Government of Western Australia
Department of Water and Environmental Regulation

Decision Report

Application for Works Approval

Part V Division 3 of the *Environmental Protection Act 1986*

Works Approval Number	W2862/2025/1
Applicant	Roy Hill Iron Ore Pty Ltd
ACN	123 722 038
File number	APP-0026527
Premises	Roy Hill Iron Ore Mine Legal description M46/518, M46/519, L47/772, L47/851 and Part of L47/346 and L47/642 NEWMAN WA 6753 As defined by the premises maps attached to the issued works approval
Date of report	12/06/2025 (FINAL)
Proposed Decision	Intent to grant works approval

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1. Decision summary

This decision report documents the assessment of potential risks to the environment and public health from emissions and discharges during the construction, commissioning, and time limited operation of the premises. As a result of this assessment, works approval W2862/2025/1 has been granted.

2. Scope of assessment

2.1 Regulatory framework

In completing the assessment documented in this decision report, the Department of Water and Environmental Regulation (the department) has considered and given due regard to its regulatory framework and relevant policy documents which are available at https://dwer.wa.gov.au/regulatory-documents.

2.2 Application summary and overview of premises

On 15 November 2024, the applicant submitted an application for a works approval to the department under section 54 of the *Environmental Protection Act 1986* (EP Act).

The application is to undertake construction works, commissioning, and time limited operation for the proposed Delta 2 In-Pit (IP) Tailings Storage Facility (TSF) at the premises. The premises is approximately 60 kilometres (km) north of Nullagine.

The premises relates to the category and assessed production capacity under Schedule 1 of the *Environmental Protection Regulations 1987* (EP Regulations) which are defined in works approval W2862/2025/1. The infrastructure and equipment relating to the premises category and any associated activities which the department has considered in line with *Guideline: Risk Assessments* (DWER 2020a) are outlined in works approval W2862/2025/1.

2.3 Delta 2 IPTSF

To allow for the ongoing tailings deposition at the premises in 2026 / 2027, the applicant has proposed to design an additional IPTSF at the Delta 2 pit (Figure 1). The design of the Delta 2 IPTSF has taken into consideration the following lessons learnt from the construction, commissioning, and operation of Zulu 5 and Zulu 6 IPTSFs:

- provide all weather access for pipeline inspections and platforms at spigot locations for visibility;
- maintain the pond against the pit shell, away from backfill, to minimise infiltration, subsidence and cracking;
- avoid switchbacks along decant ramps, which lead to difficulty in pond control;
- improve surface water management and erosion protection along pit crest and areas of backfill to avoid concentrated run-off;
- minimise placement of critical infrastructure (with limited tolerance for settlement) in areas of backfill;
- maintain an appropriate number of spigots to manage initial water recovery and subsequent pond control and for operational flexibility;
- maintain inspection platforms at spigot locations to allow for improved visibility; and
- adopt the same approach with respect to a safety offset along the pit perimeter and all areas of backfill to ensure safety of personnel and infrastructure.

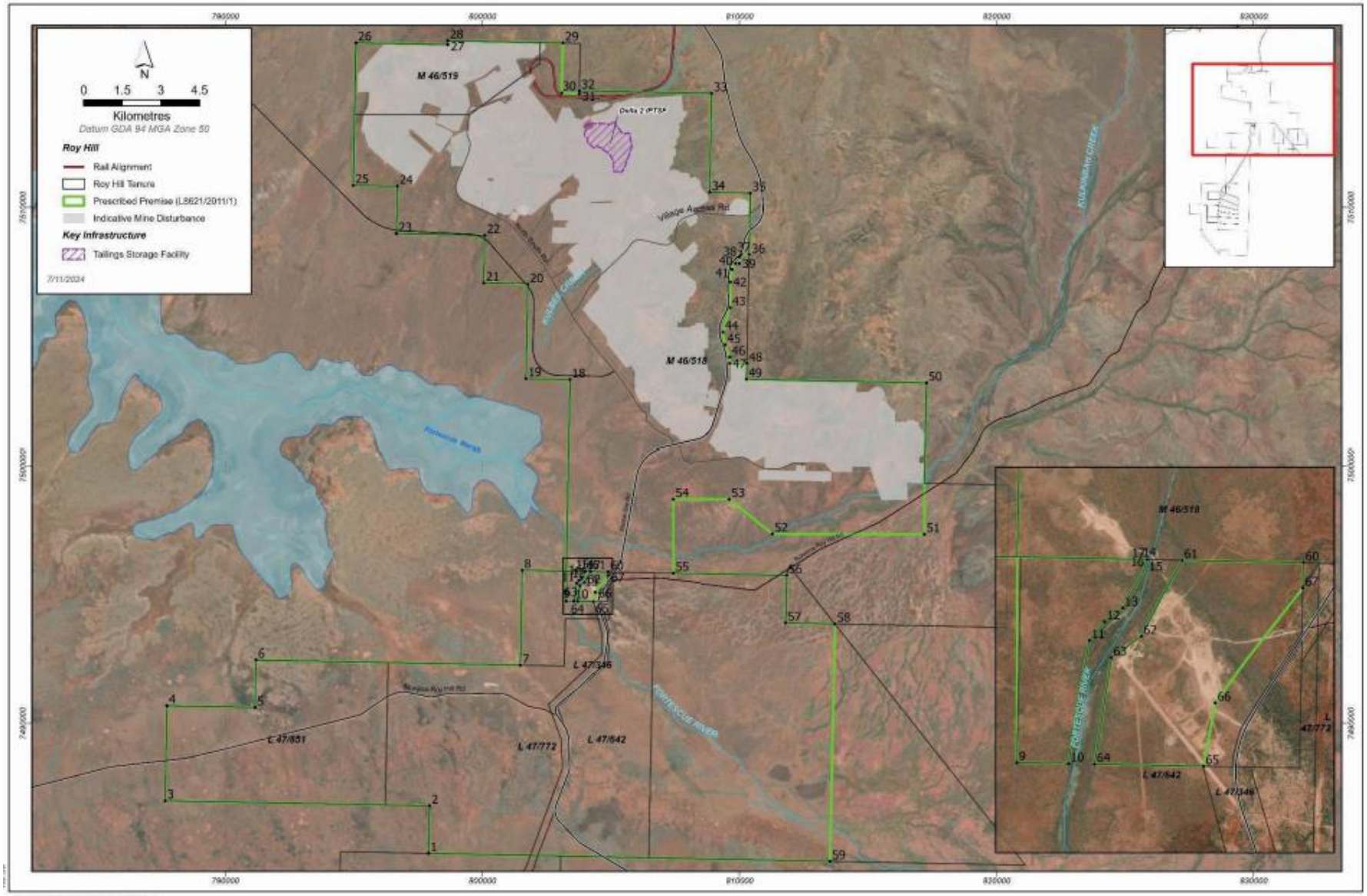


Figure 1: Prescribed premises boundary and location of the proposed Delta 2 IPTSF

Works Approval: W2862/2025/1

2.3.1 Design

Table 1 provides a summary of the key characteristics of the Delta 2 IPTSF.

Table 1: Delta 2 IPTSF key characteristics

Characteristic	Description
Tenements	M46/518
Life of Project	Approximately 2025/2026 (construction) to 2032
Type	In-pit Tailings Storage Facility
Footprint	201 hectares (ha)
Depth	99 metres below ground level (mbgl) (at deepest point – 352 metres Australian Height Datum [mAHD])
Storage capacity	61 million cubic metres (Mm^3) (300 millimetres [mm] operational freeboard and 0.3 percent [%] beach angle)
Tailings density	44 to 55% weight for weight (w/w)
Average dry density	1.2 to 1.5 tonnes per cubic metres (t/m^3)
Specific gravity (SG)	3.4 to 3.9
Tailings deposition method	Spigot disposal
Water management system	Decant pump system to return water to the Process Water Dams

GHD (2024) has developed and prepared the Delta 2 IPTSF design report and includes the following key design aspects:

- dual tailings delivery lines (steel to and along the pit crest, high-density polyethylene [HDPE] on backfill protected by burst discs);
- tailings booster pump station;
- minimum eight discharge spigots located on either pit edge or on backfill;
- western decant access ramp;
- decant access track from base of the access ramp to temporary location in eastern basin;
- decant pumps and pipework; and
- associated civil and structural works for access roads, ramps/tracks, pipeline corridors, road/creek crossings, plinths, spigot restraints, and anchor blocks.

The Delta 2 IPTSF will be comprised of two basins (eastern and western) that will combine once the dividing ridge has been breached. The post-mining perimeter is developed by a combination of approximately 40% of pit shell and approximately 60% of mine waste backfill. Pit depths vary from approximately 50 to 90 mbgl, a maximum surface area of 1.8 square kilometres (km^2), and no external catchment. The maximum storage capacity is expected to be approximately 61 Mm^3 factoring in freeboard requirements and beaching effects. Delta 2 IPTSF is assumed to fill between 5.5 to 6 years, based on the anticipated production rates and achieved average density.

The lowest elevation of the Delta 2 IPTSF pit perimeter is 446.0 metres at reduced level (mRL) and the maximum permitted operating level is 445.0 mRL. The total freeboard of 1 m is split in the operational freeboard of 0.5 m and the beach freeboard of 0.5 m. During the eastern basin development, a freeboard trigger of 0.5 m below the east and west separating ridge will be adopted to accommodate a 1 in 100 year, 72-hour storm rainfall event. This will be confirmed on completion of mining.

2.3.2 Tailings delivery system

The tailings delivery system will use the existing tailings pump station (PS1) and discharge into twin delivery pipelines. The new pipeline will tie into the existing pipelines near the PS1 and follow a corridor through the plant area to the south, and then through to the Delta 2 IPTSF. A new tailings booster station (PS3) will be installed along the pipeline alignment and produce the required pressure to deliver tailings to the Delta 2 IPTSF at the required concentrations and flowrate.

The design of the piping and electrical infrastructure for Delta 2 IPTSF and PS3 will follow the same design approach as that of PS1 and Zulu 5 and Zulu 6 IPTSFs. This will mean the piping and electrical infrastructure will connect to the existing system and ease of integration into the existing Process Control System. The Delta 2 IPTSF system connection point occurs downstream of PS1 with the new twin delivery pipeline laid along a 6 km (approximately) corridor running south from the plant. Then follows the alignment of conveyor CV23, through the new PS3 installed adjacent to the conveyor, and approaching Delta 2 IPTSF from the west. The pipeline will be steel pipe, lined for wear resistance and HDPE pipe at pressure number (PN) 25 to allow for sufficient pressure rating, though the use of alternative plastic piping materials with higher pressure rating and/or lower thermal derating is being investigated. The pipeline will meet at a crossover valve station at the pit crest, where the northern and southern deposition lines will separate.

The tailings lines will be monitored and controlled remotely by four remote input / output (RIO) panels. Hydraulically actuated valves will be installed at the connection point to the existing tailings line to allow flow to be diverted from Zulu 6 IPTSF to Delta 2 IPTSF. These valves will also be installed on the inlet and outlet side of PS3, to allow switching between the pump trains. These valves will be controlled and monitored remotely, and manual ones will be installed once the pipeline reaches the Delta 2 IPTSF crest to divert tailings down either or both the spigot lines. Tailings line flow meters will be installed at the PS3 inlet and monitored against the PS1 outlet flowmeters, as well as at the PS3 outlet and Delta 2 IPTSF crest. These flow meters will allow for an automatic shutdown sequence to be implemented. Burst discs will be installed at the pit perimeter for overpressure protection and any flow will run into the Delta 2 IPTSF. Burst discs will be monitored by pressure transmitters immediately upstream and pressure switches downstream of the burst disc. A high-pressure signal set slightly below the burst disc rupture pressure from these pressure transmitters will raise an alarm which will enable the operators to manage pressures through pump station control, and a high flow signal will indicate that a burst disc has activated.

The booster pump station is necessary to increase the available motive pressure that will be located along the pipeline alignment, at a chainage of approximately 3.5 km to allow the best use of the full capacity of PS1 and limit the required pressure boost from PS3. PS3 will be designed as an in-line booster, with no hydraulic break between the PS1 and PS3 systems. The pumping arrangement for PS3, similar to PS1, has three trains of five pumps in a series that operates as a duty / duty / standby arrangement. PS3 will be entirely bunded to contain any tailings spills during maintenance and operation. A siltation pit will be installed next to PS3 to contain any larger spill events as well as a full dump of the tailings pipeline from PS1.

2.3.3 Deposition ring main and spigots

The depositions mains around the Delta 2 IPTSF are to be lined steel for the first 1 to 1.5 km around the western pit faces and then change to HDPE to cover the northern and southern / eastern perimeter. Discharge spigots will be slotted OD450 PN16 HDPE.

A burst disc will be installed on the steel part of the pipelines to protect the lower pressure HDPE pipework and is located at the edge to allow discharge directly into the Delta 2 IPTSF.

Initial and long-term development

Deposition cannot begin in the western basin until the decant infrastructure is positioned on the western access ramp and the initial development has filled the eastern basin (Figure 2). The decant infrastructure will be placed on a temporary platform in the eastern basin and a track that extends from the ramp in the western basin to provide access. Infrastructure will then be pulled back up the access track to the ridge as the pond level rises. The decant infrastructure will be relocated once the pond / tailings elevation reaches a predefined freeboard trigger.

After the relocation, deposition will recommence in the east where it is expected to take up to 2 months for deposition to overflow the ridge at which water recovery may not be possible. To reduce delay, the initial filling of the western basin will occur in parallel to create decant for return and so the pond migrates to the final decant location.

A minimum of three spigots will be required in the eastern basin and spigots SP1 and SP8 will be used for the western basin. Deposition will primarily occur from spigots SP4 and SP5 in the eastern basin. The installation of SP8 will stay incomplete during initial deposition to permit continued access and be isolated to prevent any accidental discharge. Final construction to extend and anchor the SP8 dropper over the ramp and into the pit basin will occur after the decant infrastructure has been retracted to the final ramp.

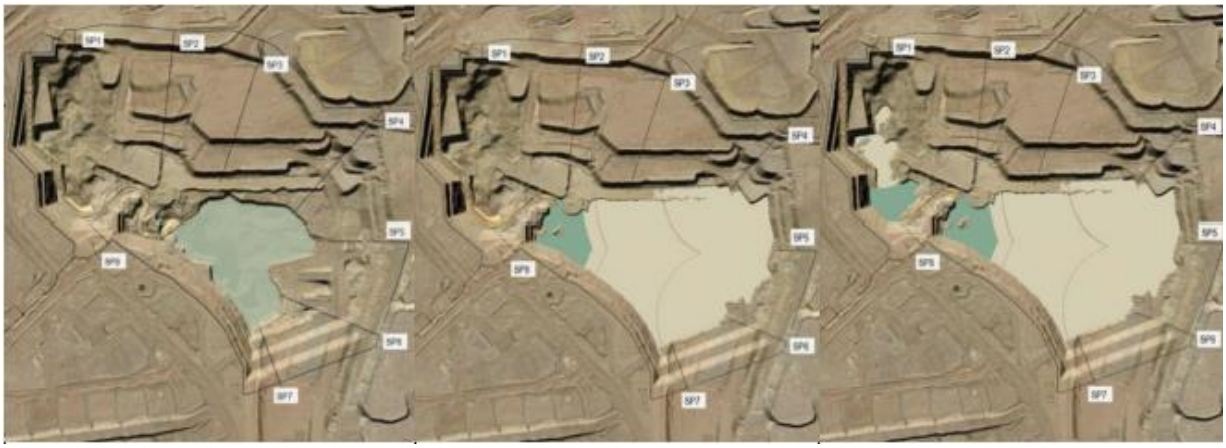


Figure 2: Initial deposition strategy

When the Delta 2 IPTSF is a single basin operation, the long-term deposition strategy is comprised of cycling through spigot locations, as required to control the pond location and extent. A minimum of eight spigots will be required to provide adequate control of the supernatant pond and to consider potential variability in the beach profile and to avoid water trapped against areas of backfill (Figure 3).

Figure 3: Long-term deposition with 0.3% beach slope

2.3.4 Decant return water system

The decant return water infrastructure is designed to reclaim decant supernatant from the Delta 2 IPTSF surface and pump it to the deaerator box that feeds the tailings thickener in the Processing Service Area (PSA). The return water operating envelope will be nominally 10 to 35 megalitres per day (ML/day), based on the water balance modelling results for tailings deposition. Three decant ramps are to be installed, located on the ramp within the pit and have a duty / duty / assist arrangement. The ramp is to be constructed with platforms to locate the equipment that will be periodically relocated as the Delta 2 IPTSF fills. Fresh water from the Reverse Osmosis (RO) plant will supplement the decant water and be used for ore washing.

The primary decant return infrastructure will be three trailer mounted self-priming diesel driven pumps, a common fuel tank located at the top of the ramp or at an appropriate platform level. Each pump will have an individual discharge line to the top of the ramp and connect to a larger pipeline for transfer to the deaerator box. Pumps will have onboard flowmeter and suction and discharge pressure transmitters, to monitor individual pump performance. Telemetry panels will be installed to communicate back to the existing water services SCADA server by the transportable radio repeater located on the Northern pit wall and send an alert if the flowmeter fails.

Due to the depth and geometry of the eastern basin, access to the decant supernatant may not be possible with the trailer mounted pumps until 2 months of IPTSF operation. To achieve early decant of the supernatant within this time period, a highwall pump, consisting of a skid housing a pipe reel, trellis boom and a submersible pump may be utilised. The skid would be located on the access ramp, and the pump would be lowered into the decant pond.

2.3.5 Tailings characterisation, supernatant composition and seepage

Tailings characterisation

Before the construction of Zulu 5 IPTSF, tailings geotechnical characterisation was assessed and results indicated that the tailings were not likely to be acid generating, but the supernatant may be subject to evapo-concentration and some elements may leach at concentrations higher than the background water quality (SRK 2018).

In 2021, geochemical data for tailings was reassessed for the development of Zulu 6 IPTSF and the inclusion of Wet High Intensity Magnetic Separation (WHIMS) product. Tailings results still indicated it was non-acid generating, however retained the potential to leach some elements to groundwater at concentrations higher than background water quality, largely due to evapo-

transpiration. These elements included Aluminium, Barium, Chromium, Fluorine, Iron, Molybdenum, Selenium, Thorium and Sulphate (MWM 2021a and b).

GHD (2024) Delta 2 IPTSF design report has indicated that all tailings will be slurried using decant return or make up water to a solids concentration, with the addition of flocculant to remove the fines concentrate. The solids concentration will be in the range of 44 to 55% before being deposited into the Delta 2 IPTSF. The tailings expected to be discharged into the Delta 2 IPTSF include:

- current tailings produced at the premises denoted as Roy Hill Standard Blend or Medium Blend Standard Blend;
- reprocessed tailings recovered from the existing Above-ground TSF; and
- tailings resulting from the processing of ore from the McPhee Mine.

GHD (2024) has characterised the McPhee tailings product based on the available tests results and based on these findings, the tailings show similar or improved behaviour when compared to the Roy Hill tailings. The tailings geotechnical test results are presented in Table 2.

Table 2: Summary of tailings geotechnical test results

Parameter	Unit	Zulu 6 IPTSF Design Sample 1	Zulu 6 IPTSF Design Sample 7	Delta 2 IPTSF Roy Hill Standard Sample	Delta 2 IPTSF Roy Hill Medium Blend Sample	McPhee 2022 Sample	McPhee 2024 Sample
Date Tested		August 2021	August 2021	September 2024	September 2024	September 2022	June 2024
Solids particle density	-	3.85	4.10	3.70	3.45	3.83	3.82
Liquid limit	%	39	33	26	39	29	31
Plasticity index	%	17	12	10	14	13	11
Classification		Cl (Medium to low plasticity clay)	CL (Low plasticity clay)	CL (Low plasticity clay)	Cl (Medium to low plasticity clay)	CL (Low plasticity clay)	CL (Low plasticity clay)
Slurry solids content	% w/w	53	43	48	48	50	49
Undrained settled dry density	t/m^3	1.08	0.85	1.13	0.96	1.35	1.23
Drained settled dry density	t/m^3	1.43	1.08	1.49	1.40	1.76	1.55
Air dried density (60°C)	t/m^3	1.36	1.35	1.36	1.28	1.28	1.29
Permeability	m/s	6.1×10^{-8} to 5.9×10^{-9}	1.7×10^{-7} to 4.0×10^{-8}	1.7×10^{-8} to 5.9×10^{-11}	1.4×10^{-8} to 2.3×10^{-11}	6.0×10^{-8} to 5.2×10^{-11}	7.0×10^{-8} to 4.0×10^{-11}

Further detail is provided on the geotechnical testing of the McPhee tailings (2022/2024), and comparison of the results with the Roy Hill pre-existing tailings data as stated below: from GHD

(2024)

- *"Both the McPhee and Roy Hill tailings samples exhibit very low sulphur concentrations (acid production), and the excess of neutralising capacity of the tailings (ANC) renders the tailings as non-acid forming (NAF). As a consequence, there is little risk of metals leaching under acidic conditions.*
- *In general, the concentrations of metals (total) deemed as metals of concern (As, Cu, Cr, Ni, Pb, and Zn) within the McPhee tailings samples were lower or similar to that of average Roy Hill tailings, the observations of which is also reflected in the single leach testing results (ASLP).*
- *Leaching of both tailings under saline conditions (McPhee and Roy Hill) indicates that at higher salinities the McPhee tailings may leach some metals (e.g.: Ba and Sr) at increased concentrations, possibly due to ion-exchange reactions in response to a higher clay content of the McPhee tailings to that of the Roy Hill tailings.*
- *The pH condition testing indicates (LEAF 1313) that at high acidities (low pH), the majority of the metals leach from the tailings at increased concentrations (e.g.: As, Cu, Ba, Ni, Sr, U, Zn), which if similar acidic conditions exist at the tailings facility may warrant management to decrease any exposure and seepage risks."*

Overall, the Roy Hill and McPhee tailings show similar metal concentrations, support similar geological origin and ore forming processes that facilitates co-deposition of tailings.

The Zulu 6 IPTSF decant water quality data collected between February 2023 and July 2024, was used to characterise potential contaminants of concern that may seep into the groundwater from the IPTSF. However, it has been identified that the water quality realistically will reflect the quality of the entrained water held within the tailings.

Supernatant composition

Tailings supernatant composition appeared to be relatively constant with pH for all samples, mildly saline, with major cations and anions readily detectable and sulphate dominating the solution composition (SRK 2018). Most trace elements were present at very low concentrations.

The results of the Zulu 6 IPTSF decant water are summarised below:

- total dissolved solids (TDS) concentrations ranged from 2,530 to 13,100 mg/L and are considered brackish to saline;
- pH values range from 6.4 to 8.2, described as near-neutral to slightly alkaline;
- nutrients (represented by nitrate) had a maximum value of 54.6 mg/L but a mean of 35.5 mg/L. The mean value is higher than that of the background concentrations in the receiving groundwater (4 to 32 mg/L); and
- the selection of potential contaminants of concern Chromium, Selenium, and Nitrate was based on previous risk analyses undertaken by GHD (2018; 2022).

Seepage

The applicant has indicated that localised mounding will occur but limited to nearby and within the IPTSF footprint and not anticipated to significantly change the hydrodynamic flow patterns in the area. Groundwater mounding is likely to slowly dissipate once the Delta 2 IPTSF ceases to be operational.

The applicant has also noted that the Delta 2 IPTSF is located within a cone of depression that is controlled by mine dewatering and should recover after mining operations cease. Seepage is expected to increase from deposition up to a peak of 880 m^3 per day (m^3/day) until tailings deposition finishes. After tailings deposition ends, the seepage rates should decline sharply over

the following year to 300 m^3/day in June 2032, followed by a gradual reduction in seepage to 50 m^3/day in the 20 years following cessation of filling.

The applicant has advised that for predicted seepage concentrations these will begin to rise after 2028 to peak in 2043 and 2045, then concentrations will sharply decrease until the decrease become steady after 2050. The expected variability is due to the climate data sequence representing dry and wet years. Seepage concentrations that increase during mining and the first few years after closure will be related to ongoing maintenance of the pond level and sustained evaporation from the pond which would continue to increase solute concentrations within the IPTSF. Once there is no ponding, the IPTSF water level would decline and remove the evapo-concentration effects. Small amounts of natural recharge over the Delta 2 IPTSF would begin the long-term dilution of concentrations in the IPTSF.

2.3.6 Water balance

GHD (2019) developed a water balance model using GoldSim 12.0 to inform the Life of Mine tailings strategy for the premises. The model simulated various system components and processes for a TSF that included deposition and accumulation of tailings solids, changes in water quality and quantity and considered current and future IPTSFs. The water balance model has been used to estimate the volume of water available at the Delta 2 IPTSF for return to the process plant under various climatic conditions. The model was initially developed for the Zulu 5 IPTSF and was then adopted for the Delta 2 IPTSF due to similarities in the tailings and deposition environment.

The water balance model considered the following inflow and outflow parameters:

- tailings;
    - tailings production rate;
    - tailings deposition into IPTSF commences at 01 June 2025;
    - tailings solid density 4.0 t/m^3;
    - tailings solid content 46%;
- evaporation from supernatant pond (63% x pan evaporation), wet and dry beaches;
- IPTSF is empty at the start of deposition;
- interstitial storage;
- beach slope of 0.8%; and
- no catchment runoff, seepage returns, groundwater inflows and mechanical evaporation.

Furthermore, the water balance considered a range of solids concentration and beach slopes to determine sensitivity of the available decant to the variation of the above parameters. The results are presented in Figure 4 and Figure 5 and shows that the solids concentration is the critical parameter to determine the volume of water for decant. Thus, the recommendation is for the decant infrastructure to be designed for a range of 10 to 35 ML/day (as previously stated in section 2.3.4) to factor in the anticipated variability in the solids concentration.

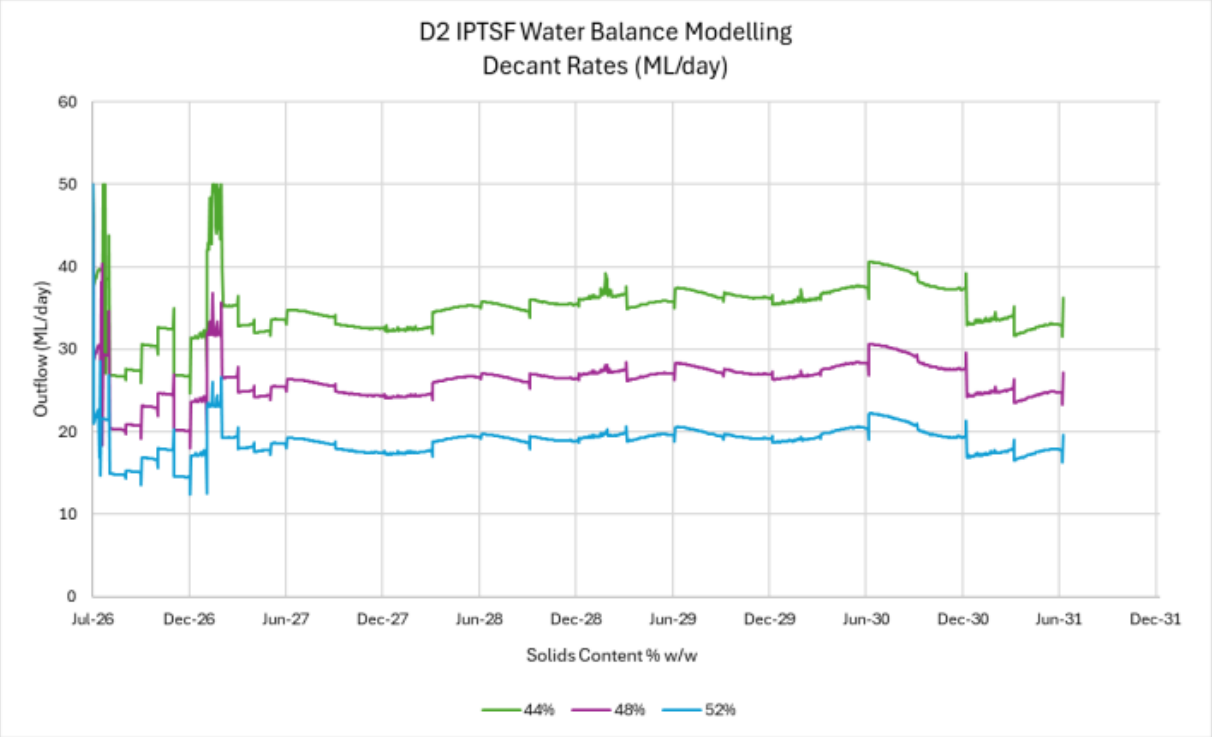


Figure 4: Water balance results – varying solids concentration at 0.3% beach slope

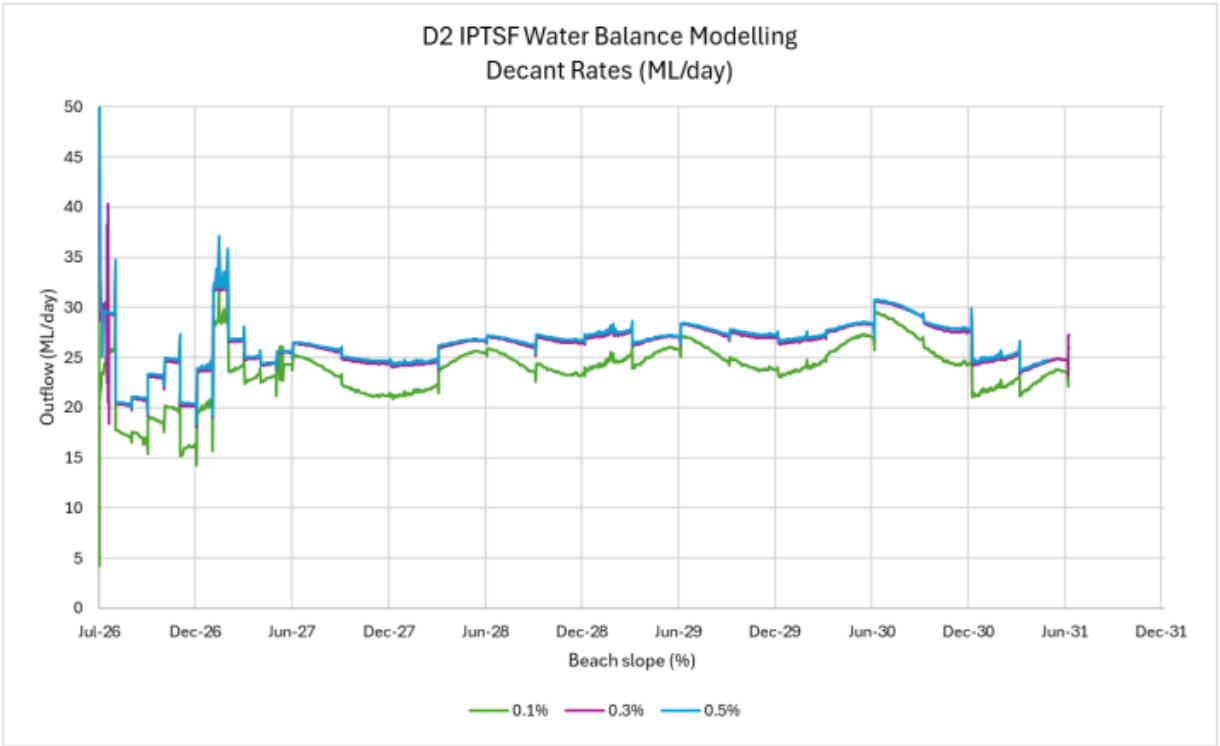


Figure 5: Water balance results – varying beach slope at 48% solids concentration

2.3.7 Groundwater monitoring

A network of existing and proposed groundwater monitoring bores is required to monitor groundwater levels and quality next to, and hydraulically downgradient of Delta 2 IPTSF. Six proposed monitoring bores (four deep and two shallow bores) will be installed around the perimeter to the south-west side of the Delta 2 IPTSF as the anticipated plume migration

direction is towards the south and south-west of the Delta 2 IPTSF. The proposed additional monitoring bores and their locations should cover the gaps in the Delta 2 IPTSF monitoring network for Ministerial Statement (MS) 1189.

Groundwater monitoring will be undertaken as per the licence L8621/2011/1 ambient groundwater monitoring requirements as well as in accordance with the Roy Hill Mine Water Management Plan (OP-PLN-00300) (WMP) under MS 1189.

2.4 Other Approvals

2.4.1 Part IV of the EP Act

The Roy Hill Iron Ore Mine revised proposal was assessed by the Environmental Protection Authority (EPA) and approved under MS 1189 on 19 May 2022.

MS 1189 is subject to conditions under the EP Act with the following conditions shown below being relevant to this assessment under Part V of the EP Act.

Condition 1 – Revised Proposal Implementation

Condition 1-1: When implementing the revised proposal, the proponent shall ensure the proposal does not exceed the following extent:

- In-pit tailings storage facilities, only in the mine pits shown in Figure 3 in the MS1189.
- Excess water used for dust suppression is no more than 7.4 gigalitres (GL).

Condition 2

Condition 2 relates to Inland Water and Subterranean Fauna, with Condition 2-1 requiring the proponent to avoid impacts to the Fortescue Marsh and to vegetation outside the disturbance footprint by ensuring the following outcome is met:

(1) no indirect disturbance to vegetation outside the disturbance

Condition 7

Condition 7 relates to Terrestrial Fauna – Ghost Bat, with Condition 7-1 requiring no adverse impact to the structural integrity or viability of the ghost bat cave.

Condition 8

Condition 8 relates to the Subterranean Fauna in particular, troglofauna impact area and stygofauna impact area.

Condition 11

Condition 11 relates to Social Surroundings – Cultural Heritage Management Plan, with Condition 11-1 requiring the revised proposal to meet the following objectives:

(1) avoid, where possible, and minimise direct and project attributable indirect impacts to social, cultural, heritage, and archaeological values within and surrounding the development envelope.

Condition 11-3 requires a Cultural Heritage Management Plan to be implemented which was developed in consultation with the Nyiyaparli People registered native title body corporate.

It should be noted that a section 45C under Part IV of the EP Act was approved on 02 July 2024 and includes the following changes:

- Removed the TDS limit of 50,000 mg/L for aquifer injection of excess mine dewater and limits for dust suppression using excess mine dewater.
- Replaced Condition 1-1 to reflect the removal of the TDS limits.

On 30 July 2024, revision 8 of the WMP was submitted and approved by the department's Environmental Protection Authority (EPA) Services Branch to include the removal of reference to TDS limits.

Requirements of MS 1189 are not re-assessed in the decision report and will not be duplicated as conditions in the existing licence L8621/2011/1.

A section 45c of the EP Act was submitted to department's EPA Services Branch for the inclusion of the Delta 2 IPTSF on 28 October 2024**.** Assessment of the works approval application was placed on hold by the department, until the section 45c was approved on 07 May 2025, for the works approval application to progress with its assessment.

2.4.2 *Environment Protection and Biodiversity Conservation Act 1999*

The Original Proposal was referred under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) in 2008. In December 2008, Roy Hill Iron Ore Pty Ltd was informed that the Original Proposal was not a *controlled action* under the EPBC Act (Reference: EPBC No. 2008/4624). In 2018, however, Roy Hill Iron Ore Pty Ltd referred the Revised Proposal under the EPBC Act and in 2019 it was advised that the Proposal was a *controlled action* and would be assessed under the EPBC Act. The Revised Proposal was to be assessed as an accredited assessment with the WA Office of the EPA under the EP Act. The Revised Proposal was approved on 05 August 2022 with conditions of approval (Reference: EPBC 2018/8330).

After the approved section 45C under the EP Act to remove injection and dust suppression salinity limits, the WMP was also submitted to the Department of Climate Change, Energy, the Environment and Water (DCCEEW) for approval. The WMP (Revision 8) was approved by DCCEEW on 30 August 2024.

2.4.3 *Mining Act 1978*

Mining Proposal (Revision 17, Version 3) Reg ID 122323 was approved on 24 May 2024 by the Department of Energy, Mines, Industry Regulation, and Safety (DEMIRS).

The Roy Hill Iron Ore Mine is located within the tenements M46/518, M46/519, L47/851, L47/346, L47/772, and L47/642. The proposed prescribed activities are contained within these tenements and will be the same boundary as the existing prescribed premises boundary for licence L8621/2011/1.

The applicant has submitted a new revision of the Mining Proposal (Version 18) Reg ID 122323 to DEMIRS in November 2024 to review and approve the revised Mining Proposal to include the proposed Delta 2 In-pit TSF, to process external ore from the McPhee mine site, two Waste Rock Landforms, and amendments to other mine activities and management.

The department notes that the Mining Proposal (Reg ID 122323) is yet to be approved by DEMIRS as detailed under section 4 - Consultation. Approval of the Mining Proposal will be required prior to works assessed under this decision report commencing.

3. Risk assessment

The department assesses the risks of emissions from prescribed premises and identifies the potential source, pathway and impact to receptors in accordance with the *Guideline: Risk Assessments* (DWER 2020a).

To establish a risk event there must be an emission, a receptor which may be exposed to that emission through an identified actual or likely pathway, and a potential adverse effect to the receptor from exposure to that emission.

3.1 Source-pathways and receptors

3.1.1 Emissions and controls

The key emissions and associated actual or likely pathway during premises construction, commissioning, and time limited operation which have been considered in this decision report are detailed in Table 3 below. Table 3 also details the control measures the applicant has proposed to assist in controlling these emissions, where necessary.

Table 3: Proposed applicant controls

Sources / Activities	Emission	Potential pathways	Proposed controls
Construction			
Construction of the Delta 2 IPTSF and associated infrastructure Vehicle movements and mobile equipment Construction of groundwater monitoring bores	Dust	Air / windborne pathway	• Dust emissions will be minimised by the use of water trucks for dust suppression on operational unsealed and construction areas. • Implementation of the *Roy Hill Dust Management Procedure (OP-PRO-00180).* • Implementation of the *Roy Hill Saline Water Use Management Procedure (OP-PRO-01073).*
Commissioning			
Commissioning of tailings and decant / return water pipelines, decant pump, spigots, and pipeline equipment e.g. telemetry	Tailings and decant / return water	Discharge to land from leaks / spills	• Maintain and operate a rupture disc to direct pressure events into the IPTSF. • Maintain and operate the pressure switch installed upstream of the rupture disc to provide an alarm of high pressures and trigger an alarm on PCS which will result in emergency shutdown of the pumping system. • Potential leaks and loss of tailings must be managed in accordance with the *RHIO Spill Response Procedure (OP-PRO-00275).*
Time-limited operation			
Operation of the Delta 2 IPTSF	Dust lift-off	Air / windborne pathway	• Undertake daily visual inspections of the IPTSF.
	Tailings seepage	Seepage / infiltration from the base and walls of the	• Undertake groundwater monitoring to assess groundwater levels and quality. • Groundwater quality must be actioned as per Objective based Management Provisions (Table 4.1) of the *Roy Hill*

Sources / Activities	Emission	Potential pathways	Proposed controls
		IPTSF	*Water Management Plan (OP-PLN-00300).*
	Tailings	Overtopping / discharge to land	• Undertake daily visual inspections of the IPTSF, including but not limited to decant pond water level and embankment level. • Surface water flows must be diverted away from the Delta 2 IPTSF by the Kulbee Creek Channel, where Kulbee Creek Channel is designed for a 1% Annual Exceedance Probability (AEP). • Constructed safety windrows around the IPTSF perimeter must direct flows away from backfill areas and maintain catchment to the local IPTSF area. • Operate and maintain a 1 m total freeboard (0.5 m operational and 0.5 m beach). • Maintain and operate a burst disc to direct pressure events into the IPTSF. • Maintain and operate the pressure switch installed upstream of the burst disc to provide an alarm of high pressures and trigger an alarm on PCS which will result in emergency shutdown of the pumping system. • Potential leaks and loss of tailings must be managed in accordance with the *RHIO Spill Response Procedure (OP-PRO-00275).*
	Tailings and decant / return water	Discharge to land from leaks / spills from tailings and decant / return water pipelines	• Twice daily visual inspections of the IPTSF tailings and decant pipeline for integrity checks and potential leaks. • Maintain and operate the flow meters on the tailings pipeline located at the PS3 inlet and monitored against the PS1 outlet flowmeters, and at the PS3 outlet and Delta 2 IPTSF crest (monitored against each other). A fast shutdown sequence for the tailings pipelines will be initialed when the flow differential is triggered. • Maintain and operate 0.3 m freeboard over the Kulbee Creek Channel where the tailings pipeline has been raised. • Decant pipelines must be buried below crossings of Kulbee Creek Channel and Channel 9. • Maintain ground profiling, windrows, and diversions to minimise the impact of

Sources / Activities	Emission	Potential pathways	Proposed controls
			surface water on the pipeline corridor. • Maintain earthen bunded pipeline corridors to contain any potential spills or leaks. • Potential leaks and loss of tailings must be managed in accordance with the *RHIO Spill Response Procedure (OP-PRO-00275).*

3.1.2 Receptors

In accordance with the *Guideline: Risk Assessment* (DWER 2020a), the Delegated Officer has excluded the applicant's employees, visitors, and contractors from its assessment. Protection of these parties often involves different exposure risks and prevention strategies and is provided for under other state legislation.

Table 4 below provides a summary of potential human and environmental receptors that may be impacted as a result of activities upon or emission and discharges from the prescribed premises *(Guideline: Environmental Siting* (DWER 2020b)).

Table 4: Sensitive human and environmental receptors and distance from prescribed activity

Human receptors	Distance from prescribed activity
Roy Hill Homestead	Approximately 16.5 km south from Delta 2 IPTSF, 16.5 km south from the tailings pipeline, and 17 km south from the decant pipeline. ***Screened out due to the distance from the prescribed activities.***
Marble Bar Road – road users	Approximately 4.5 km southeast from Delta 2 IPTSF, 4.5 km southeast from the tailings pipeline, and 4.5 km southeast from the decant pipeline. ***Screened out due to the distance from the prescribed activities.***
Nyiyaparli People	'Heritage Exclusion Areas' are managed under conditions in MS 1189. ***Screened out as managed under MS 1189.***
10 Mile Bore	Approximately 5.5 km northeast from Delta 2 IPTSF, 5 km southwest from the tailings pipeline, and 6 km southwest from the decant pipeline. ***Screened out due to the distance from the prescribed activities.***
Environmental receptors	**Distance from prescribed activity**
Fortescue River and Marsh is listed as a Priority 1 Ecological Community (PEC), a wetland of national significance and proposed Ramsar Area.	Approximately 5 km southwest from Delta 2 IPTSF, 5 km southwest from the tailings pipeline, and 5.5 km southwest from the decant pipeline. ***Screened out as managed under MS 1189.***

Environmental receptors	Distance from prescribed activity
Ephemeral Creeks run through the Premises	NoName Creek
Under MS 1189, several surface water drainage features are being modified to divert flows around mine pit areas back to pathways leading down riparian vegetation and ultimately to the Fortescue Marsh.	Approximately 4 km west from Delta 2 IPTSF, 1.3 km west from the tailings pipeline, and 5.5 km southwest from the decant pipeline. Kulbee Creek (Channel) Approximately 0.2 km west from Delta 2 IPTSF, crosses over where the tailings pipeline is located, and crosses over where the decant pipeline is located. Channel 9 Approximately 1 km west from Delta 2 IPTSF, 0.1 km running parallel for 4 km along the tailings pipeline, and 0.1 km crosses over and runs parallel for 3 km along the decant pipeline. Managed under MS 1189, Condition 2-1, but refers to outside of the disturbance footprint.
Groundwater	Approximately 40 to 50 mbgl (natural depth to groundwater in mine area) and 50 to 70 mbgl, where mine dewatering occurs.
Threatened / Priority fauna	Significant habitat within and outside the premises boundary for the Greater Bilby (*Macrotis lagotis*) Vulnerable, Pilbara Olive Python (*Liasis olivaceus barroni*) Vulnerable, Northern Quoll (*Dasyurus hallucatus*) Endangered, and Princess Parrot (*Polytelis alexandrae*) Vulnerable.
Priority flora	Within the premises boundary and approximately within 0.5 km of the proposed prescribed activities. Some parts are managed under MS 1189. Flora Exclusion Areas are managed under conditions in MS 1189. However, these exclusion areas are more than 5 km away from the proposed prescribed activities.
Riparian vegetation and Vegetation types 23, 31, 32, 33 (Groundwater Dependent Vegetation)	Approximately 3.5 km east from Delta 2 IPTSF, 4 km east from the tailings pipeline, and 3.5 km east from the decant pipeline. Managed under MS 1189, Condition 2-1, but refers to outside the disturbance footprint.
Native vegetation	Within the premises boundary. Approximately within 1 km of the proposed prescribed activities.
Cultural receptors	**Distance from prescribed activity**
Aboriginal heritage sites	Approximately 1 km north from Delta 2 IPTSF, 0.8 km northeast from the tailings pipeline, and 0.4 km north from the decant pipeline. ***Screened out as managed under MS 1189. Heritage Exclusion Areas are managed under conditions in MS 1189.***

3.2 Risk ratings

Risk ratings have been assessed in accordance with the *Guideline: Risk Assessments* (DWER 2020a) for each identified emission source and takes into account potential source-pathway and receptor linkages as identified in Section 3.1. Where linkages are in-complete they have not been considered further in the risk assessment.

Where the applicant has proposed mitigation measures/controls (as detailed in Section 3.1), these have been considered when determining the final risk rating. Where the delegated officer considers the applicant's proposed controls to be critical to maintaining an acceptable level of risk, these will be incorporated into the works approval as regulatory controls.

Additional regulatory controls may be imposed where the applicant's controls are not deemed sufficient. Where this is the case the need for additional controls will be documented and justified in Table 5.

Works approval W2862/2025/1 that accompanies this decision report authorises construction, commissioning and time-limited operations. The conditions in the issued works approval, as outlined in Table 5 have been determined in accordance with *Guidance Statement: Setting Conditions* (DER 2015).

An amendment to licence L8621/2011/1 is required following the time-limited operational phase authorised under the works approval to authorise emissions associated with the ongoing operation of the premises' prescribed activities. The existing conditions related to operational requirements under the licence L8621/2011/1 would be updated to include Delta 2 IPTSF.

Table 5: Risk assessment of potential emissions and discharges from the premises during construction, commissioning and time-limited operation

Risk events					Risk rating [1] C = consequence L = likelihood	Applicant controls sufficient?	Conditions [2] of works approval	Justification for additional regulatory controls
Sources / activities	**Potential emission**	**Potential pathways and impact**	**Receptors**	**Applicant controls**				
Construction								
Construction of the Delta 2 IPTSF and associated infrastructure Vehicle movements and mobile equipment Construction of groundwater monitoring bores	Dust	**Pathway:** Air / windborne pathway **Impact:** Potential impact to vegetation health, fauna health, and surface water quality	Native vegetation including priority flora Ephemeral creeks / surface water Native fauna including conservation significant fauna	Refer to Section 3.1	C = Slight L = Possible **Low Risk**	Y	Condition 1 – design and construction / installation requirements that includes the application of water for dust suppression. Condition 4 – design, construction, and installation requirements for groundwater monitoring bores.	Not applicable
Commissioning								
Commissioning of tailings and decant / return water pipelines, decant pump, spigots, and pipeline equipment e.g. telemetry	Tailings and decant / return water	**Pathway:** Discharge to land from leaks / spills **Impact:** Potential contamination of soil and nearby surface water	Soil Surface water	Refer to Section 3.1	C = Slight L = Unlikely **Low Risk**	Y	Condition 1 – design and construction / installation requirements Condition 8 – commissioning requirements with an authorised commissioning duration. Condition 9 – authorised discharge points to discharge tailings into Delta 2 IPTSF. Condition 10 – ambient groundwater monitoring.	Not applicable
Time-limited operation								
Operation of the Delta 2 IPTSF	Dust lift-off	**Pathway:** Air / windborne	Native vegetation including	Refer to Section 3.1	C = Slight	Y	Condition 15 – operational requirements for the Delta 2	Not applicable

Risk events					Risk rating [1] C = consequence L = likelihood	Applicant controls sufficient?	Conditions [2] of works approval	Justification for additional regulatory controls
Sources / activities	**Potential emission**	**Potential pathways and impact**	**Receptors**	**Applicant controls**				
		pathway **Impact:** Potential impact to vegetation health, fauna health, and surface water quality	priority flora Ephemeral creeks / surface water Native fauna including conservation significant fauna		L = Rare **Low Risk**		IPTSF.	
	Tailings seepage	**Pathway:** Seepage / infiltration from the base and walls of the IPTSF **Impact:** Potential contamination of soils and groundwater quality	Soils Groundwater	Refer to Section 3.1	C = Moderate L = Possible **Medium Risk**	Y	Condition 15 – operational requirements. Condition 16 – emissions, discharge, and ambient monitoring from the discharge pipeline and groundwater monitoring bores. Condition 17 – undertake monthly monitoring of the water balance for Delta 2 IPTSF.	Not applicable
		Pathway: Infiltration from the base and walls of the IPTSF **Impact:** Potential for groundwater mounding	Riparian vegetation (deep rooted) Soils Groundwater	Refer to Section 3.1	C = Moderate L = Possible **Medium Risk**	Y	Condition 15 – operational requirements. Condition 16 – emissions, discharge, and ambient monitoring from the discharge pipeline and groundwater monitoring bores. Condition 17 – undertake monthly monitoring of the water balance for Delta 2 IPTSF.	Not applicable
	Tailings	**Pathway:** Overtopping / discharge to land	Soils Surface water	Refer to Section 3.1	C = Moderate L = Possible	Y	Condition 15 – operational requirements. Condition 16 – emissions,	Not applicable

Risk events					Risk rating [1] C = consequence L = likelihood	Applicant controls sufficient?	Conditions [2] of works approval	Justification for additional regulatory controls
Sources / activities	**Potential emission**	**Potential pathways and impact**	**Receptors**	**Applicant controls**				
		Impact: Potential impact to soils, surface water, groundwater and nearby native vegetation	Native vegetation		**Medium Risk**		discharge, and ambient monitoring from the discharge pipeline and groundwater monitoring bores. Condition 17 – undertake monthly monitoring of the water balance for Delta 2 IPTSF.	
	Tailings and decant / return water	**Pathway:** Discharge to land from leaks / spills from tailings and decant / return water pipelines **Impact:** Potential contamination of soil and nearby surface water	Soil Surface water	Refer to Section 3.1	C = Minor L = Unlikely **Medium Risk**	Y	Condition 15 – operational requirements.	Not applicable

Note 1: Consequence ratings, likelihood ratings and risk descriptions are detailed in the *Guideline: Risk Assessments* (DWER 2020a).

Note 2: Proposed applicant controls are depicted by standard text. **Bold and underlined text** depicts additional regulatory controls imposed by department.

4. Consultation

Table 6 provides a summary of the consultation undertaken by the department.

Table 6: Consultation

Consultation method	Comments received	Department response
Application advertised on the department's website on 26 February 2025	No comments were received.	No response required.
Application advertised in the West Australian newspaper on 03 March 2025	No comments were received.	No response required.
Shire of East Pilbara advised of proposal on 28 February 2025	No comments were received.	No response required.
DEMIRS advised of proposal on 28 February 2025	Comments were received by DEMIRS on 06 March 2025. DEMIRS noted that the revised Mining Proposal Reg ID 129813 was submitted by Roy Hill Iron Ore Pty Ltd (the applicant) in November 2024 and has been referred to DEMIRS's Geotechnical team for review and comments, in particular for the proposed Delta 2 In-pit TSF. No significant concerns have been noted, without comments received by DEMIRS's Geotechnical team at this stage of the assessment. DEMIRS also notes that the revised Mining Proposal is also seeking approval to process external ore from the McPhee mine site, two Waste Rock Landforms, and amendments to other mine activities and management. DEMIRS acknowledges that revised Mining Proposal includes that the applicant will submit an amendment to licence L8621/2011/1 to include the new activities noted in the revised Mining Proposal that include, but not limited to the Delta 2 In-pit TSF, ore from McPhee mine site and fuel facilities and the following: • Category 5: Increasing the processing / beneficiation from 86,000,000 to 102,000,000 tonnes; and • Category 57: No more than 8,000 used tyres. Further correspondence with DEMIRS was provided on 09 April 2025. DEMIRS is seeking further information from the applicant in order to approve the revised Mining Proposal. The information required is summarised below:	The department notes DEMIRS's comments. The department advises that the applicant ensures that the additional information required by DEMIRS is considered for this works approval, where applicable. Applicant to ensure any changes made are consistent with the works approval.

Consultation method	Comments received	Department response
	• Sensitivity analyses during deposition and decant levels over stage 1, 2, and 3. • Monitoring assessment for the bridge between pits for seepage, cracking and deformation. • Adequate drainage diversions to be considered for waste rock landforms that are 40 m in height and consist of erodible material. • Details on existing groundwater salinity in Delta 2 IPTSF and the expected TDS seepage concentrations.	
Applicant was provided with draft documents on 30 May 2025	The works approval holder's comments are provided in Appendix 1.	The department's response is provided in Appendix 1.

5. Conclusion

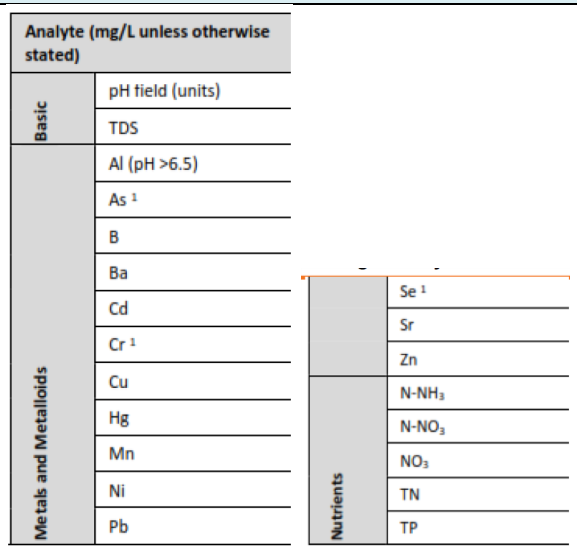
Based on the assessment in this decision report, the delegated officer has determined that a works approval will be granted, subject to conditions commensurate with the determined controls and necessary for administration and reporting requirements.

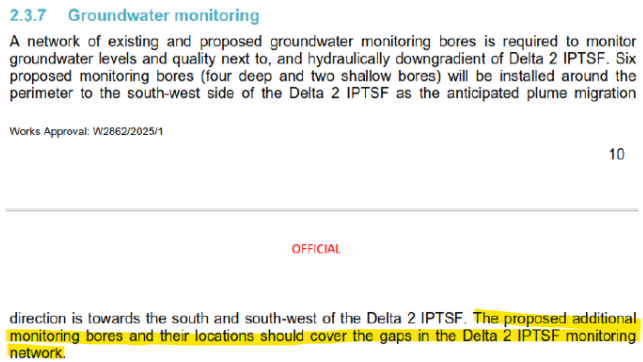
References

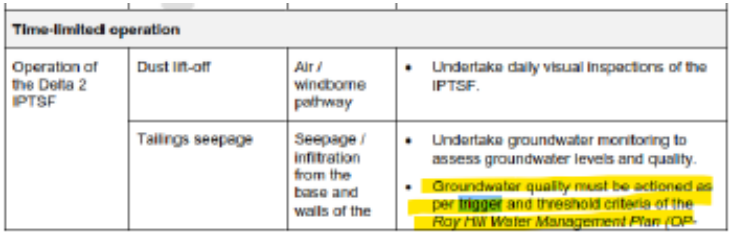
1. Department of Environment Regulation (DER) 2015, *Guidance Statement: Setting Conditions*, Perth, Western Australia.
2. Department of Water and Environmental Regulation (DWER) 2020a, *Guideline: Risk Assessments*, Perth, Western Australia.
3. DWER 2020b, *Guideline: Environmental Siting*, Perth, Western Australia.
4. GHD 2018, *Zulu 5 In-Pit TSF Detailed Design Groundwater Change Assessment.* Unpublished report prepared for Roy Hill Iron Ore Pty Ltd.
5. GHD 2022, *McPhee Project: 2022 Tailings Geotechnical, Rheological, and Geochemical Characterisation, 11 October 2022.* Unpublished report prepared for Roy Hill Iron Ore Pty Ltd.
6. GHD 2024, *D2 In Pit Tailings Storage Facility SCP-2720-GE-REP-0001 Design Report, HanRoy Iron Ore Projects Pty Ltd, 14 November 2024.* Unpublished report prepared for HanRoy Iron Ore Projects Pty Ltd.
7. Mine Waste Management (MWM) 2021a, *WHIMS Geotechnical Data Review Memorandum*. Unpublished report prepared for Roy Hill Iron Ore Pty Ltd.
8. MWM, 2021b, *Zulu 6 In-Pit Tailings Disposal - Geochemical Risk Review Memorandum*. Unpublished report prepared for Roy Hill Iron Ore Pty Ltd.
9. SRK Consulting (SRK) 2018, *Roy Hill Geochemical characterization of iron ore tailings, Report ROY006_Tailings Geochem_Rev2, 30 August 2018.* Unpublished report prepared for Roy Hill Iron Ore Pty Ltd.

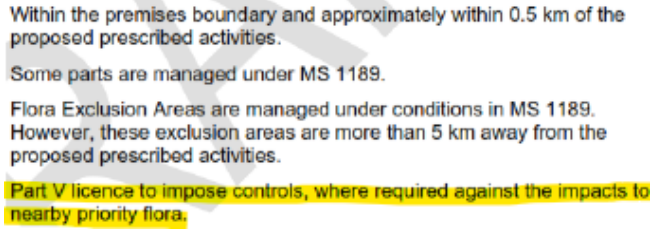
Appendix 1: Summary of applicant's comments on risk assessment and draft conditions

Condition / Section	Summary of applicant's comment	Department's response
Works approval		
Condition 5 – Compliance Reporting	Amendment typographical error '*Delata 2 PTSF'* to '*Delta 2 IPTSF'*.	Amended.
Condition 8, Table 3 – Environmental Commissioning Requirements	The works approval holder requests an additional 4 weeks for authorised commissioning duration. Amend to: *"For a period not exceeding 16 weeks in aggregate".* In the Works Approval Application Delta 2 IPTSF was scheduled to undergo commissioning in January 2027 but there is the potential to commence Stage 1 in November 2026. With potential delays around this period (end of year) an additional 4 weeks is requested to cover the commissioning phase.	The department acknowledges the request to increase the commissioning period and the reason for this request. The department accepts the addition al four weeks for authorised commissioning to become a period of 16 weeks in aggregate.
Condition 16, Table 6 – Monitoring during time limited operations	The works approval holder requests that the 'decant water' is unpaired with the bores, so it is shown as a separate monitoring location row. This will make the monitoring item more visible.	The department has separated decant water monitoring upon the request of the works approval holder to ensure the monitoring item is more visible.
Condition 16, Table 6 – Monitoring during time limited operations	The works approval holder requests that the risk-based analytes developed for the Water Management Plan are adopted for the Works Approval groundwater monitoring parameters – see the below list from Water Management Plan (OP-PLN-00300).	The department has reviewed the works approval holder's explanation to amend the groundwater monitoring parameters around the Delta 2 IPTSF, based on the Water Management Plan related to the current Ministerial Statement 1189. The department has acknowledged that a previous licence amendment issued on 06 December 2023 for licence L8621/2011/1 removed duplicate conditional requirements surrounding groundwater quality monitoring that is already undertaken under Ministerial Statement 1189 requirements. The department has amendment the groundwater quality parameters to reflect the parameters in the Water Management Plan, however, has retained the surface water level monitoring, where this is a conditional requirement under

Condition / Section	Summary of applicant's comment	Department's response
	 In a previous Licence Amendment (06/12/2023) the monitoring of groundwater quality was removed due to duplication with Ministerial Statement 1189, the Water Management Plan's monitoring of groundwater downstream of TSFs and rationale of the Groundwater and Surface Water Monitoring Review (Stantec, 2020). The Water Management Plan analytes are considered to be site-specific and more efficient for the Project. Revision 8 of the Water Management Plan is publicly available: https://www.royhill.com.au/wpcontent/uploads/2022/10/Roy-Hill-Mine-Water-Management-Plan-R8.pdf	the current licence L8621/2011/1 for monitoring bores around TSFs.
Condition 16, Table 6 – Monitoring during time limited operations	The works approval holder has requested the removal of 'Acrylamide' from the IPTSF sampling parameters. The works approval holder no longer uses the flocculant Rheomax® DR 1030 for the settling of mine waste fines. Roy Hill adds flocculant BASF Flocculant, Magnafloc® 5250 product to facilitate the flocculation process. Roy Hill also utilises BASF Drimax® 1239 NF as a surfactant during tailings processing. For more information on flocculant and surfactant used refer to Section 2.3 of Appendix F (Delta 2 IPTSF Groundwater Change Assessment Report) provided in Attachment 8 of the Works	The department has reviewed the information related to the change in flocculant use under Section 2.3 of Appendix F provided in Attachment 8 of the works approval application. The department has no objection in removing the monitoring of 'Acrylamide' from condition 16, Table 6 that was initially proposed in the draft works approval.

Condition / Section	Summary of applicant's comment	Department's response
	Approval Application.	
Decision Report		
Section 2.3.3 Deposition ring main and spigots – initial and long-term development	The department requested the following "*1 – Applicant to specify which spigot will be used for the western basin*." The works approval holder has provided the following to address the department's query; "*A minimum of three spigots will be required in the eastern basin and spigots SP1 and SP8 will be used for the western basin."*	Amended.
Section 2.3.7 Groundwater Monitoring	The works approval holder understands that the highlighted text below should read as; "*The proposed additional monitoring bores and their locations should cover the gaps in the Roy Hill Mine groundwater monitoring network for MS 1189."*  2.3.7 Groundwater monitoring A network of existing and proposed groundwater monitoring bores is required to monitor groundwater levels and quality next to, and hydraulically downgradient of Delta 2 IPTSF. Six proposed monitoring bores (four deep and two shallow bores) will be installed around the perimeter to the south-west side of the Delta 2 IPTSF as the anticipated plume migration Works Approval: W2862/2025/1 10 OFFICIAL direction is towards the south and south-west of the Delta 2 IPTSF. The proposed additional monitoring bores and their locations should cover the gaps in the Delta 2 IPTSF monitoring network. The works approval holder also notes that the Water Management Plan (OPPLN-00300) approved for MS1189 is part of a mine groundwater and surface water monitoring program with triggers and threshold criteria *to avoid impacts to Fortescue Marsh and to vegetation outside the disturbance footprint (Condition 2-1).*	The department has amended the wording as below, in addition to amending the second paragraph where the Ministerial Statement reference is referred to in the first instance. *"…direction is towards the south and south-west of the Delta 2 IPTSF. The proposed additional monitoring bores and their locations should cover the gaps in the Delta 2 IPTSF monitoring network for Ministerial Statement (MS) 1189.* *Groundwater monitoring will be undertaken as per the licence L8621/2011/1 ambient groundwater monitoring requirements as well as in accordance with the Roy Hill Mine Water Management Plan (OP-PLN-00300) (WMP) under MS 1189."*
Section 2.4.1 Part IV of the EP Act	The works approval holder has provided the following dates related to the screenshot below: • Full date provided – *"19 May 2022"* and	Amended.

Condition / Section	Summary of applicant's comment	Department's response
	• The s45C was submitted on *"28 October 2024"*. 2.4.1 Part IV of the EP Act The Roy Hill Iron Ore Mine revised proposal was assessed by the Environmental Protection Authority (EPA) and approved under MS 1189 on May 2022. A section 45c of the EP Act was submitted to department's EPA Services Branch for the inclusion of the Delta 2 IPTSF on **[2 – Applicant to provide the s45c submission date].** Assessment of the works approval application was placed on hold by the department, until the section 45c was approved on 07 May 2025, for the works approval application to progress with	
Section 3.1.1 Emissions and Controls – Table 3	The works approval holder has requested the following amendment to the wording in the screenshot below:  **Time-limited operation** Operation of the Delta 2 IPTSF — Dust lift-off — Air / windborne pathway — • Undertake daily visual inspections of the IPTSF. Tailings seepage — Seepage / infiltration from the base and walls of the — • Undertake groundwater monitoring to assess groundwater levels and quality. • Groundwater quality must be actioned as per trigger and threshold criteria of the Roy Hill Water Management Plan (OP- To the amend as: *"Groundwater quality must be actioned as per Objective based Management Provisions (Table 4.1) of the Roy Hill Water Management Plan (OP-PLN-00300)."* The works approval holder has clarified that the trigger and threshold criteria will be actioned as per Table 4.1 of the Water Management Plan.	Amended.
Section 3.1.2 Receptors – Table 4 – Surface water drainage	The works approval holder has stated that "*there may be duplication with MS 1189 based on management measures in Water Management Plan (OP_PLN-00300)."* Channel 9 Approximately 1 km west from Delta 2 IPTSF, 0.1 km running parallel for 4 km along the tailings pipeline, and 0.1 km crosses over and runs parallel for 3 km along the decant pipeline. Managed under MS 1189, Condition 2-1, but refers to outside of the disturbance footprint. Part V licence to impose controls, where required against the impacts to nearby surface water and creeks within the disturbance footprint. The works approval holder has provided further rationale;	The department has removed the highlighted test to avoid duplication with MS 1189.

Condition / Section	Summary of applicant's comment	Department's response
	"Within the Water Management Plan (WMP), Roy Hill includes an upstream and downstream surface water monitoring site for water quality in Kulbee Creek/Kulbee Creek Diversion (refer to Figure 4-9) in Table 4-1. Figure 4-9 is being updated for Revision 9 of the WMP which will show Kulbee Creek Diversion connecting with B203 Diversion. Additionally, the WMP monitors impacts to surface water flows for Hydraulic Structures (refer to Table 4-2, Management Target 1)."	
Section 3.1.2 Receptors – Table 4 – Priority flora	The works approval holder has stated that "*there may be duplication with MS 1189 and commitments associated with the Vegetation Management Plan and S43A Notice."*  Within the premises boundary and approximately within 0.5 km of the proposed prescribed activities. Some parts are managed under MS 1189. Flora Exclusion Areas are managed under conditions in MS 1189. However, these exclusion areas are more than 5 km away from the proposed prescribed activities. Part V licence to impose controls, where required against the impacts to nearby priority flora. The works approval holder has provided further rationale; "*The Flora Exclusion Areas are specifically designated exclusion areas separate from priority flora individuals. The Vegetation Management Plan (OP-PLN-00344) monitors change and decline downstream of the Project and within the Development Envelope. Table 4-2 includes minimising direct impacts to priority flora. Priority flora as 'local records' under MS1189 are managed under a ground disturbance permit system that identifies and on a case by case avoids or minimise impacts to priority flora individuals where practicable. MS1189 also includes constraints on maintaining 31% of Rhagodia sp. Hamersley and avoid or minimise priority flora individuals within the Remote MAR. Revision 7 of the Vegetation Management Plan is publicly available: https://www.royhill.com.au/wpcontent/uploads/2023/05/Roy-Hill-Vegetation-Management-Plan-Mine.pdf "*	The department has removed the highlighted test to avoid duplication with MS 1189.
Section 3.1.2 Receptors – Table 4 – Riparian vegetation	The works approval holder has stated that "*there may be duplication with MS1189 as impacts to riparian vegetation are within the disturbance footprint of MS1189 and management measures put in place."*	The department has removed the highlighted test to avoid duplication with MS 1189.

Condition / Section	Summary of applicant's comment	Department's response
	Approximately 3.5 km east from Delta 2 IPTSF, 4 km east from the tailings pipeline, and 3.5 km east from the decant pipeline. Managed under MS 1189, Condition 2-1, but refers to outside the disturbance footprint. Part V licence to impose controls, where required against any potential impacts to nearby riparian vegetation. The works approval holder has provided further rationale; *"The Water Management Plan (OPPLN-00300) approved for MS1189 is part of a larger groundwater and surface water monitoring program with triggers and threshold criteria in Table 4-1 to avoid impacts to Fortescue Marsh and to vegetation outside the disturbance footprint (Condition 2-1).* *The Water Management Plan includes an upstream and downstream surface water monitoring site for water quality in Kulbee Creek/Kulbee Creek Diversion (refer to Figure 4-9). Additionally, the WMP monitors impacts to surface water flows for Hydraulic Structures (refer to Table 4-2, Management Target 1).* *The Vegetation Management Plan (OP-PLN-00344) monitors change and decline downstream of the Project and within the Development Envelope. The Vegetation Management Plan approved for MS1189 is undergoing RFI to include Remote Sensing Vegetation Health Monitoring."*	