



Works approval number W6572/2021/1

Works approval holder Agnew Gold Mining Pty Ltd
ACN 098 385 883
Registered business address Level 4/235 St Georges Terrace
WEST PERTH
WA 6000

DWER file number DER2021/000395

Duration 24/9/2021 to 24/9/2025

Date of issue 24 September 2021

Premises details Legal description
Mining tenement M36/53
LEINSTER WA 6437

Prescribed premises category description (Schedule 1, <i>Environmental Protection Regulations 1987</i>)	Assessed design capacity
Category 85: Sewage facility: premises – (a) on which sewage is treated (excluding septic tanks) or; (b) from which treated sewage is discharged onto land or into waters.	80 cubic metres per day

This works approval is granted to the works approval holder, subject to the attached conditions, on 24 September 2021, by:

Christine Pustkuchen

A/SENIOR ENVIRONMENTAL OFFICER – RESOURCE INDUSTRIES

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

Works approval history

Date	Reference number	Summary of changes
24/9/2021	W6572/2021/1	Construction of sewage facility and addition of category 85 to the prescribed premises.

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 / installation requirements

	Infrastructure	Design and construction / installation requirements	Infrastructure location
1.	Biomax Wastewater treatment plant (WWTP)	<ul style="list-style-type: none"> • Constructed as per the specifications of Figure 4 of Schedule 1 • Infrastructure components include four additional anaerobic concrete tanks, 5.6m diam x 2m high of 42m³ capacity • All sewage and storage treatment tanks, vessels, transfer pipelines and conveyance infrastructure must be impermeable and free of leaks or defects • WWTP able to treat up to 80 m³/day • WWTP able to treat sewage to the minimum effluent quality performance criteria: <ol style="list-style-type: none"> (i) Total suspended solids <30mg/L (ii) Total dissolved solids <1000mg/L (iii) Biological oxygen demand <20mg/L (iv) E. coli <1000 cfu/100mL (v) Residual free chlorine 0.5mg/L – 2.0mg/L (vi) pH 6.5 – 8.5 (vii) Total phosphorus <12mg/L (viii) Total nitrogen <20mg/L • A volumetric flow meter must be installed on the WWTP discharge pipe outlet to monitor volumes discharged to the irrigation spray field • An alarm system installed to notify the operator of <ol style="list-style-type: none"> (i) Pump faults; (ii) High tank levels; and (iii) Tank overflows. • WWTP to have a contingency storage capacity of up to two days of normal flow in the event the discharge is suspended. 	As specified in Figure 2 of Schedule 1.

	Infrastructure	Design and construction / installation requirements	Infrastructure location
2.	Irrigation spray field	<ul style="list-style-type: none"> Area of spray field must be at least 4 hectares; Sprinklers must be positioned to ensure even distribution of wastewater; and Fence with visible safety signage installed to deter access. 	As specified in Figure 3 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 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 qualified, competent civil or structural 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.

Time limited operations phase

Commencement and duration

4. The works approval holder may only commence time limited operations for an item of infrastructure identified in condition 1 where the Environmental Compliance Report as required by condition 2 has been submitted by the works approval holder for that item of infrastructure.
5. The works approval holder may conduct time limited operations for an item of infrastructure specified in condition 6:
 - (a) for a period not exceeding 180 calendar days from the day the works approval holder meets the requirements of condition 3 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 5(a).

Time limited operations requirements and emission limits

6. During time limited operations, the works approval holder must ensure that the premises infrastructure and equipment listed in Table 2 and located at the corresponding infrastructure location is maintained and operated in accordance with the corresponding operational requirement set out in Table 2.

Table 2 Infrastructure and equipment requirements during time limited operations

	Site infrastructure and equipment	Operational requirement	Infrastructure location
1.	Wastewater treatment plant	<ul style="list-style-type: none"> Flow meters must be maintained on the WWTP inlet and outlet to the irrigation spray field Sludge is contained within sealed sludge tanks prior to removal by a licensed waste carrier for disposal to an appropriately authorised facility Spills of wastewater or chemicals outside of a vessel / container must be cleaned up immediately. 	As specified in Figure 2 of Schedule 1.
2.	Irrigation spray field	<ul style="list-style-type: none"> Irrigation area must be 4 hectares and must be managed to prevent ponding and pooling of effluent in the ground surface of the irrigation discharge area. 	As specified in Figure 3 of Schedule 1.

7. During time limited operations, the works approval holder must ensure that the emission specified in Table 3, are discharged only from the corresponding discharge point and only at the corresponding discharge location.

Table 3 Authorised discharge points

Emission	Discharge point	Discharge location
Treated effluent	Sprinklers within the irrigation spray field	As specified in Figure 3 of Schedule 1

Monitoring during time limited operations

8. The works approval holder must monitor emissions during time limited operations in accordance with Table 4.

Table 4 Emissions and discharge monitoring during time limited operations

Discharge point	Monitoring location	Parameter	Frequency	Averaging Period	Unit
Irrigation spray field	WWTP outlet	E. coli	Weekly	Spot sample	cfu/100mL
		Total coliforms			
		BOD ₅			
		Total suspended solids			mg/L
		Total Nitrogen			
		Total Phosphorous			

Discharge point	Monitoring location	Parameter	Frequency	Averaging Period	Unit
		Cumulative flow volume	Continuous	N/A	m³
		pH ¹	Daily or continuous online		pH units
		Residual chlorine ¹			mg/L

Note 1: In-field non-NATA accredited analysis permitted.

9. For monitoring activity required by condition 8, the works approval holder must:
- (a) record the results;
 - (b) handle and preserve all water samples collected during the monitoring of the WWTP in accordance with AS5667.1:1998; and
 - (c) have analysis conducted by a laboratory with current National Association of Testing Authorities (NATA) accreditation for the parameters specified.

Compliance reporting

10. 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.
11. The works approval holder must ensure the report required by condition 10 includes the following:
- (a) a summary of the time limited operations, including timeframes and amount of waste and effluent processed;
 - (b) a summary of emission and discharge monitoring results obtained during time limited operations under condition 8.
 - (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)

12. 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.
- 13.** 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 that is performed in the course of complying with condition 6;
 - (c) monitoring programmes undertaken in accordance with condition 8; and
 - (d) complaints received under condition 12.
- 14.** The books specified under condition 13 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 5 have the meanings defined.

Table 5: Definitions

Term	Definition
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 <i>Environmental Protection Act 1986</i> Locked Bag 10 Joondalup DC WA 6919 info@dwer.wa.gov.au
Department	means the department established under section 35 of the <i>Public Sector Management Act 1994</i> 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 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	<i>Environmental Protection Act 1986</i> (WA).
EP Regulations	<i>Environmental Protection Regulations 1987</i> (WA).
premises	the premises to which this licence applies, as specified at the front of this licence and as shown on the premises map (Figure 2) in Schedule 1 to this works approval.
prescribed premises	has the same meaning given to that term under the EP Act.
Qualified, Competent Civil or Structure Engineer	Means a person who: (a) holds a Bachelor's 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.
time limited	refers to the operation of the infrastructure and equipment

Term	Definition
operations	identified under this works approval that is authorised for that purpose, subject to the relevant conditions.
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.

END OF CONDITIONS

Schedule 1: Maps

Premises map

The boundary of the prescribed premises (L411/1987/11) is shown in the map below (Figure 1).

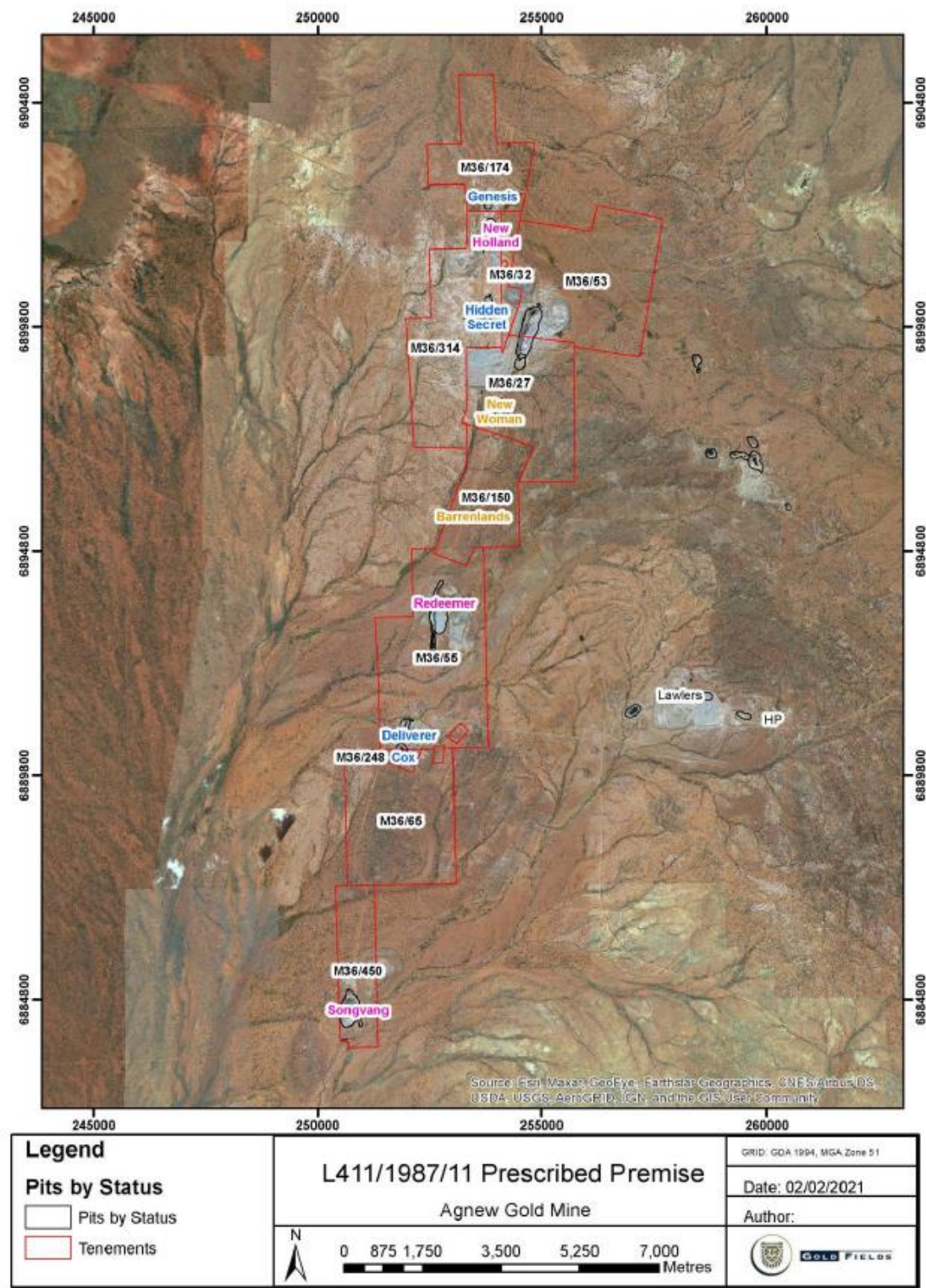


Figure 1: Map of the boundary of the prescribed premises

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IR-T05 Works approval template (v5.0) (February 2020)

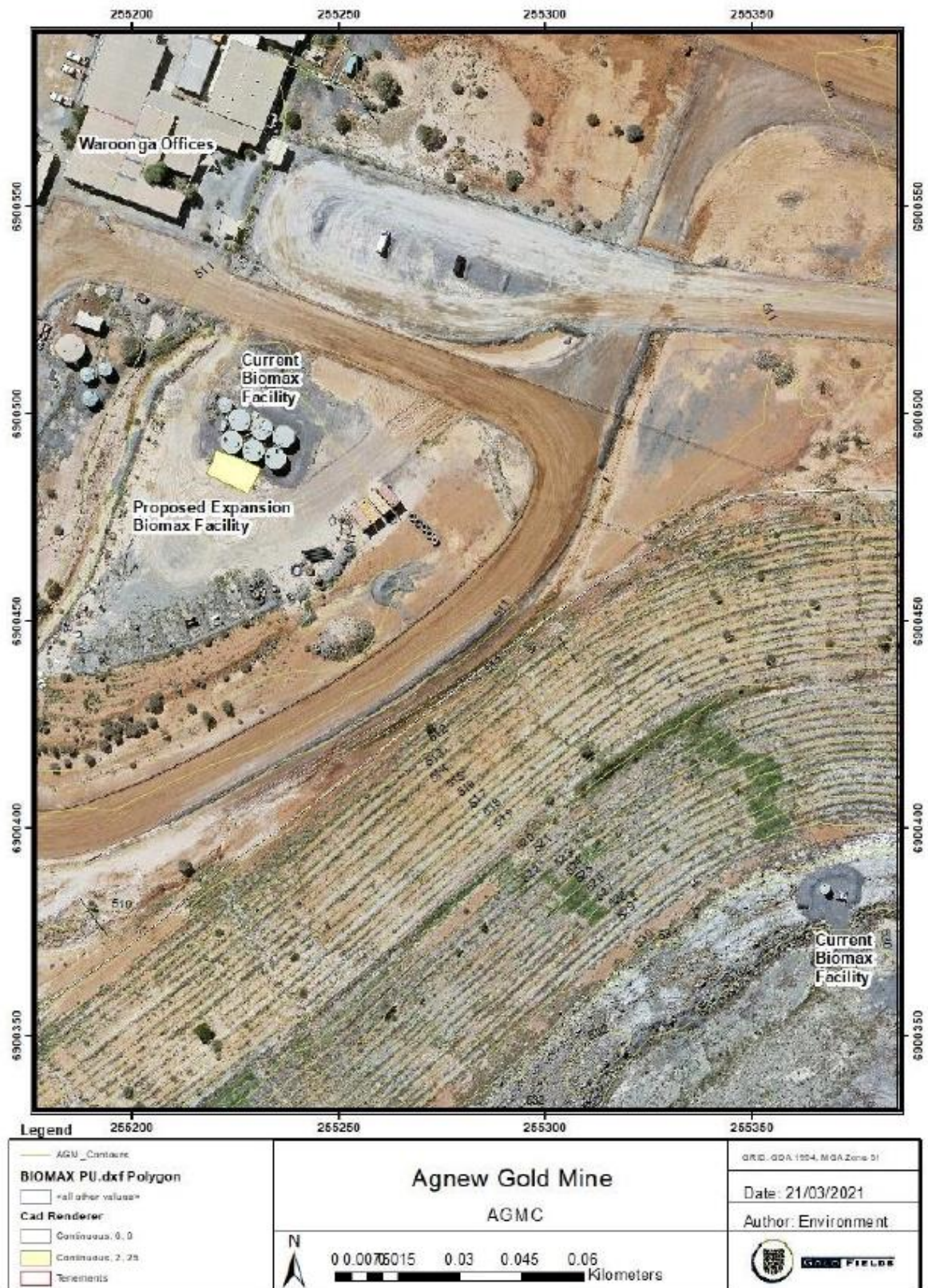


Figure 2 Map of existing Wastewater Treatment Plant (Biomax facility) and area of proposed expansion

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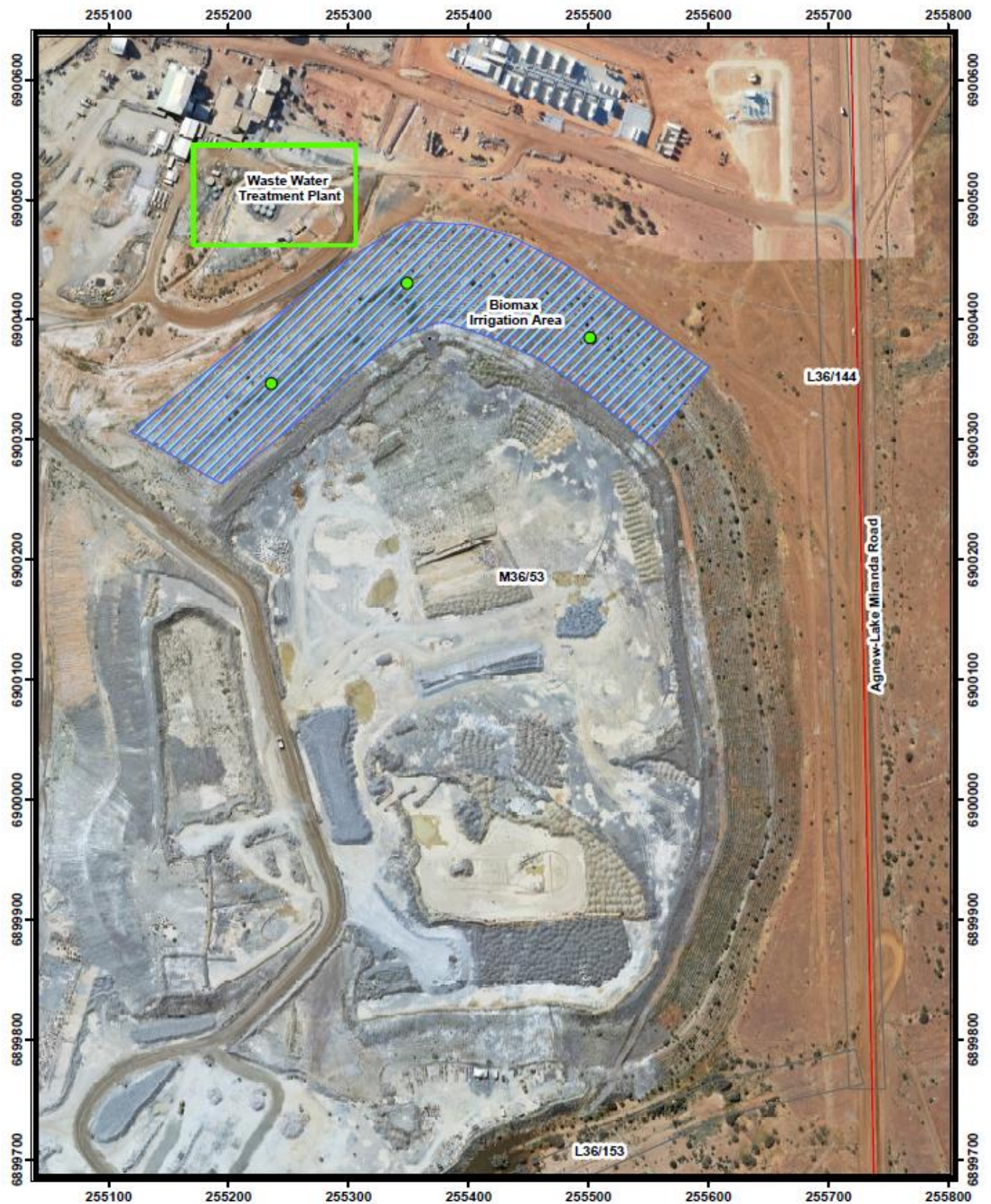


Figure 3 Irrigation Spray Field (blue)

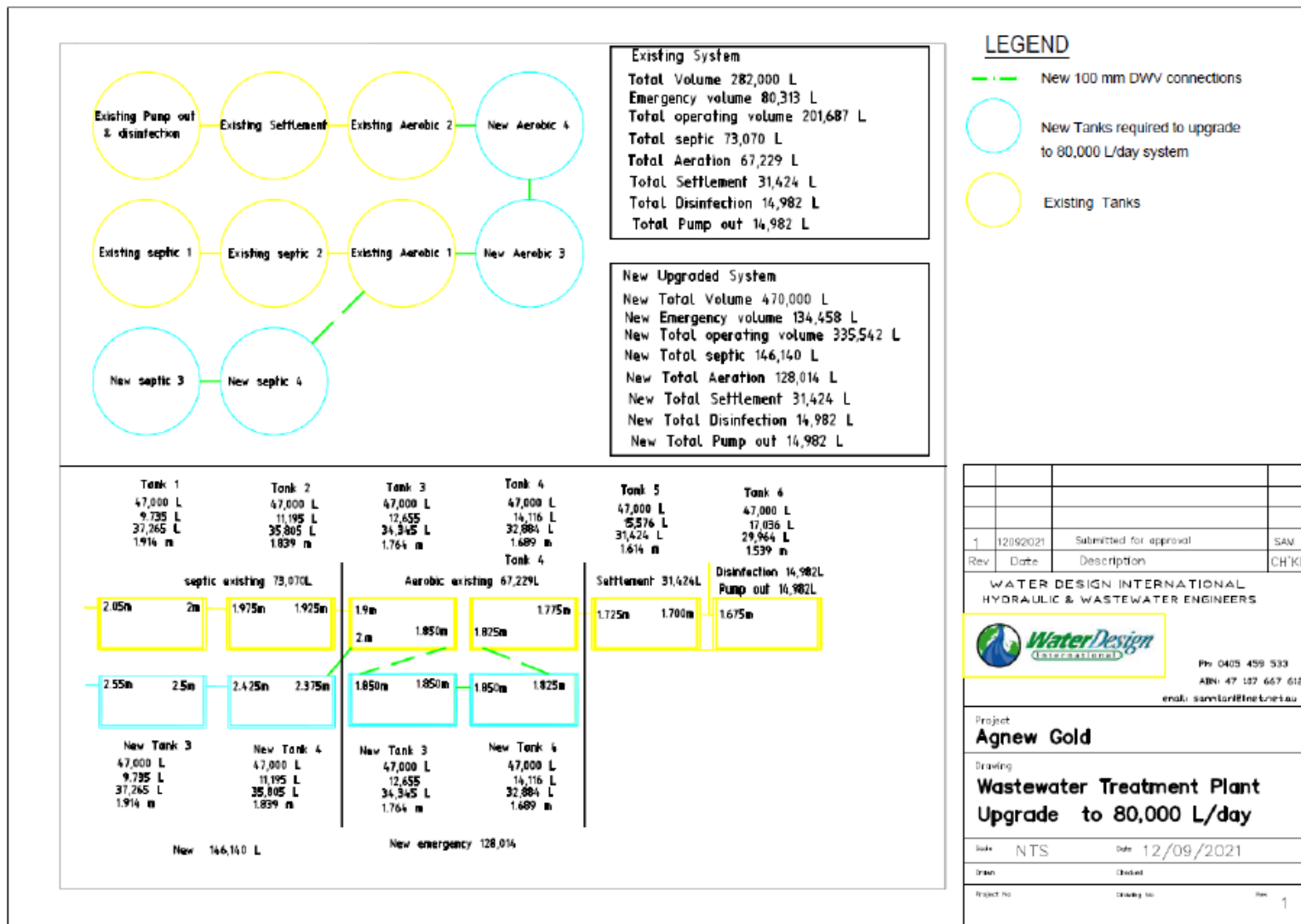


Figure 4 Wastewater treatment plant construction

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