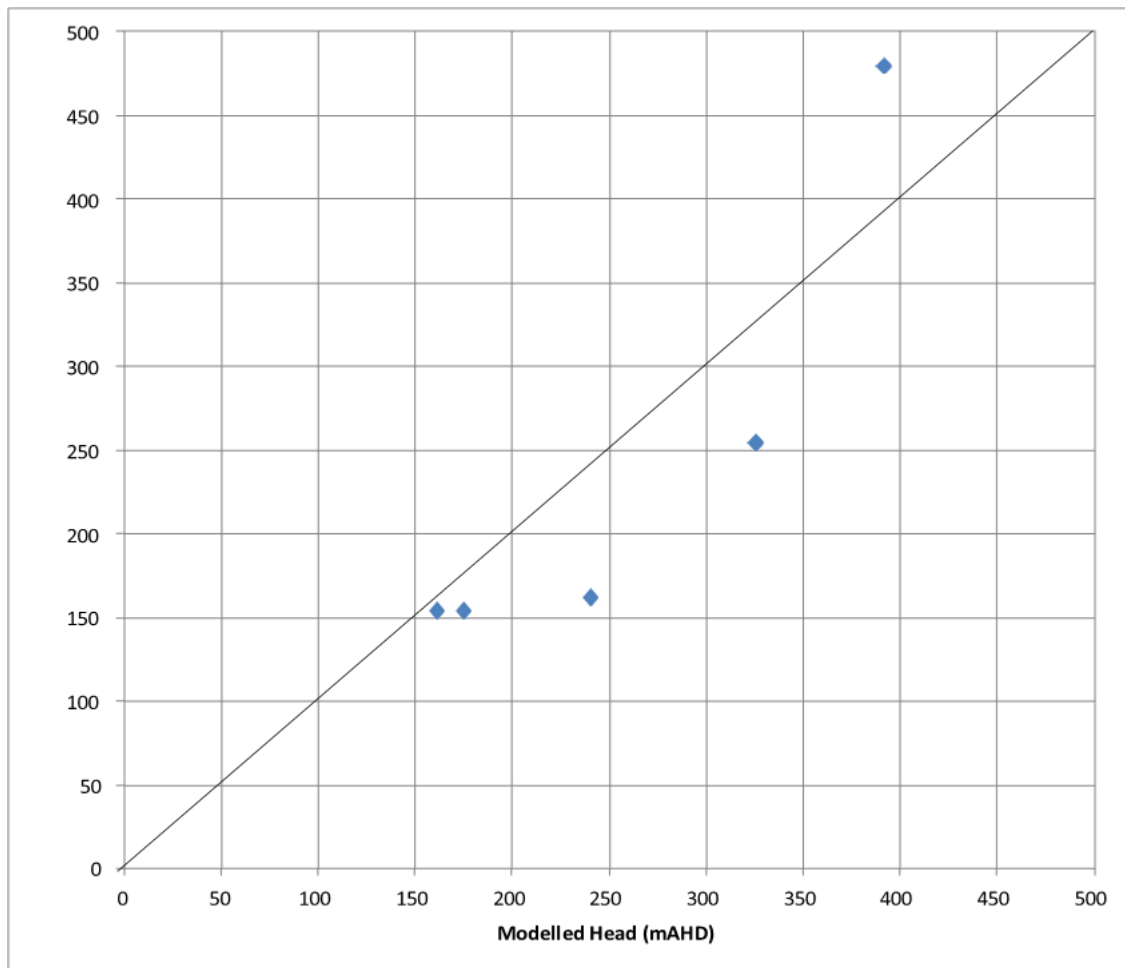


Figure 11: Eromanga Basin: modelled versus observed groundwater heads (Golder, 2012)

3. Information about all water bores in the IAA (including the number of bores in the area, maps showing the location of these bores and the authorised use of each bore) (section 376(d) of the Water Act)

The only layer with a predicted drawdown above the 5m threshold for a consolidated aquifer is Layer 4 (petroleum target area). Figure 12 shows the location of registered water bores within the full extent of predicted drawdown for Layer 4.

There are eight registered water bores within the full extent of predicted impact for Layer 4. Details for these bores are shown in Table 10.

All of the water bores identified target the shallow Winton Formation, the maximum depth of these bores is 200m. There is no predicted drawdown for this aquifer, and therefore no water bores in an IAA or LTAA.

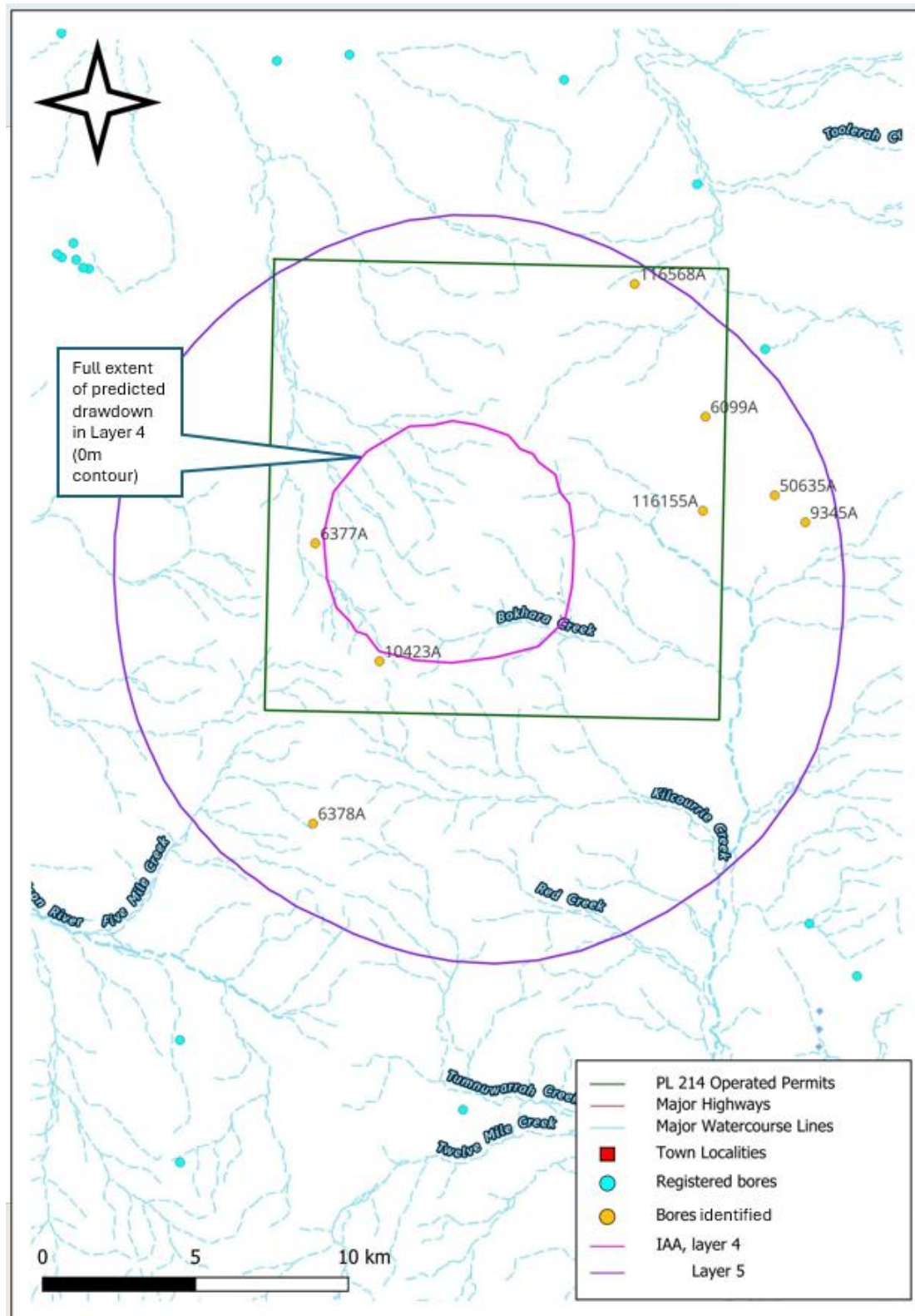


Figure 12: – Location of registered water bores within the full extent of predicted drawdown for Layers 4 and 5

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Table 10: Details of the water bores that occur within the full extent of predicted drawdown for Layer 4

Bore ID #	Location	Drilled Date	Aquifer Screen	Depth	Distance from Utopia Field	Name	Remarks	Likely Use
6377	-27.03207873, 143.51675832	01/01/1916	Winton Formation	185.32 m	5.20 km	Boothera No 10	Existing	Water bore
10423	-27.06652301, 143.53870289	17/05/1945	Winton Formation	158.50 m	4.08 km	Daleys Bore no 17	Existing	Water bore
116155	-27.020142, 143.6443231	31/01/2005	Winton Formation	100.00 m	3.30 km	Congie Replacement	Existing	Water bore
116568	-26.9536 143.6202	30/08/2021	Winton Formation	204m	12km	-	Existing	Water bore
6099	143 38 40 E 26 59 33 S	Unknown	Winton Formation	32.00 m	5.60 km	Boothera	Existing	Unknown
50635	-27.01513297, 143.6678674	27/11/1992	Winton Formation	101.00 m	10.34 km	Broncos Bore	Existing	Water bore
9345	-27.02291066, 143.6781451	30/07/1943	Winton Formation	137.50 m	11.61 km	Boundary	Existing	Water bore
6378	-27.11485657, 143.51787046	01/01/1932	Winton Formation	200.00 m	9.84 km	Boothera No 12	Existing	Water bore

- 4. A program for conducting an annual review of the accuracy of maps produced and giving the chief executive a summary of the outcome of each review, including a statement of whether there has been a material change in the information of predictions used to prepare the maps (section 376(e) of the Water Act).**

An annual review of the accuracy of the prepared IAA and LTAA predictions will be undertaken and submitted at the end of each calendar year.

The Chief Executive will be provided with a summary of the outcomes of the annual review by the end of each calendar year, including a statement as to whether a material change in the information or predictions used to prepare the maps has occurred.

The review will consider the following:

- new hydrogeological data that significantly alter the conceptual model;
- whether any significant changes to production have occurred; and
- results from water monitoring undertaken.

The outcome of this annual review will be reported to the Department of the Environment, Tourism, Science and Innovation (DETSI) as required per Section 376(1)(e)(ii) of the Water Act, including a statement of whether there has been a material change in the information or predictions presented in this UWIR. The program for the implementation of the WMS will also be reported to the Office of Groundwater Impact Assessment (OGIA) every six months.

In addition to the annual review, the UWIR will be updated every three years. However, if any material changes occur in the assumptions underpinning the UWIR or the annual review, a reassessment and potential revision of the UWIR will be triggered.

Part D*: Impacts on environmental values

Requirements under sections 376(da) and 376 (db) of the Water Act

To meet the requirements of the Water Act, an UWIR must include the following;

1. A description of the impacts of environmental values that have occurred, or are likely to occur, because of any previous exercise of underground water rights (section 376(da) of the Water Act);
2. An assessment of the likely impacts on environmental values that will occur, or are likely to occur, because of the exercise of underground water rights (section 376(db) of the Water Act)-
 - i. For a three-year period starting on the consultation day for the report; &
 - ii. Over the projected life of the resource tenure.

*Part D refers to Section 5.1.4 (page 14) of the guideline (DETSI 2025).

To better describe the potential impacts on Environmental Values (EVs), risk assessments have been conducted using a Health, Safety, and Environment risk management tool. The use of standard matrices enables the quantification and classification of potential risks to EVs, clarifying how Bridgeport has reached its conclusions regarding the impacts. The following table shows Bridgeport's EV risk allocation framework. The framework is utilised to define the Likelihood and Consequence to determine the Level of Risk (Table 11) (Table 11).

Table 11: Bridgeport Risk Allocation Framework applied to Environmental Values.

EV Risk Allocation Framework						
Likelihood		Consequence				
		Insignificant	Minor	Moderate	High	Catastrophic
A	Almost certain	Medium	High	Extreme	Extreme	Extreme
B	Likely	Medium	High	High	Extreme	Extreme
C	Possible	Low	Medium	High	Extreme	Extreme
D	Unlikely	Low	Low	Medium	High	Extreme
E	Rare	Low	Low	Low	Medium	High
F	Incapable of occurring	No risk	No risk	No risk	No risk	No risk

Consequence Rating		
Level	Description	Definition
Insignificant	Almost Certain	No unauthorised adverse impact on environment values
Minor	Likely	Temporary and minor unauthorised effect on environmental values – non reportable environmental harm
Moderate	Possible	Serious temporary or minor permanent unauthorised damage to environmental values – reportable incident with local attention
High	Unlikely	Significant unauthorised harm to environmental values - reportable incident with adverse national publicity
Catastrophic	Rare	Major unauthorised event causing significant unauthorised harm to environmental values, loss of company credibility with stakeholders and likely prosecution

Likelihood Rating**		
Level	Description	Definition
A	Almost Certain	(1) Reasonably expected to occur within a month (2) Will likely occur in most circumstances
B	Likely	(1) Likely to occur within the next year (2) Probably occur in the near future
C	Possible	(1) Likely to occur over ten years (2) Might occur at some time
D	Unlikely	(1) Not specifically expected to occur but may occur sometime (2) May occur in exceptional circumstances
E	Rare	(1) Foreseeable but not normally expected to occur (2) May occur in exceptional circumstances
F	Incapable of occurring	(1) Incapable of occurring regardless of time (2) Impossible to occur physically
**Please note this table is a guide to determining the likelihood rating. The frequency may change depending on the risk type and the context in which it occurs.		

Environmental Risks		
Level of Risk	Authority to approve the risk	Action Required
Extreme	Senior Executive Team (SET) Board of Director must be made aware	Unacceptable Risk – STOP or DO NOT START the action until controls are established to reduce the risk to an acceptable level. Establish permanent control measures and review for effectiveness. The highest level of management must be made aware.
High	Operations Manager sign off Board of Director must be made aware	Activity may only proceed if: likelihood is tolerable; personnel are competent; risks are adequately assessed; legal and mandatory requirements are met;
Medium	SSM to sign off Manager must be made aware	Acceptable – apply adequate safeguards and review for effectiveness. Monitor for changes which may cause escalation of risk level.
Low	No approval but must document risk in the UWIR	Acceptable – apply safeguards as considered necessary. Monitor for changes which may cause escalation of risk level.
No risk	No approval but must document risk in the UWIR	Acceptable – apply safeguards as considered necessary. Monitor for changes which may cause escalation of risk level.

The following definitions for environmental values (EVs) have been adopted:

Environmental Protection Act 1994 define EVs as;

- (a) a quality or physical characteristic of the environment that is conducive to ecological health or public amenity or safety;
- (b) another quality of the environment identified and declared to be an environmental value under an environmental protection policy or regulation.

The Environmental Protection (Water) Policy 2009 also has an EV definition,

“those qualities of the waterway that make it suitable to support particular aquatic ecosystems or human use”.

The Department of Environment and Science 2019 also have a definition;

“EVs for water are the qualities that make it suitable for supporting aquatic ecosystems and human water uses.”

Environmental values are scheduled into the *Environmental Protection (EPP) (Water and Wetland Biodiversity) Policy 2019* through a legislative process. These EVs are described in Schedule 1 of the EPP (*Water and Wetland Biodiversity Policy 2019*).

In Queensland, all tidal and non-tidal waters, including wetlands, lakes and groundwater have EVs, as described in the Environmental values and water quality objectives under the *Environmental Protection (Water and Wetland Biodiversity) Policy 2019*.

Environmental Values include:

- Aquatic Ecosystem Health
- Agricultural uses (e.g. stock watering and irrigation)
- Recreational uses (e.g. swimming, wading, boating, fishing and aesthetics)
- Drinking water (raw water supply)
- Industrial uses (e.g. mining, mineral refining and processing) and
- Cultural and spiritual values

Using the Department of Environment and Sciences' website, a map of *Environmental Protection (Water and Wetland Biodiversity) Policy 2019* scheduled data was accessed. The interactive map was also accessed. Furthermore, the *Environmental Protection (Water and Wetland Biodiversity) Policy 2019, Schedule 1*, was accessed to summarise the types and presence of EVs.

The two mapping resources indicate there is no spatial data for EVs over the Utopia field. In the EPP schedule mapping, Utopia is located within a project area designated as "future programs," indicating a current absence of spatial layers related to EVs, which may be added at a later date. Similarly, the live spatial data services show almost no layers over the project area, mainly focusing on east coast ecosystems. The Schedule does not include definitions for the Eromanga area, which incorporates Bridgeport assets. The map closest to the Utopia field within the *EPP (Water and Wetland Biodiversity) Overview Map* region is the Queensland Murray-Darling and Bulloo Basins map. The Utopia field would potentially fall under the "Lake Eyre" region of the EPP (Water) mapping, as described in the Queensland Water Quality Guidelines (Department of Environment and Science 2018) (Figure 13).

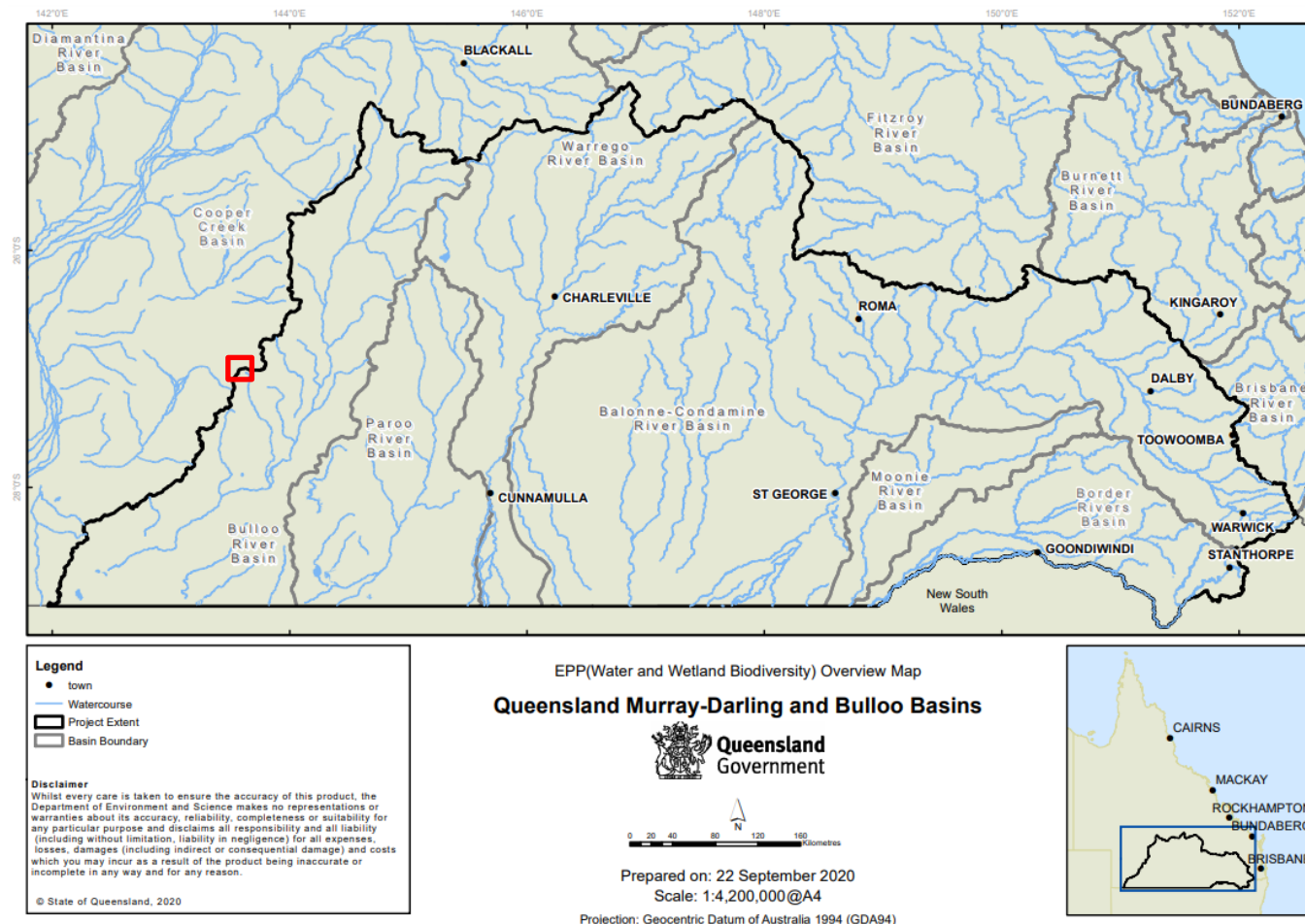


Figure 13: The EPP (Water and Wetland Biodiversity) Overview Map region that is closest to Utopia (red square). The dark line represents the Queensland Murray-Darling and Bulloo Basins. Utopia straddles the Bulloo River Basin.

The absence of spatial data and mapping classifications within the *EPP (Water and Wetland Biodiversity) Guideline* for the specific region relating to Utopia has been highlighted to demonstrate Bridgeport's attempt to utilise specific Queensland Government resources and why they do not feature further in this process.

EVs relevant to the exercise of water rights related to Utopia are outlined in Table 12. An evaluation of each EV is then conducted following the Risk Allocation Framework, considering UWIR requirements and the surrounding physical conditions, ecosystems.

Requirement.1.1. A description of the impacts of environmental values that have occurred, or are likely to occur, because of any previous exercise of underground water rights (section 376(da) of the Water Act);

Requirement.1.2. An assessment of the likely impacts on environmental values that will occur, or are likely to occur, because of the exercise of underground water rights (section 376(db) of the Water Act) -

- i. For a three-year period starting on the consultation day for the report; &
- ii. Over the projected life of the resource tenure.

At the end of this section, a summary of all environmental values, risks and consequences is provided.

Table 12: Environmental Values as described in Healthy waters for Queensland: Environmental values, management goals and water quality objectives and in the EPP (Water and Wetland Biodiversity) Schedule 2.

Section	Environmental Value	Definition
D.1	Aquatic ecosystem	'A community of organisms living within or adjacent to water, including riparian or foreshore area'. (EPP (Water and Wetland Biodiversity), schedule 2). The intrinsic value of aquatic ecosystems, habitat and wildlife in waterways and riparian areas, for example, biodiversity, ecological interactions, plants, animals, key species (such as turtles, platypus, seagrass and dugongs) and their habitat, food and drinking water. Waterways include perennial and intermittent surface waters, groundwaters, tidal and non-tidal waters, lakes, storages, reservoirs, dams, wetlands, swamps, marshes, lagoons, canals, natural and artificial channels and the bed and banks of waterways. (This EV incorporates the 'wildlife habitat' EV used in the South East Queensland Regional Water Quality Management Strategy (SEQRWQMS)).
D.2	High ecological/conservation value waters	'Waters in which the biological integrity of the water is effectively unmodified or highly valued.'
D.3	Slightly disturbed waters	'Waters that have the biological integrity of high ecological value waters with slightly modified physical or chemical indicators but effectively unmodified biological indicators'.
D.4	Moderately disturbed waters	'Waters in which the biological integrity of the water is adversely affected by human activity to a relatively small but measurable degree.'

D.5	Highly disturbed waters	'Waters that are significantly degraded by human activity and have lower ecological value than high ecological value waters or slightly or moderately disturbed waters.'
D.6	Irrigation	Suitability of water supply for irrigation, for example, irrigation of crops, pastures, parks, gardens and recreational areas.
D.7	Farm water supply/use	Suitability of domestic farm water supply, other than drinking water. For example, water used for laundry and produce preparation.
D.8	Stock watering	Suitability of water supply for production of healthy livestock.
D.9	Human consumers of aquatic foods	The suitability of the water for producing aquatic foods for human consumption such as fish, crustaceans and shellfish from natural waterways.
D.10	Primary recreation	Means a use that involves the following types of contact with the water—full body contact, frequent immersion by the face and trunk, frequent contact with spray by the face where it is likely some water will be swallowed or inhaled, or come into contact with ears, nasal passages, mucous membranes or cuts in the skin e.g. diving, swimming, surfing.
D.11	Secondary recreation	Means a use that involves the following types of contact with the water—contact in which only the limbs are regularly wet, and other contact, including the swallowing of water, is unusual (examples—boating, fishing, wading) or occasional inadvertent immersion resulting from slipping or being swept into the water by a wave.
D.12	Visual recreation	Means a use that does not ordinarily involve any contact with the water—for example angling from the shore, sunbathing near water.
D.13	Drinking water supply	Suitability of the water for supply as drinking water having regard to the level of treatment of the water.

D.14	Industrial use	Suitability of water supply for industrial purposes, for example, food, beverage, paper, petroleum and power industries, mining and minerals refining/processing. Industries usually treat water supplies to meet their needs.
D.15	Cultural and spiritual values	Means scientific, social or other significance to the present generation or past or future generations, including Aboriginal People or Torres Strait Islanders. This includes custodial, spiritual, cultural and traditional heritage, hunting, gathering and ritual responsibilities, symbols, landmarks and icons (such as waterways, turtles and frogs). • lifestyles (such as agriculture and fishing).
D.16	Environmentally Sensitive Areas	ESAs are areas of habitat, described as important for key ecological functions in legislation (e.g. Nature Conservation Act 1994, Marine Parks Act 2004, etc.). ESAs are split into two categories, Category A and Category B, and the appropriate formal definition can be found in the Environment Protection Regulation (2019).

D.1 Aquatic ecosystem

Definition: 'A community of organisms living within or adjacent to water, including riparian or foreshore areas'. (EPP (Water and Wetland Biodiversity), schedule 2).

The intrinsic value of aquatic ecosystems, habitat and wildlife in waterways and riparian areas, for example, biodiversity, ecological interactions, plants, animals, key species (such as turtles, platypus, seagrass and dugongs) and their habitat, food and drinking water. Waterways include perennial and intermittent surface waters, groundwaters, tidal and non-tidal waters, lakes, storages, reservoirs, dams, wetlands, swamps, marshes, lagoons, canals, natural and artificial channels and the bed and banks of waterways.

(This EV incorporates the 'wildlife habitat' EV used in the South East Queensland Regional Water Quality Management Strategy (SEQRWQMS)).

Description

To determine the extent of watercourse areas, wetlands, springs (including other relevant environmental values and layers), or river improvement trust asset zones on PL 214, the following layers were used: watercourse areas, pondage, major watercourse lines, groundwater-dependent ecosystems (including areas, watercourses, and springs), water plans (waterholes and lakes), pondage, active springs, a directory of important wetlands, groundwater-dependent ecosystems – springs, high ecological significance wetlands, watercourse identification map (watercourses), MSES (high ecological significance wetlands), the River Improvement Trust Areas, and EPP Water Environmental Value Zones. All shapefiles were downloaded from the Queensland Government's resources and overlaid on the boundaries of the petroleum tenement.

The Utopia tenement overlaps about 40% of its area with the EPP Water Value Zone known as Bulloo River, while 60% of the tenement area sites are outside the zone. There is a small (3.1 km long) section of a major watercourse in the lower south-east of the tenement

boundary of PL 214. This is the start of a larger ephemeral watercourse called Boothera Creek. The catchment of this river begins 6.1 km from the main oil production facility and 3.6 km from the nearest production well. There are also smaller drainage lines across the tenement (Figure 17).

There are no wetlands, groundwater-dependent ecosystems or springs located within PL 214.

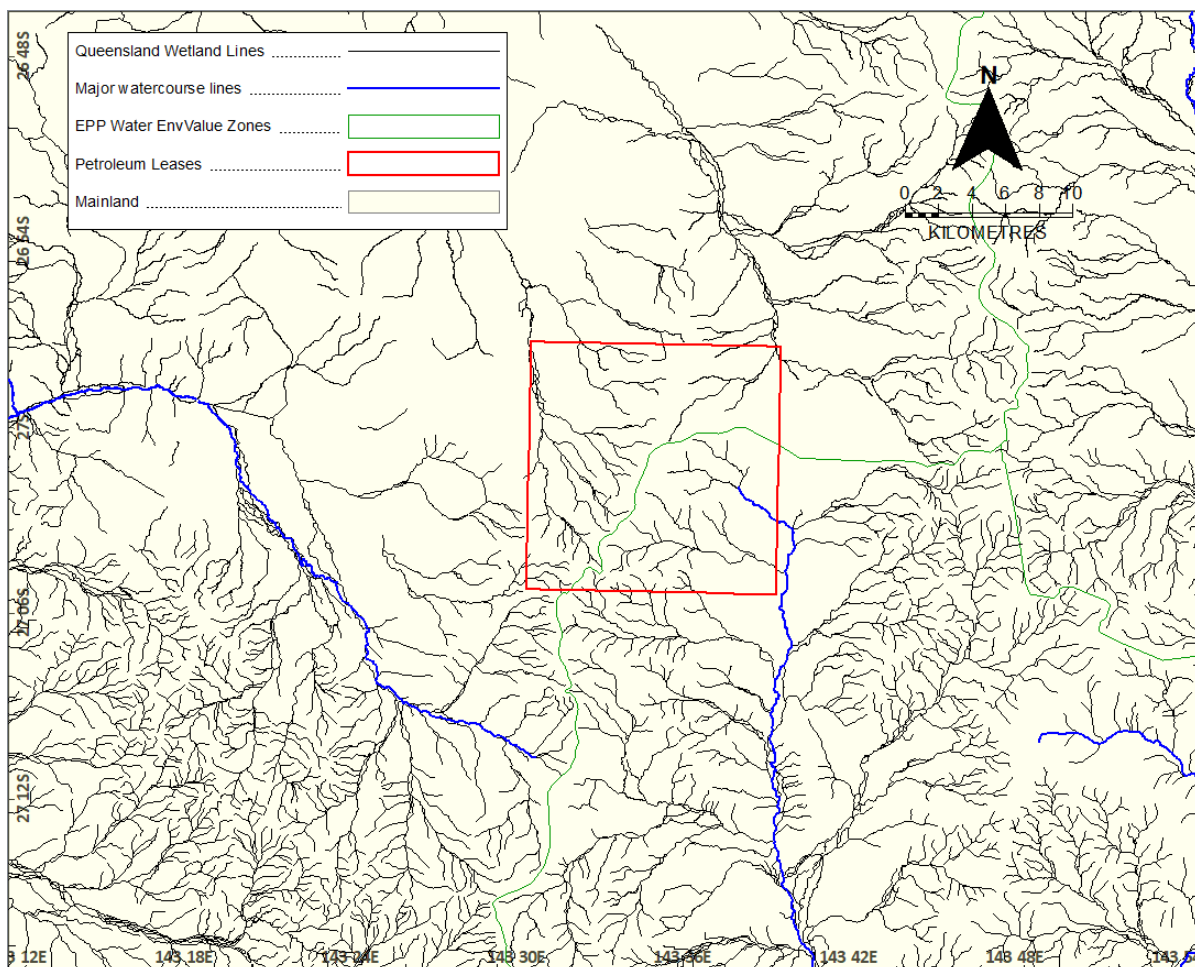


Figure 14: Aquatic ecosystem shapefiles from the Queensland Government, applied to Utopia.

Aquatic features, such as the wetland lines that run through Utopia, are ephemeral, as they only hold water during periods of heavy rainfall. There are no ecosystems reliant on groundwater, and the region, known as the Channel Country, is renowned for its heavy rainfall, rapid flooding, and swift retreat of surface waters.

Note, this information will be relevant to subsequent EVs but will not be repeated in each section. A reference back to this section will be provided.

Bridgeport Risk Allocation

D.1.1. Bridgeport have assessed the likelihood of aquatic ecosystem environmental values being impacted by the previous exercise of underground water rights as a Likelihood of D, or Unlikely, with the explanation being (1) Not specifically expected to occur but may occur sometime. The consequence of impact is Minor, leading to a 'Low level of risk' assessment. Actions required from this risk allocation include applying relevant safeguards (e.g. monitoring) and escalating the risk level if appropriate.

The risk and consequence levels determined by Bridgeport are based on the fact that there are limited aquatic ecosystems within or near Bridgeport petroleum production that would be affected by the exercise of underground water rights for the remaining life of the project.

D.1.2.i. Bridgeport have assessed the likelihood of aquatic ecosystem environmental values being impacted by the exercise of underground water rights for the next three years as a Likelihood of D, or Unlikely, with the explanation being (1) Not specifically expected to occur but may occur sometime. The consequence of impact is Minor, leading to a 'Low level of risk' assessment. Actions required from this risk allocation include applying relevant safeguards (e.g. monitoring) and escalating the risk level if appropriate.

The risk and consequence levels determined by Bridgeport are based on the fact that there are limited aquatic ecosystems within or in proximity to Bridgeport petroleum production that would be influenced by the exercise of underground water rights for the remaining life of the project.

D.1.2.ii. Bridgeport have assessed the likelihood of aquatic ecosystem environmental values being impacted by the exercise of underground water rights for the remainder of the project life as a Likelihood of D, or Unlikely, with the explanation being (1) Not specifically expected to occur but may occur sometime. The consequence of impact is Minor, leading to a 'Low

level of risk' assessment. Actions required from this risk allocation include applying relevant safeguards (e.g. monitoring) and escalating the risk level if appropriate.

The risk and consequence levels determined by Bridgeport are based on the limited aquatic ecosystems within or in proximity to the PL 214 petroleum facility that would be influenced by the exercise of underground water rights for the remaining life of the project.

D.2 High ecological/conservation value waters

Definition: 'Waters in which the biological integrity of the water is effectively unmodified or highly valued.'

Description

There are no waters of high ecological value or conservation value waters within or near Utopia. All environmental values related to highly disturbed waters.

See section D.1 Aquatic ecosystem above, for a comprehensive summary of the ecological/conservation waters values.

Bridgeport Risk Allocation

D.2.1. Bridgeport have assessed the likelihood of high ecological/conservation water values being impacted by the previous exercise of underground water rights as a Likelihood of F, or incapable of occurring, with the explanation being impacts are (2) Impossible to occur. The consequence of impact is Insignificant, leading to a 'No risk' assessment. Actions required from this risk allocation include applying relevant safeguards (e.g. continued monitoring) and escalating the risk level if appropriate.

The risk and consequence levels determined by Bridgeport are based on the fact that there are no high ecological or conserved ecosystems within or in proximity to Bridgeport petroleum production that would be influenced by previous exercise of underground water rights.

D.2.2.i. Bridgeport have assessed the likelihood of high ecological/conservation water values being impacted by the previous exercise of underground water rights as a Likelihood of F, or incapable of occurring, with the explanation being impacts are (2) Impossible to occur. The consequence of impact is Insignificant, leading to a 'No risk' assessment. Actions required from this risk allocation include applying relevant safeguards (e.g. continued monitoring) and escalating the risk level if appropriate.

The risk and consequence levels determined by Bridgeport are based on the fact there are no high ecological or conserved ecosystems within or in proximity to Bridgeport petroleum production that will occur in the next three-year period.

D.2.2.ii. Bridgeport have assessed the likelihood of high ecological/conservation water values being impacted by the previous exercise of underground water rights as a Likelihood of F, or incapable of occurring, with the explanation being impacts are (2) Impossible to occur. The consequence of impact is Insignificant, leading to a 'No risk' assessment. Actions required from this risk allocation include applying relevant safeguards (e.g. continued monitoring) and escalating the risk level if appropriate.

Bridgeport's risk and consequence levels are based on the fact that there are no high ecological or conserved ecosystems within or near the area of Bridgeport petroleum production that will occur over the project's lifetime.

D.3 Slightly disturbed waters

Definition: 'Waters that have the biological integrity of high ecological value waters with slightly modified physical or chemical indicators but effectively unmodified biological indicators'.

Description

There are no slightly disturbed ecological water values within or nearby to Utopia. All environmental values related to highly disturbed waters.

See section D.1 Aquatic Ecosystem above for a comprehensive summary of the ecological and conservation waters values.

Bridgeport Risk Allocation

D.3.1. Bridgeport have assessed the likelihood of slightly disturbed water values being impacted by the previous exercise of underground water rights as a Likelihood of F, or incapable of occurring, with the explanation being impacts are (2) Impossible to occur. The consequence of impact is Insignificant, leading to a 'No risk' assessment. Actions required from this risk allocation include applying relevant safeguards (e.g. continued monitoring) and escalating the risk level if appropriate.

The risk and consequence levels determined by Bridgeport are based on the fact that there are no high ecological or conserved ecosystems within or in proximity to Bridgeport petroleum production that would be influenced by previous exercise of underground water rights.

D.3.2.i. Bridgeport have assessed the likelihood of slightly disturbed water values being impacted by the previous exercise of underground water rights as a Likelihood of F, or incapable of occurring, with the explanation being impacts are (2) Impossible to occur. The consequence of impact is Insignificant, leading to a 'No risk' assessment. Actions required from this risk allocation include applying relevant safeguards (e.g. continued monitoring) and escalating the risk level if appropriate.

The risk and consequence levels determined by Bridgeport are based on the fact there are no high ecological or conserved ecosystems within or in proximity to Bridgeport petroleum production that will occur in the next three-year period.

D.3.2.ii. Bridgeport have assessed the likelihood of slightly disturbed water values being impacted by the previous exercise of underground water rights as a Likelihood of F, or incapable of occurring, with the explanation being impacts are (2) Impossible to occur. The consequence of impact is Insignificant, leading to a 'No risk' assessment. Actions required

from this risk allocation include applying relevant safeguards (e.g. continued monitoring) and escalating the risk level if appropriate.

Bridgeport's risk and consequence levels are based on the fact that there are no high ecological or conserved ecosystems within or near the area of Bridgeport petroleum production that will occur over the project's lifetime.

D.4 Moderately disturbed waters

Definition: 'Waters in which the biological integrity of the water is adversely affected by human activity to a relatively small but measurable degree.'

Description

There are no moderately disturbed waters within or nearby to Utopia. All environmental values related to highly disturbed waters.

See Section D.1, 'Aquatic Ecosystem,' above, for a comprehensive summary of the ecological and conservation values of waters.

Bridgeport Risk Allocation

D.4.1. Bridgeport have assessed the likelihood of moderately disturbed water values being impacted by the previous exercise of underground water rights as a Likelihood of F, or incapable of occurring, with the explanation being impacts are (2) Impossible to occur. The consequence of impact is Insignificant, leading to a 'No risk' assessment. Actions required from this risk allocation include applying relevant safeguards (e.g. continued monitoring) and escalating the risk level if appropriate.

The risk and consequence levels determined by Bridgeport are based on the fact that there are no moderately disturbed waters within or in proximity to Bridgeport petroleum production that would be influenced by previous exercise of underground water rights.

D.4.2.i. Bridgeport have assessed the likelihood of moderately disturbed water values being impacted by the preceding three years of exercising underground water rights as a Likelihood

of F, or incapable of occurring, with the explanation being impacts are (2) Impossible to occur. The consequence of impact is Insignificant, leading to a 'No risk' assessment. Actions required from this risk allocation include applying relevant safeguards (e.g. continued monitoring) and escalating the risk level if appropriate.

Risk and consequence levels are based on the fact that there are no moderately disturbed waters within or near Bridgeport petroleum production that would be affected by underground water rights over the next three years.

D.4.2.ii. Bridgeport have assessed the likelihood of moderately disturbed water values being impacted by the preceding life if the project exercising underground water rights as a Likelihood of F, or incapable of occurring, with the explanation being impacts are (2) Impossible to occur. The consequence of impact is Insignificant, leading to a 'No risk' assessment. Actions required from this risk allocation include applying relevant safeguards (e.g. continued monitoring) and escalating the risk level if appropriate.

The risk and consequence levels determined by Bridgeport are based on the fact there are no moderately disturbed waters within or in proximity to Bridgeport petroleum production that would be influenced by the exercising of underground water rights for the remainder of the project's life.

D.5 Highly disturbed waters

Definition: 'Waters that are significantly degraded by human activity and have lower ecological value than high ecological value waters or slightly or moderately disturbed waters.'

Description

The water values within the Utopia tenement meet the definition of highly disturbed waters. The lack of environmental values within or near the tenement precludes many of the direct impacts. The most common possible impacts would be from the incidental spilling of chemicals or petroleum-related products. The aquatic environmental feature mapped as

occurring within Utopia (Boothera Creek) is far removed from actual petroleum assets. A distance of 3.2 km separates the nearest producing well from the water course intersecting PL 214. It is highly unlikely that there would be any impact from petroleum-related activities

The depth at which Bridgeport extracts water, the very low volume of water taken, and the highly disturbed nature of the water values (which do not depend on underground water sources) would preclude impacts on surface waters from groundwater extraction.

Bridgeport Risk Allocation

D.5.1. Bridgeport have assessed the likelihood of highly disturbed water values being impacted by the previous exercise of underground water rights as a Likelihood of D or Unlikely, with the explanation being impacts are (2) May occur in exceptional circumstances. The consequence of impact is Minor, leading to a 'Low risk' assessment. Actions required from this risk allocation include applying relevant safeguards (e.g. continued monitoring) and escalating the risk level if appropriate.

The risk and consequence levels determined by Bridgeport are based on the fact that there are very few highly disturbed waters within or near Bridgeport petroleum production. Moreover, the highly disturbed water features present are not dependent on water reservoirs related to or affected by water extracted during petroleum production through previous exercise of underground water rights.

D.5.2.i. Bridgeport have assessed the likelihood of highly disturbed water values being impacted by the future three-year exercise of underground water rights as a Likelihood of D or Unlikely, with the explanation being impacts are (2) May occur in exceptional circumstances. The consequence of impact is Minor, leading to a 'Low risk' assessment. Actions required from this risk allocation include applying relevant safeguards (e.g. continued monitoring) and escalating the risk level if appropriate.

The risk and consequence levels determined by Bridgeport are based on the fact that there are very few highly disturbed waters within or in proximity to Bridgeport petroleum production. And what highly disturbed water features there are, are not reliant on water

reservoirs related to or impacted by water extracted in the process of producing petroleum over the next three-year period of exercising underground water rights.

D.5.2.ii Bridgeport have assessed the likelihood of highly disturbed water values being impacted by the future exercise of underground water rights over the life of the project as a Likelihood of D or Unlikely, with the explanation being impacts are (2) May occur in exceptional circumstances. The consequence of impact is Minor, leading to a 'Low risk' assessment. Actions required from this risk allocation include applying relevant safeguards (e.g. continued monitoring) and escalating the risk level if appropriate.

The risk and consequence levels determined by Bridgeport are based on the fact that there are very few highly disturbed waters within or in proximity to Bridgeport petroleum production. And what highly disturbed water features there are, are not reliant on water reservoirs related to or impacted by water extracted in the process of producing petroleum over the remaining project of exercising underground water rights.

D.6 Irrigation

Definition: Suitability of water supply for irrigation, for example, irrigation of crops, pastures, parks, gardens and recreational areas.
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Description

The primary land use after petroleum operations will be extensive grazing of sheep and cattle on the remaining native vegetation. There is no pasture or cropping. There are no irrigation programs in the Utopia area. There are no gardens, parks, pasture, or recreational areas, and their irrigation to be affected by groundwater extraction.

Bridgeport Risk Allocation

D.6.1. Bridgeport has assessed the likelihood of irrigation environmental values being impacted by the previous exercise of underground water rights as a Likelihood of F, or Incapable of Occurring, with the explanation being (2) Impossible to occur physically. The

consequence of impact is Insignificant, leading to a 'No risk' assessment. Actions required from this risk allocation include applying relevant safeguards (e.g., monitoring) and escalating the risk level if appropriate. This conclusion is appropriate because there are currently no irrigation programs whose water quality values would be impacted by previous operators exercising underground water rights. The physical environment, habitat types, landforms, soil type, and current and future land use preclude irrigation.

D.6.2.i. Bridgeport have assessed the likelihood of irrigation environmental values being impacted by the exercise of underground water rights for the next three years as a Likelihood of F, or Incapable of Occurring, with the explanation being (2) Impossible to occur physically. The consequence of impact is Insignificant, leading to a 'No risk' assessment. Actions required from this risk allocation include applying relevant safeguards (e.g. monitoring) and escalate risk level if appropriate. This conclusion is appropriate because there are currently no irrigation programs whose water quality values would be impacted by exercising underground water rights over the next three years. The physical environment, habitat types, landforms, soil type, current and future land use precludes irrigation.

D.6.2.ii. Bridgeport have assessed the likelihood of irrigation environmental values being impacted by the exercise of underground water rights for the life of the project as a Likelihood of F, or Incapable of Occurring, with the explanation being (2) Impossible to occur physically. The consequence of impact is Insignificant, leading to a 'No risk' assessment. Actions required from this risk allocation include applying relevant safeguards (e.g. monitoring) and escalate risk level if appropriate. This conclusion is appropriate because there are currently no irrigation programs whose water quality values would be impacted by exercising underground water rights over the life of the project. The physical environment, habitat types, landforms, soil type, current and future land use precludes irrigation.

D.7 Farm water supply/use

Definition: Suitability of domestic farm water supply, other than drinking water. For example, water used for laundry and produce preparation.
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Description

There are no domestic farm facilities that directly consume water from Bridgeport operations, including those used for laundry or industrial purposes.

Bridgeport Risk Allocation

D.7.1. Bridgeport have assessed the likelihood of farm water supply/use values being impacted by the previous exercise of underground water rights as a Likelihood of F, or Incapable of Occurring, with the explanation being (2) Impossible to occur physically. The consequence of impact is Insignificant, leading to a 'No risk' assessment. Actions required from this risk allocation include applying relevant safeguards (e.g. monitoring) and escalating the risk level if appropriate. This conclusion is appropriate because there are currently no farms that are dependent on water supply or water quality values that would be impacted by previous exercise of underground water rights.

D.7.2.i. Bridgeport have assessed the likelihood of farm water supply/use values being impacted by the following three years of exercising of underground water rights as a Likelihood of F, or Incapable of Occurring, with the explanation being (2) Impossible to occur physically. The consequence of impact is Insignificant, leading to a 'No risk' assessment. Actions required from this risk allocation include applying relevant safeguards (e.g. monitoring) and escalating the risk level if appropriate. This conclusion is appropriate because there are currently no farms that are dependent on water supply or water quality values that would be impacted by future exercise of underground water rights for three years.

D.7.2.ii. Bridgeport have assessed the likelihood of farm water supply/use values being impacted by the exercising of underground water rights for the remainder of the project life as a Likelihood of F, or Incapable of Occurring, with the explanation being (2) Impossible to occur physically. The consequence of impact is Insignificant, leading to a 'No risk' assessment. Actions required from this risk allocation include applying relevant safeguards (e.g. monitoring) and escalating the risk level if appropriate. This conclusion is appropriate because there are currently no farms that are dependent on water supply or water quality values that

would be impacted by future exercise of underground water rights for remainder of the project's life.

D.8 Stock watering

Definition: Suitability of water supply for production of healthy livestock.

Description

Most local landholder wells installed in this region are solely for livestock watering. Such pastoral bores are drilled into the Winton Formation. As shown in Table 14, these wells are drilled to depths not exceeding 100 m, and often even shallower. Overall, groundwater extraction in this management area is quite limited, as these wells are typically not actively pumped or are operated with small, non-commercial pumps. Some non-petroleum wells listed in **Error! Reference source not found.** have also been abandoned and decommissioned since their drilling.

It is highly unlikely that extracting water from Bridgeport targeted formations (more than 1000 m below ground) would impact shallower formations less than 100m deep because geological barriers limit water flow between these depths. Bridgeport also protects shallower aquifers and reservoirs by using cemented steel casing in our production wells and by testing and validating the boreholes' integrity through wireline logging, sono-log, and pressure recordings. Furthermore, there are highly restrictive geological boundaries between the lower targeted formations and the upper freshwater aquifers.

Bridgeport Risk Allocation

D.8.1. Bridgeport have assessed the likelihood of livestock water supply/use values being impacted by the previous exercise of underground water rights as a Likelihood of E, or Rare, with the explanation being (1) Foreseeable but not normally expected to occur. The consequence of impact is Minor, leading to a 'Low risk' assessment. Actions required from this risk allocation include applying relevant safeguards (e.g. monitoring) and escalate risk level if appropriate. This conclusion is appropriate because there are currently no impacts to

livestock from previous exercise of underground water rights, barriers both natural (geological) and engineered (concrete and steel casing) preventing resource extraction from impacting the much higher and distinct targeted aquifers of landholders. Modelling by Golder Associates has confirmed these conclusions.

D.8.2.i. Bridgeport have assessed the likelihood of livestock water supply/use values being impacted by the future three years of exercising underground water rights as a Likelihood of E, or Rare, with the explanation being (1) Foreseeable but not normally expected to occur. The consequence of impact is Minor, leading to a 'Low risk' assessment. Actions required from this risk allocation include applying relevant safeguards (e.g. monitoring) and escalate risk level if appropriate. This conclusion is appropriate because there are currently no impacts to livestock from previous exercise of underground water rights (no change to the proposed activities which previously occurred either), barriers both natural (geological) and engineered (concrete and steel casing), preventing resource extraction from impacting the much higher and distinct targeted aquifers of landholders. Modelling by Golder Associates has confirmed these conclusions.

D.8.2.ii. Bridgeport have assessed the likelihood of livestock water supply/use values being impacted over the remaining life of the project, and its exercising underground water rights as a Likelihood of E, or Rare, with the explanation being (1) Foreseeable but not normally expected to occur. The consequence of impact is Minor, leading to a 'Low risk' assessment. Actions required from this risk allocation include applying relevant safeguards (e.g. monitoring) and escalate risk level if appropriate. This conclusion is appropriate because there are currently no impacts to livestock from previous exercise of underground water rights (no change to the proposed activities which previously occurred either), barriers both natural (geological) and engineered (concrete and steel casing) preventing resource extraction from impacting the much higher and distinct targeted aquifers of landholders. Modelling by Golder Associates has confirmed these conclusions.

D.9 Human consumers of aquatic foods

Definition: The suitability of the water for producing aquatic foods for human consumption such as fish, crustaceans and shellfish from natural waterways.

Description

The predominant land use during and after petroleum operations will be broad acre marginal/extensive sheep and cattle grazing of remnant native vegetation. There are no aquaculture, mariculture, or freshwater fisheries within or in proximity to the Utopia tenement.

Bridgeport Risk Allocation

D.9.1. Bridgeport have assessed the likelihood of irrigation aquatic food values being impacted by the previous exercise of underground water rights as a Likelihood of F, or Incapable of Occurring, with the explanation being (2) Impossible to occur physically. The consequence of impact is Insignificant, leading to a 'No risk' assessment. Actions required from this risk allocation include applying relevant safeguards (e.g. monitoring) and escalating the risk level if appropriate. This conclusion is appropriate because there are currently no aquaculture programs whose water quality values would be impacted by previous operators exercising underground water rights.

D.9.2.i. Bridgeport have assessed the likelihood of aquatic food values being impacted by the exercise of underground water rights for the next three years as a Likelihood of F, or Incapable of Occurring, with the explanation being (2) Impossible to occur physically. The consequence of impact is Insignificant, leading to a 'No risk' assessment. Actions required from this risk allocation include applying relevant safeguards (e.g. monitoring) and escalate risk level if appropriate. This conclusion is appropriate because there are currently no aquaculture programs whose water quality values would be impacted by exercising underground water rights over the next three years.

D.9.2.ii. Bridgeport have assessed the likelihood of aquatic food values being impacted by the exercise of underground water rights for the life of the project as a Likelihood of F, or Incapable of Occurring, with the explanation being (2) Impossible to occur physically. The consequence of impact is Insignificant, leading to a 'No risk' assessment. Actions required from this risk allocation include applying relevant safeguards (e.g. monitoring) and escalate risk level if appropriate. This conclusion is appropriate because there are currently no aquaculture programs whose water quality values would be impacted by exercising underground water rights over the life of the project.

D.10 Primary recreation

Definition: Means a use that involves the following types of contact with the water—full body contact, frequent immersion by the face and trunk, frequent contact with spray by the face where it is likely some water will be swallowed or inhaled, or come into contact with ears, nasal passages, mucous membranes or cuts in the skin e.g. diving, swimming, surfing.

Description

There are no primary recreation activities that take place within or near the Utopia petroleum lease. If there were, we'd like to know. There is no immersive swimming, frequent bodily contact, inhalation or contact with products related to or impacted by production, or the exercise of underground water rights.

Bridgeport Risk Allocation

D.10.1. Bridgeport have assessed the likelihood of primary recreation values being impacted by the previous exercise of underground water rights as a Likelihood of F, or Incapable of Occurring, with the Explanation being (2) Impossible to occur physically. The consequence of impact is Insignificant, leading to a 'No risk' assessment. Actions required from this risk allocation include applying relevant safeguards (e.g. monitoring) and escalating the risk level if appropriate. This conclusion is appropriate because there are currently no primary

recreational areas in any proximity to areas impacted by previous operators exercising underground water rights.

D.10.2.i. Bridgeport have assessed the likelihood of primary recreation values being impacted by the following three-year period exercising of underground water rights as a Likelihood of F, or Incapable of Occurring, with the Explanation being (2) Impossible to occur physically. The consequence of impact is Insignificant, leading to a 'No risk' assessment. Actions required from this risk allocation include applying relevant safeguards (e.g. monitoring) and escalate risk level if appropriate. This conclusion is appropriate because there will be no primary recreational areas in any proximity to areas impacted by operators exercising underground water rights over the next three years.

D.10.2.ii. Bridgeport have assessed the likelihood of primary recreation values being impacted by exercising of underground water rights for the life of the project as a Likelihood of F, or Incapable of Occurring, with the Explanation being (2) Impossible to occur physically. The consequence of impact is Insignificant, leading to a 'No risk' assessment. Actions required from this risk allocation include applying relevant safeguards (e.g. monitoring) and escalate risk level if appropriate. This conclusion is appropriate because there will be no primary recreational areas in any proximity to areas impacted by operators exercising underground water rights, at any time during the life of the project.

D.11 Secondary recreation

Definition: Means a use that involves the following types of contact with the water—contact in which only the limbs are regularly wet, and other contact, including the swallowing of water, is unusual (examples—boating, fishing, wading) or occasional inadvertent immersion resulting from slipping or being swept into the water by a wave.

Description

There are no secondary recreation activities that take place within or near Utopia. There is no boating, fishing or wading commonly occurring, nor occasional incidental contact with

products related to or impacted by, the exercise of underground water rights. If there were fishing opportunities, we would have trouble getting our field staff to work.

Bridgeport Risk Allocation

D.11.1. Bridgeport have assessed the likelihood of secondary recreation values being impacted by the previous exercise of underground water rights as a Likelihood of F, or Incapable of Occurring, with the Explanation being (2) Impossible to occur physically. The consequence of impact is Insignificant, leading to a 'No risk' assessment. Actions required from this risk allocation include applying relevant safeguards (e.g. monitoring) and escalating the risk level if appropriate. This conclusion is appropriate because there are currently no secondary recreational areas in any proximity to areas impacted by previous operators exercising underground water rights.

D.11.2.i. Bridgeport have assessed the likelihood of secondary recreation values being impacted by the following three-year period exercising of underground water rights as a Likelihood of F, or Incapable of Occurring, with the Explanation being (2) Impossible to occur physically. The consequence of impact is Insignificant, leading to a 'No risk' assessment. Actions required from this risk allocation include applying relevant safeguards (e.g. monitoring) and escalate risk level if appropriate. This conclusion is appropriate because there will be no secondary recreational areas in any proximity to areas impacted by operators exercising underground water rights over the next three years.

D.11.2.ii. Bridgeport have assessed the likelihood of secondary recreation values being impacted by exercising of underground water rights for the life of the project as a Likelihood of F, or Incapable of Occurring, with the Explanation being (2) Impossible to occur physically. The consequence of impact is Insignificant, leading to a 'No risk' assessment. Actions required from this risk allocation include applying relevant safeguards (e.g. monitoring) and escalate risk level if appropriate. This conclusion is appropriate because there will be no secondary recreational areas in any proximity to areas impacted by operators exercising underground water rights, at any time during the life of the project.

D.12 Visual recreation

Definition: Means a use that does not ordinarily involve any contact with the water—for example angling from the shore, sunbathing near water.

Description

There are no visual recreation activities that take place within or near the Utopia petroleum lease. There are no recreational activities or amenities near these tenements, especially none that are related to or impacted by the exercise of underground water rights.

Bridgeport Risk Allocation

D.12.1. Bridgeport have assessed the likelihood of visual values being impacted by the previous exercise of underground water rights as a Likelihood of F, or Incapable of Occurring, with the Explanation being (2) Impossible to occur physically. The consequence of impact is Insignificant, leading to a 'No risk' assessment. Actions required from this risk allocation include applying relevant safeguards (e.g. monitoring) and escalating the risk level if appropriate. This conclusion is appropriate because there are currently no visual recreational areas in any proximity to areas impacted by previous operators exercising underground water rights.

D.12.2.i. Bridgeport have assessed the likelihood of visual recreation values being impacted by the following three-year period exercising of underground water rights as a Likelihood of F, or Incapable of Occurring, with the Explanation being (2) Impossible to occur physically. The consequence of impact is Insignificant, leading to a 'No risk' assessment. Actions required from this risk allocation include applying relevant safeguards (e.g. monitoring) and escalate risk level if appropriate. This conclusion is appropriate because there will be no visual recreational areas in any proximity to areas impacted by operators exercising underground water rights over the next three years.

D.12.2.ii. Bridgeport have assessed the likelihood of visual recreation values being impacted by exercising of underground water rights for the life of the project as a Likelihood of F, or

Incapable of Occurring, with the Explanation being (2) Impossible to occur physically. The consequence of impact is Insignificant, leading to a 'No risk' assessment. Actions required from this risk allocation include applying relevant safeguards (e.g. monitoring) and escalating the risk level if appropriate. This conclusion is appropriate because there will be no visual recreational areas in any proximity to areas impacted by operators exercising underground water rights, at any time during the life of the project.

D.13 Drinking water supply

Definition: Suitability of the water for supply as drinking water having regard to the level of treatment of the water.

Description

Regarding the treatment of water, no water is sourced from or near the Utopia field for drinking water supply. The ongoing extraction of water from around Utopia would not negatively affect the water treatment required at the nearest township. Any local landholder bores are extremely shallow, and access water from bores less than 50 m deep, far removed from the great than ~1,300 m petroleum wells (as detailed in appropriate sections earlier in this document). These landholder bores are not for human consumption.

Bridgeport Risk Allocation

D.13.1. Bridgeport have assessed the likelihood of drinking water being impacted by the previous exercise of underground water rights as a Likelihood of F, or Incapable of Occurring, with the explanation being (2) Impossible to occur physically. The consequence of impact is Insignificant, leading to a 'No risk' assessment. Actions required from this risk allocation include applying relevant safeguards (e.g. monitoring) and escalating the risk level if appropriate. This conclusion is appropriate because there are currently no drinking water or treatment facilities whose water quality values that would be impacted by previous operators exercising underground water rights.

D.13.2.i. Bridgeport have assessed the likelihood of drinking water being impacted in the next three years as a Likelihood of F, or Incapable of Occurring, with the explanation being (2) Impossible to occur physically. The consequence of impact is Insignificant, leading to a 'No risk' assessment. Actions required from this risk allocation include applying relevant safeguards (e.g. monitoring) and escalating the risk level if appropriate. This conclusion is appropriate because there are currently no drinking water or treatment facilities whose water quality values that would be impacted by exercising underground water rights for a further three years.

D.13.2.ii. Bridgeport have assessed the likelihood of drinking water being impacted over the remaining life of the project as a Likelihood of F, or Incapable of Occurring, with the explanation being (2) Impossible to occur physically. The consequence of impact is Insignificant, leading to a 'No risk' assessment. Actions required from this risk allocation include applying relevant safeguards (e.g. monitoring) and escalate risk level if appropriate. This conclusion is appropriate because there are currently no drinking water or treatment facilities whose water quality values that would be impacted by exercising underground water rights for the remaining years of the project.

D.14 Industrial use

Definition: Suitability of water supply for industrial purposes, for example, food, beverage, paper, petroleum and power industries, mining and minerals refining/processing. Industries usually treat water supplies to meet their needs.

Description

There are no alternate industries in or near the Utopia field. There are no food or beverage manufacturers, no power producers, light or commercial industrial groups. The predominant land use during and after petroleum operations will be broad acre marginal/extensive sheep and cattle grazing of remnant native vegetation. There will be no pasture, cropping or (very likely) any other commercial activities. There are no mineral leases over PL 214 (e.g. opal mining).

Bridgeport Risk Allocation

D.14.1. Bridgeport have assessed the likelihood of industrial uses being impacted by the previous exercise of underground water rights as a Likelihood of F, or Incapable of Occurring, with the explanation being (2) Impossible to occur physically. The consequence of impact is Insignificant, leading to a 'No risk' assessment. Actions required from this risk allocation include applying relevant safeguards (e.g. monitoring) and escalating the risk level if appropriate. This conclusion is appropriate because there are currently no industrial uses or programs whose water quality values would be impacted by previous operators exercising underground water rights.

D.14.2.i. Bridgeport have assessed the likelihood of irrigation industrial uses being impacted by the exercise of underground water rights for the next three years as a Likelihood of F, or Incapable of Occurring, with the explanation being (2) Impossible to occur physically. The consequence of impact is Insignificant, leading to a 'No risk' assessment. Actions required from this risk allocation include applying relevant safeguards (e.g. monitoring) and escalate risk level if appropriate. This conclusion is appropriate because there are currently no industrial uses or programs whose water quality values would be impacted by exercising underground water rights over the next three years.

D.14.2.ii. Bridgeport have assessed the likelihood of industrial use values being impacted by the exercise of underground water rights for the life of the project as a Likelihood of F, or Incapable of Occurring, with the explanation being (2) Impossible to occur physically. The consequence of impact is Insignificant, leading to a 'No risk' assessment. Actions required from this risk allocation include applying relevant safeguards (e.g. monitoring) and escalate risk level if appropriate. This conclusion is appropriate because there are currently no industrial uses or programs whose water quality values would be impacted by exercising underground water rights over the life of the project.

D.15 Cultural and spiritual values

Definition: Means scientific, social or other significance to the present generation or past or future generations, including Aboriginal people or Torres Strait Islanders.

- custodial, spiritual, cultural and traditional heritage, hunting, gathering and ritual responsibilities
- symbols, landmarks and icons (such as waterways, turtles and frogs)
- lifestyles (such as agriculture and fishing).

Description

The Utopia tenement overlays the Native Title Claim of the Boonthamurra and Kullilli People. These claims are represented by several classifications by the Aboriginal and Torres Strait Islander Partnerships. The Native Title claims are represented graphically over the Utopia Bridgeport tenement in Figure 15.

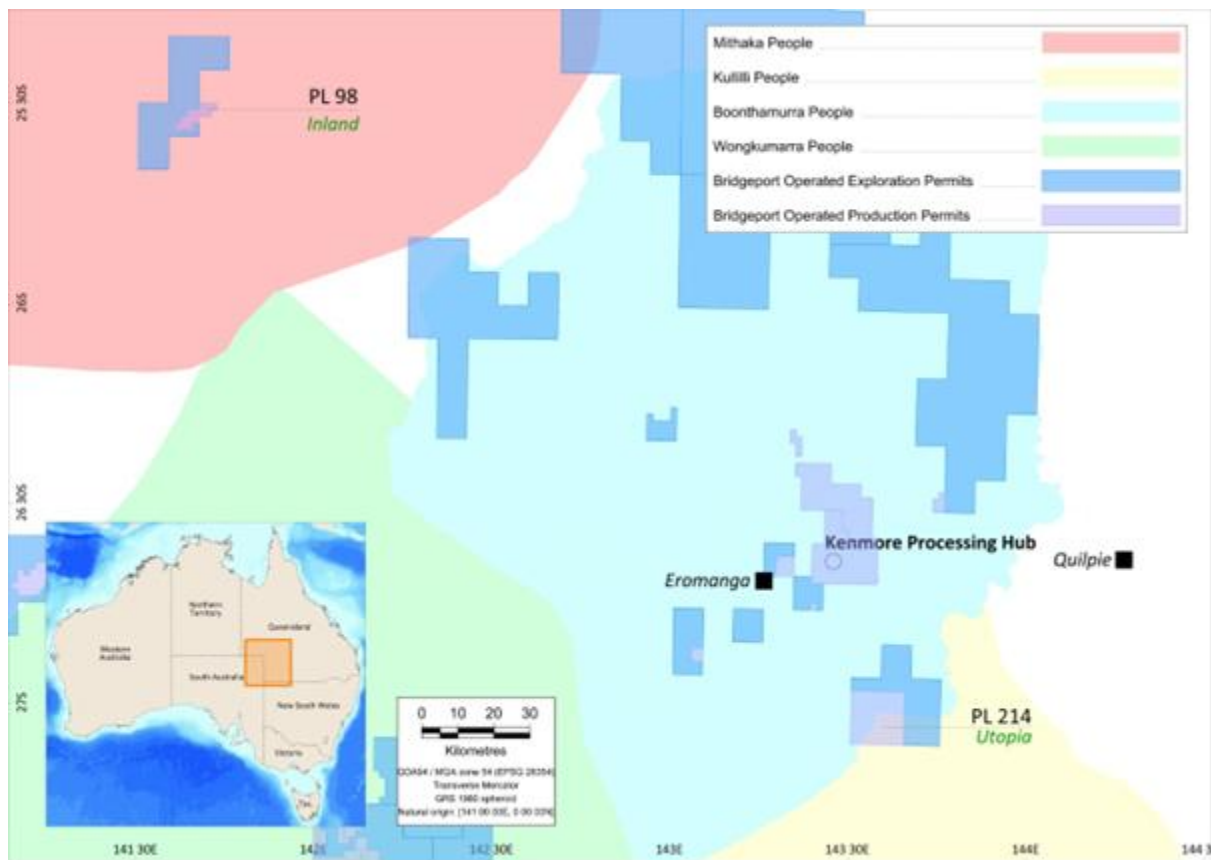


Figure 15: The Native Title claim relevant to the Utopia tenement is the Boonthamurra People and Kullilli People, who have a determination over this land.

Bridgeport has a Native Title Policy that guides staff and contractors on their awareness and treatment of Aboriginal cultural heritage, as well as a Cultural Heritage Management Plan with the Boonthamurra and Kullilli People that directs our working relationship and decisions on key areas of interest to both parties.

Regardless of these technical/legal agreements, Bridgeport are aware of the potential for cultural heritage points and areas to reside within the area of our lease, and potentially outside the direct leases and into areas potentially impacted by our water extraction. Bridgeport is actively engaged in protecting this cultural heritage wherever possible.

The potential impacts on cultural heritage resulting from exercising underground water rights, both in the past and into the future, would primarily be physical disturbance to surface cultural heritage, including physical objects/features (e.g., artefacts). This physical disturbance is avoided by applying industry best-practice and the processes agreed to by the

Boonthamurra and Kullilli People, for cultural clearance prior to any disturbance to undisturbed/previously uncleared areas.

These impacts could potentially occur any time physical disturbance is undertaken on Bridgeport tenements, which includes the three-year period and the projected life of the resource tenure.

To describe some of the registered physical cultural heritage recorded at the Utopia tenement, a tenement search was requested and provided by the Aboriginal and Torres Strait Islander Cultural Heritage Database and Register. All tenement searches were requested with a 5 km radius buffer around the tenement boundary. Outcomes are included in Table 13.

Table 13: Tenement Search by the Queensland Government Department of Aboriginal and Torres Strait Islander Partnerships for Utopia.

Tenement	A&TSI Cultural Heritage Site Points	A&TSI Cultural Heritage Polygons
PL 214	Yes	No

There were two recognised cultural heritage partners in PL 214, the Boonthamurra and Kullilli People. Bridgeport has appropriate cultural heritage management plans with both parties. There were no Designated Landscape Areas (DLA) and no Registered Cultural Heritage Study Areas recorded in these search areas.

Bridgeport is aware that other significant Aboriginal cultural heritage features may occur within the boundary of Bridgeport tenements. Water extraction does not and will not affect these features directly or indirectly, neither during the three-year period nor for the duration of the tenure. No physical harm to these features is likely as a result of current petroleum activities or related water extraction. When surface disturbance occurs, Bridgeport follows a comprehensive Cultural Heritage Management Plan, which involves conducting a desktop survey prior to disturbance, obtaining further on-site clearance from the relevant Native Title Party, and securing their approval to proceed with the work.

A Register of National Estate (RNE) was a register of places throughout Australia, including Commonwealth heritage places of local and state significance. Sections within the *Environment Protection and Biodiversity Conservation Act 1999* and the *Australian Heritage Council Act 2003* that referred to the RNE have since been repealed, and the register has been closed. Within the closed register (which is still searchable) there are no references to cultural heritage areas surrounding Utopia.

The following cultural heritage points have been registered and are provided by the Aboriginal and Torres Strait Islander Cultural Heritage Database and Register.

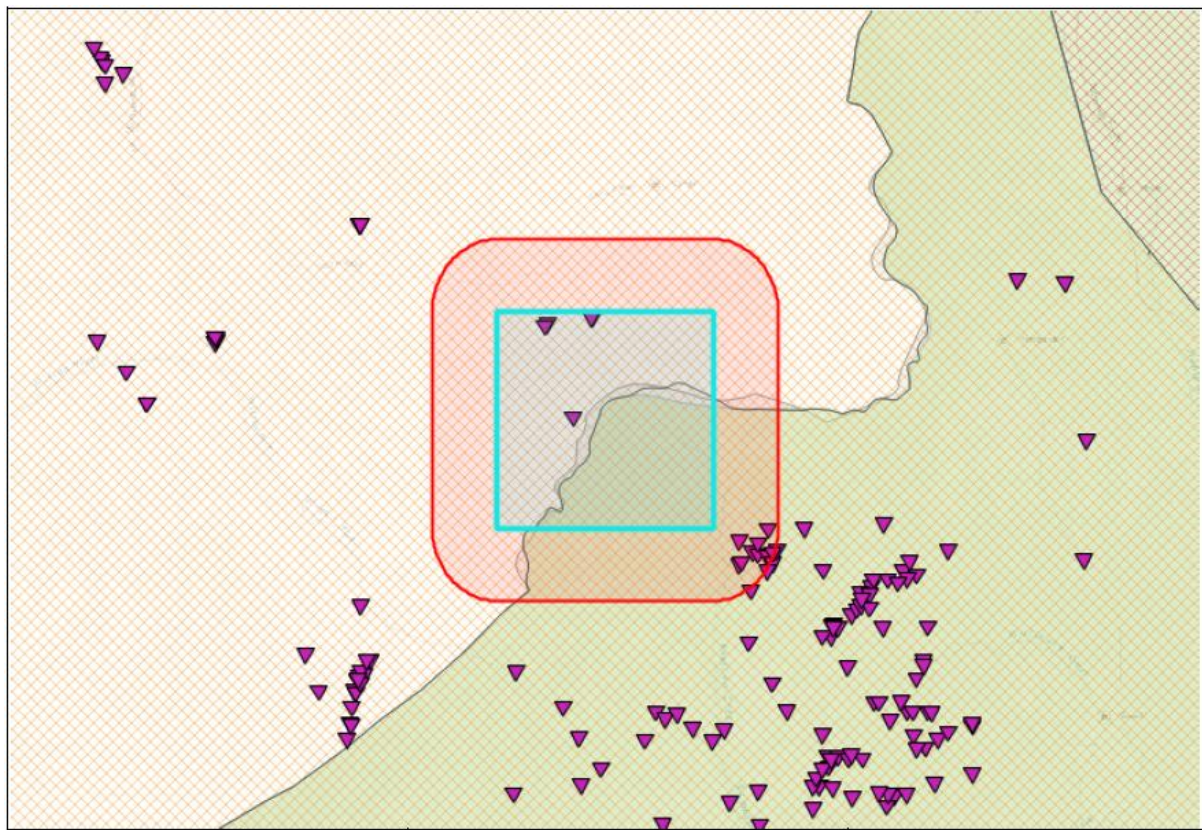


Figure 16: Cultural heritage points around the PL 214 boundary, 5 km buffer zone.

The above description of physical places of cultural significance indicates there are areas of cultural importance/value in relation to the surface area of these tenements and surrounding areas.

The impact on these cultural values has been and will be mitigated by appropriate Aboriginal Cultural Heritage clearance and management procedures prior to physical disturbance.

Bridgeport Risk Allocation

D.15.1. Bridgeport have assessed the likelihood of Cultural and spiritual values being impacted by the previous exercise of underground water rights as a Likelihood of E, or Rare, with the explanation being (1) Foreseeable but not normally expected to occur. The consequence of impact is High, leading to a 'Medium' risk assessment. Actions required from this risk allocation include applying relevant safeguards (e.g. monitoring), reviewing for effectiveness and escalating the risk level if appropriate. This conclusion is appropriate because there have been appropriate safeguards in place to review cultural and spiritual values prior to any physical activity taking place (e.g. cultural heritage clearance by appropriate Native Title groups).

D.15.2.i. Bridgeport have assessed the likelihood of Cultural and spiritual values being impacted by the exercise of underground water rights for the following three years as a Likelihood of E, or Rare, with the explanation being (1) Foreseeable but not normally expected to occur. The consequence of impact is High, leading to a 'Medium risk' assessment. Actions required from this risk allocation include applying relevant safeguards (e.g. monitoring), review for effectiveness and escalate risk level if appropriate. This conclusion is appropriate because there has and always will be appropriate safeguards in place to review cultural and spiritual values prior to any additional physical activity taking place (e.g. cultural heritage clearance by appropriate Native Title groups).

D.15.2.ii. Bridgeport have assessed the likelihood of Cultural and spiritual values being impacted by the exercise of underground water rights for the life of the project as a Likelihood of E, or Rare, with the explanation being (1) Foreseeable but not normally expected to occur. The consequence of impact is High, leading to a 'Medium risk' assessment. Actions required from this risk allocation include applying relevant safeguards (e.g. monitoring), reviewing for effectiveness and escalating the risk level if appropriate. This conclusion is appropriate because there has and always will be appropriate safeguards in place to review cultural and

spiritual values prior to any additional physical activity taking place (e.g. cultural heritage clearance by appropriate Native Title groups) for the remainder of the project life.

D.16 Environmental Sensitive Areas (ESAs)

Definition: ESAs are areas of habitat, described as important for key ecological functions in legislation (e.g. Nature Conservation Act 1994, Marine Parks Act 2004, etc.). ESAs are split into two categories, Category A and Category B, and the appropriate formal definition can be found in the *Environment Protection Regulation 2019*.

Description

The Queensland Government's Department of Environment and Science's website has been used to determine the geographic extent of the PL 214 tenement boundary in relation to environmentally sensitive areas (ESAs).

1: Environmentally Sensitive Areas (ESAs) – non-mining resource activities

Environmentally sensitive areas (ESAs) are defined in the *Environmental Protection Regulation 2019* (Schedule 19, Part 1, Section 2). There are multiple Categories of ESA, category A and B. The most applicable ESAs relating to the Bridgeport tenements in Utopia include:

(a) any of the following areas under the Nature Conservation Act 1992

- i. a coordinated conservation area (e.g. conservation park, national park, marine park etc.);*
- ii. an area of critical habitat or major interest identified under a conservation plan;*
- iii. an area subject to an interim conservation order;*

(b) an area subject to the following conventions to which Australia is a signatory

- i. the 'Convention on the Conservation of Migratory Species of Wild Animals' (Bonn, 23 June 1979);*

- ii. *the 'Convention on Wetlands of International Importance, especially as Waterfowl Habitat' (Ramsar, Iran, 2 February 1971);*
- iii. *the 'Convention Concerning the Protection of the World Cultural and Natural Heritage' (Paris, 23 November 1972);*

(e) the following under the Queensland Heritage Act 1992

- i. *a place of cultural heritage significance;*
- ii. *a Queensland heritage place, unless there is an exemption certificate issued under that Act;*

(f) an area recorded in the Aboriginal Cultural Heritage Register established under the Aboriginal Cultural Heritage Act 2003, section 46, other than the area known as the 'Stanbroke Pastoral Development Holding', leased under the Land Act 1994 by lease number PH 13/5398;

(g) a feature protection area, State forest park or scientific area under the Forestry Act 1959;

(h) a declared fish habitat area under the Fisheries Act 1994;

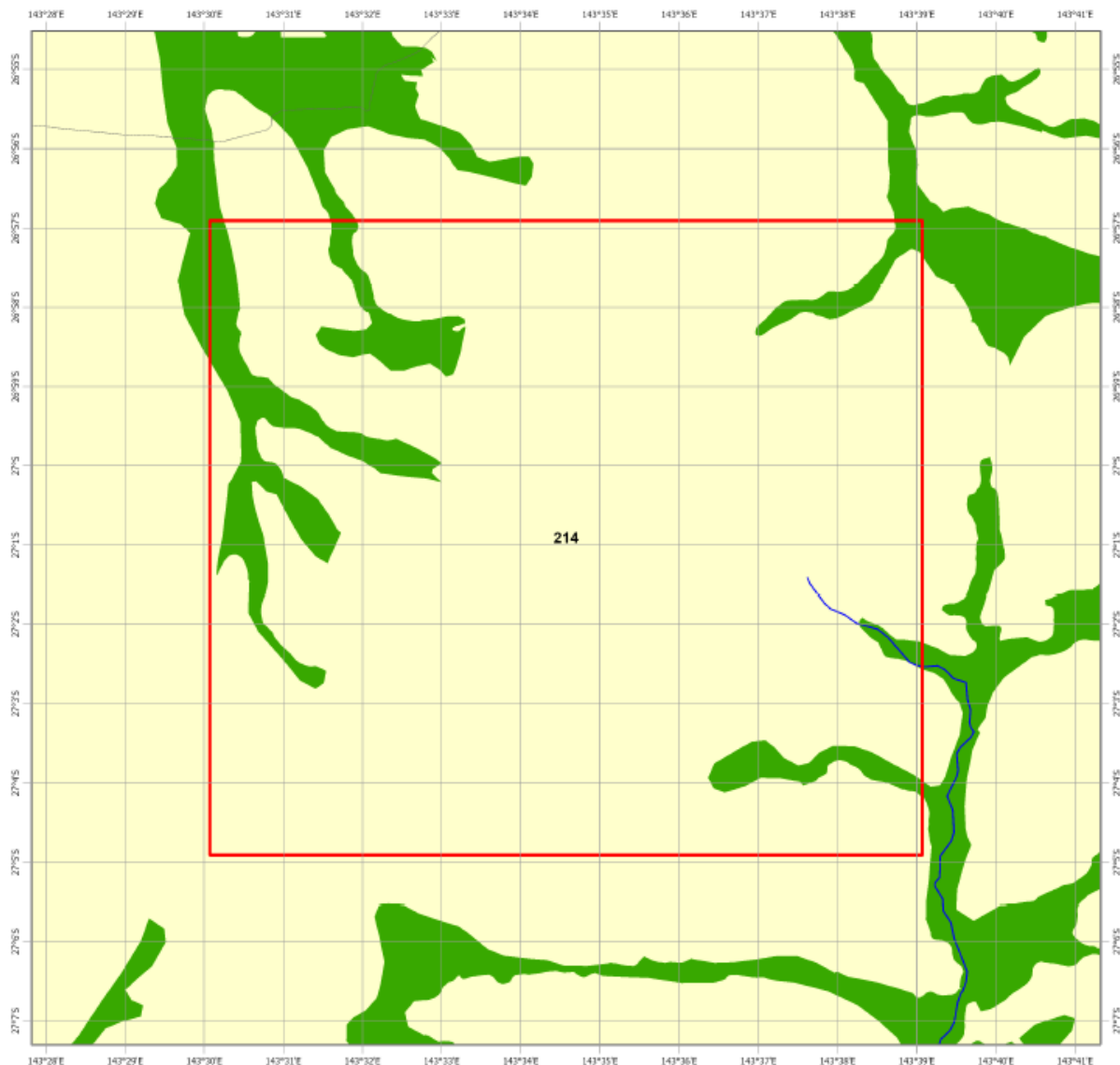
(j) an endangered regional ecosystem identified in the database known as the 'Regional ecosystem description database' published on the department's website.

The Queensland Government Department of Environment and Science Maps of environmentally sensitive areas webpage was used to access information on ESAs relevant to specific resource authority boundaries (in this instance, petroleum lease PL 214).

These maps were used to overlay each ESA category on the boundary of the Utopia tenement (Figure 17). There are no ESAs present on PL 214 as defined in the *Environmental Protection Regulation 2019*. Some "Of concern Regional Ecosystems" (remnant biodiversity status) are mapped in the area surrounding the petroleum facilities; however, this vegetation is not impacted by petroleum activities. A river tributary is mapped to the southeast of the

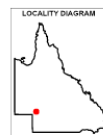
tenement; however, it is 3-4 km away from the nearest petroleum asset. Furthermore, there is no discharge of produced water from the Utopia facility.

As shown by these maps, there are no areas designated as Category A (e.g., National or Conservation Parks) or Category B (e.g., heritage, special habitat) within or near Utopia.



ENVIRONMENTALLY SENSITIVE AREAS - non-mining resource activities (EP Act)

- | | |
|--|---|
| CATEGORY A
<ul style="list-style-type: none"> National Parks Conservation Parks Forest Reserves Special Wildlife Reserve Wet Tropics World Heritage Area Great Barrier Reef Region Marine Parks other than General Use Zones | CATEGORY C
<ul style="list-style-type: none"> Essential Habitat Koala Plan Nature Refuges Resources Reserve State Forests Timber Reserves Of Concern Regional Ecosystems |
| CATEGORY B
<ul style="list-style-type: none"> Queensland Heritage Register Places Ramsar Sites Cultural Heritage Registered Areas and DLA's other than Stanbrooke Special Forestry Areas Seward Side of Highest Astronomical Tide Fish Habitat Areas Coordinated Conservation Areas Endangered Regional Ecosystems - regrowth and remnant (Biodiversity Status) General Use Zones of Marine Parks Marine Plants Selected Petroleum Lease (PL) | OTHERS
<ul style="list-style-type: none"> Towns Roads Rivers Springs Queensland |



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NOTE TO USER: Themes presented in this map are indicative only. Field survey may be required to verify the 'true' spatial extent and value. Not all environmentally sensitive areas are presented in this map. A user should refer to the particular circumstances relevant to their situation to assess the 'completeness' of themes provided.

The user should note that some boundaries and indicated values are ambient and may change over time (e.g. regional ecosystem boundaries and conservation status, watercourse mapping etc).

The user should be aware that due to multiple overlapping themes/layers present, some themes/layers may be obscured by others. Ordering in the Legend does not accurately reflect the order by which themes/layers are displayed.

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Figure 17: Environmentally sensitive areas around the petroleum lease PL 214.

2: Environmentally Sensitive Areas (Category A, B & C Vegetation) under the *Environmental Protection Regulation 2019*

To provide a description of the land and ecosystems on which PL 214 petroleum activities occur, mapping data from the State of Queensland has been used. The mapping shows broad regional ecosystems, defined by vegetation communities that are consistently associated with a combination of geology, landform and soil type. Within these regional ecosystems, a wide variety of vegetation types can be found.

A description of the regional ecosystem's broad vegetation groups found within PL 214 is provided in Table 14.

Table 14: A detailed summary of each regional ecosystem in PL 214.

RE	BVG Short Description	BVG (BVG1M)	Component Regional Ecosystem Short Description	Vegetation Management Act Class	Biodiversity Status
6.3.3	<i>Eucalyptus camaldulensis</i> ± <i>E. coolabah</i> ± <i>E. populnea</i> , <i>Acacia stenophylla</i> woodland on alluvium	16a	Open forests and woodlands dominated by <i>Eucalyptus</i>	Least Concern	Of Concern
6.3.5	<i>Eucalyptus ochrophloia</i> +/- <i>Acacia cambagei</i> +/- <i>E. coolabah</i> woodland on alluvium	16a	Open forests and woodlands dominated by <i>Eucalyptus</i>	Least Concern	No Concern at Present
6.3.6	<i>Acacia cambagei</i> low woodland on braided channels or alluvial plains	31a, 26a	Open forblands to open tussock grasslands	Least Concern	No Concern
6.3.13	<i>Atriplex</i> spp., <i>Sclerolaena</i> spp., species of <i>Asteraceae</i> and/or short grasses open herb land on alluvial plains	31a, 26a	Open forblands to open tussock grasslands	Least Concern	No Concern
6.5.8	<i>Acacia aneura</i> , <i>Eucalyptus populnea</i> +/- <i>Eremophila gilesii</i> subsp. <i>gilesii</i> low woodland	23a	Woodlands to low woodlands dominated by <i>Acacia aneura</i>	Least Concern	No Concern at Present
6.5.16	<i>Acacia aneura</i> groved with <i>Corymbia terminalis</i> or <i>C. blakei</i> tall open shrubland on Quaternary sediments	23a	Woodlands to low woodlands dominated by <i>Acacia aneura</i>	Least Concern	No Concern at Present
6.7.7	<i>Acacia catenulata</i> ± <i>Eucalyptus thozetiana</i> and/or <i>A. ensifolia</i> low open woodland with <i>Triodia</i> spp. and/or <i>A. petraea</i> ± <i>A. aneura</i> on scarps and plateaus	24a, 23b	Low woodlands to tall shrublands dominated by <i>Acacia</i> spp. on residuals	Least Concern	No Concern
6.7.9	<i>Acacia aneura</i> ± <i>A. clivicola</i> ± <i>Eremophila latrobei</i> tall open shrubland on residuals	24a, 23b	Low woodlands to tall shrublands dominated by <i>Acacia</i> spp. on residuals	Least Concern	No Concern
6.7.14	<i>Acacia clivicola</i> ± <i>Eucalyptus</i> spp. open shrubland on crests and tops of residuals.	24a, 23b	Low woodlands to tall shrublands dominated by <i>Acacia</i> spp. on residuals	Least Concern	No Concern
6.7.17	<i>Eriachne mucronata</i> open grassland wooded with <i>Acacia aneura</i> and/or <i>Corymbia terminalis</i> on plains or flat tops of residuals	23a	Woodlands to low woodlands dominated by <i>Acacia aneura</i>	Least Concern	No Concern at Present
6.9.4	<i>Acacia cambagei</i> , <i>Senna</i> spp., <i>Sida platycalyx</i> tall open shrubland on undulating mantled pediments and scarp retreat zones	24a, 23b	Low woodlands to tall shrublands dominated by <i>Acacia</i> spp. on residuals	Least Concern	No Concern at Present

3: Matters of National Environmental Significance (MNES) under the *Environmental Protection and Biodiversity Conservation Act (1999)*

To assess Matters of National Environmental Significance (MNES) under the *Environmental Protection and Biodiversity Conservation Act 1999*, the Australian Federal Government's Protected Matters Interactive Search Tool was used. A radius was extended from a central coordinate within the PL 214 Utopia tenement to cover a 12 km search radius from the central point. The MNES search tool provides details of matters intersecting the user-defined search area. The tool lists all matters which "may occur in, or may relate to" the search area, so this resource is an indicative tool only. Regarding threatened species, the tool compares the search area to known distribution ranges for each species, categorised as "Species or species habitat likely to occur" and "Species or species habitat may occur" within the search area. The species listed below may or may not occur within PL 214, and local knowledge should be applied.

A list of the threatened species distributions that may occur within and surrounding PL 214 are shown in Table 15. The list includes birds, mammals, vegetation, fish and reptiles.

Table 15: A list of Threatened Species surrounding PL 214.

Species		
Species Name	Status	PL 214
Birds		
Curlew Sandpiper (<i>Calidris ferruginea</i>)	Critically Endangered	√
Grey Falcon (<i>Falco hypoleucos</i>)	Vulnerable	√
Painted Honeyeater (<i>Grantiella picta</i>)	Vulnerable	√
Plains-wanderer (<i>Pedionomus torquatus</i>)	Critically Endangered	√
Night Parrot (<i>Pezoporus occidentalis</i>)	Endangered	√
Australian Painted Snipe (<i>Rostratula australis</i>)	Endangered	√
Mammals		
Yellow-footed Rock Wallaby (<i>Petrogale xanthopus celeris</i>)	Vulnerable	√
Vegetation		
Unknown Burr (<i>Sclerolaena walker</i>)	Vulnerable	√
Unknown (<i>Xerothamnella parvifolia</i>)	Vulnerable	√
Fish		
Flinders Ranges Mogurnda or Flinders Ranges Purple-Spotted Gudgeon (<i>Mogurnda clivicola</i>)	Vulnerable	√

The search using the MNES tool details Wetlands of National Environmental Significance and Wetlands of International Importance (Ramsar). There is one wetland approximately 200 - 300 km upstream of the tenement. The wetland, known as Coongie Lakes, is not impacted by Bridgeport Petroleum activities (Table 16).

Table 16: A list of Wetlands of International Importance (Ramsar listed), surrounding PL 214.

Wetland		
Wetland Name	Status	Proximity
Coongie Lakes	Ramsar Listed	200-300 m (Upstream)

The region is less critical for migratory species because water sources are scarce. Nevertheless, some listed migratory species, as identified under the EPBC Act, may occur on or near the Utopia tenement (see Table 17).

Table 17: A list of Listed Migratory Species surrounding PL 214.

Species		
Species Name	Status	PL 214
Birds		
Fork-tailed Swift (<i>Apus pacificus</i>)	Threatened	✓
Grey Wagtail (<i>Motacilla cinerea</i>)	Threatened	✓
Yellow Wagtail (<i>Motacilla flava</i>)	Threatened	✓
Common Sandpiper (<i>Actitis hypoleucos</i>)	Threatened	✓
Sharp-tailed Sandpiper (<i>Calidris acuminata</i>)	Threatened	✓
Curlew Sandpiper (<i>Calidris ferruginea</i>)	Threatened	✓
Pectoral Sandpiper (<i>Calidris melanotos</i>)	Threatened	✓
Latham's Snipe, Japanese Snipe (<i>Gallinago hardwickii</i>)	Threatened	

There are also invasive species found within the area of PL 214 (Table 18).

Table 18: A list of Invasive Species surrounding PL 214.

Invasive Species	
Species Name	Type of Presence
Birds	
Rock Pigeon (<i>Columba livia</i>)	Species or species habitat may occur within area
House Sparrow (<i>Passer domesticus</i>)	Species or species habitat may occur within area
Mammals	
Domestic Dog (<i>Canis lupus familiaris</i>)	Species or species habitat may occur within area
Goat (<i>Capra hircus</i>)	Species or species habitat may occur within area
House/Domestic Cat (<i>Felis catus</i>)	Species or species habitat may occur within area
House Mouse (<i>Mus musculus</i>)	Species or species habitat may occur within area

European Rabbit (<i>Oryctolagus cuniculus</i>)	Species or species habitat may occur within area
Pig (<i>Sus scrofa</i>)	Species or species habitat may occur within area
Red Fox (<i>Vulpes vulpes</i>)	Species or species habitat may occur within area
Vegetation	
Parkinsonia, Jerusalem Thorn, Horse Bean (<i>Parkinsonia aculeata</i>)	Species or species habitat may occur within area

4: Matters of State Environmental Significance (MSES) under the *Environmental Offsets Regulation 2014*

There are no areas that trigger an Offset requirement³ within the boundaries of PL 214.

5: Areas of regional interest under the *Regional Planning Interest Act 2014*

To identify areas of regional interest under the *Regional Planning Interest Act 2014*, three layers were surveyed: Queensland Regional Planning Interests Priority Living Areas, Priority Agricultural Areas, and Strategic Environmental Areas. None of these planning interests overlap with PL 214 Utopia.

6: Endangered, vulnerable, rare or near threatened wildlife species under the *Nature Conservation Act 1992*

To determine areas of endangered, vulnerable, rare, or near-threatened wildlife species under the *Nature Conservation Act 1992*, layers from the Queensland Spatial Catalogue, including protected areas, coordinated conservation areas, nature refuges, and special wildlife areas of Queensland, were applied. None were present within PL 214 Utopia.

³ Spatial Catalogue layer: MSES_Legally_secured_offset_area_vegetation_offsets.shp

Table 19: Summary of the important environmental features of the land to which the UWIR applies, using spatial layering from the DETSI.

Category	PL 214	GIS data used to determine relevance*
1: Environmentally Sensitive Areas (ESAs) – non-mining resource activities	☒ No ☐ Yes	Queensland Government Department of Environment and Sciences' Maps of environmentally sensitive areas webpage
2: Category A environmentally sensitive areas (ESA) under the Environmental Protection Regulation (201908)	☒ No ☐ Yes	Vegetation_management_regional_ecosystem_map
~~32~~: Category B & ~~C~~ environmentally sensitive areas (ESA) under the Environmental Protection Regulation 2008	☒ No ☐ Yes	MSES__Regulated_vegetation__category_B_endangered_or_of_concern.shp) ~~MSES__Regulated_vegetation__category_C_endangered_or_of_concern.shp}~~
~~43~~: Matters of National Environmental Significance (MNES) under the <i>Environmental Protection and Biodiversity Conservation Act 1999</i>	☐ No ☒ Yes	Australian Federal Governments Protected Matters Interactive Search Tool, that provides indicative ranges. <u>PL214 is within the potential distribution of some MNES.</u>
~~54~~: Matters of State Environmental Significance (MSES) under the <i>Environmental Offsets Regulation 2014</i>	☒ No ☐ Yes	Matters of state environmental significance - Legally secured offset area - offset register Matters of state environmental significance - Legally secured offset area – vegetation offsets
~~65~~: Areas of regional interest under the <i>Regional Planning Interest Act 2014</i>	☒ No ☐ Yes	Regional_planning_interests_Priority_living_area Regional_planning_interests_Priority_agricultural_area Regional_planning_interests_Strategic_environmental_area
~~76~~: Endangered, vulnerable, rare or near threatened wildlife species under the <i>Nature Conservation Act 1992</i>	☒ No ☐ Yes	Protected_areas (estate) Protected_areas (nature refuges) Nature Conservation Act Protected Plant Species
~~87~~: Watercourse, wetlands, springs (including relevant environmental values) or river improvement trust asset areas	☒ No ☐ Yes	Watercourse areas Major watercourse lines Groundwater Dependent Ecosystems (Watercourses) Pondage Water plan (waterholes and lakes) Active Springs Directory of important wetlands Groundwater Dependent Ecosystems (Springs) MSES (high ecological significance wetlands) Watercourse identification map (watercourses)

		River Improvement Trust Areas (Queensland)
--	--	--

Bridgeport Risk Allocation (historical, next 3 years and until end of project life)

D.16.1 Bridgeport have assessed the likelihood of environmentally sensitive areas being impacted by the historical exercise of underground water rights as a Likelihood of E, or Rare, with the explanation being (2) May occur in exceptional circumstances. The consequence of impact is Moderate, leading to a 'Low' risk assessment. Actions required from this risk allocation include applying relevant safeguards (e.g. monitoring), reviewing for effectiveness and escalating the risk level if appropriate. This conclusion is appropriate because there are no environmentally sensitive areas that would be impacted on or near PL 214, and there have been appropriate safeguards in place to review environmentally sensitive areas prior to any physical activity taking place.

D.16.2.i. Bridgeport have assessed the likelihood of environmentally sensitive areas being impacted by the exercise of underground water rights for the following three years as a Likelihood of E, or Rare, with the explanation being (2) May occur in exceptional circumstances. The consequence of impact is Moderate, leading to a 'Low risk' assessment. Actions required from this risk allocation include applying relevant safeguards (e.g. monitoring), reviewing for effectiveness and escalating the risk level if appropriate. This conclusion is appropriate because there are no environmentally sensitive areas that would be impacted on or near PL 214, and there has been appropriate safeguards in place to review environmentally sensitive areas prior to any physical activity taking place, and these are not likely to change in the coming three years.

D.16.2.ii. Bridgeport have assessed the likelihood of environmentally sensitive areas being impacted by the exercise of underground water rights for the remaining project period as a Likelihood of E, or Rare, with the explanation being (2) May occur in exceptional circumstances. The consequence of impact is Moderate, leading to a 'Low risk' assessment. Actions required from this risk allocation include applying relevant safeguards (e.g. monitoring), reviewing for effectiveness and escalating the risk level if appropriate. This conclusion is appropriate because there are no environmentally sensitive areas that would be

impacted on or near PL 214, and there will likely be no significant change to ESAs in the future of the project.

Environmental Value Conclusions

The PL 214 tenement occurs in a rugged part of south-western Queensland. The land has been influenced by broad-scale agricultural land grazing and experiences a hot, low-rainfall climate. Search tools indicate limited environmental values across a broad area and in proximity to petroleum production assets. Environmental values present do not rely on groundwater (e.g. are not groundwater-dependent ecosystems). Licenced extraction of water occurs from discrete formations sub 1000 m below the surface. These formations are geologically and artificially (engineered concrete and steel) isolated from the primary water source utilised by environmental values in the Winton Formation (sub 100m). As a result, the likelihood of environmental values being impacted is rare, unlikely or incapable of occurring.

Results of the risk assessment are summarised in Table 20.

Table 20: Important environmental sensitive areas and the associated likelihood, consequence and associated environmental risk to Utopia, using justifications in individual sections above.

Section	Environmental Value	UWIR Requirement	Likelihood	Consequence	Environmental Risk
D.1	Aquatic ecosystem	D.1.1	Unlikely	Minor	Low
		D.1.2.i	Unlikely	Minor	Low
		D.1.2.ii	Unlikely	Minor	Low
D.2	High ecological/conservation value waters	D.2.1	Incapable of occurring	Insignificant	No Risk
		D.2.2.i	Incapable of occurring	Insignificant	No Risk
		D.2.2.ii	Incapable of occurring	Insignificant	No Risk
D.3	Slightly disturbed waters	D.3.1	Incapable of occurring	Insignificant	No Risk
		D.3.2.i	Incapable of occurring	Insignificant	No Risk
		D.3.2.ii	Incapable of occurring	Insignificant	No Risk
D.4	Moderately disturbed waters	D.4.1	Incapable of occurring	Insignificant	No Risk
		D.4.2.i	Incapable of occurring	Insignificant	No Risk
		D.4.2.ii	Incapable of occurring	Insignificant	No Risk
D.5	Highly disturbed waters	D.5.1	Unlikely	Minor	Low
		D.5.2.i	Unlikely	Minor	Low
		D.5.2.ii	Unlikely	Minor	Low
D.6	Irrigation	D.6.1	Incapable of occurring	Insignificant	No Risk
		D.6.2.i	Incapable of occurring	Insignificant	No Risk
		D.6.2.ii	Incapable of occurring	Insignificant	No Risk
D.7	Farm water supply/use	D.7.1	Incapable of occurring	Insignificant	No Risk
		D.7.2.i	Incapable of occurring	Insignificant	No Risk
		D.7.2.ii	Incapable of occurring	Insignificant	No Risk

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D.8	Stock watering	D.8.1	Rare	Minor	Low
		D.8.2.i	Rare	Minor	Low
		D.8.2.ii	Rare	Minor	Low
D.9	Human consumers of aquatic foods	D.9.1	Incapable of occurring	Insignificant	No Risk
		D.9.2.i	Incapable of occurring	Insignificant	No Risk
		D.9.2.ii	Incapable of occurring	Insignificant	No Risk
D.10	Primary recreation	D.10.1	Incapable of occurring	Insignificant	No Risk
		D.10.2.i	Incapable of occurring	Insignificant	No Risk
		D.10.2.ii	Incapable of occurring	Insignificant	No Risk
D.11	Secondary recreation	D.11.1	Incapable of occurring	Insignificant	No Risk
		D.11.2.i	Incapable of occurring	Insignificant	No Risk
		D.11.2.ii	Incapable of occurring	Insignificant	No Risk
D.12	Visual recreation	D.12.1	Incapable of occurring	Insignificant	No Risk
		D.12.2.i	Incapable of occurring	Insignificant	No Risk
		D.12.2.ii	Incapable of occurring	Insignificant	No Risk
D.13	Drinking water supply	D.13.1	Incapable of occurring	Insignificant	No Risk
		D.13.2.i	Incapable of occurring	Insignificant	No Risk
		D.13.2.ii	Incapable of occurring	Insignificant	No Risk
D.14	Industrial use	D.14.1	Incapable of occurring	Insignificant	No Risk
		D.14.2.i	Incapable of occurring	Insignificant	No Risk
		D.14.2.ii	Incapable of occurring	Insignificant	No Risk
D.15	Cultural and spiritual values	D.15.1	Rare	High	Medium
		D.15.2.i	Rare	High	Medium
		D.15.2.ii	Rare	High	Medium

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D.16	Environmentally Sensitive Areas	D.16.1	Rare	Moderate	Low
		D.16.2.i	Rare	Moderate	Low
		D.16.2.ii	Rare	Moderate	Low

Part E: Water monitoring strategy

Requirements under section 378 of the Water Act

To meet the requirements of the Water Act, an UWIR must include the following;

1. A rationale for the strategy
2. A timetable for strategy
3. The parameters to be measured
4. The locations for taking measurements
5. The frequency of the measurements
6. A program for the responsible tenure holder or holders to undertake a baseline assessment for each water bore that is outside the area of a resource tenure, but within the predicted LTAA; and
7. A program for reporting to the OGIA about the implementation of the monitoring strategy.

*Part E refers to Section 5.1.5 (page 18) of the guideline (DETSI 2025).

Based on the hydrogeological conceptualisation and the findings of the groundwater impact assessment for both IAA and the LTAA outlined in this UWIR, the groundwater resources potentially impacted from Bridgeport's PL214 operations are the oil reservoir formations, namely, the Murta Formation in the Hooray Sandstone. These aquifers are located at depths of 800 -1,000 metres below the shallow groundwater extraction zones, such as the Winton Formation used by pastoralists. The upper formations are also hydraulically separated by the Allaru, Toolebuc and Wallumbilla aquitard layer.

Although no adverse impacts on environmental or pastoral values within either the IAA or LTAA are anticipated, a groundwater monitoring program is proposed to validate these predictions. In addition to the ongoing pressure monitoring of six production wells, it is proposed that two nearby registered bores (Bore ID 6377 and 10423) also be included in the monitoring network to confirm that no impacts are occurring at these existing groundwater

users (Winton Formation). Standing water level will be measured via manual dip where feasible. Water monitoring at the two registered bores will commence in 2026.

If the nominated monitoring bores are not suitable due to access for equipment or other factors, then an alternative bore targeting similar depths will be used. Updated monitoring bore information will be provided in the UWIR annual review.

Water extraction rates for all production wells are monitored on an ongoing basis. Bridgeport has also adopted a surface condition (pressure) monitoring program for shut-in wells in PL214. The objective of this program is to take periodic measurements of the shut-in wellhead pressure (SITHP) at selected shut-in wells across the fields. The wells are selected based on their current shut-in status and suitability for monitoring, as well as their spread across the field and access to the relevant producing formations. Significant changes in reservoir pressure can indicate alterations in wellbore or reservoir conditions. Shut in well pressures will be reviewed annually to assess impacts to aquifer pressure and inferred water levels.

Details of the monitoring bores are shown in Table 21.

An annual review of monitoring data will be undertaken to determine whether there are any material changes in groundwater conditions or changes to the existing conceptual model. Results of the annual monitoring data review and water monitoring strategy implementation will be reported in the annual report. If gaps are identified in the water monitoring strategy, then additional programs will be developed and detailed in the annual UWIR review.

Ongoing water monitoring and assessment will improve the understanding of the impacts of underground water extraction on aquifers by providing long-term data recording changes to aquifer conditions in response to specific extraction rates.

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Table 21: Details of UWIR groundwater monitoring parameters and frequency

Bore ID ¹	Formation	Tenure	Type	Location	Aquifer pressure (SITHP)	Volume extracted	Water level	Water Quality	
								Parameters	Frequency
6377	Winton	PL214	Shallow Pastoral bore	-27.03207873, 143.51675832	-	-	Manual dip where feasible (annual)	pH, EC/TDS, Hardness, Ca, Mg, NO ₂ /NO ₃ , SO ₄ and Cl	Annually
10423	Winton	PL214	Shallow Pastoral bore	-27.06652301, 143.53870289	-	-	Manual dip where feasible (annual)	pH, EC/TDS, Hardness, Ca, Mg, NO ₂ /NO ₃ , SO ₄ and Cl	Annually
Utopia 9	Murta	PL214	Oil production	-27.03978 143.5620	Quarterly	Monthly	-	-	-
Utopia 10	Murta	PL214	Oil production	-27.04037 143.558032	Quarterly	Monthly	-	-	-
Utopia 15	Murta	PL214	Oil production	-27.04535 143.597	Quarterly	Monthly	-	-	-
Utopia 16	Murta	PL214	Oil production	-27.052020 143.598199	Quarterly	Monthly	-	-	-
Utopia 17	Murta	PL214	Oil production	-27.076301 143.543713	Quarterly	Monthly	-	-	-
Utopia 18	Murta	PL214	Oil production	-27.055162 143.551016	Quarterly	Monthly	-	-	-

¹ The specific bore to be monitored is to be determined in collaboration with the relevant landholder for the water bores and shut in status for the production wells.

Part F*: Spring impact management strategy

Requirements under section 379 of the Water Act

To meet the requirements of the Water Act, an UWIR must include the following:

1. The details of the spring, including its location;
2. An assessment of the connectivity between the spring and the aquifer(s) over which the spring is located;
3. The predicted risk to, and likely impact on, the ecosystem and cultural and spiritual values of the spring because of the decline in water level of the aquifer over which the spring is located;
4. A strategy for preventing or mitigating the predicted impacts outlined above; or if a strategy for preventing or mitigating the predicted impacts is not included, the reason for not including the strategy;
5. A timetable for implementing the strategy; and
6. A program for reporting to OGIA about the implementation of the strategy.

*Part F refers to Section 5.1.6 (page 20) of the guideline (DETSI 2025).

There are no Great Artesian Basin (GAB) Springs within Utopia's boundaries or near the tenement. The closest GAB Spring is 157 km southeast of Utopia. Given the low extraction volumes, the absence of drawdown in modelling, the distance to the springs, and the vastly different depth of the target aquifer compared to any surface feature dependent on groundwater, it is concluded that there is no connection between this spring and the aquifers that might be affected by Bridgeport and its extraction.

No other Groundwater Dependent Ecosystem (GDE) has been identified within or near the boundaries of PL 214.

The predicted risk and impact to springs is therefore zero, given their complete absence from areas related to resource extraction, including within or near the tenement boundaries of PL 214 Utopia or the LTAA/IAA/drawdown.

Part G (a)*: For a CMA assign responsibility to resource tenure holders

Requirements under section 365, 369, 374 *et. al.* of the Water Act

If OGIA is responsible for preparing the UWIR or final report, the UWIR must:

1. Propose a responsible tenure holder for each report obligation; and
2. For each IAA, propose a responsible tenure holder who must comply with any make good obligations for water bores within the IAA.

Report obligations may include obligations relating to Part E and F of the UWIR.

*Part G refers to Section 5.1.7 (page 24) of the guideline (DETSI 2025).

Under the Water Act, a Cumulative Management Area (CMA) can be declared where multiple resource tenures operate, which may have a combined impact on groundwater from their resource extraction.

The Queensland Chief Executive has declared the Surat Cumulative Management Area under the *Water Act 2000*. The GKBA tenements (PL 31, 32 & 47, PL 1064, PL1063), as well as Utopia (PL 214) and Inland (PL 98), are not within this declared Cumulative Management Area, or any other declared CMA. The Surat Cumulative Management Area is the only CMA in Queensland. Therefore, there is no responsible tenure holder nor obligation related to a CMA for this UWIR.

Part G (b): Final Reports

Requirements under section 377 of the Water Act

In addition, a final report must include the following additional information to meet the requirements of the Water Act:

1. A summary about underground water bores in the LTAA (including the number of bores and the location and authorised use or purpose of each bore)
2. A summary about how the make good obligations of the responsible tenure holder for each water bore to which the final report relates have been complied with by the holder over the term of the tenure;
3. A summary of the make good obligation of the responsible tenure holder for each water bore that have not yet been complied with by the holder and a plan about how these obligations will be complied with; and
4. Statements about any matters outlined in previous strategies that have not yet been complied with, along with a timetable of planned actions to address these outstanding matters.

*Part G refers to Section 6 (page 24) of the guideline (DETSI 2025).

A summary about underground water bores in the LTAA (including the number of bores and the location and authorised use or purpose of each bore);

Modelling by WSP (results in sections above) calculated no wells in unconsolidated aquifers that will be affected by an IAA or LTAA.

A summary about how the make good obligations of the responsible tenure holder for each water bore to which the final report relates have been complied with by the holder over the term of the tenure;

There are no make good obligations that the responsible tenure holder has identified to be complied with, as no bores sit within an IAA or LTAA.

A summary about how the make good obligations of the responsible tenure holder for each water bore to which the final report relates have been complied with by the holder over the term of the tenure;

There are no make good obligations that the responsible tenure holder has not yet complied with.

Statements about any matters outlined in previous strategies that have not yet been complied with, along with a timetable of planned actions to address these outstanding matters;

There were no matters outlined in previous strategies that have not yet been complied with.
There is therefore no timetable or planned actions to address any outstanding matters.

Part H*: Additional Information, including public consultation

Requirements under section 381 and 382(3) of the Water Act

To meet the requirements under section 382(3) of the Water Act, a public notice must state the following;

- A description of the area to which the report relates;
- That copies of the report may be obtained from the responsible entity;
- How the copies may be obtained;
- That written submissions on the report may be given;
- That submissions must be given to the responsible entity;
- That a copy of the submission must be given to the Chief Executive
- A day that is at least 20 business days after the notice is published by which submissions may be made; and
- Where the submissions may be given.

*Part H refers to Section 4.5 (page 8) of the guideline (DETSI 2025).

Bridgeport conducted public consultation in accordance with the requirements of the Underground Water Impact Reports and Final Reports Guideline (DETSI 2025).

A description of the area to which the report relates;

The public consultation notice included a brief description of the area to which the report relates:

e.g. "In accordance with the requirements of Section 381 and Section 382 of the Water Act 2000 (Water Act), Bridgeport Energy Pty Ltd has developed an underground water impact report (UWIR) for its operations within PL 214 located in the Eromanga Basin, ~270km west of Charleville."

A map of the region, showing main roads, town names, highlighted tenements, and rivers (a feature many locals use), was included to visually represent the area relevant to the report (Figure 18).

That copies of the report may be obtained from the responsible entity and how the copies may be obtained;

The public consultation notice included a statement on where the report may be obtained:

e.g. "You have the opportunity to review and comment on this UWIR. You can access the UWIR by visiting www.bridgeport.net.au and You can also phone (02) 8960 8400 to arrange for a hard copy to be posted to you."

That written submissions on the report may be given and must be given to the responsible entity and where the submissions may be given;

The public consultation notice included a statement on written submissions:

e.g. "Written submissions on any of the UWIRs may be made to Bridgeport Energy Pty Ltd and mailed to:

Attn: Erik Kadri

Bridgeport Energy

Level 7, 111 Pacific Highway

Sydney NSW 2060"

That a copy of the submission must be given to the Chief Executive;

The public consultation notice included a statement on how all submissions must be given to the chief executive:

e.g. "Please note that as required by Section 382(3)(d) of the Water Act, copies of all received submissions must be provided to the Chief Executive. All submissions will be considered as part of the assessment process."

A day that is at least 20 business days after the notice is published by which submissions may be made;

The public consultation notice included a statement on a date, which was at least 20 business days after the publication notice, by which submissions could be made:

e.g. “ Your submission must be: In writing and received by COB 31/10/2025”

The public advertisement (approximately 160mm x 40mm coloured ad) has been published across multiple issues of the Maranoa Today a regional newspaper circulated in rural Queensland.

The total number of Business days the public consultation ad has been featured in The Maranoa Today was 20 business days.

The UWIR was available online [www.bridgeport.net.au] from 3/10/2025 up to 31/10/2025, which was the end of the public notice.

Bridgeport considers the publication of the Public Notice in the Maranoa Today as appropriate. The Maranoa Today publication has a distribution of Roma, Mitchell, Surat and Charleville, which was considered a relevant newspaper, appropriately distributed in rural areas. The Warrego Watchman would have been another appropriate media, but the Editor has stopped publication since May 2024.

Bridgeport used the standard template provided by DETSI for the public advertisement.

PUBLIC NOTICE

Pursuant to Section 382 of the *Water Act 2000* Release of UNDERGROUND WATER IMPACT REPORT

In accordance with the requirements of Section 381 and Section 382 of the *Water Act 2000* (Water Act), Bridgeport Energy Pty Ltd has developed an underground water impact report (UWIR) for its operations within PL 214 located in the Eromanga Basin, ~270km west of Charleville.

You have the opportunity to review and comment on this UWIR. You can access the UWIR by visiting www.bridgeport.net.au

You can also phone (02) 8960 8400 to arrange for a hard copy to be posted to you.

Written submissions on any of the UWIRs may be made to Bridgeport Energy Pty Ltd and mailed to:

Attn: Erik Kadri
Bridgeport Energy
Level 7, 111 Pacific Highway
Sydney NSW 2060

Your submission must be:

In writing and received by COB 31/10/2025

Please note that as required by Section 382(3)(d) of the Water Act, copies of all received submissions must be provided to the Chief Executive. All submissions will be considered as part of the assessment process.

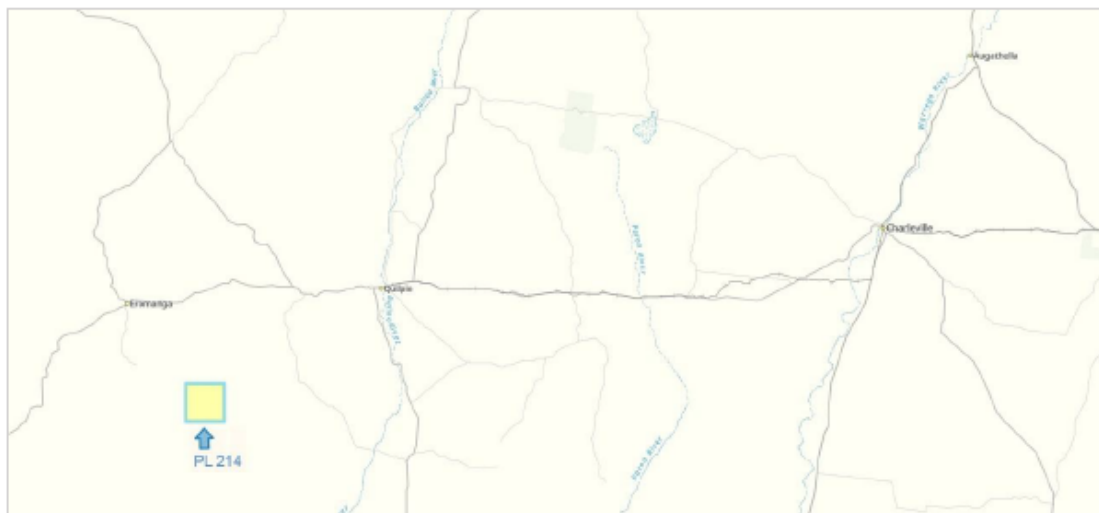


Figure 18: The proof image of the public consultation notice. This advertisement has been published in the Maranoa Today publication.

Summary of submissions received

No submissions were received during the 2025 public consultation period.

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Beach Energy (2015) Annual review - Underground water impact report for Beach Energy oilfields, Eromanga area, SWQ (2015) pp. 1 – 9.

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Bridgeport Energy (2017) UWIR 2017 Annual Report for Beach Energy oilfields, Eromanga Area, SWQ, pp. 1-21.

Bridgeport Energy (2018) UWIR 2018 Annual Update, Bridgeport Energy, Sydney Australia.

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Bridgeport Energy (2020) UWIR 2020 Annual Update, Bridgeport Energy, Sydney Australia.

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Golder Associates (2018) Technical Memorandum: Update of groundwater impact assessment for the Eromanga area, SWQ, report prepared for Bridgeport Energy Pty Ltd.

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Legislation

Environmental Protection Act 1994

Environment Protection (Water and Wetland Biodiversity) Policy 2019

Environment Protection Regulation 2019

Nature Conservation Act 1992

Marine Parks Act 2004

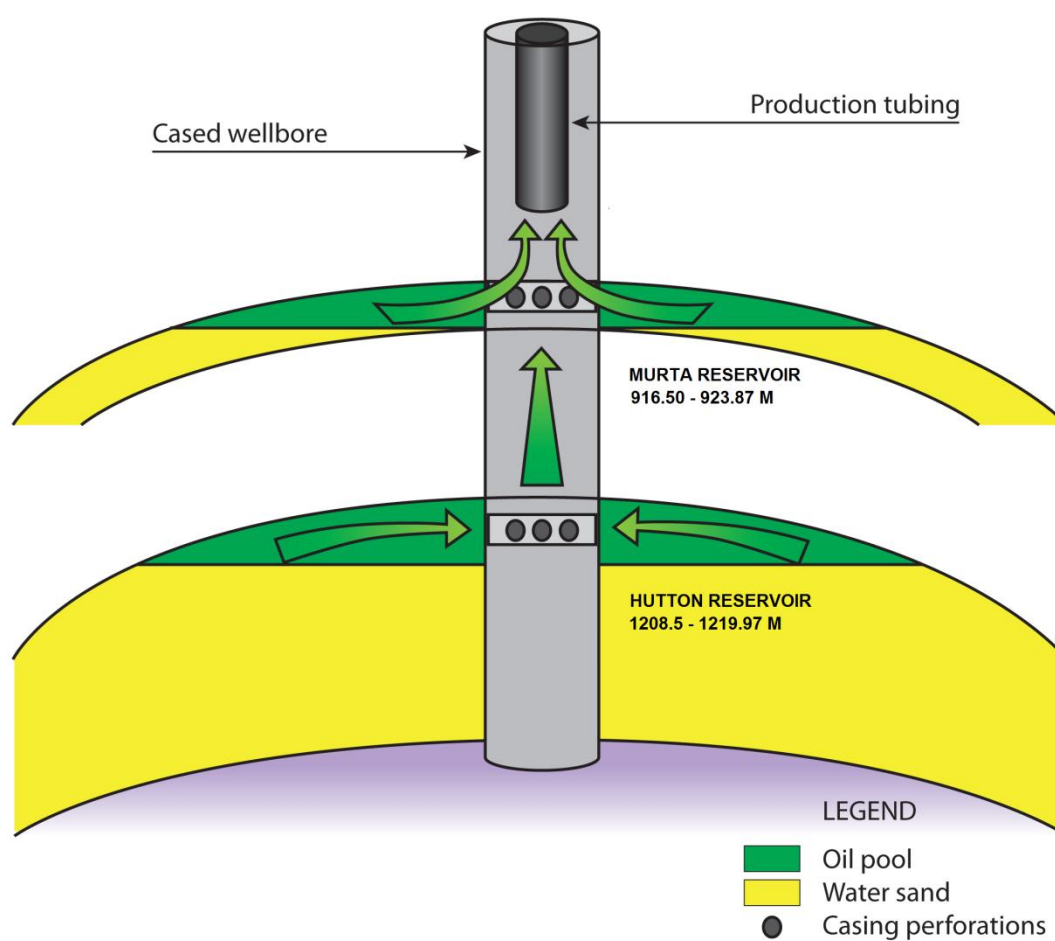
Petroleum and Gas (Production and Safety) Act 2004

Water Act 2000

Appendix 1

Dual-Completion Well

DUAL COMPLETION OF THE MURTA AND HUTTON RESERVOIRS



Utopia PL 214 UWIR 2025-2028

Appendix 2

Well	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Utopia 01	0.14	0.29	0.43	0.52	0.54	0.45	0.49	0.47	0.48	0.60	0.47	0.00	0.55	0.46	0.58	0.15	0.00	0.12	0.46	0.45
Utopia 02	0.08	0.10	0.15	0.08	0.16	0.18	0.12	0.22	0.24	0.29	0.19	0.11	0.11	0.10	0.11	0.12	0.09	0.07	0.07	0.07
Utopia 06	2.05	0.08	1.72	2.02	2.09	2.04	1.97	0.21	2.29	2.20	2.10	2.14	2.11	2.18	2.26	2.27	1.85	1.62	1.59	1.57
Utopia 07	0.00	0.83	1.05	0.95	0.81	1.02	0.84	2.40	0.06	0.09	1.38	0.93	0.73	0.52	0.57	0.58	0.57	0.46	0.45	0.43
Utopia 08	0.00	4.29	5.49	4.59	4.97	4.19	4.58	0.82	4.82	5.30	5.12	4.48	6.04	4.03	1.07	0.00	0.00	0.97	3.84	3.85
Utopia 09	0.00	1.05	1.19	1.09	1.89	0.34	1.04	5.76	0.76	0.93	0.99	0.50	0.17	0.94	0.98	0.76	0.00	0.21	0.81	0.79
Utopia 10	0.00	0.00	15.70	3.21	4.46	15.44	16.60	9.38	12.57	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Utopia 11	0.00	0.00	0.41	1.40	0.59	1.03	1.58	0.49	1.51	1.51	1.52	1.12	1.11	1.03	0.00	0.00	0.00	0.00	0.45	0.91
Utopia 12	0.00	0.00	0.00	0.00	0.15	0.39	0.36	0.64	0.65	0.51	0.60	0.49	0.61	0.62	0.69	0.70	0.52	0.49	0.49	0.49
Utopia 14	0.00	0.00	0.00	0.00	1.07	2.55	2.38	1.90	2.01	1.97	2.24	1.86	1.66	1.59	2.00	2.04	1.79	1.42	1.34	1.28
Utopia 19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.85	0.73	0.53	0.27	0.33	0.41	0.41	0.33	0.23	0.23	0.23
Utopia 20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.20	0.61	0.30	0.42	0.23	0.44	0.46	0.47	0.48	0.49	0.50	0.51
Utopia 21	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.35	0.00	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Utopia 22	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	3.30	3.16	3.38	3.18	3.20	3.20	2.93	2.88	2.76	2.64
Utopia 23	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.07	0.28	0.31	0.34	0.34	0.27	0.22	0.34	0.33	0.32
SUM	2.26	6.65	26.13	13.85	16.72	27.64	29.97	22.29	25.64	14.85	19.35	16.03	17.29	15.76	12.67	10.95	8.79	9.29	13.31	13.53