Government of Western Australia
Department of Water and Environmental Regulation

Works Approval

Works approval number	W6772/2023/1
Applicant	Chevron Australia Pty Ltd
ACN	086 197 757
Registered business address	250 St Georges Tce PERTH WA 6000
DWER file number	DER2022/000691
Duration	17/08/2023 to 16/08/2029
Date of amendment	01/10/2024
Premises details	Gorgon LNG Project Legal description – Part of Crown Lease L077431, Certificate of Title Volume LR3168 Folio 315, Site 1 on Deposited Plan 409277; Part of Crown Lease L077428, Certificate of Title LR3158 Folio 476, Site 5 on Deposited Plan 64220; Temporary Wastewater Injection Facilities Licence LIC00554/2009_1_43; Part of Revised Service Corridor Easement L641372, Certificate of Title Volume LR3142 Folio 58, Deposited Plan 91514 and; Onshore Feed Gas Pipeline Right of Way Easement L466759, Certificate of Title Volume LR3142 Folio 58, Deposited Plan 91514. As defined in Figure 1 of Schedule 1

Prescribed premises category description (Schedule 1, *Environmental Protection Regulations 1987*)	**Assessed production capacity**
Category 12: Screening etc. of material	53,000 tonnes per year
Category 54: Sewerage Facility	485.1 m^3/day
Category 61: Liquid Waste Facility	70,000 tonnes per year

This works approval is granted to the works approval holder, subject to the attached conditions, on 1 October 2024 , by:

Amine Fisher

Digitally signed by Amine Fisher
Date: 2024.10.01 14:19:40 +08'00'

Amine Fisher

Manager, Process Industries

an officer delegated under section 20 of the *Environmental Protection Act 1986* (WA)

Works approval history

Date	Reference number	Summary of changes
17/08/2023	W6772/2023/1	Works approval granted.
01/10/2024	W6772/2023/1	Works approval amended to adjust infrastructure and operational requirements for the wastewater storage tanks and extend duration of time limited operations for the crushing and screening plant and the liquid waste facility.

Interpretation

In this works approval:

(a) the words 'including', 'includes' and 'include' in conditions mean "including but not limited to", and similar, as appropriate;

(b) where any word or phrase is given a defined meaning, any other part of speech or other grammatical form of that word or phrase has a corresponding meaning;

(c) where tables are used in a condition, each row in a table constitutes a separate condition;

(d) any reference to an Australian or other standard, guideline, or code of practice in this works approval:

  (i) if dated, refers to that particular version; and

  (ii) if not dated, refers to the latest version and therefore may be subject to change over time;

(e) unless specified otherwise, any reference to a section of an Act refers to that section of the EP Act; and

(f) unless specified otherwise, all definitions are in accordance with the EP Act.

NOTE: This works approval requires specific conditions to be met but does not provide any implied authorisation for other emissions, discharges, or activities not specified in this works approval.

Works approval conditions

The works approval holder must ensure that the following conditions are complied with.

Construction phase

Infrastructure and equipment

1. The works approval holder must:

(a) construct and/or install the infrastructure and/or equipment;

(b) in accordance with the corresponding design and construction / installation requirements; and

(c) at the corresponding infrastructure location,

as set out in Table 1.

Table 1: Design and construction requirements

	Infrastructure	Design and construction / installation requirements	Infrastructure location
1.	Three crushing and screening plant/(s)	(a) Construction works must only occur between 6am and 6pm. (b) Will have a design capacity of not more than 541.6 tonnes per hour (4,745,000 tonnes per year). (c) Machinery must be constructed to the manufacturer's specifications. (d) Water sprays must be installed at all crushing, screening and conveyor discharge points. (e) Conveyors must be fitted with skirting to reduce dust. (f) Exhaust mufflers must be arranged vertically. (g) Machinery engine must be located within a steel canopy with noise reducing foam.	Located within the area highlighted green within the right of way and the GGTP seen in Figure 2 of Schedule 1.
2.	New Wastewater Treatment plant (WWTP)	(a) Must be able to receive and treat a sewage inflow of 485.1 m^3/day. (b) Must be designed to treat sewage to the following effluent design criteria: (i) Biological oxygen demand (BOD5) < 20 mg/L; (ii) Total Nitrogen (TN) < 5 mg/L; (iii) Total Phosphorous (TP) < 0.5 mg/L; (iv) Total suspended solids (TSS) < 30 mg/L; (v) Turbidity < 5 NTUs; (vi) E. coli < 10 CFU/100mL; (vii) Residual Chlorine between 0.2 – 2 mg/L; and (viii) pH between 6.5 – 8.5. (c) Must comprise of the following process tanks; (i) anoxic tank; (ii) aerobic tank; (iii) post-anoxic tank; (iv) MBR tank;	Located within the area labelled "New wastewater treatment plant" in Figure 3 of Schedule 1.

	Infrastructure	Design and construction / installation requirements	Infrastructure location
		(v) aerobic sludge digester tank and; (vi) a treated effluent tank. (d) All process tanks listed above must be within an impervious bund connected to the existing stormwater drainage system. (e) All process tanks listed above must incorporate an alarm system that will activate in the event of high tank levels and tank overflows. (f) All sewage transfer pipelines and conveyance infrastructure must be impermeable, free of leaks and defects. (g) All sewage conveyance, storage and treatment infrastructure must be designed and constructed to ensure that stormwater does not enter the sewage, treated wastewater or storage infrastructure.	
3.	Liquid waste facility and associated generator	(a) Comprise of up to five waste tanks, each with a maximum capacity of up to 80,000L and which all have secondary containment which: (i) encompasses the tank and all connection points attached to the tank; and (ii) is impervious to retain and enable recovery of liquids. (b) All liquid waste storage and treatment tanks, secondary containment, vessels, transfer pipelines and conveyance infrastructure must be impermeable, free of leaks and defects; (c) The diesel storage tank for the generator is to be located within secondary containment bunding which: (i) Has the capacity to contain 110% of the generator tank volume; and (ii) is impervious to retain and enable recovery of any spillage.	Located within the indicative locations in Figure 4 of Schedule 1.

Compliance reporting

2. The works approval holder must within 30 calendar days of an item of infrastructure or equipment required by condition 1 being constructed and/or installed:

(a) undertake an audit of their compliance with the requirements of condition 1; and

(b) prepare and submit to the CEO an Environmental Compliance Report on that compliance.

3. The Environmental Compliance Report required by condition 2, must include as a minimum the following:

(a) certification by a suitably qualified civil engineer that the items of infrastructure or component(s) thereof, as specified in condition 1, have been constructed in accordance with the relevant requirements specified in condition 1;

(b) as constructed plans and a detailed site plan for each item of infrastructure or component of infrastructure specified in condition 1; and

(c) be signed by a person authorised to represent the works approval holder and contains the printed name and position of that person.

Environmental commissioning phase

Environmental commissioning requirements and emission limits

4. The works approval holder may only commence environmental commissioning of an item of infrastructure listed in condition 5 once the Environmental Compliance Report has been submitted for that item of infrastructure in accordance with condition 2 of this works approval.

5. Any environmental commissioning activities undertaken for an item of infrastructure specified in Table 2 may only be carried out:

(a) in accordance with the corresponding commissioning requirements; and

(b) for the corresponding authorised commissioning duration.

Table 2: Environmental commissioning requirements

Infrastructure	Commissioning requirements	Authorised commissioning duration
WWTP	(a) Treated effluent must be transferred: (i) to the disposal water tanks before being transported to the PWD wells; or (ii) to the TWIP disposal wells. (b) All wastewater storage and treatment tanks, vessels, transfer pipelines and conveyance infrastructure must be kept impermeable, free of leaks and defects. (c) Solid waste (sludge) must be stored and transported in covered receptacles to the waste transfer station. (d) Chemicals must be stored in accordance with Australian Standards AS1940-2004 or AS3780-2008 or AS3833-2007 as applicable.	For a period not exceeding 90 calendar days in aggregate.

6. During environmental commissioning, the works approval holder must ensure that the emission(s) specified in Table 3, are discharged only from the corresponding discharge point(s) and only at the corresponding discharge point location(s).

Table 3: Authorised discharge points during commissioning

Emission	Discharge point	Discharge point location - Schedule 1, Figure 5: Map of authorised discharge point
Treated or partially treated wastewater from the WWTP	PWD wells	Labelled Z-WI1 and Z-WI2
	TWIP disposal wells	Labelled WDW1 and WDW2

Monitoring during environmental commissioning

7. The works approval holder must undertake process monitoring during environmental

commissioning of the wastewater treatment plant in accordance with Table 8 in Schedule 2.

8. The works approval holder must record the results of all monitoring activity required by condition 7.

Environmental commissioning report

9. The works approval holder must submit to the CEO an Environmental Commissioning Report within 14 calendar days of the completion date of environmental commissioning for the infrastructure specified in Table 2.

10. The works approval holder must ensure the Environmental Commissioning Report required by condition 9 of this works approval includes the following:

(a) a summary of the environmental commissioning activities undertaken, including timeframes and amount of wastewater processed;

(b) the process monitoring results recorded in accordance with condition 8;

(c) a summary of the environmental performance of each item of infrastructure or equipment.

(d) a review of the works approval holder's performance and compliance against the conditions of this works approval; and

(e) where they have not been met, measures proposed to meet the manufacturer's design specifications and the conditions of this works approval, together with timeframes for implementing the proposed measures.

Time limited operations phase

Commencement and duration

11. The works approval holder may only commence time limited operations for an item of infrastructure identified in condition 1 (as applicable):

(a) where an item of infrastructure is not authorised to undertake environmental commissioning, the Environmental Compliance Report as required by condition 2 has been submitted by the works approval holder for that item of infrastructure; or

(b) where an item of infrastructure is authorised to undertake environmental commissioning under condition 4, the Environmental Commissioning Report for that item of infrastructure as required by condition 9 has been submitted by the works approval holder.

12. The works approval holder may conduct time limited operations for the WWTP:

(a) for a period not exceeding 180 calendar days from the day the works approval holder meets the requirements of condition 11 for that item of infrastructure; or

(b) until such time as a licence for that item of infrastructure is granted in accordance with Part V of the *Environmental Protection Act 1986*, if one is granted before the end of the period specified in condition 11(a).

13. The works approval holder may conduct time limited operations for the crushing and screening plant/s for a period not exceeding 27 months from the day the works approval holder commences operation of the infrastructure in accordance with condition 11.

14. The works approval holder may conduct time limited operations for the Liquid waste facility and associated generator for a period not exceeding 16 months from the day

the works approval holder commences operation of the infrastructure in accordance with condition 11.

Time limited operations requirements

15. During time limited operations, the works approval holder must ensure that the premises infrastructure and equipment listed in Table 4 and located at the corresponding infrastructure location is maintained and operated in accordance with the corresponding operational requirement set out in Table 4.

Table 4: Infrastructure and equipment requirements during time limited operations

	Site infrastructure and equipment	Operational requirement	Infrastructure location
1.	Crushing and Screening Plant/(s)	(a) Water sprays must be activated on machinery when fugitive dust is observed. (b) Water carts must be available on site to suppress any visible emissions of fugitive dust. (c) Stormwater is to be managed so contaminated or potentially contaminated stormwater is captured to prevent release into the environment. (d) Crushing outside the GGTP must only occur during daylight hours.	Located within the two areas highlighted green (within the right of way and GGTP) seen in Figure 2 of Schedule 1.
2.	WWTP	(a) Must operate with an alarm system that activates in the event of: (i) high tanks levels; and (ii) tank overflows. (b) Treated effluent must be transferred: (i) to the disposal water tanks before being transported to the PWD wells; or (ii) to the TWIP disposal wells. (c) All wastewater storage and treatment tanks, vessels, transfer pipelines and conveyance infrastructure must be kept impermeable, free of leaks and defects. (d) Solid waste (sludge) must be stored and transported in covered receptacles to the waste transfer station. (e) Chemicals must be stored in accordance with Australian Standards AS1940-2004 or AS3780-2008 or AS3833-2007 as applicable.	Located within the area labelled “New wastewater treatment plant” in Figure 3 of Schedule 1.
3.	Liquid waste facility “Dewatering facility”	(a) Solid waste/sludge must be stored and transported in plastic lined fully enclosed receptacles. (b) Chemicals to be stored in accordance with Australian Standards AS1940-2004 or AS3780-2008 or AS3833-2007 as applicable. (c) Facility must be manned when operational, during transfers and level indicators must be monitored. (d) All liquid waste storage and treatment tanks, secondary containment, vessels, transfer pipelines and conveyance infrastructure must be kept impermeable, free of leaks and defects.	Located within the indicative locations in Figure 4 of Schedule 1.

	Site infrastructure and equipment	Operational requirement	Infrastructure location
		(e) Transfer pipelines, secondary containment and conveyance infrastructure must be inspected monthly in accordance with requirement (d). (f) Wastewater must only be stored in tanks with secondary containment. (g) All wastewater tank connections must be isolated via valves when the facility is not manned. (h) The generators diesel storage tank containment bund must be maintained: (i) in a fit for purpose condition for containing liquids and free of cracks or damage and; (ii) with capacity to contain not less than 110% of the volume of the generator tank volume.	

16. During time limited operations, the works approval holder must ensure that the emission(s) specified in Table 5, are only discharged from the corresponding discharge point(s) and only at the corresponding discharge point location(s).

Table 5: Authorised discharge points during time limited operations

Emission	Discharge point	Discharge point location - Schedule 1, Figure 5: Map of authorised discharge points
Treated wastewater from the new WWTP	PWD wells	Labelled Z-WI1 and Z-WI2 discharge points.
	TWIP disposal wells	Labelled WDW1 and WDW2 discharge points.
Treated drilling wastewater from the dewatering facility	PWD wells	Labelled Z-WI1 and Z-WI2 discharge points.
	TWIP disposal wells	Labelled WDW1 and WDW2 discharge points.

Monitoring during time limited operations

17. The works approval holder must undertake process monitoring during time limited operations of the wastewater treatment plant in accordance with Table 8 within Schedule 3.

18. The works approval holder must undertake process monitoring during time limited operations of the dewatering facility in accordance with Table 6.

Table 6: Dewatering facility output monitoring during time limited operations

Monitoring location	Parameter	Frequency	Averaging Period	Unit	Method
Location labelled “sampling point” in	Total recoverable hydrocarbons	Prior to every discharge at the	Spot sample	ppm	NATA accredited or in accordance with licence holder
	pH			pH units	

Figure 4 of Schedule 1	Total suspended solids	PWD or TWIP wells		ppm	approved internal laboratory procedures

19. The works approval holder must record the results of all monitoring activity required by conditions 17 and 18.

Compliance reporting

20. The works approval holder must submit to the CEO a report on the time limited operations within 30 calendar days of the completion date of time limited operations or 30 calendar days before the expiration date of the works approval, whichever is the sooner for each item of infrastructure.

21. The works approval holder must ensure the report required by condition 20 includes the following:

(a) a summary of the time limited operations, including timeframes and amount of wastewater and/or material (rock) processed;

(b) a summary of process monitoring results obtained during time limited operations under condition 17 and/or 18.

(c) a summary of the environmental performance of all infrastructure as constructed or installed.

(d) a review of performance and compliance against the conditions of the works approval; and

(e) where the manufacturer's design specifications and the conditions of this works approval have not been met, what measures will the works approval holder take to meet them, and what timeframes will be required to implement those measures.

Records and reporting (general)

22. The works approval holder must record the following information in relation to complaints received by the works approval holder (whether received directly from a complainant or forwarded to them by the Department or another party) about any alleged emissions from the premises:

(a) the name and contact details of the complainant, (if provided);

(b) the time and date of the complaint;

(c) the complete details of the complaint and any other concerns or other issues raised; and

(d) the complete details and dates of any action taken by the works approval holder to investigate or respond to any complaint.

23. The works approval holder must maintain accurate and auditable books including the following records, information, reports, and data required by this works approval:

(a) the works conducted in accordance with condition 1;

(b) any maintenance of infrastructure or inspections that are performed in the course of complying with condition 1;

(c) monitoring programmes undertaken in accordance with conditions 7,17, 18; and

(d) complaints received under condition 22.

24. The books specified under condition 23 must:

(a) be legible;

(b) if amended, be amended in such a way that the original version(s) and any subsequent amendments remain legible and are capable of retrieval;

(c) be retained by the works approval holder for the duration of the works approval; and

(d) be available to be produced to an inspector or the CEO as required.

Definitions

In this works approval, the terms in Table 7 have the meanings defined.

Table 7: Definitions

Term	Definition
AS/NZS 5667.10-1998	means the Australian Standard AS/NZS 5667.10 Water quality - Sampling - Guidance on Sampling of Waste Waters
AS 1940-2004	means the Australian Standard AS1940-2004 The storage and handling of flammable and combustible liquids
AS 3780-2008	means the Australian Standard AS3780-2008 The storage and handling of corrosive substances
AS/NZS 3833-2007	means the Australian/New Zealand Standard AS/NZS 3833: 2007 The storage and handling of mixed classes of dangerous goods, in packages and intermediate bulk containers
books	has the same meaning given to that term under the EP Act
CEO	means Chief Executive Officer. CEO for the purposes of notification means: Director General Department administering the *Environmental Protection Act 1986* Locked Bag 10 Joondalup DC WA 6919 info@dwer.wa.gov.au
Suitably qualified civil engineer	means a person who: (a) holds a Bachelor of Engineering degree recognised by Engineers Australia; and (b) has a minimum of five years of experience working in a supervisory role in civil or structural engineering; and (c) is employed by an independent third party external to the Works Approval Holder's business; or is otherwise approved in writing by the CEO to act in this capacity.
Department	means the department established under section 35 of the *Public Sector Management Act 1994* and designated as responsible for the administration of Part V Division 3 of the EP Act
discharge	has the same meaning given to that term under the EP Act
emission	has the same meaning given to that term under the EP Act
environmental commissioning	means the sequence of activities to be undertaken to test equipment integrity and operation, or to determine the environmental performance, of equipment and infrastructure to establish or test a steady state operation and confirm design specifications
Environmental	means a report on any commissioning activities that have taken place and a demonstration that they have concluded, with focus on emissions

Term	Definition
Commissioning Report	and discharges, waste containment, and other environmental factors
Environmental Compliance Report	means a report to satisfy the CEO that the conditioned infrastructure and/or equipment has been constructed and/or installed in accordance with the works approval
EP Act	*Environmental Protection Act 1986* (WA)
EP Regulations	*Environmental Protection Regulations 1987* (WA)
GGTP	means Gorgon Gas Treatment Plant
m^3/day	means cubic metres per day
MBR	means membrane bioreactor
NATA accredited	means in relation to the analysis of a sample that the laboratory is NATA accredited for the specified analysis at the time of the analysis.
premises	the premises to which this licence applies, as specified at the front of this licence and as shown on the premises map Figure 1 in Schedule 1 to this works approval
prescribed premises	has the same meaning given to that term under the EP Act
PWD	means Permanent Wastewater Disposal
right of way	means the Gorgon and Jansz Feed Gas Pipeline Right of Way
STP dry	means standard temperature and pressure (0^o Celsius and 101.325 kilopascals respectively), dry
time limited operations	refers to the operation of the infrastructure and equipment identified under this works approval that is authorised for that purpose, subject to the relevant conditions.
TWIP	means Temporary Wastewater Injection Plant
waste	has the same meaning given to that term under the EP Act
works approval	refers to this document, which evidences the grant of the works approval by the CEO under section 54 of the EP Act, subject to the conditions
works approval holder	refers to the occupier of the premises being the person to whom this works approval has been granted, as specified at the front of this works approval
WWTP	means the new wastewater treatment plant

END OF CONDITIONS

Schedule 1: Maps

Premises Map

The boundary of the prescribed premises is shown in the map below (Figure 1).

Figure 1: Map of the boundary of the prescribed premise

Figure 2: Map of crushing and screening locations

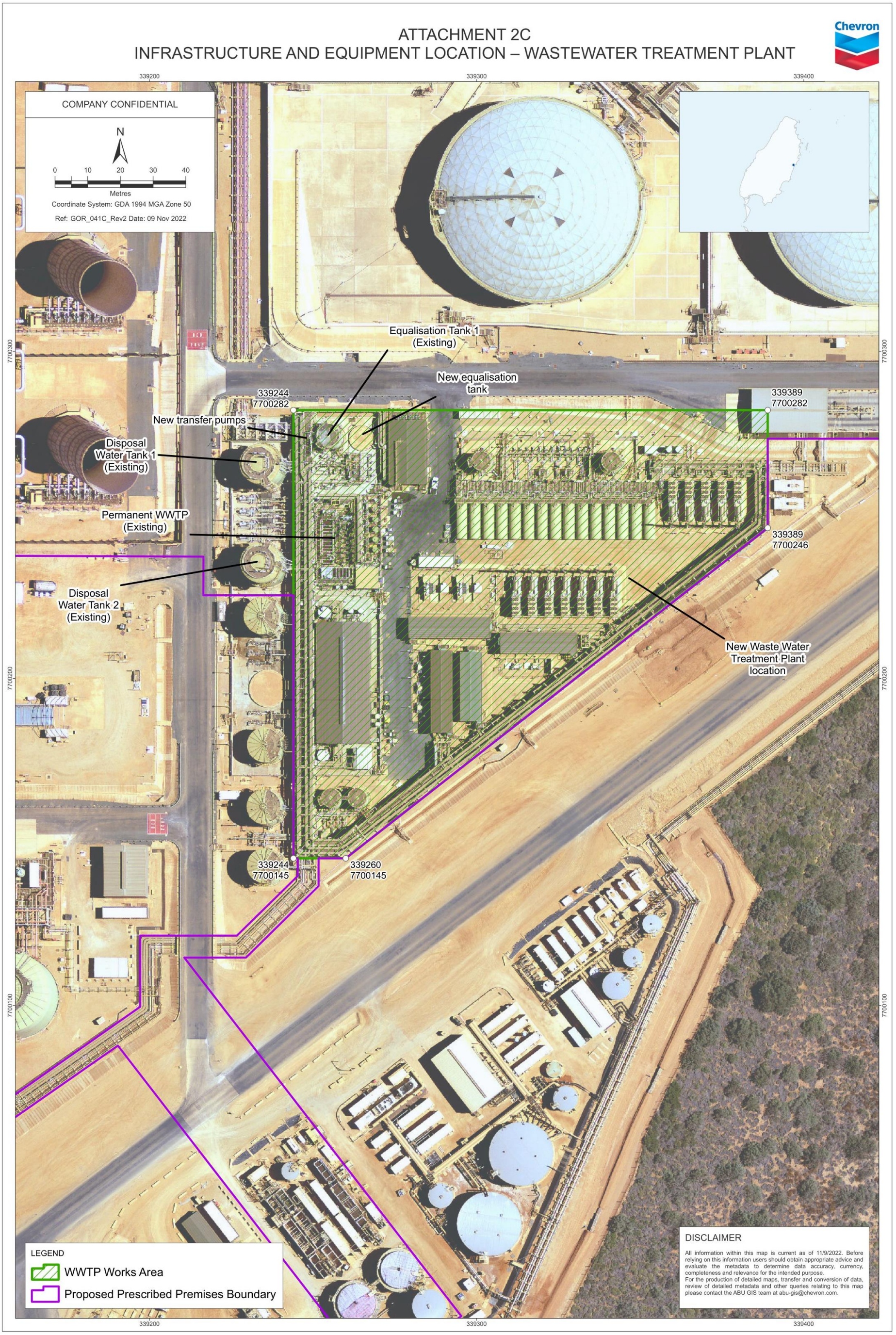

Figure 3: Map of WWTP layout within the GGTP

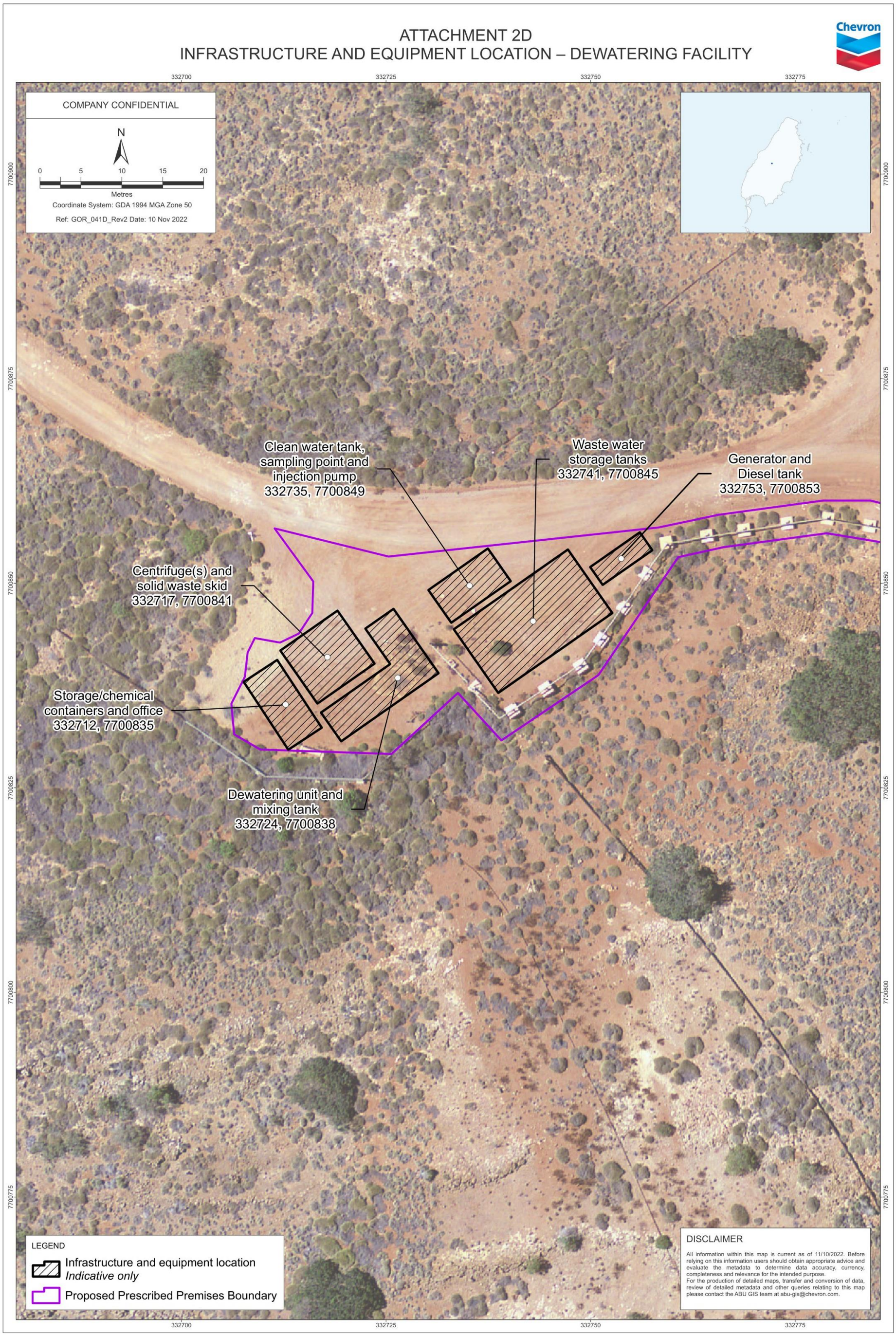

Figure 4: Map of dewatering facility layout

Map of discharge points to land

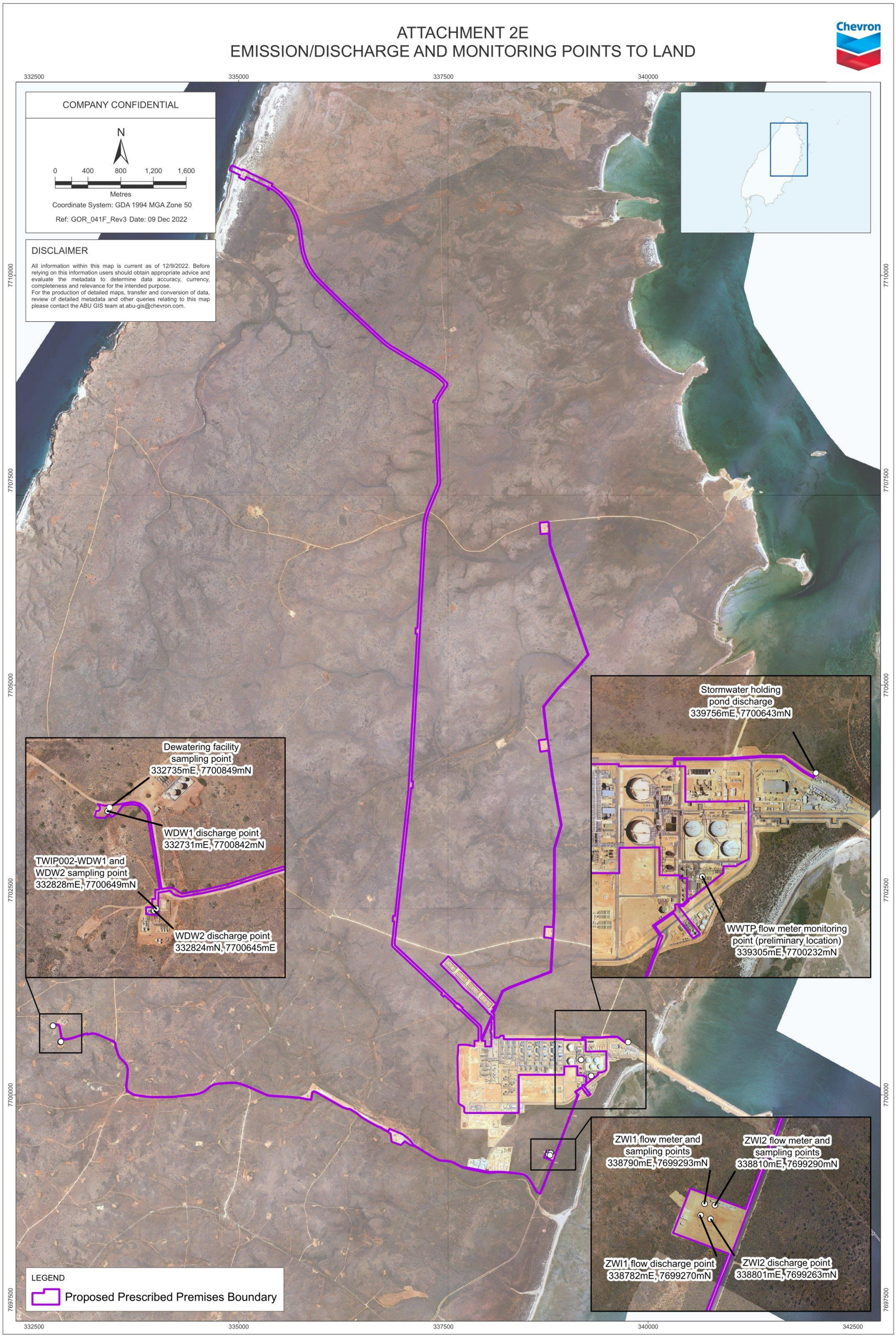

Figure 5: Map of authorised discharge points

Schedule 2: Monitoring

Table 8: Emissions and discharge monitoring during environmental commissioning and time limited operations of the WWTP.

Monitoring location	Parameter	Frequency	Averaging Period	Unit	Method	
					Sampling	Analysis
Schedule 1 - Figure 5: Map of authorised discharge point labelled: "WWTP flow meter monitoring point"	Inflow	Continuous	Cumulative daily	m^3/day	None specified	
	Outflow					
	pH	Quarterly (Once during commissioning and twice during time limited operations)	Spot sample	pH units	In accordance with AS/NZS 5667.10	NATA accredited or in accordance with licence holder approved internal laboratory procedures
	Total suspended soils			mg/L		
	Total recoverable hydrocarbons			mg/L		
	5-day Biochemical oxygen demand (BOD5)			mg/L		NATA accredited
	Total Nitrogen			mg/L		
	Total Phosphorous			mg/L		
	E. coli			CFU/100mL		
	Anionic surfactants			mg/L		