Government of Western Australia
Department of Water and Environmental Regulation

Amendment Report

Licence Number	L9112/2018/1
Licence Holder	Silver Lake (Integra) Pty Ltd
ACN	093278436
File Number:	FA245174
Premises	Aldiss Gold Project Mining Tenement M28/43, M28/208, M28/171,M28/289 Mining Lease L28/55 EMU FLAT WA 6431
Date of Amendment	14/10/2019

Amendment

The Chief Executive Officer (CEO) of the Department of Water and Environmental Regulation (DWER) has amended the above Licence in accordance with section 59 of the *Environmental Protection Act 1986* (EP Act) as set out in this Amendment Notice. This Amendment Notice constitutes written notice of the amendment in accordance with section 59B(9) of the EP Act.

Tim Gentle
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Date: 2019.10.14 14:28:11 +08'00'

Tim Gentle

MANAGER – RESOURCES INDUSTRIES

REGULATORY SERVICES

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

Definitions and interpretation

Definitions

In this Amendment Notice, the terms in Table 1 have the meanings defined.

Table 1: Definitions

Term	Definition
AACR	Annual Audit Compliance Report
ACN	Australian Company Number
AER	Annual Environment Report
Applicant	Silver Lake Resources Pty Ltd
Application	Application submitted to DWER by Silver Lake Resources Pty Ltd
Amendment Report	refers to this document
Category/ Categories/ Cat.	categories of Prescribed Premises as set out in Schedule 1 of the EP Regulations
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
Delegated Officer	an officer under section 20 of the EP Act
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.
DWER	Department of Water and Environmental Regulation
EP Act	*Environmental Protection Act 1986* (WA)
EP Regulations	*Environmental Protection Regulations 1987* (WA)
Existing Licence	The Licence issued under Part V, Division 3 of the EP Act and in force prior to the commencement of and during this

	Review
Licence Holder	Silver Lake Resources Pty Ltd
Occupier	has the same meaning given to that term under the EP Act.
PEC	Priority Ecological Communities
Prescribed Premises	has the same meaning given to that term under the EP Act.
Premises	refers to the premises to which this Decision Report applies, as specified at the front of this Decision Report. i.e. Aldiss Gold Project
Riparian	Relating to wetlands adjacent to rivers and streams
Risk Event	as described in *Guidance Statement: Risk Assessment*
TEC	Threatened Ecological Communities
TDS	Total Dissolved Solids
tpa	Tonnes per annum
UDR	*Environmental Protection (Unauthorised Discharges) Regulations 2004* (WA)

Amendment Notice

This amendment is made pursuant to section 59 of the *Environmental Protection Act 1986* (EP Act) to amend the Licence issued under the EP Act for a prescribed premises as set out below. This notice of amendment is given under section 59B(9) of the EP Act.

This notice is limited only to an amendment for Category 6. No changes to the aspects of the original Licence relating to Category 12 & 64 have been requested by the Licence Holder.

The following guidance statements have informed the decision made on this amendment

- *Guidance Statement: Decision Making (February 2017)*
- *Guidance Statement: Risk Assessment (February 2017)*
- *Guidance Statement: Environmental Siting (November 2016)*

Amendment description

An application was received by the Department of Water and Environment Regulation (DWER) on 16 July 2019 by Silver Lake (Integra) Pty Ltd (the applicant) to amend Licence L9112/2018/1. The applicant has requested the addition of Category 6 mine dewatering activities, covered by works approval W6069/2017/1 to be added to the license. The Existing Licence currently authorises the category 12 (Screening etc. of material) and category 64 (Class II putrescible landfill site) prescribed activities covered under this works approval.

Table 2 below outlines the current prescribed premises categories that have been authorised in the Existing Licence and the changes requested by the applicant.

Table 2: Prescribed activities at the Premises

Classification of Premises	**Description**	***Approved Premises production or design capacity or throughput***
Category 12	Screening etc. of material: premises (other than premises within category 5 or 8) on which material extracted from the ground is screened, washed, crushed, ground, milled, sized or separated.	438,000 tonnes per annual period
Category 64	Class II or III putrescible landfill site: premises on which waste (as determined by reference to the waste type set out in the document entitled “Landfill Waste Classification and Waste Definitions 1996” published by the Chief Executive Officer and as amended from time to time) is accepted for burial.	2,500 tonnes per annual period
Category 6	Mine Dewatering: premises on which water is extracted and discharged into the environment to allow mining or ore.	450,000 kL per annual period

The French Kiss mining Project is located approximately 115km east of the town of Kalgoolie-Boulder, Western Australia. This open pit mine has been extensively mined in the past and the Applicant wishes to restart mining operations. The French Kiss deposit requires dewatering of the saline groundwater (85000 mg/L Total Dissolved Solids (TDS)) to allow mining to occur. The extracted groundwater will be discharged into a nearby Salt Lake No 2.

The Salt Playa is located approximately 1km to the north of the French Kiss open pit. Abstracted water will be carried out via a polypipe pipeline which will be located within a “V” drain bund or buried. Dewatering will be carried out at a maximum of 13 L/sec to the salt playa with a maximum volume of 450,000kL of saline groundwater to be discharged over a period of 18 months. Figure 1 below outlines the pipeline route from pit to salt lake.

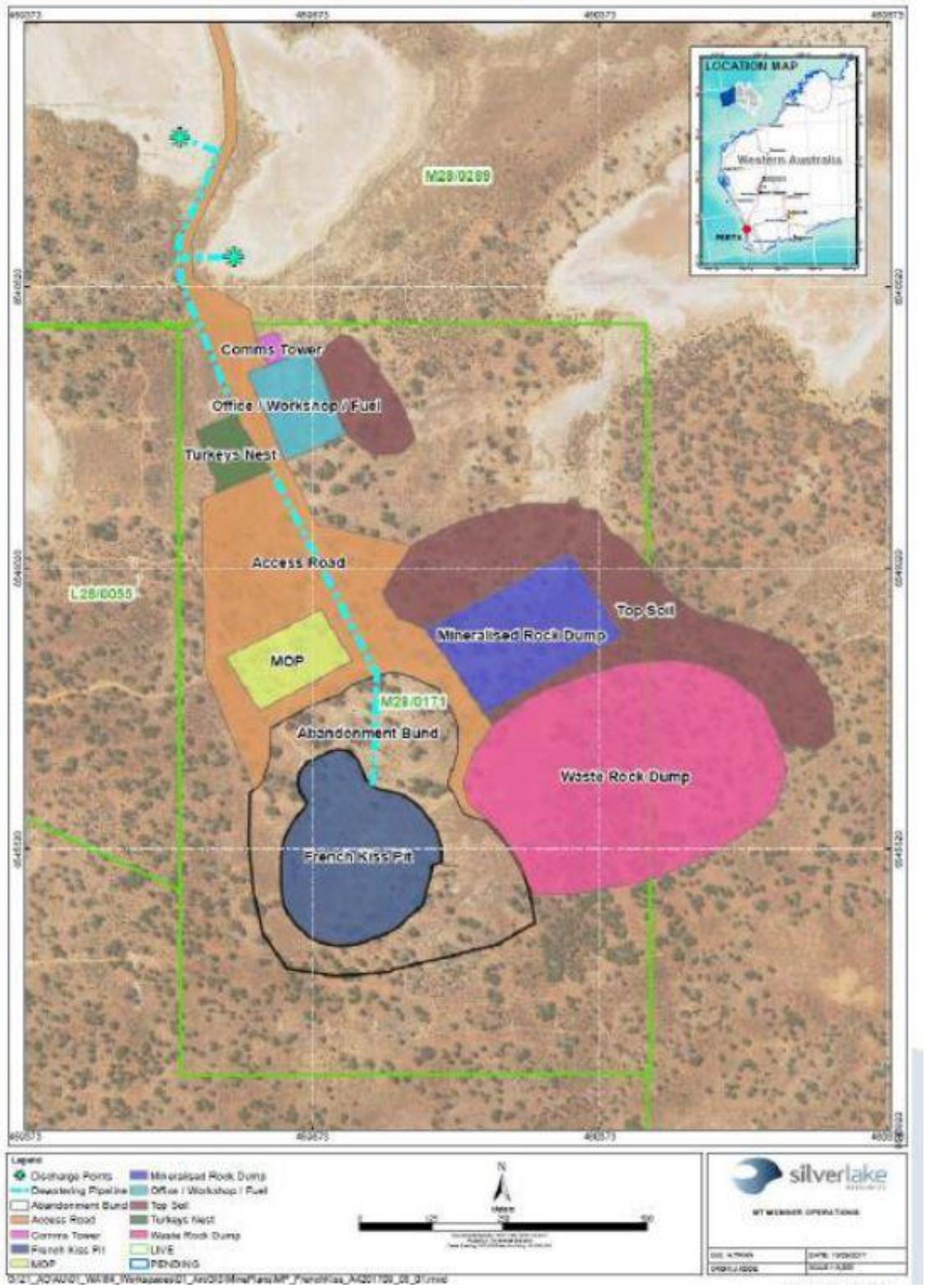

Figure 1: Site Layout identifying key infrastructure - dewatering

Assessment of suitability of discharge location

It is proposed that the dewatering of the French kiss mine pit to be carried out for 18 months and it is identified that the maximum discharge rate will be 12L/s, subsequent to the assessment of all possible re-use opportunities such as dust suppression and other miscellaneous mining uses. The suitability to discharge the hypersaline mine dewater was evaluated in two salt playas located to the north of the proposed French Kiss mine pit.

- Lake No. 1 is located on the eastern side of the existing access light vehicle track about 900m north of the proposed mining area. It has a usable surface area of approximately 10ha.
- Lake No. 2 is located on the western side of the existing access light vehicle track about 1100m north of the proposed mining area. It has a usable surface area of approximately 25ha.

These lakes are ephemeral water bodies and episodically inundated. Carrick Consulting (WA) Pty Ltd were engaged by the Applicant to determine suitability of a discharge location for the dewatering discharge. Their findings are reported in the *French Kiss Mining project Surface & Groundwater Management Report* dated 9 June 2017.

The appropriateness of the discharge location was assessed setting up a deterministic daily water balance to stimulate the water level and water volume in the playa lake while accounting for direct rainfall, catchment runoff, evaporative losses and seepage. The freeboard required for the proposed discharge location was assessed using the 100 year-72 hour (181mm) design criterion by the Carrick Consulting (WA).

Permeability or hydraulic conductivity data were not available for the two playa lakes so the modelling assessment considered following three potential scenarios:

- Zero seepage- outflow solely via evaporation
- Low seepage – 0.01m/day ($1.15x10^{-7}$ m/s)
- Expected seepage- 0.1m/day ($1.15x10^{-6}$ m/s)

The Carrick Report notes that the low and expected seepage rate scenarios are appropriate for very fine sands, silts and clay laminates. They are considered representative of the soil profile at the discharge locations being assessed and are consistent with published literature.

The Water Balance was run for the different scenarios including different seepage rates, evaporation coefficients and runoff coefficients. The results of the sensitivity analysis presented indicate that Lake No. 2 has sufficient capacity to manage the required groundwater discharge rate of 12L/s even under the zero-seepage condition and reduced (55%) evaporation coefficient.

Receptor Baseline Information (Salt Playa Lake No. 2)

Table below represents the outcome of the water balance, as reported by Carrick Consulting, for Lake No. 2 using the base case parameters (70% evaporation and 50% catchment runoff coefficient) for the three seepage rates.

Table 3: Estimated Maximum Water Levels in Lake No. 2 at dewatering discharge rate of 12L/s

Lake	Zero seepage (0m/day)	Low seepage (0.01m/day)	Expected seepage (0.1m/day)
Mean Water Level (mAHD)	281.107	280.949	280.905
Mean Water Depth (m)[1]	0.207	0.049	0.005
Minimum Water Level (mAHD)	280.900 (empty)	280.900 (empty)	280.900 (empty)
Time empty (%)	0.02	0.31	91.26
Maximum Water Level (mAHD)[2]	281.950	281.625	281.425
Maximum Water Depth (m)	1.050	0.725	0.525

Notes:
1: Assumes lake bed at 280.900 mAHD
2: Maximum water level recorded over 42 years of daily time step data including Cyclone Bobby (150 year-3 day rainfall event).

Review of results presented in Table 9 indicates that at a constant discharge rate of 12L/s, the mean water level in Lake No. 2 will range from about 20cm for the zero-seepage condition to only a few millimeters for expected seepage condition. The results indicate that under the expected seepage condition, the lake will be empty for most (91%) of the time.

The French Kiss & Harrys Hill: Flora and Fauna Assessment notes that search of NatureMap database identified 63 invertebrate species in the project area. One species of Priority 1 Conservation Significance (*Parartemia contracta*- an unnamed fairy shrimp) was recorded in 2014 in a large unnamed salt lake about 10km west of the project area. The Report also notes that the status of the fairy shrimp species within the small discontinuous salt lakes in the project area is unknown and may be unlikely due to their small size and lack of connectivity however more information is required to assess likely impacts of threats.

Sediment sampling was undertaken at the discharge location to determine concentration of metals and metalloids in the sediments. The sampling did not include determination of site-specific aquatic species likely to be present at the discharge location. Table 4 includes a comparison of sediment analysis results submitted by the Applicant with ANZECC Interim Sediment Quality Guideline.

Table 3: Comparison of metal/ metalloids in sediments at Salt Playa with Guidelines

Analyte	Maximum reported	ANZECC Interim Sediment Quality Guideline High Trigger Value
Silver	<0.05	3.7
Arsenic	11	70
Cadmium	0.13	10
Copper	42	270
Mercury	0.05	1
Nickel	62	52
Lead	22	220
Zinc	67	410

Dewatering discharge water quality

The *dewatering Assessment- French Kiss* report authored by *Groundwater Resource Management,* dated 25 January 2017, notes that groundwater samples were collected from two locations during the field drilling. These groundwater samples are considered indicative of the dewatering discharge quality to Lake No. 2 for the purpose of this assessment.

Table 4 below shows a comparison of discharge water quality with ANZECC guidelines.

Table 4: Comparison of discharge water quality with Guidelines

Analyte	Maximum reported (mgL^{-1})	ANZECC marine 95%[1] (mgL^{-1})
Cadmium	<0.0005	0.0055
CrVI	<0.005	0.0044
Co	na	0.001
Cu	na	0.0013
Pb	<0.005	0.0044
Ni	na	0.07
zinc	0.03	0.015
Selenium	0.011	0.003[2]

Notes:
1: ANZECC Guidelines 2000, values for Protection of 95% species in marine environments
2: Selenium guideline value taken from the Toxicant default guideline values technical briefs provided in the Australian and New Zealand Guidelines for Freshwater and Marine Water Quality (2018)

The results indicate that the discharge water is likely to have elevated concentrations of selenium and zinc.

Key Finding: Based on review of information above, the Delegated Officer considers that:

1. Lake No. 2 has sufficient volumetric containment capacity to manage the required groundwater discharge rate of 12L/s even under the zero-seepage condition and reduced (55%) evaporation coefficient.
2. Under the expected seepage conditions Lake No. 2 is predicted to be empty 91% of time.
3. An aquatic invertebrate species of conservation significance (*Parartemia contracta*) was identified as potentially present in an extension of Lake Lefroy approximately 20km north-west of the proposed dewatering discharge location. However the salt playa morphology is different to lake Lefroy given it is infrequently inundated and the small size. The receiving playa is one of more than 60 discrete similar playas in the project area.

Other approvals

The Licence Holder has provided the following information relating to other approvals as outlined in Table 6.

Table 6: Relevant approvals

Legislation	Number	Approval
Rights in Water and Irrigation Act 1914	GWL200693(1)	Licence to take groundwater (Dewatering the mine pit)
Environmental Protection Act 1986, Division 2, Part 2 (Clearing of Native Vegetation)	CPS 7429-2, Exemption under Regulation 5, item 25	Clearing of Native Vegetation
Environmental Protection Act 1986	W6069/2017/1	Works approval for the construction of dewatering infrastructure.

Location and receptors

The project area is located within the Lake Lefroy sub-catchment of the Salt Lake Basin (No. 024). There are no significant river systems or watercourses in the vicinity of the project area. Lake Lefroy, which is located approximately 15km to the West of the premises, can be identified as the most prominent hydrological feature located locally. Several playa lakes are situated immediately to the north of the proposed French Kiss mining pit, of which one playa lake (Salt Lake No.2) has been identified as the appropriate dewatering discharge point. Figure 2 illustrates the siting and the location of the French Kiss pit and the discharge salt lake.

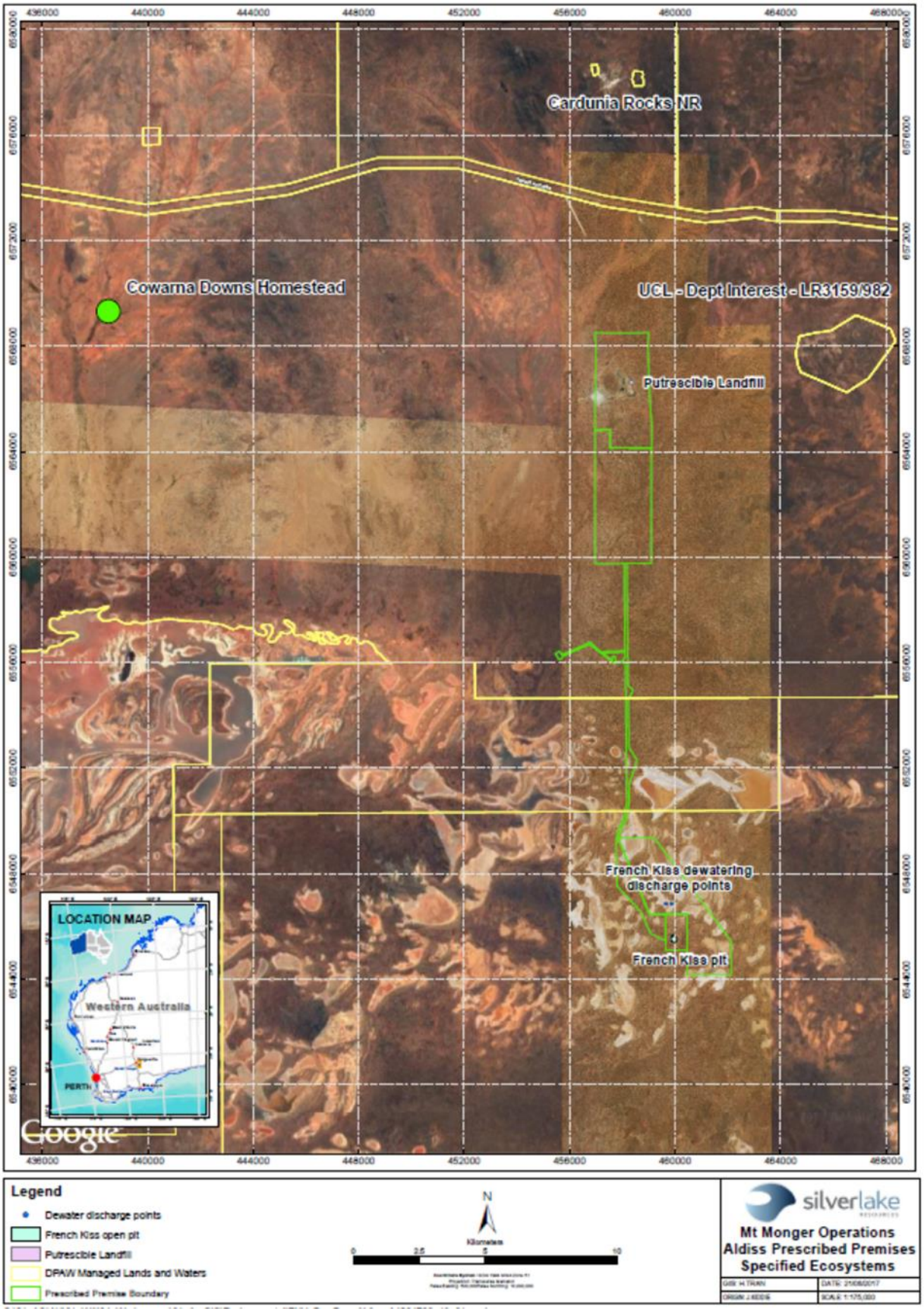

Figure 2: Location of the dewatering pit and the discharge points

Table 7 below lists the relevant sensitive land uses in the vicinity of the Prescribed Premises which may be receptors relevant to the proposed amendment.

Table 7: Receptors and distance from activity boundary

Residential and sensitive premises	Distance from Prescribed Premises
Residential Premises – Cowarna Downs Homestead	The nearest residential premises is approximately 32.5km north west from the premises.
Trans Australia Railway	28km north from the premises.

Table 8 below lists the relevant environmental receptors in the vicinity of the Prescribed Premises which may be receptors relevant to the proposed amendment.

Table 8: Environmental receptors and distance from activity boundary

Environmental receptors	Distance from Prescribed Premises
Threatened/Priority Flora	No threatened flora located within the premises.
Threatened/Priority Fauna	No threatened fauna located within the premises. However, *Leipoa ocellata* (Mallefowl) were recorded in few locations in the vicinity of the prescribe premises.
Goldfields Groundwater Area	Premises boundary is located within this proclaimed groundwater area.
Lake Lefroy	Internally draining ephemeral salt lake located approximately 15km from the premises
Hydrography 250K WA – Surface Waterbodies (multiple unnamed salt playas)	Multiple small ephemeral salt playas are located north of the French Kiss pit at a distance of approximately 1 km. The playa lakes are separated by high ground.
Invertebrate fauna of conservation significance potentially present in Salt Lake No.2	63 invertebrate species have been recorded in the immediate area of which one invertebrate species known as fairy shrimp (*Parartemia contracta*) was identified as a conservation significance species. This was recorded in an unnamed salt lake ~ 20km west from the prescribe Premises (DPaW, 2016) (Botanica Consulting, 2016).

Risk assessment

Table 9 below describe the Risk Events associated with the amendment consistent with the *Guidance Statement: Risk Assessments*. Both tables identify whether the emissions present a material risk to public health or the environment, requiring regulatory controls.

Table 9: Risk assessment for proposed amendments during operation

Risk Event						Consequence rating	Likelihood Rating	Risk	Reasoning
Source/Activities		**Potential emissions**	**Potential receptors**	**Potential pathway**	**Potential adverse impacts**				
Category 6 Mine Dewatering	Abstraction resulting in drawdown of groundwater levels around French Kiss Pit	None	Groundwater dependent ecosystems	Abstraction of groundwater	Reduction in groundwater availability for dependent vegetation	N/A	N/A	N/A	Not within scope of Part V of the EP Act. Regulated under the RiWi Act and Part IV of the EP Act.
	Discharge of saline groundwater to the Salt Lake No.2	Saline mine dewater to surface water	Riparian vegetation	Direct discharge	Erosion of creek banks Disruption of normal ecosystem function	Minor	Possible	Medium	Hypersaline mine dewater will be discharged at a rate of 12L/s with an approximate TDS concentration of 85,000 mg/L. Groundwater sampling and analysis undertaken by the Applicant indicates that the mine dewater has elevated concentrations of Zinc and Selenium compared to the ANZECC Guidelines (2000;2018). Discharging mine dewater too close to the creek banks may result in erosion and impact to the riparian vegetation. Thus, a potential inundation of the shoreline in lower lying areas may occur. The vegetation may also be impacted due to the windblown salts which contain increased concentrations of salts from the dewatering discharge. These salts may impact on the health or kill the native vegetation along the lake shore. The Applicant has undertaken modelling to determine containment capacity of Lake No. 2 and suitability of dewatering discharge rate in different scenarios. Modelling results indicate that under 'expected seepage' scenario, Lake No. 2 has sufficient containment capacity to accommodate the groundwater discharge at a rate of 12L/s and is likely to remain empty 91% of time. The Applicant has committed to install a rock apron at the discharge point to reduce

									erosion and scouring. The delegated officer considers that the consequence of this risk event to be 'Minor' as the Flora and Fauna Assessment submitted by the applicant identified that there are no threatened/priority flora at the discharging location. The likelihood of this event occurring has been deemed to be 'Possible' due to the modelling results supplied by the Applicant. Therefore, according to the Risk Matrix, the delegated officer has determined that the overall risk rating for this event is 'Medium'.
			Aquatic biota (algae and invertebrate fauna species)	Direct discharge; change to lake hydro-period	Potential increase in metals in sediments, and increased salt loading to the lake/salt crust formation Reduction in species abundance and diversity	Minor	Unlikely	Medium	Refer to detailed risk assessment (Risk event 1) below.
			Birds, bats or other native fauna	Ingestion of saline water with elevated metal/metalloid concentrations	Poor health in birds/bats/wildlife	N/A	N/A	N/A	Research conducted on birds and bats in the context of gold mines in the Goldfields (and cyanide toxicity) has determined that birds will not drink hypersaline solutions (i.e. above 50,000 mg/L). Groundwater samples collected at the premises indicate TDS concentrations of 86,000 and 150,000 mg/L.
	Dewatering pipeline rupture.	Discharge of saline mine dewatering effluent to land.	Native vegetation	Spill to land	Decline/ death of vegetation and soil contamination	Moderate	Possible	Medium	Failure of the dewatering pipeline may discharge the saline mine dewater with elevated metal concentrations into surrounding land, and may cause death of native vegetation and/or impact the health of the vegetation. However, no threatened/ priority species were indicated in the project area. The dewatering pipeline is poly-welded and

									located within a ‘V’ drain. Also, the pipeline is buried where it is required. Sumps are included for maintenance. The applicant has committed to conduct visual inspections of the pipeline in every 12 hours. The delegated officer consider the consequence of dewatering pipeline failure to be ‘Moderate’ because a major failure of the pipeline may rupture the bund and may impact the surrounding vegetation. The likelihood of this event occurring has been determined to be ‘Possible’. Hence, the risk rating of this event will be ‘Medium’.

Detailed Risk Assessment

1. Risk Event: Effect of saline mine dewater from French Kiss Pit on the aquatic biota in the Salt Playa No.2

Description of Risk Event

The salinity and the elevated concentrations of metals/metalloids in the mine dewater and the sediments from the French Kiss pit may impact on aquatic biota species living in the Salt Playa. As a consequence, reduction in species abundance and diversity may be occurred.

Identification and general characterisation of emission

The applicant proposed to dewater the saline groundwater (85,000 mg/L TDS) from the French Kiss Pit over a period of 18months at a rate of 12L/s. A maximum volume of 450,000 kL of mine dewater will be discharged in to an unnamed Salt Playa located approximately 1km north of the mine pit. The dewatering assessment submitted by the Applicant (See Table 5) has undertaken for limited parameters and the results showed that the dewatering discharge contained higher concentrations of Zinc and Selenium with compared to the ANZECC Guidelines (2000; 2018) for protection of a marine environment.

Sediment sampling undertaken by the applicant at the discharge salt playa (See Table 4) indicates that metal/metalloid concentrations are within ANZECC Guidelines except the Nickel concertation, which is slightly high than the guideline value.

Description of potential adverse impacts from the increased emission

Salt loading in the salt playa No.2 may increase once the mine dewatering discharge instigate. As a rule, species richness in inland saline waters decreases with increasing salinity (Hammer, 1986) and, thus, biological diversity likely to be reduced. Moreover, various taxonomic groups living in salt lakes respond differently to changes in the salinity in the water, obscuring the species richness-salinity relationship (Pinder et al., 2004). Yet, considering the limited time of discharging and predicted limited level of playa inundation, any potential effect of increased salt concentrations will be decreased over time.

Another impact could be that, these seasonal wetlands may convert into permanent waterbodies due to presence of more water for a considerable period of time. Therefore, it may cause depletion of aquatic organisms and may change the ecosystem functions. Further, continuous discharge of mine dewater may lead to greater nutrient loads, acidification, influence of turbidity and colour (Davis et al., 2003; Halse et al., 2003) and may adversely affect to aquatic biota living in these salt playas. However, it is predicted that the salt playa will be infrequently inundated and the degree of inundation is limited. Thus, a significant alteration to the playa morphology is unlikely.

The flora and fauna assessment carried out by the applicant using NatureMap database identified that there are 63 invertebrate species in the project area, of which one Priority 1 species, *Parartemia contracta* (fairy shrimp), were recorded in a large unnamed salt lake about 20 km west of the project area in 2014. However, given that the less connectivity and the small size, this fairy shrimp species is unlikely to be present in this proposed discharging salt lake.

Criteria for assessment

Whilst there are no applicable guidelines for specific water quality of the groundwater the ANZECC 2000 guidelines for protection of marine environment has been considered for comparison.

Applicant controls

There are no specified controls proposed by the applicant to minimize the effect of salt loading or metal/metalloids concentration in the mine dewater discharge into the salt playa No.2. The Applicant however notes that, there are no cumulative impacts associated with discharge from other activities and that dewatering period is short (less than 18 months).

Key Findings

Key Finding: The Delegated Officer has reviewed the information regarding dewatering discharge into Lake No. 2 and has found:

1. Salt loading to Lake No. 2 may increase once dewatering discharge commences. However, considering the limited period of discharge and predicted limited extent of playa inundation, any potential effects of increased salt loading are likely to decrease over time.
2. Dewatering discharge is expected to have elevated concentration of selenium and zinc. However, background sediment quality analysis undertaken at the discharge location indicates that metals/ metalloids concentrations in sediments are higher than discharge water quality. The Playa is infrequently inundated. This indicates that dewatering discharge is not likely to significantly alter the morphology of the playa.
3. A desktop assessment identified potential of presence of at least one conservation significant species of invertebrate (fairy shrimp) approximately 20km north-west of the premises in an unnamed extension of Lake Lefroy. However, given the small size of the salt playa and its disconnected -discrete status, it is considered unlikely that this species will likely be present in the discharge location proposed.

Consequence

Considering the size and the discrete nature of the receiving salt lake, mine dewater discharge may have low level on-site impacts. The delegated officer considers the consequence to be **minor**.

Likelihood

The likelihood of risk event occurring is considered to be **unlikely**.

Overall rating of Risk Event

The Delegated Officer has compared the consequence and likelihood ratings described above with the risk rating matrix outlined in *Guidance Statement: Risk Assessments* and has determined that the overall rating for the risk of mine dewater discharge on Aquatic biota in salt Playa No.2 is **medium**.

Decision

Based upon the applicant's supporting documentation, the Delegated Officer has determined that the discharging mine dewater from the French Kiss mine pit to Salt playa No.2 presents a medium risk to the environment. Operation conditions and compliance reporting have been included as new conditions to the Licence as shown below;

- Condition 1 has been updated to include mine dewater from the French Kiss pit to the salt playa No.2 as a specified emission requiring the licensee to discharge mine dewater in a manner that avoids inundating the shoreline, with the pipeline extending 50m from the shoreline.
- Condition 2 has been updated to include mine dewatering infrastructure, requiring the Licence Holder to;
    - Conduct visual inspection of the integrity of the pipeline at least 12 hourly
    - Conduct daily visual checks of the integrity of the anchors along the pipeline
    - Conduct weekly maintenance of bunds to maintain capacity
    - Conduct weekly checks of the integrity of telemetry when dewatering in operation
- Condition 3 has been included as a new condition requiring the Licence Holder to record and report the total of dewater discharged to the salt playa No.2. Records shall include the cumulative monthly volume of water discharged to Salt playa No.2 per year
- Condition 4 has been included as a new condition requiring the Licence Holder to conduct a monitoring programme at the monitoring locations and the frequency specified in the Schedule 3 of the licence. The licence holder must undertake;
    - Monitoring of the quality groundwater discharged
    - Monitoring of receiving surface water quality and metals/metalloids in the sediments
    - Monitoring of the riparian vegetation health
- Condition 5 has been included as a new condition requiring the Licence Holder to understand and undertake the monitoring program in accordance with the relevant Australian standards
- Condition 6 has been included as a new condition requiring the Licence Holder to report any discharges of hypersaline water from pipeline leakage or breach shall be notified to DWER within one business day
- Condition 12 has been updated to include the reporting requirements of the Annual Compliance Report which the Licence Holder is required to be submitted by 31 March in each year
- Schedule 1 Map has been updated with a new map which shows the dewatering discharge points

Licence Holder's comments

The Applicant was provided with the draft Amendment Notice on 25 September 2019. Comments received from the Applicant have been considered by the Delegated Officer as shown in Appendix 2.

Appendix 1: Key documents

	Document title	In text ref	Availability
1	Licence L9112/2018/1 – Silver Lake Resources Pty Ltd	L9112/2018/1	accessed at www.dwer.wa.gov.au
2	Works Approval W4520/2009/1–Utah Point Berth Project	W6069/2017/1	DWER records (DER2017/001193-1)
3	Licence Amendment Application	Application	DWER records (DWERDT179281)
4	DER, July 2015. *Guidance Statement: Regulatory principles.* Department of Environment Regulation, Perth.	DER 2015a	accessed at www.dwer.wa.gov.au
5	DER, October 2015. *Guidance Statement: Setting conditions.* Department of Environment Regulation, Perth.	DER 2015b	
6	DER, August 2016. *Guidance Statement: Licence duration.* Department of Environment Regulation, Perth.	DER 2016a	
7	DER, November 2016. *Guidance Statement: Risk Assessments*. Department of Environment Regulation, Perth.	DER 2016b	
8	DER, November 2016. *Guidance Statement: Decision Making*. Department of Environment Regulation, Perth.	DER 2016c	
9	*Saline lake ecosystems of the world* (Vol. 59).	Hammer, 1986	Accessed at https://books.google.com.au
10	Pinder, A. M., Halse, S. A., McRae, J. M., & Shiel, R. J. (2004). Aquatic invertebrate assemblages of wetlands and rivers in the wheatbelt region of Western Australia.	Pinder et al., 2004	*Records of the Western Australian Museum Supplement*, *67*(7), 37.
11	Davis, J. A., McGuire, M., Halse, S. A., Hamilton, D., Horwitz, P., McComb, A. J., & Sim, L. (2003). What happens when you add salt: predicting impacts of secondary salinisation on shallow aquatic ecosystems by using an alternative-states model	Davis et al., 2003	*Australian Journal of Botany*, *51*(6), 715-724.
12	Halse, S. A., Ruprecht, J. K., & Pinder, A. M. (2003). Salinisation and prospects for biodiversity in rivers and wetlands of south-west Western Australia	Halse et al., 2003	*Australian Journal of Botany*, *51*(6), 673-688.

Appendix 2: Summary of Licence Holder comments

The Applicant was provided with the draft Amendment Notice on 25 September 2019 for review and comment. The Applicant responded on 27 September 2019. The following comments were received on the draft Amendment Notice.

Condition	Summary of Licence Holder comment	DWER response
Infrastructure and Equipment Table 3,Column 2	Please remove the requirement. SLR clearly stated in the Works Approval application (further Information provided by SLR, letter dated 02/11/19) telemetry would not be installed. Neither was telemetry included in the Licence Amendment Application. Due to the short duration of the dewatering, the other requirements in Table 3 are considered adequate.	DWER has reviewed the Works Approval (W6069) conditions and agreed to the applicant's suggestion. Report has been updated.
Monitoring Schedule 3	Please can the following statement be added 'when discharge to the environment commences'. Early mining activities indicate groundwater has not been intercepted in volumes greater than required for dust suppression, contrary to hydrogeological conditions modelled. Please confirm monitoring is not required if discharge to the environment of groundwater at French Kiss does not commence.	This section has been updated to include the requested clause of the condition.
Table 6	Requires a clarification 'during dewatering activities and Annually for 2 years (opportunistically after a rain event)'.	DWER has agreed with the applicant's proposal of monitoring frequency. The monitoring can be conducted annually during the dewatering activities regardless the meteorological conditions. Opportunistic monitoring is not acceptable. Report has been updated to include the new monitoring frequency.
Table 7	Requires a clarification 'during dewatering activities and Annually for 2 years (opportunistically after a rain event)'.	Please see above comment regarding DWER's response on monitoring frequency in Table 6
Table 8	SLR request this requirement is removed. SLR were not required to complete this level of monitoring during the Works Approval application due to the reduced	Due to the high diversity of the flora and fauna and potential adverse impacts which can be occurred due to dewatering, DWER has now

Condition	Summary of Licence Holder comment	DWER response
	risk of impacts. The DWER Risk Assessment for impacts to aquatic biota resulted in a Minor Consequence and Unlikely likelihood (lowest Medium overall ranking) being assigned. Due to the short life of mine and low risk of significant biota present, SLR request this monitoring requirement be removed or, at least is completed annually in line with the Regulatory Controls proposed in the Works Approval document. Again, SLR seek confirmation this is not required if discharge does not take place.	confirmed that the monitoring of aquatic biota and algae is required. However, DWER has agreed to the frequency of monitoring which the applicant has proposed. Frequency has updated as annually instead of 6 monthly in the report.
Table 9	SLR propose this is changed to Annually 'when discharge to the environment commences'. An initial survey has been completed.	DWER has agreed with the Applicant's proposed change and the report has updated accordingly.
Table 9	SLR propose this is changed to 'To be reviewed by a suitably qualified environmental scientist if required'. An initial survey has been completed by a suitably qualified botanist.	DWER has identified that the photo point monitoring should be carried out. Thus, applicant's proposed change is partially accepted where the method of monitoring in Table 9 in the report has been updated accordingly. However, the clause of condition "if required" is acceptable as it is not legally clear and auditable.