



REPORT

Meliadine Site Water Balance and Water Quality Model

Type A 2AM-MEL1631 Water Licence Amendment

Submitted to:

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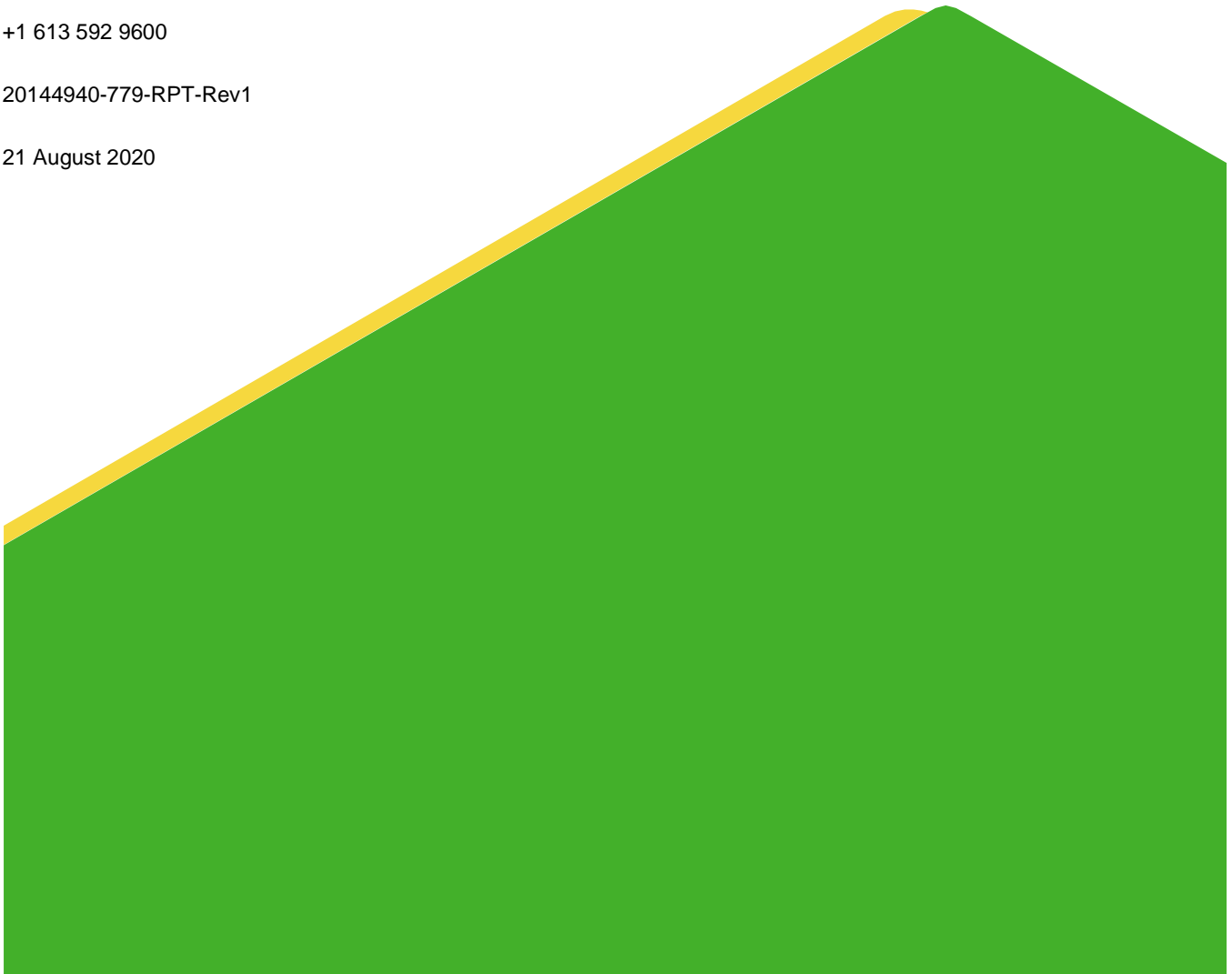
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1.0 INTRODUCTION

1.1 Project Description

Agnico Eagle Mines Limited (Agnico Eagle) is operating the Meliadine Gold Project (the Project), located approximately 25 kilometres (km) north of Rankin Inlet, and 80 km southwest of Chesterfield Inlet in the Kivalliq Region of Nunavut. The mine plan proposes open pit and underground mining methods for the development of the Tiriganiaq gold deposit, with two open pits including Tiriganiaq Pit 1 (Tiri-1) and Tiriganiaq Pit 2 (Tiri-2), and one underground mine.

1.2 Scope Description

In May 2020, Golder Associates Ltd. (Golder) was retained to update the predictions of site and downstream water balance and water quality for the Project in support of the 2020 Water Licence Amendment. The scope of work addresses the operational period (i.e., May 2020 through December 2028) for two scenarios, including an average climate (base case) scenario and a wet climate scenario, applied to the critical water management years, using a water balance and water quality model. Although the water balance and water quality model includes all relevant site infrastructure and water management ponds, results are explicitly reported herein for the following locations:

- Containment Ponds: CP1, CP2, CP3, CP4, CP5, and CP6
- P-Area Ponds (year 2020 only)
- Open Pits: Tiri-1 and Tiri-2 (note that Tiri-2 is used for saline water storage from the Underground as of 2022)
- Influent and effluent from the Effluent Water Treatment Plant (EWTP)

This water balance and water quality report is focussed only on surface contact water management.

1.3 Project Overview

The Project for the 2020 Water Licence Amendment consists of mining of the Tiriganiaq gold deposit using a traditional open-pit mining method and underground mining. The ultimate site layout is shown in Figure 1.

The Mine Plan (V11_3) includes two open pits (Tiri-1 and Tiri-2) and one underground mine (Tiriganiaq underground mine) for the development of the Tiriganiaq gold deposit. The Project is expected to produce approximately 15.4 million tonnes (Mt) of ore, 31.4 Mt of waste rock, 7.0 Mt of overburden waste, and 15.4 Mt of tailings (Agnico Eagle 2020a). Waste will be stored on site in a dry stack tailings storage facility (TSF) and two waste rock storage facilities (WRSFs).

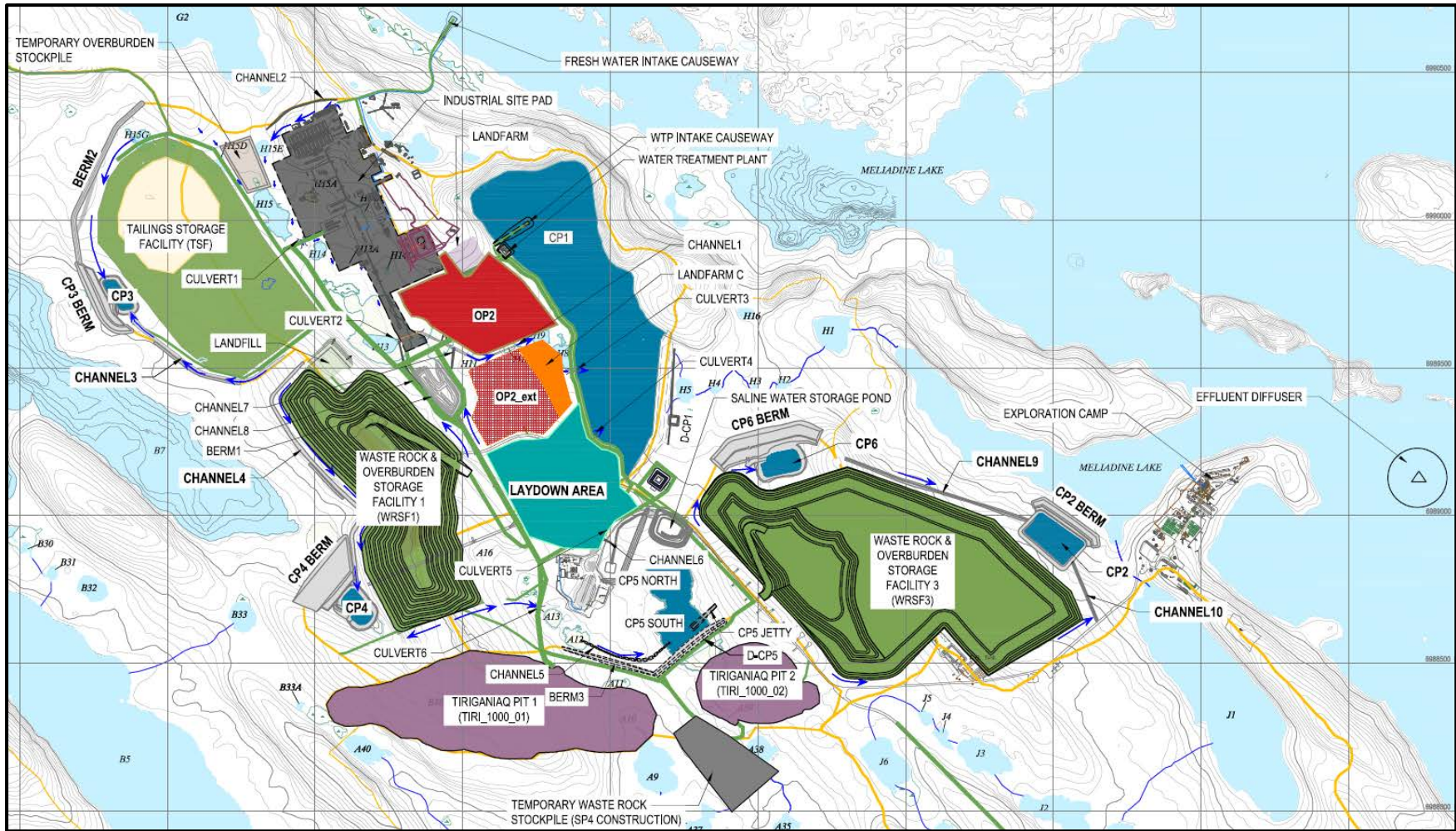


Figure 1: Meliadine Site Layout - Ultimate Configuration

2.0 SITE WATER BALANCE AND WATER QUALITY MODEL

2.1 Water Management

Water management at the site is described in the Water Management Plan (Agnico Eagle 2020b). The water management objectives are to minimize potential impacts of the Project to the quantity and quality of surface water at the mine site and the receiving environment. Water management structures (e.g., water retention dikes/berms, pumps and pipelines, and diversion channels) will be constructed as needed to manage contact water from areas within the mine site.

During mine operations, contact water originating from developed areas on the surface will be intercepted and conveyed to the various collection ponds for temporary storage. All contact water is eventually conveyed to CP1. Contact water from CP5 undergoes reverse osmosis (RO) treatment prior to discharge to CP1 if total dissolved solid (TDS) levels exceed 3,500 milligrams per litre (mg/L). From CP1, contact water is routed through the EWTP for treatment of Total Suspended Solids (TSS) and discharged to the receiving environment.

CP1 has a storage capacity of approximately 742,000 cubic metres (m³) at its design maximum operating water level (Agnico Eagle 2020b). The EWTP has an assumed treatment rate of 22,000 cubic metres per day (m³/d) during the open water season (June – September).

Treated discharge from CP1 must meet the regulated discharge criteria provided in Table 1, as per the current Water Licence.

Table 1: Modelled Constituents and Comparative Guidelines

Constituent Group	Regulated Constituents	Surface Contact Water Discharge Criteria (at End of Pipe) (mg/L)
Conventional	Total Dissolved Solids	3,500 ^a
Nutrients	Total Phosphorus	2
	Total Ammonia as Nitrogen	14
Metals	Aluminum	2.0 ^b
	Arsenic	0.3 ^b
	Copper	0.2 ^b
	Nickel	0.5 ^b
	Lead	0.2 ^b
	Zinc	0.4 ^b

^a – Proposed TDS discharge criterion of maximum average concentration (WQ-MOP Rev2a, Golder 2020)

^b – Guideline applies to total concentration; total projected concentrations for metals are limited to the EWTP discharges. The total concentrations are estimated from the modelled EWTP dissolved metal results by adding a particulate fraction to the dissolved concentrations, assuming TSS concentrations (15 mg/L) described in Table 12 of Appendix A using site monitoring data in CP1.

Cyanide and total petroleum hydrocarbons were not included in the water quality model. Cyanide is expected to be largely destroyed by the cyanide destruction process and is mostly undetected throughout the site. Total petroleum hydrocarbons have not been modelled; these constituents do not behave conservatively and each of the varying fractions of TPH behave differently compared to other modelled constituents (e.g., they do not mix within a receiving waterbody). TPH are also often localised at and/or limited to their source, if present, because they are regulated at the source and therefore not usually detected in receiving environments above typical regulated discharge limits (i.e., 5 mg/L).

Flow diagrams for contact water are shown in Figure 2 to Figure 7.

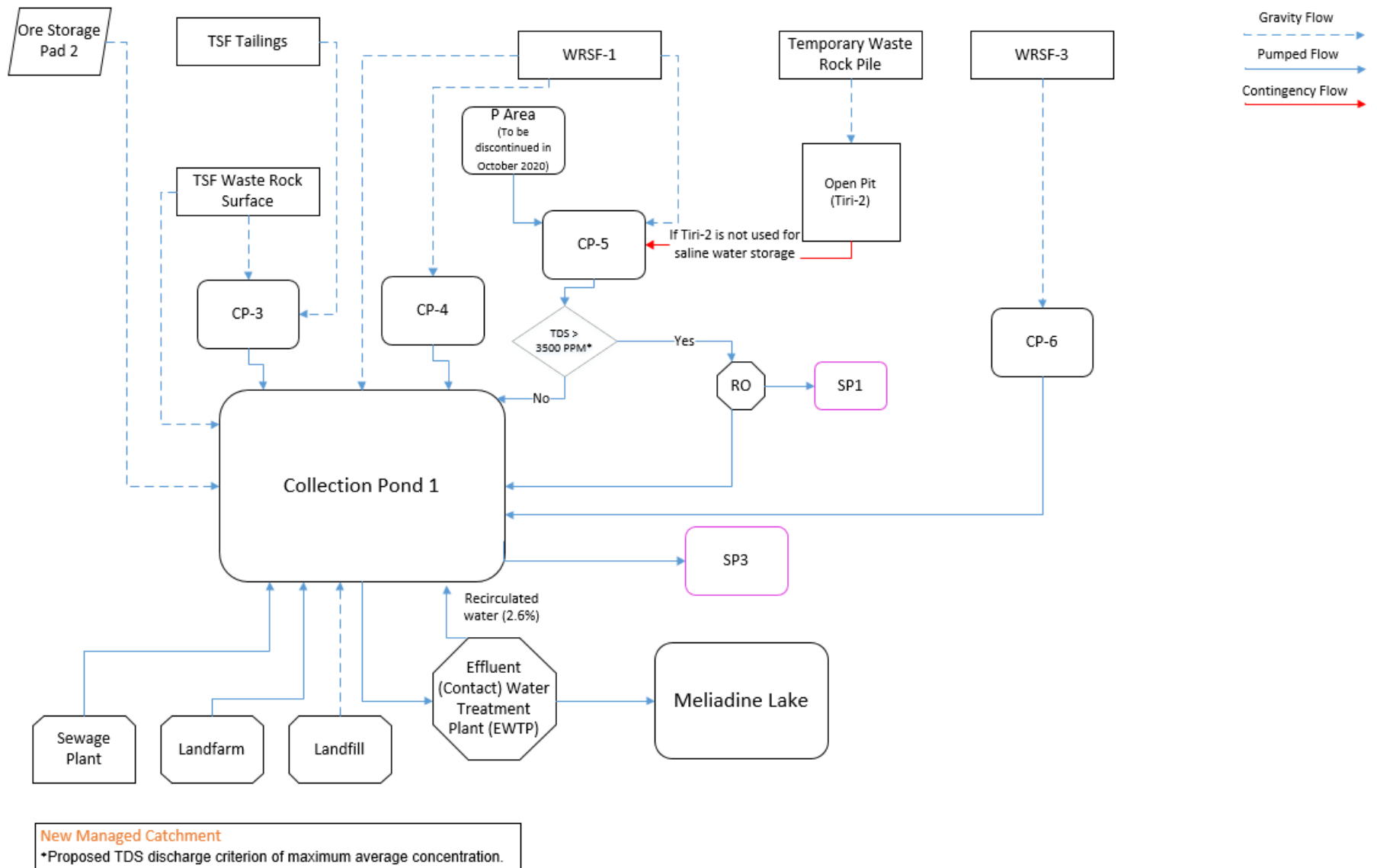


Figure 2: 2020 Contact Water Management

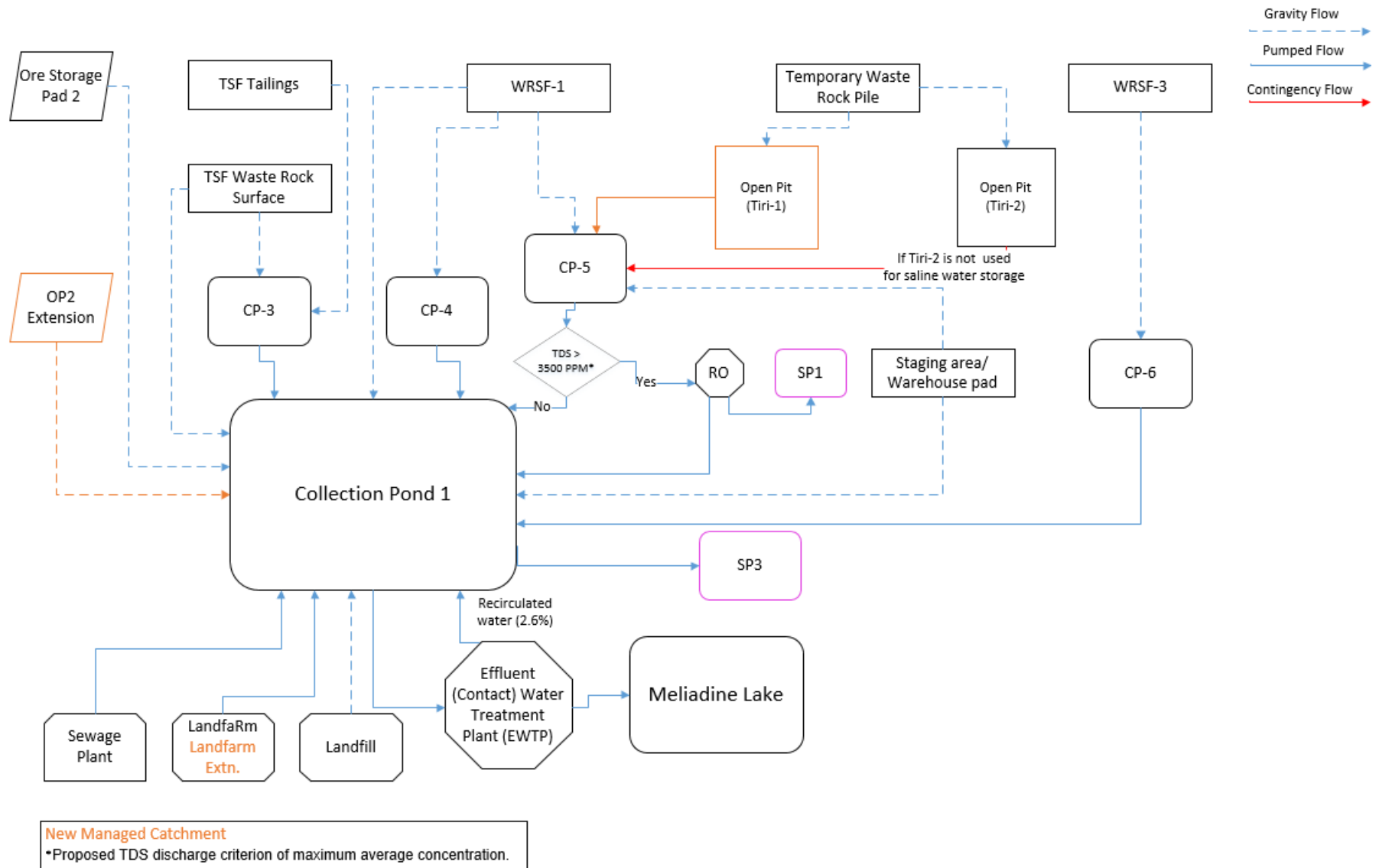


Figure 3: 2021 Contact Water Management

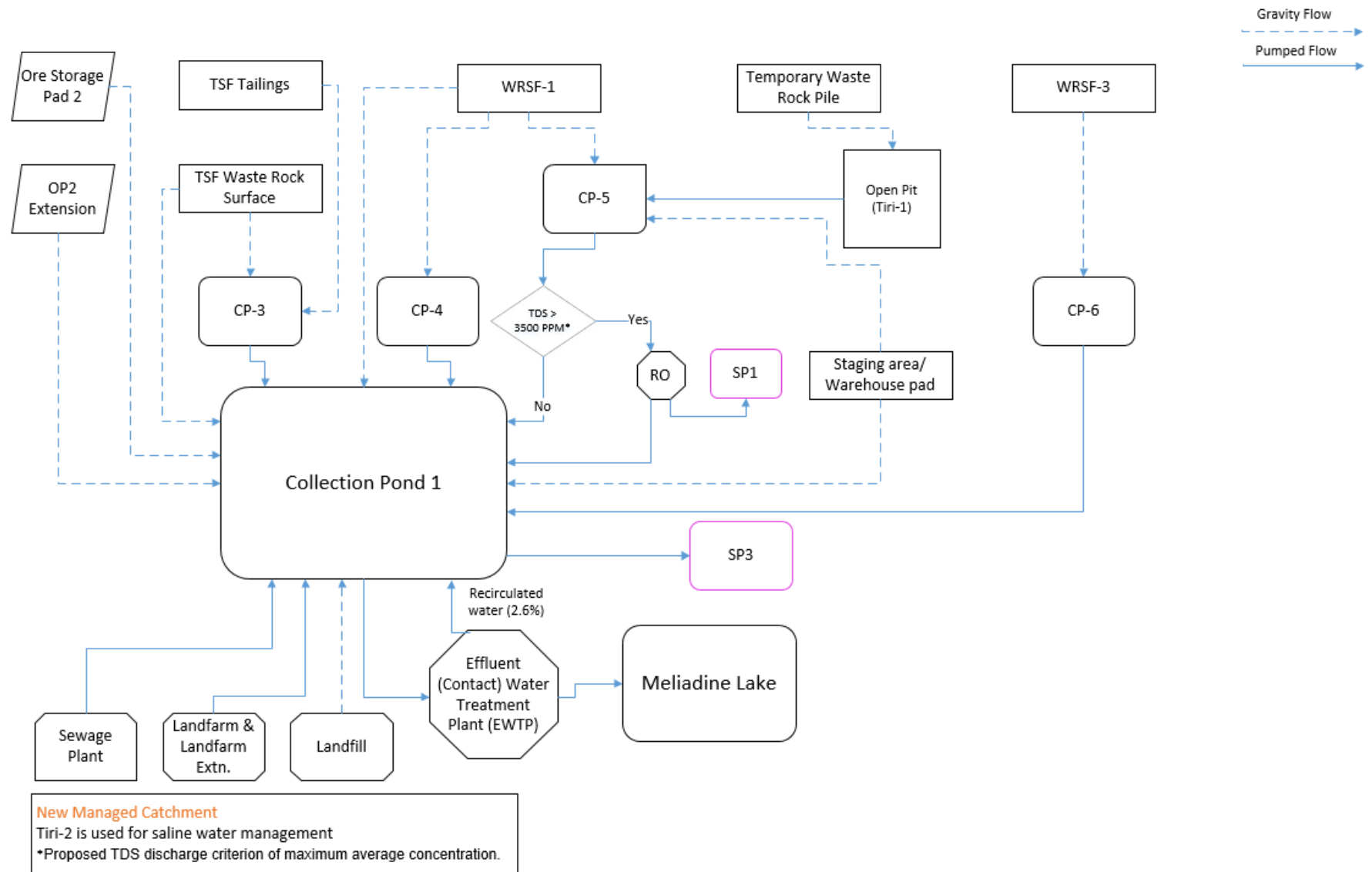


Figure 4: 2022 and 2023 Contact Water Management

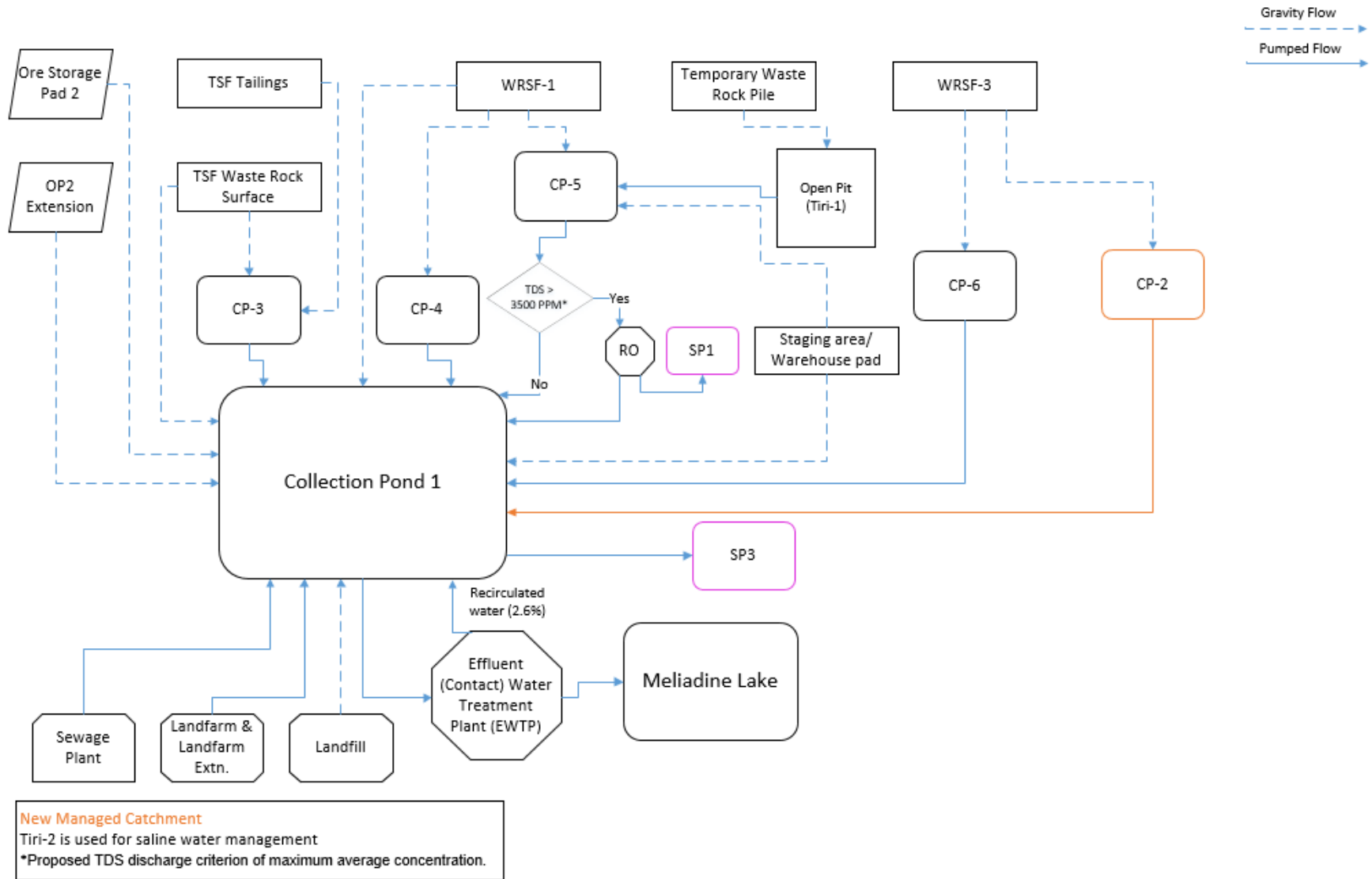


Figure 5: 2024 Contact Water Management

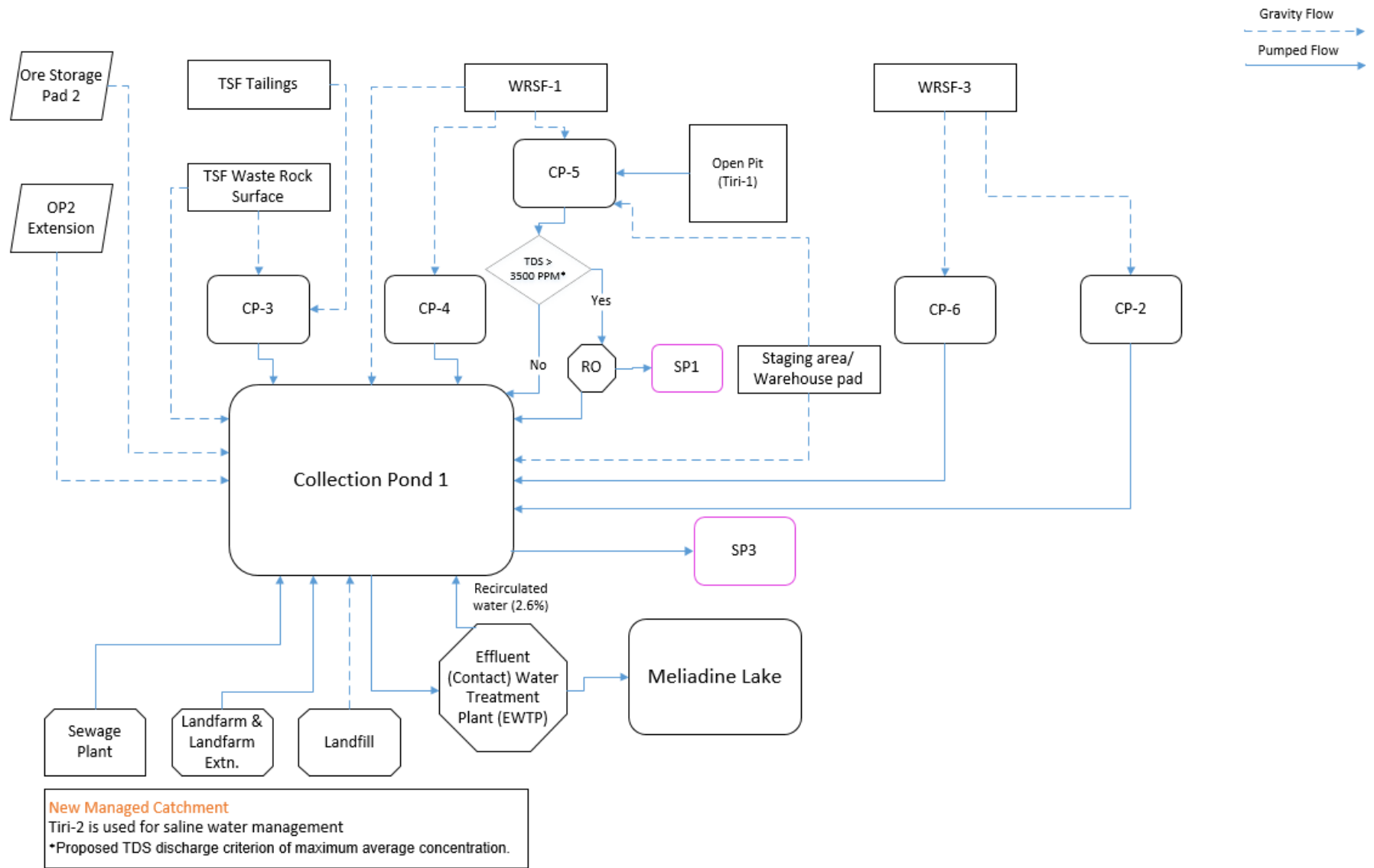


Figure 6: 2025 and 2026 Contact Water Management

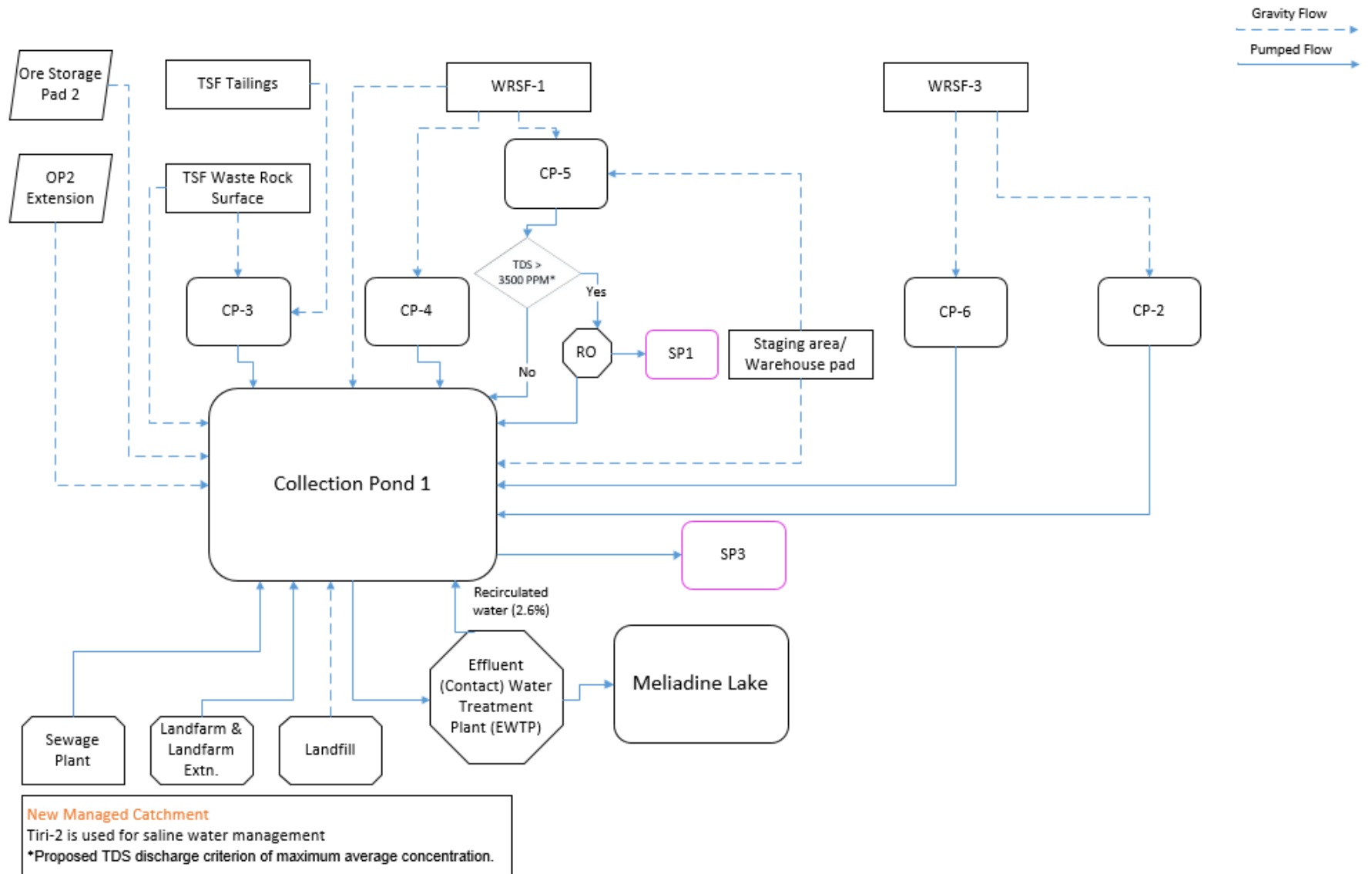


Figure 7: 2027 Contact Water Management

2.1.1 Process Water Management

The process water reporting to CP3 from the TSF is the main source of arsenic to surface contact water that is managed at the mine. This arsenic transfer from process water to contact water is minimized by the dewatering of the tailings prior to placement in the TSF. Furthermore, freezing of the tailings is the primary mitigation strategy to minimize impact of seepage on the quality of the contact water collected in CP3.

2.1.2 Freshwater Consumption

Freshwater usage for the Project includes potable water supply, fire suppression, make-up water for the mill, and other operational requirements, such as drilling water, batch plant use, and use at the wash bay. The main freshwater sources are Meliadine Lake and Lake A8. Intakes at these sources include an intake housed within a rockfill causeway located northeast of the industrial pad in Meliadine Lake and an additional freshwater intake pump located at Lake A8. The water balance does not consider the use of CP1 water in the process plant. Freshwater requirements for the Project used in the assessment are presented in Appendix A.

2.2 Model Inputs and Assumptions

The water balance and water quality model was completed in Excel and run on a monthly timestep. The model provides results for operations, from May 2020 until December 2028. For each inflow to a facility that is modelled, a corresponding water quality is assigned, or an overall facility mass load release is assigned. These flows are then mixed, and a resulting water quality is calculated. The following facilities were incorporated into the model:

- Containment Ponds: CP1, CP2, CP3, CP4, CP5, and CP6
- Open Pits: Tiri-1 and Tiri-2 (note that Tiri-2 is used for saline water storage from the Underground as of 2022)
- Tiriganiaq Underground
- P-Area (note that this area is fully decommissioned prior to freeze up in 2020)
- WRSF 1 and WRSF 3
- Ore Piles 2 and 2-ext
- Constructed pads (camp site, laydown areas)
- Landfill, landfarm, and landfarm extension areas
- TSF
- EWTP (maximum treatment capacity of 22,000 m³/d)

Predictive water balance and water quality results were specifically generated for the Containment Ponds, Open Pits, P-Area, and the EWTP.

2.2.1 General Water Balance Inputs and Assumptions

Water balance inputs are provided in Appendix A. These include:

- Initial conditions (i.e., pond water levels)
- Freshwater/consumptive flows
- Water treatment rates
- Pond elevation-area-storage curves
- Watershed and facility footprint areas

The annual areas are based on available layouts for years 2020 (i.e., Year 1) and 2027 (i.e., Year 8). For the years in between, it was assumed that a facility's ultimate footprint would be constructed in its first year of operation.

- Climate and runoff data (i.e., monthly precipitation and runoff coefficients)

The water balance was developed to simulate average and 100-year wet year precipitation conditions. The monthly precipitation under these conditions was derived from baseline climate data provided by Okane Consultants Inc. (OKC) based on data from Rankin Inlet and site data (OKC 2020). For this assessment, two scenarios were considered:

- 1) Average precipitation: Under this scenario, average monthly precipitation was assumed throughout operations
- 2) Wet Year precipitation: Under this scenario, 100-year wet precipitation was assumed for years 2020 (i.e., Year 1, the year with the most natural runoff to the contact water management system since the WRSFs are not fully developed) and 2025 (i.e., Year 6, a year with the ultimate layout – CP2 and the full WRSF footprint are online). Average monthly precipitation was assumed for all other operations years.

2.2.2 General Water Quality Inputs and Assumptions

General water quality inputs and assumptions are described in this section. For a more detailed description of the inputs and assumptions, please refer to Appendix A.

The water quality model provides predictions for the following regulated constituents:

- Conventional constituents: TDS
- Nutrients: Total dissolved phosphorus and total ammonia
- Dissolved metals: Aluminum, arsenic, copper, lead, nickel, and zinc

In addition, concentrations of total phosphorus, aluminum, arsenic, copper, lead, nickel, and zinc were calculated only for the EWTP. Total concentrations were estimated from the modelled EWTP dissolved metal results by adding a particulate fraction to the dissolved concentrations, assuming TSS concentrations (15 mg/L) as described in Appendix A and using site monitoring data from CP1.

2.2.2.1 *Water Quality Inputs*

The following source terms were included in the water quality model:

- Natural runoff to site
- Disturbed runoff to site
- Direct precipitation
- Sewage Treatment Plant (STP) effluent
- Landfill runoff
- Landfarm runoff
- WRSF runoff
- Ore stockpile runoff
- TSF runoff and seepage
- Pit wall runoff
- TDS flush of surface piles and constructed pads containing underground material

2.2.2.2 *Initial Conditions*

Initial conditions were represented by monitoring data obtained from site as described in Appendix A. Monitoring data for May 2020 were used for collection ponds where available. Where monitoring data were not available for May 2020, initial concentrations were estimated based on concentrations prior to freeze up in 2019.

2.2.2.3 *Model Inputs and Assumptions*

Model inputs and assumptions are presented in Appendix A. These include:

- Details of source term derivations
- Details of initial condition derivations
- TSS concentration assumptions
- Particulate fraction concentrations for calculation of total concentrations
- Treatment parameters (EWTP)
- Proportions of waste rock, ore, and tailings originating from each pit and the underground
- Lithological proportions of waste rock
- Lithological proportions of exposed pit wall areas

Material loading rates were calculated based on assumed material properties and were scaled to field conditions in a manner consistent with previous water quality modelling assessments for the Project.

2.2.2.4 TDS Loadings from Underground Run of Mine

Additional TDS loadings from underground run of mine (ROM) are accounted for in the model, and consider underground TDS sources throughout the production of the ROM. Constructed pads conservatively reflect some additional TDS concentrations contained within the pore spaces, and waste rock piles and ore stockpiles reflect observed natural groundwater TDS concentrations contained within the pore spaces.

3.0 RESULTS AND DISCUSSION

A summary of the results is presented below. For context, the modelled water quality results for regulated constituents are compared to the water licence discharge criteria applied to CP1 for discharge to Meliadine Lake; however, it should be noted that these criteria do not apply to water transfers within the site and are only applicable at end of pipe following treatment through the EWTP.

Detailed monthly water balance results for the average and wet years scenarios are presented in tabular form in Appendices B and D, respectively. Detailed monthly average water quality model results for the average and wet years scenarios are presented in Appendices C and E, respectively. The results are summarized below.

3.1 Average Year (Base Case) Scenario

3.1.1 CP2, CP3, CP4, CP5, and CP6

The derived annual and monthly discharges from the CPs to CP1 under average precipitation conditions are shown in Table 2 and Table 3. The maximum monthly discharge occurs in June. It is assumed that pumping to CP1 begins mid-June. Note that there is no discharge associated with CP2 until it comes online in 2024 (see Figures 5 to Figure 7).

Table 2: Annual discharge from CP2, CP3, CP4, CP5, and CP6 (average year scenario) - m³/yr

Year	CP2	CP3	CP4	CP5	CP6
2020	0	57,532	51,534	103,828	27,297
2021	0	57,532	41,684	154,416	27,297
2022	0	57,532	31,833	120,094	27,297
2023	0	57,532	31,833	134,487	27,297
2024	94,904	57,532	31,833	107,156	27,728
2025	94,904	57,532	31,833	112,852	27,728
2026	94,904	57,532	31,833	129,426	27,728
2027	94,904	57,532	31,833	90,484	27,728
2028	94,904	57,532	31,833	90,484	27,728

Note:

CP2 becomes operational in 2024.

Table 3: Maximum and mean monthly discharge from CP2, CP3, CP4, CP5, and CP6 (average year scenario) - m³/month

Year	CP2		CP3		CP4		CP5		CP6	
	Max Monthly Discharge	Mean Monthly Discharge	Max Monthly Discharge	Mean Monthly Discharge	Max Monthly Discharge	Mean Monthly Discharge	Max Monthly Discharge	Mean Monthly Discharge	Max Monthly Discharge	Mean Monthly Discharge
2020	0	0	26,754	11,506	26,291	10,307	47,026	20,766	15,887	5,546
2021	0	0	26,754	11,506	21,594	8,337	75,494	30,883	15,887	5,546
2022	0	0	26,754	11,506	16,898	6,367	53,344	24,019	15,887	5,546
2023	0	0	26,754	11,506	16,898	6,367	59,794	26,897	15,887	5,546
2024	49,031	18,981	26,754	11,506	16,898	6,367	45,794	21,431	15,887	5,546
2025	49,031	18,981	26,754	11,506	16,898	6,367	46,734	22,570	15,887	5,546
2026	49,031	18,981	26,754	11,506	16,898	6,367	55,965	25,885	15,887	5,546
2027	49,031	18,981	26,754	11,506	16,898	6,367	46,734	18,097	15,887	5,546
2028	49,031	18,981	26,754	11,506	16,898	6,367	46,734	18,097	15,887	5,546

Note:

Mean monthly discharge values reflect the mean flows from June to September (i.e. the non-winter months). The discharge is zero for the other months.

CP2 becomes operational in 2024.

Projected TDS concentrations of contact water in the CPs (Figure 8) show decreasing trends in 2020, as the higher TDS contact water that was present in 2019 is replaced by inflows possessing lower TDS contact water. Steady state TDS concentrations are projected to be below 300 mg/L, reflecting appropriate management of material sourced from underground operations (it is anticipated that much of the waste rock sourced from underground will be used as cemented paste backfill, thereby minimizing the TDS loadings at surface). CP6 shows a more gradual decreasing trend, attributed to proportionally less natural runoff than other CPs, and a slight increase in 2024 – 2026, which is due to changing proportions of overburden versus waste rock and to a small volume of underground waste rock placed in WRSF 3 in 2025. As noted above, CP2 is initiated in 2024 and therefore does not have any water quality projections prior to 2024.

Projected total dissolved phosphorus in the CPs (Appendix C) ranges from approximately 0.01 mg/L to 0.16 mg/L after 2020. For context, all projected total dissolved phosphorus concentrations in the CPs remain below the water licence discharge limit that is applied to CP1.

Projected total ammonia in the CPs (Appendix C) ranges from approximately 2 mg N/L to 25 mg N/L after 2020. CP5 experiences an initial decrease in projected total ammonia concentrations and ranges between 2.0 mg/L and 7.0 mg/L thereafter, until 2027 and 2028, when it decreases to approximately 2.0 mg/L due to the ceasing of pumping from Tiri-1. All projected total ammonia concentrations in the CPs remain below the water licence discharge limit applied to CP1, with the exception of CP6 due to runoff from WRSF 3.

Projected dissolved metal concentrations (Appendix C) generally show more variability between the CPs throughout operations as lithological proportions change in the stockpiled waste rock and as waste rock runoff concentrations are influenced by varying volumes of runoff over the summer. CP5 shows a departure from the trends of metal concentrations in 2027 and 2028; this is due to cessation of pumping from Tiri-1 to CP5, resulting in other inflow sources (e.g., runoff from WRSF 1) having more influence on the metals mass entering CP5. Dissolved metal concentrations in the CPs remain below their respective discharge criteria that are applied to CP1; the addition of respective particulate metal fractions is not expected to adversely affect resulting total metals concentrations, except total arsenic. Maximum total arsenic concentrations in CP3, which receives surface runoff from the TSF, remain slightly above the discharge criterion (maximum concentrations reach approximately 0.36 mg/L in 2021/2022) for the length of operations.

Site observations on and surrounding the TSF in 2020 indicate that there is potential for an increased amount of TDS to reach CP3 via the runoff from the TSF. As limited monitoring data are available at this point, this is not currently predicted by the model; however, continued monitoring of the TSF will inform the model for future iterations.

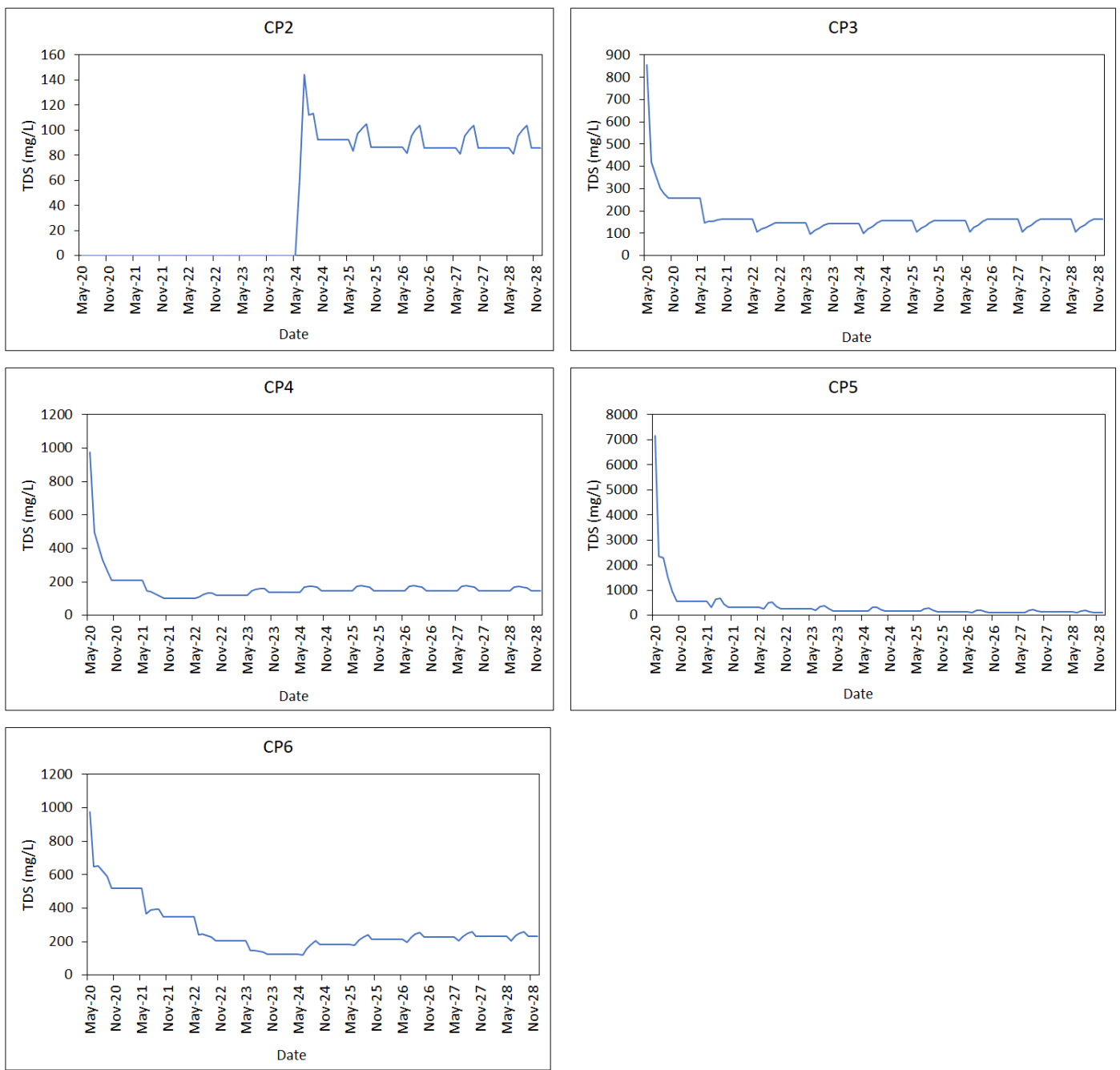


Figure 8: Projected TDS concentrations in the CPs (average year scenario)

3.1.2 P-Area Ponds

The P-Area is planned to remain operational until October 2020, after which this area and the three P-Area ponds will be decommissioned. The Laydown Area will then be located in the footprint of the P-Area as shown in Figure 1. For modelling purposes, the three P-Area ponds were modelled as one single pond. Assuming average precipitation conditions, 21,180 m³ was estimated to be pumped from the P-Area to CP5 in 2020 prior to the P-Area decommissioning in October.

The P-Area ponds TDS concentrations for May and June were calibrated to observed site conditions for TDS; other constituents were calculated based on measured concentrations in October 2019 (discussed in Appendix A). Historically, the P-Area ponds were used to provide some additional storage for excess water originating from the underground operations. This practice ceased in 2019, and it is not anticipated that any water from the underground operations will be stored in the P-Area ponds in 2020. Therefore, the only other anticipated inflows to the P-Area in 2020 are natural catchment runoff and direct precipitation. Projected TDS concentrations (Figure 9) show a sharp decrease as the ponds are pumped to CP5; during August to October, the only inputs to these ponds are primarily catchment runoff.

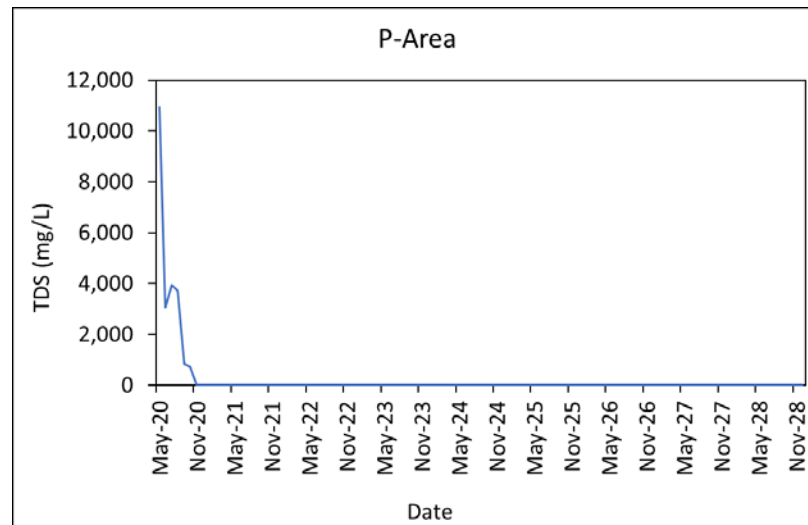


Figure 9: Projected TDS concentrations in the P-Area (average year scenario)

Projected total dissolved phosphorus, total ammonia, and metal concentrations (Appendix C) are variable until decommissioning and are reflective of disturbed area runoff inflows. Projected concentrations remain below respective water licence discharge criteria that apply to CP1, except for total ammonia at the start of 2020 pumping to CP5, which is initially higher than the CP1 discharge criterion.

3.1.3 Open Pits

Surface water and other inflows collecting in the Tiri-1 pit are pumped to CP5. Inflows accumulating in Tiri-2 pit are also pumped to CP5 until this pit is required for saline water management in 2021. The derived annual and maximum monthly discharges from the pits to CP5 under average precipitation conditions are shown in Table 4 and Table 5.

Table 4: Annual contact water discharge from Tiri-1 and Tiri-2 to CP5 (average year scenario) - m³/yr

Year	Tiri-1	Tiri-2
2020	0	10,056
2021	62,943	0
2022	31,703	0
2023	46,096	0
2024	18,765	0
2025	22,368	0
2026	38,943	0
2027	0	0
2028	0	0

Table 5: Monthly contact water discharge from Tiri-1 and Tiri-2 to CP5 (average year scenario) - m³/month

Year	Tiri-1		Tiri-2	
	Max Monthly Discharge	Mean Monthly Discharge	Max Monthly Discharge	Mean Monthly Discharge
2020	0	0	3,236	2,514
2021	28,376	12,589	0	0
2022	7,550	6,341	0	0
2023	14,000	9,219	0	0
2024	6,455	4,691	0	0
2025	7,355	5,592	0	0
2026	9,231	7,789	0	0
2027	0	0	0	0
2028	0	0	0	0

Note:

Mean monthly discharge values reflect the mean flows from June to September (i.e. the non-winter months). The discharge is zero for the other months.

The open pit sumps collect primarily pit wall runoff and watershed runoff. Additionally, Tiri-2 collects runoff from a small temporary waste rock pile. Projected maximum TDS concentrations in the pits (Figure 10) approach 50 mg/L but are variable throughout the summer months. It is assumed that inflows to the pits during the winter months are negligible and there is no accumulation of volume or water pumped to CP5; therefore, the concentrations over the winter months are assumed to be zero. After 2027, when mining ceases and the pit begins accumulating backfilling volume, Tiri-1 shows a steady-state TDS concentration of approximately 20 mg/L.

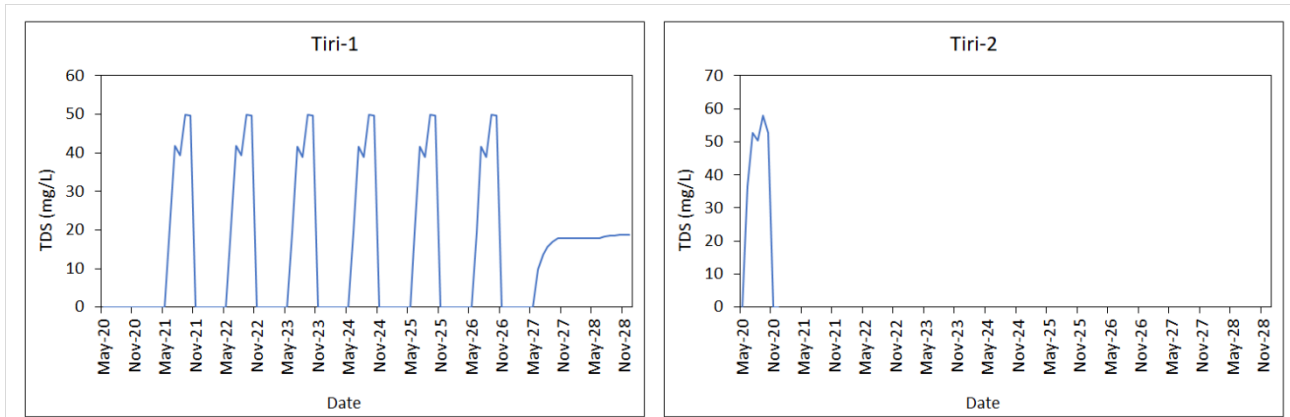


Figure 10: Projected TDS concentrations in the open pits (average year scenario)

Projected total dissolved phosphorus concentrations in the open pits (Appendix C) show a similarly varying trend and reach maximum concentrations of approximately 0.030 mg/L. Total ammonia concentrations in the open pits are assumed to consistently be 13 mg N/L (see Appendix A) over the length of operations, and represent residual blasting products.

Projected metal concentrations in the open pits show similar trends to TDS (Appendix C) and for the regulated metals do not exceed their respective discharge criteria as applied to CP1.

3.1.4 CP1 and EWTP

All surface contact water from site is ultimately pumped to CP1 and treated through the EWTP prior to discharge to Meliadine Lake. The derived annual and maximum monthly discharges from CP1 under average precipitation conditions are shown in Table 6 and Table 7. It is assumed that pumping to the EWTP occurs from mid June to October. The maximum treatment rate occurs in June.

Table 6: Annual discharge from CP1 to EWTP (average year scenario) - m³/yr

Year	CP1
2020	883,631
2021	634,507
2022	598,209
2023	599,536
2024	653,135
2025	674,411
2026	689,621
2027	689,621
2028	701,173

Table 7: Monthly discharge from CP1 to EWTP (average year scenario) - m³/month

Year	CP1	
	Max Monthly Discharge	Mean Monthly Discharge
2020	384,180	210,968
2021	302,927	158,627
2022	275,162	149,552
2023	281,612	149,884
2024	316,826	163,284
2025	317,767	168,603
2026	326,998	172,405
2027	317,767	166,746
2028	317,767	163,622

Note:

Mean monthly discharge values reflect the mean flows from June to September (i.e. the non-winter months). The discharge is zero for the other months.

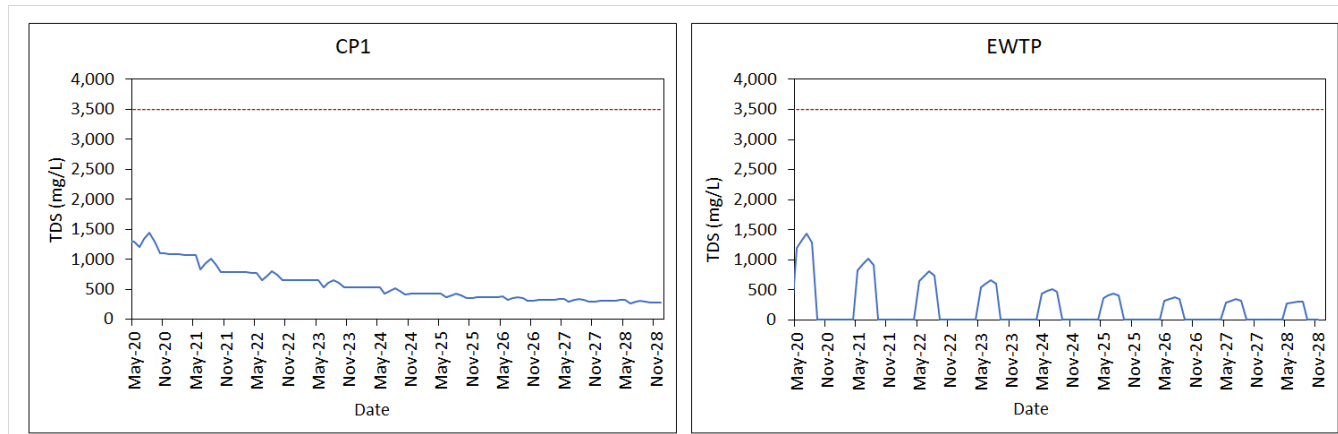
The modelled water quality in EWTP is reflective of the water quality in CP1. The EWTP treats water to be discharged from CP1 for TSS. As the discharge criterion for TSS is 15 mg/L, discharge assumes a TSS concentration equivalent to this criterion. This assumption is conservative, as discharge from the EWTP to Meliadine Lake is measured consistently below 15 mg/L. Total constituent concentrations, as applicable, in discharge from the EWTP accounting for the addition of a particulate fraction associated with 15 mg/L TSS, are presented in Appendices C and E.

Projected TDS concentrations in CP1 and treated through the EWTP (Figure 11) show a decrease over operations (to 2028), following the discharge of elevated-TDS contact water in 2020. It is assumed that there is no reworking of underground waste rock containing pore water with elevated TDS, and that TDS contained in the pore water of constructed pads, underground waste rock, or underground ore, continues to deplete over time. Steady state TDS concentrations in CP1 and the EWTP are projected to be approximately 250 to 400 mg/L and remain well below the discharge criterion.

Total phosphorus concentrations in CP1 and total phosphorus concentrations in the EWTP (Appendix C) are projected to reach a steady state concentration between approximately 0.5 mg/L (summer months) and 0.9 mg/L (over winter), respectively, and remain below the CP1 discharge limit. Projected concentrations in CP1 show an increasing trend over the winter months; this is due to the STP effluent, which has higher concentrations of total dissolved phosphorus than other inflow sources, as in winter conditions it is the only inflow source to CP1.

Total ammonia concentrations in CP1 and the EWTP (Appendix C) are projected to reach a steady state concentration of approximately 4.0 to 5.0 mg N/L and remain below the CP1 discharge limit. Projected concentrations in CP1 show a decreasing trend over the winter months as the STP effluent, which has lower concentrations of ammonia than the pond, is the only inflow source to CP1.

Projected metal concentrations in CP1 and the EWTP (Appendix C) show one of two trends: concentrations decrease over operations, reaching steady state conditions around 2024 (like TDS), or display steady state conditions immediately in 2020. All regulated dissolved and total metals remain below their respective discharge criteria.



Note: The red dashed line represents the proposed TDS discharge criterion of maximum average concentration (WQ-MOP Rev2a, Golder 2020).

Figure 11: Projected TDS concentrations in CP1 and through the EWTP (average year scenario)

3.2 Wet Years Scenario

Based on the results of the average year presented in the previous section, the water balance was re-run assuming 100-year wet year precipitation conditions for years 2020 (Year 1) and 2025 (Year 6), and average precipitation conditions for the other mine years. The results are presented below.

3.2.1 CP2, CP3, CP4, CP5, and CP6

The annual and maximum monthly discharges from the CPs to CP1 under the wet years scenario are shown in Table 8 and Table 9. The maximum monthly discharge occurs in June. It is assumed that pumping to CP1 begins mid-June. Under the 100-year wet years scenario, the monthly discharges (Table 5) remain within the maximum design discharges presented in Appendix A.

Table 8: Annual discharge from CP2, CP3, CP4, CP5, and CP6 (wet years scenario)- m³/yr

Year	CP2	CP3	CP4	CP5	CP6
2020	0	85,951	77,135	163,747	40,858
2021	0	57,532	41,684	154,416	27,297
2022	0	57,532	31,833	120,094	27,297
2023	0	57,532	31,833	134,487	27,297
2024	94,904	57,532	31,833	107,156	27,728
2025	142,050	85,951	47,647	191,884	41,502
2026	94,904	57,532	31,833	129,426	27,728
2027	94,904	57,532	31,833	90,484	27,728
2028	94,904	57,532	31,833	90,484	27,728

Note:

CP2 becomes operational in 2024.

Table 9: Maximum and mean monthly discharge from CP2, CP3, CP4, CP5, and CP6 (wet year scenario) - m³/month

Year	CP2		CP3		CP4		CP5		CP6	
	Max Monthly Discharge	Mean Monthly Discharge	Max Monthly Discharge	Mean Monthly Discharge	Max Monthly Discharge	Mean Monthly Discharge	Max Monthly Discharge	Mean Monthly Discharge	Max Monthly Discharge	Mean Monthly Discharge
2020	0	0	40,012	17,190	39,352,	15,427	73,336,	32,749	23,505	8,172
2021	0	0	26,754	11,506	21,594	8,337	75,494	30,883	15,887	5,546
2022	0	0	26,754	11,506	16,898	6,367	53,344	24,019	15,887	5,546
2023	0	0	26,754	11,506	16,898	6,367	59,794	26,897	15,887	5,546
2024	49,031	18,981	26,754	11,506	16,898	6,367	45,794	21,431	15,887	5,546
2025	73,388	28,410	40,012	17,190	25,293	9,529	82,542	38,377	23,780	8,300
2026	49,031	18,981	26,754	11,506	16,898	6,367	55,965	25,885	15,887	5,546
2027	49,031	18,981	26,754	11,506	16,898	6,367	46,734	18,097	15,887	5,546
2028	49,031	18,981	26,754	11,506	16,898	6,367	46,734	18,097	15,887	5,546

Note:

Mean monthly discharge values reflect the mean flows from June to September (i.e. the non-winter months). The discharge is zero for the other months.

CP2 becomes operational in 2024.

Projected TDS concentrations in the CPs (Figure 12) show similar trends as the average year scenario projections but with lower concentrations for 2020 and 2025 when the wet years are applied. This is due to an increase in site runoff volume relative to the mass released. After 2020, TDS concentrations are projected to remain below 300 mg/L.

Projected total dissolved phosphorus in the CPs (Appendix C) ranges from approximately 0.01 mg/L to 0.16 mg/L after 2020. All projected total dissolved phosphorus concentrations in the CPs remain below the water licence discharge criterion for total phosphorus applied to CP1.

Projected total ammonia in the CPs (Appendix E) ranges from approximately 2 mg N/L to 25 mg N/L after 2020. Concentrations in the wet years are lower in the CPs compared to the base case scenario due to an increase in surface water volume with relatively similar residual blasting residual load to that in the base case. Similar to the base case scenario, all projected total ammonia concentrations in the CPs remain below the water licence discharge criterion applied to CP1, with the exception of CP6.

Projected dissolved metal concentrations (Appendix E) show similar trends and ranges as the average year (base case) scenario; however, due to increased surface water volumes on the mine site associated with runoff associated with the wet years scenario, a marked decrease in metals concentrations is modelled in 2020 and 2025. As with the average year scenario, dissolved arsenic in CP3 remains slightly above the regulated CP1 discharge criterion.

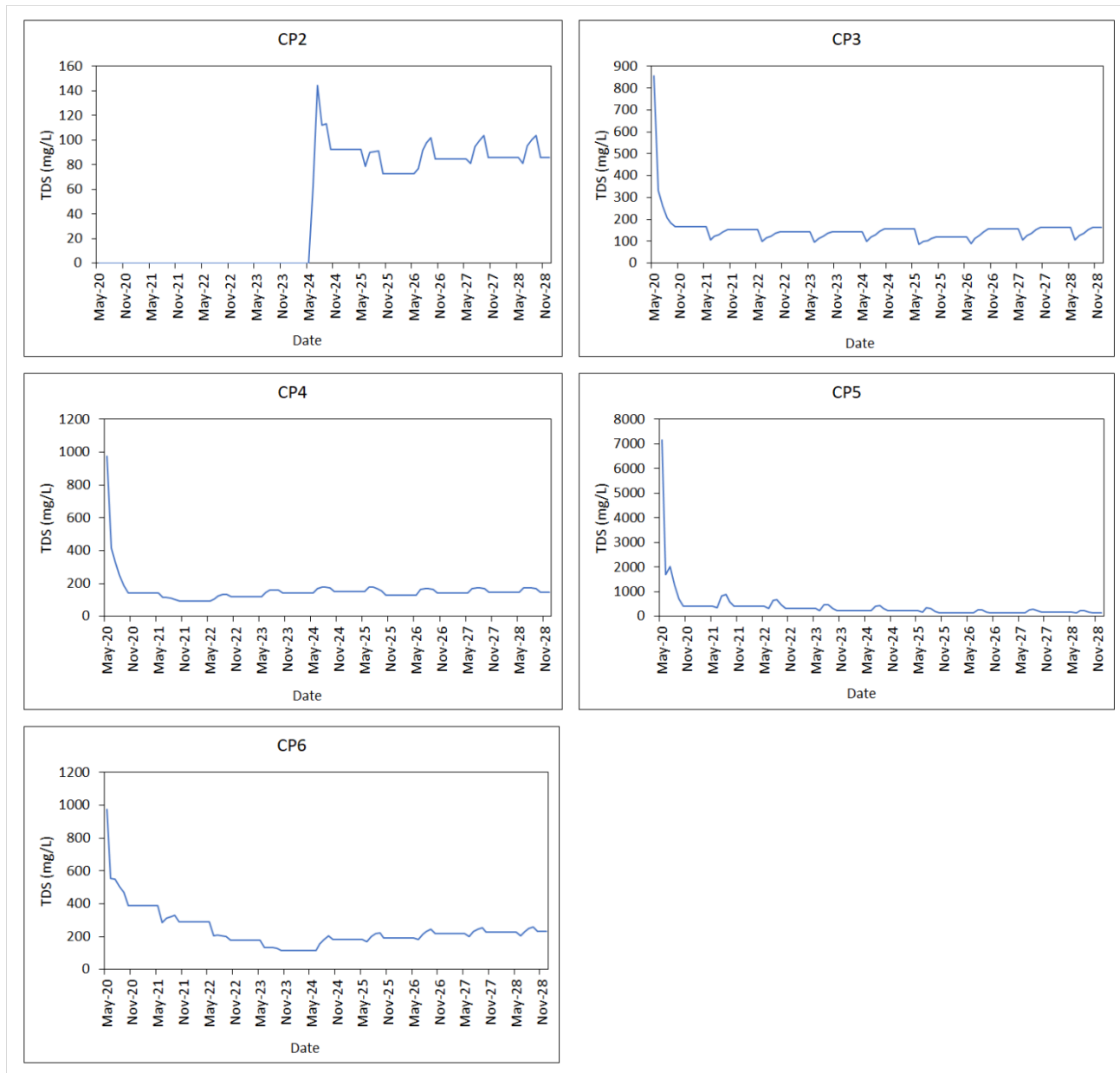


Figure 12: Projected TDS concentrations in the CPs (wet years scenario)

3.2.2 P-Area Ponds

Under the 100-year wet years scenario, 27,770 m³ was estimated to be pumped from the P-Area to CP5 in 2020 prior to the P-Area decommissioning in October.

Projected TDS concentrations (Figure 13) show an initial sharp decrease to about 3,000 mg/L for the months calibrated to existing 2020 data (i.e., to June 2020), followed by an increase to approximately 5,000 mg/L between July and August. After August, projected TDS concentrations decrease sharply in September and October.

Projected total phosphorus, total ammonia, and metal concentrations show similar trends. The total ammonia decreases below the regulated CP1 discharge criterion through the summer, and total dissolved phosphorus and metal concentrations remain consistently below the respective discharge criteria applied to CP1 (Appendix E).

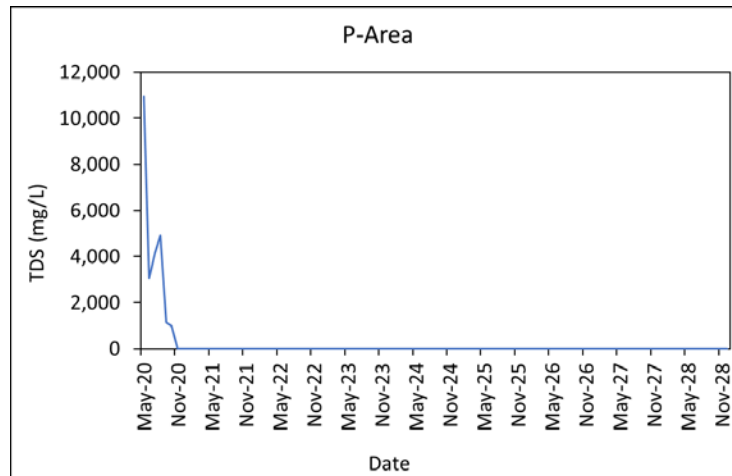


Figure 13: Projected TDS concentrations in the P-Area (wet years scenario)

3.2.3 Open Pits

The annual and maximum monthly discharges from the pits to CP5 under the wet year scenario are shown in Table 10 and Table 11.

Table 10: Annual contact water discharge from Tiri-1 and Tiri-2 (wet years scenario) - m³/yr

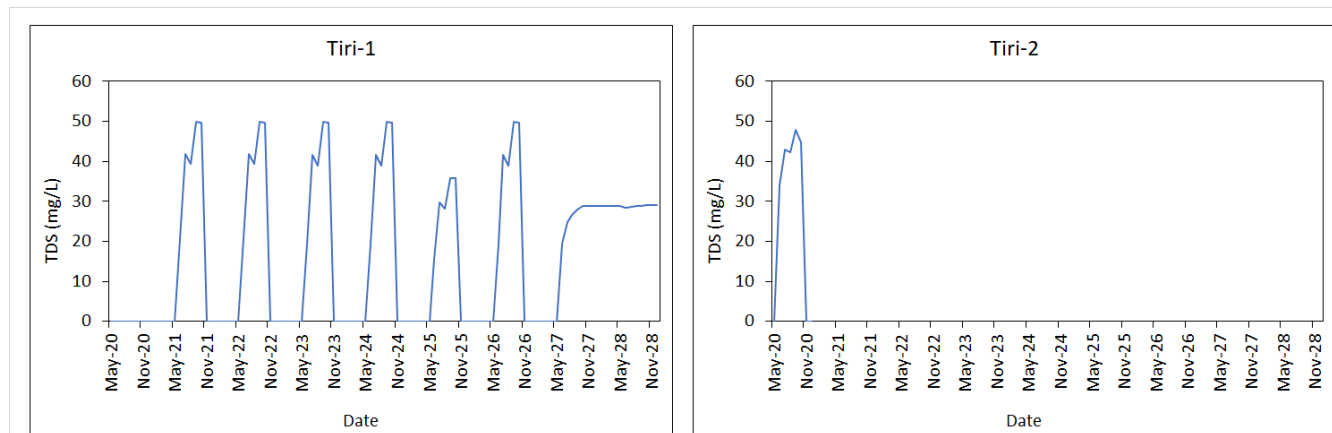
Year	Tiri-1	Tiri-2
2020	0	27,321
2021	62,943	0
2022	31,703	0
2023	46,096	0
2024	18,765	0
2025	56,449	0
2026	38,943	0
2027	0	0
2028	0	0

Table 11: Monthly contact water discharge from Tiri-1 and Tiri-2 to CP5 (wet year scenario) - m³/month

Year	Tiri-1		Tiri-2	
	Max Monthly Discharge	Mean Monthly Discharge	Max Monthly Discharge	Mean Monthly Discharge
2020	0	0	7,160	5,464
2021	28,376	12,589	0	0
2022	7,550	6,341	0	0
2023	14,000	9,219	0	0
2024	6,455	4,691	0	0
2025	13,604	11,290	0	0
2026	9,231	7,789	0	0
2027	0	0	0	0
2028	0	0	0	0

Note:

Mean monthly discharge values reflect the mean flows from June to September (i.e. the non-winter months). The discharge is zero for the other months.

**Figure 14: Projected TDS concentrations in the open pits (wet years scenario)**

Projected maximum concentrations of TDS and its annual variability in the open pits (Figure 14) are similar to the average year scenario. Due to the increased runoff volume comprising pit wall inflows to Tiri-1 in 2025, maximum TDS concentrations are projected to approximate 70 to 75% of the concentrations in wet years.

Projected total dissolved phosphorus, total ammonia, and metal concentrations show similar trends as TDS, with projected maximum concentrations and their annual variability in the open pits similar to the average year scenario. As noted for TDS, total ammonia and metal concentrations decrease during the wet year of 2025 (Appendix E).

3.2.4 CP1 and EWTP

The annual and maximum monthly discharges from CP1 under the wet years scenario are shown in Table 12 and Table 13. It is assumed that pumping to the EWTP occurs from mid June to October. The maximum treatment rate occurs in June.

Table 12: Annual discharge from CP1 to EWTP (wet years scenario) - m³/yr

Year	CP1
2020	1,052,493
2021	717,659
2022	598,209
2023	599,536
2024	653,135
2025	914,662
2026	783,168
2027	666,985
2028	654,486

Table 13: Monthly discharge from CP1 to EWTP (wet year scenario) - m³/month

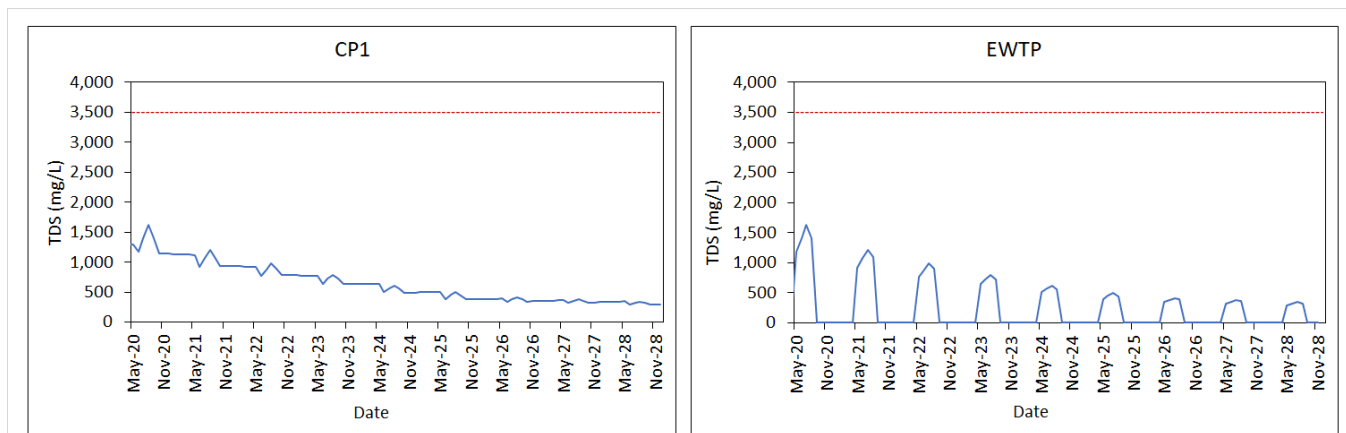
Year	CP1	
	Max Monthly Discharge	Mean Monthly Discharge
2020	529,904	330,000
2021	302,927	158,627
2022	275,162	149,552
2023	281,612	149,884
2024	316,826	163,284
2025	485,855	228,665
2026	326,998	195,792
2027	317,767	166,746
2028	317,767	163,622

Note:

Mean monthly discharge values reflect the mean flows from June to September (i.e. the non-winter months). The discharge is zero for the other months.

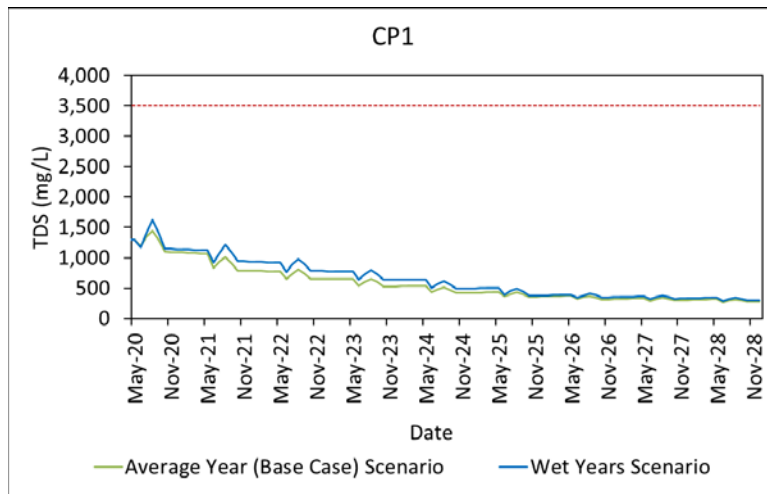
Similar to the average year scenario, projected TDS concentrations in CP1 and through the EWTP (Figure 15) show a decreasing trend beginning in 2020 to 2021. Figure 16 illustrates the differences in projected TDS concentrations in CP1 between the average year (base case) scenario and the wet years scenario. Due to the increased disturbed area runoff in the wet years and an increase in mass load from other sources, such as the ore stock pile due to a proportionally higher amount of underground material compared to pit material, projected TDS concentrations remain slightly higher in the wet years scenario than the average year scenario. Projected TDS concentrations in CP1 and the EWTP range from approximately 400 mg/L to 1,600 mg/L.

Projected total dissolved phosphorus, total ammonia, and metal concentrations (Appendix E) are similar to the average year scenario projections; however, there is a decrease in concentrations for 2020 and 2025 (the applied wet years). Total phosphorus, total ammonia, and all dissolved and total metals concentrations remain below the regulated CP1 discharge limits.



Note: The red dashed line represents the proposed TDS discharge criterion of maximum average concentration (WQ-MOP Rev2a, Golder 2020).

Figure 15: Projected TDS concentrations in CP1 and through the EWTP (wet years scenario)



Note: The red dashed line represents the proposed TDS discharge criterion of maximum average concentration (WQ-MOP Rev2a, Golder 2020).

Figure 16: Projected TDS concentrations in CP1 for an average year (base case) scenario, and a wet years scenario.

4.0 CONCLUSIONS

Under both the average and wet years scenarios, surface contact water on site can be managed within the design discharge rates and capacities for the various CPs.

The primary objective of the water balance and water quality model is to project the potential volumes and quality of the effluent that will be discharged to Meliadine Lake. Under the average year and wet years scenarios, modelled concentrations of the regulated constituents (i.e., TDS, total phosphorus, total ammonia, aluminum, arsenic, copper, nickel, lead, and zinc) in CP1 are expected to be appropriate for discharge to Meliadine Lake (i.e., meet regulated discharge criteria) and therefore remain aligned with the conclusions of the Final Environmental Impact Statement that no adverse risk to the receiving environment is to be expected. The updated modelling also projects that TDS in the surface contact water will decrease over the life of mine as the TDS currently available from underground ROM is flushed out. Although flows from each of the contact water sources are sensitive to TDS concentrations in the runoff, this variability appears to be generally attenuated by the volume in CP1. Nevertheless, it will be important to empty CP1 prior to the end of the discharge season, and maintain options to discharge in early spring, to mitigate the risk of encountering issues related to storage of surface contact water in CP1.

4.1 Uncertainty

The model provides a simplified representation of a complex natural and engineered system, with inherent variability and uncertainty. It is based on the current understanding of the Project description and mine plan, and deviation from these plans may invalidate the projections presented herein.

Climate change was not considered in this model. Though the effects of climate change are expected to increase over time, the life of the project is short and it is unlikely that any potential changes in climate due to climate change will not be outside the range of current natural climate variability. Therefore, potential changes in climate over the length of the project due to climate change are considered to be sufficiently represented in the sensitivity analysis by introducing wet years with extreme annual precipitation.

The model is limited to the monthly time step, which does not allow to estimate water quantity or quality at a smaller scale. Projected concentrations represent monthly averages, and therefore do not account for daily variability in loadings due to variability in the local weather. Higher daily concentrations may occur due to site conditions, climate conditions, management practices, and extreme events.

Additionally, the model does not account for the formation of ice as there are no pumped flows between CPs anticipated through winter; however, ice formation will concentrate constituents in the remaining water volume during winter conditions. In early freshet conditions once ice begins to melt, observed concentrations at site will likely be lower than projected if samples are taken from an accumulation of water on top of ice surfaces; conversely, they will likely be much higher than predicted if samples are taken under ice. In this way, monitoring data, particularly for CP1, may show initial summer concentrations higher than the discharge criteria; however, these would be expected to decrease as freshet flows from other surface water sources enter CP1 and the ice volume melts.

Uncertainty in the modelling projections for CP1 over Project operations will be managed through the Water Quality Management and Optimization Plan (WQ-MOP), which was initially drafted as part of the Emergency Amendment and revised for the 2020 Water Licence Amendment. The WQ-MOP outlines the process to set benchmarks at the point of discharge and within the receiving environment of Meliadine Lake, so as to make sure Meliadine Lake remains protected, details a monitoring program to validate the benchmarks, and describes a basis for adaptive management for CP1 discharge.

5.0 LIMITATIONS

This report was prepared for the exclusive use of Agnico Eagle Mines Ltd. The report, which specifically includes all tables, figures, and appendices, is based on data gathered by Golder Associates Ltd., and information provided to Golder Associates Ltd. by others. The information provided by others has not been independently verified or otherwise examined by Golder Associates Ltd. to determine the accuracy or completeness. Golder Associates Ltd. has relied in good faith on this information and does not accept responsibility for any deficiency, misstatements, or inaccuracies contained in the information as a result of omissions, misinterpretation or fraudulent acts of the persons who provided the information. Golder Associates Ltd. shall not be held responsible for damages resulting from unpredictable or unknown site conditions, from erroneous information provided by and/or obtained from sources other than Golder Associates Ltd., and from ulterior changes in the site conditions unless Golder Associates Ltd. has been notified by Agnico Eagle Mines. of any occurrence, activity, information, or discovery, past or future, which would modify the site conditions described herein, and have had the opportunity of revising its interpretations and comments. Golder Associates Ltd. shall not be held responsible for damages resulting from any future modification to the applicable regulations, standards, and criteria. Any use of this report and its content by a third party is the responsibility of such third party. Golder Associates Ltd. shall not be held responsible for damages, if any, suffered by any third party as a result of decisions made or actions taken based on this report.

The services performed as described in this report were conducted in a manner consistent with that level of care and skill normally exercised by other members of the engineering and geoscience professions currently practicing under similar conditions, subject to the time limits and financial and physical constraints applicable to the services.

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This report provides a professional opinion in light of the information available at the time of this report and therefore no warranty is either expressed, implied, or made as to the conclusions, advice or recommendations offered in this report.

6.0 REFERENCES

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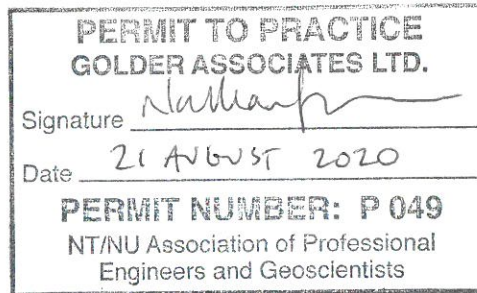


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APPENDIX A

**Environmental Design Inputs and
Assumptions**



REV1 AUGUST 21, 2020

Meliadine August 2020 Water Licence Amendment - Environmental Design Inputs and Assumptions

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DOCUMENT CONTROL

Version	Date (YMD)	Section	Revision	Issued By
Rev A	2020-06-29	All	Initial draft for Agnico Eagle internal review	A. Cobbina / K. Skeries
Rev B	2020-07-20	All	Agnico Eagle comments addressed	A. Cobbina / K. Skeries
Rev 0	2020-08-07	All	Final version for submission	A. Cobbina / K. Skeries
Rev 1	2020-08-21	All	Final version for submission, additional Agnico Eagle comments addressed	A. Cobbina / K. Skeries

List of Abbreviations and Nomenclature

Agnico Eagle	Agnico Eagle Mines Limited
CP	Containment Pond
d	Day
EWTP	Effluent Water Treatment Plant
the Project	Meliadine Project
FEIS Addendum	Final Environmental Impact Statement Addendum
Golder	Golder Associates Ltd.
hr	Hour
HCT	Humidity cell test
kg	Kilogram
km	Kilometre
L	Litre
LOM	Life of mine
m	Metre
mm	Millimetre
m ²	Square metre
m ³	Cubic metre
mg	Milligram
mon	Month
NU	Nunavut
Okane	Okane Consultants Inc.
OP	Ore Pad
ROM	Run of mine
SFE	Shake flask extraction test
STP	Sewage Treatment Plant
TDS	Total dissolved solids
TSS	Total suspended solids
TSF	Tailings Storage Facility
Tetra Tech	Tetra Tech, Inc
Tiri	Tiriganiaq pit
UG	Underground
WRSF	Waste Rock Storage Facility
yr	Year

1.0 INTRODUCTION

This document is intended to capture the assumptions the water balance and water quality model used to support the 2020 Water Licence Amendment Application. The content of this document is based on input or review from Agnico Eagle Mines Limited (Agnico Eagle) provided to Golder Associates Ltd. (Golder) up to July 28, 2020. It is a live document that is updated as more information becomes available through monitoring, additional modelling, and development of the mine plan.

2.0 MINE DESIGN PARAMETERS

The V11_3 LOM mine plan is assumed in terms of the mining sequencing and schedule (Table 1). An overview of the basis for the LOM is provided in the Mine Waste Management Plan (Agnico Eagle 2020b).

The V12 LOM 2020 layout is provided in Figure 1. While the V11_3 LOM is used for the sequencing, the V12 layout will be used to generate watershed and facility areas.

Figure 1: Ultimate LOM Layout

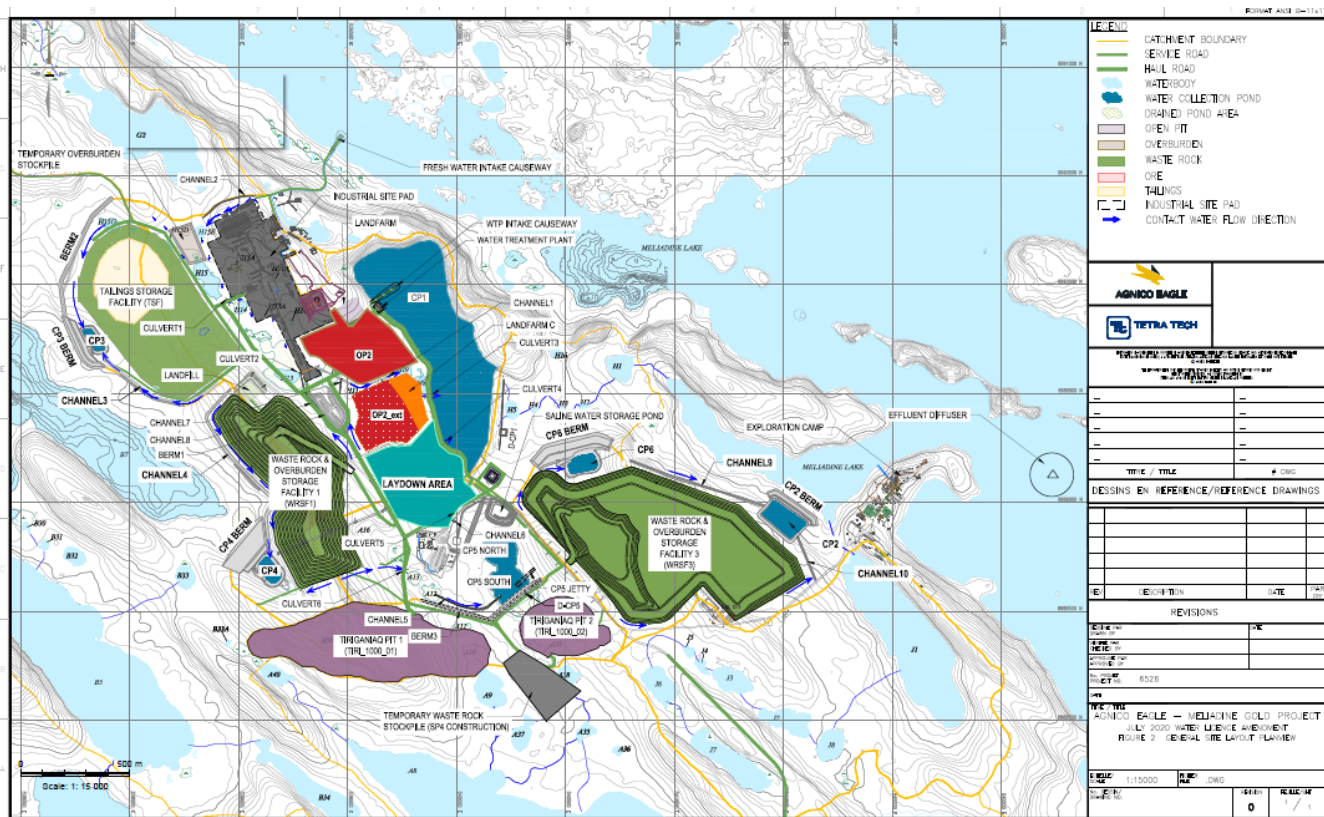


Table 1: Construction and Operation Schedule

Dewatering/Construction/Operation Activities	Starts at Beginning of	Ends at the End of
Mine Operation	Q4 of 2015 (Yr – 5)	2027 (Yr 8)
Construction of industrial pad	Q4 of 2015 (Yr – 5)	2019 (Yr -1)
Construction of rock pad for underground ore stockpiles	Q4 of 2015 (Yr – 5)	Q4 of 2015 (Yr – 5)
Construction of Landfarm	2017 (Yr -3)	2017 (Yr -3)
Construction of Ore Pad 2	2018 (Yr -2)	2019 (Yr -1)
Operation of TSF Cell 1	Q1 of 2019 (Yr-1)	2024 (Yr 5)
Operation of WRSF1	2019 (Yr -1)	2024 (Yr 5)
Operation of WRSF3 (expanded)	2019 (Yr -1)	2026 (Yr 7)
Construction Operation Southern Laydown (garages, laydown, transit areas)	2020 (Yr 1)	End of operations
Construction New Contact Water Treatment Plant	2020 (Yr 1)	End of operations
Mining of Tiriganiaq Pit 2	2020 (Yr 1)	2022 (Yr 3)
Enhanced WTP online	2020 (Yr 1)	End of operations
Construction Operation Landfarm C (new one)	2021 (Yr 2)	End of operations
Mining of Tiriganiaq Pit 1	2021 (Yr 2)	2026 (Yr 7)
Mill expansion	2022 (Yr 3)	End of operations
Operation of Ore Pad 2 Ext	2021 (Yr 2)	End of Operations
Construction Roads to Discovery inclusive of AWAR widening and Boat Launch	2022 (Yr 3)	2025 (Yr 6)
Operation of TSF Cell 2	2023 (Yr 4)	2027 (Yr 8)
Placement of closure cover on top of tailings surface in Cell 1 of TSF	2024 (Yr 5)	2024 (Yr 5)

Source: 2020 Mine Waste Management Plan (Agnico Eagle 2020b)

3.0 CLIMATE ASSUMPTIONS

Table 2: Average Year and Wet Year Precipitation and Runoff Coefficients¹

Month	Rainfall and Snowmelt (mm/mon) ²			Runoff Coefficient			
	Average Year	10 yr Wet Year ³	100 yr Wet Year ³	Natural Ground ⁴	Disturbed Ground ⁴	Water Surface ⁴	WRSF and Ore Stockpiles ⁵
January	0	0	0	0	0	0	0
February	0	0	0	0	0	0	0
March	0	0	0	0	0	0	0
April	0	0	0	0	0	0	0
May	0	0	0	0	0	0	0
June	207	267	310	0.52	0.55	0.31	0.043
July	44	57	66	0.52	0.85	-1.9	0.003
August	58	75	87	0.52	0.7	-0.5	0.003
September	51	66	76	0.52	0.6	0.15	0.001
October	56	72	84	0.52	0.55	1	0
November	0	0	0	0	0	0	0
December	0	0	0	0	0	0	0

Notes:

1. Based on timeseries generated by Okane based on data from Rankin Inlet and site data (OKC 2020)
2. Winter precipitation is included in the runoff and snowmelt values for June
3. Wet year values were developed based on frequency analyses on the annual precipitation record from OKC 2020. The monthly values were then assumed based on the monthly distribution for the annual statistics.
4. Estimated from Tetra Tech's Approved water balance: Meliadine Approved Project Water Balance 03172020.xlsx. Negative values indicate evaporative rates greater than precipitation rates
5. Based on Okane runoff estimates from the Whale Tail Expansion Project (OKC 2019).

4.0 WATER BALANCE CRITERIA AND ASSUMPTIONS

4.1 Model Attributes

Table 3: Model Attributes

Attribute	Details
Model Software	Excel
Start Date	May 2020
End Date	December 2028
Timestep	Monthly
Results timestep	Monthly

4.2 Initial Conditions

Volumes in May 2020 are assumed to be the same as the recorded volumes in May where available or in October 2019 (as included in the Tetra Tech water balance [2020a]).

Table 4: Initial Conditions

Waterbody / Reservoir	Condition (May 2020)
CP1	Volume (m ³): 631,587
CP2	Volume (m ³): 0 (not initiated until 2024)
CP3	Volume (m ³): 21,688
CP4	Volume (m ³): 20,187
CP5	Volume (m ³): 16,781
CP6	Volume (m ³): 26,747
P1 Pond	Volume (m ³): 4,781
P2 Pond	Volume (m ³): 691
P3 Pond	Volume (m ³): 2,441

4.3 Hydrology

Table 5: Consumptive Flows

Item	Flow Rate	Volume per year (m ³)
Camp Use	200 L/person/day (680 person)	50,000
Ore moisture content from pits	2% by weight	-
Waste rock moisture content from open pits	2% by weight	-
Ore moisture content from underground	2% by weight	-
Waste rock moisture content from underground	2% by weight	-

Table 6: Max Discharge Rates for Water Containment Ponds

Water Containment Pond	Max Rate (m ³ /d)
CP1	22,000
CP2	11,000
CP5	2020: 16,700 2021- closure: 26,900
CP3	9,400
CP4	11,000
CP6	11,000

Elevation storage relationships and watershed areas are presented in Annexes B and C, respectively.

5.0 MASS BALANCE CRITERIA AND ASSUMPTIONS

5.1 Modelled Constituents and Comparative Guidelines

Water quality data are provided in Annex A and assumptions used are summarized in this section.

Table 7: Modelled Constituents and Comparative Guidelines

Constituent Group	Constituents	Surface Contact Water Effluent Discharge Criteria (end of pipe) (mg/L)
Conventional	Total Dissolved Solids (TDS)	3,500 ^a
Nutrients	Total Dissolved Phosphorus (Total P)	2.0 ^b
	Total Ammonia (NH ₃) as N	14
Metals	Aluminum (Al)	2.0 ^b
	Arsenic (As)	0.3 ^b
	Copper (Cu)	0.2 ^b
	Nickel (Ni)	0.5 ^b
	Lead (Pb)	0.2 ^b
	Zinc (Zn)	0.4 ^b

Notes:

^a - Proposed maximum average concentration TDS discharge criterion (WQMOP Rev2a, Golder 2020)

^b - Guideline applies to total concentration; total concentrations are estimated for model results by adding a particulate fraction to the dissolved concentrations, assuming 15 mg/L TSS.

5.2 Model Source Term Derivations

Table 8: Water Quality Inputs

Modelled Flow	Type	Source
Natural Runoff to Site	Concentration	<ul style="list-style-type: none"> Average parameter concentrations derived from baseline water quality between 1997 and 2011 from stream B6-7 (n = 5) (Golder 2012a, Golder 2015b, and TetraTech 2020b).
Disturbed Runoff to Site	Concentration	<ul style="list-style-type: none"> Average parameter concentrations (total fraction available only) derived from the waste rock pad (n = 5) as per Agnico Eagle, J. Wittemann (2010) (Agnico Eagle 2010, Golder 2012a, Golder 2015b and TetraTech 2020b). For TDS only, monthly average 2019 monitored concentrations from Channel 1 were assigned at a 25% reduction for the year 2020, with a continuing 25% decrease in subsequent years (Tetra Tech 2020c).
Direct Precipitation	Concentration	Assumed pristine water (0 mg/L for all constituents)
STP Effluent – Main Camp	Concentration	<ul style="list-style-type: none"> Average water quality from Main Camp STP effluent monitoring data ranging from January 2019 to June 2020 <ul style="list-style-type: none"> NH₄ and Total Phosphorus: (n = 76, n = 77 respectively) TDS calculated by multiplying average specific conductivity (uS/cm) by 0.7 (n = 66). All other modelled constituents: Average water quality from station MEL-11 (freshwater intake) monitoring data ranging from January 2019 to June 2020 (n = 20)
Landfill Runoff	Concentration	<ul style="list-style-type: none"> Average parameter concentrations (total fraction available only) derived from the waste rock pad (n = 5) as per Agnico Eagle, J. Wittemann (2010) (Agnico Eagle 2010, Golder 2012a, Golder 2015b, and TetraTech 2020b).
Landfarm Runoff	Concentration	<ul style="list-style-type: none"> Average water quality from Landfarm sump monitoring data ranging from August 2018 to August 2019 (n (TDS, Total P) = 8, n (Ammonia) = 9, n (metals) = 4)
WRSF runoff	Loading	<ul style="list-style-type: none"> Overburden: Average parameter loadings derived from SFE data (Golder 2012b, Golder 2015b, TetraTech 2020b) <ul style="list-style-type: none"> Scaled to average climate field precipitation Waste Rock: Parameter loadings derived from HCT and Large Column data (Golder 2012a, Golder 2015b and TetraTech 2020b) <ul style="list-style-type: none"> Loading rate calculations for each rock type were developed using the last two steady state cycles analyzing the whole metal suite and assigning sample proportion contributions by rock type Weekly loading rates were applied as monthly loading rates to scale to field conditions. Overburden and waste rock loadings calculated using cumulative lithological waste rock proportions from the open pits(s) and underground for WRSF1 and WRSF3 TDS from proportion of underground-sourced waste rock is set at 10% the average water quality concentration from Level 300 Sump monitoring data ranging from June 2019 to April 2020 (n = 12); this is the maximum percentage of underground sump water concentrations, recorded in seepage monitoring studies in 2017 (Golder 2017).

Table 8: Water Quality Inputs

Modelled Flow	Type	Source
Ore stockpile runoff	Loading	<ul style="list-style-type: none"> ▪ Average parameter concentrations derived from SFE data (Golder 2012b and TetraTech 2020b) with exception to total ammonia. The maximum concentration recorded from existing pad runoff as per Agnico Eagle, J. Wittemann (2009) for total ammonia was assigned to Large Column leaching tests to calculate and assign a loading rate (Agnico Eagle 2009 and Golder 2015b). <ul style="list-style-type: none"> ○ Rolling piles such as the ore stockpile runoff was not scaled to average climate field precipitation as a conservative measure ▪ TDS from proportion of underground-sourced ore is set at 10% the average water quality concentration from Level 300 Sump monitoring data ranging from June 2019 to April 2020 (n = 12); this is the maximum percentage of underground sump water concentrations, recorded in seepage monitoring studies in 2017 (Golder 2017).
Tailings Storage Facility (TSF) runoff	Loading (with exception to seepage)	<ul style="list-style-type: none"> ▪ Tailings Seepage: Parameter concentrations derived from open pit and underground HCT whole ore tailings data (Golder 2012b and TetraTech 2020b) with exception to total ammonia. Monthly average concentrations for total ammonia were calculated from Meadowbank TSF Pond (ST-21) and applied as monthly concentrations (Golder 2012a). <ul style="list-style-type: none"> ○ Concentrations were developed using average of HCT cycles 0 - 4 ○ Concentration calculated using ore production proportions from the open pit(s) and underground. ▪ Tailings Runoff: Parameter loadings derived from open pit and underground HCT whole ore tailings data (Golder 2012a and TetraTech 2020b) with exception to total ammonia. Monthly average concentrations for total ammonia were calculated from Meadowbank TSF Pond (ST-21) and applied as monthly concentrations (Golder 2012a). <ul style="list-style-type: none"> ○ Loading rate calculations were developed using average of HCT cycles 12 - 16 ○ Weekly loading rates were applied as monthly loading rates to scale to field conditions. ○ Loadings calculated using ore production proportions from the open pit(s) and underground.
	Loading	<ul style="list-style-type: none"> ▪ Waste Rock Cover Seepage and Runoff: Parameter loadings derived from HCT and Large Column data (Golder 2012a, Golder 2015b and TetraTech 2020b) with exception to total ammonia. The maximum concentration recorded from existing pad runoff as per Agnico Eagle, J. Wittemann (2009) for total ammonia was assigned to Large Column leaching tests to calculate and assign a loading rate (Agnico Eagle 2009 and Golder 2015b). <ul style="list-style-type: none"> ○ Loading rate calculations for each rock type were developed using the last two steady state cycles analyzing the whole metal suite and assigning sample proportion contributions by rock type ○ Loadings calculated using cumulative open pit and underground lithological waste rock proportions from WRSF1. ○ Weekly loading rates were applied as monthly loading rates to scale to field conditions.

Table 8: Water Quality Inputs

Modelled Flow	Type	Source
Pit wall runoff	Loading	<ul style="list-style-type: none"> ▪ Overburden: Parameter loadings derived from SFE data (Golder 2012b, Golder 2015b and TetraTech 2020b) <ul style="list-style-type: none"> ○ Scaled to average climate field precipitation ▪ Waste Rock: Parameter loadings derived from HCT and Large Column data (Golder 2012a, Golder 2015 and TetraTech 2020b) <ul style="list-style-type: none"> ○ Loading rate calculations for each rock type were developed using the last two steady state cycles analyzing the whole metal suite and assigning sample proportion contributions by rock type ○ Weekly loading rates were applied as monthly loading rates to scale to field conditions. ▪ Overburden and waste rock loadings calculated using exposed pit wall lithological proportions in final pit shell
TDS flush of surface stockpiles containing underground material	Concentration	<ul style="list-style-type: none"> ▪ TDS concentration override assuming 10% of the average water quality concentration from Level 300 Sump monitoring data ranging from June 2019 to April 2020 (n = 12); this is the maximum percentage of underground sump water concentrations, recorded in seepage monitoring studies in 2017 (Golder 2017)
TDS flush of constructed pads/disturbed area runoff	Concentration	<ul style="list-style-type: none"> ▪ Monthly average 2019 monitored concentrations from Channel 1 were assigned at a 25% reduction for the year 2020, with a continuing 25% decrease in subsequent years (Tetra Tech 2020c).

Note: for the purposes of the derivation of inputs, all values that were less than the mean detection limit were applied their respective detection limit.

5.3 Initial Conditions

Initial conditions for reservoirs containing volume at the start of the model are required. As water quality monitoring typically does not occur in under-ice conditions, there are no data available for many of the ponds for the model start date of May 1, with CP1 being the exception. Therefore, for these ponds, water quality conditions at freeze up from the previous year was used, under the assumption that most of the CP's will not accumulate any further volume over the under-ice period.

To calculate the initial conditions, the mass present in the ponds at freeze-up was calculated using the concentrations and volume present on the day the sample was taken (or as close to as possible). This mass was assumed to be equal to the mass present at the model start date, and concentrations were calculated using the initial volumes from the water balance.

Table 9: Pond Initial Water Quality Conditions

Pond	Source
CP1	Water quality of CP1 on May 3, 2020
CP2	Pond is established after model start date, no initial conditions
CP3	Water quality of CP3 on September 1, 2019
CP4	Water quality of CP4 on September 4, 2019
CP5	Water quality of CP5 on September 3, 2019
CP6	No monitoring data; initial CP4 water quality used as proxy.
P Area	Water quality of P1 on September 1, 2019

5.4 Assumptions

Table 10: Total Suspended Solids (TSS) Concentrations

Location	TSS Concentration	Rationale
Effluent	15 mg/L	assumed to be consistent with MDMER

Table 11: Particulate concentration at source point per 1 mg/L of TSS

Constituent	Particulate Fraction Concentration (mg/L) per 1 mg/L TSS
<i>Conventional</i>	
Total Dissolved Solids (TDS)	0 mg/L
<i>Nutrients</i>	
Total Phosphorus (Total P)	0.078 mg/L ^a
Total Ammonia (NH ₃)	0 mg/L
<i>Metals</i>	
Aluminum (Al)	0.015 mg/L
Arsenic (As)	0.000069 mg/L
Copper (Cu)	0.000027 mg/L
Nickel (Ni)	0 mg/L
Lead (Pb)	0 mg/L
Zinc (Zn)	0.0013 mg/L

Notes:

^a - Calculated as the difference between total phosphorus and ortho-phosphate. Ortho-phosphate concentrations were detected in only 3 of 16 samples.

6.0 WATER TREATMENT

Table 12: Water Treatment

Treatment Type	Dates	Water Flow (Maximum)	Water Quality	Discharge Location
Sewage Treatment Plant (STP)	Operations	680 persons 0.2 m ³ /person/day	<ul style="list-style-type: none"> Main Camp STP: <ul style="list-style-type: none"> 1.0 mg/L NH₃ as N 6.8 mg/L Total P 	<ul style="list-style-type: none"> CP1
Contact Effluent Water Treatment Plant (EWTP)	<ul style="list-style-type: none"> Current Future (Date TBD) 	June 15 – Oct 1: <ul style="list-style-type: none"> Min flow: 6,000 m³/d Max flow: 22,000 m³/d 2.6% of treated water is returned to CP1 as sludge at 1% solids 	<ul style="list-style-type: none"> Treatment is only for TSS which is not tracked in the model. 	<ul style="list-style-type: none"> Meliadine Lake via diffuser

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ANNEX A – WATER QUALITY MODEL INPUTS

Table A.1: Initial water quality conditions in the water quality model

Constituents		CP1	CP3	CP4	CP5	CP6	P Area
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Conventional	Total Dissolved Solids (TDS)	1,297 ^a	854	977	7,153	977	10,950
Nutrients	Total Phosphorus (Total P)	0.034	0.18	0.065	0.067	0.065	0.073
	Total Ammonia (NH ₃) as N	4.3	4.6	0.9	18	0.9	36
Metals	Aluminum (Al)	0.0039	0.016	0.0064	0.025	0.0064	0.030
	Arsenic (As)	0.0019	0.064	0.0056	0.0043	0.0056	0.0059
	Copper (Cu)	0.00080	0.0055	0.0029	0.0067	0.0029	0.0047
	Nickel (Ni)	0.0040	0.022	0.015	0.038	0.015	0.028
	Lead (Pb)	0.00020	0.0011	0.00013	0.0017	0.00013	0.0020
	Zinc (Zn)	0.0086	0.027	0.0033	0.042	0.0033	0.050

^a Concentration calculated using total water and ice volume to account for melting ice in June 2020. Actual concentration under ice in May 2020 was 5,700 mg/L.

Table A.2: Static water quality inputs to the water quality model

Constituents		Natural Runoff	Disturbed Runoff	STP Effluent Main Camp	STP Effluent Exploration Camp	Landfill Runoff	Landfarm Runoff
		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Conventional	Total Dissolved Solids (TDS)	50	Variable	649 ^a	396 ^a	Variable	6,279
Nutrients	Total Phosphorus (Total P)	0.0066	0.031	6.8	7.6	0.031	0.071
	Total Ammonia (NH ₃) as N	0.019	2.3	1.0	16	2.3	59
Metals	Aluminum (Al)	0.0037	0.62 ^b	0.0032	0.0032	0.62 ^b	0.081
	Arsenic (As)	0.0011	0.018 ^b	0.00034	0.00034	0.018 ^b	0.0084
	Copper (Cu)	0.00090	0.0025 ^b	0.00076	0.00076	0.0025 ^b	0.0055
	Nickel (Ni)	0.00028	0.0059 ^b	0.001	0.001	0.0059 ^b	0.014
	Lead (Pb)	0.00084	0.0069 ^b	0.0002	0.0002	0.0069 ^b	0.0007
	Zinc (Zn)	0.0031	0.029 ^b	0.005	0.005	0.029 ^b	0.018

Notes:

^a – TDS was calculated by multiplying specific conductivity (µS/cm) by 0.70 as measured TDS and most major ions were not available.

^b – Represents total metals fraction

Table A.3: Waste rock, overburden, and ore concentration inputs to the water quality model

Constituents		Overburden	Gabbro	Iron Formation	Mafic Volcanic and Sericitized Volcanic ^a	Greywacke-Siltstone and Sediment	Oxidized Sediment	Ultramafic ^b	Ore ^c	Tailings Seepage		Tailings Runoff	
		mg/kg/month ^d	mg/kg/month ^e	mg/kg/month ^e	mg/kg/month ^e	mg/kg/month ^e	mg/kg/month ^e	mg/kg/month ^e	mg/L	Tiriganiaq Pits	Tiriganiaq UG	Tiriganiaq Pits	Tiriganiaq UG
										mg/L	mg/L	mg/kg/month ^e	mg/kg/month ^e
Conventional	Total Dissolved Solids (TDS) ^f	2.0	6.1	12	7.9	8.5	9.2	24	45	48	49	103	177
Nutrients	Total Phosphorus (Total P)	0.0089 ^{g,h}	0.00087 ^g	0.0023 ^g	0.0029 ^g	0.0029 ^g	0.0089 ^{g,h}	0.0089 ^g	0.10 ⁱ	0.10 ⁱ	0.10 ⁱ	0.0089 ^{g,h}	0.0089 ^{g,h}
	Total Ammonia (NH ₃) as N	1.1 [13 mg/L] ^j	1.1 [13 mg/L] ^j	1.1 [13 mg/L] ^j	1.1 [13 mg/L] ^j	1.1 [13 mg/L] ^j	1.1 [13 mg/L] ^j	1.1 [13 mg/L] ^j	12 mg/L ^k	Variable ^l	Variable ^l	Variable ^l	Variable ^l
Metals	Aluminum (Al)	0.025	0.011	0.028	0.017	0.018	0.020	0.11	0.59	0.015	0.010	0.040	0.12
	Arsenic (As)	0.00066	0.0017	0.00062	0.0046	0.0067	0.0055	0.044	0.34	0.011	0.0090	0.20	0.58
	Copper (Cu)	0.00034	0.000058	0.00045	0.00016	0.00017	0.00022	0.00050	0.00054	0.00019	0.00022	0.0010	0.0015
	Lead (Pb)	0.000049	0.0000068	0.000021	0.000012	0.000014	0.000015	0.000020	0.000097	0.0030	0.0060	0.00010	0.00042
	Nickel (Ni)	0.00022	0.000077	0.000090	0.000084	0.00013	0.00013	0.000099	0.00080	0.00025	0.00025	0.00067	0.00077
	Zinc (Zn)	0.0039	0.011	0.028	0.017	0.018	0.020	0.11	0.0010	0.0010	0.0010	0.0011	0.0013

Notes:

^a – Mafic volcanic HCT utilized and applied to sericitized volcanic lithology

^b – Ultramafic lithology represented by ultramafic Wesmeg Pit HCT

^c – Represented by Ore (Greywacke-siltstone) and Ore (Mafic volcanic)

^d – Weekly loading rates derived from SFE results were applied as the monthly rate to scale for site precipitation

^e – Weekly loading rates were applied as the monthly rate to scale for site precipitation

^f – TDS was calculated by summing alkalinity as CaCO₃ (multiplied by a factor of 0.60) and available major ion and metal constituent concentrations. Nitrate, fluoride, and chloride were not analyzed consistently enough to calculate TDS based on APHA 2017.

^g – Represents total phosphorus (metals) fraction

^h – Insufficient data for this lithology; supplemented with the maximum loading rate from remaining lithologies

ⁱ – A concentration of 0.10 mg/L was applied as a conservative estimate as most site data does not exceed 0.1 mg/L.

^j – Maximum concentration recorded from existing pad runoff as per Agnico Eagle, J. Wittemann (2009) assigned to Large Column leaching tests to calculate a loading rate and applied to WRSF's (Agnico Eagle 2009 and Golder 2015b); concentration of 13 mg/L applied to Open Pit Walls

^k – Maximum concentration recorded from existing pad runoff as per Agnico Eagle, J. Wittemann (2009) applied to Ore Stockpiles (Agnico Eagle 2009 and Golder 2015b).

^l – Input as average monthly concentrations reported for the Meadowbank TSF Pond (Golder 2012a): June [50 mg/L], July [25 mg/L], August [20 mg/L], September and October [35 mg/L]

Table A.4: WRSF Source Proportions by WRSF (Agnico Eagle 2020e)

Year	WRSF 1		WRSF 3	
	Tiriganiaq Open Pits	Tiriganiaq Underground	Tiriganiaq Open Pits	Tiriganiaq Underground
	%	%	%	%
2020	100	0	0	0
2021	28	72	100	0
2022	85	15	100	0
2023	88	12	100	0
2024	75	25	100	0
2025	67	33	100	0
2026	67	33	93	7.5
2027	67	33	93	7.5
2028	67	33	93	7.5

Table A.5: Waste Rock Lithological Proportions by Facility (Agnico Eagle 2020d)

	Unit	Facility	Overburden	Gabbro	Lampro- phyre	Iron Formation	KMG	Ultra- mafic	Siltstone	Oxidized Sediment	Sericitized -Volcanic	Volcanic	Sediment	Un- defined
Tonnage	tonnes	Tiriganiaq Pit 1	5,765,571	128,457	0	591,341	200,511	0	504,574	2,988,579	771,042	4,163,217	8,276,924	0
		Tiriganiaq Pit 2	693,226	113	0	648,203	0	0	0	1,217,425	0	0	3,979,261	0
		Tiriganiaq Underground	0	47,793	0	493,396	48,535	0	461,343	1,719,781	27,708	1662272	902,549	209,911
Proportion	%	Tiriganiaq Pit 1	91	76	-	39	83	-	57	55	97	75	67	0
		Tiriganiaq Pit 2	9.0	0	-	35	0	-	0	18	0	0	27	0
		Tiriganiaq Underground	0	23	-	27	17	-	43	26	2.9	25	6.1	100

Table A.6: Tailings Source Proportions (Agnico Eagle 2020c)

Year	Tiriganiaq Pit 1	Tiriganiaq Pit 2	Tiriganiaq Underground	Tiriganiaq Pit 1	Tiriganiaq Pit 2	Tiriganiaq Underground
	tonnes	tonnes	tonnes	%	%	%
2020	1,183	128,237	1,392,154	0.078	8.4	91
2021	46,388	143,042	1,560,327	2.7	8.2	89
2022	558,776	264,851	1,542,547	24	11	65
2023	315,190	0	1,516,664	17	0	83
2024	735,511	0	1,486,178	33	0	67
2025	944,833	0	1,453,224	39	0	61
2026	600,057	0	1,503,864	29	0	71
2027	0	0	0	29	0	71
2028	0	0	0	0	0	0
2029	0	0	0	0	0	0

Table A.7: Ore Source Proportions (Agnico Eagle 2020c)

Year	Ore Stockpile Balance (OP2)	Tiriganiaq Pit 1	Tiriganiaq Pit 2	Tiriganiaq Underground	Tiriganiaq Pit 1	Tiriganiaq Pit 2	Tiriganiaq Underground
	tonnes	tonnes	tonnes	tonnes	%	%	%
2020	132,317	1,183	128,237	1,392,154	0.078	8.4	91
2021	172,419	46,388	143,042	1,560,327	2.7	8.2	89
2022	762,979	558,776	264,851	1,542,547	24	11	65
2023	924,582	315,190	0	1,516,664	17	0	83
2024	1,133,271	735,511	0	1,486,178	33	0	67
2025	1,341,329	944,833	0	1,453,224	39	0	61
2026	1,255,251	600,057	0	1,503,864	29	0	71
2027	0	0	0	0	29	0	71
2028	0	0	0	0	0	0	0
2029	0	0	0	0	0	0	0

Table A.8: Exposed Pit Wall Lithological Proportions (End of Mining) (Agnico Eagle 2020d)

Lithology	Tiriganiaq Pit 1	Tiriganiaq Pit 2	Tiriganiaq Pit 1	Tiriganiaq Pit 2
	m ²	m ²	%	%
Overburden	72,082	27,566	19	31
Gabbro	8,901	1.0	2.3	0.0011
Lamprophyre	0	0	0	0
Iron Formation	15,715	21,383	4.1	24
KMG	2,160	0	0.56	0
Ultramafic	0	0	0	0
Greywacke-Siltstone	6,140	0	1.6	0
Oxidized Sediment	47,353	39,221	12	44
Sericitized Volcanic	25,557	0	6.6	0
Volcanic	95,943	0	25	0
Sediment	110,711	0	29	0
Undefined	0	0	0	0

ANNEX B – POND STORAGE CURVES

Table B.1: CP1 Storage Curve

CP1 (Lake H17)		
Pond Elev. (m)	Pond Area (m ²)	Pond Volume (m ³)
62.35	426	30
63	98,197	25,435
63.5	156,178	90,591
64	205,492	180,734
64.5	240,203	293,805
65	257,682	418,861
65.5	267,816	550,474
66	276,175	686,494
66.5	284,528	826,705
66.99	292,023	968,025
67	292,181	970,947

Table B.4: CP5 Storage Curve

CP5 (Drained Lake A54)		
Pond Elev. (m)	Pond Area (km ²)	Pond Volume (M m ³)
64.50	0.001	0.000
65.00	0.016	0.003
65.50	0.044	0.018
66.00	0.071	0.047
66.50	0.084	0.085

Table B.6: SP2 Storage Curve

SP2		
Pond Elev. (m)	Pond Area (m ²)	Pond Volume (m ³)
45.38	0	0
45.90	13	2
46.00	25	4
47.00	1,833	560
48.00	3,394	3,411
50.00	3,851	10,747
55.00	5,252	32,858
60.00	6,431	61,979
62.00	6,962	75,372
62.80	7,205	81,037

Table B.8: Tiri 1 Storage Curve

Mined-out Tiri_1000_01		
Pond Volume (m ³)	Pond Elev. (m)	Pond Area (m ²)
0	-70.0	0
3,721	-65.0	1,363
5,295	-64.0	1,723
7,148	-63.0	1,979
9,254	-62.0	2,236
11,651	-61.0	2,577
14,434	-60.0	2,966
17,589	-59.0	3,349
21,149	-58.0	3,743
25,029	-57.0	4,015
29,180	-56.0	4,292
33,634	-55.0	4,615
38,415	-54.0	4,956
43,542	-53.0	5,289
48,982	-52.0	5,588
54,716	-51.0	5,879
60,742	-50.0	6,174
106,249	-45.0	11,040
259,589	-35.0	17,647
353,880	-30.0	20,964
631,356	-20.0	34,091
809,748	-15.0	37,175
1,003,820	-10.0	40,683
1,219,743	-5.0	53,430
1,509,384	0.0	61,221
1,829,069	5.0	66,497
2,174,492	10.0	71,836

Table B.9: Tiri 2 Storage Curve

Mined-out Tiri_1000_02		
Pond Volume (m ³)	Pond Elev. (m)	Pond Area (m ²)
0	-25.00	0
14,676	-20.00	3,453
36,554	-15.00	5,138
66,004	-10.00	6,631
102,748	-5.00	8,106
148,929	0.00	12,153
294,684	10.00	16,483
482,581	20.00	23,902
755,723	30.00	29,860
1,081,424	40.00	39,404
1,521,715	50.00	47,432
2,032,401	60.00	56,202
2,311,179	64.00	75,110
2,546,311	66.99	81,444

Table B.2: CP3 Storage Curve

CP3		
Pond Elev. (m)	Pond Area (m ²)	Pond Volume (m ³)
53.476	0	0
58.476	5,060	15,254
58.576	5,103	15,764
58.676	5,146	16,279
58.776	5,191	16,798
58.876	5,236	17,321
58.976	5,283	17,850
59.076	5,329	18,382
59.176	5,375	18,920
59.276	5,424	19,462
60.176	5,929	24,595
61.176	6,753	30,943
62.176	7,882	38,315
63.176	9,420	46,993
64.076	10,936	56,245
65.076	11,848	67,746

Table B.5: CP6 Storage Curve

CP6 (Drained H19)		
Pond Elev. (m)	Pond Area (km ²)	Pond Volume (M m ³)
62.80	0.008	0.0023
63.30	0.021	0.0105
63.50	0.032	0.0160
64.00	0.045	0.0348
64.50	0.053	0.0595

Table B.7: SP3 Storage Curve

SP3		
Pond Elev. (m)	Pond Area (m ²)	Pond Volume (m ³)
66.9	175	0
67	710	44
67.1	1,606	160
67.5	2,853	1,212
67.9	3,039	2,390
68	3,086	2,696
68.5	3,327	4,299
69	3,575	6,024
69.5	3,830	7,875
70	4,093	9,856

Table B.3: CP4 Storage Curve

CP4		
Pond Elev. (m)	Pond Area (m ²)	Pond Volume (m ³)
51.79	0	0.1
52.3	576	94.1
52.4	974	177.8
53	2,626	1,443.5
54	3,091	4,369.1
55	3,345	7,588.3
60	5,546	28,194.6
62.01	7,462	41,270.0
63	8,455	49,141.9

Table B.6: SP1 Storage Curve

SP1		
Pond Elev. (m)	Pond Area (m ²)	Pond Volume (m ³)
52.9	0	0
57.9	3,104	11701.22
58	3,121	12013.28
59	3,458	15286.57
60	4,160	19158.03
61	4,502	23522.08
62	4,805	28188.13
62.9	5,185	32686.12

ANNEX C – WATERSHED AREAS

Table C.1: Annual Watershed Areas - TSF and Pits

Year	TSF				Open Pit - Tiri_1000_01			Open Pit - Tiri_1000_02		
	Portion of TSF Waste Rock Cover Surface Where the Runoff Is Collected in CP1	Portion of TSF Tailings Surface Where the Runoff Is Collected in CP1	Portion of TSF Waste Rock Cover Surface Where the Runoff Is Collected in CP3	Portion of TSF Tailings Surface Where the Runoff Is Collected in CP3	Total Catchment Area	Catchment Area for Natural Ground with Vegetation	Pit Footprint Area	Total Catchment Area	Catchment Area for Natural Ground with Vegetation	Pit Footprint Area
	km ²	km ²	km ²	km ²	km ²	km ²	km ²	km ²	km ²	km ²
2020	0.128	0.061	0.128	0.035	0.322	0.055	0.266	0.167	0.099	0.069
2021	0.128	0.061	0.128	0.035	0.322	0.055	0.266	0.167	0.099	0.069
2022	0.128	0.061	0.128	0.035	0.322	0.055	0.266	0.167	0.099	0.069
2023	0.128	0.061	0.128	0.035	0.322	0.055	0.266	0.167	0.099	0.069
2024	0.128	0.061	0.128	0.035	0.322	0.055	0.266	0.167	0.099	0.069
2025	0.128	0.061	0.128	0.035	0.322	0.055	0.266	0.167	0.099	0.069
2026	0.128	0.061	0.128	0.035	0.322	0.055	0.266	0.167	0.099	0.069
2027	0.128	0.061	0.128	0.035	0.322	0.055	0.266	0.167	0.099	0.069
2028	0.128	0.061	0.128	0.035	0.322	0.055	0.266	0.167	0.099	0.069

Table C.2: Annual Watershed Areas - Collection Ponds

Year	CP1		CP3		CP4		CP5		CP6		CP7	
	Total Catchment Area	Catchment Area for Natural Ground with Vegetation	Total Catchment Area	Catchment Area for Natural Ground with Vegetation	Total Catchment Area	Catchment Area for Natural Ground with Vegetation	Total Catchment Area	Catchment Area for Natural Ground with Vegetation	Total Catchment Area	Catchment Area for Natural Ground with Vegetation	Total Catchment Area	Catchment Area for Natural Ground with Vegetation
	km ²	km ²	km ²	km ²	km ²	km ²	km ²	km ²	km ²	km ²	km ²	km ²
2020	1.785	0.773	0.240	0.073	0.301	0.234	0.499	0.323	0.439	0.112	0.683	0.683
2021	1.698	0.647	0.240	0.073	0.301	0.187	0.499	0.326	0.439	0.112	0.683	0.683
2022	1.698	0.647	0.240	0.073	0.301	0.139	0.499	0.326	0.439	0.112	0.683	0.683
2023	1.698	0.647	0.240	0.073	0.301	0.139	0.499	0.326	0.439	0.112	0.683	0.683
2024	1.698	0.647	0.240	0.073	0.301	0.139	0.499	0.326	0.439	0.112	0.683	0.427
2025	1.698	0.647	0.240	0.073	0.301	0.139	0.499	0.326	0.439	0.112	0.683	0.427
2026	1.698	0.647	0.240	0.073	0.301	0.139	0.499	0.326	0.439	0.112	0.683	0.427
2027	1.698	0.647	0.240	0.073	0.301	0.139	0.499	0.326	0.439	0.112	0.683	0.427
2028	1.698	0.647	0.240	0.073	0.301	0.139	0.499	0.326	0.439	0.112	0.683	0.427

Table C.3: Annual Watershed Areas - Landfarm, Landfill, P Area

Year	Landfarm	Landfarm Ext	Landfill	P_Area
	Footprint	Footprint	Footprint	Total Catchment Area for P1, P2 and P3 (not including SP3)
	km ²	km ²	km ²	km ²
2020	0.010	0.000	0.013	0.046
2021	0.010	0.000	0.013	0.000
2022	0.010	0.021	0.013	0.000
2023	0.010	0.021	0.013	0.000
2024	0.010	0.021	0.013	0.000
2025	0.010	0.021	0.013	0.000
2026	0.010	0.021	0.013	0.000
2027	0.010	0.021	0.013	0.000
2028	0.010	0.021	0.013	0.000

Table C.4: Annual Watershed Areas - WRSF and Ore Stockpiles

Year	WRSF1			WRSF3	WRSF3Ext	Temporary WRSF		OP2	OPExt
	Total Footprint	WRSF	Overburden	Total Footprint	Total Catchment Area	Total Footprint	Footprint to Tiri 2	Total Footprint	Total Footprint
	km ²	km ²		km ²	km ²	km ²	km ²	km ²	km ²
2020	0.121	0.027	0.094	0.314	0.000	0.055	0.008	0.103	0.000
2021	0.315	0.315	0.000	0.314	0.000	0.055	0.008	0.103	0.000
2022	0.315	0.315	0.000	0.314	0.243	0.055	0.008	0.103	0.063
2023	0.315	0.315	0.000	0.314	0.243	0.055	0.008	0.103	0.063
2024	0.315	0.315	0.000	0.314	0.243	0.055	0.008	0.103	0.063
2025	0.315	0.315	0.000	0.314	0.243	0.055	0.008	0.103	0.063
2026	0.315	0.315	0.000	0.314	0.243	0.055	0.008	0.103	0.063
2027	0.315	0.315	0.000	0.314	0.243	0.055	0.008	0.103	0.063
2028	0.315	0.315	0.000	0.314	0.243	0.055	0.008	0.103	0.063

APPENDIX B

**Tabulated Water Balance Results,
Average Year (Base Case)
Scenario**

Water Balance for TSF

Date	Inflow		Outflow					
			The Portion to CP1			The Portion to CP3		
	Total Surface Runoff Water from TSF	Estimated Volume of Seepage through Tailings	TSF Tailings Surface Runoff Collected in CP1	TSF Waste Rock Cover Runoff Water Collected in CP1	Seepage Water through Tailings into CP1	TSF Tailings Surface Runoff Collected in CP3	TSF Waste Rock Cover Runoff Water Collected in CP3	Seepage Water through Tailings into CP3
	m ³	m ³	m ³	m ³	m ³	m ³	m ³	m ³
May-20	0	0	0	0	0	0	0	0
Jun-20	40112	178	6951	14586	113	3988	14586	65
Jul-20	13214	178	2290	4805	113	1314	4805	65
Aug-20	14396	178	2495	5235	113	1431	5235	65
Sep-20	10767	178	1866	3915	113	1071	3915	65
Oct-20	10812	178	1874	3932	113	1075	3932	65
Nov-20	0	0	0	0	0	0	0	0
Dec-20	0	0	0	0	0	0	0	0
Jan-21	0	0	0	0	0	0	0	0
Feb-21	0	0	0	0	0	0	0	0
Mar-21	0	0	0	0	0	0	0	0
Apr-21	0	0	0	0	0	0	0	0
May-21	0	0	0	0	0	0	0	0
Jun-21	40112	178	6951	14586	113	3988	14586	65
Jul-21	13214	178	2290	4805	113	1314	4805	65
Aug-21	14396	178	2495	5235	113	1431	5235	65
Sep-21	10767	178	1866	3915	113	1071	3915	65
Oct-21	10812	178	1874	3932	113	1075	3932	65
Nov-21	0	0	0	0	0	0	0	0
Dec-21	0	0	0	0	0	0	0	0
Jan-22	0	0	0	0	0	0	0	0
Feb-22	0	0	0	0	0	0	0	0
Mar-22	0	0	0	0	0	0	0	0
Apr-22	0	0	0	0	0	0	0	0
May-22	0	0	0	0	0	0	0	0
Jun-22	40112	178	6951	14586	113	3988	14586	65
Jul-22	13214	178	2290	4805	113	1314	4805	65
Aug-22	14396	178	2495	5235	113	1431	5235	65
Sep-22	10767	178	1866	3915	113	1071	3915	65
Oct-22	10812	178	1874	3932	113	1075	3932	65
Nov-22	0	0	0	0	0	0	0	0
Dec-22	0	0	0	0	0	0	0	0
Jan-23	0	0	0	0	0	0	0	0
Feb-23	0	0	0	0	0	0	0	0
Mar-23	0	0	0	0	0	0	0	0
Apr-23	0	0	0	0	0	0	0	0
May-23	0	0	0	0	0	0	0	0
Jun-23	40112	178	6951	14586	113	3988	14586	65
Jul-23	13214	178	2290	4805	113	1314	4805	65
Aug-23	14396	178	2495	5235	113	1431	5235	65
Sep-23	10767	178	1866	3915	113	1071	3915	65

Water Collection from Ore Stockpiles

Date	OP2		OP2-Extn.	
	Total Water to be Collected	Portion of the Water to be Collected in CP5 (Lake A54)	Total Water to be Collected	Portion of the Water to be Collected in Tiri-1000-02
	m ³	m ³	m ³	m ³
May-20	0	0	0	0
Jun-20	0	0	0	0
Jul-20	0	0	0	0
Aug-20	0	0	0	0
Sep-20	0	0	0	0
Oct-20	918	918	0	0
Nov-20	14	14	0	0
Dec-20	18	18	0	0
Jan-21	5	5	0	0
Feb-21	0	0	0	0
Mar-21	0	0	0	0
Apr-21	0	0	0	0
May-21	0	0	0	0
Jun-21	0	0	0	0
Jul-21	0	0	0	0
Aug-21	0	0	0	0
Sep-21	0	0	0	0
Oct-21	918	918	0	0
Nov-21	14	14	0	0
Dec-21	18	18	0	0
Jan-22	5	5	0	0
Feb-22	0	0	0	0
Mar-22	0	0	0	0
Apr-22	0	0	0	0
May-22	0	0	0	0
Jun-22	0	0	0	0
Jul-22	0	0	0	0
Aug-22	0	0	0	0
Sep-22	0	0	0	0
Oct-22	918	918	561	561
Nov-22	14	14	8	8
Dec-22	18	18	11	11
Jan-23	5	5	3	3
Feb-23	0	0	0	0
Mar-23	0	0	0	0
Apr-23	0	0	0	0
May-23	0	0	0	0
Jun-23	0	0	0	0
Jul-23	0	0	0	0
Aug-23	0	0	0	0
Sep-23	0	0	0	0
Oct-23	918	918	561	561

Water Collection from Ore Stockpiles

Date	OP2		OP2-Extn.	
	Total Water to be Collected	Portion of the Water to be Collected in CP5 (Lake A54)	Total Water to be Collected	Portion of the Water to be Collected in Tiri-1000-02
	m ³	m ³	m ³	m ³
Nov-23	14	14	8	8
Dec-23	18	18	11	11
Jan-24	5	5	3	3
Feb-24	0	0	0	0
Mar-24	0	0	0	0
Apr-24	0	0	0	0
May-24	0	0	0	0
Jun-24	0	0	0	0
Jul-24	0	0	0	0
Aug-24	0	0	0	0
Sep-24	0	0	0	0
Oct-24	918	918	561	561
Nov-24	14	14	8	8
Dec-24	18	18	11	11
Jan-25	5	5	3	3
Feb-25	0	0	0	0
Mar-25	0	0	0	0
Apr-25	0	0	0	0
May-25	0	0	0	0
Jun-25	0	0	0	0
Jul-25	0	0	0	0
Aug-25	0	0	0	0
Sep-25	0	0	0	0
Oct-25	918	918	561	561
Nov-25	14	14	8	8
Dec-25	18	18	11	11
Jan-26	5	5	3	3
Feb-26	0	0	0	0
Mar-26	0	0	0	0
Apr-26	0	0	0	0
May-26	0	0	0	0
Jun-26	0	0	0	0
Jul-26	0	0	0	0
Aug-26	0	0	0	0
Sep-26	0	0	0	0
Oct-26	918	918	561	561
Nov-26	14	14	8	8
Dec-26	18	18	11	11
Jan-27	5	5	3	3
Feb-27	0	0	0	0
Mar-27	0	0	0	0
Apr-27	0	0	0	0

Water Collection from Ore Stockpiles

Date	OP2		OP2-Extn.	
	Total Water to be Collected	Portion of the Water to be Collected in CP5 (Lake A54)	Total Water to be Collected	Portion of the Water to be Collected in Tiri-1000-02
	m ³	m ³	m ³	m ³
May-27	0	0	0	0
Jun-27	0	0	0	0
Jul-27	0	0	0	0
Aug-27	0	0	0	0
Sep-27	0	0	0	0
Oct-27	918	918	561	561
Nov-27	14	14	8	8
Dec-27	18	18	11	11
Jan-28	5	5	3	3
Feb-28	0	0	0	0
Mar-28	0	0	0	0
Apr-28	0	0	0	0
May-28	0	0	0	0
Jun-28	0	0	0	0
Jul-28	0	0	0	0
Aug-28	0	0	0	0
Sep-28	0	0	0	0
Oct-28	918	918	561	561
Nov-28	14	14	8	8
Dec-28	18	18	11	11

Water Balance for Open Pits

Date	Tiri-1						Tiri-2										
	Inflow			Outflow		Storage	Inflow					Outflow					Storage
	Net Runoff/Run on Water from Water Surface	Net Runoff/Run on Water from Natural Ground with Vegetation	Net Runoff/Run on Water from Other Disturbed Ground Surface	Water Pumped to CP5 and transfer to CP1	Water lost to WRF/Ore	Water Stored in Open Pit	Net Runoff/Run on Water from Water Surface	Net Runoff/Run on Water from Natural Ground with Vegetation	Net Runoff/Run on Water from Other Disturbed Ground Surface	Net runoff from Temporary WRSF	Inflow from UG	Water Pumped to CP5	Water Lost to WRSF and Ore	To SP-1	Water Pumped to SETP	Water through Bypass	Water Stored in Open Pit
	m ³	m ³	m ³	m ³	m ³	m ³	m ³	m ³	m ³	m ³	m ³	m ³	m ³	m ³	m ³	m ³	m ³
May-20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jun-20	0	0	0	0	0	0	0	10623	7831	74	0	0	18527	0	0	0	0
Jul-20	0	0	0	0	0	0	0	2264	2580	1	0	2274	2571	0	0	0	0
Aug-20	0	0	0	0	0	0	0	2995	2810	1	0	3236	2571	0	0	0	0
Sep-20	0	0	0	0	0	0	0	2614	2102	0	0	2145	2571	0	0	0	0
Oct-20	0	0	0	0	0	0	0	2863	2111	0	0	2402	2571	0	0	0	0
Nov-20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dec-20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Jan-21	0	0	0	0	0	0	0	0	0	0	17521	0	0	0	0	0	17521
Feb-21	0	0	0	0	0	0	0	0	0	0	15631	0	0	0	0	0	33152
Mar-21	0	0	0	0	0	0	0	0	0	0	17521	0	0	0	0	0	50673
Apr-21	0	0	0	0	0	0	0	0	0	0	17491	0	0	0	0	0	68164
May-21	0	0	0	0	0	0	0	0	0	0	18141	0	0	0	0	0	86305
Jun-21	0	5972	23860	28376	1457	0	455	10623	7024	74	17491	0	2795	0	0	0	119176
Jul-21	0	1273	7860	8951	182	0	-684	2264	2273	1	19071	0	349	0	0	0	141752
Aug-21	0	1684	8563	10065	182	0	-279	2995	2420	1	19071	0	349	0	0	0	165612
Sep-21	0	1469	6404	7692	182	0	89	2614	1746	0	0	0	349	0	0	0	169711
Oct-21	0	1610	6431	7859	182	0	734	2863	1707	0	0	0	349	0	0	0	174666
Nov-21	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	174666
Dec-21	0	0	0	0	0	0	0	0	0	0	19691	0	0	0	0	0	194357
Jan-22	0	0	0	0	0	0	0	0	0	0	21232	0	0	0	0	0	215588
Feb-22	0	0	0	0	0	0	0	0	0	0	18982	0	0	0	0	0	234570
Mar-22	0	0	0	0	0	0	0	0	0	0	21232	0	0	0	0	0	255801
Apr-22	0	0	0	0	0	0	0	0	0	0	20482	0	0	0	0	0	276283
May-22	0	0	0	0	0	0	0	0	0	0	21232	0	0	0	0	0	297515
Jun-22	0	5972	23860	7550	22283	0	1048	10623	5971	74	20482	0	3510	0	0	0	332202
Jul-22	0	1273	7860	6348	2785	0	-1419	2264	1945	1	0	0	439	0	0	657	333897
Aug-22	0	1684	8563	7462	2785	0	-505	2995	2103	1	0	0	439	0	69841	93000	175211
Sep-22	0	1469	6404	5088	2785	0	118	2614	1632	0	22282	0	439	0	88861	90000	22556
Oct-22	0	1610	6431	5256	2785	0	494	2863	1839	0	23092	0	439	0	0	0	50405
Nov-22	0	0	0	0	0	0	0	0	0	0	22282	0	0	0	0	0	72686
Dec-22	0	0	0	0	0	0	0	0	0	0	23092	0	0	0	0	0	95778
Jan-23	0	0	0	0	0	0	0	0	0	0	24016	0	0	0	0	0	119794
Feb-23	0	0	0	0	0	0	0	0	0	0	21496	0	0	0	0	0	141290
Mar-23	0	0	0	0	0	0	0	0	0	0	24016	0	0	0	0	0	165306
Apr-23	0	0	0	0	0	0	0	0	0	0	23176	0	0	0	0	0	188483
May-23	0	0	0	0	0	0	0	0	0	0	24016	0	0	0	0	0	212499
Jun-23	0	5972	30356	14000	22328	0	910	10623	6216	74	23176	0	0	0	39573	45000	168924
Jul-23	0	1273	10000	8482	2791	0	-1163	2264	2059	1	24016	0	0	0	93662	93000	9440
Aug-23	0	1684	10894	9787	2791	0	-238	2995	2477	1	24016	0	0	0	38691	0	0
Sep-23	0	1469	8148	6826	2791	0	0	2614	2054	0	23176	0	0	19940	7905	0	0
Oct-23	0	1610	8182	7001	2791	0	0	2863	2111	0	24016	0	0	0	0	0	28990
Nov-23	0	0	0	0	0	0	0	0	0	0	23176	0	0	0	0	0	52166
Dec-23	0	0	0	0	0	0	0	0	0	0	24016	0	0	0	0	0	76182
Jan-24	0	0	0	0	0	0	0	0	0	0	24319	0	0	0	0	0	100501
Feb-24	0	0	0	0	0	0	0	0	0	0	22619	0	0	0	0	0	123120
Mar-24	0	0	0	0	0	0	0	0	0	0	24319	0	0	0	0	0	147438
Apr-24	0	0	0	0	0	0	0	0	0	0	23469	0	0	0	0	0	170907
May-24	0	0	0	0	0	0	0	0	0	0	24319	0	0	0	0	0	195225
Jun-24	0	5972	30356	0	48989	0	876	10623	6276	74	23469	0	0	44052	45000	147490	0
Jul-24	0	1273	10000	5149	6124	0	-1037	2264	2116	1	24319	0	0	0	93662	81490	0
Aug-24	0	1684	10894	6455	6124	0	0	2995	2592	1	24319	0	0	0	29907	0	0
Sep-24	0	1469	8148	3494	6124	0	0	2614	2102	0	23469	0	0	19940	8245	0	0
Oct-24	0	1610	8182	3668	6124	0	0	2863	2111	0	24319	0	0	0	0	0	29292
Nov-24	0	0	0	0	0	0	0	0	0	0	23469	0	0	0	0	0	52761
Dec-24	0	0	0	0	0	0	0	0	0	0	24319	0	0	0	0	0	77079
Jan-25	0	0	0	0	0	0	0	0	0	0	27061	0	0	0	0	0	104141
Feb-25	0	0	0	0	0	0	0	0	0	0	24271	0	0	0	0	0	128412
Mar-25	0	0	0	0	0	0	0	0	0	0	27061	0	0	0	0	0	155474
Apr-25	0	0	0	0	0	0	0	0	0	0	26131	0	0	0	0	0	181605
May-25	0	0	0	0	0	0	0	0	0	0	27061	0	0	0	0	0	208667
Jun-25	0	5972	30356	0	41784	0	900	10623	6234	0	26131	0	0	44052	45000	163502	0
Jul-25	0	1273	10000	6050	5223	0	-1149	2264	2066	0	27061	0	0	0	93662	93000	7082
Aug-25	0	1684	10894	7355	5223	0	-233	2995	2484	0	27061	0	0	0	39391	0	0
Sep-25	0	1469	8148	4394	5223	0	0	2614	2056	0	26131	0	0	19940	10862	0	0
Oct-25	0	1610	8182	4569	5223	0	0	2863	2111	0	27061	0	0	0	0	0	32035
Nov-25	0	0	0	0	0	0	0	0	0	0	26131	0	0	0	0	0	58167
Dec-25	0	0	0	0	0	0	0	0	0	0	27061	0	0	0	0	0	85228
Jan-26	0	0	0	0	0	0	0	0	0	0	27822	0	0	0	0	0	113050
Feb-26	0	0	0	0	0	0	0	0	0	0	24972	0	0	0	0	0	138022
Mar-26	0	0	0	0	0	0	0	0	0	0	27822	0	0	0	0	0	165844
Apr-26	0	0	0	0	0	0	0	0	0	0	26872	0	0	0	0	0	192716
May-26	0	0	0	0	0	0	0	0	0	0	27822	0	0	0	0	0	220539
Jun-26	0	5972	30356	9231	27097	0	921	10623	6196	0	26872	0	0	44052	45000	176098	0
Jul-26	0	1273	10000	7886	3387	0	-1182	2264	2051	0	27822	0	0	0	93662	93000	20391
Aug-26	0	1684	10894	9191	3387	0	-256	2995	2452	0	27822	0	0	0	53404	0	0
Sep-26	0	1469	8148	6230	3387	0	0	2614	2040	0	26872	0	0	19940	11586	0	0
Oct-26	0	1610	8182	6405	3387	0	0	2863	2111	0	27822	0	0	0	0	0	32796
Nov-26	0	0	0	0	0	0	0	0	0	0	26872	0	0	0	0	0	59668

Water Balance for Open Pits

Date	Tiri-1						Tiri-2										
	Inflow			Outflow		Storage	Inflow					Outflow					Storage
	Net Runoff/Run on Water from Water Surface	Net Runoff/Run on Water from Natural Ground with Vegetation	Net Runoff/Run on Water from Other Disturbed Ground Surface	Water Pumped to CP5 and transfer to CP1	Water lost to WRF/Ore	Water Stored in Open Pit	Net Runoff/Run on Water from Water Surface	Net Runoff/Run on Water from Natural Ground with Vegetation	Net Runoff/Run on Water from Other Disturbed Ground Surface	Net runoff from Temporary WRSF	Inflow from UG	Water Pumped to CP5	Water Lost to WRSF and Ore	To SP-1	Water Pumped to SETP	Water through Bypass	Water Stored in Open Pit
	m ³	m ³	m ³	m ³	m ³	m ³	m ³	m ³	m ³	m ³	m ³	m ³	m ³	m ³	m ³	m ³	m ³
Dec-26	0	0	0	0	0	0	0	0	0	0	27822	0	0	0	0	0	87490
Jan-27	0	0	0	0	0	0	0	0	0	0	26040	0	0	0	0	0	113530
Feb-27	0	0	0	0	0	0	0	0	0	0	23520	0	0	0	0	0	137050
Mar-27	0	0	0	0	0	0	0	0	0	0	26040	0	0	0	0	0	163090
Apr-27	0	0	0	0	0	0	0	0	0	0	25200	0	0	0	0	0	188290
May-27	0	0	0	0	0	0	0	0	0	0	26040	0	0	0	0	0	214330
Jun-27	0	5972	30356	0	0	36328	912	10623	6213	0	25200	0	0	0	44052	45000	168225
Jul-27	-200	1273	9910	0	0	47311	-1164	2264	2059	0	26040	0	0	0	93662	93000	10762
Aug-27	-204	1684	10609	0	0	59400	-239	2995	2475	0	26040	0	0	0	42034	0	0
Sep-27	90	1469	7788	0	0	68747	0	2614	2053	0	25200	0	0	19940	9927	0	0
Oct-27	859	1610	7710	0	0	78925	0	2863	2111	0	26040	0	0	0	0	0	31014
Nov-27	0	0	0	0	0	78925	0	0	0	0	25200	0	0	0	0	0	56214
Dec-27	0	0	0	0	0	78925	0	0	0	0	26040	0	0	0	0	0	82254
Jan-28	0	0	0	0	0	78925	0	0	0	0	26970	0	0	0	0	0	109224
Feb-28	0	0	0	0	0	78925	0	0	0	0	25230	0	0	0	0	0	134454
Mar-28	0	0	0	0	0	78925	0	0	0	0	26970	0	0	0	0	0	161424
Apr-28	0	0	0	0	0	78925	0	0	0	0	26100	0	0	0	0	0	187524
May-28	0	0	0	0	0	78925	0	0	0	0	26970	0	0	0	0	0	214494
Jun-28	2380	5972	26133	0	0	113411	911	10623	6214	0	26100	0	0	0	0	0	258342
Jul-28	-3247	1273	8547	0	0	119984	-1270	2264	2011	0	26970	0	0	0	0	0	288318
Aug-28	-1196	1684	9220	0	0	129692	-468	2995	2155	0	26970	0	0	0	0	0	319970
Sep-28	337	1469	6800	0	0	138299	128	2614	1591	0	26100	0	0	19885	0	0	330518
Oct-28	2893	1610	6591	0	0	149392	957	2863	1584	0	26970	0	0	0	0	0	362892
Nov-28	0	0	0	0	0	149392	0	0	0	0	26100	0	0	0	0	0	388992
Dec-28	0	0	0	0	0	149392	0	0	0	0	26970	0	0	0	0	0	415962

Water Balance for CP3					
Date	Inflow				Outflow
	Net Runoff/Run on Water from Pond Surface	Net Runoff/Run on Water from Natural Ground with Vegetation	Net Runoff/Run on Water from Other Disturbed Ground Surface	Net Runoff/Seepage Water from a Portion of TSF to CP3	Water Pumped from CP3 to Site Area Ditch, then Flowing into CP1
	m ³	m ³	m ³	m ³	m ³
May-20	0	0	0	0	0
Jun-20	258	7856	0	18640	26754
Jul-20	-337	1675	0	6184	7522
Aug-20	-117	2215	0	6731	8829
Sep-20	31	1933	0	5051	7014
Oct-20	224	2118	0	5072	7413
Nov-20	0	0	0	0	0
Dec-20	0	0	0	0	0
Jan-21	0	0	0	0	0
Feb-21	0	0	0	0	0
Mar-21	0	0	0	0	0
Apr-21	0	0	0	0	0
May-21	0	0	0	0	0
Jun-21	258	7856	0	18640	26754
Jul-21	-337	1675	0	6184	7522
Aug-21	-117	2215	0	6731	8829
Sep-21	31	1933	0	5051	7014
Oct-21	224	2118	0	5072	7413
Nov-21	0	0	0	0	0
Dec-21	0	0	0	0	0
Jan-22	0	0	0	0	0
Feb-22	0	0	0	0	0
Mar-22	0	0	0	0	0
Apr-22	0	0	0	0	0
May-22	0	0	0	0	0
Jun-22	258	7856	0	18640	26754
Jul-22	-337	1675	0	6184	7522
Aug-22	-117	2215	0	6731	8829
Sep-22	31	1933	0	5051	7014
Oct-22	224	2118	0	5072	7413
Nov-22	0	0	0	0	0
Dec-22	0	0	0	0	0
Jan-23	0	0	0	0	0
Feb-23	0	0	0	0	0
Mar-23	0	0	0	0	0
Apr-23	0	0	0	0	0
May-23	0	0	0	0	0
Jun-23	258	7856	0	18640	26754
Jul-23	-337	1675	0	6184	7522
Aug-23	-117	2215	0	6731	8829
Sep-23	31	1933	0	5051	7014
Oct-23	224	2118	0	5072	7413
Nov-23	0	0	0	0	0
Dec-23	0	0	0	0	0
Jan-24	0	0	0	0	0
Feb-24	0	0	0	0	0
Mar-24	0	0	0	0	0
Apr-24	0	0	0	0	0
May-24	0	0	0	0	0
Jun-24	258	7856	0	18640	26754
Jul-24	-337	1675	0	6184	7522
Aug-24	-117	2215	0	6731	8829
Sep-24	31	1933	0	5051	7014
Oct-24	224	2118	0	5072	7413
Nov-24	0	0	0	0	0
Dec-24	0	0	0	0	0
Jan-25	0	0	0	0	0
Feb-25	0	0	0	0	0
Mar-25	0	0	0	0	0
Apr-25	0	0	0	0	0
May-25	0	0	0	0	0
Jun-25	258	7856	0	18640	26754
Jul-25	-337	1675	0	6184	7522
Aug-25	-117	2215	0	6731	8829
Sep-25	31	1933	0	5051	7014
Oct-25	224	2118	0	5072	7413
Nov-25	0	0	0	0	0
Dec-25	0	0	0	0	0
Jan-26	0	0	0	0	0
Feb-26	0	0	0	0	0
Mar-26	0	0	0	0	0
Apr-26	0	0	0	0	0
May-26	0	0	0	0	0
Jun-26	258	7856	0	18640	26754
Jul-26	-337	1675	0	6184	7522
Aug-26	-117	2215	0	6731	8829
Sep-26	31	1933	0	5051	7014
Oct-26	224	2118	0	5072	7413
Nov-26	0	0	0	0	0
Dec-26	0	0	0	0	0
Jan-27	0	0	0	0	0
Feb-27	0	0	0	0	0
Mar-27	0	0	0	0	0
Apr-27	0	0	0	0	0
May-27	0	0	0	0	0
Jun-27	258	7856	0	18640	26754
Jul-27	-337	1675	0	6184	7522
Aug-27	-117	2215	0	6731	8829
Sep-27	31	1933	0	5051	7014
Oct-27	224	2118	0	5072	7413
Nov-27	0	0	0	0	0
Dec-27	0	0	0	0	0
Jan-28	0	0	0	0	0
Feb-28	0	0	0	0	0
Mar-28	0	0	0	0	0
Apr-28	0	0	0	0	0
May-28	0	0	0	0	0
Jun-28	258	7856	0	18640	26754
Jul-28	-337	1675	0	6184	7522

Water Balance for CP4					
Date	Inflow				Outflow
	Net Runoff/Run on Water from Pond Surface	Net Runoff/Run on Water from Natural Ground with Vegetation	Net Runoff/Run on Water from Other Disturbed Ground	Net Runoff/Seepage Water from a Portion of WRSF to CP4	Water pumped from CP4 to Site Area Ditch, then Flowing into CP1
	m ³	m ³	m ³	m ³	m ³
May-20	0	0	0	0	0
Jun-20	465	25239	59	528	26291
Jul-20	-608	5388	19	8	4799
Aug-20	-212	7117	21	10	6937
Sep-20	55	6210	16	3	6284
Oct-20	404	6803	16	0	7223
Nov-20	0	0	0	0	0
Dec-20	0	0	0	0	0
Jan-21	0	0	0	0	0
Feb-21	0	0	0	0	0
Mar-21	0	0	0	0	0
Apr-21	0	0	0	0	0
May-21	0	0	0	0	0
Jun-21	465	20101	76	952	21594
Jul-21	-608	4285	25	14	3716
Aug-21	-212	5668	27	19	5503
Sep-21	55	4946	20	3	5027
Oct-21	404	5418	21	0	5843
Nov-21	0	0	0	0	0
Dec-21	0	0	0	0	0
Jan-22	0	0	0	0	0
Feb-22	0	0	0	0	0
Mar-22	0	0	0	0	0
Apr-22	0	0	0	0	0
May-22	0	0	0	0	0
Jun-22	465	14964	94	1375	16898
Jul-22	-608	3190	31	20	2633
Aug-22	-212	4219	34	27	4069
Sep-22	55	3682	25	8	3770
Oct-22	404	4033	25	0	4463
Nov-22	0	0	0	0	0
Dec-22	0	0	0	0	0
Jan-23	0	0	0	0	0
Feb-23	0	0	0	0	0
Mar-23	0	0	0	0	0
Apr-23	0	0	0	0	0
May-23	0	0	0	0	0
Jun-23	465	14964	94	1375	16898
Jul-23	-608	3190	31	20	2633
Aug-23	-212	4219	34	27	4069
Sep-23	55	3682	25	8	3770
Oct-23	404	4033	25	0	4463
Nov-23	0	0	0	0	0
Dec-23	0	0	0	0	0
Jan-24	0	0	0	0	0
Feb-24	0	0	0	0	0
Mar-24	0	0	0	0	0
Apr-24	0	0	0	0	0
May-24	0	0	0	0	0
Jun-24	465	14964	94	1375	16898
Jul-24	-608	3190	31	20	2633
Aug-24	-212	4219	34	27	4069
Sep-24	55	3682	25	8	3770
Oct-24	404	4033	25	0	4463
Nov-24	0	0	0	0	0
Dec-24	0	0	0	0	0
Jan-25	0	0	0	0	0
Feb-25	0	0	0	0	0
Mar-25	0	0	0	0	0
Apr-25	0	0	0	0	0
May-25	0	0	0	0	0
Jun-25	465	14964	94	1375	16898
Jul-25	-608	3190	31	20	2633
Aug-25	-212	4219	34	27	4069
Sep-25	55	3682	25	8	3770
Oct-25	404	4033	25	0	4463
Nov-25	0	0	0	0	0
Dec-25	0	0	0	0	0
Jan-26	0	0	0	0	0
Feb-26	0	0	0	0	0
Mar-26	0	0	0	0	0
Apr-26	0	0	0	0	0
May-26	0	0	0	0	0
Jun-26	465	14964	94	1375	16898
Jul-26	-608	3190	31	20	2633
Aug-26	-212	4219	34	27	4069
Sep-26	55	3682	25	8	3770
Oct-26	404	4033	25	0	4463
Nov-26	0	0	0	0	0
Dec-26	0	0	0	0	0
Jan-27	0	0	0	0	0
Feb-27	0	0	0	0	0
Mar-27	0	0	0	0	0
Apr-27	0	0	0	0	0
May-27	0	0	0	0	0
Jun-27	465	14964	94	1375	16898
Jul-27	-608	3190	31	20	2633
Aug-27	-212	4219	34	27	4069
Sep-27	55	3682	25	8	3770
Oct-27	404	4033	25	0	4463
Nov-27	0	0	0	0	0
Dec-27	0	0	0	0	0
Jan-28	0	0	0	0	0
Feb-28	0	0	0	0	0
Mar-28	0	0	0	0	0
Apr-28	0	0	0	0	0
May-28	0	0	0	0	0
Jun-28	465	14964	94	1375	16898
Jul-28	-608	3190	31	20	2633

Water Balance for CP3					
Date	Inflow				Outflow
	Net Runoff/Run on Water from Pond Surface	Net Runoff/Run on Water from Natural Ground with Vegetation	Net Runoff/Run on Water from Other Disturbed Ground Surface	Net Runoff/Seepage Water from a Portion of TSF to CP3	Water Pumped from CP3 to Site Area Ditch, then Flowing into CP1
	m ³	m ³	m ³	m ³	m ³
Aug-28	-117	2215	0	6731	8829
Sep-28	31	1933	0	5051	7014
Oct-28	224	2118	0	5072	7413
Nov-28	0	0	0	0	0
Dec-28	0	0	0	0	0

Water Balance for CP4					
Date	Inflow				Outflow
	Net Runoff/Run on Water from Pond Surface	Net Runoff/Run on Water from Natural Ground with Vegetation	Net Runoff/Run on Water from Other Disturbed Ground	Net Runoff/Seepage Water from a Portion of WRSF1 to CP4	Water pumped from CP4 to Site Area Ditch, then Flowing into CP1
	m ³	m ³	m ³	m ³	m ³
Aug-28	-212	4219	34	27	4069
Sep-28	55	3682	25	8	3770
Oct-28	404	4033	25	0	4463
Nov-28	0	0	0	0	0
Dec-28	0	0	0	0	0

Water Balance for CP5													
Date	Inflow											Outflow	
	Net Runoff/Runon Water from Pond Surface	Net Runoff/Runon Water from Natural Ground Surface with Vegetation	Net Runoff/Seepage Water from a Portion of WRSF1 to CP5	Net Runoff/Runon Water from Other Disturbed Ground	Water Pumped from Trl_1000_01 Open Pit to CP5	Water Pumped from Trl_1000_02 Open Pit to CP5	Water Pumped from Wesmeg_0 2/04 Open Pit to CP5	Treated Water from SWTP to CP5	Water Pumped from Downstream of D-CP5 to CP5	Water Pumped from Portal No 1 into CP5	Seepage Water from "A" Area into CP5	Water Pumped to CP1	Water Pumped from CP5 to RO Plant for Treatment
	m ³	m ³	m ³	m ³	m ³	m ³	m ³	m ³	m ³	m ³	m ³	m ³	m ³
Aug-28	-1266	9891	7	3054	0	0		0			0	11686	0
Sep-28	331	8630	2	2284	0	0		0			0	11248	0
Oct-28	2420	9454	0	2293	0	0		0			0	14168	0
Nov-28	0	0	0	0	0	0		0			0	0	0
Dec-28	0	0	0	0	0	0		0			0	0	0

Water Balance for CP6					
Date	Inflow				Outflow
	Net Runoff/Runon Water from Pond Surface	Net Runoff/Runon Water from Natural Ground with Vegetation	Net Runoff/Runon Water from Other Disturbed Ground	Net Runoff/Seepage Water from WRSF3 and WRSF3 Exten.	Water Pumped from CP6 to CP1
	m ³	m ³	m ³	m ³	m ³
May-20	0	0	0	0	0
Jun-20	877	12029	0	2797	15704
Jul-20	-1146	2564	0	42	1460
Aug-20	-399	3392	0	55	3048
Sep-20	104	2960	0	16	3080
Oct-20	763	3242	0	0	4005
Nov-20	0	0	0	0	0
Dec-20	0	0	0	0	0
Jan-21	0	0	0	0	0
Feb-21	0	0	0	0	0
Mar-21	0	0	0	0	0
Apr-21	0	0	0	0	0
May-21	0	0	0	0	0
Jun-21	877	12029	0	2797	15704
Jul-21	-1146	2564	0	42	1460
Aug-21	-399	3392	0	55	3048
Sep-21	104	2960	0	16	3080
Oct-21	763	3242	0	0	4005
Nov-21	0	0	0	0	0
Dec-21	0	0	0	0	0
Jan-22	0	0	0	0	0
Feb-22	0	0	0	0	0
Mar-22	0	0	0	0	0
Apr-22	0	0	0	0	0
May-22	0	0	0	0	0
Jun-22	877	12029	0	2797	15704
Jul-22	-1146	2564	0	42	1460
Aug-22	-399	3392	0	55	3048
Sep-22	104	2960	0	16	3080
Oct-22	763	3242	0	0	4005
Nov-22	0	0	0	0	0
Dec-22	0	0	0	0	0
Jan-23	0	0	0	0	0
Feb-23	0	0	0	0	0
Mar-23	0	0	0	0	0
Apr-23	0	0	0	0	0
May-23	0	0	0	0	0
Jun-23	877	12029	0	2797	15704
Jul-23	-1146	2564	0	42	1460
Aug-23	-399	3392	0	55	3048
Sep-23	104	2960	0	16	3080
Oct-23	763	3242	0	0	4005
Nov-23	0	0	0	0	0
Dec-23	0	0	0	0	0
Jan-24	0	0	0	0	0
Feb-24	0	0	0	0	0
Mar-24	0	0	0	0	0
Apr-24	0	0	0	0	0
May-24	0	0	0	0	0
Jun-24	877	12029	202	2779	15887
Jul-24	-1146	2564	67	41	1526
Aug-24	-399	3392	73	55	3120
Sep-24	104	2960	54	16	3134
Oct-24	763	3242	54	0	4059
Nov-24	0	0	0	0	0
Dec-24	0	0	0	0	0
Jan-25	0	0	0	0	0
Feb-25	0	0	0	0	0
Mar-25	0	0	0	0	0
Apr-25	0	0	0	0	0
May-25	0	0	0	0	0
Jun-25	877	12029	202	2779	15887
Jul-25	-1146	2564	67	41	1526
Aug-25	-399	3392	73	55	3120
Sep-25	104	2960	54	16	3134
Oct-25	763	3242	54	0	4059
Nov-25	0	0	0	0	0
Dec-25	0	0	0	0	0
Jan-26	0	0	0	0	0
Feb-26	0	0	0	0	0
Mar-26	0	0	0	0	0
Apr-26	0	0	0	0	0
May-26	0	0	0	0	0
Jun-26	877	12029	202	2779	15887
Jul-26	-1146	2564	67	41	1526
Aug-26	-399	3392	73	55	3120
Sep-26	104	2960	54	16	3134
Oct-26	763	3242	54	0	4059
Nov-26	0	0	0	0	0
Dec-26	0	0	0	0	0
Jan-27	0	0	0	0	0
Feb-27	0	0	0	0	0
Mar-27	0	0	0	0	0
Apr-27	0	0	0	0	0
May-27	0	0	0	0	0
Jun-27	877	12029	202	2779	15887
Jul-27	-1146	2564	67	41	1526
Aug-27	-399	3392	73	55	3120
Sep-27	104	2960	54	16	3134
Oct-27	763	3242	54	0	4059
Nov-27	0	0	0	0	0
Dec-27	0	0	0	0	0
Jan-28	0	0	0	0	0
Feb-28	0	0	0	0	0
Mar-28	0	0	0	0	0
Apr-28	0	0	0	0	0
May-28	0	0	0	0	0
Jun-28	877	12029	202	2779	15887
Jul-28	-1146	2564	67	41	1526

Water Balance for CP2					
Date	Inflow				Outflow
	Net Runoff/Runon Water from Pond Surface	Net Runoff/Runon Water from Natural Ground with Vegetation	Net Runoff/Runon Water from Other Disturbed Ground	Net Runoff/Seepage Water from WRSF3 and WRSF3 Exten.	Water Pumped from CP7 to CP1
	m ³	m ³	m ³	m ³	m ³
May-20	0	0	0	0	0
Jun-20	0	0	0	0	0
Jul-20	0	0	0	0	0
Aug-20	0	0	0	0	0
Sep-20	0	0	0	0	0
Oct-20	0	0	0	0	0
Nov-20	0	0	0	0	0
Dec-20	0	0	0	0	0
Jan-21	0	0	0	0	0
Feb-21	0	0	0	0	0
Mar-21	0	0	0	0	0
Apr-21	0	0	0	0	0
May-21	0	0	0	0	0
Jun-21	0	0	0	0	0
Jul-21	0	0	0	0	0
Aug-21	0	0	0	0	0
Sep-21	0	0	0	0	0
Oct-21	0	0	0	0	0
Nov-21	0	0	0	0	0
Dec-21	0	0	0	0	0
Jan-22	0	0	0	0	0
Feb-22	0	0	0	0	0
Mar-22	0	0	0	0	0
Apr-22	0	0	0	0	0
May-22	0	0	0	0	0
Jun-22	0	0	0	0	0
Jul-22	0	0	0	0	0
Aug-22	0	0	0	0	0
Sep-22	0	0	0	0	0
Oct-22	0	0	0	0	0
Nov-22	0	0	0	0	0
Dec-22	0	0	0	0	0
Jan-23	0	0	0	0	0
Feb-23	0	0	0	0	0
Mar-23	0	0	0	0	0
Apr-23	0	0	0	0	0
May-23	0	0	0	0	0
Jun-23	0	0	0	0	0
Jul-23	0	0	0	0	0
Aug-23	0	0	0	0	0
Sep-23	0	0	0	0	0
Oct-23	0	0	0	0	0
Nov-23	0	0	0	0	0
Dec-23	0	0	0	0	0
Jan-24	0	0	0	0	0
Feb-24	0	0	0	0	0
Mar-24	0	0	0	0	0
Apr-24	0	0	0	0	0
May-24	0	0	0	0	0
Jun-24	877	45970	0	2183	49031
Jul-24	-1146	9799	0	32	8686
Aug-24	-399	12963	0	43	12607
Sep-24	104	11311	0	12	11428
Oct-24	763	12391	0	0	13153
Nov-24	0	0	0	0	0
Dec-24	0	0	0	0	0
Jan-25	0	0	0	0	0
Feb-25	0	0	0	0	0
Mar-25	0	0	0	0	0
Apr-25	0	0	0	0	0
May-25	0	0	0	0	0
Jun-25	877	45970	0	2183	49031
Jul-25	-1146	9799	0	32	8686
Aug-25	-399	12963	0	43	12607
Sep-25	104	11311	0	12	11428
Oct-25	763	12391	0	0	13153
Nov-25	0	0	0	0	0
Dec-25	0	0	0	0	0
Jan-26	0	0	0	0	0
Feb-26	0	0	0	0	0
Mar-26	0	0	0	0	0
Apr-26	0	0	0	0	0
May-26	0	0	0	0	0
Jun-26	877	45970	0	2183	49031
Jul-26	-1146	9799	0	32	8686
Aug-26	-399	12963	0	43	12607
Sep-26	104	11311	0	12	11428
Oct-26	763	12391	0	0	13153
Nov-26	0	0	0	0	0
Dec-26	0	0	0	0	0
Jan-27	0	0	0	0	0
Feb-27	0	0	0	0	0
Mar-27	0	0	0	0	0
Apr-27	0	0	0	0	0
May-27	0	0	0	0	0
Jun-27	877	45970	0	2183	49031
Jul-27	-1146	9799	0	32	8686
Aug-27	-399	12963	0	43	12607
Sep-27	104	11311	0	12	11428
Oct-27	763	12391	0	0	13153
Nov-27	0	0	0	0	0
Dec-27	0	0	0	0	0
Jan-28	0	0	0	0	0
Feb-28	0	0	0	0	0
Mar-28	0	0	0	0	0
Apr-28	0	0	0	0	0
May-28	0	0	0	0	0
Jun-28	877	45970	0	2183	49031
Jul-28	-1146	9799	0	32	8686

Water Balance for P Area					
Date	Inflow			Outflow	
	Net Runoff/Runon Water from Pond Surface	Net Runoff/Runon Water from Natural Ground with Vegetation	Net Runoff/Runon Water from Other Disturbed Ground	Pumped to CP5	Water Seepage into CP5
	m ³	m ³	m ³	m ³	m ³
May-20	0	0	0	0	0
Jun-20	2201	4202	934	8479	0
Jul-20	-1811	896	784	6638	0
Aug-20	-631	1185	854	1408	0
Sep-20	137	1034	750	1921	0
Oct-20	660	1133	941	2734	0
Nov-20	0	0	0	0	0
Dec-20	0	0	0	0	0
Jan-21	0	0	0	0	0
Feb-21	0	0	0	0	0
Mar-21	0	0	0	0	0
Apr-21	0	0	0	0	0
May-21	0	0	0	0	0
Jun-21	0	0	0	0	0
Jul-21	0	0	0	0	0
Aug-21	0	0	0	0	0
Sep-21	0	0	0	0	0
Oct-21	0	0	0	0	0
Nov-21	0	0	0	0	0
Dec-21	0	0	0	0	0
Jan-22	0	0	0	0	0
Feb-22	0	0	0	0	0
Mar-22	0	0	0	0	0
Apr-22	0	0	0	0	0
May-22	0	0	0	0	0
Jun-22	0	0	0	0	0
Jul-22	0	0	0	0	0
Aug-22	0	0	0	0	0
Sep-22	0	0	0	0	0
Oct-22	0	0	0	0	0
Nov-22	0	0	0	0	0
Dec-22	0	0	0	0	0
Jan-23	0	0	0	0	0
Feb-23	0	0	0	0	0
Mar-23	0	0	0	0	0
Apr-23	0	0	0	0	0
May-23	0	0	0	0	0
Jun-23	0	0	0	0	0
Jul-23	0	0	0	0	0
Aug-23	0	0	0	0	0
Sep-23	0	0	0	0	0
Oct-23	0	0	0	0	0
Nov-23	0	0	0	0	0
Dec-23	0	0	0	0	0
Jan-24	0	0	0	0	0
Feb-24	0	0	0	0	0
Mar-24	0	0	0	0	0
Apr-24	0	0	0	0	0
May-24					

Water Balance for CP6					
Date	Inflow				Outflow
	Net Runoff/Runon Water from Pond Surface	Net Runoff/Runon Water from Natural Ground with Vegetation	Net Runoff/Runon Water from Other Disturbed Ground	Net Runoff/Seepage Water from WRSF3 and WRSF3 Exten.	Water Pumped from CP6 to CP1
	m ³	m ³	m ³	m ³	m ³
Aug-28	-399	3392	73	55	3120
Sep-28	104	2960	84	16	3134
Oct-28	763	3242	84	0	4059
Nov-28	0	0	0	0	0
Dec-28	0	0	0	0	0

Water Balance for CP2					
Date	Inflow				Outflow
	Net Runoff/Runon Water from Pond Surface	Net Runoff/Runon Water from Natural Ground with Vegetation	Net Runoff/Runon Water from Other Disturbed Ground	Net Runoff/Seepage Water from WRSF3 and WRSF3 Exten.	Water Pumped from CP7 to CP1
	m3	m3	m3	m3	m3
Aug-28	-399	12963	0	43	12607
Sep-28	104	11311	0	12	11428
Oct-28	763	12391	0	0	13153
Nov-28	0	0	0	0	0
Dec-28	0	0	0	0	0

Water Balance for P Area					
Date	Inflow			Outflow	
	Net Runoff/Runon Water from Pond Surface	Net Runoff/Runon Water from Natural Ground with Vegetation	Net Runoff/Runon Water from Other Disturbed Ground	Pumped to CP5	Water Seepage into CP5
	m ³	m ³	m ³	m ³	m ³
Aug-28					
Sep-28					
Oct-28					
Nov-28					
Dec-28					

Water Balance for Landfarm				
Date	Inflow			Outflow
	Net Runoff/Runon Water from Pond Surface	Net Runoff/Runon Water from Disturbed Ground Surface	Snow Melting	Pre-Treated (Oil) Water from Landfarm/Biopile to CP1 though site area ditch
	m ³	m ³	m ³	m ³
May-20	0	0	0	0
Jun-20	13	1117	500	1630
Jul-20	-17	368	0	351
Aug-20	-6	401	0	395
Sep-20	2	300	0	301
Oct-20	11	301	0	312
Nov-20	0	0	0	0
Dec-20	0	0	0	0
Jan-21	0	0	0	0
Feb-21	0	0	0	0
Mar-21	0	0	0	0
Apr-21	0	0	0	0
May-21	0	0	0	0
Jun-21	13	1117	500	1630
Jul-21	-17	368	0	351
Aug-21	-6	401	0	395
Sep-21	2	300	0	301
Oct-21	11	301	0	312
Nov-21	0	0	0	0
Dec-21	0	0	0	0
Jan-22	0	0	0	0
Feb-22	0	0	0	0
Mar-22	0	0	0	0
Apr-22	0	0	0	0
May-22	0	0	0	0
Jun-22	13	3510	500	4023
Jul-22	-17	1156	0	1139
Aug-22	-6	1260	0	1254
Sep-22	2	942	0	944
Oct-22	11	946	0	957
Nov-22	0	0	0	0
Dec-22	0	0	0	0
Jan-23	0	0	0	0
Feb-23	0	0	0	0
Mar-23	0	0	0	0
Apr-23	0	0	0	0
May-23	0	0	0	0
Jun-23	13	3510	500	4023
Jul-23	-17	1156	0	1139
Aug-23	-6	1260	0	1254
Sep-23	2	942	0	944
Oct-23	11	946	0	957
Nov-23	0	0	0	0
Dec-23	0	0	0	0
Jan-24	0	0	0	0
Feb-24	0	0	0	0
Mar-24	0	0	0	0
Apr-24	0	0	0	0

Water Balance for Landfill			
Date	Inflow		Outflow
	Net Runoff/Runon Water from Natural Ground with Vegetation	Net Runoff/Runon Water from Disturbed Ground Surface	Water from Landfill to CP1 though site area ditch
	m ³	m ³	m ³
May-20	0	0	0
Jun-20	0	1512	1512
Jul-20	0	498	498
Aug-20	0	543	543
Sep-20	0	406	406
Oct-20	0	407	407
Nov-20	0	0	0
Dec-20	0	0	0
Jan-21	0	0	0
Feb-21	0	0	0
Mar-21	0	0	0
Apr-21	0	0	0
May-21	0	0	0
Jun-21	0	1512	1512
Jul-21	0	498	498
Aug-21	0	543	543
Sep-21	0	406	406
Oct-21	0	407	407
Nov-21	0	0	0
Dec-21	0	0	0
Jan-22	0	0	0
Feb-22	0	0	0
Mar-22	0	0	0
Apr-22	0	0	0
May-22	0	0	0
Jun-22	0	1512	1512
Jul-22	0	498	498
Aug-22	0	543	543
Sep-22	0	406	406
Oct-22	0	407	407
Nov-22	0	0	0
Dec-22	0	0	0
Jan-23	0	0	0
Feb-23	0	0	0
Mar-23	0	0	0
Apr-23	0	0	0
May-23	0	0	0
Jun-23	0	1512	1512
Jul-23	0	498	498
Aug-23	0	543	543
Sep-23	0	406	406
Oct-23	0	407	407
Nov-23	0	0	0
Dec-23	0	0	0
Jan-24	0	0	0
Feb-24	0	0	0
Mar-24	0	0	0
Apr-24	0	0	0

Water Balance for Landfarm				
Date	Inflow			Outflow
	Net Runoff/Runon Water from Pond Surface	Net Runoff/Runon Water from Disturbed Ground Surface	Snow Melting	Pre-Treated (Oil) Water from Landfarm/Biopile to CP1 though site area ditch
	m ³	m ³	m ³	m ³
May-24	0	0	0	0
Jun-24	13	3510	500	4023
Jul-24	-17	1156	0	1139
Aug-24	-6	1260	0	1254
Sep-24	2	942	0	944
Oct-24	11	946	0	957
Nov-24	0	0	0	0
Dec-24	0	0	0	0
Jan-25	0	0	0	0
Feb-25	0	0	0	0
Mar-25	0	0	0	0
Apr-25	0	0	0	0
May-25	0	0	0	0
Jun-25	13	3510	500	4023
Jul-25	-17	1156	0	1139
Aug-25	-6	1260	0	1254
Sep-25	2	942	0	944
Oct-25	11	946	0	957
Nov-25	0	0	0	0
Dec-25	0	0	0	0
Jan-26	0	0	0	0
Feb-26	0	0	0	0
Mar-26	0	0	0	0
Apr-26	0	0	0	0
May-26	0	0	0	0
Jun-26	13	3510	500	4023
Jul-26	-17	1156	0	1139
Aug-26	-6	1260	0	1254
Sep-26	2	942	0	944
Oct-26	11	946	0	957
Nov-26	0	0	0	0
Dec-26	0	0	0	0
Jan-27	0	0	0	0
Feb-27	0	0	0	0
Mar-27	0	0	0	0
Apr-27	0	0	0	0
May-27	0	0	0	0
Jun-27	13	3510	500	4023
Jul-27	-17	1156	0	1139
Aug-27	-6	1260	0	1254
Sep-27	2	942	0	944
Oct-27	11	946	0	957
Nov-27	0	0	0	0
Dec-27	0	0	0	0
Jan-28	0	0	0	0
Feb-28	0	0	0	0
Mar-28	0	0	0	0
Apr-28	0	0	0	0

Water Balance for Landfill			
Date	Inflow		Outflow
	Net Runoff/Runon Water from Natural Ground with Vegetation	Net Runoff/Runon Water from Disturbed Ground Surface	Water from Landfill to CP1 though site area ditch
	m ³	m ³	m ³
May-24	0	0	0
Jun-24	0	1512	1512
Jul-24	0	498	498
Aug-24	0	543	543
Sep-24	0	406	406
Oct-24	0	407	407
Nov-24	0	0	0
Dec-24	0	0	0
Jan-25	0	0	0
Feb-25	0	0	0
Mar-25	0	0	0
Apr-25	0	0	0
May-25	0	0	0
Jun-25	0	1512	1512
Jul-25	0	498	498
Aug-25	0	543	543
Sep-25	0	406	406
Oct-25	0	407	407
Nov-25	0	0	0
Dec-25	0	0	0
Jan-26	0	0	0
Feb-26	0	0	0
Mar-26	0	0	0
Apr-26	0	0	0
May-26	0	0	0
Jun-26	0	1512	1512
Jul-26	0	498	498
Aug-26	0	543	543
Sep-26	0	406	406
Oct-26	0	407	407
Nov-26	0	0	0
Dec-26	0	0	0
Jan-27	0	0	0
Feb-27	0	0	0
Mar-27	0	0	0
Apr-27	0	0	0
May-27	0	0	0
Jun-27	0	1512	1512
Jul-27	0	498	498
Aug-27	0	543	543
Sep-27	0	406	406
Oct-27	0	407	407
Nov-27	0	0	0
Dec-27	0	0	0
Jan-28	0	0	0
Feb-28	0	0	0
Mar-28	0	0	0
Apr-28	0	0	0

Water Balance for Landfarm				
Date	Inflow			Outflow
	Net Runoff/Runon Water from Pond Surface	Net Runoff/Runon Water from Disturbed Ground Surface	Snow Melting	Pre-Treated (Oil) Water from Landfarm/Biopile to CP1 through site area ditch
	m ³	m ³	m ³	m ³
May-28	0	0	0	0
Jun-28	13	3510	500	4023
Jul-28	-17	1156	0	1139
Aug-28	-6	1260	0	1254
Sep-28	2	942	0	944
Oct-28	11	946	0	957
Nov-28	0	0	0	0
Dec-28	0	0	0	0

Water Balance for Landfill			
Date	Inflow		Outflow
	Net Runoff/Runon Water from Natural Ground with Vegetation	Net Runoff/Runon Water from Disturbed Ground Surface	Water from Landfill to CP1 through site area ditch
	m ³	m ³	m ³
May-28	0	0	0
Jun-28	0	1512	1512
Jul-28	0	498	498
Aug-28	0	543	543
Sep-28	0	406	406
Oct-28	0	407	407
Nov-28	0	0	0
Dec-28	0	0	0

Water Balance for EWTP

Date	Inflow			Outflow	
	Water from CP1 to EWTP	Water from CP5 to EWTP	RO Preemate To EWTP	Water from EWTP to SP3	Discharge to Meliadine Lake
	m ³	m ³	m ³		m ³
May-20	0	0	0	0	0
Jun-20	330000	0	0	0	330000
Jul-20	413012	0	0	12000	401012
Aug-20	51331	0	0	24800	26531
Sep-20	78361	0	0	24000	54361
Oct-20	0	0	0	0	0
Nov-20	0	0	0	0	0
Dec-20	0	0	0	0	0
Jan-21	0	0	0	0	0
Feb-21	0	0	0	0	0
Mar-21	0	0	0	0	0
Apr-21	0	0	0	0	0
May-21	0	0	0	0	0
Jun-21	199726	0	0	0	199726
Jul-21	302927	0	0	12000	290927
Aug-21	50228	0	0	24800	25428
Sep-21	81626	0	0	24000	57626
Oct-21	0	0	0	0	0
Nov-21	0	0	0	0	0
Dec-21	0	0	0	0	0
Jan-22	0	0	0	0	0
Feb-22	0	0	0	0	0
Mar-22	0	0	0	0	0
Apr-22	0	0	0	0	0
May-22	0	0	0	0	0
Jun-22	201115	0	0	90000	111115
Jul-22	275162	0	0	186000	89162
Aug-22	45487	0	0	45487	0
Sep-22	76444	0	0	76444	0
Oct-22	0	0	0	0	0
Nov-22	0	0	0	0	0
Dec-22	0	0	0	0	0
Jan-23	0	0	0	0	0
Feb-23	0	0	0	0	0
Mar-23	0	0	0	0	0
Apr-23	0	0	0	0	0
May-23	0	0	0	0	0
Jun-23	191532	0	0	90000	101532
Jul-23	281612	0	0	186000	95612
Aug-23	47622	0	0	38461	9161
Sep-23	78770	0	0	27905	50865
Oct-23	0	0	0	0	0
Nov-23	0	0	0	0	0
Dec-23	0	0	0	0	0

Water Balance for EWTP

Date	Inflow			Outflow	
	Water from CP1 to EWTP	Water from CP5 to EWTP	RO Preemate To EWTP	Water from EWTP to SP3	Discharge to Meliadine Lake
	m ³	m ³	m ³		m ³
Jan-24	0	0	0	0	0
Feb-24	0	0	0	0	0
Mar-24	0	0	0	0	0
Apr-24	0	0	0	0	0
May-24	0	0	0	0	0
Jun-24	195151	0	0	90000	105151
Jul-24	316826	0	0	174490	142336
Aug-24	53041	0	0	29677	23364
Sep-24	88116	0	0	28245	59871
Oct-24	0	0	0	0	0
Nov-24	0	0	0	0	0
Dec-24	0	0	0	0	0
Jan-25	0	0	0	0	0
Feb-25	0	0	0	0	0
Mar-25	0	0	0	0	0
Apr-25	0	0	0	0	0
May-25	0	0	0	0	0
Jun-25	213039	0	0	90000	123039
Jul-25	317767	0	0	186000	131767
Aug-25	54251	0	0	39160	15091
Sep-25	89354	0	0	30862	58492
Oct-25	0	0	0	0	0
Nov-25	0	0	0	0	0
Dec-25	0	0	0	0	0
Jan-26	0	0	0	0	0
Feb-26	0	0	0	0	0
Mar-26	0	0	0	0	0
Apr-26	0	0	0	0	0
May-26	0	0	0	0	0
Jun-26	215346	0	0	90000	125346
Jul-26	326998	0	0	186000	140998
Aug-26	56087	0	0	53174	2913
Sep-26	91190	0	0	31586	59604
Oct-26	0	0	0	0	0
Nov-26	0	0	0	0	0
Dec-26	0	0	0	0	0
Jan-27	0	0	0	0	0
Feb-27	0	0	0	0	0
Mar-27	0	0	0	0	0
Apr-27	0	0	0	0	0
May-27	0	0	0	0	0
Jun-27	219018	0	0	90000	129018
Jul-27	317767	0	0	186000	131767
Aug-27	48201	0	0	41804	6398

Water Balance for EWTP

Date	Inflow			Outflow	
	Water from CP1 to EWTP	Water from CP5 to EWTP	RO Premeate To EWTP	Water from EWTP to SP3	Discharge to Meliadine Lake
	m ³	m ³	m ³		m ³
Sep-27	81999	0	0	29927	52072
Oct-27	0	0	0	0	0
Nov-27	0	0	0	0	0
Dec-27	0	0	0	0	0
Jan-28	0	0	0	0	0
Feb-28	0	0	0	0	0
Mar-28	0	0	0	0	0
Apr-28	0	0	0	0	0
May-28	0	0	0	0	0
Jun-28	206520	0	0	206520	0
Jul-28	317767	0	0	317767	0
Aug-28	48201	0	0	48201	0
Sep-28	81999	0	0	81999	0
Oct-28	0	0	0	0	0
Nov-28	0	0	0	0	0
Dec-28	0	0	0	0	0

APPENDIX C

**Average Monthly Concentrations,
Average Year (Base Case)
Scenario**

Appendix C
Average Year Scenario
CP2 Average Monthly Dissolved Concentrations

Date	Total Dissolved Solids	Dissolved Phosphorus	Total Ammonia	Dissolved Aluminum	Dissolved Arsenic	Dissolved Copper	Dissolved Lead	Dissolved Nickel	Dissolved Zinc
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Discharge Criteria	3500	2	14	2	0.3	0.2	0.2	0.5	0.4
Jun 2024	63	0.014	2.1	0.037	0.011	0.0012	0.00028	0.001	0.0037
Jul 2024	145	0.049	12	0.2	0.059	0.003	0.00046	0.0022	0.0082
Aug 2024	112	0.036	7.9	0.14	0.041	0.0023	0.00038	0.0017	0.0064
Sep 2024	113	0.036	8.2	0.14	0.042	0.0023	0.00038	0.0017	0.0065
Oct 2024	92	0.027	5.6	0.096	0.029	0.0018	0.00034	0.0014	0.0054
Nov 2024	92	0.027	5.6	0.096	0.029	0.0018	0.00034	0.0014	0.0054
Dec 2024	92	0.027	5.6	0.096	0.029	0.0018	0.00034	0.0014	0.0054
Jan 2025	92	0.027	5.6	0.096	0.029	0.0018	0.00034	0.0014	0.0054
Feb 2025	92	0.027	5.6	0.096	0.029	0.0018	0.00034	0.0014	0.0054
Mar 2025	92	0.027	5.6	0.096	0.029	0.0018	0.00034	0.0014	0.0054
Apr 2025	92	0.027	5.6	0.096	0.029	0.0018	0.00034	0.0014	0.0054
May 2025	92	0.027	5.6	0.096	0.029	0.0018	0.00034	0.0014	0.0054
Jun 2025	84	0.018	3.3	0.059	0.018	0.0014	0.00031	0.0012	0.0043
Jul 2025	97	0.026	5.3	0.091	0.028	0.0018	0.00034	0.0014	0.0051
Aug 2025	101	0.029	6.1	0.11	0.032	0.0019	0.00035	0.0015	0.0054
Sep 2025	105	0.031	6.9	0.12	0.036	0.0021	0.00036	0.0016	0.0057
Oct 2025	86	0.023	4.7	0.082	0.025	0.0017	0.00033	0.0013	0.0048
Nov 2025	86	0.023	4.7	0.082	0.025	0.0017	0.00033	0.0013	0.0048
Dec 2025	86	0.023	4.7	0.082	0.025	0.0017	0.00033	0.0013	0.0048
Jan 2026	86	0.023	4.7	0.082	0.025	0.0017	0.00033	0.0013	0.0048
Feb 2026	86	0.023	4.7	0.082	0.025	0.0017	0.00033	0.0013	0.0048
Mar 2026	86	0.023	4.7	0.082	0.025	0.0017	0.00033	0.0013	0.0048
Apr 2026	86	0.023	4.7	0.082	0.025	0.0017	0.00033	0.0013	0.0048
May 2026	86	0.023	4.7	0.082	0.025	0.0017	0.00033	0.0013	0.0048
Jun 2026	81	0.017	3.0	0.054	0.016	0.0014	0.0003	0.0011	0.0041
Jul 2026	96	0.025	5.0	0.087	0.027	0.0017	0.00034	0.0014	0.0049
Aug 2026	100	0.028	5.9	0.1	0.031	0.0019	0.00035	0.0015	0.0053
Sep 2026	104	0.031	6.8	0.12	0.035	0.002	0.00036	0.0016	0.0056
Oct 2026	86	0.023	4.6	0.08	0.024	0.0017	0.00033	0.0013	0.0047
Nov 2026	86	0.023	4.6	0.08	0.024	0.0017	0.00033	0.0013	0.0047
Dec 2026	86	0.023	4.6	0.08	0.024	0.0017	0.00033	0.0013	0.0047
Jan 2027	86	0.023	4.6	0.08	0.024	0.0017	0.00033	0.0013	0.0047
Feb 2027	86	0.023	4.6	0.08	0.024	0.0017	0.00033	0.0013	0.0047
Mar 2027	86	0.023	4.6	0.08	0.024	0.0017	0.00033	0.0013	0.0047
Apr 2027	86	0.023	4.6	0.08	0.024	0.0017	0.00033	0.0013	0.0047
May 2027	86	0.023	4.6	0.08	0.024	0.0017	0.00033	0.0013	0.0047
Jun 2027	81	0.017	3.0	0.053	0.016	0.0014	0.0003	0.0011	0.004
Jul 2027	95	0.024	5.0	0.087	0.026	0.0017	0.00034	0.0014	0.0049
Aug 2027	100	0.028	5.9	0.1	0.031	0.0019	0.00035	0.0015	0.0053
Sep 2027	104	0.031	6.7	0.12	0.035	0.002	0.00036	0.0016	0.0056
Oct 2027	86	0.023	4.6	0.08	0.024	0.0017	0.00033	0.0013	0.0047
Nov 2027	86	0.023	4.6	0.08	0.024	0.0017	0.00033	0.0013	0.0047
Dec 2027	86	0.023	4.6	0.08	0.024	0.0017	0.00033	0.0013	0.0047
Jan 2028	86	0.023	4.6	0.08	0.024	0.0017	0.00033	0.0013	0.0047
Feb 2028	86	0.023	4.6	0.08	0.024	0.0017	0.00033	0.0013	0.0047
Mar 2028	86	0.023	4.6	0.08	0.024	0.0017	0.00033	0.0013	0.0047
Apr 2028	86	0.023	4.6	0.08	0.024	0.0017	0.00033	0.0013	0.0047
May 2028	86	0.023	4.6	0.08	0.024	0.0017	0.00033	0.0013	0.0047
Jun 2028	81	0.017	3.0	0.053	0.016	0.0014	0.0003	0.0011	0.004
Jul 2028	95	0.024	5.0	0.087	0.026	0.0017	0.00034	0.0014	0.0049
Aug 2028	100	0.028	5.9	0.1	0.031	0.0019	0.00035	0.0015	0.0053
Sep 2028	104	0.031	6.7	0.12	0.035	0.002	0.00036	0.0016	0.0056
Oct 2028	86	0.023	4.6	0.08	0.024	0.0017	0.00033	0.0013	0.0047
Nov 2028	86	0.023	4.6	0.08	0.024	0.0017	0.00033	0.0013	0.0047
Dec 2028	86	0.023	4.6	0.08	0.024	0.0017	0.00033	0.0013	0.0047

0.1 Denotes a value above the discharge criteria

Appendix C
Average Year Scenario
CP3 Average Monthly Dissolved Concentrations

Date	Total Dissolved Solids	Dissolved Phosphorus	Total Ammonia	Dissolved Aluminum	Dissolved Arsenic	Dissolved Copper	Dissolved Lead	Dissolved Nickel	Dissolved Zinc
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Discharge Criteria	3500	2	14	2	0.3	0.2	0.2	0.5	0.4
May 2020	854	0.18	4.6	0.016	0.064	0.0055	0.0011	0.022	0.027
Jun 2020	418	0.088	3.2	0.04	0.098	0.003	0.00061	0.01	0.014
Jul 2020	359	0.076	4.2	0.082	0.19	0.0029	0.00059	0.0079	0.012
Aug 2020	302	0.064	4.7	0.11	0.24	0.0027	0.00055	0.006	0.011
Sep 2020	278	0.059	5.4	0.14	0.3	0.0028	0.00056	0.005	0.01
Oct 2020	256	0.055	5.9	0.15	0.34	0.0028	0.00056	0.0041	0.0096
Nov 2020	256	0.055	5.9	0.15	0.34	0.0028	0.00056	0.0041	0.0096
Dec 2020	256	0.055	5.9	0.15	0.34	0.0028	0.00056	0.0041	0.0096
Jan 2021	256	0.055	5.9	0.15	0.34	0.0028	0.00056	0.0041	0.0096
Feb 2021	256	0.055	5.9	0.15	0.34	0.0028	0.00056	0.0041	0.0096
Mar 2021	256	0.055	5.9	0.15	0.34	0.0028	0.00056	0.0041	0.0096
Apr 2021	256	0.055	5.9	0.15	0.34	0.0028	0.00056	0.0041	0.0096
May 2021	256	0.055	5.9	0.15	0.34	0.0028	0.00056	0.0041	0.0096
Jun 2021	148	0.033	3.7	0.1	0.22	0.0018	0.00037	0.0022	0.0066
Jul 2021	153	0.037	4.5	0.13	0.27	0.002	0.00042	0.0021	0.0081
Aug 2021	152	0.039	4.8	0.14	0.3	0.0021	0.00044	0.0019	0.0088
Sep 2021	160	0.042	5.4	0.16	0.34	0.0023	0.00049	0.0019	0.0099
Oct 2021	164	0.044	5.8	0.17	0.36	0.0024	0.00051	0.0018	0.011
Nov 2021	164	0.044	5.8	0.17	0.36	0.0024	0.00051	0.0018	0.011
Dec 2021	164	0.044	5.8	0.17	0.36	0.0024	0.00051	0.0018	0.011
Jan 2022	164	0.044	5.8	0.17	0.36	0.0024	0.00051	0.0018	0.011
Feb 2022	164	0.044	5.8	0.17	0.36	0.0024	0.00051	0.0018	0.011
Mar 2022	164	0.044	5.8	0.17	0.36	0.0024	0.00051	0.0018	0.011
Apr 2022	164	0.044	5.8	0.17	0.36	0.0024	0.00051	0.0018	0.011
May 2022	164	0.044	5.8	0.17	0.36	0.0024	0.00051	0.0018	0.011
Jun 2022	105	0.028	3.7	0.1	0.22	0.0016	0.00034	0.0012	0.0067
Jul 2022	120	0.032	4.5	0.12	0.26	0.0018	0.00037	0.0013	0.0076
Aug 2022	126	0.034	4.9	0.13	0.27	0.0019	0.00039	0.0013	0.0079
Sep 2022	138	0.037	5.5	0.15	0.3	0.0021	0.00042	0.0014	0.0086
Oct 2022	146	0.039	5.9	0.16	0.32	0.0022	0.00044	0.0015	0.0091
Nov 2022	146	0.039	5.9	0.16	0.32	0.0022	0.00044	0.0015	0.0091
Dec 2022	146	0.039	5.9	0.16	0.32	0.0022	0.00044	0.0015	0.0091
Jan 2023	146	0.039	5.9	0.16	0.32	0.0022	0.00044	0.0015	0.0091
Feb 2023	146	0.039	5.9	0.16	0.32	0.0022	0.00044	0.0015	0.0091
Mar 2023	146	0.039	5.9	0.16	0.32	0.0022	0.00044	0.0015	0.0091
Apr 2023	146	0.039	5.9	0.16	0.32	0.0022	0.00044	0.0015	0.0091
May 2023	146	0.039	5.9	0.16	0.32	0.0022	0.00044	0.0015	0.0091
Jun 2023	97	0.026	3.7	0.1	0.21	0.0015	0.00032	0.001	0.0064
Jul 2023	114	0.032	4.5	0.12	0.26	0.0018	0.00038	0.0012	0.0079
Aug 2023	123	0.035	4.8	0.13	0.29	0.0019	0.00041	0.0012	0.0088
Sep 2023	136	0.039	5.4	0.15	0.32	0.0021	0.00045	0.0014	0.0099
Oct 2023	145	0.042	5.8	0.16	0.35	0.0023	0.00048	0.0014	0.011
Nov 2023	145	0.042	5.8	0.16	0.35	0.0023	0.00048	0.0014	0.011
Dec 2023	145	0.042	5.8	0.16	0.35	0.0023	0.00048	0.0014	0.011
Jan 2024	145	0.042	5.8	0.16	0.35	0.0023	0.00048	0.0014	0.011
Feb 2024	145	0.042	5.8	0.16	0.35	0.0023	0.00048	0.0014	0.011
Mar 2024	145	0.042	5.8	0.16	0.35	0.0023	0.00048	0.0014	0.011
Apr 2024	145	0.042	5.8	0.16	0.35	0.0023	0.00048	0.0014	0.011
May 2024	145	0.042	5.8	0.16	0.35	0.0023	0.00048	0.0014	0.011
Jun 2024	99	0.025	3.7	0.1	0.21	0.0015	0.00032	0.00099	0.0059
Jul 2024	121	0.027	4.6	0.12	0.26	0.0017	0.00035	0.0011	0.0055
Aug 2024	131	0.028	5.0	0.13	0.28	0.0018	0.00036	0.0012	0.0051
Sep 2024	147	0.03	5.7	0.15	0.31	0.002	0.00039	0.0013	0.005
Oct 2024	158	0.031	6.1	0.16	0.33	0.0021	0.0004	0.0014	0.0049
Nov 2024	158	0.031	6.1	0.16	0.33	0.0021	0.0004	0.0014	0.0049
Dec 2024	158	0.031	6.1	0.16	0.33	0.0021	0.0004	0.0014	0.0049
Jan 2025	158	0.031	6.1	0.16	0.33	0.0021	0.0004	0.0014	0.0049
Feb 2025	158	0.031	6.1	0.16	0.33	0.0021	0.0004	0.0014	0.0049
Mar 2025	158	0.031	6.1	0.16	0.33	0.0021	0.0004	0.0014	0.0049
Apr 2025	158	0.031	6.1	0.16	0.33	0.0021	0.0004	0.0014	0.0049
May 2025	158	0.031	6.1	0.16	0.33	0.0021	0.0004	0.0014	0.0049
Jun 2025	105	0.02	3.9	0.1	0.2	0.0014	0.00028	0.00095	0.0033
Jul 2025	124	0.024	4.7	0.12	0.25	0.0017	0.00031	0.0011	0.0035
Aug 2025	133	0.025	5.1	0.13	0.26	0.0018	0.00033	0.0012	0.0036
Sep 2025	148	0.028	5.8	0.15	0.3	0.002	0.00036	0.0013	0.0038
Oct 2025	157	0.03	6.2	0.16	0.31	0.0021	0.00038	0.0013	0.004
Nov 2025	157	0.03	6.2	0.16	0.31	0.0021	0.00038	0.0013	0.004
Dec 2025	157	0.03	6.2	0.16	0.31	0.0021	0.00038	0.0013	0.004
Jan 2026	157	0.03	6.2	0.16	0.31	0.0021	0.00038	0.0013	0.004
Feb 2026	157	0.03	6.2	0.16	0.31	0.0021	0.00038	0.0013	0.004
Mar 2026	157	0.03	6.2	0.16	0.31	0.0021	0.00038	0.0013	0.004
Apr 2026	157	0.03	6.2	0.16	0.31	0.0021	0.00038	0.0013	0.004
May 2026	157	0.03	6.2	0.16	0.31	0.0021	0.00038	0.0013	0.004
Jun 2026	106	0.019	3.9	0.1	0.2	0.0014	0.00027	0.00094	0.0028
Jul 2026	126	0.023	4.8	0.12	0.25	0.0017	0.00032	0.0011	0.0032
Aug 2026	136	0.025	5.1	0.13	0.28	0.0018	0.00034	0.0012	0.0034
Sep 2026	152	0.028	5.8	0.15	0.31	0.002	0.00038	0.0013	0.0037
Oct 2026	162	0.029	6.2	0.16	0.34	0.0021	0.0004	0.0013	0.0039
Nov 2026	162	0.029	6.2	0.16	0.34	0.0021	0.0004	0.0013	0.0039
Dec 2026	162	0.029	6.2	0.16	0.34	0.0021	0.0004	0.0013	0.0039
Jan 2027	162	0.029	6.2	0.16	0.34	0.0021	0.0004	0.0013	0.0039
Feb 2027	162	0.029	6.2	0.16	0.34	0.0021	0.0004	0.0013	0.0039
Mar 2027	162	0.029	6.2	0.16	0.34	0.0021	0.0004	0.0013	0.0039
Apr 2027	162	0.029	6.2	0.16	0.34	0.0021	0.0004	0.0013	0.0039
May 2027	162	0.029	6.2	0.16	0.34	0.0021	0.0004	0.0013	0.0039
Jun 2027	108	0.019	3.9	0.1	0.21	0.0014	0.00028	0.00094	0.0028
Jul 2027	128	0.023	4.8	0.13	0.26	0.0017	0.00032	0.0011	0.0031
Aug 2027	137	0.025	5.1	0.14	0.28	0.0018	0.00034	0.0012	0.0033
Sep 2027	153	0.028	5.8	0.15	0.32	0.002	0.00038	0.0013	0.0036
Oct 2027	163	0.029	6.2	0.16	0.34	0.0021	0.0004	0.0013	0.0038
Nov 2027	163	0.029	6.2	0.16	0.34	0.0021	0.0004	0.0013	0.0038
Dec 2027	163	0.029	6.2	0.16	0.34	0.0021	0.0004	0.0013	0.0038
Jan 2028	163	0.029	6.2	0.16	0.34	0.0021	0.0004	0.0013	0.0038
Feb 2028	163	0.029	6.2	0.16	0.34	0.0021	0.0004	0.0013	0.0038
Mar 2028	163	0.029	6.2	0.16	0.34	0.0021	0.0004	0.0013	0.0038
Apr 2028	163	0.029	6.2	0.16	0.34	0.0021	0.0004	0.0013	0.0038
May 2028	163	0.029	6.2	0.16	0.34	0.0021	0.0004	0.0013	0.0038
Jun 2028	108	0.019	3.9	0.1	0.21	0.0014	0.00028	0.00094	0.0028
Jul 2028	128	0.023	4.8	0.13	0.26	0.0017	0.00032	0.0011	0.0031
Aug 2028	137	0.025	5.1	0.14	0.28	0.0018	0.00034	0.0012	0.0033
Sep 2028	153	0.028	5.8	0.15	0.32	0.002	0.00038	0.0013	0.0036
Oct 2028	163	0.029	6.2	0.16	0.34	0.0021	0.0004	0.0013	0.0038
Nov 2028	163	0.029	6.2	0.16	0.34	0.0021	0.0004	0.0013	0.0038
Dec 2028	163	0.029	6.2	0.16	0.34	0.0021	0.0004	0.0013	0.0038

0.1 Denotes a value above the discharge criteria

Appendix C
Average Year Scenario
CP4 Average Monthly Dissolved Concentrations

Date	Total Dissolved Solids	Dissolved Phosphorus	Total Ammonia	Dissolved Aluminum	Dissolved Arsenic	Dissolved Copper	Dissolved Lead	Dissolved Nickel	Dissolved Zinc
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Discharge Criteria	3500	2	14	2	0.3	0.2	0.2	0.5	0.4
May 2020	977	0.065	0.91	0.0064	0.0056	0.0029	0.00013	0.015	0.0033
Jun 2020	496	0.035	0.9	0.014	0.0047	0.0018	0.00022	0.0072	0.0037
Jul 2020	418	0.034	1.6	0.028	0.0071	0.0019	0.00026	0.0061	0.0046
Aug 2020	331	0.032	2.1	0.037	0.0084	0.0018	0.00029	0.0048	0.0052
Sep 2020	266	0.031	2.4	0.045	0.0096	0.0018	0.0003	0.004	0.0056
Oct 2020	210	0.024	1.8	0.034	0.0073	0.0015	0.00029	0.0032	0.0049
Nov 2020	210	0.024	1.8	0.034	0.0073	0.0015	0.00029	0.0032	0.0049
Dec 2020	210	0.024	1.8	0.034	0.0073	0.0015	0.00029	0.0032	0.0049
Jan 2021	210	0.024	1.8	0.034	0.0073	0.0015	0.00029	0.0032	0.0049
Feb 2021	210	0.024	1.8	0.034	0.0073	0.0015	0.00029	0.0032	0.0049
Mar 2021	210	0.024	1.8	0.034	0.0073	0.0015	0.00029	0.0032	0.0049
Apr 2021	210	0.024	1.8	0.034	0.0073	0.0015	0.00029	0.0032	0.0049
May 2021	210	0.024	1.8	0.034	0.0073	0.0015	0.00029	0.0032	0.0049
Jun 2021	147	0.022	1.8	0.035	0.0051	0.0014	0.00031	0.0021	0.0061
Jul 2021	141	0.032	3.2	0.059	0.0062	0.0017	0.00037	0.0021	0.0094
Aug 2021	129	0.038	4.0	0.074	0.0067	0.0019	0.0004	0.0021	0.012
Sep 2021	117	0.043	4.7	0.087	0.0072	0.002	0.00043	0.0021	0.013
Oct 2021	102	0.035	3.7	0.068	0.0058	0.0018	0.00039	0.0018	0.011
Nov 2021	102	0.035	3.7	0.068	0.0058	0.0018	0.00039	0.0018	0.011
Dec 2021	102	0.035	3.7	0.068	0.0058	0.0018	0.00039	0.0018	0.011
Jan 2022	102	0.035	3.7	0.068	0.0058	0.0018	0.00039	0.0018	0.011
Feb 2022	102	0.035	3.7	0.068	0.0058	0.0018	0.00039	0.0018	0.011
Mar 2022	102	0.035	3.7	0.068	0.0058	0.0018	0.00039	0.0018	0.011
Apr 2022	102	0.035	3.7	0.068	0.0058	0.0018	0.00039	0.0018	0.011
May 2022	102	0.035	3.7	0.068	0.0058	0.0018	0.00039	0.0018	0.011
Jun 2022	110	0.03	3.7	0.068	0.01	0.0016	0.00037	0.0015	0.0089
Jul 2022	124	0.04	5.9	0.11	0.02	0.0021	0.00042	0.0018	0.011
Aug 2022	131	0.046	7.4	0.13	0.026	0.0024	0.00045	0.0019	0.012
Sep 2022	133	0.052	8.8	0.16	0.032	0.0026	0.00047	0.0021	0.013
Oct 2022	119	0.044	7.2	0.13	0.027	0.0023	0.00044	0.0018	0.011
Nov 2022	119	0.044	7.2	0.13	0.027	0.0023	0.00044	0.0018	0.011
Dec 2022	119	0.044	7.2	0.13	0.027	0.0023	0.00044	0.0018	0.011
Jan 2023	119	0.044	7.2	0.13	0.027	0.0023	0.00044	0.0018	0.011
Feb 2023	119	0.044	7.2	0.13	0.027	0.0023	0.00044	0.0018	0.011
Mar 2023	119	0.044	7.2	0.13	0.027	0.0023	0.00044	0.0018	0.011
Apr 2023	119	0.044	7.2	0.13	0.027	0.0023	0.00044	0.0018	0.011
May 2023	119	0.044	7.2	0.13	0.027	0.0023	0.00044	0.0018	0.011
Jun 2023	145	0.033	5.6	0.1	0.023	0.0019	0.00039	0.0015	0.008
Jul 2023	156	0.04	7.7	0.14	0.035	0.0023	0.00042	0.0018	0.0086
Aug 2023	159	0.044	9.0	0.16	0.042	0.0025	0.00044	0.0019	0.0087
Sep 2023	158	0.048	10	0.18	0.049	0.0027	0.00045	0.002	0.0088
Oct 2023	139	0.041	8.4	0.15	0.04	0.0024	0.00042	0.0018	0.0077
Nov 2023	139	0.041	8.4	0.15	0.04	0.0024	0.00042	0.0018	0.0077
Dec 2023	139	0.041	8.4	0.15	0.04	0.0024	0.00042	0.0018	0.0077
Jan 2024	139	0.041	8.4	0.15	0.04	0.0024	0.00042	0.0018	0.0077
Feb 2024	139	0.041	8.4	0.15	0.04	0.0024	0.00042	0.0018	0.0077
Mar 2024	139	0.041	8.4	0.15	0.04	0.0024	0.00042	0.0018	0.0077
Apr 2024	139	0.041	8.4	0.15	0.04	0.0024	0.00042	0.0018	0.0077
May 2024	139	0.041	8.4	0.15	0.04	0.0024	0.00042	0.0018	0.0077
Jun 2024	169	0.031	6.3	0.11	0.031	0.0019	0.00038	0.0015	0.0062
Jul 2024	175	0.039	8.3	0.15	0.041	0.0023	0.00041	0.0017	0.007
Aug 2024	173	0.043	9.5	0.17	0.047	0.0025	0.00043	0.0019	0.0073
Sep 2024	168	0.047	11	0.19	0.053	0.0027	0.00045	0.002	0.0077
Oct 2024	147	0.04	8.7	0.15	0.043	0.0024	0.00042	0.0018	0.0068
Nov 2024	147	0.04	8.7	0.15	0.043	0.0024	0.00042	0.0018	0.0068
Dec 2024	147	0.04	8.7	0.15	0.043	0.0024	0.00042	0.0018	0.0068
Jan 2025	147	0.04	8.7	0.15	0.043	0.0024	0.00042	0.0018	0.0068
Feb 2025	147	0.04	8.7	0.15	0.043	0.0024	0.00042	0.0018	0.0068
Mar 2025	147	0.04	8.7	0.15	0.043	0.0024	0.00042	0.0018	0.0068
Apr 2025	147	0.04	8.7	0.15	0.043	0.0024	0.00042	0.0018	0.0068
May 2025	147	0.04	8.7	0.15	0.043	0.0024	0.00042	0.0018	0.0068
Jun 2025	172	0.031	6.4	0.12	0.032	0.002	0.00037	0.0015	0.0057
Jul 2025	178	0.039	8.4	0.15	0.042	0.0023	0.00041	0.0017	0.0065
Aug 2025	174	0.043	9.6	0.17	0.048	0.0026	0.00043	0.0019	0.007
Sep 2025	169	0.047	11	0.19	0.054	0.0027	0.00044	0.002	0.0074
Oct 2025	147	0.04	8.8	0.16	0.044	0.0024	0.00041	0.0018	0.0066
Nov 2025	147	0.04	8.8	0.16	0.044	0.0024	0.00041	0.0018	0.0066
Dec 2025	147	0.04	8.8	0.16	0.044	0.0024	0.00041	0.0018	0.0066
Jan 2026	147	0.04	8.8	0.16	0.044	0.0024	0.00041	0.0018	0.0066
Feb 2026	147	0.04	8.8	0.16	0.044	0.0024	0.00041	0.0018	0.0066
Mar 2026	147	0.04	8.8	0.16	0.044	0.0024	0.00041	0.0018	0.0066
Apr 2026	147	0.04	8.8	0.16	0.044	0.0024	0.00041	0.0018	0.0066
May 2026	147	0.04	8.8	0.16	0.044	0.0024	0.00041	0.0018	0.0066
Jun 2026	173	0.031	6.5	0.12	0.033	0.002	0.00037	0.0015	0.0055
Jul 2026	177	0.039	8.5	0.15	0.043	0.0023	0.00041	0.0017	0.0064
Aug 2026	173	0.043	9.6	0.17	0.049	0.0026	0.00043	0.0019	0.0069
Sep 2026	168	0.047	11	0.19	0.054	0.0028	0.00044	0.002	0.0073
Oct 2026	146	0.04	8.8	0.16	0.044	0.0024	0.00041	0.0018	0.0065
Nov 2026	146	0.04	8.8	0.16	0.044	0.0024	0.00041	0.0018	0.0065
Dec 2026	146	0.04	8.8	0.16	0.044	0.0024	0.00041	0.0018	0.0065
Jan 2027	146	0.04	8.8	0.16	0.044	0.0024	0.00041	0.0018	0.0065
Feb 2027	146	0.04	8.8	0.16	0.044	0.0024	0.00041	0.0018	0.0065
Mar 2027	146	0.04	8.8	0.16	0.044	0.0024	0.00041	0.0018	0.0065
Apr 2027	146	0.04	8.8	0.16	0.044	0.0024	0.00041	0.0018	0.0065
May 2027	146	0.04	8.8	0.16	0.044	0.0024	0.00041	0.0018	0.0065
Jun 2027	172	0.031	6.5	0.12	0.033	0.002	0.00037	0.0015	0.0055
Jul 2027	176	0.039	8.5	0.15	0.043	0.0023	0.00041	0.0017	0.0064
Aug 2027	172	0.043	9.6	0.17	0.049	0.0026	0.00043	0.0019	0.0068
Sep 2027	167	0.047	11	0.19	0.054	0.0028	0.00044	0.002	0.0073
Oct 2027	145	0.04	8.8	0.16	0.044	0.0024	0.00041	0.0018	0.0065
Nov 2027	145	0.04	8.8	0.16	0.044	0.0024	0.00041	0.0018	0.0065
Dec 2027	145	0.04	8.8	0.16	0.044	0.0024	0.00041	0.0018	0.0065
Jan 2028	145	0.04	8.8	0.16	0.044	0.0024	0.00041	0.0018	0.0065
Feb 2028	145	0.04	8.8	0.16	0.044	0.0024	0.00041	0.0018	0.0065
Mar 2028	145	0.04	8.8	0.16	0.044	0.0024	0.00041	0.0018	0.0065
Apr 2028	145	0.04	8.8	0.16	0.044	0.0024	0.00041	0.0018	0.0065
May 2028	145	0.04	8.8	0.16	0.044	0.0024	0.00041	0.0018	0.0065
Jun 2028	171	0.031	6.5	0.12	0.033	0.002	0.00037	0.0015	0.0055
Jul 2028	175	0.039	8.5	0.15	0.043	0.0023	0.00041	0.0017	0.0064
Aug 2028	171	0.043	9.6	0.17	0.049	0.0026	0.00043	0.0019	0.0068
Sep 2028	166	0.047	11	0.19	0.054	0.0028	0.00044	0.002	0.0073
Oct 2028	144	0.04	8.8	0.16	0.044	0.0024	0.00041	0.0018	0.0065
Nov 2028	144	0.04	8.8	0.16	0.044	0.0024	0.00041	0.0018	0.0065
Dec 2028	144	0.04	8.8	0.16	0.044	0.0024	0.00041	0.0018	0.0065

0.1 Denotes a value above the discharge criteria

Appendix C
Average Year Scenario
CP5 Average Monthly Dissolved Concentrations

Date	Total Dissolved Solids	Dissolved Phosphorus	Total Ammonia	Dissolved Aluminum	Dissolved Arsenic	Dissolved Copper	Dissolved Lead	Dissolved Nickel	Dissolved Zinc
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Discharge Criteria	3500	2	14	2	0.3	0.2	0.2	0.5	0.4
May 2020	7153	0.067	18	0.025	0.0043	0.0067	0.0017	0.038	0.042
Jun 2020	2357	0.028	7.5	0.026	0.0029	0.0027	0.00087	0.012	0.017
Jul 2020	2289	0.031	9.8	0.06	0.0052	0.0026	0.0011	0.011	0.019
Aug 2020	1524	0.025	7.1	0.069	0.0058	0.0021	0.00098	0.0068	0.013
Sep 2020	943	0.02	5.2	0.07	0.0058	0.0017	0.00085	0.0044	0.01
Oct 2020	558	0.015	3.6	0.062	0.0045	0.0013	0.00073	0.0027	0.0074
Nov 2020	558	0.015	3.6	0.062	0.0045	0.0013	0.00073	0.0027	0.0074
Dec 2020	558	0.015	3.6	0.062	0.0045	0.0013	0.00073	0.0027	0.0074
Jan 2021	558	0.015	3.6	0.062	0.0045	0.0013	0.00073	0.0027	0.0074
Feb 2021	558	0.015	3.6	0.062	0.0045	0.0013	0.00073	0.0027	0.0074
Mar 2021	558	0.015	3.6	0.062	0.0045	0.0013	0.00073	0.0027	0.0074
Apr 2021	558	0.015	3.6	0.062	0.0045	0.0013	0.00073	0.0027	0.0074
May 2021	558	0.015	3.6	0.062	0.0045	0.0013	0.00073	0.0027	0.0074
Jun 2021	310	0.012	5.0	0.083	0.0052	0.00099	0.00084	0.0016	0.0062
Jul 2021	650	0.019	6.7	0.13	0.011	0.0013	0.0011	0.0019	0.0086
Aug 2021	683	0.02	6.7	0.13	0.012	0.0013	0.0011	0.0018	0.0087
Sep 2021	449	0.021	6.4	0.13	0.013	0.0013	0.001	0.0017	0.0086
Oct 2021	313	0.018	5.5	0.12	0.012	0.0012	0.0009	0.0015	0.0074
Nov 2021	313	0.018	5.5	0.12	0.012	0.0012	0.0009	0.0015	0.0074
Dec 2021	313	0.018	5.5	0.12	0.012	0.0012	0.0009	0.0015	0.0074
Jan 2022	313	0.018	5.5	0.12	0.012	0.0012	0.0009	0.0015	0.0074
Feb 2022	313	0.018	5.5	0.12	0.012	0.0012	0.0009	0.0015	0.0074
Mar 2022	313	0.018	5.5	0.12	0.012	0.0012	0.0009	0.0015	0.0074
Apr 2022	313	0.018	5.5	0.12	0.012	0.0012	0.0009	0.0015	0.0074
May 2022	313	0.018	5.5	0.12	0.012	0.0012	0.0009	0.0015	0.0074
Jun 2022	257	0.013	3.2	0.1	0.0069	0.0011	0.0010	0.0016	0.0069
Jul 2022	495	0.019	5.4	0.14	0.013	0.0014	0.0012	0.0019	0.0087
Aug 2022	518	0.02	5.9	0.14	0.013	0.0014	0.0011	0.0019	0.0085
Sep 2022	361	0.021	5.7	0.13	0.014	0.0014	0.001	0.0018	0.0083
Oct 2022	256	0.017	4.7	0.11	0.011	0.0012	0.00091	0.0016	0.0071
Nov 2022	256	0.017	4.7	0.11	0.011	0.0012	0.00091	0.0016	0.0071
Dec 2022	256	0.017	4.7	0.11	0.011	0.0012	0.00091	0.0016	0.0071
Jan 2023	256	0.017	4.7	0.11	0.011	0.0012	0.00091	0.0016	0.0071
Feb 2023	256	0.017	4.7	0.11	0.011	0.0012	0.00091	0.0016	0.0071
Mar 2023	256	0.017	4.7	0.11	0.011	0.0012	0.00091	0.0016	0.0071
Apr 2023	256	0.017	4.7	0.11	0.011	0.0012	0.00091	0.0016	0.0071
May 2023	256	0.017	4.7	0.11	0.011	0.0012	0.00091	0.0016	0.0071
Jun 2023	193	0.012	3.9	0.097	0.0072	0.001	0.00092	0.0015	0.0063
Jul 2023	356	0.019	6.2	0.13	0.014	0.0013	0.0011	0.0018	0.0079
Aug 2023	366	0.02	6.7	0.13	0.015	0.0013	0.0010	0.0017	0.0077
Sep 2023	254	0.02	6.4	0.13	0.016	0.0014	0.00093	0.0017	0.0075
Oct 2023	183	0.018	5.4	0.11	0.013	0.0012	0.00083	0.0015	0.0067
Nov 2023	183	0.018	5.4	0.11	0.013	0.0012	0.00083	0.0015	0.0067
Dec 2023	183	0.018	5.4	0.11	0.013	0.0012	0.00083	0.0015	0.0067
Jan 2024	183	0.018	5.4	0.11	0.013	0.0012	0.00083	0.0015	0.0067
Feb 2024	183	0.018	5.4	0.11	0.013	0.0012	0.00083	0.0015	0.0067
Mar 2024	183	0.018	5.4	0.11	0.013	0.0012	0.00083	0.0015	0.0067
Apr 2024	183	0.018	5.4	0.11	0.013	0.0012	0.00083	0.0015	0.0067
May 2024	183	0.018	5.4	0.11	0.013	0.0012	0.00083	0.0015	0.0067
Jun 2024	183	0.013	2.0	0.11	0.0076	0.0012	0.0011	0.0017	0.0072
Jul 2024	323	0.019	4.4	0.15	0.013	0.0015	0.0013	0.002	0.0088
Aug 2024	331	0.019	5.2	0.15	0.014	0.0014	0.0012	0.0019	0.0084
Sep 2024	243	0.019	4.9	0.14	0.015	0.0014	0.0011	0.0019	0.0081
Oct 2024	177	0.016	3.9	0.12	0.011	0.0012	0.00099	0.0016	0.0071
Nov 2024	177	0.016	3.9	0.12	0.011	0.0012	0.00099	0.0016	0.0071
Dec 2024	177	0.016	3.9	0.12	0.011	0.0012	0.00099	0.0016	0.0071
Jan 2025	177	0.016	3.9	0.12	0.011	0.0012	0.00099	0.0016	0.0071
Feb 2025	177	0.016	3.9	0.12	0.011	0.0012	0.00099	0.0016	0.0071
Mar 2025	177	0.016	3.9	0.12	0.011	0.0012	0.00099	0.0016	0.0071
Apr 2025	177	0.016	3.9	0.12	0.011	0.0012	0.00099	0.0016	0.0071
May 2025	177	0.016	3.9	0.12	0.011	0.0012	0.00099	0.0016	0.0071
Jun 2025	164	0.013	1.6	0.12	0.0073	0.0012	0.0012	0.0018	0.0076
Jul 2025	272	0.019	4.4	0.16	0.013	0.0015	0.0013	0.0021	0.0091
Aug 2025	274	0.02	5.4	0.15	0.014	0.0014	0.0012	0.002	0.0087
Sep 2025	200	0.02	5.2	0.15	0.015	0.0014	0.0012	0.0019	0.0083
Oct 2025	146	0.017	4.3	0.12	0.012	0.0012	0.001	0.0017	0.0074
Nov 2025	146	0.017	4.3	0.12	0.012	0.0012	0.001	0.0017	0.0074
Dec 2025	146	0.017	4.3	0.12	0.012	0.0012	0.001	0.0017	0.0074
Jan 2026	146	0.017	4.3	0.12	0.012	0.0012	0.001	0.0017	0.0074
Feb 2026	146	0.017	4.3	0.12	0.012	0.0012	0.001	0.0017	0.0074
Mar 2026	146	0.017	4.3	0.12	0.012	0.0012	0.001	0.0017	0.0074
Apr 2026	146	0.017	4.3	0.12	0.012	0.0012	0.001	0.0017	0.0074
May 2026	146	0.017	4.3	0.12	0.012	0.0012	0.001	0.0017	0.0074
Jun 2026	121	0.013	3.1	0.11	0.0074	0.0011	0.0011	0.0017	0.007
Jul 2026	199	0.019	5.7	0.15	0.014	0.0014	0.0012	0.0019	0.0085
Aug 2026	201	0.02	6.3	0.14	0.015	0.0014	0.0011	0.0018	0.0082
Sep 2026	148	0.021	6.1	0.14	0.016	0.0014	0.001	0.0018	0.008
Oct 2026	110	0.018	5.1	0.12	0.013	0.0012	0.00092	0.0016	0.0071
Nov 2026	110	0.018	5.1	0.12	0.013	0.0012	0.00092	0.0016	0.0071
Dec 2026	110	0.018	5.1	0.12	0.013	0.0012	0.00092	0.0016	0.0071
Jan 2027	110	0.018	5.1	0.12	0.013	0.0012	0.00092	0.0016	0.0071
Feb 2027	110	0.018	5.1	0.12	0.013	0.0012	0.00092	0.0016	0.0071
Mar 2027	110	0.018	5.1	0.12	0.013	0.0012	0.00092	0.0016	0.0071
Apr 2027	110	0.018	5.1	0.12	0.013	0.0012	0.00092	0.0016	0.0071
May 2027	110	0.018	5.1	0.12	0.013	0.0012	0.00092	0.0016	0.0071
Jun 2027	112	0.013	1.9	0.12	0.0077	0.0012	0.0012	0.0018	0.0076
Jul 2027	209	0.018	2.4	0.17	0.012	0.0016	0.0017	0.0025	0.01
Aug 2027	231	0.019	2.2	0.18	0.012	0.0016	0.0017	0.0025	0.01
Sep 2027	180	0.018	2.1	0.17	0.012	0.0015	0.0016	0.0024	0.0098
Oct 2027	133	0.014	1.3	0.14	0.0082	0.0013	0.0014	0.0021	0.0085
Nov 2027	133	0.014	1.3	0.14	0.0082	0.0013	0.0014	0.0021	0.0085
Dec 2027	133	0.014	1.3	0.14	0.0082	0.0013	0.0014	0.0021	0.0085
Jan 2028	133	0.014	1.3	0.14	0.0082	0.0013	0.0014	0.0021	0.0085
Feb 2028	133	0.014	1.3	0.14	0.0082	0.0013	0.0014	0.0021	0.0085
Mar 2028	133	0.014	1.3	0.14	0.0082	0.0013	0.0014	0.0021	0.0085
Apr 2028	133	0.014	1.3	0.14	0.0082	0.0013	0.0014	0.0021	0.0085
May 2028	133	0.014	1.3	0.14	0.0082	0.0013	0.0014	0.0021	0.0085
Jun 2028	107	0.012	0.93	0.13	0.0065	0.0012	0.0013	0.002	0.008
Jul 2028	179	0.017	1.7	0.18	0.011	0.0016	0.0017	0.0026	0.01
Aug 2028	191	0.018	1.8	0.18	0.012	0.0016	0.0018	0.0026	0.011
Sep 2028	150	0.018	1.9	0.17	0.012	0.0015	0.0016	0.0024	0.0099
Oct 2028	112	0.014	1.2	0.14	0.008	0.0013	0.0014	0.0021	0.0085
Nov 2028	112	0.014	1.2	0.14	0.008	0.0013	0.0014	0.0021	0.0085
Dec 2028	112	0.014	1.2	0.14	0.008	0.0013	0.0014	0.0021	0.0085

0.1 Denotes a value above the discharge criteria

Appendix C
Average Year Scenario
CP6 Average Monthly Dissolved Concentrations

Date	Total Dissolved Solids	Dissolved Phosphorus	Total Ammonia	Dissolved Aluminum	Dissolved Arsenic	Dissolved Copper	Dissolved Lead	Dissolved Nickel	Dissolved Zinc
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Discharge Criteria	3500	2	14	2	0.3	0.2	0.2	0.5	0.4
May 2020	977	0.065	0.91	0.0064	0.0056	0.0029	0.00013	0.015	0.0033
Jun 2020	650	0.056	3.6	0.057	0.017	0.0027	0.00021	0.01	0.0052
Jul 2020	653	0.074	7.9	0.13	0.036	0.0035	0.0003	0.01	0.0087
Aug 2020	621	0.086	11	0.19	0.051	0.004	0.00037	0.0099	0.011
Sep 2020	592	0.096	14	0.25	0.065	0.0045	0.00043	0.0094	0.014
Oct 2020	520	0.084	13	0.22	0.056	0.004	0.0004	0.0083	0.012
Nov 2020	520	0.084	13	0.22	0.056	0.004	0.0004	0.0083	0.012
Dec 2020	520	0.084	13	0.22	0.056	0.004	0.0004	0.0083	0.012
Jan 2021	520	0.084	13	0.22	0.056	0.004	0.0004	0.0083	0.012
Feb 2021	520	0.084	13	0.22	0.056	0.004	0.0004	0.0083	0.012
Mar 2021	520	0.084	13	0.22	0.056	0.004	0.0004	0.0083	0.012
Apr 2021	520	0.084	13	0.22	0.056	0.004	0.0004	0.0083	0.012
May 2021	520	0.084	13	0.22	0.056	0.004	0.0004	0.0083	0.012
Jun 2021	367	0.066	11	0.19	0.052	0.0034	0.00037	0.0058	0.0099
Jul 2021	390	0.08	15	0.26	0.073	0.0042	0.00044	0.0061	0.012
Aug 2021	392	0.089	18	0.31	0.089	0.0047	0.00048	0.0061	0.012
Sep 2021	392	0.097	20	0.36	0.1	0.0051	0.00052	0.0061	0.013
Oct 2021	346	0.085	18	0.31	0.089	0.0045	0.00048	0.0054	0.012
Nov 2021	346	0.085	18	0.31	0.089	0.0045	0.00048	0.0054	0.012
Dec 2021	346	0.085	18	0.31	0.089	0.0045	0.00048	0.0054	0.012
Jan 2022	346	0.085	18	0.31	0.089	0.0045	0.00048	0.0054	0.012
Feb 2022	346	0.085	18	0.31	0.089	0.0045	0.00048	0.0054	0.012
Mar 2022	346	0.085	18	0.31	0.089	0.0045	0.00048	0.0054	0.012
Apr 2022	346	0.085	18	0.31	0.089	0.0045	0.00048	0.0054	0.012
May 2022	346	0.085	18	0.31	0.089	0.0045	0.00048	0.0054	0.012
Jun 2022	240	0.075	14	0.24	0.061	0.0037	0.00046	0.004	0.014
Jul 2022	244	0.1	17	0.3	0.064	0.0045	0.00058	0.0044	0.022
Aug 2022	235	0.12	19	0.34	0.063	0.005	0.00066	0.0046	0.029
Sep 2022	227	0.13	21	0.37	0.063	0.0054	0.00073	0.0047	0.034
Oct 2022	203	0.12	18	0.32	0.055	0.0048	0.00067	0.0042	0.03
Nov 2022	203	0.12	18	0.32	0.055	0.0048	0.00067	0.0042	0.03
Dec 2022	203	0.12	18	0.32	0.055	0.0048	0.00067	0.0042	0.03
Jan 2023	203	0.12	18	0.32	0.055	0.0048	0.00067	0.0042	0.03
Feb 2023	203	0.12	18	0.32	0.055	0.0048	0.00067	0.0042	0.03
Mar 2023	203	0.12	18	0.32	0.055	0.0048	0.00067	0.0042	0.03
Apr 2023	203	0.12	18	0.32	0.055	0.0048	0.00067	0.0042	0.03
May 2023	203	0.12	18	0.32	0.055	0.0048	0.00067	0.0042	0.03
Jun 2023	145	0.097	14	0.25	0.036	0.0039	0.00059	0.0033	0.027
Jul 2023	148	0.13	18	0.3	0.036	0.0047	0.00072	0.0038	0.036
Aug 2023	144	0.14	19	0.34	0.034	0.0052	0.0008	0.004	0.043
Sep 2023	139	0.16	21	0.37	0.032	0.0056	0.00087	0.0043	0.048
Oct 2023	126	0.14	18	0.32	0.028	0.005	0.00079	0.0038	0.043
Nov 2023	126	0.14	18	0.32	0.028	0.005	0.00079	0.0038	0.043
Dec 2023	126	0.14	18	0.32	0.028	0.005	0.00079	0.0038	0.043
Jan 2024	126	0.14	18	0.32	0.028	0.005	0.00079	0.0038	0.043
Feb 2024	126	0.14	18	0.32	0.028	0.005	0.00079	0.0038	0.043
Mar 2024	126	0.14	18	0.32	0.028	0.005	0.00079	0.0038	0.043
Apr 2024	126	0.14	18	0.32	0.028	0.005	0.00079	0.0038	0.043
May 2024	126	0.14	18	0.32	0.028	0.005	0.00079	0.0038	0.043
Jun 2024	120	0.1	15	0.25	0.033	0.0039	0.00064	0.003	0.029
Jul 2024	157	0.11	18	0.32	0.054	0.0045	0.0007	0.0034	0.03
Aug 2024	184	0.12	21	0.36	0.07	0.0049	0.00073	0.0036	0.029
Sep 2024	203	0.12	23	0.39	0.084	0.0052	0.00074	0.0038	0.028
Oct 2024	183	0.11	20	0.34	0.073	0.0046	0.00068	0.0034	0.024
Nov 2024	183	0.11	20	0.34	0.073	0.0046	0.00068	0.0034	0.024
Dec 2024	183	0.11	20	0.34	0.073	0.0046	0.00068	0.0034	0.024
Jan 2025	183	0.11	20	0.34	0.073	0.0046	0.00068	0.0034	0.024
Feb 2025	183	0.11	20	0.34	0.073	0.0046	0.00068	0.0034	0.024
Mar 2025	183	0.11	20	0.34	0.073	0.0046	0.00068	0.0034	0.024
Apr 2025	183	0.11	20	0.34	0.073	0.0046	0.00068	0.0034	0.024
May 2025	183	0.11	20	0.34	0.073	0.0046	0.00068	0.0034	0.024
Jun 2025	178	0.079	15	0.27	0.062	0.0036	0.00057	0.0027	0.017
Jul 2025	210	0.091	19	0.33	0.081	0.0043	0.00064	0.0031	0.019
Aug 2025	228	0.098	21	0.37	0.095	0.0047	0.00067	0.0034	0.019
Sep 2025	241	0.1	23	0.4	0.11	0.005	0.00069	0.0036	0.019
Oct 2025	216	0.091	20	0.35	0.093	0.0044	0.00064	0.0032	0.016
Nov 2025	216	0.091	20	0.35	0.093	0.0044	0.00064	0.0032	0.016
Dec 2025	216	0.091	20	0.35	0.093	0.0044	0.00064	0.0032	0.016
Jan 2026	216	0.091	20	0.35	0.093	0.0044	0.00064	0.0032	0.016
Feb 2026	216	0.091	20	0.35	0.093	0.0044	0.00064	0.0032	0.016
Mar 2026	216	0.091	20	0.35	0.093	0.0044	0.00064	0.0032	0.016
Apr 2026	216	0.091	20	0.35	0.093	0.0044	0.00064	0.0032	0.016
May 2026	216	0.091	20	0.35	0.093	0.0044	0.00064	0.0032	0.016
Jun 2026	198	0.07	16	0.27	0.074	0.0036	0.00054	0.0026	0.012
Jul 2026	227	0.083	19	0.34	0.093	0.0042	0.00061	0.003	0.014
Aug 2026	243	0.09	22	0.37	0.1	0.0046	0.00064	0.0033	0.014
Sep 2026	254	0.097	24	0.41	0.12	0.0049	0.00067	0.0035	0.015
Oct 2026	227	0.085	21	0.36	0.1	0.0044	0.00062	0.0031	0.013
Nov 2026	227	0.085	21	0.36	0.1	0.0044	0.00062	0.0031	0.013
Dec 2026	227	0.085	21	0.36	0.1	0.0044	0.00062	0.0031	0.013
Jan 2027	227	0.085	21	0.36	0.1	0.0044	0.00062	0.0031	0.013
Feb 2027	227	0.085	21	0.36	0.1	0.0044	0.00062	0.0031	0.013
Mar 2027	227	0.085	21	0.36	0.1	0.0044	0.00062	0.0031	0.013
Apr 2027	227	0.085	21	0.36	0.1	0.0044	0.00062	0.0031	0.013
May 2027	227	0.085	21	0.36	0.1	0.0044	0.00062	0.0031	0.013
Jun 2027	204	0.066	16	0.28	0.079	0.0035	0.00053	0.0025	0.01
Jul 2027	233	0.079	20	0.34	0.097	0.0042	0.0006	0.003	0.012
Aug 2027	248	0.087	22	0.38	0.11	0.0046	0.00063	0.0032	0.013
Sep 2027	258	0.094	24	0.41	0.12	0.0049	0.00066	0.0034	0.013
Oct 2027	230	0.082	21	0.36	0.1	0.0043	0.00061	0.0031	0.012
Nov 2027	230	0.082	21	0.36	0.1	0.0043	0.00061	0.0031	0.012
Dec 2027	230	0.082	21	0.36	0.1	0.0043	0.00061	0.0031	0.012
Jan 2028	230	0.082	21	0.36	0.1	0.0043	0.00061	0.0031	0.012
Feb 2028	230	0.082	21	0.36	0.1	0.0043	0.00061	0.0031	0.012
Mar 2028	230	0.082	21	0.36	0.1	0.0043	0.00061	0.0031	0.012
Apr 2028	230	0.082	21	0.36	0.1	0.0043	0.00061	0.0031	0.012
May 2028	230	0.082	21	0.36	0.1	0.0043	0.00061	0.0031	0.012
Jun 2028	206	0.064	16	0.28	0.081	0.0035	0.00052	0.0025	0.0095
Jul 2028	234	0.078	20	0.34	0.099	0.0042	0.00059	0.0029	0.011
Aug 2028	248	0.086	22	0.38	0.11	0.0045	0.00063	0.0032	0.012
Sep 2028	258	0.093	24	0.41	0.12	0.0049	0.00065	0.0034	0.013
Oct 2028	230	0.081	21	0.36	0.11	0.0043	0.00061	0.0031	0.011
Nov 2028	230	0.081	21	0.36	0.11	0.0043	0.00061	0.0031	0.011
Dec 2028	230	0.081	21	0.36	0.11	0.0043	0.00061	0.0031	0.011

0.1 Denotes a value above the discharge criteria

Appendix C
Average Year Scenario
P-Area Average Monthly Dissolved Concentrations

Date	Total Dissolved Solids	Dissolved Phosphorus	Total Ammonia	Dissolved Aluminum	Dissolved Arsenic	Dissolved Copper	Dissolved Lead	Dissolved Nickel	Dissolved Zinc
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Discharge Criteria	3500	2	14	2	0.3	0.2	0.2	0.5	0.4
May 2020	10950	0.073	36	0.03	0.0059	0.0047	0.002	0.028	0.05
Jun 2020	3060	0.042	19	0.054	0.0045	0.0028	0.0015	0.015	0.029
Jul 2020	3933	0.047	19	0.13	0.0069	0.0033	0.0022	0.016	0.033
Aug 2020	3703	0.024	1.4	0.38	0.012	0.0022	0.0038	0.0049	0.02
Sep 2020	844	0.016	0.91	0.24	0.0078	0.0014	0.0024	0.0031	0.013
Oct 2020	741	0.013	0.8	0.21	0.0068	0.0012	0.0021	0.0027	0.011

0.1 Denotes a value above the discharge criteria

Appendix C
Average Year Scenario
Tiri-1 Average Monthly Dissolved Concentrations

Date	Total Dissolved Solids	Dissolved Phosphorus	Total Ammonia	Dissolved Aluminum	Dissolved Arsenic	Dissolved Copper	Dissolved Lead	Dissolved Nickel	Dissolved Zinc
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Discharge Criteria	3500	2	14	2	0.3	0.2	0.2	0.5	0.4
May 2020	-	-	-	-	-	-	-	-	-
Jun 2020	-	-	-	-	-	-	-	-	-
Jul 2020	-	-	-	-	-	-	-	-	-
Aug 2020	-	-	-	-	-	-	-	-	-
Sep 2020	-	-	-	-	-	-	-	-	-
Oct 2020	-	-	-	-	-	-	-	-	-
Nov 2020	-	-	-	-	-	-	-	-	-
Dec 2020	-	-	-	-	-	-	-	-	-
Jan 2021	-	-	-	-	-	-	-	-	-
Feb 2021	-	-	-	-	-	-	-	-	-
Mar 2021	-	-	-	-	-	-	-	-	-
Apr 2021	-	-	-	-	-	-	-	-	-
May 2021	-	-	-	-	-	-	-	-	-
Jun 2021	21	0.0083	13	0.028	0.0067	0.00047	0.000082	0.00035	0.0019
Jul 2021	42	0.024	13	0.09	0.021	0.0011	0.00013	0.0007	0.0047
Aug 2021	39	0.021	13	0.08	0.019	0.001	0.00012	0.00066	0.0043
Sep 2021	50	0.028	13	0.1	0.025	0.0013	0.00015	0.00083	0.0055
Oct 2021	50	0.027	13	0.1	0.024	0.0013	0.00015	0.00083	0.0054
Nov 2021	-	-	-	-	-	-	-	-	-
Dec 2021	-	-	-	-	-	-	-	-	-
Jan 2022	-	-	-	-	-	-	-	-	-
Feb 2022	-	-	-	-	-	-	-	-	-
Mar 2022	-	-	-	-	-	-	-	-	-
Apr 2022	-	-	-	-	-	-	-	-	-
May 2022	-	-	-	-	-	-	-	-	-
Jun 2022	21	0.0083	13	0.028	0.0067	0.00047	0.000082	0.00035	0.0019
Jul 2022	42	0.024	13	0.09	0.021	0.0011	0.00013	0.0007	0.0047
Aug 2022	39	0.021	13	0.08	0.019	0.001	0.00012	0.00066	0.0043
Sep 2022	50	0.028	13	0.1	0.025	0.0013	0.00015	0.00083	0.0055
Oct 2022	50	0.027	13	0.1	0.024	0.0013	0.00015	0.00083	0.0054
Nov 2022	-	-	-	-	-	-	-	-	-
Dec 2022	-	-	-	-	-	-	-	-	-
Jan 2023	-	-	-	-	-	-	-	-	-
Feb 2023	-	-	-	-	-	-	-	-	-
Mar 2023	-	-	-	-	-	-	-	-	-
Apr 2023	-	-	-	-	-	-	-	-	-
May 2023	-	-	-	-	-	-	-	-	-
Jun 2023	19	0.0084	13	0.029	0.0069	0.00045	0.000073	0.00032	0.0019
Jul 2023	42	0.024	13	0.092	0.022	0.0011	0.00012	0.00069	0.0047
Aug 2023	39	0.022	13	0.083	0.02	0.001	0.00012	0.00065	0.0043
Sep 2023	50	0.029	13	0.11	0.026	0.0013	0.00015	0.00083	0.0056
Oct 2023	50	0.028	13	0.11	0.025	0.0013	0.00015	0.00083	0.0055
Nov 2023	-	-	-	-	-	-	-	-	-
Dec 2023	-	-	-	-	-	-	-	-	-
Jan 2024	-	-	-	-	-	-	-	-	-
Feb 2024	-	-	-	-	-	-	-	-	-
Mar 2024	-	-	-	-	-	-	-	-	-
Apr 2024	-	-	-	-	-	-	-	-	-
May 2024	-	-	-	-	-	-	-	-	-
Jun 2024	19	0.0084	13	0.029	0.0069	0.00045	0.000073	0.00032	0.0019
Jul 2024	42	0.024	13	0.092	0.022	0.0011	0.00012	0.00069	0.0047
Aug 2024	39	0.022	13	0.083	0.02	0.001	0.00012	0.00065	0.0043
Sep 2024	50	0.029	13	0.11	0.026	0.0013	0.00015	0.00083	0.0056
Oct 2024	50	0.028	13	0.11	0.025	0.0013	0.00015	0.00083	0.0055
Nov 2024	-	-	-	-	-	-	-	-	-
Dec 2024	-	-	-	-	-	-	-	-	-
Jan 2025	-	-	-	-	-	-	-	-	-
Feb 2025	-	-	-	-	-	-	-	-	-
Mar 2025	-	-	-	-	-	-	-	-	-
Apr 2025	-	-	-	-	-	-	-	-	-
May 2025	-	-	-	-	-	-	-	-	-
Jun 2025	19	0.0084	13	0.029	0.0069	0.00045	0.000073	0.00032	0.0019
Jul 2025	42	0.024	13	0.092	0.022	0.0011	0.00012	0.00069	0.0047
Aug 2025	39	0.022	13	0.083	0.02	0.001	0.00012	0.00065	0.0043
Sep 2025	50	0.029	13	0.11	0.026	0.0013	0.00015	0.00083	0.0056
Oct 2025	50	0.028	13	0.11	0.025	0.0013	0.00015	0.00083	0.0055
Nov 2025	-	-	-	-	-	-	-	-	-
Dec 2025	-	-	-	-	-	-	-	-	-
Jan 2026	-	-	-	-	-	-	-	-	-
Feb 2026	-	-	-	-	-	-	-	-	-
Mar 2026	-	-	-	-	-	-	-	-	-
Apr 2026	-	-	-	-	-	-	-	-	-
May 2026	-	-	-	-	-	-	-	-	-
Jun 2026	19	0.0084	13	0.029	0.0069	0.00045	0.000073	0.00032	0.0019
Jul 2026	42	0.024	13	0.092	0.022	0.0011	0.00012	0.00069	0.0047
Aug 2026	39	0.022	13	0.083	0.02	0.001	0.00012	0.00065	0.0043
Sep 2026	50	0.029	13	0.11	0.026	0.0013	0.00015	0.00083	0.0056
Oct 2026	50	0.028	13	0.11	0.025	0.0013	0.00015	0.00083	0.0055
Nov 2026	-	-	-	-	-	-	-	-	-
Dec 2026	-	-	-	-	-	-	-	-	-
Jan 2027	-	-	-	-	-	-	-	-	-
Feb 2027	-	-	-	-	-	-	-	-	-
Mar 2027	-	-	-	-	-	-	-	-	-
Apr 2027	-	-	-	-	-	-	-	-	-
May 2027	-	-	-	-	-	-	-	-	-
Jun 2027	9.7	0.0042	13	0.015	0.0035	0.00023	0.000036	0.00016	0.00093
Jul 2027	13	0.0066	13	0.024	0.0057	0.00033	0.000047	0.00023	0.0014
Aug 2027	16	0.0078	13	0.029	0.0068	0.00038	0.000052	0.00026	0.0016
Sep 2027	17	0.0087	13	0.032	0.0075	0.00042	0.000056	0.00028	0.0018
Oct 2027	18	0.0093	13	0.034	0.0081	0.00045	0.000059	0.0003	0.0019
Nov 2027	18	0.0093	13	0.034	0.0081	0.00045	0.000059	0.0003	0.0019
Dec 2027	18	0.0093	13	0.034	0.0081	0.00045	0.000059	0.0003	0.0019
Jan 2028	18	0.0093	13	0.034	0.0081	0.00045	0.000059	0.0003	0.0019
Feb 2028	18	0.0093	13	0.034	0.0081	0.00045	0.000059	0.0003	0.0019
Mar 2028	18	0.0093	13	0.034	0.0081	0.00045	0.000059	0.0003	0.0019
Apr 2028	18	0.0093	13	0.034	0.0081	0.00045	0.000059	0.0003	0.0019
May 2028	18	0.0093	13	0.034	0.0081	0.00045	0.000059	0.0003	0.0019
Jun 2028	18	0.0092	13	0.034	0.008	0.00045	0.000059	0.0003	0.0019
Jul 2028	18	0.0094	13	0.034	0.0082	0.00045	0.00006	0.0003	0.0019
Aug 2028	18	0.0095	13	0.035	0.0083	0.00046	0.000061	0.00031	0.0019
Sep 2028	19	0.0096	13	0.035	0.0084	0.00046	0.000061	0.00031	0.002
Oct 2028	19	0.0097	13	0.036	0.0084	0.00047	0.000062	0.00031	0.002
Nov 2028	19	0.0097	13	0.036	0.0084	0.00047	0.000062	0.00031	0.002
Dec 2028	19	0.0097	13	0.036	0.0084	0.00047	0.000062	0.00031	0.002

0.1 Denotes a value above the discharge criteria

Appendix C
Average Year Scenario
Tiri-2 Average Monthly Dissolved Concentrations

Date	Total Dissolved Solids	Dissolved Phosphorus	Dissolved Cyanide	Total Ammonia	Dissolved Aluminum	Dissolved Arsenic	Dissolved Copper	Dissolved Lead	Dissolved Nickel	Dissolved Zinc
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Discharge Criteria	3500	2	0.5	14	2	0.3	0.2	0.2	0.5	0.4
May 2020	-	-	-	-	-	-	-	-	-	-
Jun 2020	36	0.011	0.0013	13	0.024	0.0038	0.0008	0.00018	0.00061	0.0031
Jul 2020	53	0.03	0.0011	13	0.084	0.013	0.0015	0.00022	0.0009	0.0063
Aug 2020	50	0.026	0.0012	13	0.071	0.011	0.0014	0.00022	0.00085	0.0057
Sep 2020	58	0.031	0.0012	13	0.087	0.013	0.0016	0.00024	0.00098	0.0067
Oct 2020	53	0.027	0.0013	13	0.071	0.0094	0.0014	0.00023	0.00089	0.006

0.1 Denotes a value above the discharge criteria

Appendix C
Average Year Scenario
CP1 Average Monthly Dissolved Concentrations

Date	Total Dissolved Solids	Dissolved Phosphorus	Total Ammonia	Dissolved Aluminum	Dissolved Arsenic	Dissolved Copper	Dissolved Lead	Dissolved Nickel	Dissolved Zinc
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Discharge Criteria	3500	2	14	2	0.3	0.2	0.2	0.5	0.4
May 2020	1293	0.079	4.3	0.0039	0.0019	0.00084	0.00023	0.004	0.0086
Jun 2020	1198	0.093	3.8	0.042	0.012	0.0011	0.00057	0.0045	0.0093
Jul 2020	1338	0.13	4.0	0.06	0.023	0.0013	0.00072	0.0048	0.01
Aug 2020	1443	0.19	4.0	0.093	0.043	0.0015	0.00095	0.0048	0.011
Sep 2020	1291	0.24	4.0	0.11	0.057	0.0016	0.001	0.0046	0.011
Oct 2020	1101	0.26	3.7	0.12	0.066	0.0016	0.0011	0.0041	0.01
Nov 2020	1096	0.33	3.7	0.12	0.065	0.0016	0.0011	0.0041	0.01
Dec 2020	1091	0.39	3.7	0.12	0.065	0.0016	0.0011	0.004	0.01
Jan 2021	1086	0.46	3.6	0.11	0.064	0.0016	0.001	0.004	0.01
Feb 2021	1082	0.52	3.6	0.11	0.063	0.0016	0.001	0.004	0.01
Mar 2021	1078	0.59	3.6	0.11	0.063	0.0016	0.001	0.004	0.01
Apr 2021	1073	0.65	3.6	0.11	0.062	0.0016	0.001	0.0039	0.010
May 2021	1069	0.71	3.5	0.11	0.061	0.0015	0.001	0.0039	0.0099
Jun 2021	826	0.46	3.4	0.13	0.055	0.0015	0.0011	0.0033	0.0096
Jul 2021	933	0.47	3.7	0.15	0.065	0.0016	0.0013	0.0034	0.01
Aug 2021	1018	0.45	4.0	0.17	0.076	0.0017	0.0014	0.0033	0.011
Sep 2021	914	0.44	4.2	0.17	0.084	0.0018	0.0014	0.0032	0.012
Oct 2021	787	0.41	4.1	0.17	0.087	0.0017	0.0014	0.0029	0.011
Nov 2021	785	0.48	4.1	0.17	0.086	0.0017	0.0014	0.0029	0.011
Dec 2021	784	0.54	4.0	0.17	0.085	0.0017	0.0013	0.0029	0.011
Jan 2022	782	0.61	4.0	0.17	0.084	0.0017	0.0013	0.0029	0.011
Feb 2022	781	0.67	4.0	0.16	0.083	0.0017	0.0013	0.0029	0.011
Mar 2022	780	0.73	4.0	0.16	0.082	0.0017	0.0013	0.0028	0.011
Apr 2022	778	0.79	3.9	0.16	0.082	0.0017	0.0013	0.0028	0.011
May 2022	777	0.85	3.9	0.16	0.081	0.0017	0.0013	0.0028	0.011
Jun 2022	645	0.56	3.8	0.16	0.068	0.0016	0.0013	0.0026	0.01
Jul 2022	734	0.57	4.1	0.18	0.076	0.0017	0.0014	0.0028	0.011
Aug 2022	805	0.53	4.6	0.19	0.083	0.0018	0.0015	0.0028	0.012
Sep 2022	738	0.51	4.8	0.19	0.088	0.0019	0.0015	0.0028	0.012
Oct 2022	647	0.47	4.7	0.19	0.088	0.0018	0.0014	0.0027	0.011
Nov 2022	647	0.54	4.6	0.18	0.087	0.0018	0.0014	0.0026	0.011
Dec 2022	647	0.61	4.6	0.18	0.086	0.0018	0.0014	0.0026	0.011
Jan 2023	648	0.67	4.5	0.18	0.085	0.0018	0.0014	0.0026	0.011
Feb 2023	648	0.73	4.5	0.18	0.084	0.0018	0.0014	0.0026	0.011
Mar 2023	648	0.8	4.5	0.18	0.083	0.0018	0.0014	0.0026	0.011
Apr 2023	648	0.86	4.4	0.17	0.082	0.0017	0.0013	0.0026	0.011
May 2023	648	0.92	4.4	0.17	0.081	0.0017	0.0013	0.0025	0.011
Jun 2023	537	0.59	4.2	0.17	0.068	0.0016	0.0013	0.0024	0.011
Jul 2023	604	0.6	4.5	0.18	0.077	0.0018	0.0014	0.0026	0.011
Aug 2023	653	0.55	4.9	0.19	0.086	0.0018	0.0015	0.0027	0.012
Sep 2023	600	0.52	5.2	0.2	0.092	0.0019	0.0015	0.0027	0.012
Oct 2023	528	0.48	5.0	0.19	0.092	0.0018	0.0014	0.0025	0.012
Nov 2023	529	0.54	4.9	0.19	0.091	0.0018	0.0014	0.0025	0.012
Dec 2023	531	0.61	4.9	0.18	0.09	0.0018	0.0014	0.0025	0.012
Jan 2024	532	0.68	4.9	0.18	0.089	0.0018	0.0014	0.0025	0.011
Feb 2024	533	0.74	4.8	0.18	0.089	0.0018	0.0014	0.0025	0.011
Mar 2024	534	0.8	4.8	0.18	0.088	0.0018	0.0013	0.0024	0.011
Apr 2024	535	0.86	4.7	0.18	0.087	0.0018	0.0013	0.0024	0.011
May 2024	537	0.92	4.7	0.18	0.086	0.0018	0.0013	0.0024	0.011
Jun 2024	432	0.57	4.2	0.16	0.068	0.0016	0.0013	0.0023	0.01
Jul 2024	480	0.57	4.5	0.18	0.076	0.0018	0.0014	0.0024	0.011
Aug 2024	514	0.52	5.0	0.19	0.082	0.0019	0.0014	0.0025	0.011
Sep 2024	474	0.49	5.2	0.19	0.087	0.0019	0.0014	0.0025	0.011
Oct 2024	418	0.44	5.0	0.18	0.086	0.0018	0.0013	0.0024	0.01
Nov 2024	421	0.5	5.0	0.18	0.086	0.0018	0.0013	0.0024	0.01
Dec 2024	423	0.57	4.9	0.18	0.085	0.0018	0.0013	0.0024	0.01
Jan 2025	425	0.63	4.9	0.18	0.084	0.0018	0.0013	0.0024	0.01
Feb 2025	427	0.69	4.9	0.18	0.083	0.0018	0.0013	0.0024	0.010
Mar 2025	430	0.75	4.8	0.17	0.082	0.0018	0.0013	0.0023	0.0099
Apr 2025	432	0.81	4.8	0.17	0.081	0.0018	0.0012	0.0023	0.0099
May 2025	434	0.87	4.8	0.17	0.081	0.0018	0.0012	0.0023	0.0098
Jun 2025	365	0.54	4.3	0.16	0.066	0.0017	0.0012	0.0022	0.0092
Jul 2025	404	0.55	4.6	0.18	0.073	0.0018	0.0013	0.0024	0.0097
Aug 2025	431	0.5	5.0	0.19	0.079	0.0019	0.0014	0.0025	0.01
Sep 2025	401	0.47	5.2	0.19	0.083	0.0019	0.0014	0.0025	0.0099
Oct 2025	358	0.42	5.0	0.18	0.083	0.0018	0.0013	0.0024	0.0094
Nov 2025	361	0.49	5.0	0.18	0.082	0.0018	0.0013	0.0024	0.0093
Dec 2025	364	0.55	4.9	0.18	0.081	0.0018	0.0013	0.0023	0.0093
Jan 2026	367	0.62	4.9	0.18	0.08	0.0018	0.0013	0.0023	0.0093
Feb 2026	369	0.67	4.8	0.17	0.079	0.0018	0.0013	0.0023	0.0092
Mar 2026	372	0.74	4.8	0.17	0.078	0.0018	0.0012	0.0023	0.0092
Apr 2026	375	0.79	4.8	0.17	0.078	0.0018	0.0012	0.0023	0.0091
May 2026	377	0.85	4.7	0.17	0.077	0.0017	0.0012	0.0023	0.0091
Jun 2026	320	0.53	4.3	0.16	0.064	0.0016	0.0012	0.0022	0.0086
Jul 2026	351	0.53	4.6	0.17	0.071	0.0017	0.0013	0.0023	0.0091
Aug 2026	371	0.48	5.1	0.19	0.079	0.0018	0.0014	0.0024	0.0095
Sep 2026	348	0.46	5.3	0.19	0.085	0.0019	0.0013	0.0024	0.0095
Oct 2026	312	0.41	5.1	0.18	0.085	0.0018	0.0013	0.0023	0.009
Nov 2026	316	0.48	5.1	0.18	0.084	0.0018	0.0013	0.0023	0.0089
Dec 2026	319	0.54	5.0	0.18	0.083	0.0018	0.0013	0.0023	0.0089
Jan 2027	322	0.61	5.0	0.17	0.082	0.0018	0.0012	0.0023	0.0089
Feb 2027	325	0.66	5.0	0.17	0.081	0.0018	0.0012	0.0023	0.0088
Mar 2027	328	0.72	4.9	0.17	0.081	0.0017	0.0012	0.0023	0.0088
Apr 2027	331	0.78	4.9	0.17	0.08	0.0017	0.0012	0.0023	0.0087
May 2027	335	0.84	4.9	0.17	0.079	0.0017	0.0012	0.0022	0.0087
Jun 2027	291	0.53	4.4	0.16	0.066	0.0016	0.0012	0.0022	0.0084
Jul 2027	319	0.54	4.6	0.18	0.074	0.0017	0.0013	0.0023	0.009
Aug 2027	340	0.5	4.9	0.19	0.083	0.0019	0.0014	0.0025	0.0095
Sep 2027	324	0.47	5.1	0.19	0.089	0.0019	0.0014	0.0025	0.0095
Oct 2027	296	0.43	4.8	0.19	0.089	0.0018	0.0013	0.0024	0.0091
Nov 2027	299	0.5	4.7	0.18	0.088	0.0018	0.0013	0.0024	0.009
Dec 2027	303	0.57	4.7	0.18	0.087	0.0018	0.0013	0.0024	0.009
Jan 2028	307	0.63	4.7	0.18	0.087	0.0018	0.0013	0.0024	0.0089
Feb 2028	310	0.69	4.6	0.18	0.086	0.0018	0.0013	0.0023	0.0089
Mar 2028	313	0.75	4.6	0.18	0.085	0.0018	0.0013	0.0023	0.0089
Apr 2028	317	0.81	4.6	0.17	0.084	0.0018	0.0013	0.0023	0.0088
May 2028	320	0.87	4.5	0.17	0.083	0.0018	0.0012	0.0023	0.0088
Jun 2028	270	0.54	4.1	0.16	0.068	0.0017	0.0012	0.0022	0.0085
Jul 2028	293	0.55	4.4	0.18	0.076	0.0018	0.0013	0.0024	0.009
Aug 2028	310	0.51	4.7	0.19	0.085	0.0019	0.0014	0.0025	0.0095
Sep 2028	297	0.48	4.9	0.2	0.091	0.0019	0.0014	0.0025	0.0095
Oct 2028	272	0.44	4.6	0.19	0.09	0.0018	0.0013	0.0024	0.0091
Nov 2028	276	0.5	4.6	0.18	0.089	0.0018	0.0013	0.0024	0.009
Dec 2028	276	0.5	4.6	0.18	0.089	0.0018	0.0013	0.0024	0.009

0.1 Denotes a value above the discharge criteria

Appendix C
Average Year Scenario
EWTP Average Monthly Dissolved Concentrations

Date	Total Dissolved Solids	Dissolved Phosphorus	Total Ammonia	Dissolved Aluminum	Dissolved Arsenic	Dissolved Copper	Dissolved Lead	Dissolved Nickel	Dissolved Zinc
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Discharge Criteria	3500	2	14	2	0.3	0.2	0.2	0.5	0.4
May 2020	-	-	-	-	-	-	-	-	-
Jun 2020	1198	0.093	3.8	0.042	0.012	0.0011	0.00057	0.0045	0.0093
Jul 2020	1338	0.13	4.0	0.06	0.023	0.0013	0.00072	0.0048	0.01
Aug 2020	1443	0.19	4.0	0.093	0.043	0.0015	0.00095	0.0048	0.011
Sep 2020	1291	0.24	4.0	0.11	0.057	0.0016	0.001	0.0046	0.011
Oct 2020	-	-	-	-	-	-	-	-	-
Nov 2020	-	-	-	-	-	-	-	-	-
Dec 2020	-	-	-	-	-	-	-	-	-
Jan 2021	-	-	-	-	-	-	-	-	-
Feb 2021	-	-	-	-	-	-	-	-	-
Mar 2021	-	-	-	-	-	-	-	-	-
Apr 2021	-	-	-	-	-	-	-	-	-
May 2021	-	-	-	-	-	-	-	-	-
Jun 2021	826	0.46	3.4	0.13	0.055	0.0015	0.0011	0.0033	0.0096
Jul 2021	933	0.47	3.7	0.15	0.065	0.0016	0.0013	0.0034	0.01
Aug 2021	1018	0.45	4.0	0.17	0.076	0.0017	0.0014	0.0033	0.011
Sep 2021	914	0.44	4.2	0.17	0.084	0.0018	0.0014	0.0032	0.012
Oct 2021	-	-	-	-	-	-	-	-	-
Nov 2021	-	-	-	-	-	-	-	-	-
Dec 2021	-	-	-	-	-	-	-	-	-
Jan 2022	-	-	-	-	-	-	-	-	-
Feb 2022	-	-	-	-	-	-	-	-	-
Mar 2022	-	-	-	-	-	-	-	-	-
Apr 2022	-	-	-	-	-	-	-	-	-
May 2022	-	-	-	-	-	-	-	-	-
Jun 2022	645	0.56	3.8	0.16	0.068	0.0016	0.0013	0.0026	0.01
Jul 2022	734	0.57	4.1	0.18	0.076	0.0017	0.0014	0.0028	0.011
Aug 2022	805	0.53	4.6	0.19	0.083	0.0018	0.0015	0.0028	0.012
Sep 2022	738	0.51	4.8	0.19	0.088	0.0019	0.0015	0.0028	0.012
Oct 2022	-	-	-	-	-	-	-	-	-
Nov 2022	-	-	-	-	-	-	-	-	-
Dec 2022	-	-	-	-	-	-	-	-	-
Jan 2023	-	-	-	-	-	-	-	-	-
Feb 2023	-	-	-	-	-	-	-	-	-
Mar 2023	-	-	-	-	-	-	-	-	-
Apr 2023	-	-	-	-	-	-	-	-	-
May 2023	-	-	-	-	-	-	-	-	-
Jun 2023	537	0.59	4.2	0.17	0.068	0.0016	0.0013	0.0024	0.011
Jul 2023	604	0.6	4.5	0.18	0.077	0.0018	0.0014	0.0026	0.011
Aug 2023	653	0.55	4.9	0.19	0.086	0.0018	0.0015	0.0027	0.012
Sep 2023	600	0.52	5.2	0.2	0.092	0.0019	0.0015	0.0027	0.012
Oct 2023	-	-	-	-	-	-	-	-	-
Nov 2023	-	-	-	-	-	-	-	-	-
Dec 2023	-	-	-	-	-	-	-	-	-
Jan 2024	-	-	-	-	-	-	-	-	-
Feb 2024	-	-	-	-	-	-	-	-	-
Mar 2024	-	-	-	-	-	-	-	-	-
Apr 2024	-	-	-	-	-	-	-	-	-
May 2024	-	-	-	-	-	-	-	-	-
Jun 2024	432	0.57	4.2	0.16	0.068	0.0016	0.0013	0.0023	0.01
Jul 2024	480	0.57	4.5	0.18	0.076	0.0018	0.0014	0.0024	0.011
Aug 2024	514	0.52	5.0	0.19	0.082	0.0019	0.0014	0.0025	0.011
Sep 2024	474	0.49	5.2	0.19	0.087	0.0019	0.0014	0.0025	0.011
Oct 2024	-	-	-	-	-	-	-	-	-
Nov 2024	-	-	-	-	-	-	-	-	-
Dec 2024	-	-	-	-	-	-	-	-	-
Jan 2025	-	-	-	-	-	-	-	-	-
Feb 2025	-	-	-	-	-	-	-	-	-
Mar 2025	-	-	-	-	-	-	-	-	-
Apr 2025	-	-	-	-	-	-	-	-	-
May 2025	-	-	-	-	-	-	-	-	-
Jun 2025	365	0.54	4.3	0.16	0.066	0.0017	0.0012	0.0022	0.0092
Jul 2025	404	0.55	4.6	0.18	0.073	0.0018	0.0013	0.0024	0.0097
Aug 2025	431	0.5	5.0	0.19	0.079	0.0019	0.0014	0.0025	0.01
Sep 2025	401	0.47	5.2	0.19	0.083	0.0019	0.0014	0.0025	0.0099
Oct 2025	-	-	-	-	-	-	-	-	-
Nov 2025	-	-	-	-	-	-	-	-	-
Dec 2025	-	-	-	-	-	-	-	-	-
Jan 2026	-	-	-	-	-	-	-	-	-
Feb 2026	-	-	-	-	-	-	-	-	-
Mar 2026	-	-	-	-	-	-	-	-	-
Apr 2026	-	-	-	-	-	-	-	-	-
May 2026	-	-	-	-	-	-	-	-	-
Jun 2026	320	0.53	4.3	0.16	0.064	0.0016	0.0012	0.0022	0.0086
Jul 2026	351	0.53	4.6	0.17	0.071	0.0017	0.0013	0.0023	0.0091
Aug 2026	371	0.48	5.1	0.19	0.079	0.0018	0.0014	0.0024	0.0095
Sep 2026	348	0.46	5.3	0.19	0.085	0.0019	0.0013	0.0024	0.0095
Oct 2026	-	-	-	-	-	-	-	-	-
Nov 2026	-	-	-	-	-	-	-	-	-
Dec 2026	-	-	-	-	-	-	-	-	-
Jan 2027	-	-	-	-	-	-	-	-	-
Feb 2027	-	-	-	-	-	-	-	-	-
Mar 2027	-	-	-	-	-	-	-	-	-
Apr 2027	-	-	-	-	-	-	-	-	-
May 2027	-	-	-	-	-	-	-	-	-
Jun 2027	291	0.53	4.4	0.16	0.066	0.0016	0.0012	0.0022	0.0084
Jul 2027	319	0.54	4.6	0.18	0.074	0.0017	0.0013	0.0023	0.009
Aug 2027	340	0.5	4.9	0.19	0.083	0.0019	0.0014	0.0025	0.0095
Sep 2027	324	0.47	5.1	0.19	0.089	0.0019	0.0014	0.0025	0.0095
Oct 2027	-	-	-	-	-	-	-	-	-
Nov 2027	-	-	-	-	-	-	-	-	-
Dec 2027	-	-	-	-	-	-	-	-	-
Jan 2028	-	-	-	-	-	-	-	-	-
Feb 2028	-	-	-	-	-	-	-	-	-
Mar 2028	-	-	-	-	-	-	-	-	-
Apr 2028	-	-	-	-	-	-	-	-	-
May 2028	-	-	-	-	-	-	-	-	-
Jun 2028	270	0.54	4.1	0.16	0.068	0.0017	0.0012	0.0022	0.0085
Jul 2028	293	0.55	4.4	0.18	0.076	0.0018	0.0013	0.0024	0.009
Aug 2028	310	0.51	4.7	0.19	0.085	0.0019	0.0014	0.0025	0.0095
Sep 2028	297	0.48	4.9	0.2	0.091	0.0019	0.0014	0.0025	0.0095
Oct 2028	-	-	-	-	-	-	-	-	-
Nov 2028	-	-	-	-	-	-	-	-	-
Dec 2028	-	-	-	-	-	-	-	-	-

0.1 Denotes a value above the discharge criteria

Appendix C
Average Year Scenario
EWTP Average Monthly Total Concentrations

Date	Total Dissolved Solids	Total Phosphorus	Total Ammonia	Total Aluminum	Total Arsenic	Total Copper	Total Lead	Total Nickel	Total Zinc
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Discharge Criteria	3500	2	14	2	0.3	0.2	0.2	0.5	0.4
May 2020	-	-	-	-	-	-	-	-	-
Jun 2020	1198	0.16	3.8	0.26	0.013	0.0016	0.00057	0.0045	0.029
Jul 2020	1338	0.2	4.0	0.28	0.024	0.0017	0.00072	0.0048	0.03
Aug 2020	1443	0.26	4.0	0.32	0.044	0.0019	0.00095	0.0048	0.031
Sep 2020	1291	0.3	4.0	0.33	0.058	0.002	0.001	0.0046	0.031
Oct 2020	-	-	-	-	-	-	-	-	-
Nov 2020	-	-	-	-	-	-	-	-	-
Dec 2020	-	-	-	-	-	-	-	-	-
Jan 2021	-	-	-	-	-	-	-	-	-
Feb 2021	-	-	-	-	-	-	-	-	-
Mar 2021	-	-	-	-	-	-	-	-	-
Apr 2021	-	-	-	-	-	-	-	-	-
May 2021	-	-	-	-	-	-	-	-	-
Jun 2021	826	0.52	3.4	0.35	0.056	0.0019	0.0011	0.0033	0.03
Jul 2021	933	0.54	3.7	0.37	0.066	0.002	0.0013	0.0034	0.031
Aug 2021	1018	0.51	4.0	0.39	0.077	0.0021	0.0014	0.0033	0.031
Sep 2021	914	0.5	4.2	0.4	0.085	0.0022	0.0014	0.0032	0.032
Oct 2021	-	-	-	-	-	-	-	-	-
Nov 2021	-	-	-	-	-	-	-	-	-
Dec 2021	-	-	-	-	-	-	-	-	-
Jan 2022	-	-	-	-	-	-	-	-	-
Feb 2022	-	-	-	-	-	-	-	-	-
Mar 2022	-	-	-	-	-	-	-	-	-
Apr 2022	-	-	-	-	-	-	-	-	-
May 2022	-	-	-	-	-	-	-	-	-
Jun 2022	645	0.63	3.8	0.38	0.069	0.002	0.0013	0.0026	0.03
Jul 2022	734	0.63	4.1	0.4	0.077	0.0021	0.0014	0.0028	0.031
Aug 2022	805	0.6	4.6	0.41	0.084	0.0022	0.0015	0.0028	0.032
Sep 2022	738	0.57	4.8	0.42	0.089	0.0023	0.0015	0.0028	0.032
Oct 2022	-	-	-	-	-	-	-	-	-
Nov 2022	-	-	-	-	-	-	-	-	-
Dec 2022	-	-	-	-	-	-	-	-	-
Jan 2023	-	-	-	-	-	-	-	-	-
Feb 2023	-	-	-	-	-	-	-	-	-
Mar 2023	-	-	-	-	-	-	-	-	-
Apr 2023	-	-	-	-	-	-	-	-	-
May 2023	-	-	-	-	-	-	-	-	-
Jun 2023	537	0.66	4.2	0.39	0.069	0.0021	0.0013	0.0024	0.031
Jul 2023	604	0.66	4.5	0.4	0.078	0.0022	0.0014	0.0026	0.031
Aug 2023	653	0.61	4.9	0.42	0.087	0.0023	0.0015	0.0027	0.032
Sep 2023	600	0.59	5.2	0.42	0.093	0.0023	0.0015	0.0027	0.032
Oct 2023	-	-	-	-	-	-	-	-	-
Nov 2023	-	-	-	-	-	-	-	-	-
Dec 2023	-	-	-	-	-	-	-	-	-
Jan 2024	-	-	-	-	-	-	-	-	-
Feb 2024	-	-	-	-	-	-	-	-	-
Mar 2024	-	-	-	-	-	-	-	-	-
Apr 2024	-	-	-	-	-	-	-	-	-
May 2024	-	-	-	-	-	-	-	-	-
Jun 2024	432	0.63	4.2	0.39	0.069	0.0021	0.0013	0.0023	0.03
Jul 2024	480	0.63	4.5	0.4	0.077	0.0022	0.0014	0.0024	0.031
Aug 2024	514	0.58	5.0	0.41	0.083	0.0023	0.0014	0.0025	0.031
Sep 2024	474	0.55	5.2	0.42	0.088	0.0023	0.0014	0.0025	0.031
Oct 2024	-	-	-	-	-	-	-	-	-
Nov 2024	-	-	-	-	-	-	-	-	-
Dec 2024	-	-	-	-	-	-	-	-	-
Jan 2025	-	-	-	-	-	-	-	-	-
Feb 2025	-	-	-	-	-	-	-	-	-
Mar 2025	-	-	-	-	-	-	-	-	-
Apr 2025	-	-	-	-	-	-	-	-	-
May 2025	-	-	-	-	-	-	-	-	-
Jun 2025	365	0.61	4.3	0.39	0.067	0.0021	0.0012	0.0022	0.029
Jul 2025	404	0.61	4.6	0.4	0.074	0.0022	0.0013	0.0024	0.03
Aug 2025	431	0.56	5.0	0.41	0.08	0.0023	0.0014	0.0025	0.03
Sep 2025	401	0.53	5.2	0.41	0.084	0.0023	0.0014	0.0025	0.03
Oct 2025	-	-	-	-	-	-	-	-	-
Nov 2025	-	-	-	-	-	-	-	-	-
Dec 2025	-	-	-	-	-	-	-	-	-
Jan 2026	-	-	-	-	-	-	-	-	-
Feb 2026	-	-	-	-	-	-	-	-	-
Mar 2026	-	-	-	-	-	-	-	-	-
Apr 2026	-	-	-	-	-	-	-	-	-
May 2026	-	-	-	-	-	-	-	-	-
Jun 2026	320	0.59	4.3	0.38	0.065	0.002	0.0012	0.0022	0.029
Jul 2026	351	0.59	4.6	0.4	0.072	0.0021	0.0013	0.0023	0.029
Aug 2026	371	0.55	5.1	0.41	0.08	0.0022	0.0014	0.0024	0.03
Sep 2026	348	0.52	5.3	0.41	0.086	0.0023	0.0013	0.0024	0.03
Oct 2026	-	-	-	-	-	-	-	-	-
Nov 2026	-	-	-	-	-	-	-	-	-
Dec 2026	-	-	-	-	-	-	-	-	-
Jan 2027	-	-	-	-	-	-	-	-	-
Feb 2027	-	-	-	-	-	-	-	-	-
Mar 2027	-	-	-	-	-	-	-	-	-
Apr 2027	-	-	-	-	-	-	-	-	-
May 2027	-	-	-	-	-	-	-	-	-
Jun 2027	291	0.59	4.4	0.38	0.067	0.002	0.0012	0.0022	0.029
Jul 2027	319	0.6	4.6	0.4	0.075	0.0021	0.0013	0.0023	0.029
Aug 2027	340	0.56	4.9	0.41	0.084	0.0023	0.0014	0.0025	0.03
Sep 2027	324	0.54	5.1	0.42	0.09	0.0023	0.0014	0.0025	0.03
Oct 2027	-	-	-	-	-	-	-	-	-
Nov 2027	-	-	-	-	-	-	-	-	-
Dec 2027	-	-	-	-	-	-	-	-	-
Jan 2028	-	-	-	-	-	-	-	-	-
Feb 2028	-	-	-	-	-	-	-	-	-
Mar 2028	-	-	-	-	-	-	-	-	-
Apr 2028	-	-	-	-	-	-	-	-	-
May 2028	-	-	-	-	-	-	-	-	-
Jun 2028	270	0.61	4.1	0.39	0.069	0.0021	0.0012	0.0022	0.029
Jul 2028	293	0.61	4.4	0.4	0.077	0.0022	0.0013	0.0024	0.029
Aug 2028	310	0.57	4.7	0.41	0.086	0.0023	0.0014	0.0025	0.03
Sep 2028	297	0.55	4.9	0.42	0.092	0.0023	0.0014	0.0025	0.03
Oct 2028	-	-	-	-	-	-	-	-	-
Nov 2028	-	-	-	-	-	-	-	-	-
Dec 2028	-	-	-	-	-	-	-	-	-

0.1 Denotes a value above the discharge criteria

APPENDIX D

**Tabulated Water Balance Results,
Wet Years Scenario**

Water Balance for TSF

Date	Inflow		Outflow					
			The Portion to CP1			The Portion to CP3		
	Total Surface Runoff Water from TSF	Estimated Volume of Seepage through Tailings	TSF Tailings Surface Runoff Collected in CP1	TSF Waste Rock Cover Runoff Water Collected in CP1	Seepage Water through Tailings into CP1	TSF Tailings Surface Runoff Collected in CP3	TSF Waste Rock Cover Runoff Water Collected in CP3	Seepage Water through Tailings into CP3
	m ³	m ³	m ³	m ³	m ³	m ³	m ³	m ³
May-20	0	0	0	0	0	0	0	0
Jun-20	60039	178	10405	21832	113	5970	21832	65
Jul-20	19777	178	3427	7192	113	1966	7192	65
Aug-20	21548	178	3734	7836	113	2143	7836	65
Sep-20	16115	178	2793	5860	113	1602	5860	65
Oct-20	16183	178	2804	5885	113	1609	5885	65
Nov-20	0	0	0	0	0	0	0	0
Dec-20	0	0	0	0	0	0	0	0
Jan-21	0	0	0	0	0	0	0	0
Feb-21	0	0	0	0	0	0	0	0
Mar-21	0	0	0	0	0	0	0	0
Apr-21	0	0	0	0	0	0	0	0
May-21	0	0	0	0	0	0	0	0
Jun-21	40112	178	6951	14586	113	3988	14586	65
Jul-21	13214	178	2290	4805	113	1314	4805	65
Aug-21	14396	178	2495	5235	113	1431	5235	65
Sep-21	10767	178	1866	3915	113	1071	3915	65
Oct-21	10812	178	1874	3932	113	1075	3932	65
Nov-21	0	0	0	0	0	0	0	0
Dec-21	0	0	0	0	0	0	0	0
Jan-22	0	0	0	0	0	0	0	0
Feb-22	0	0	0	0	0	0	0	0
Mar-22	0	0	0	0	0	0	0	0
Apr-22	0	0	0	0	0	0	0	0
May-22	0	0	0	0	0	0	0	0
Jun-22	40112	178	6951	14586	113	3988	14586	65
Jul-22	13214	178	2290	4805	113	1314	4805	65
Aug-22	14396	178	2495	5235	113	1431	5235	65
Sep-22	10767	178	1866	3915	113	1071	3915	65
Oct-22	10812	178	1874	3932	113	1075	3932	65
Nov-22	0	0	0	0	0	0	0	0
Dec-22	0	0	0	0	0	0	0	0
Jan-23	0	0	0	0	0	0	0	0
Feb-23	0	0	0	0	0	0	0	0
Mar-23	0	0	0	0	0	0	0	0
Apr-23	0	0	0	0	0	0	0	0
May-23	0	0	0	0	0	0	0	0
Jun-23	40112	178	6951	14586	113	3988	14586	65
Jul-23	13214	178	2290	4805	113	1314	4805	65
Aug-23	14396	178	2495	5235	113	1431	5235	65
Sep-23	10767	178	1866	3915	113	1071	3915	65

Water Collection from WRSF's

Date	WRSF-1				Temporary WRSF		WRSF-3		
	Total Water to be Collected	Portion of the Water to be Collected in CP5 (Lake A54)	Portion of the Water to be Collected in CP1 (Lake H17)	Portion of the Water to be Collected in CP4	Total Water to be Collected	Portion of the Water to be Collected in Tiri-1000-02	Total Water to be Collected	Portion of the Water to be Collected in CP6	Portion of the Water to be Collected in CP2
	m ³	m ³	m ³	m ³	m ³	m ³	m ³	m ³	m ³
May-20	0	0	0	0	0	0	0	0	0
Jun-20	1614	210	613	791	110	0	4187	4187	0
Jul-20	24	3	9	12	2	0	62	62	0
Aug-20	32	4	12	16	2	0	82	82	0
Sep-20	9	1	4	5	1	0	24	24	0
Oct-20	0	0	0	0	0	0	0	0	0
Nov-20	0	0	0	0	0	0	0	0	0
Dec-20	0	0	0	0	0	0	0	0	0
Jan-21	0	0	0	0	0	0	0	0	0
Feb-21	0	0	0	0	0	0	0	0	0
Mar-21	0	0	0	0	0	0	0	0	0
Apr-21	0	0	0	0	0	0	0	0	0
May-21	0	0	0	0	0	0	0	0	0
Jun-21	1942	252	738	952	74	0	2797	2797	0
Jul-21	29	4	11	14	1	0	42	42	0
Aug-21	38	5	15	19	1	0	55	55	0
Sep-21	11	1	4	5	0	0	16	16	0
Oct-21	0	0	0	0	0	0	0	0	0
Nov-21	0	0	0	0	0	0	0	0	0
Dec-21	0	0	0	0	0	0	0	0	0
Jan-22	0	0	0	0	0	0	0	0	0
Feb-22	0	0	0	0	0	0	0	0	0
Mar-22	0	0	0	0	0	0	0	0	0
Apr-22	0	0	0	0	0	0	0	0	0
May-22	0	0	0	0	0	0	0	0	0
Jun-22	2806	365	1066	1375	74	0	2797	2797	0
Jul-22	42	5	16	20	1	0	42	42	0
Aug-22	55	7	21	27	1	0	55	55	0
Sep-22	16	2	6	8	0	0	16	16	0
Oct-22	0	0	0	0	0	0	0	0	0
Nov-22	0	0	0	0	0	0	0	0	0
Dec-22	0	0	0	0	0	0	0	0	0
Jan-23	0	0	0	0	0	0	0	0	0
Feb-23	0	0	0	0	0	0	0	0	0
Mar-23	0	0	0	0	0	0	0	0	0
Apr-23	0	0	0	0	0	0	0	0	0
May-23	0	0	0	0	0	0	0	0	0
Jun-23	2806	365	1066	1375	74	0	2797	2797	0
Jul-23	42	5	16	20	1	0	42	42	0
Aug-23	55	7	21	27	1	0	55	55	0
Sep-23	16	2	6	8	0	0	16	16	0

Water Collection from Ore Stockpiles

Date	OP2		OP2-Extn.	
	Total Water to be Collected	Portion of the Water to be Collected in CP5 (Lake A54)	Total Water to be Collected	Portion of the Water to be Collected in Tiri-1000-02
	m ³	m ³	m ³	m ³
May-20	0	0	0	0
Jun-20	1374	1374	0	0
Jul-20	20	20	0	0
Aug-20	27	27	0	0
Sep-20	8	8	0	0
Oct-20	0	0	0	0
Nov-20	0	0	0	0
Dec-20	0	0	0	0
Jan-21	0	0	0	0
Feb-21	0	0	0	0
Mar-21	0	0	0	0
Apr-21	0	0	0	0
May-21	0	0	0	0
Jun-21	918	918	0	0
Jul-21	14	14	0	0
Aug-21	18	18	0	0
Sep-21	5	5	0	0
Oct-21	0	0	0	0
Nov-21	0	0	0	0
Dec-21	0	0	0	0
Jan-22	0	0	0	0
Feb-22	0	0	0	0
Mar-22	0	0	0	0
Apr-22	0	0	0	0
May-22	0	0	0	0
Jun-22	918	918	561	561
Jul-22	14	14	8	8
Aug-22	18	18	11	11
Sep-22	5	5	3	3
Oct-22	0	0	0	0
Nov-22	0	0	0	0
Dec-22	0	0	0	0
Jan-23	0	0	0	0
Feb-23	0	0	0	0
Mar-23	0	0	0	0
Apr-23	0	0	0	0
May-23	0	0	0	0
Jun-23	918	918	561	561
Jul-23	14	14	8	8
Aug-23	18	18	11	11
Sep-23	5	5	3	3

Water Collection from Ore Stockpiles

Date	OP2		OP2-Extn.	
	Total Water to be Collected	Portion of the Water to be Collected in CP5 (Lake A54)	Total Water to be Collected	Portion of the Water to be Collected in Tiri-1000-02
	m ³	m ³	m ³	m ³
Oct-23	0	0	0	0
Nov-23	0	0	0	0
Dec-23	0	0	0	0
Jan-24	0	0	0	0
Feb-24	0	0	0	0
Mar-24	0	0	0	0
Apr-24	0	0	0	0
May-24	0	0	0	0
Jun-24	918	918	561	561
Jul-24	14	14	8	8
Aug-24	18	18	11	11
Sep-24	5	5	3	3
Oct-24	0	0	0	0
Nov-24	0	0	0	0
Dec-24	0	0	0	0
Jan-25	0	0	0	0
Feb-25	0	0	0	0
Mar-25	0	0	0	0
Apr-25	0	0	0	0
May-25	0	0	0	0
Jun-25	1374	1374	840	840
Jul-25	20	20	12	12
Aug-25	27	27	17	17
Sep-25	8	8	5	5
Oct-25	0	0	0	0
Nov-25	0	0	0	0
Dec-25	0	0	0	0
Jan-26	0	0	0	0
Feb-26	0	0	0	0
Mar-26	0	0	0	0
Apr-26	0	0	0	0
May-26	0	0	0	0
Jun-26	918	918	561	561
Jul-26	14	14	8	8
Aug-26	18	18	11	11
Sep-26	5	5	3	3
Oct-26	0	0	0	0
Nov-26	0	0	0	0
Dec-26	0	0	0	0
Jan-27	0	0	0	0
Feb-27	0	0	0	0

Water Collection from Ore Stockpiles

Date	OP2		OP2-Extn.	
	Total Water to be Collected	Portion of the Water to be Collected in CP5 (Lake A54)	Total Water to be Collected	Portion of the Water to be Collected in Tiri-1000-02
	m ³	m ³	m ³	m ³
Mar-27	0	0	0	0
Apr-27	0	0	0	0
May-27	0	0	0	0
Jun-27	918	918	561	561
Jul-27	14	14	8	8
Aug-27	18	18	11	11
Sep-27	5	5	3	3
Oct-27	0	0	0	0
Nov-27	0	0	0	0
Dec-27	0	0	0	0
Jan-28	0	0	0	0
Feb-28	0	0	0	0
Mar-28	0	0	0	0
Apr-28	0	0	0	0
May-28	0	0	0	0
Jun-28	918	918	561	561
Jul-28	14	14	8	8
Aug-28	18	18	11	11
Sep-28	5	5	3	3
Oct-28	0	0	0	0
Nov-28	0	0	0	0
Dec-28	0	0	0	0

Water Balance for Open Pits

Date	Tiri-1						Tiri-2										
	Inflow			Outflow		Storage	Inflow					Outflow					Storage
	Net Runoff/Run on Water from Water Surface	Net Runoff/Run on Water from Natural Ground with Vegetation	Net Runoff/Run on Water from Other Disturbed Ground Surface	Water Pumped to CP5 and transfer to CP1	Water lost to WRF/Ore	Water Stored in Open Pit	Net Runoff/Run on Water from Water Surface	Net Runoff/Run on Water from Natural Ground with Vegetation	Net Runoff/Run on Water from Other Disturbed Ground Surface	Net runoff from Temporary WRSF	Inflow from UG	Water Pumped to CP5	Water Lost to WRSF and Ore	To SP-1	Water Pumped to SETP	Water through Bypass	Water Stored in Open Pit
	m ³	m ³	m ³	m ³	m ³	m ³	m ³	m ³	m ³	m ³	m ³	m ³	m ³	m ³	m ³	m ³	m ³
May-20							0	0	0	0	0	0	0	0	0	0	0
Jun-20								15900	11721		110	0	7160	20571	0	0	0
Jul-20								3389	3861		2	0	4680	2571	0	0	0
Aug-20								4484	4207		2	0	6121	2571	0	0	0
Sep-20								3912	3146		1	0	4487	2571	0	0	0
Oct-20								4286	3159		0	0	4874	2571	0	0	0
Nov-20								0	0		0	0	0	0	0	0	0
Dec-20								0	0		0	0	0	0	0	0	0
Jan-21	0	0	0		0	0	0	0	0		0	17521	0	0	0	0	17521
Feb-21	0	0	0		0	0	0	0	0		0	15631	0	0	0	0	33152
Mar-21	0	0	0		0	0	0	0	0		0	17521	0	0	0	0	50673
Apr-21	0	0	0		0	0	0	0	0		0	17491	0	0	0	0	68164
May-21	0	0	0		0	0	0	0	0		0	18141	0	0	0	0	86305
Jun-21	0	5972	23860		28376	0	455	10623	7024	74	17491	0	2795	0	0	0	119176
Jul-21	0	1273	7860		8951	0	-684	2264	2273	1	19071	0	349	0	0	0	141752
Aug-21	0	1684	8563		10065	0	-279	2995	2420	1	19071	0	349	0	0	0	165612
Sep-21	0	1469	6404		7692	0	89	2614	1746	0	0	0	349	0	0	0	169711
Oct-21	0	1610	6431		7859	0	734	2863	1707	0	0	0	349	0	0	0	174666
Nov-21	0	0	0		0	0	0	0	0	0	18991	0	0	0	0	0	193657
Dec-21	0	0	0		0	0	0	0	0	0	19691	0	0	0	0	0	213348
Jan-22	0	0	0		0	0	0	0	0	0	21232	0	0	0	0	0	234579
Feb-22	0	0	0		0	0	0	0	0	0	18982	0	0	0	0	0	253561
Mar-22	0	0	0		0	0	0	0	0	0	21232	0	0	0	0	0	274793
Apr-22	0	0	0		0	0	0	0	0	0	20482	0	0	0	0	0	295274
May-22	0	0	0		0	0	0	0	0	0	21232	0	0	0	0	0	316506
Jun-22	0	5972	23860		7550	0	1074	10623	5925	74	20482	0	3510	0	0	0	351173
Jul-22	0	1273	7860		6348	0	-1454	2264	1929	1	0	0	439	0	0	15851	337624
Aug-22	0	1684	8563		7462	0	-512	2995	2093	1	0	0	439	0	69841	93000	178921
Sep-22	0	1469	6404		5088	0	118	2614	1629	0	22282	0	439	0	88861	90000	26264
Oct-22	0	1610	6431		5256	0	505	2863	1833	0	23092	0	439	0	0	0	54117
Nov-22	0	0	0		0	0	0	0	0	0	22282	0	0	0	0	0	76399
Dec-22	0	0	0		0	0	0	0	0	0	23092	0	0	0	0	0	99490
Jan-23	0	0	0		0	0	0	0	0	0	24016	0	0	0	0	0	123507
Feb-23	0	0	0		0	0	0	0	0	0	21496	0	0	0	0	0	145003
Mar-23	0	0	0		0	0	0	0	0	0	24016	0	0	0	0	0	169019
Apr-23	0	0	0		0	0	0	0	0	0	23176	0	0	0	0	0	192195
May-23	0	0	0		0	0	0	0	0	0	24016	0	0	0	0	0	216211
Jun-23	0	5972	30356		14000	0	917	10623	6204	74	23176	0	0	39573	45000	172632	
Jul-23	0	1273	10000		8482	0	-1173	2264	2055	1	24016	0	0	93662	93000	13134	
Aug-23	0	1684	10894		9787	0	-244	2995	2469	1	24016	0	0	42372	0	0	0
Sep-23	0	1469	8148		6826	0	0	2614	2051	0	23176	0	19940	7901	0	0	0
Oct-23	0	1610	8182		7001	0	0	2863	2111	0	24016	0	0	0	0	0	28990
Nov-23	0	0	0		0	0	0	0	0	0	23176	0	0	0	0	0	52166
Dec-23	0	0	0		0	0	0	0	0	0	24016	0	0	0	0	0	76182
Jan-24	0	0	0		0	0	0	0	0	0	24319	0	0	0	0	0	100501
Feb-24	0	0	0		0	0	0	0	0	0	22619	0	0	0	0	0	123120
Mar-24	0	0	0		0	0	0	0	0	0	24319	0	0	0	0	0	147438
Apr-24	0	0	0		0	0	0	0	0	0	23469	0	0	0	0	0	170907
May-24	0	0	0		0	0	0	0	0	0	24319	0	0	0	0	0	195225
Jun-24	0	5972	30356		0	0	876	10623	6276	74	23469	0	0	44052	45000	147490	
Jul-24	0	1273	10000		5149	0	-1037	2264	2116	1	24319	0	0	93662	81490	0	
Aug-24	0	1684	10894		6455	0	0	2995	2592	1	24319	0	0	29907	0	0	0
Sep-24	0	1469	8148		3494	0	0	2614	2102	0	23469	0	19940	8245	0	0	0
Oct-24	0	1610	8182		3668	0	0	2863	2111	0	24319	0	0	0	0	0	29292
Nov-24	0	0	0		0	0	0	0	0	0	23469	0	0	0	0	0	52761
Dec-24	0	0	0		0	0	0	0	0	0	24319	0	0	0	0	0	77079
Jan-25	0	0	0		0	0	0	0	0	0	27061	0	0	0	0	0	104141
Feb-25	0	0	0		0	0	0	0	0	0	24271	0	0	0	0	0	128412
Mar-25	0	0	0		0	0	0	0	0	0	27061	0	0	0	0	0	155474
Apr-25	0	0	0		0	0	0	0	0	0	26131	0	0	0	0	0	181605
May-25	0	0	0		0	0	0	0	0	0	27061	0	0	0	0	0	208667
Jun-25	0	8939	45436		12591	0	1347	15900	9331	0	26131	0	0	43801	45000	172575	
Jul-25	0	1905	14967		11649	0	-1742	3389	3082	0	27061	0	0	93991	93000	17374	
Aug-25	0	2521	16307		13604	0	-374	4484	3683	0	27061	0	0	52229	0	0	0
Sep-25	0	2199	12195		9171	0	0	3912	3060	0	26131	0	19910	13193	0	0	0
Oct-25	0	2409	12247		9433	0	0	4286	3159	0	27061	0	0	0	0	0	34506
Nov-25	0	0	0		0	0	0	0	0	0	26131	0	0	0	0	0	60638
Dec-25	0	0	0		0	0	0	0	0	0	27061	0	0	0	0	0	87699
Jan-26	0	0	0		0	0	0	0	0	0	27822	0	0	0	0	0	115521
Feb-26	0	0	0		0	0	0	0	0	0	24972	0	0	0	0	0	140493
Mar-26	0	0	0		0	0	0	0	0	0	27822	0	0	0	0	0	168315
Apr-26	0	0	0		0	0	0	0	0	0	26872	0	0	0	0	0	195188
May-26	0	0	0		0	0	0	0	0	0	27822	0	0	0	0	0	223010
Jun-26	0	5972	30356		9,231	0	925	10623	6189	0	26872	0	0	43834	45000	178785	
Jul-26	0	1273	10000		7,886	0	-1189	2264	2048	0	27822	0	0	93662	93000	23068	
Aug-26	0	1684	10894		9,191	0	-261	2995	2445	0	27822	0	0	56070	0	0	0
Sep-26	0	1469	8148		6,230	0	0	2614	2036	0	26872	0	19940	11582	0	0	0
Oct-26	0	1610	8182		6,405	0	0	2863	2111	0	27822	0	0	0	0	0	32796
Nov-26	0	0	0		0	0	0	0	0	0	26872	0	0	0	0	0	59668

Dec-26	0	0	0	0	0	0	0	0	0	27822	0	0	0	0	87490
Jan-27	0	0	0	0	0	0	0	0	0	26040	0	0	0	0	113530
Feb-27	0	0	0	0	0	0	0	0	0	23520	0	0	0	0	137050
Mar-27	0	0	0	0	0	0	0	0	0	26040	0	0	0	0	163090
Apr-27	0	0	0	0	0	0	0	0	0	25200	0	0	0	0	188290
May-27	0	0	0	0	0	0	0	0	0	26040	0	0	0	0	214330
Jun-27	0	5972	30356	36,328	912	10623	6213	0	25200	0	0	44052	45000	168225	
Jul-27	-200	1273	9910	47,311	-1164	2264	2059	0	26040	0	0	93662	93000	10762	
Aug-27	-204	1684	10609	59,400	-239	2995	2475	0	26040	0	0	42034	0	0	
Sep-27	90	1469	7788	68,747	0	2614	2053	0	25200	0	19940	9927	0	0	
Oct-27	859	1610	7710	78,925	0	2863	2111	0	26040	0	0	0	0	31014	
Nov-27	0	0	0	78,925	0	0	0	0	25200	0	0	0	0	56214	
Dec-27	0	0	0	78,925	0	0	0	0	26040	0	0	0	0	82254	
Jan-28	0	0	0	78,925	0	0	0	0	26970	0	0	0	0	109224	
Feb-28	0	0	0	78,925	0	0	0	0	25230	0	0	0	0	134454	
Mar-28	0	0	0	78,925	0	0	0	0	26970	0	0	0	0	161424	
Apr-28	0	0	0	78,925	0	0	0	0	26100	0	0	0	0	187524	
May-28	0	0	0	78,925	0	0	0	0	26970	0	0	0	0	214494	
Jun-28	2380	5972	26133	113,411	911	10623	6214	0	26100	0	0	0	0	258342	
Jul-28	-3247	1273	8547	119,984	-1270	2264	2011	0	26970	0	0	0	0	288318	
Aug-28	-1196	1684	9220	129,692	-468	2995	2155	0	26970	0	0	0	0	319970	
Sep-28	337	1469	6800	138,299	128	2614	1591	0	26100	0	19885	0	0	330518	
Oct-28	2893	1610	6591	149,392	957	2863	1584	0	26970	0	0	0	0	362892	
Nov-28	0	0	0	149,392	0	0	0	0	26100	0	0	0	0	388992	
Dec-28	0	0	0	149,392	0	0	0	0	26970	0	0	0	0	415962	

Water Balance for CP3					
Date	Inflow				Outflow
	Net Runoff/Run on Water from Pond Surface	Net Runoff/Run on Water from Natural Ground with Vegetation	Net Runoff/Run on Water from Other Disturbed Ground Surface	Net Runoff/Seepage Water from a Portion of TSP to CP3	Water Pumped from CP3 to Site Area Ditch, then Flowing into CP1
	m ³	m ³	m ³	m ³	m ³
May-20	0	0	0	0	0
Jun-20	386	11759	0	27867	40012
Jul-20	-504	2506	0	9223	11226
Aug-20	-175	3316	0	10043	13184
Sep-20	46	2893	0	7527	10466
Oct-20	335	3170	0	7559	11064
Nov-20	0	0	0	0	0
Dec-20	0	0	0	0	0
Jan-21	0	0	0	0	0
Feb-21	0	0	0	0	0
Mar-21	0	0	0	0	0
Apr-21	0	0	0	0	0
May-21	0	0	0	0	0
Jun-21	258	7856	0	18640	26754
Jul-21	-337	1675	0	6184	7522
Aug-21	-117	2215	0	6731	8829
Sep-21	31	1933	0	5051	7014
Oct-21	224	2118	0	5072	7413
Nov-21	0	0	0	0	0
Dec-21	0	0	0	0	0
Jan-22	0	0	0	0	0
Feb-22	0	0	0	0	0
Mar-22	0	0	0	0	0
Apr-22	0	0	0	0	0
May-22	0	0	0	0	0
Jun-22	258	7856	0	18640	26754
Jul-22	-337	1675	0	6184	7522
Aug-22	-117	2215	0	6731	8829
Sep-22	31	1933	0	5051	7014
Oct-22	224	2118	0	5072	7413
Nov-22	0	0	0	0	0
Dec-22	0	0	0	0	0
Jan-23	0	0	0	0	0
Feb-23	0	0	0	0	0
Mar-23	0	0	0	0	0
Apr-23	0	0	0	0	0
May-23	0	0	0	0	0
Jun-23	258	7856	0	18640	26754
Jul-23	-337	1675	0	6184	7522
Aug-23	-117	2215	0	6731	8829
Sep-23	31	1933	0	5051	7014
Oct-23	224	2118	0	5072	7413
Nov-23	0	0	0	0	0
Dec-23	0	0	0	0	0
Jan-24	0	0	0	0	0
Feb-24	0	0	0	0	0
Mar-24	0	0	0	0	0
Apr-24	0	0	0	0	0
May-24	0	0	0	0	0
Jun-24	258	7856	0	18640	26754
Jul-24	-337	1675	0	6184	7522
Aug-24	-117	2215	0	6731	8829
Sep-24	31	1933	0	5051	7014
Oct-24	224	2118	0	5072	7413
Nov-24	0	0	0	0	0
Dec-24	0	0	0	0	0
Jan-25	0	0	0	0	0
Feb-25	0	0	0	0	0
Mar-25	0	0	0	0	0
Apr-25	0	0	0	0	0
May-25	0	0	0	0	0
Jun-25	386	11759	0	27867	40012
Jul-25	-504	2506	0	9223	11226
Aug-25	-175	3316	0	10043	13184
Sep-25	46	2893	0	7527	10466
Oct-25	335	3170	0	7559	11064
Nov-25	0	0	0	0	0
Dec-25	0	0	0	0	0
Jan-26	0	0	0	0	0
Feb-26	0	0	0	0	0
Mar-26	0	0	0	0	0
Apr-26	0	0	0	0	0
May-26	0	0	0	0	0
Jun-26	258	7856	0	18640	26754
Jul-26	-337	1675	0	6184	7522
Aug-26	-117	2215	0	6731	8829
Sep-26	31	1933	0	5051	7014
Oct-26	224	2118	0	5072	7413
Nov-26	0	0	0	0	0
Dec-26	0	0	0	0	0
Jan-27	0	0	0	0	0
Feb-27	0	0	0	0	0
Mar-27	0	0	0	0	0
Apr-27	0	0	0	0	0
May-27	0	0	0	0	0
Jun-27	258	7856	0	18640	26754
Jul-27	-337	1675	0	6184	7522
Aug-27	-117	2215	0	6731	8829
Sep-27	31	1933	0	5051	7014
Oct-27	224	2118	0	5072	7413
Nov-27	0	0	0	0	0
Dec-27	0	0	0	0	0
Jan-28	0	0	0	0	0

Water Balance for CP4					
Date	Inflow				Outflow
	Net Runoff/Run on Water from Pond Surface	Net Runoff/Run on Water from Natural Ground with Vegetation	Net Runoff/Run on Water from Other Disturbed Ground	Net Runoff/Seepage Water from a Portion of WRSF1 to CP4	Water pumped from CP4 to Site Area Ditch, then Flowing into CP1
	m ³	m ³	m ³	m ³	m ³
May-20	0	0	0	0	0
Jun-20	696	37777	88	791	39332
Jul-20	-910	9223	29	12	7183
Aug-20	-317	10653	31	16	10383
Sep-20	83	9294	24	5	9405
Oct-20	605	10182	24	0	10811
Nov-20	0	0	0	0	0
Dec-20	0	0	0	0	0
Jan-21	0	0	0	0	0
Feb-21	0	0	0	0	0
Mar-21	0	0	0	0	0
Apr-21	0	0	0	0	0
May-21	0	0	0	0	0
Jun-21	465	20101	76	952	21594
Jul-21	-608	4285	25	14	3716
Aug-21	-212	5668	27	19	5503
Sep-21	55	4946	20	5	5027
Oct-21	404	5418	21	0	5843
Nov-21	0	0	0	0	0
Dec-21	0	0	0	0	0
Jan-22	0	0	0	0	0
Feb-22	0	0	0	0	0
Mar-22	0	0	0	0	0
Apr-22	0	0	0	0	0
May-22	0	0	0	0	0
Jun-22	465	14964	94	1375	16898
Jul-22	-608	3190	31	20	2633
Aug-22	-212	4219	34	27	4069
Sep-22	55	3682	25	8	3770
Oct-22	404	4033	25	0	4463
Nov-22	0	0	0	0	0
Dec-22	0	0	0	0	0
Jan-23	0	0	0	0	0
Feb-23	0	0	0	0	0
Mar-23	0	0	0	0	0
Apr-23	0	0	0	0	0
May-23	0	0	0	0	0
Jun-23	465	14964	94	1375	16898
Jul-23	-608	3190	31	20	2633
Aug-23	-212	4219	34	27	4069
Sep-23	55	3682	25	8	3770
Oct-23	404	4033	25	0	4463
Nov-23	0	0	0	0	0
Dec-23	0	0	0	0	0
Jan-24	0	0	0	0	0
Feb-24	0	0	0	0	0
Mar-24	0	0	0	0	0
Apr-24	0	0	0	0	0
May-24	0	0	0	0	0
Jun-24	465	14964	94	1375	16898
Jul-24	-608	3190	31	20	2633
Aug-24	-212	4219	34	27	4069
Sep-24	55	3682	25	8	3770
Oct-24	404	4033	25	0	4463
Nov-24	0	0	0	0	0
Dec-24	0	0	0	0	0
Jan-25	0	0	0	0	0
Feb-25	0	0	0	0	0
Mar-25	0	0	0	0	0
Apr-25	0	0	0	0	0
May-25	0	0	0	0	0
Jun-25	696	22397	141	2058	25293
Jul-25	-910	4774	46	31	3941
Aug-25	-317	6316	51	40	6090
Sep-25	83	5511	38	12	5643
Oct-25	605	6037	38	0	6680
Nov-25	0	0	0	0	0
Dec-25	0	0	0	0	0
Jan-26	0	0	0	0	0
Feb-26	0	0	0	0	0
Mar-26	0	0	0	0	0
Apr-26	0	0	0	0	0
May-26	0	0	0	0	0
Jun-26	465	14964	94	1375	16898
Jul-26	-608	3190	31	20	2633
Aug-26	-212	4219	34	27	4069
Sep-26	55	3682	25	8	3770
Oct-26	404	4033	25	0	4463
Nov-26	0	0	0	0	0
Dec-26	0	0	0	0	0
Jan-27	0	0	0	0	0
Feb-27	0	0	0	0	0
Mar-27	0	0	0	0	0
Apr-27	0	0	0	0	0
May-27	0	0	0	0	0
Jun-27	465	14964	94	1375	16898
Jul-27	-608	3190	31	20	2633
Aug-27	-212	4219	34	27	4069
Sep-27	55	3682	25	8	3770
Oct-27	404	4033	25	0	4463
Nov-27	0	0	0	0	0
Dec-27	0	0	0	0	0
Jan-28	0	0	0	0	0

Water Balance for CP3					
Date	Inflow				Outflow
	Net Runoff/Run on Water from Pond Surface	Net Runoff/Run on Water from Natural Ground with Vegetation	Net Runoff/Run on Water from Other Disturbed Ground Surface	Net Runoff/Seepage Water from a Portion of TSF to CP3	Water Pumped from CP3 to Site Area Ditch, then Flowing into CP1
	m ³	m ³	m ³	m ³	m ³
Feb-28	0	0	0	0	0
Mar-28	0	0	0	0	0
Apr-28	0	0	0	0	0
May-28	0	0	0	0	0
Jun-28	258	7856	0	18640	26754
Jul-28	-337	1675	0	6184	7522
Aug-28	-117	2215	0	6731	8829
Sep-28	31	1933	0	5051	7014
Oct-28	224	2118	0	5072	7413
Nov-28	0	0	0	0	0
Dec-28	0	0	0	0	0

Water Balance for CP4					
Date	Inflow				Outflow
	Net Runoff/Run on Water from Pond Surface	Net Runoff/Run on Water from Natural Ground with Vegetation	Net Runoff/Run on Water from Other Disturbed Ground	Net Runoff/Seepage Water from a Portion of WRSF1 to CP4	Water pumped from CP4 to Site Area Ditch, then Flowing into CP1
	m ³	m ³	m ³	m ³	m ³
Feb-28	0	0	0	0	0
Mar-28	0	0	0	0	0
Apr-28	0	0	0	0	0
May-28	0	0	0	0	0
Jun-28	465	14964	94	1375	16898
Jul-28	-608	3190	31	20	2633
Aug-28	-212	4219	34	27	4069
Sep-28	55	3682	25	8	3770
Oct-28	404	4033	25	0	4463
Nov-28	0	0	0	0	0
Dec-28	0	0	0	0	0

Water Balance for CP6					
Date	Inflow				Outflow
	Net Runoff/Runon Water from Pond Surface	Net Runoff/Runon Water from Natural Ground with Vegetation	Net Runoff/Runon Water from Other Disturbed Ground	Net Runoff/Seepage Water from WRSF3 and WRSF3 Exten.	Water Pumped from CP6 to CP1
	m ³	m ³	m ³	m ³	m ³
Feb-28	0	0	0	0	0
Mar-28	0	0	0	0	0
Apr-28	0	0	0	0	0
May-28	0	0	0	0	0
Jun-28	877	12029	202	2779	15887
Jul-28	-1146	2564	67	41	1526
Aug-28	-399	3392	73	55	3120
Sep-28	104	2960	54	16	3134
Oct-28	763	3242	54	0	4059
Nov-28	0	0	0	0	0
Dec-28	0	0	0	0	0

Water Balance for CP2					
Date	Inflow				Outflow
	Net Runoff/Runon Water from Pond Surface	Net Runoff/Runon Water from Natural Ground with Vegetation	Net Runoff/Runon Water from Other Disturbed Ground	Net Runoff/Seepage Water from WRSF3 and WRSF3 Exten.	Water Pumped from CP7 to CP1
	m3	m3	m3	m3	m3
Feb-28	0	0	0	0	0
Mar-28	0	0	0	0	0
Apr-28	0	0	0	0	0
May-28	0	0	0	0	0
Jun-28	877	45970	0	2183	49031
Jul-28	-1146	9799	0	32	8686
Aug-28	-399	12963	0	43	12607
Sep-28	104	11311	0	12	11428
Oct-28	763	12391	0	0	13153
Nov-28	0	0	0	0	0
Dec-28	0	0	0	0	0

Water Balance for P Area					
Date	Inflow			Outflow	
	Net Runoff/Runon Water from Pond Surface	Net Runoff/Runon Water from Natural Ground with Vegetation	Net Runoff/Runon Water from Other Disturbed Ground	Pumped to CP5	Water Seepage into CP5
	m ³	m ³	m ³		m ³
Feb-28					
Mar-28					
Apr-28					
May-28					
Jun-28					
Jul-28					
Aug-28					
Sep-28					
Oct-28					
Nov-28					
Dec-28					

Water Balance for Landfarm				
Date	Inflow			Outflow
	Net Runoff/Runon Water from Pond Surface	Net Runoff/Runon Water from Disturbed Ground Surface	Snow Melting	Pre-Treated (Oil) Water from Landfarm/Biopile to CP1 though site area ditch
	m ³	m ³	m ³	m ³
May-20	0	0	0	0
Jun-20	19	1672	500	2191
Jul-20	-25	551	0	525
Aug-20	-9	600	0	591
Sep-20	2	449	0	451
Oct-20	17	451	0	467
Nov-20	0	0	0	0
Dec-20	0	0	0	0
Jan-21	0	0	0	0
Feb-21	0	0	0	0
Mar-21	0	0	0	0
Apr-21	0	0	0	0
May-21	0	0	0	0
Jun-21	13	1117	500	1630
Jul-21	-17	368	0	351
Aug-21	-6	401	0	395
Sep-21	2	300	0	301
Oct-21	11	301	0	312
Nov-21	0	0	0	0
Dec-21	0	0	0	0
Jan-22	0	0	0	0
Feb-22	0	0	0	0
Mar-22	0	0	0	0
Apr-22	0	0	0	0
May-22	0	0	0	0
Jun-22	13	3510	500	4023
Jul-22	-17	1156	0	1139
Aug-22	-6	1260	0	1254
Sep-22	2	942	0	944
Oct-22	11	946	0	957
Nov-22	0	0	0	0
Dec-22	0	0	0	0
Jan-23	0	0	0	0
Feb-23	0	0	0	0
Mar-23	0	0	0	0
Apr-23	0	0	0	0
May-23	0	0	0	0
Jun-23	13	3510	500	4023
Jul-23	-17	1156	0	1139
Aug-23	-6	1260	0	1254
Sep-23	2	942	0	944
Oct-23	11	946	0	957
Nov-23	0	0	0	0
Dec-23	0	0	0	0
Jan-24	0	0	0	0
Feb-24	0	0	0	0
Mar-24	0	0	0	0
Apr-24	0	0	0	0

Water Balance for Landfill			
Date	Inflow		Outflow
	Net Runoff/Runon Water from Natural Ground with Vegetation	Net Runoff/Runon Water from Disturbed Ground Surface	Water from Landfill to CP1 though site area ditch
	m ³	m ³	m ³
May-20	0	0	0
Jun-20	0	2263	2263
Jul-20	0	745	745
Aug-20	0	812	812
Sep-20	0	607	607
Oct-20	0	610	610
Nov-20	0	0	0
Dec-20	0	0	0
Jan-21	0	0	0
Feb-21	0	0	0
Mar-21	0	0	0
Apr-21	0	0	0
May-21	0	0	0
Jun-21	0	1512	1512
Jul-21	0	498	498
Aug-21	0	543	543
Sep-21	0	406	406
Oct-21	0	407	407
Nov-21	0	0	0
Dec-21	0	0	0
Jan-22	0	0	0
Feb-22	0	0	0
Mar-22	0	0	0
Apr-22	0	0	0
May-22	0	0	0
Jun-22	0	1512	1512
Jul-22	0	498	498
Aug-22	0	543	543
Sep-22	0	406	406
Oct-22	0	407	407
Nov-22	0	0	0
Dec-22	0	0	0
Jan-23	0	0	0
Feb-23	0	0	0
Mar-23	0	0	0
Apr-23	0	0	0
May-23	0	0	0
Jun-23	0	1512	1512
Jul-23	0	498	498
Aug-23	0	543	543
Sep-23	0	406	406
Oct-23	0	407	407
Nov-23	0	0	0
Dec-23	0	0	0
Jan-24	0	0	0
Feb-24	0	0	0
Mar-24	0	0	0
Apr-24	0	0	0

Water Balance for Landfarm				
Date	Inflow			Outflow
	Net Runoff/Runon Water from Pond Surface	Net Runoff/Runon Water from Disturbed Ground Surface	Snow Melting	Pre-Treated (Oil) Water from Landfarm/Biopile to CP1 though site area ditch
	m ³	m ³	m ³	m ³
May-24	0	0	0	0
Jun-24	13	3510	500	4023
Jul-24	-17	1156	0	1139
Aug-24	-6	1260	0	1254
Sep-24	2	942	0	944
Oct-24	11	946	0	957
Nov-24	0	0	0	0
Dec-24	0	0	0	0
Jan-25	0	0	0	0
Feb-25	0	0	0	0
Mar-25	0	0	0	0
Apr-25	0	0	0	0
May-25	0	0	0	0
Jun-25	19	5253	500	5773
Jul-25	-25	1730	0	1705
Aug-25	-9	1885	0	1877
Sep-25	2	1410	0	1412
Oct-25	17	1416	0	1433
Nov-25	0	0	0	0
Dec-25	0	0	0	0
Jan-26	0	0	0	0
Feb-26	0	0	0	0
Mar-26	0	0	0	0
Apr-26	0	0	0	0
May-26	0	0	0	0
Jun-26	13	3510	500	4023
Jul-26	-17	1156	0	1139
Aug-26	-6	1260	0	1254
Sep-26	2	942	0	944
Oct-26	11	946	0	957
Nov-26	0	0	0	0
Dec-26	0	0	0	0
Jan-27	0	0	0	0
Feb-27	0	0	0	0
Mar-27	0	0	0	0
Apr-27	0	0	0	0
May-27	0	0	0	0
Jun-27	13	3510	500	4023
Jul-27	-17	1156	0	1139
Aug-27	-6	1260	0	1254
Sep-27	2	942	0	944
Oct-27	11	946	0	957
Nov-27	0	0	0	0
Dec-27	0	0	0	0
Jan-28	0	0	0	0
Feb-28	0	0	0	0
Mar-28	0	0	0	0
Apr-28	0	0	0	0

Water Balance for Landfill			
Date	Inflow		Outflow
	Net Runoff/Runon Water from Natural Ground with Vegetation	Net Runoff/Runon Water from Disturbed Ground Surface	Water from Landfill to CP1 though site area ditch
	m ³	m ³	m ³
May-24	0	0	0
Jun-24	0	1512	1512
Jul-24	0	498	498
Aug-24	0	543	543
Sep-24	0	406	406
Oct-24	0	407	407
Nov-24	0	0	0
Dec-24	0	0	0
Jan-25	0	0	0
Feb-25	0	0	0
Mar-25	0	0	0
Apr-25	0	0	0
May-25	0	0	0
Jun-25	0	2263	2263
Jul-25	0	745	745
Aug-25	0	812	812
Sep-25	0	607	607
Oct-25	0	610	610
Nov-25	0	0	0
Dec-25	0	0	0
Jan-26	0	0	0
Feb-26	0	0	0
Mar-26	0	0	0
Apr-26	0	0	0
May-26	0	0	0
Jun-26	0	1512	1512
Jul-26	0	498	498
Aug-26	0	543	543
Sep-26	0	406	406
Oct-26	0	407	407
Nov-26	0	0	0
Dec-26	0	0	0
Jan-27	0	0	0
Feb-27	0	0	0
Mar-27	0	0	0
Apr-27	0	0	0
May-27	0	0	0
Jun-27	0	1512	1512
Jul-27	0	498	498
Aug-27	0	543	543
Sep-27	0	406	406
Oct-27	0	407	407
Nov-27	0	0	0
Dec-27	0	0	0
Jan-28	0	0	0
Feb-28	0	0	0
Mar-28	0	0	0
Apr-28	0	0	0

Water Balance for Landfarm				
Date	Inflow			Outflow
	Net Runoff/Runon Water from Pond Surface	Net Runoff/Runon Water from Disturbed Ground Surface	Snow Melting	Pre-Treated (Oil) Water from Landfarm/Biopile to CP1 through site area ditch
	m ³	m ³	m ³	m ³
May-28	0	0	0	0
Jun-28	13	3510	500	4023
Jul-28	-17	1156	0	1139
Aug-28	-6	1260	0	1254
Sep-28	2	942	0	944
Oct-28	11	946	0	957
Nov-28	0	0	0	0
Dec-28	0	0	0	0

Water Balance for Landfill			
Date	Inflow		Outflow
	Net Runoff/Runon Water from Natural Ground with Vegetation	Net Runoff/Runon Water from Disturbed Ground Surface	Water from Landfill to CP1 through site area ditch
	m ³	m ³	m ³
May-28	0	0	0
Jun-28	0	1512	1512
Jul-28	0	498	498
Aug-28	0	543	543
Sep-28	0	406	406
Oct-28	0	407	407
Nov-28	0	0	0
Dec-28	0	0	0

Water Balance for EWTP

Date	Inflow			Outflow	
	Water from CP1 to EWTP	Water from CP5 to EWTP	RO Premeate To EWTP	Water from EWTP to SP3	Discharge to Meliadine Lake
	m ³	m ³	m ³		m ³
May-20	0	0	0	0	0
Jun-20	330000	0	0	0	330000
Jul-20	558736	0	0	12000	546736
Aug-20	76202	0	0	24800	51402
Sep-20	116387	0	0	24000	92387
Oct-20	0	0	0	0	0
Nov-20	0	0	0	0	0
Dec-20	0	0	0	0	0
Jan-21	0	0	0	0	0
Feb-21	0	0	0	0	0
Mar-21	0	0	0	0	0
Apr-21	0	0	0	0	0
May-21	0	0	0	0	0
Jun-21	282879	0	0	0	282879
Jul-21	302927	0	0	12000	290927
Aug-21	50228	0	0	24800	25428
Sep-21	81626	0	0	24000	57626
Oct-21	0	0	0	0	0
Nov-21	0	0	0	0	0
Dec-21	0	0	0	0	0
Jan-22	0	0	0	0	0
Feb-22	0	0	0	0	0
Mar-22	0	0	0	0	0
Apr-22	0	0	0	0	0
May-22	0	0	0	0	0
Jun-22	201115	0	0	90000	111115
Jul-22	275162	0	0	186000	89162
Aug-22	45487	0	0	45487	0
Sep-22	76444	0	0	76444	0
Oct-22	0	0	0	0	0
Nov-22	0	0	0	0	0
Dec-22	0	0	0	0	0
Jan-23	0	0	0	0	0
Feb-23	0	0	0	0	0
Mar-23	0	0	0	0	0
Apr-23	0	0	0	0	0
May-23	0	0	0	0	0
Jun-23	191532	0	0	90000	101532
Jul-23	281612	0	0	186000	95612
Aug-23	47622	0	0	42142	5480
Sep-23	78770	0	0	27901	50869
Oct-23	0	0	0	0	0
Nov-23	0	0	0	0	0
Dec-23	0	0	0	0	0

Water Balance for EWTP

Date	Inflow			Outflow	
	Water from CP1 to EWTP	Water from CP5 to EWTP	RO Preemate To EWTP	Water from EWTP to SP3	Discharge to Meliadine Lake
	m ³	m ³	m ³		m ³
Jan-24	0	0	0	0	0
Feb-24	0	0	0	0	0
Mar-24	0	0	0	0	0
Apr-24	0	0	0	0	0
May-24	0	0	0	0	0
Jun-24	195151	0	0	90000	105151
Jul-24	316826	0	0	174490	142336
Aug-24	53041	0	0	29677	23364
Sep-24	88116	0	0	28245	59871
Oct-24	0	0	0	0	0
Nov-24	0	0	0	0	0
Dec-24	0	0	0	0	0
Jan-25	0	0	0	0	0
Feb-25	0	0	0	0	0
Mar-25	0	0	0	0	0
Apr-25	0	0	0	0	0
May-25	0	0	0	0	0
Jun-25	213039	0	0	90000	123039
Jul-25	485855	0	0	186000	299855
Aug-25	81608	0	0	51884	29724
Sep-25	134160	0	0	33193	100966
Oct-25	0	0	0	0	0
Nov-25	0	0	0	0	0
Dec-25	0	0	0	0	0
Jan-26	0	0	0	0	0
Feb-26	0	0	0	0	0
Mar-26	0	0	0	0	0
Apr-26	0	0	0	0	0
May-26	0	0	0	0	0
Jun-26	308893	0	0	90000	218893
Jul-26	326998	0	0	186000	140998
Aug-26	56087	0	0	55840	247
Sep-26	91190	0	0	31582	59608
Oct-26	0	0	0	0	0
Nov-26	0	0	0	0	0
Dec-26	0	0	0	0	0
Jan-27	0	0	0	0	0
Feb-27	0	0	0	0	0
Mar-27	0	0	0	0	0
Apr-27	0	0	0	0	0
May-27	0	0	0	0	0
Jun-27	219018	0	0	90000	129018
Jul-27	317767	0	0	186000	131767
Aug-27	48201	0	0	41804	6398

Water Balance for EWTP

Date	Inflow			Outflow	
	Water from CP1 to EWTP	Water from CP5 to EWTP	RO Premeate To EWTP	Water from EWTP to SP3	Discharge to Meliadine Lake
	m ³	m ³	m ³		m ³
Sep-27	81999	0	0	29927	52072
Oct-27	0	0	0	0	0
Nov-27	0	0	0	0	0
Dec-27	0	0	0	0	0
Jan-28	0	0	0	0	0
Feb-28	0	0	0	0	0
Mar-28	0	0	0	0	0
Apr-28	0	0	0	0	0
May-28	0	0	0	0	0
Jun-28	206520	0	0	206520	0
Jul-28	317767	0	0	317767	0
Aug-28	48201	0	0	48201	0
Sep-28	81999	0	0	81999	0
Oct-28	0	0	0	0	0
Nov-28	0	0	0	0	0
Dec-28	0	0	0	0	0

APPENDIX E

**Average Monthly Concentrations,
Wet Years Scenario**

Appendix E
Wet Years Scenario
CP2 Average Monthly Dissolved Concentrations

Date	Total Dissolved Solids	Dissolved Phosphorus	Total Ammonia	Dissolved Aluminum	Dissolved Arsenic	Dissolved Copper	Dissolved Lead	Dissolved Nickel	Dissolved Zinc
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Discharge Criteria	3500	2	14	2	0.3	0.2	0.2	0.5	0.4
Jun 2024	63	0.014	2.1	0.037	0.011	0.0012	0.00028	0.001	0.0037
Jul 2024	145	0.049	12	0.2	0.059	0.003	0.00046	0.0022	0.0082
Aug 2024	112	0.036	7.9	0.14	0.041	0.0023	0.00038	0.0017	0.0064
Sep 2024	113	0.036	8.2	0.14	0.042	0.0023	0.00038	0.0017	0.0065
Oct 2024	92	0.027	5.6	0.096	0.029	0.0018	0.00034	0.0014	0.0054
Nov 2024	92	0.027	5.6	0.096	0.029	0.0018	0.00034	0.0014	0.0054
Dec 2024	92	0.027	5.6	0.096	0.029	0.0018	0.00034	0.0014	0.0054
Jan 2025	92	0.027	5.6	0.096	0.029	0.0018	0.00034	0.0014	0.0054
Feb 2025	92	0.027	5.6	0.096	0.029	0.0018	0.00034	0.0014	0.0054
Mar 2025	92	0.027	5.6	0.096	0.029	0.0018	0.00034	0.0014	0.0054
Apr 2025	92	0.027	5.6	0.096	0.029	0.0018	0.00034	0.0014	0.0054
May 2025	92	0.027	5.6	0.096	0.029	0.0018	0.00034	0.0014	0.0054
Jun 2025	79	0.015	2.5	0.046	0.0137	0.0013	0.00029	0.00107	0.0039
Jul 2025	90	0.022	4.2	0.073	0.022	0.0016	0.00033	0.0013	0.0047
Aug 2025	90	0.023	4.6	0.081	0.025	0.0017	0.00034	0.0013	0.0049
Sep 2025	91	0.025	5.1	0.089	0.027	0.0018	0.00034	0.0014	0.005
Oct 2025	73	0.017	3.0	0.053	0.0162	0.0014	0.00031	0.00114	0.0041
Nov 2025	73	0.017	3.0	0.053	0.0162	0.0014	0.00031	0.00114	0.0041
Dec 2025	73	0.017	3.0	0.053	0.0162	0.0014	0.00031	0.00114	0.0041
Jan 2026	73	0.017	3.0	0.053	0.0162	0.0014	0.00031	0.00114	0.0041
Feb 2026	73	0.017	3.0	0.053	0.0162	0.0014	0.00031	0.00114	0.0041
Mar 2026	73	0.017	3.0	0.053	0.0162	0.0014	0.00031	0.00114	0.0041
Apr 2026	73	0.017	3.0	0.053	0.0162	0.0014	0.00031	0.00114	0.0041
May 2026	73	0.017	3.0	0.053	0.0162	0.0014	0.00031	0.00114	0.0041
Jun 2026	77	0.015	2.4	0.043	0.013	0.0013	0.00029	0.00105	0.0038
Jul 2026	92	0.023	4.6	0.08	0.024	0.0017	0.00033	0.0013	0.0048
Aug 2026	98	0.027	5.6	0.097	0.03	0.0018	0.00035	0.0014	0.0052
Sep 2026	102	0.03	6.5	0.11	0.034	0.002	0.00036	0.0015	0.0055
Oct 2026	85	0.022	4.4	0.078	0.024	0.0016	0.00032	0.0013	0.0047
Nov 2026	85	0.022	4.4	0.078	0.024	0.0016	0.00032	0.0013	0.0047
Dec 2026	85	0.022	4.4	0.078	0.024	0.0016	0.00032	0.0013	0.0047
Jan 2027	85	0.022	4.4	0.078	0.024	0.0016	0.00032	0.0013	0.0047
Feb 2027	85	0.022	4.4	0.078	0.024	0.0016	0.00032	0.0013	0.0047
Mar 2027	85	0.022	4.4	0.078	0.024	0.0016	0.00032	0.0013	0.0047
Apr 2027	85	0.022	4.4	0.078	0.024	0.0016	0.00032	0.0013	0.0047
May 2027	85	0.022	4.4	0.078	0.024	0.0016	0.00032	0.0013	0.0047
Jun 2027	81	0.017	2.9	0.052	0.016	0.0013	0.0003	0.0011	0.004
Jul 2027	95	0.024	5.0	0.086	0.026	0.0017	0.00033	0.0014	0.0049
Aug 2027	100	0.028	5.9	0.1	0.031	0.0019	0.00035	0.0015	0.0053
Sep 2027	104	0.031	6.7	0.12	0.035	0.002	0.00036	0.0015	0.0056
Oct 2027	86	0.023	4.6	0.08	0.024	0.0017	0.00033	0.0013	0.0047
Nov 2027	86	0.023	4.6	0.08	0.024	0.0017	0.00033	0.0013	0.0047
Dec 2027	86	0.023	4.6	0.08	0.024	0.0017	0.00033	0.0013	0.0047
Jan 2028	86	0.023	4.6	0.08	0.024	0.0017	0.00033	0.0013	0.0047
Feb 2028	86	0.023	4.6	0.08	0.024	0.0017	0.00033	0.0013	0.0047
Mar 2028	86	0.023	4.6	0.08	0.024	0.0017	0.00033	0.0013	0.0047
Apr 2028	86	0.023	4.6	0.08	0.024	0.0017	0.00033	0.0013	0.0047
May 2028	86	0.023	4.6	0.08	0.024	0.0017	0.00033	0.0013	0.0047
Jun 2028	81	0.017	3.0	0.053	0.016	0.0014	0.0003	0.0011	0.004
Jul 2028	95	0.024	5.0	0.087	0.026	0.0017	0.00034	0.0014	0.0049
Aug 2028	100	0.028	5.9	0.1	0.031	0.0019	0.00035	0.0015	0.0053
Sep 2028	104	0.031	6.7	0.12	0.035	0.002	0.00036	0.0016	0.0056
Oct 2028	86	0.023	4.6	0.08	0.024	0.0017	0.00033	0.0013	0.0047
Nov 2028	86	0.023	4.6	0.08	0.024	0.0017	0.00033	0.0013	0.0047
Dec 2028	86	0.023	4.6	0.08	0.024	0.0017	0.00033	0.0013	0.0047

0.1 Denotes a value above the discharge criteria

Appendix E
Wet Years Scenario
CP3 Average Monthly Dissolved Concentrations

Date	Total Dissolved Solids	Dissolved Phosphorus	Total Ammonia	Dissolved Aluminum	Dissolved Arsenic	Dissolved Copper	Dissolved Lead	Dissolved Nickel	Dissolved Zinc
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Discharge Criteria	3500	2	14	2	0.3	0.2	0.2	0.5	0.4
May 2020	854	0.18	4.6	0.016	0.06	0.0055	0.0011	0.022	0.027
Jun 2020	331	0.069	2.5	0.031	0.077	0.0024	0.00049	0.008	0.011
Jul 2020	263	0.055	3.2	0.067	0.153	0.00221	0.00045	0.0056	0.0091
Aug 2020	206	0.043	3.5	0.086	0.192	0.00199	0.00041	0.0039	0.0075
Sep 2020	185	0.039	4.0	0.106	0.234	0.00199	0.00041	0.003	0.007
Oct 2020	168	0.036	4.3	0.117	0.258	0.00197	0.00041	0.00242	0.0066
Nov 2020	168	0.036	4.3	0.117	0.26	0.002	0.00041	0.0024	0.0066
Dec 2020	168	0.036	4.3	0.12	0.26	0.002	0.00041	0.0024	0.0066
Jan 2021	168	0.036	4.3	0.12	0.26	0.002	0.00041	0.0024	0.0066
Feb 2021	168	0.036	4.3	0.12	0.26	0.002	0.00041	0.0024	0.0066
Mar 2021	168	0.036	4.3	0.12	0.26	0.002	0.00041	0.0024	0.0066
Apr 2021	168	0.036	4.3	0.12	0.26	0.002	0.00041	0.0024	0.0066
May 2021	168	0.036	4.3	0.12	0.3	0.002	0.00041	0.0024	0.0066
Jun 2021	108	0.024	3.0	0.08	0.18	0.0014	0.0003	0.0014	0.0053
Jul 2021	124	0.031	4.0	0.11	0.25	0.0017	0.00037	0.0015	0.0071
Aug 2021	131	0.034	4.5	0.13	0.28	0.0019	0.00041	0.0015	0.0081
Sep 2021	144	0.039	5.2	0.15	0.32	0.0022	0.00046	0.0016	0.0094
Oct 2021	152	0.042	5.6	0.16	0.35	0.0023	0.00049	0.0016	0.0102
Nov 2021	152	0.042	5.6	0.16	0.35	0.0023	0.00049	0.0016	0.0102
Dec 2021	152	0.042	5.6	0.16	0.35	0.0023	0.00049	0.0016	0.01
Jan 2022	152	0.042	5.6	0.16	0.35	0.0023	0.00049	0.0016	0.01
Feb 2022	152	0.042	5.6	0.16	0.35	0.0023	0.00049	0.0016	0.01
Mar 2022	152	0.042	5.6	0.16	0.35	0.0023	0.00049	0.0016	0.01
Apr 2022	152	0.042	5.6	0.16	0.35	0.0023	0.00049	0.0016	0.01
May 2022	152	0.042	5.6	0.16	0.4	0.0023	0.00049	0.0016	0.01
Jun 2022	100	0.026	3.6	0.1	0.21	0.0015	0.00033	0.0011	0.0065
Jul 2022	116	0.031	4.4	0.12	0.25	0.0018	0.00037	0.0012	0.0074
Aug 2022	123	0.033	4.8	0.13	0.27	0.0019	0.00038	0.0013	0.0078
Sep 2022	136	0.037	5.5	0.15	0.3	0.0021	0.00042	0.0014	0.0085
Oct 2022	144	0.039	5.9	0.16	0.32	0.0022	0.00044	0.0014	0.009
Nov 2022	144	0.039	5.9	0.16	0.32	0.0022	0.00044	0.0014	0.009
Dec 2022	144	0.039	5.9	0.16	0.32	0.0022	0.00044	0.0014	0.009
Jan 2023	144	0.039	5.9	0.16	0.32	0.0022	0.00044	0.0014	0.009
Feb 2023	144	0.039	5.9	0.16	0.32	0.0022	0.00044	0.0014	0.009
Mar 2023	144	0.039	5.9	0.16	0.32	0.0022	0.00044	0.0014	0.009
Apr 2023	144	0.039	5.9	0.16	0.32	0.0022	0.00044	0.0014	0.009
May 2023	144	0.039	5.9	0.16	0.3	0.0022	0.00044	0.0014	0.009
Jun 2023	96	0.026	3.7	0.1	0.21	0.0015	0.00032	0.001	0.0064
Jul 2023	114	0.032	4.5	0.12	0.26	0.0018	0.00038	0.0012	0.0079
Aug 2023	122	0.035	4.8	0.13	0.28	0.0019	0.00041	0.0012	0.0088
Sep 2023	136	0.039	5.4	0.15	0.32	0.0021	0.00045	0.0014	0.0099
Oct 2023	144	0.042	5.8	0.16	0.35	0.0023	0.00048	0.0014	0.011
Nov 2023	144	0.042	5.8	0.16	0.35	0.0023	0.00048	0.0014	0.011
Dec 2023	144	0.042	5.8	0.16	0.35	0.0023	0.00048	0.0014	0.011
Jan 2024	144	0.042	5.8	0.16	0.35	0.0023	0.00048	0.0014	0.011
Feb 2024	144	0.042	5.8	0.16	0.35	0.0023	0.00048	0.0014	0.011
Mar 2024	144	0.042	5.8	0.16	0.35	0.0023	0.00048	0.0014	0.011
Apr 2024	144	0.042	5.8	0.16	0.35	0.0023	0.00048	0.0014	0.011
May 2024	144	0.042	5.8	0.16	0.3	0.0023	0.00048	0.0014	0.011
Jun 2024	99	0.025	3.7	0.1	0.21	0.0015	0.00032	0.001	0.0059
Jul 2024	121	0.027	4.6	0.12	0.26	0.0017	0.00035	0.0011	0.0055
Aug 2024	131	0.028	5.0	0.13	0.28	0.0018	0.00036	0.0012	0.0051
Sep 2024	147	0.03	5.7	0.15	0.31	0.002	0.00039	0.0013	0.005
Oct 2024	158	0.031	6.1	0.16	0.33	0.0021	0.0004	0.0014	0.0049
Nov 2024	158	0.031	6.1	0.16	0.33	0.0021	0.0004	0.0014	0.0049
Dec 2024	158	0.031	6.1	0.16	0.33	0.0021	0.0004	0.0014	0.0049
Jan 2025	158	0.031	6.1	0.16	0.33	0.0021	0.0004	0.0014	0.0049
Feb 2025	158	0.031	6.1	0.16	0.33	0.0021	0.0004	0.0014	0.0049
Mar 2025	158	0.031	6.1	0.16	0.33	0.0021	0.0004	0.0014	0.0049
Apr 2025	158	0.031	6.1	0.16	0.33	0.0021	0.0004	0.0014	0.0049
May 2025	158	0.031	6.1	0.16	0.33	0.0021	0.0004	0.0014	0.0049
Jun 2025	85	0.016	3.1	0.079	0.16	0.0012	0.00024	0.0008	0.0028
Jul 2025	99	0.019	3.7	0.094	0.189	0.00134	0.00026	0.00089	0.0028
Aug 2025	102	0.019	3.8	0.099	0.197	0.00139	0.00026	0.00091	0.0028
Sep 2025	113	0.021	4.3	0.11	0.218	0.00152	0.00028	0.0010	0.003
Oct 2025	118	0.022	4.5	0.115	0.228	0.00159	0.0003	0.00104	0.0031
Nov 2025	118	0.022	4.5	0.115	0.23	0.0016	0.0003	0.00104	0.0031
Dec 2025	118	0.022	4.5	0.115	0.23	0.0016	0.0003	0.00104	0.0031
Jan 2026	118	0.022	4.5	0.11	0.23	0.0016	0.0003	0.001	0.0031
Feb 2026	118	0.022	4.5	0.11	0.23	0.0016	0.0003	0.001	0.0031
Mar 2026	118	0.022	4.5	0.11	0.23	0.0016	0.0003	0.001	0.0031
Apr 2026	118	0.022	4.5	0.11	0.23	0.0016	0.0003	0.001	0.0031
May 2026	118	0.022	4.5	0.11	0.23	0.0016	0.0003	0.001	0.0031
Jun 2026	88	0.016	3.2	0.08	0.16	0.0012	0.00024	0.0008	0.0024
Jul 2026	113	0.021	4.2	0.11	0.22	0.0015	0.00029	0.001	0.0029
Aug 2026	127	0.023	4.7	0.12	0.26	0.0017	0.00032	0.00108	0.0031
Sep 2026	145	0.026	5.5	0.14	0.3	0.0019	0.00036	0.0012	0.0035
Oct 2026	157	0.028	6.0	0.16	0.32	0.0021	0.00039	0.0013	0.0037
Nov 2026	157	0.028	6.0	0.16	0.32	0.0021	0.00039	0.0013	0.0037
Dec 2026	157	0.028	6.0	0.16	0.32	0.0021	0.00039	0.0013	0.0037
Jan 2027	157	0.028	6.0	0.16	0.32	0.0021	0.00039	0.0013	0.0037
Feb 2027	157	0.028	6.0	0.16	0.32	0.0021	0.00039	0.0013	0.0037
Mar 2027	157	0.028	6.0	0.16	0.32	0.0021	0.00039	0.0013	0.0037
Apr 2027	157	0.028	6.0	0.16	0.32	0.0021	0.00039	0.0013	0.0037
May 2027	157	0.028	6.0	0.16	0.3	0.0021	0.00039	0.0013	0.0037
Jun 2027	105	0.019	3.8	0.1	0.21	0.0014	0.00028	0.0009	0.0027
Jul 2027	126	0.023	4.7	0.12	0.26	0.0017	0.00032	0.0011	0.0031
Aug 2027	136	0.025	5.1	0.13	0.28	0.0018	0.00034	0.0011	0.0033
Sep 2027	152	0.027	5.8	0.15	0.32	0.002	0.00038	0.0013	0.0036
Oct 2027	162	0.029	6.2	0.16	0.34	0.0021	0.0004	0.0013	0.0038
Nov 2027	162	0.029	6.2	0.16	0.34	0.0021	0.0004	0.0013	0.0038
Dec 2027	162	0.029	6.2	0.16	0.34	0.0021	0.0004	0.0013	0.0038
Jan 2028	162	0.029	6.2	0.16	0.34	0.0021	0.0004	0.0013	0.0038
Feb 2028	162	0.029	6.2	0.16	0.34	0.0021	0.0004	0.0013	0.0038
Mar 2028	162	0.029	6.2	0.16	0.34	0.0021	0.0004	0.0013	0.0038
Apr 2028	162	0.029	6.2	0.16	0.34	0.0021	0.0004	0.0013	0.0038
May 2028	162	0.029	6.2	0.16	0.3	0.0021	0.0004	0.0013	0.0038
Jun 2028	108	0.019	3.9	0.1	0.21	0.0014	0.00028	0.0009	0.0028
Jul 2028	128	0.023	4.8	0.13	0.26	0.0017	0.00032	0.0011	0.0031
Aug 2028	137	0.025	5.1	0.14	0.28	0.0018	0.00034	0.0012	0.0033
Sep 2028	153	0.028	5.8	0.15	0.32	0.002	0.00038	0.0013	0.0036
Oct 2028	163	0.029	6.2	0.16	0.34	0.0021	0.0004	0.0013	0.0038
Nov 2028	163	0.029	6.2	0.16	0.34	0.0021	0.0004	0.0013	0.0038
Dec 2028	163	0.029	6.2	0.16	0.34	0.0021	0.0004	0.0013	0.0038

0.1 Denotes a value above the discharge criteria

Appendix E
Wet Years Scenario
CP4 Average Monthly Dissolved Concentrations

Date	Total Dissolved Solids	Dissolved Phosphorus	Total Ammonia	Dissolved Aluminum	Dissolved Arsenic	Dissolved Copper	Dissolved Lead	Dissolved Nickel	Dissolved Zinc
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Discharge Criteria	3500	2	14	2	0.3	0.2	0.2	0.5	0.4
May 2020	977	0.065	0.91	0.0064	0.0056	0.0029	0.00013	0.015	0.0033
Jun 2020	416	0.028	0.71	0.012	0.0039	0.0016	0.00023	0.0058	0.0035
Jul 2020	333	0.027	1.36	0.025	0.006	0.0016	0.00028	0.0046	0.0044
Aug 2020	248	0.025	1.7	0.031	0.0069	0.0015	0.0003	0.0034	0.0048
Sep 2020	188	0.023	1.9	0.036	0.0076	0.0015	0.00031	0.0027	0.0051
Oct 2020	141	0.017	1.25	0.025	0.0053	0.0013	0.0003	0.002	0.0044
Nov 2020	141	0.017	1.25	0.025	0.0053	0.0013	0.0003	0.002	0.0044
Dec 2020	141	0.017	1.25	0.025	0.0053	0.0013	0.0003	0.002	0.0044
Jan 2021	141	0.017	1.25	0.025	0.0053	0.0013	0.0003	0.002	0.0044
Feb 2021	141	0.017	1.25	0.025	0.0053	0.0013	0.0003	0.002	0.0044
Mar 2021	141	0.017	1.25	0.025	0.0053	0.0013	0.0003	0.002	0.0044
Apr 2021	141	0.017	1.25	0.025	0.0053	0.0013	0.0003	0.002	0.0044
May 2021	141	0.017	1.25	0.025	0.0053	0.0013	0.0003	0.002	0.0044
Jun 2021	115	0.019	1.5	0.031	0.0041	0.0013	0.00031	0.0015	0.0058
Jul 2021	116	0.029	2.9	0.055	0.0054	0.0016	0.00037	0.0017	0.0092
Aug 2021	111	0.036	3.8	0.071	0.0061	0.0018	0.0004	0.0017	0.011
Sep 2021	102	0.042	4.6	0.084	0.0067	0.002	0.00043	0.0018	0.013
Oct 2021	91	0.034	3.6	0.067	0.0054	0.0017	0.00039	0.0016	0.011
Nov 2021	91	0.034	3.6	0.067	0.0054	0.0017	0.00039	0.0016	0.011
Dec 2021	91	0.034	3.6	0.067	0.0054	0.0017	0.00039	0.0016	0.011
Jan 2022	91	0.034	3.6	0.067	0.0054	0.0017	0.00039	0.0016	0.011
Feb 2022	91	0.034	3.6	0.067	0.0054	0.0017	0.00039	0.0016	0.011
Mar 2022	91	0.034	3.6	0.067	0.0054	0.0017	0.00039	0.0016	0.011
Apr 2022	91	0.034	3.6	0.067	0.0054	0.0017	0.00039	0.0016	0.011
May 2022	91	0.034	3.6	0.067	0.0054	0.0017	0.00039	0.0016	0.011
Jun 2022	105	0.029	3.6	0.067	0.0099	0.0016	0.00037	0.0014	0.0088
Jul 2022	122	0.039	5.9	0.11	0.019	0.002	0.00042	0.0017	0.011
Aug 2022	131	0.046	7.4	0.13	0.026	0.0023	0.00045	0.0018	0.012
Sep 2022	133	0.052	8.8	0.16	0.032	0.0026	0.00047	0.002	0.013
Oct 2022	119	0.043	7.2	0.13	0.027	0.0023	0.00044	0.0018	0.011
Nov 2022	119	0.043	7.2	0.13	0.027	0.0023	0.00044	0.0018	0.011
Dec 2022	119	0.043	7.2	0.13	0.027	0.0023	0.00044	0.0018	0.011
Jan 2023	119	0.043	7.2	0.13	0.027	0.0023	0.00044	0.0018	0.011
Feb 2023	119	0.043	7.2	0.13	0.027	0.0023	0.00044	0.0018	0.011
Mar 2023	119	0.043	7.2	0.13	0.027	0.0023	0.00044	0.0018	0.011
Apr 2023	119	0.043	7.2	0.13	0.027	0.0023	0.00044	0.0018	0.011
May 2023	119	0.043	7.2	0.13	0.027	0.0023	0.00044	0.0018	0.011
Jun 2023	146	0.033	5.6	0.1	0.023	0.0019	0.00039	0.0015	0.008
Jul 2023	159	0.040	7.7	0.14	0.035	0.0023	0.00042	0.0017	0.0085
Aug 2023	162	0.044	9.0	0.16	0.042	0.0025	0.00044	0.0019	0.0087
Sep 2023	161	0.048	10	0.18	0.049	0.0027	0.00045	0.002	0.0088
Oct 2023	141	0.040	8.4	0.15	0.04	0.0024	0.00042	0.0018	0.0077
Nov 2023	141	0.040	8.4	0.15	0.04	0.0024	0.00042	0.0018	0.0077
Dec 2023	141	0.040	8.4	0.15	0.04	0.0024	0.00042	0.0018	0.0077
Jan 2024	141	0.040	8.4	0.15	0.04	0.0024	0.00042	0.0018	0.0077
Feb 2024	141	0.040	8.4	0.15	0.04	0.0024	0.00042	0.0018	0.0077
Mar 2024	141	0.040	8.4	0.15	0.04	0.0024	0.00042	0.0018	0.0077
Apr 2024	141	0.040	8.4	0.15	0.04	0.0024	0.00042	0.0018	0.0077
May 2024	141	0.040	8.4	0.15	0.04	0.0024	0.00042	0.0018	0.0077
Jun 2024	171	0.031	6.2	0.11	0.031	0.0019	0.00038	0.0015	0.0062
Jul 2024	178	0.039	8.3	0.15	0.041	0.0023	0.00041	0.0017	0.007
Aug 2024	176	0.043	9.5	0.17	0.047	0.0025	0.00043	0.0019	0.0073
Sep 2024	171	0.047	11	0.19	0.053	0.0027	0.00045	0.002	0.0077
Oct 2024	149	0.040	8.7	0.15	0.043	0.0024	0.00042	0.0018	0.0068
Nov 2024	149	0.040	8.7	0.15	0.043	0.0024	0.00042	0.0018	0.0068
Dec 2024	149	0.040	8.7	0.15	0.043	0.0024	0.00042	0.0018	0.0068
Jan 2025	149	0.040	8.7	0.15	0.043	0.0024	0.00042	0.0018	0.0068
Feb 2025	149	0.040	8.7	0.15	0.043	0.0024	0.00042	0.0018	0.0068
Mar 2025	149	0.040	8.7	0.15	0.043	0.0024	0.00042	0.0018	0.0068
Apr 2025	149	0.040	8.7	0.15	0.043	0.0024	0.00042	0.0018	0.0068
May 2025	149	0.040	8.7	0.15	0.043	0.0024	0.00042	0.0018	0.0068
Jun 2025	176	0.026	5.2	0.095	0.027	0.0018	0.00036	0.0014	0.0052
Jul 2025	177	0.033	7.0	0.125	0.035	0.0021	0.0004	0.0016	0.006
Aug 2025	167	0.036	7.7	0.138	0.039	0.0022	0.00041	0.0017	0.0063
Sep 2025	156	0.039	8.5	0.15	0.043	0.0024	0.00042	0.0018	0.0065
Oct 2025	129	0.031	6.4	0.115	0.032	0.002	0.00038	0.0015	0.0056
Nov 2025	129	0.031	6.4	0.115	0.032	0.002	0.00038	0.0015	0.0056
Dec 2025	129	0.031	6.4	0.115	0.032	0.002	0.00038	0.0015	0.0056
Jan 2026	129	0.031	6.4	0.115	0.032	0.002	0.00038	0.0015	0.0056
Feb 2026	129	0.031	6.4	0.115	0.032	0.002	0.00038	0.0015	0.0056
Mar 2026	129	0.031	6.4	0.115	0.032	0.002	0.00038	0.0015	0.0056
Apr 2026	129	0.031	6.4	0.115	0.032	0.002	0.00038	0.0015	0.0056
May 2026	129	0.031	6.4	0.115	0.032	0.002	0.00038	0.0015	0.0056
Jun 2026	163	0.026	5.2	0.094	0.026	0.0017	0.00036	0.0014	0.005
Jul 2026	169	0.034	7.3	0.13	0.037	0.0021	0.0004	0.0016	0.006
Aug 2026	167	0.039	8.7	0.15	0.044	0.0024	0.00042	0.0018	0.0065
Sep 2026	163	0.044	9.9	0.17	0.05	0.0026	0.00043	0.0019	0.007
Oct 2026	142	0.037	8.1	0.14	0.041	0.0023	0.00041	0.0017	0.0062
Nov 2026	142	0.037	8.1	0.14	0.041	0.0023	0.00041	0.0017	0.0062
Dec 2026	142	0.037	8.1	0.14	0.041	0.0023	0.00041	0.0017	0.0062
Jan 2027	142	0.037	8.1	0.14	0.041	0.0023	0.00041	0.0017	0.0062
Feb 2027	142	0.037	8.1	0.14	0.041	0.0023	0.00041	0.0017	0.0062
Mar 2027	142	0.037	8.1	0.14	0.041	0.0023	0.00041	0.0017	0.0062
Apr 2027	142	0.037	8.1	0.14	0.041	0.0023	0.00041	0.0017	0.0062
May 2027	142	0.037	8.1	0.14	0.041	0.0023	0.00041	0.0017	0.0062
Jun 2027	170	0.029	6.1	0.11	0.031	0.0019	0.00037	0.0015	0.0054
Jul 2027	175	0.037	8.1	0.15	0.041	0.0023	0.00041	0.0017	0.0062
Aug 2027	171	0.042	9.4	0.17	0.047	0.0025	0.00043	0.0018	0.0067
Sep 2027	167	0.046	10	0.18	0.053	0.0027	0.00044	0.002	0.0072
Oct 2027	145	0.039	8.6	0.15	0.044	0.0024	0.00041	0.0017	0.0064
Nov 2027	145	0.039	8.6	0.15	0.044	0.0024	0.00041	0.0017	0.0064
Dec 2027	145	0.039	8.6	0.15	0.044	0.0024	0.00041	0.0017	0.0064
Jan 2028	145	0.039	8.6	0.15	0.044	0.0024	0.00041	0.0017	0.0064
Feb 2028	145	0.039	8.6	0.15	0.044	0.0024	0.00041	0.0017	0.0064
Mar 2028	145	0.039	8.6	0.15	0.044	0.0024	0.00041	0.0017	0.0064
Apr 2028	145	0.039	8.6	0.15	0.044	0.0024	0.00041	0.0017	0.0064
May 2028	145	0.039	8.6	0.15	0.044	0.0024	0.00041	0.0017	0.0064
Jun 2028	171	0.030	6.4	0.11	0.033	0.002	0.00037	0.0015	0.0054
Jul 2028	175	0.038	8.4	0.15	0.042	0.0023	0.00041	0.0017	0.0063
Aug 2028	171	0.043	9.6	0.17	0.048	0.0025	0.00043	0.0019	0.0068
Sep 2028	167	0.047	11	0.19	0.054	0.0027	0.00044	0.002	0.0072
Oct 2028	145	0.040	8.7	0.15	0.044	0.0024	0.00041	0.0018	0.0065
Nov 2028	145	0.040	8.7	0.15	0.044	0.0024	0.00041	0.0018	0.0065
Dec 2028	145	0.040	8.7	0.15	0.044	0.0024	0.00041	0.0018	0.0065

0.1 Denotes a value above the discharge criteria

Appendix E
Wet Years Scenario
CP5 Average Monthly Dissolved Concentrations

Date	Total Dissolved Solids	Total Ammonia	Dissolved Aluminum	Dissolved Arsenic	Dissolved Copper	Dissolved Lead	Dissolved Nickel	Dissolved Zinc
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Discharge Criteria	3500	14	2	0.3	0.2	0.2	0.5	0.4
May 2020	7153	18	0.025	0.0043	0.0067	0.0017	0.038	0.042
Jun 2020	1707	6.0	0.024	0.0025	0.0021	0.0007	0.0088	0.0125
Jul 2020	2010	8.7	0.064	0.005	0.0022	0.00105	0.0081	0.015
Aug 2020	1277	6.2	0.068	0.0052	0.0017	0.00088	0.0043	0.0102
Sep 2020	700	4.5	0.065	0.005	0.0014	0.00075	0.0026	0.0076
Oct 2020	404	3.3	0.057	0.0038	0.00107	0.00065	0.0017	0.0057
Nov 2020	404	3.3	0.057	0.0038	0.00107	0.00065	0.0017	0.0057
Dec 2020	404	3.3	0.057	0.0038	0.00107	0.00065	0.0017	0.0057
Jan 2021	404	3.3	0.057	0.0038	0.00107	0.00065	0.0017	0.0057
Feb 2021	404	3.3	0.057	0.0038	0.00107	0.00065	0.0017	0.0057
Mar 2021	404	3.3	0.057	0.0038	0.00107	0.00065	0.0017	0.0057
Apr 2021	404	3.3	0.057	0.0038	0.00107	0.00065	0.0017	0.0057
May 2021	404	3.3	0.057	0.0038	0.00107	0.00065	0.0017	0.0057
Jun 2021	342	4.9	0.082	0.0051	0.00095	0.00082	0.0014	0.0059
Jul 2021	822	6.7	0.13	0.011	0.0013	0.0011	0.0018	0.0085
Aug 2021	884	6.7	0.13	0.012	0.0013	0.0011	0.0018	0.0086
Sep 2021	578	6.4	0.13	0.013	0.0013	0.001	0.0017	0.0086
Oct 2021	402	5.5	0.12	0.012	0.0012	0.0009	0.0015	0.0074
Nov 2021	402	5.5	0.12	0.012	0.0012	0.0009	0.0015	0.0074
Dec 2021	402	5.5	0.12	0.012	0.0012	0.0009	0.0015	0.0074
Jan 2022	402	5.5	0.12	0.012	0.0012	0.0009	0.0015	0.0074
Feb 2022	402	5.5	0.12	0.012	0.0012	0.0009	0.0015	0.0074
Mar 2022	402	5.5	0.12	0.012	0.0012	0.0009	0.0015	0.0074
Apr 2022	402	5.5	0.12	0.012	0.0012	0.0009	0.0015	0.0074
May 2022	402	5.5	0.12	0.012	0.0012	0.0009	0.0015	0.0074
Jun 2022	328	3.2	0.1	0.0069	0.0011	0.0010	0.0016	0.0069
Jul 2022	644	5.4	0.14	0.013	0.0014	0.0012	0.0019	0.0087
Aug 2022	674	5.9	0.14	0.013	0.0014	0.0011	0.0019	0.0085
Sep 2022	465	5.7	0.13	0.014	0.0014	0.001	0.0018	0.0083
Oct 2022	326	4.7	0.11	0.011	0.0012	0.00091	0.0016	0.0071
Nov 2022	326	4.7	0.11	0.011	0.0012	0.00091	0.0016	0.0071
Dec 2022	326	4.7	0.11	0.011	0.0012	0.00091	0.0016	0.0071
Jan 2023	326	4.7	0.11	0.011	0.0012	0.00091	0.0016	0.0071
Feb 2023	326	4.7	0.11	0.011	0.0012	0.00091	0.0016	0.0071
Mar 2023	326	4.7	0.11	0.011	0.0012	0.00091	0.0016	0.0071
Apr 2023	326	4.7	0.11	0.011	0.0012	0.00091	0.0016	0.0071
May 2023	326	4.7	0.11	0.011	0.0012	0.00091	0.0016	0.0071
Jun 2023	243	3.9	0.097	0.0072	0.001	0.00092	0.0015	0.0063
Jul 2023	458	6.2	0.13	0.014	0.0013	0.0011	0.0018	0.0079
Aug 2023	472	6.7	0.13	0.015	0.0013	0.0010	0.0017	0.0077
Sep 2023	323	6.4	0.13	0.016	0.0014	0.00093	0.0017	0.0075
Oct 2023	229	5.4	0.11	0.013	0.0012	0.00083	0.0015	0.0067
Nov 2023	229	5.4	0.11	0.013	0.0012	0.00083	0.0015	0.0067
Dec 2023	229	5.4	0.11	0.013	0.0012	0.00083	0.0015	0.0067
Jan 2024	229	5.4	0.11	0.013	0.0012	0.00083	0.0015	0.0067
Feb 2024	229	5.4	0.11	0.013	0.0012	0.00083	0.0015	0.0067
Mar 2024	229	5.4	0.11	0.013	0.0012	0.00083	0.0015	0.0067
Apr 2024	229	5.4	0.11	0.013	0.0012	0.00083	0.0015	0.0067
May 2024	229	5.4	0.11	0.013	0.0012	0.00083	0.0015	0.0067
Jun 2024	227	2.0	0.11	0.0076	0.0012	0.0011	0.0017	0.0072
Jul 2024	413	4.4	0.15	0.013	0.0015	0.0013	0.002	0.0088
Aug 2024	425	5.2	0.15	0.014	0.0014	0.0012	0.0019	0.0084
Sep 2024	308	4.9	0.14	0.015	0.0014	0.0011	0.0019	0.0081
Oct 2024	222	3.9	0.12	0.011	0.0012	0.00099	0.0016	0.0071
Nov 2024	222	3.9	0.12	0.011	0.0012	0.00099	0.0016	0.0071
Dec 2024	222	3.9	0.12	0.011	0.0012	0.00099	0.0016	0.0071
Jan 2025	222	3.9	0.12	0.011	0.0012	0.00099	0.0016	0.0071
Feb 2025	222	3.9	0.12	0.011	0.0012	0.00099	0.0016	0.0071
Mar 2025	222	3.9	0.12	0.011	0.0012	0.00099	0.0016	0.0071
Apr 2025	222	3.9	0.12	0.011	0.0012	0.00099	0.0016	0.0071
May 2025	222	3.9	0.12	0.011	0.0012	0.00099	0.0016	0.0071
Jun 2025	176	2.8	0.106	0.0062	0.00107	0.00108	0.0017	0.0069
Jul 2025	339	5.9	0.14	0.0116	0.0013	0.0012	0.0019	0.0083
Aug 2025	327	6.3	0.13	0.0116	0.0012	0.0011	0.0018	0.0076
Sep 2025	206	5.8	0.12	0.012	0.0012	0.00102	0.0017	0.0073
Oct 2025	143	4.8	0.104	0.0092	0.00106	0.00089	0.0015	0.0064
Nov 2025	143	4.8	0.104	0.0092	0.00106	0.00089	0.0015	0.0064
Dec 2025	143	4.8	0.104	0.0092	0.00106	0.00089	0.0015	0.0064
Jan 2026	143	4.8	0.104	0.0092	0.00106	0.00089	0.0015	0.0064
Feb 2026	143	4.8	0.104	0.0092	0.00106	0.00089	0.0015	0.0064
Mar 2026	143	4.8	0.104	0.0092	0.00106	0.00089	0.0015	0.0064
Apr 2026	143	4.8	0.104	0.0092	0.00106	0.00089	0.0015	0.0064
May 2026	143	4.8	0.104	0.0092	0.00106	0.00089	0.0015	0.0064
Jun 2026	138	3.3	0.11	0.0068	0.0011	0.001	0.0016	0.0067
Jul 2026	244	5.8	0.14	0.014	0.0014	0.0012	0.0019	0.0084
Aug 2026	250	6.4	0.14	0.015	0.0014	0.0011	0.0018	0.0081
Sep 2026	180	6.1	0.14	0.016	0.0014	0.001	0.0018	0.0079
Oct 2026	133	5.1	0.12	0.013	0.0012	0.00092	0.0016	0.0071
Nov 2026	133	5.1	0.12	0.013	0.0012	0.00092	0.0016	0.0071
Dec 2026	133	5.1	0.12	0.013	0.0012	0.00092	0.0016	0.0071
Jan 2027	133	5.1	0.12	0.013	0.0012	0.00092	0.0016	0.0071
Feb 2027	133	5.1	0.12	0.013	0.0012	0.00092	0.0016	0.0071
Mar 2027	133	5.1	0.12	0.013	0.0012	0.00092	0.0016	0.0071
Apr 2027	133	5.1	0.12	0.013	0.0012	0.00092	0.0016	0.0071
May 2027	133	5.1	0.12	0.013	0.0012	0.00092	0.0016	0.0071
Jun 2027	133	1.9	0.12	0.0077	0.0012	0.0012	0.0018	0.0076
Jul 2027	260	2.4	0.17	0.012	0.0016	0.0016	0.0025	0.01
Aug 2027	290	2.2	0.18	0.012	0.0016	0.0017	0.0025	0.01
Sep 2027	222	2.1	0.17	0.012	0.0015	0.0016	0.0024	0.0098
Oct 2027	164	1.3	0.14	0.0082	0.0013	0.0014	0.0021	0.0085
Nov 2027	164	1.3	0.14	0.0082	0.0013	0.0014	0.0021	0.0085
Dec 2027	164	1.3	0.14	0.0082	0.0013	0.0014	0.0021	0.0085
Jan 2028	164	1.3	0.14	0.0082	0.0013	0.0014	0.0021	0.0085
Feb 2028	164	1.3	0.14	0.0082	0.0013	0.0014	0.0021	0.0085
Mar 2028	164	1.3	0.14	0.0082	0.0013	0.0014	0.0021	0.0085
Apr 2028	164	1.3	0.14	0.0082	0.0013	0.0014	0.0021	0.0085
May 2028	164	1.3	0.14	0.0082	0.0013	0.0014	0.0021	0.0085
Jun 2028	126	0.93	0.13	0.0065	0.0012	0.0013	0.002	0.008
Jul 2028	219	1.7	0.18	0.011	0.0016	0.0017	0.0026	0.01
Aug 2028	237	1.8	0.18	0.012	0.0016	0.0018	0.0026	0.011
Sep 2028	183	1.9	0.17	0.012	0.0015	0.0016	0.0024	0.0099
Oct 2028	135	1.2	0.14	0.008	0.0013	0.0014	0.0021	0.0085
Nov 2028	135	1.2	0.14	0.008	0.0013	0.0014	0.0021	0.0085
Dec 2028	135	1.2	0.14	0.008	0.0013	0.0014	0.0021	0.0085

0.1 Denotes a value above the discharge criteria

Appendix E
Wet Years Scenario
CP6 Average Monthly Dissolved Concentrations

Date	Total Dissolved Solids	Dissolved Phosphorus	Total Ammonia	Dissolved Aluminum	Dissolved Arsenic	Dissolved Copper	Dissolved Lead	Dissolved Nickel	Dissolved Zinc
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Discharge Criteria	3500	2	14	2	0.3	0.2	0.2	0.5	0.4
May 2020	977	0.065	0.91	0.0064	0.0056	0.0029	0.00013	0.015	0.0033
Jun 2020	555	0.048	3.0	0.049	0.0145	0.0023	0.00021	0.0087	0.0048
Jul 2020	551	0.065	7.2	0.121	0.033	0.0031	0.0003	0.0087	0.0082
Aug 2020	507	0.074	10.2	0.17	0.046	0.0036	0.00037	0.0081	0.0106
Sep 2020	468	0.082	13	0.22	0.057	0.004	0.00042	0.0075	0.013
Oct 2020	389	0.068	10.4	0.18	0.047	0.0034	0.00039	0.0062	0.0108
Nov 2020	389	0.068	10.4	0.18	0.047	0.0034	0.00039	0.0062	0.0108
Dec 2020	389	0.068	10.4	0.18	0.047	0.0034	0.00039	0.0062	0.0108
Jan 2021	389	0.068	10.4	0.18	0.047	0.0034	0.00039	0.0062	0.0108
Feb 2021	389	0.068	10.4	0.18	0.047	0.0034	0.00039	0.0062	0.0108
Mar 2021	389	0.068	10.4	0.18	0.047	0.0034	0.00039	0.0062	0.0108
Apr 2021	389	0.068	10.4	0.18	0.047	0.0034	0.00039	0.0062	0.0108
May 2021	389	0.068	10.4	0.18	0.047	0.0034	0.00039	0.0062	0.0108
Jun 2021	285	0.056	9.6	0.17	0.046	0.003	0.00036	0.0045	0.0089
Jul 2021	312	0.071	14	0.24	0.068	0.0038	0.00043	0.0049	0.0106
Aug 2021	321	0.080	17	0.29	0.083	0.0043	0.00048	0.005	0.012
Sep 2021	329	0.089	19	0.34	0.098	0.0048	0.00051	0.0051	0.013
Oct 2021	291	0.078	17	0.3	0.085	0.0043	0.00047	0.0045	0.011
Nov 2021	291	0.078	17	0.3	0.085	0.0043	0.00047	0.0045	0.011
Dec 2021	291	0.078	17	0.3	0.085	0.0043	0.00047	0.0045	0.011
Jan 2022	291	0.078	17	0.3	0.085	0.0043	0.00047	0.0045	0.011
Feb 2022	291	0.078	17	0.3	0.085	0.0043	0.00047	0.0045	0.011
Mar 2022	291	0.078	17	0.3	0.085	0.0043	0.00047	0.0045	0.011
Apr 2022	291	0.078	17	0.3	0.085	0.0043	0.00047	0.0045	0.011
May 2022	291	0.078	17	0.3	0.085	0.0043	0.00047	0.0045	0.011
Jun 2022	205	0.070	13	0.23	0.058	0.0035	0.00046	0.0034	0.014
Jul 2022	211	0.096	17	0.29	0.061	0.0043	0.00058	0.0039	0.022
Aug 2022	206	0.11	19	0.33	0.061	0.0048	0.00066	0.0041	0.028
Sep 2022	201	0.13	21	0.36	0.061	0.0053	0.00073	0.0043	0.034
Oct 2022	180	0.11	18	0.31	0.053	0.0047	0.00066	0.0039	0.03
Nov 2022	180	0.11	18	0.31	0.053	0.0047	0.00066	0.0039	0.03
Dec 2022	180	0.11	18	0.31	0.053	0.0047	0.00066	0.0039	0.03
Jan 2023	180	0.11	18	0.31	0.053	0.0047	0.00066	0.0039	0.03
Feb 2023	180	0.11	18	0.31	0.053	0.0047	0.00066	0.0039	0.03
Mar 2023	180	0.11	18	0.31	0.053	0.0047	0.00066	0.0039	0.03
Apr 2023	180	0.11	18	0.31	0.053	0.0047	0.00066	0.0039	0.03
May 2023	180	0.11	18	0.31	0.053	0.0047	0.00066	0.0039	0.03
Jun 2023	131	0.10	14	0.24	0.035	0.0038	0.00059	0.0031	0.027
Jul 2023	134	0.12	17	0.3	0.035	0.0046	0.00071	0.0036	0.036
Aug 2023	131	0.14	19	0.33	0.033	0.0051	0.0008	0.0038	0.043
Sep 2023	128	0.16	21	0.36	0.031	0.0055	0.00087	0.0041	0.048
Oct 2023	116	0.14	18	0.32	0.027	0.0049	0.00079	0.0036	0.042
Nov 2023	116	0.14	18	0.32	0.027	0.0049	0.00079	0.0036	0.042
Dec 2023	116	0.14	18	0.32	0.027	0.0049	0.00079	0.0036	0.042
Jan 2024	116	0.14	18	0.32	0.027	0.0049	0.00079	0.0036	0.042
Feb 2024	116	0.14	18	0.32	0.027	0.0049	0.00079	0.0036	0.042
Mar 2024	116	0.14	18	0.32	0.027	0.0049	0.00079	0.0036	0.042
Apr 2024	116	0.14	18	0.32	0.027	0.0049	0.00079	0.0036	0.042
May 2024	116	0.14	18	0.32	0.027	0.0049	0.00079	0.0036	0.042
Jun 2024	115	0.10	14	0.25	0.033	0.0039	0.00064	0.0029	0.029
Jul 2024	154	0.11	18	0.32	0.054	0.0045	0.0007	0.0033	0.029
Aug 2024	183	0.12	21	0.36	0.07	0.0048	0.00073	0.0035	0.029
Sep 2024	203	0.12	23	0.39	0.084	0.0051	0.00074	0.0037	0.028
Oct 2024	183	0.10	20	0.34	0.073	0.0046	0.00068	0.0033	0.024
Nov 2024	183	0.10	20	0.34	0.073	0.0046	0.00068	0.0033	0.024
Dec 2024	183	0.10	20	0.34	0.073	0.0046	0.00068	0.0033	0.024
Jan 2025	183	0.10	20	0.34	0.073	0.0046	0.00068	0.0033	0.024
Feb 2025	183	0.10	20	0.34	0.073	0.0046	0.00068	0.0033	0.024
Mar 2025	183	0.10	20	0.34	0.073	0.0046	0.00068	0.0033	0.024
Apr 2025	183	0.10	20	0.34	0.073	0.0046	0.00068	0.0033	0.024
May 2025	183	0.10	20	0.34	0.073	0.0046	0.00068	0.0033	0.024
Jun 2025	169	0.067	13.0	0.23	0.052	0.0032	0.00053	0.0024	0.015
Jul 2025	202	0.079	16	0.29	0.07	0.0038	0.0006	0.0028	0.016
Aug 2025	217	0.083	18	0.31	0.081	0.0041	0.00062	0.0029	0.016
Sep 2025	223	0.086	19	0.34	0.089	0.0043	0.00063	0.0031	0.015
Oct 2025	191	0.071	15.8	0.28	0.073	0.0036	0.00057	0.0026	0.0131
Nov 2025	191	0.071	15.8	0.28	0.073	0.0036	0.00057	0.0026	0.0131
Dec 2025	191	0.071	15.8	0.28	0.073	0.0036	0.00057	0.0026	0.0131
Jan 2026	191	0.071	15.8	0.28	0.073	0.0036	0.00057	0.0026	0.0131
Feb 2026	191	0.071	15.8	0.28	0.073	0.0036	0.00057	0.0026	0.0131
Mar 2026	191	0.071	15.8	0.28	0.073	0.0036	0.00057	0.0026	0.0131
Apr 2026	191	0.071	15.8	0.28	0.073	0.0036	0.00057	0.0026	0.0131
May 2026	191	0.071	15.8	0.28	0.073	0.0036	0.00057	0.0026	0.0131
Jun 2026	183	0.057	12.9	0.23	0.061	0.003	0.0005	0.0022	0.0103
Jul 2026	214	0.071	17	0.29	0.081	0.0037	0.00057	0.0027	0.0118
Aug 2026	232	0.080	19	0.33	0.095	0.0042	0.00061	0.003	0.013
Sep 2026	245	0.087	21	0.37	0.106	0.0045	0.00063	0.0032	0.013
Oct 2026	219	0.077	19	0.32	0.093	0.004	0.00059	0.0029	0.0118
Nov 2026	219	0.077	19	0.32	0.093	0.004	0.00059	0.0029	0.0118
Dec 2026	219	0.077	19	0.32	0.093	0.004	0.00059	0.0029	0.0118
Jan 2027	219	0.077	19	0.32	0.093	0.004	0.00059	0.0029	0.0118
Feb 2027	219	0.077	19	0.32	0.093	0.004	0.00059	0.0029	0.0118
Mar 2027	219	0.077	19	0.32	0.093	0.004	0.00059	0.0029	0.0118
Apr 2027	219	0.077	19	0.32	0.093	0.004	0.00059	0.0029	0.0118
May 2027	219	0.077	19	0.32	0.093	0.004	0.00059	0.0029	0.0118
Jun 2027	200	0.061	15	0.26	0.074	0.0033	0.00051	0.0024	0.0095
Jul 2027	229	0.074	18	0.32	0.093	0.004	0.00058	0.0028	0.011
Aug 2027	245	0.083	21	0.36	0.105	0.0044	0.00062	0.0031	0.012
Sep 2027	256	0.090	23	0.4	0.12	0.0047	0.00064	0.0033	0.012
Oct 2027	228	0.079	20	0.34	0.101	0.0042	0.0006	0.003	0.011
Nov 2027	228	0.079	20	0.34	0.101	0.0042	0.0006	0.003	0.011
Dec 2027	228	0.079	20	0.34	0.101	0.0042	0.0006	0.003	0.011
Jan 2028	228	0.079	20	0.34	0.101	0.0042	0.0006	0.003	0.011
Feb 2028	228	0.079	20	0.34	0.101	0.0042	0.0006	0.003	0.011
Mar 2028	228	0.079	20	0.34	0.101	0.0042	0.0006	0.003	0.011
Apr 2028	228	0.079	20	0.34	0.101	0.0042	0.0006	0.003	0.011
May 2028	228	0.079	20	0.34	0.101	0.0042	0.0006	0.003	0.011
Jun 2028	205	0.062	15	0.27	0.079	0.0034	0.00052	0.0025	0.0092
Jul 2028	234	0.076	19	0.33	0.097	0.0041	0.00058	0.0029	0.011
Aug 2028	248	0.084	21	0.37	0.11	0.0045	0.00062	0.0032	0.012
Sep 2028	259	0.091	23	0.4	0.12	0.0048	0.00065	0.0034	0.012
Oct 2028	230	0.080	20	0.35	0.1	0.0043	0.0006	0.003	0.011
Nov 2028	230	0.080	20	0.35	0.1	0.0043	0.0006	0.003	0.011
Dec 2028	230	0.080	20	0.35	0.1	0.0043	0.0006	0.003	0.011

0.1 Denotes a value above the discharge criteria

Appendix E
Wet Years Scenario
P-Area Average Monthly Dissolved Concentrations

Date	Total Dissolved Solids	Total Ammonia	Dissolved Aluminum	Dissolved Arsenic	Dissolved Copper	Dissolved Lead	Dissolved Nickel	Dissolved Zinc
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Discharge Criteria	3500	14	2	0.3	0.2	0.2	0.5	0.4
May 2020	10950	36	0.03	0.0059	0.0047	0.002	0.028	0.05
Jun 2020	3060	15	0.059	0.0042	0.0024	0.0014	0.0125	0.024
Jul 2020	4169	16	0.13	0.0065	0.0029	0.0021	0.0137	0.028
Aug 2020	4923	1.4	0.38	0.012	0.0022	0.0038	0.0049	0.02
Sep 2020	1116	0.91	0.24	0.0078	0.0014	0.0024	0.0031	0.013
Oct 2020	982	0.8	0.21	0.0068	0.0012	0.0021	0.0027	0.011

0.1 Denotes a value above the discharge criteria

Appendix E
Wet Years Scenario
Tiri-1 Average Monthly Dissolved Concentrations

Date	Total Dissolved Solids	Dissolved Phosphorus	Total Ammonia	Dissolved Aluminum	Dissolved Arsenic	Dissolved Copper	Dissolved Lead	Dissolved Nickel	Dissolved Zinc
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Discharge Criteria	3500	2	14	2	0.3	0.2	0.2	0.5	0.4
May 2020	-	-	-	-	-	-	-	-	-
Jun 2020	-	-	-	-	-	-	-	-	-
Jul 2020	-	-	-	-	-	-	-	-	-
Aug 2020	-	-	-	-	-	-	-	-	-
Sep 2020	-	-	-	-	-	-	-	-	-
Oct 2020	-	-	-	-	-	-	-	-	-
Nov 2020	-	-	-	-	-	-	-	-	-
Dec 2020	-	-	-	-	-	-	-	-	-
Jan 2021	-	-	-	-	-	-	-	-	-
Feb 2021	-	-	-	-	-	-	-	-	-
Mar 2021	-	-	-	-	-	-	-	-	-
Apr 2021	-	-	-	-	-	-	-	-	-
May 2021	-	-	-	-	-	-	-	-	-
Jun 2021	21	0.0083	13	0.028	0.0067	0.00047	0.000082	0.00035	0.0019
Jul 2021	42	0.024	13	0.09	0.021	0.0011	0.00013	0.0007	0.0047
Aug 2021	39	0.021	13	0.08	0.019	0.001	0.00012	0.00066	0.0043
Sep 2021	50	0.028	13	0.1	0.025	0.0013	0.00015	0.00083	0.0055
Oct 2021	50	0.027	13	0.1	0.024	0.0013	0.00015	0.00083	0.0054
Nov 2021	-	-	-	-	-	-	-	-	-
Dec 2021	-	-	-	-	-	-	-	-	-
Jan 2022	-	-	-	-	-	-	-	-	-
Feb 2022	-	-	-	-	-	-	-	-	-
Mar 2022	-	-	-	-	-	-	-	-	-
Apr 2022	-	-	-	-	-	-	-	-	-
May 2022	-	-	-	-	-	-	-	-	-
Jun 2022	21	0.0083	13	0.028	0.0067	0.00047	0.000082	0.00035	0.0019
Jul 2022	42	0.024	13	0.09	0.021	0.0011	0.00013	0.0007	0.0047
Aug 2022	39	0.021	13	0.08	0.019	0.001	0.00012	0.00066	0.0043
Sep 2022	50	0.028	13	0.1	0.025	0.0013	0.00015	0.00083	0.0055
Oct 2022	50	0.027	13	0.1	0.024	0.0013	0.00015	0.00083	0.0054
Nov 2022	-	-	-	-	-	-	-	-	-
Dec 2022	-	-	-	-	-	-	-	-	-
Jan 2023	-	-	-	-	-	-	-	-	-
Feb 2023	-	-	-	-	-	-	-	-	-
Mar 2023	-	-	-	-	-	-	-	-	-
Apr 2023	-	-	-	-	-	-	-	-	-
May 2023	-	-	-	-	-	-	-	-	-
Jun 2023	19	0.0084	13	0.029	0.0069	0.00045	0.000073	0.00032	0.0019
Jul 2023	42	0.024	13	0.092	0.022	0.0011	0.00012	0.00069	0.0047
Aug 2023	39	0.022	13	0.083	0.02	0.001	0.00012	0.00065	0.0043
Sep 2023	50	0.029	13	0.11	0.026	0.0013	0.00015	0.00083	0.0056
Oct 2023	50	0.028	13	0.11	0.025	0.0013	0.00015	0.00083	0.0055
Nov 2023	-	-	-	-	-	-	-	-	-
Dec 2023	-	-	-	-	-	-	-	-	-
Jan 2024	-	-	-	-	-	-	-	-	-
Feb 2024	-	-	-	-	-	-	-	-	-
Mar 2024	-	-	-	-	-	-	-	-	-
Apr 2024	-	-	-	-	-	-	-	-	-
May 2024	-	-	-	-	-	-	-	-	-
Jun 2024	19	0.0084	13	0.029	0.0069	0.00045	0.000073	0.00032	0.0019
Jul 2024	42	0.024	13	0.092	0.022	0.0011	0.00012	0.00069	0.0047
Aug 2024	39	0.022	13	0.083	0.02	0.001	0.00012	0.00065	0.0043
Sep 2024	50	0.029	13	0.11	0.026	0.0013	0.00015	0.00083	0.0056
Oct 2024	50	0.028	13	0.11	0.025	0.0013	0.00015	0.00083	0.0055
Nov 2024	-	-	-	-	-	-	-	-	-
Dec 2024	-	-	-	-	-	-	-	-	-
Jan 2025	-	-	-	-	-	-	-	-	-
Feb 2025	-	-	-	-	-	-	-	-	-
Mar 2025	-	-	-	-	-	-	-	-	-
Apr 2025	-	-	-	-	-	-	-	-	-
May 2025	-	-	-	-	-	-	-	-	-
Jun 2025	16	0.006	13	0.0197	0.0047	0.00035	0.000064	0.00026	0.00141
Jul 2025	30	0.017	13	0.062	0.0147	0.00076	0.000091	0.00049	0.0033
Aug 2025	28	0.015	13	0.056	0.0132	0.00071	0.00009	0.00047	0.003
Sep 2025	36	0.019	13	0.073	0.017	0.00091	0.000112	0.0006	0.0039
Oct 2025	36	0.019	13	0.071	0.017	0.00091	0.000114	0.0006	0.0039
Nov 2025	-	-	-	-	-	-	-	-	-
Dec 2025	-	-	-	-	-	-	-	-	-
Jan 2026	-	-	-	-	-	-	-	-	-
Feb 2026	-	-	-	-	-	-	-	-	-
Mar 2026	-	-	-	-	-	-	-	-	-
Apr 2026	-	-	-	-	-	-	-	-	-
May 2026	-	-	-	-	-	-	-	-	-
Jun 2026	19	0.0084	13	0.029	0.0069	0.00045	0.000073	0.00032	0.0019
Jul 2026	42	0.024	13	0.092	0.022	0.0011	0.00012	0.00069	0.0047
Aug 2026	39	0.022	13	0.083	0.02	0.001	0.00012	0.00065	0.0043
Sep 2026	50	0.029	13	0.11	0.026	0.0013	0.00015	0.00083	0.0056
Oct 2026	50	0.028	13	0.11	0.025	0.0013	0.00015	0.00083	0.0055
Nov 2026	-	-	-	-	-	-	-	-	-
Dec 2026	-	-	-	-	-	-	-	-	-
Jan 2027	-	-	-	-	-	-	-	-	-
Feb 2027	-	-	-	-	-	-	-	-	-
Mar 2027	-	-	-	-	-	-	-	-	-
Apr 2027	-	-	-	-	-	-	-	-	-
May 2027	-	-	-	-	-	-	-	-	-
Jun 2027	19	0.0084	13	0.029	0.0069	0.00045	0.000073	0.00032	0.0019
Jul 2027	25	0.012	13	0.044	0.01	0.00061	0.000085	0.00041	0.0025
Aug 2027	27	0.013	13	0.049	0.012	0.00066	0.000089	0.00044	0.0028
Sep 2027	28	0.014	13	0.053	0.013	0.0007	0.000092	0.00047	0.0029
Oct 2027	29	0.015	13	0.055	0.013	0.00072	0.000095	0.00048	0.003
Nov 2027	29	0.015	13	0.055	0.013	0.00072	0.000095	0.00048	0.003
Dec 2027	29	0.015	13	0.055	0.013	0.00072	0.000095	0.00048	0.003
Jan 2028	29	0.015	13	0.055	0.013	0.00072	0.000095	0.00048	0.003
Feb 2028	29	0.015	13	0.055	0.013	0.00072	0.000095	0.00048	0.003
Mar 2028	29	0.015	13	0.055	0.013	0.00072	0.000095	0.00048	0.003
Apr 2028	29	0.015	13	0.055	0.013	0.00072	0.000095	0.00048	0.003
May 2028	29	0.015	13	0.055	0.013	0.00072	0.000095	0.00048	0.003
Jun 2028	28	0.015	13	0.054	0.013	0.00071	0.000094	0.00047	0.003
Jul 2028	29	0.015	13	0.054	0.013	0.00071	0.000094	0.00048	0.003
Aug 2028	29	0.015	13	0.055	0.013	0.00072	0.000095	0.00048	0.003
Sep 2028	29	0.015	13	0.055	0.013	0.00072	0.000095	0.00048	0.0031
Oct 2028	29	0.015	13	0.055	0.013	0.00072	0.000095	0.00048	0.0031
Nov 2028	29	0.015	13	0.055	0.013	0.00072	0.000095	0.00048	0.0031
Dec 2028	29	0.015	13	0.055	0.013	0.00072	0.000095	0.00048	0.0031

0.1 Denotes a value above the discharge criteria

Appendix E
Wet Years Scenario
Tiri-2 Average Monthly Dissolved Concentrations

Date	Total Dissolved Solids	Dissolved Phosphorus	Total Ammonia	Dissolved Aluminum	Dissolved Arsenic	Dissolved Copper	Dissolved Lead	Dissolved Nickel	Dissolved Zinc
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Discharge Criteria	3500	2	14	2	0.3	0.2	0.2	0.5	0.4
May 2020	-	-	-	-	-	-	-	-	-
Jun 2020	34	0.0085	13	0.017	0.0027	0.0007	0.00017	0.00057	0.0026
Jul 2020	43	0.021	13	0.06	0.009	0.0011	0.00019	0.0007	0.0047
Aug 2020	42	0.018	13	0.05	0.007	0.0011	0.00019	0.0007	0.004
Sep 2020	48	0.022	13	0.06	0.009	0.0012	0.00021	0.0008	0.005
Oct 2020	45	0.019	13	0.05	0.006	0.0011	0.00021	0.0008	0.005

0.1 Denotes a value above the discharge criteria

Appendix E
Wet Years Scenario
CP1 Average Monthly Dissolved Concentrations

Date	Total Dissolved Solids	Dissolved Phosphorus	Total Ammonia	Dissolved Aluminum	Dissolved Arsenic	Dissolved Copper	Dissolved Lead	Dissolved Nickel	Dissolved Zinc
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Discharge Criteria	3500	2	14	2	0.3	0.2	0.2	0.5	0.4
May 2020	1293	0.08	4	0.004	0.0019	0.0008	0.00023	0.004	0.009
Jun 2020	1175	0.082	3.5	0.052	0.012	0.0012	0.0007	0.0043	0.009
Jul 2020	1402	0.11	3.7	0.071	0.021	0.0013	0.0008	0.0045	0.01
Aug 2020	1628	0.16	3.6	0.11	0.037	0.0015	0.0011	0.0043	0.011
Sep 2020	1406	0.19	3.5	0.12	0.049	0.0015	0.0012	0.004	0.01
Oct 2020	1151	0.2	3.2	0.12	0.054	0.0015	0.0011	0.0035	0.01
Nov 2020	1146	0.25	3.2	0.12	0.053	0.0015	0.0011	0.0034	0.01
Dec 2020	1142	0.31	3.2	0.12	0.053	0.0015	0.0011	0.0034	0.009
Jan 2021	1138	0.37	3.1	0.12	0.052	0.0015	0.0011	0.0034	0.009
Feb 2021	1134	0.42	3.1	0.12	0.052	0.0015	0.0011	0.0034	0.009
Mar 2021	1130	0.47	3.1	0.12	0.052	0.0015	0.0011	0.0034	0.009
Apr 2021	1126	0.53	3.1	0.12	0.051	0.0014	0.0011	0.0033	0.009
May 2021	1122	0.58	3.1	0.12	0.051	0.0014	0.0011	0.0033	0.009
Jun 2021	921	0.4	3.1	0.13	0.048	0.0014	0.0012	0.0029	0.009
Jul 2021	1071	0.42	3.4	0.15	0.058	0.0015	0.0013	0.003	0.01
Aug 2021	1211	0.41	3.8	0.17	0.07	0.0016	0.0014	0.003	0.011
Sep 2021	1092	0.41	4.0	0.17	0.079	0.0017	0.0014	0.0029	0.011
Oct 2021	942	0.39	3.9	0.17	0.083	0.0017	0.0014	0.0027	0.011
Nov 2021	939	0.45	3.9	0.17	0.082	0.0017	0.0014	0.0027	0.011
Dec 2021	936	0.52	3.9	0.17	0.081	0.0017	0.0014	0.0027	0.011
Jan 2022	933	0.59	3.8	0.17	0.08	0.0016	0.0013	0.0027	0.011
Feb 2022	930	0.65	3.8	0.16	0.079	0.0016	0.0013	0.0027	0.011
Mar 2022	927	0.71	3.8	0.16	0.079	0.0016	0.0013	0.0026	0.011
Apr 2022	925	0.77	3.8	0.16	0.078	0.0016	0.0013	0.0026	0.01
May 2022	922	0.83	3.7	0.16	0.077	0.0016	0.0013	0.0026	0.01
Jun 2022	767	0.55	3.7	0.16	0.066	0.0016	0.0013	0.0025	0.01
Jul 2022	883	0.56	4.0	0.17	0.074	0.0017	0.0014	0.0026	0.011
Aug 2022	983	0.52	4.5	0.19	0.081	0.0018	0.0015	0.0027	0.012
Sep 2022	898	0.5	4.7	0.19	0.086	0.0018	0.0015	0.0027	0.012
Oct 2022	784	0.46	4.6	0.18	0.086	0.0018	0.0014	0.0026	0.011
Nov 2022	783	0.53	4.6	0.18	0.085	0.0018	0.0014	0.0026	0.011
Dec 2022	781	0.6	4.5	0.18	0.085	0.0018	0.0014	0.0025	0.011
Jan 2023	780	0.67	4.5	0.18	0.084	0.0018	0.0014	0.0025	0.011
Feb 2023	779	0.73	4.4	0.18	0.083	0.0017	0.0014	0.0025	0.011
Mar 2023	777	0.79	4.4	0.18	0.082	0.0017	0.0014	0.0025	0.011
Apr 2023	776	0.85	4.4	0.17	0.081	0.0017	0.0013	0.0025	0.011
May 2023	775	0.91	4.3	0.17	0.08	0.0017	0.0013	0.0025	0.011
Jun 2023	638	0.59	4.2	0.17	0.067	0.0016	0.0013	0.0024	0.011
Jul 2023	725	0.59	4.5	0.18	0.077	0.0017	0.0014	0.0025	0.011
Aug 2023	793	0.55	4.9	0.19	0.085	0.0018	0.0015	0.0026	0.012
Sep 2023	725	0.52	5.1	0.2	0.092	0.0019	0.0015	0.0026	0.012
Oct 2023	634	0.48	5.0	0.19	0.092	0.0018	0.0014	0.0025	0.012
Nov 2023	634	0.54	4.9	0.19	0.091	0.0018	0.0014	0.0025	0.012
Dec 2023	634	0.61	4.9	0.18	0.09	0.0018	0.0014	0.0025	0.011
Jan 2024	634	0.68	4.8	0.18	0.089	0.0018	0.0014	0.0025	0.011
Feb 2024	634	0.74	4.8	0.18	0.088	0.0018	0.0014	0.0024	0.011
Mar 2024	635	0.8	4.8	0.18	0.087	0.0018	0.0013	0.0024	0.011
Apr 2024	635	0.86	4.7	0.18	0.086	0.0018	0.0013	0.0024	0.011
May 2024	635	0.92	4.7	0.18	0.086	0.0017	0.0013	0.0024	0.011
Jun 2024	506	0.57	4.1	0.16	0.068	0.0016	0.0013	0.0023	0.01
Jul 2024	567	0.57	4.5	0.18	0.076	0.0018	0.0014	0.0024	0.011
Aug 2024	612	0.52	5.0	0.19	0.082	0.0019	0.0014	0.0025	0.011
Sep 2024	561	0.49	5.2	0.19	0.087	0.0019	0.0014	0.0025	0.011
Oct 2024	492	0.44	5.0	0.18	0.086	0.0018	0.0013	0.0024	0.01
Nov 2024	493	0.5	5.0	0.18	0.085	0.0018	0.0013	0.0024	0.01
Dec 2024	495	0.57	4.9	0.18	0.085	0.0018	0.0013	0.0024	0.01
Jan 2025	496	0.63	4.9	0.18	0.084	0.0018	0.0013	0.0024	0.01
Feb 2025	498	0.69	4.9	0.18	0.083	0.0018	0.0013	0.0023	0.010
Mar 2025	499	0.75	4.8	0.17	0.082	0.0018	0.0013	0.0023	0.0099
Apr 2025	501	0.81	4.8	0.17	0.081	0.0018	0.0012	0.0023	0.0099
May 2025	502	0.87	4.8	0.17	0.081	0.0018	0.0012	0.0023	0.0098
Jun 2025	388	0.45	4.0	0.16	0.056	0.0016	0.0012	0.0022	0.0089
Jul 2025	453	0.44	4.3	0.17	0.062	0.0017	0.0013	0.0023	0.0095
Aug 2025	496	0.38	4.7	0.18	0.064	0.0017	0.0014	0.0024	0.0097
Sep 2025	443	0.34	4.8	0.18	0.066	0.0017	0.0014	0.0024	0.0095
Oct 2025	377	0.3	4.5	0.17	0.063	0.0016	0.0013	0.0022	0.0088
Nov 2025	379	0.35	4.5	0.16	0.062	0.0016	0.0013	0.0022	0.0088
Dec 2025	381	0.41	4.4	0.16	0.062	0.0016	0.0012	0.0022	0.0087
Jan 2026	384	0.46	4.4	0.16	0.061	0.0016	0.0012	0.0022	0.0087
Feb 2026	386	0.51	4.4	0.16	0.061	0.0016	0.0012	0.0022	0.0087
Mar 2026	388	0.56	4.4	0.16	0.061	0.0016	0.0012	0.0022	0.0086
Apr 2026	390	0.61	4.3	0.16	0.06	0.0016	0.0012	0.0022	0.0086
May 2026	392	0.66	4.3	0.16	0.06	0.0016	0.0012	0.0022	0.0086
Jun 2026	343	0.44	4.0	0.15	0.053	0.0015	0.0012	0.0021	0.0083
Jul 2026	382	0.45	4.3	0.16	0.061	0.0016	0.0013	0.0023	0.0088
Aug 2026	412	0.43	4.8	0.18	0.07	0.0017	0.0013	0.0024	0.0092
Sep 2026	385	0.41	5.1	0.18	0.078	0.0018	0.0013	0.0024	0.0092
Oct 2026	344	0.38	4.9	0.17	0.079	0.0017	0.0013	0.0023	0.0088
Nov 2026	347	0.44	4.8	0.17	0.078	0.0017	0.0013	0.0023	0.0087
Dec 2026	351	0.51	4.8	0.17	0.077	0.0017	0.0012	0.0023	0.0087
Jan 2027	354	0.57	4.8	0.17	0.077	0.0017	0.0012	0.0022	0.0087
Feb 2027	356	0.63	4.7	0.17	0.076	0.0017	0.0012	0.0022	0.0086
Mar 2027	359	0.69	4.7	0.17	0.075	0.0017	0.0012	0.0022	0.0086
Apr 2027	362	0.75	4.7	0.16	0.075	0.0017	0.0012	0.0022	0.0086
May 2027	365	0.81	4.6	0.16	0.074	0.0017	0.0012	0.0022	0.0085
Jun 2027	316	0.51	4.2	0.16	0.063	0.0016	0.0012	0.0022	0.0083
Jul 2027	350	0.52	4.4	0.17	0.071	0.0017	0.0013	0.0023	0.0089
Aug 2027	378	0.49	4.7	0.19	0.081	0.0018	0.0014	0.0025	0.0094
Sep 2027	359	0.46	4.9	0.19	0.087	0.0019	0.0014	0.0025	0.0094
Oct 2027	325	0.43	4.7	0.18	0.088	0.0018	0.0013	0.0024	0.009
Nov 2027	328	0.49	4.6	0.18	0.087	0.0018	0.0013	0.0024	0.009
Dec 2027	332	0.56	4.6	0.18	0.086	0.0018	0.0013	0.0024	0.0089
Jan 2028	335	0.62	4.6	0.18	0.085	0.0018	0.0013	0.0023	0.0089
Feb 2028	338	0.68	4.5	0.18	0.084	0.0018	0.0013	0.0023	0.0088
Mar 2028	341	0.75	4.5	0.17	0.083	0.0018	0.0013	0.0023	0.0088
Apr 2028	344	0.8	4.5	0.17	0.082	0.0017	0.0013	0.0023	0.0088
May 2028	347	0.86	4.4	0.17	0.082	0.0017	0.0012	0.0023	0.0087
Jun 2028	291	0.54	4.0	0.16	0.067	0.0016	0.0012	0.0022	0.0084
Jul 2028	319	0.55	4.3	0.18	0.076	0.0017	0.0013	0.0024	0.009
Aug 2028	340	0.51	4.6	0.19	0.084	0.0019	0.0014	0.0025	0.0095
Sep 2028	325	0.48	4.8	0.19	0.09	0.0019	0.0014	0.0025	0.0095
Oct 2028	296	0.44	4.6	0.19	0.09	0.0018	0.0013	0.0024	0.0091
Nov 2028	299	0.5	4.6	0.18	0.089	0.0018	0.0013	0.0024	0.009
Dec 2028	299	0.5	4.6	0.18	0.089	0.0018	0.0013	0.0024	0.009

0.1 Denotes a value above the discharge criteria

Appendix E
Wet Years Scenario
EWTP Average Monthly Dissolved Concentrations

Date	Total Dissolved Solids	Dissolved Phosphorus	Total Ammonia	Dissolved Aluminum	Dissolved Arsenic	Dissolved Copper	Dissolved Lead	Dissolved Nickel	Dissolved Zinc
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Discharge Criteria	3500	2	14	2	0.3	0.2	0.2	0.5	0.4
May 2020	-	-	-	-	-	-	-	-	-
Jun 2020	1175	0.082	3.5	0.052	0.012	0.0012	0.0007	0.0043	0.009
Jul 2020	1402	0.11	3.7	0.071	0.021	0.0013	0.0008	0.0045	0.01
Aug 2020	1628	0.16	3.6	0.11	0.037	0.0015	0.0011	0.0043	0.011
Sep 2020	1406	0.19	3.5	0.12	0.049	0.0015	0.0012	0.004	0.01
Oct 2020	-	-	-	-	-	-	-	-	-
Nov 2020	-	-	-	-	-	-	-	-	-
Dec 2020	-	-	-	-	-	-	-	-	-
Jan 2021	-	-	-	-	-	-	-	-	-
Feb 2021	-	-	-	-	-	-	-	-	-
Mar 2021	-	-	-	-	-	-	-	-	-
Apr 2021	-	-	-	-	-	-	-	-	-
May 2021	-	-	-	-	-	-	-	-	-
Jun 2021	921	0.4	3.1	0.13	0.048	0.0014	0.0012	0.0029	0.009
Jul 2021	1071	0.42	3.4	0.15	0.058	0.0015	0.0013	0.003	0.01
Aug 2021	1211	0.41	3.8	0.17	0.07	0.0016	0.0014	0.003	0.011
Sep 2021	1092	0.41	4.0	0.17	0.079	0.0017	0.0014	0.0029	0.011
Oct 2021	-	-	-	-	-	-	-	-	-
Nov 2021	-	-	-	-	-	-	-	-	-
Dec 2021	-	-	-	-	-	-	-	-	-
Jan 2022	-	-	-	-	-	-	-	-	-
Feb 2022	-	-	-	-	-	-	-	-	-
Mar 2022	-	-	-	-	-	-	-	-	-
Apr 2022	-	-	-	-	-	-	-	-	-
May 2022	-	-	-	-	-	-	-	-	-
Jun 2022	767	0.55	3.7	0.16	0.066	0.0016	0.0013	0.0025	0.01
Jul 2022	883	0.56	4.0	0.17	0.074	0.0017	0.0014	0.0026	0.011
Aug 2022	983	0.52	4.5	0.19	0.081	0.0018	0.0015	0.0027	0.012
Sep 2022	898	0.5	4.7	0.19	0.086	0.0018	0.0015	0.0027	0.012
Oct 2022	-	-	-	-	-	-	-	-	-
Nov 2022	-	-	-	-	-	-	-	-	-
Dec 2022	-	-	-	-	-	-	-	-	-
Jan 2023	-	-	-	-	-	-	-	-	-
Feb 2023	-	-	-	-	-	-	-	-	-
Mar 2023	-	-	-	-	-	-	-	-	-
Apr 2023	-	-	-	-	-	-	-	-	-
May 2023	-	-	-	-	-	-	-	-	-
Jun 2023	638	0.59	4.2	0.17	0.067	0.0016	0.0013	0.0024	0.011
Jul 2023	725	0.59	4.5	0.18	0.077	0.0017	0.0014	0.0025	0.011
Aug 2023	793	0.55	4.9	0.19	0.085	0.0018	0.0015	0.0026	0.012
Sep 2023	725	0.52	5.1	0.2	0.092	0.0019	0.0015	0.0026	0.012
Oct 2023	-	-	-	-	-	-	-	-	-
Nov 2023	-	-	-	-	-	-	-	-	-
Dec 2023	-	-	-	-	-	-	-	-	-
Jan 2024	-	-	-	-	-	-	-	-	-
Feb 2024	-	-	-	-	-	-	-	-	-
Mar 2024	-	-	-	-	-	-	-	-	-
Apr 2024	-	-	-	-	-	-	-	-	-
May 2024	-	-	-	-	-	-	-	-	-
Jun 2024	506	0.57	4.1	0.16	0.068	0.0016	0.0013	0.0023	0.01
Jul 2024	567	0.57	4.5	0.18	0.076	0.0018	0.0014	0.0024	0.011
Aug 2024	612	0.52	5.0	0.19	0.082	0.0019	0.0014	0.0025	0.011
Sep 2024	561	0.49	5.2	0.19	0.087	0.0019	0.0014	0.0025	0.011
Oct 2024	-	-	-	-	-	-	-	-	-
Nov 2024	-	-	-	-	-	-	-	-	-
Dec 2024	-	-	-	-	-	-	-	-	-
Jan 2025	-	-	-	-	-	-	-	-	-
Feb 2025	-	-	-	-	-	-	-	-	-
Mar 2025	-	-	-	-	-	-	-	-	-
Apr 2025	-	-	-	-	-	-	-	-	-
May 2025	-	-	-	-	-	-	-	-	-
Jun 2025	388	0.45	4.0	0.16	0.056	0.0016	0.0012	0.0022	0.0089
Jul 2025	453	0.44	4.3	0.17	0.062	0.0017	0.0013	0.0023	0.0095
Aug 2025	496	0.38	4.7	0.18	0.064	0.0017	0.0014	0.0024	0.0097
Sep 2025	443	0.34	4.8	0.18	0.066	0.0017	0.0014	0.0024	0.0095
Oct 2025	-	-	-	-	-	-	-	-	-
Nov 2025	-	-	-	-	-	-	-	-	-
Dec 2025	-	-	-	-	-	-	-	-	-
Jan 2026	-	-	-	-	-	-	-	-	-
Feb 2026	-	-	-	-	-	-	-	-	-
Mar 2026	-	-	-	-	-	-	-	-	-
Apr 2026	-	-	-	-	-	-	-	-	-
May 2026	-	-	-	-	-	-	-	-	-
Jun 2026	343	0.44	4.0	0.15	0.053	0.0015	0.0012	0.0021	0.0083
Jul 2026	382	0.45	4.3	0.16	0.061	0.0016	0.0013	0.0023	0.0088
Aug 2026	412	0.43	4.8	0.18	0.07	0.0017	0.0013	0.0024	0.0092
Sep 2026	385	0.41	5.1	0.18	0.078	0.0018	0.0013	0.0024	0.0092
Oct 2026	-	-	-	-	-	-	-	-	-
Nov 2026	-	-	-	-	-	-	-	-	-
Dec 2026	-	-	-	-	-	-	-	-	-
Jan 2027	-	-	-	-	-	-	-	-	-
Feb 2027	-	-	-	-	-	-	-	-	-
Mar 2027	-	-	-	-	-	-	-	-	-
Apr 2027	-	-	-	-	-	-	-	-	-
May 2027	-	-	-	-	-	-	-	-	-
Jun 2027	316	0.51	4.2	0.16	0.063	0.0016	0.0012	0.0022	0.0083
Jul 2027	350	0.52	4.4	0.17	0.071	0.0017	0.0013	0.0023	0.0089
Aug 2027	378	0.49	4.7	0.19	0.081	0.0018	0.0014	0.0025	0.0094
Sep 2027	359	0.46	4.9	0.19	0.087	0.0019	0.0014	0.0025	0.0094
Oct 2027	-	-	-	-	-	-	-	-	-
Nov 2027	-	-	-	-	-	-	-	-	-
Dec 2027	-	-	-	-	-	-	-	-	-
Jan 2028	-	-	-	-	-	-	-	-	-
Feb 2028	-	-	-	-	-	-	-	-	-
Mar 2028	-	-	-	-	-	-	-	-	-
Apr 2028	-	-	-	-	-	-	-	-	-
May 2028	-	-	-	-	-	-	-	-	-
Jun 2028	291	0.54	4.0	0.16	0.067	0.0016	0.0012	0.0022	0.0084
Jul 2028	319	0.55	4.3	0.18	0.076	0.0017	0.0013	0.0024	0.009
Aug 2028	340	0.51	4.6	0.19	0.084	0.0019	0.0014	0.0025	0.0095
Sep 2028	325	0.48	4.8	0.19	0.09	0.0019	0.0014	0.0025	0.0095
Oct 2028	-	-	-	-	-	-	-	-	-
Nov 2028	-	-	-	-	-	-	-	-	-
Dec 2028	-	-	-	-	-	-	-	-	-

0.1 Denotes a value above the discharge criteria

Appendix E
Wet Years Scenario
EWTP Average Monthly Total Concentrations

Date	Total Dissolved Solids	Total Phosphorus	Total Ammonia	Total Aluminum	Total Arsenic	Total Copper	Total Lead	Total Nickel	Total Zinc
	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Discharge Criteria	3500	2	14	2	0.3	0.2	0.2	0.5	0.4
May 2020	-	-	-	-	-	-	-	-	-
Jun 2020	1175	0.15	3.5	0.27	0.013	0.0016	0.0007	0.0043	0.029
Jul 2020	1402	0.18	3.7	0.29	0.022	0.0017	0.0008	0.0045	0.03
Aug 2020	1628	0.22	3.6	0.33	0.039	0.0019	0.0011	0.0043	0.031
Sep 2020	1406	0.25	3.5	0.34	0.05	0.0019	0.0012	0.004	0.031
Oct 2020	-	-	-	-	-	-	-	-	-
Nov 2020	-	-	-	-	-	-	-	-	-
Dec 2020	-	-	-	-	-	-	-	-	-
Jan 2021	-	-	-	-	-	-	-	-	-
Feb 2021	-	-	-	-	-	-	-	-	-
Mar 2021	-	-	-	-	-	-	-	-	-
Apr 2021	-	-	-	-	-	-	-	-	-
May 2021	-	-	-	-	-	-	-	-	-
Jun 2021	921	0.47	3.1	0.35	0.049	0.0018	0.0012	0.0029	0.029
Jul 2021	1071	0.48	3.4	0.37	0.059	0.0019	0.0013	0.003	0.03
Aug 2021	1211	0.47	3.8	0.39	0.071	0.0021	0.0014	0.003	0.031
Sep 2021	1092	0.47	4.0	0.4	0.08	0.0021	0.0014	0.0029	0.031
Oct 2021	-	-	-	-	-	-	-	-	-
Nov 2021	-	-	-	-	-	-	-	-	-
Dec 2021	-	-	-	-	-	-	-	-	-
Jan 2022	-	-	-	-	-	-	-	-	-
Feb 2022	-	-	-	-	-	-	-	-	-
Mar 2022	-	-	-	-	-	-	-	-	-
Apr 2022	-	-	-	-	-	-	-	-	-
May 2022	-	-	-	-	-	-	-	-	-
Jun 2022	767	0.61	3.7	0.38	0.067	0.002	0.0013	0.0025	0.03
Jul 2022	883	0.62	4.0	0.4	0.075	0.0021	0.0014	0.0026	0.031
Aug 2022	983	0.59	4.5	0.41	0.082	0.0022	0.0015	0.0027	0.032
Sep 2022	898	0.57	4.7	0.42	0.088	0.0023	0.0015	0.0027	0.032
Oct 2022	-	-	-	-	-	-	-	-	-
Nov 2022	-	-	-	-	-	-	-	-	-
Dec 2022	-	-	-	-	-	-	-	-	-
Jan 2023	-	-	-	-	-	-	-	-	-
Feb 2023	-	-	-	-	-	-	-	-	-
Mar 2023	-	-	-	-	-	-	-	-	-
Apr 2023	-	-	-	-	-	-	-	-	-
May 2023	-	-	-	-	-	-	-	-	-
Jun 2023	638	0.65	4.2	0.39	0.069	0.002	0.0013	0.0024	0.031
Jul 2023	725	0.66	4.5	0.4	0.078	0.0021	0.0014	0.0025	0.031
Aug 2023	793	0.61	4.9	0.42	0.086	0.0022	0.0015	0.0026	0.032
Sep 2023	725	0.58	5.1	0.42	0.093	0.0023	0.0015	0.0026	0.032
Oct 2023	-	-	-	-	-	-	-	-	-
Nov 2023	-	-	-	-	-	-	-	-	-
Dec 2023	-	-	-	-	-	-	-	-	-
Jan 2024	-	-	-	-	-	-	-	-	-
Feb 2024	-	-	-	-	-	-	-	-	-
Mar 2024	-	-	-	-	-	-	-	-	-
Apr 2024	-	-	-	-	-	-	-	-	-
May 2024	-	-	-	-	-	-	-	-	-
Jun 2024	506	0.63	4.1	0.39	0.069	0.002	0.0013	0.0023	0.03
Jul 2024	567	0.63	4.5	0.4	0.077	0.0022	0.0014	0.0024	0.031
Aug 2024	612	0.58	5.0	0.41	0.083	0.0023	0.0014	0.0025	0.031
Sep 2024	561	0.55	5.2	0.42	0.088	0.0023	0.0014	0.0025	0.031
Oct 2024	-	-	-	-	-	-	-	-	-
Nov 2024	-	-	-	-	-	-	-	-	-
Dec 2024	-	-	-	-	-	-	-	-	-
Jan 2025	-	-	-	-	-	-	-	-	-
Feb 2025	-	-	-	-	-	-	-	-	-
Mar 2025	-	-	-	-	-	-	-	-	-
Apr 2025	-	-	-	-	-	-	-	-	-
May 2025	-	-	-	-	-	-	-	-	-
Jun 2025	388	0.51	4.0	0.38	0.057	0.002	0.0012	0.0022	0.029
Jul 2025	453	0.5	4.3	0.39	0.063	0.0021	0.0013	0.0023	0.03
Aug 2025	496	0.44	4.7	0.4	0.065	0.0021	0.0014	0.0024	0.03
Sep 2025	443	0.4	4.8	0.4	0.067	0.0021	0.0014	0.0024	0.03
Oct 2025	-	-	-	-	-	-	-	-	-
Nov 2025	-	-	-	-	-	-	-	-	-
Dec 2025	-	-	-	-	-	-	-	-	-
Jan 2026	-	-	-	-	-	-	-	-	-
Feb 2026	-	-	-	-	-	-	-	-	-
Mar 2026	-	-	-	-	-	-	-	-	-
Apr 2026	-	-	-	-	-	-	-	-	-
May 2026	-	-	-	-	-	-	-	-	-
Jun 2026	343	0.51	4.0	0.37	0.054	0.0019	0.0012	0.0021	0.028
Jul 2026	382	0.52	4.3	0.39	0.062	0.002	0.0013	0.0023	0.029
Aug 2026	412	0.49	4.8	0.4	0.071	0.0021	0.0013	0.0024	0.029
Sep 2026	385	0.47	5.1	0.4	0.079	0.0022	0.0013	0.0024	0.029
Oct 2026	-	-	-	-	-	-	-	-	-
Nov 2026	-	-	-	-	-	-	-	-	-
Dec 2026	-	-	-	-	-	-	-	-	-
Jan 2027	-	-	-	-	-	-	-	-	-
Feb 2027	-	-	-	-	-	-	-	-	-
Mar 2027	-	-	-	-	-	-	-	-	-
Apr 2027	-	-	-	-	-	-	-	-	-
May 2027	-	-	-	-	-	-	-	-	-
Jun 2027	316	0.57	4.2	0.38	0.064	0.002	0.0012	0.0022	0.028
Jul 2027	350	0.58	4.4	0.39	0.072	0.0021	0.0013	0.0023	0.029
Aug 2027	378	0.55	4.7	0.41	0.082	0.0022	0.0014	0.0025	0.03
Sep 2027	359	0.53	4.9	0.41	0.088	0.0023	0.0014	0.0025	0.03
Oct 2027	-	-	-	-	-	-	-	-	-
Nov 2027	-	-	-	-	-	-	-	-	-
Dec 2027	-	-	-	-	-	-	-	-	-
Jan 2028	-	-	-	-	-	-	-	-	-
Feb 2028	-	-	-	-	-	-	-	-	-
Mar 2028	-	-	-	-	-	-	-	-	-
Apr 2028	-	-	-	-	-	-	-	-	-
May 2028	-	-	-	-	-	-	-	-	-
Jun 2028	291	0.6	4.0	0.39	0.068	0.002	0.0012	0.0022	0.029
Jul 2028	319	0.61	4.3	0.4	0.077	0.0022	0.0013	0.0024	0.029
Aug 2028	340	0.57	4.6	0.41	0.085	0.0023	0.0014	0.0025	0.03
Sep 2028	325	0.54	4.8	0.42	0.091	0.0023	0.0014	0.0025	0.03
Oct 2028	-	-	-	-	-	-	-	-	-
Nov 2028	-	-	-	-	-	-	-	-	-
Dec 2028	-	-	-	-	-	-	-	-	-

0.1 Denotes a value above the discharge criteria



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