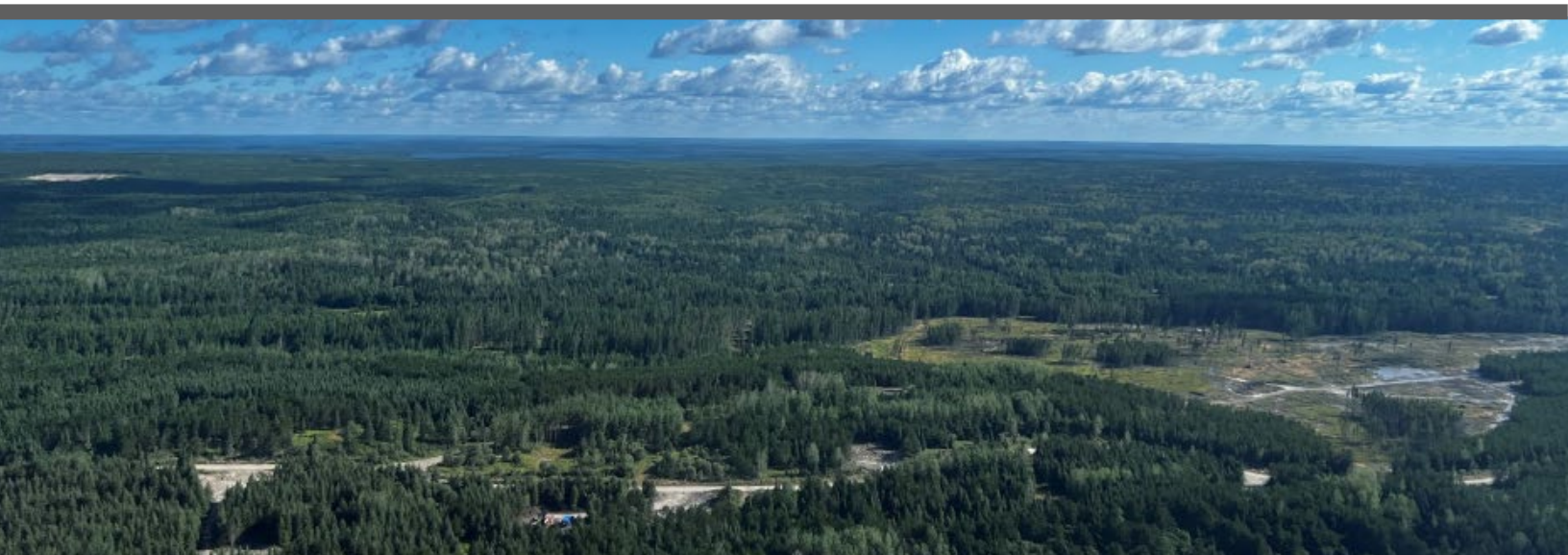
KINROSS Great Bear

Great Bear Gold Project
Impact Statement

Appendix I-3:

Receiver Water Balance Report



GREAT BEAR RESOURCES

GREAT BEAR PROJECT

RECEIVER WATER BALANCE

OCTOBER 2025

GREAT BEAR PROJECT

RECEIVER WATER BALANCE

GREAT BEAR RESOURCES

PROJECT NO.: OMEMA2303
OCTOBER 2025

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ABBREVIATIONS

AEX	Advanced exploration
CWP	Collection water pond
LGO	Low grade ore stockpile
MRS	Mine rock stockpile
MWP	Mine water pond
OVB	Overburden stockpile
PAG	Potentially acid generating
ROM	Run of mine stockpile
TMF	Tailings management facility
TSS	Total suspended solids
VMF	Viggo management facility
WSP	WSP Canada Inc.
WTP	Water treatment plant
WSC	Water Survey of Canada

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1 INTRODUCTION

1.1 PROJECT BACKGROUND

Great Bear Resources Ltd. (Great Bear Resources) a wholly owned subsidiary of Kinross Gold Corporation, is proposing to develop a gold mine (the Great Bear Project or Project) at the Great Bear Property (Property). The Property is located approximately 25 kilometres southeast of the Municipality of Red Lake (Figure 1-1) in northwestern Ontario. The Project involves extracting and processing ore from two open pits and an underground mine. The main components of the Project shown on Figure 1-2 include:

- LP Central pit
- Viggo pit
- Underground mine
- Flood protection berm
- Tailings management facility (TMF)
- Viggo management facility (VMF)
- TMF pond
- Collection water pond (CWP)
- Mine water pond (MWP)
- Main collection channel
- Run of mine stockpile (ROM)
- Low grade ore stockpile (LGO)
- Mine rock stockpile (MRS)
- Overburden stockpile (OVB)
- Process plant
- Buildings and supporting infrastructure
- Water management and treatment facilities
- Accommodations camp complex
- Domestic landfill
- Sand and gravel (borrow) and quarry operations.

Construction of the mine site and associated infrastructure is expected to take approximately three years. Underground and open pit mining are expected to occur concurrently, with operation of the LP Central pit for up to about nine years, followed by underground mining only for an additional 17 years, for a total operations period of approximately 26 years. Active closure of the site will follow operations and is expected to take up to three years and will be followed by a period of environmental monitoring and continued operation of the surface water management system pending filling of the open pits with water and obtaining acceptable water quality for passive discharge to the environment.

1.2 OBJECTIVE

This *Receiver Water Balance Report* has been prepared by WSP Canada Inc. (WSP) to summarize the findings of the receiver water balance modeling. The scope of work includes:

- Modeling the change in flow conditions, resulting from the Project, within the receiving environment. Modeling has been carried out to simulate the existing conditions, construction, operations, decommissioning and closure phases, under average, 1:100 dry and 1:100 wet year climate conditions.
- Provide the basis of the receiver water quality model and assessment.

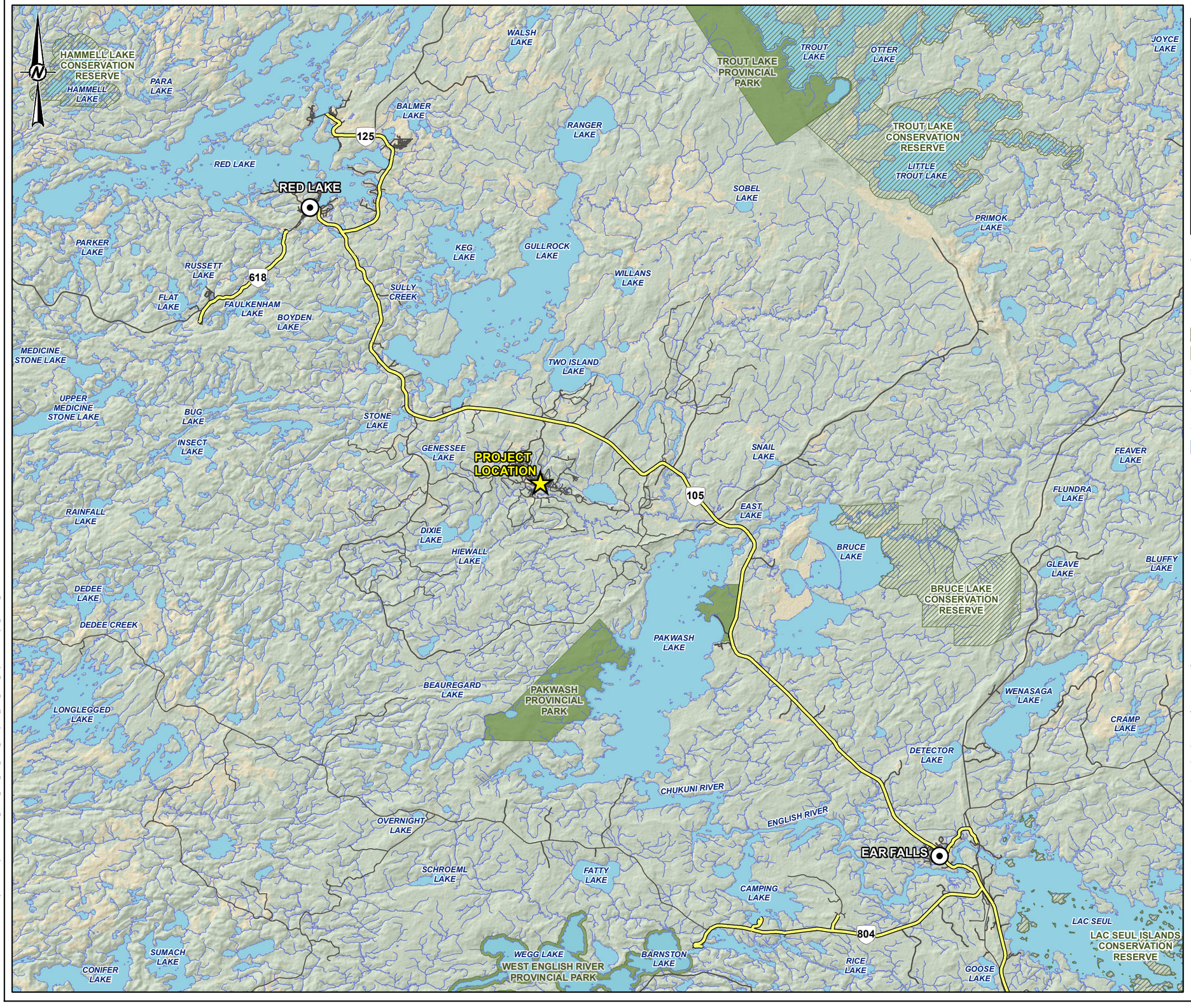
The receiver water balance utilizes information from the *Hydrology Baseline Report* (WSP 2025a), *Mine Site Water Balance Report* (WSP 2025b), *Groundwater Modeling Report* (WSP 2025c), and the Detailed Climate Change Dataset (WSP 2025d) completed by WSP. The receiver water balance will provide information to the receiver water quality model to support the Impact Statement.

1.3 LOCAL AND REGIONAL HYDROLOGY

The Project is primarily situated within the Dixie Creek watershed (Figure 1-3) which feeds into the Chukuni River and eventually drains into Pakwash Lake. The proposed Project footprint (approximately 18 km^2) comprises of roughly 0.4% of the Chukuni River watershed (4,801 km^2), upstream of Pakwash Lake.

The Chukuni River is a large, regulated system, with its flow controlled by the Snowshoe Rapids Dam, which is located between Two Island Lake and Pakwash Lake. The Ministry of Natural Resources manages the water levels and flow at the dam. Gullrock Lake and Two Island Lake are located north of the Project site, upstream of Snowshoe Rapids Dam and the Chukuni River. Their water levels are also controlled by Snowshoe Rapids Dam. Both the freshwater intake and effluent discharge are located downstream of the Snowshoe Rapids Dam on the Chukuni River. The Chukuni River flows into Pakwash Lake, and ultimately drains to the Manitou Falls Generating Station, operated by Ontario Power Generation. The Manitou Falls Generating Station watershed receives inflow from Lac Seul, Cedar River, Trout Lake and the Chukuni River (WSP 2025a). Water levels of the Pakwash Lake, Chukuni River and Dixie Creek are influenced by the regulation of levels of the Manitou Falls Generating Station. Pakwash Lake ultimately discharges into the English River through the Manitou Falls Generating Station..

Dixie Creek crosses the southern portion of the Property and flows into the Chukuni River to the east. The Dixie Creek watershed is comprised of tributaries and inland lakes which feed Dixie Creek generating a total watershed area of 365 km^2. The main source of flow through Dixie Creek is from Dixie Lake which has a watershed area of 187 km^2, including Genessee Lake. Genessee Lake is located west of the Project site, adjacent to the TMF and drains south to Dixie Lake. The southern subwatershed drains into the main branch of Dixie Creek at Unnamed Watercourse 7, approximately 6 km upstream of the confluence with the Chukuni River. Unnamed Waterbody 6 is located east of the Project and drains to Dixie Creek approximately 2 km upstream of the confluence with the Chukuni River.



KEY MAP

SCALE 1:30,000,000

LEGEND

- PROJECT LOCATION
- TOWN
- CONSERVATION RESERVE
- PROVINCIAL PARK
- HIGHWAY
- LOCAL ROAD
- RESOURCE/ RECREATION ROAD
- WATERCOURSE
- WATERBODY

0 2.5 5 10

1:250,000 KILOMETRES

NOTE(S)

1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)

1. CONTAINS INFORMATION LICENSED UNDER THE OPEN GOVERNMENT LICENCE - ONTARIO
2. WATERCOURSES AND WATERBODY ACQUIRED FROM LAND INFORMATION ONTARIO (MNRF) AND MODIFIED TO MATCH AERIAL IMAGERY AND LIDAR.
3. ROADS INFORMATION PROVIDED BY GREAT BEAR RESOURCES, AUGUST 2022.
4. COORDINATE SYSTEM: NAD 1983 UTM ZONE 15N

CLIENT
GREAT BEAR RESOURCES

PROJECT
GREAT BEAR PROJECT

TITLE
PROJECT LOCATION

CONSULTANT

wsp

YYYY-MM-DD	2025-02-19
DESIGNED	----
PREPARED	MD
REVIEWED	----
APPROVED	----

PROJECT NO.	CONTROL	REV.	FIGURE
CA0031271	0001	A	1-1

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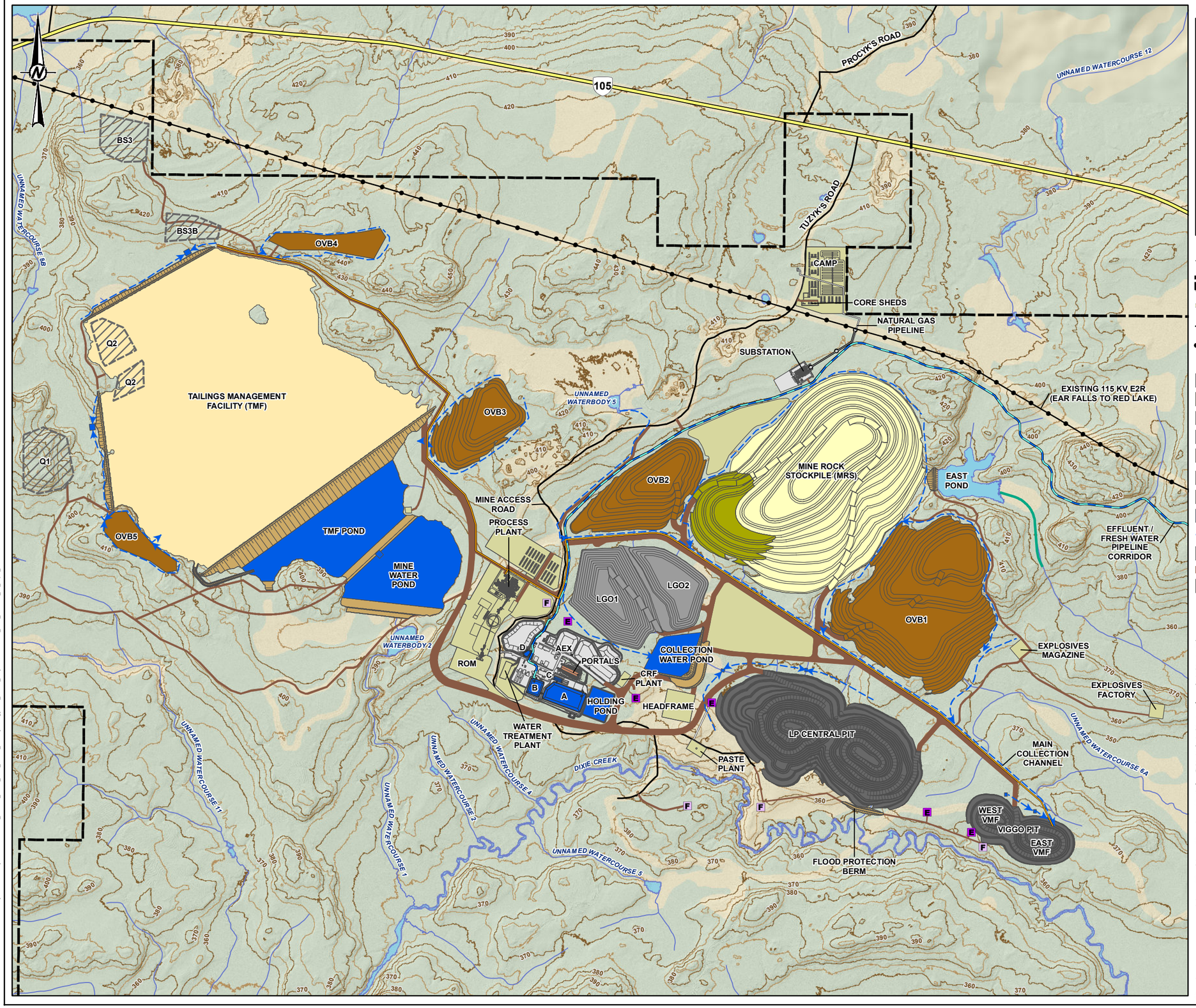
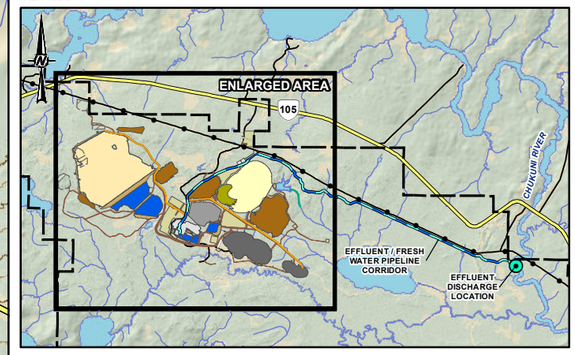


KEY MAP



SCALE 1:175,000

LEGEND

- PROPERTY BOUNDARY
- HIGHWAY (INCLUDING ENBRIDGE PIPELINE)
- LOCAL ROAD
- EXISTING TRANSMISSION LINE
- WATERCOURSE
- WATERBODY
- MAJOR CONTOURS (10 M INTERVAL)
- MINOR CONTOURS (5 M INTERVAL)

PROPOSED MINE FEATURE

- OPEN PIT
- MINE ROCK STOCKPILE (NPAG)
- MINE ROCK STOCKPILE (PAG)
- LOW GRADE ORE STOCKPILE (LGO)
- OVERBURDEN STOCKPILE (OVB)
- TAILINGS MANAGEMENT FACILITY (TMF)
- DAM
- POND
- COLLECTION DITCH
- MINE FACILITIES / INFRASTRUCTURE
- ROAD
- PORTAL
- ADVANCED EXPLORATION SITE (AEX)
- ROCK QUARRY (Q) / SAND AND GRAVEL PIT (B)
- DIVERSION CHANNEL
- E EXHAUST VENT RAISE
- F FRESH AIR VENT RAISE
- TRANSMISSION LINE
- TAILINGS PIPELINE
- PASTE PLANT PIPELINE
- EFFLUENT / FRESH WATER PIPELINE CORRIDOR
- EFFLUENT DISCHARGE LOCATION

0 0.25 0.5 1

1:26,500 KILOMETRES

NOTE(S)

1. ALL LOCATIONS ARE APPROXIMATE
2. VMF: VIGGO MANAGEMENT FACILITY
3. ROM: RUN OF MINE ORE
4. AEX PONDS: A-AEX MINE WATER POND, B-AEX TREATED WATER POND, C-AEX SETTLING POND, D-AEX SEDIMENT POND

REFERENCE(S)

1. CONTAINS INFORMATION LICENSED UNDER THE OPEN GOVERNMENT LICENCE - ONTARIO
2. CONTOURS ACQUIRED FROM 2022 LIDAR SURVEY.
3. PROPERTY BOUNDARY PROVIDED BY GREAT BEAR RESOURCES, AUGUST 2024.
4. ROADS INFORMATION PROVIDED BY GREAT BEAR RESOURCES, AUGUST 2022.
5. SITE PLAN BASED ON INFORMATION PROVIDED BY GREAT BEAR RESOURCES, DECEMBER 2024 / JUNE 2025.
6. COORDINATE SYSTEM: NAD 1983 UTM ZONE 15N

CLIENT
GREAT BEAR RESOURCES

PROJECT
GREAT BEAR PROJECT

TITLE
SITE PLAN (TOPOGRAPHY)

CONSULTANT

wsp

YYYY-MM-DD	2025-07-24
DESIGNED	----
PREPARED	MD
REVIEWED	----
APPROVED	----

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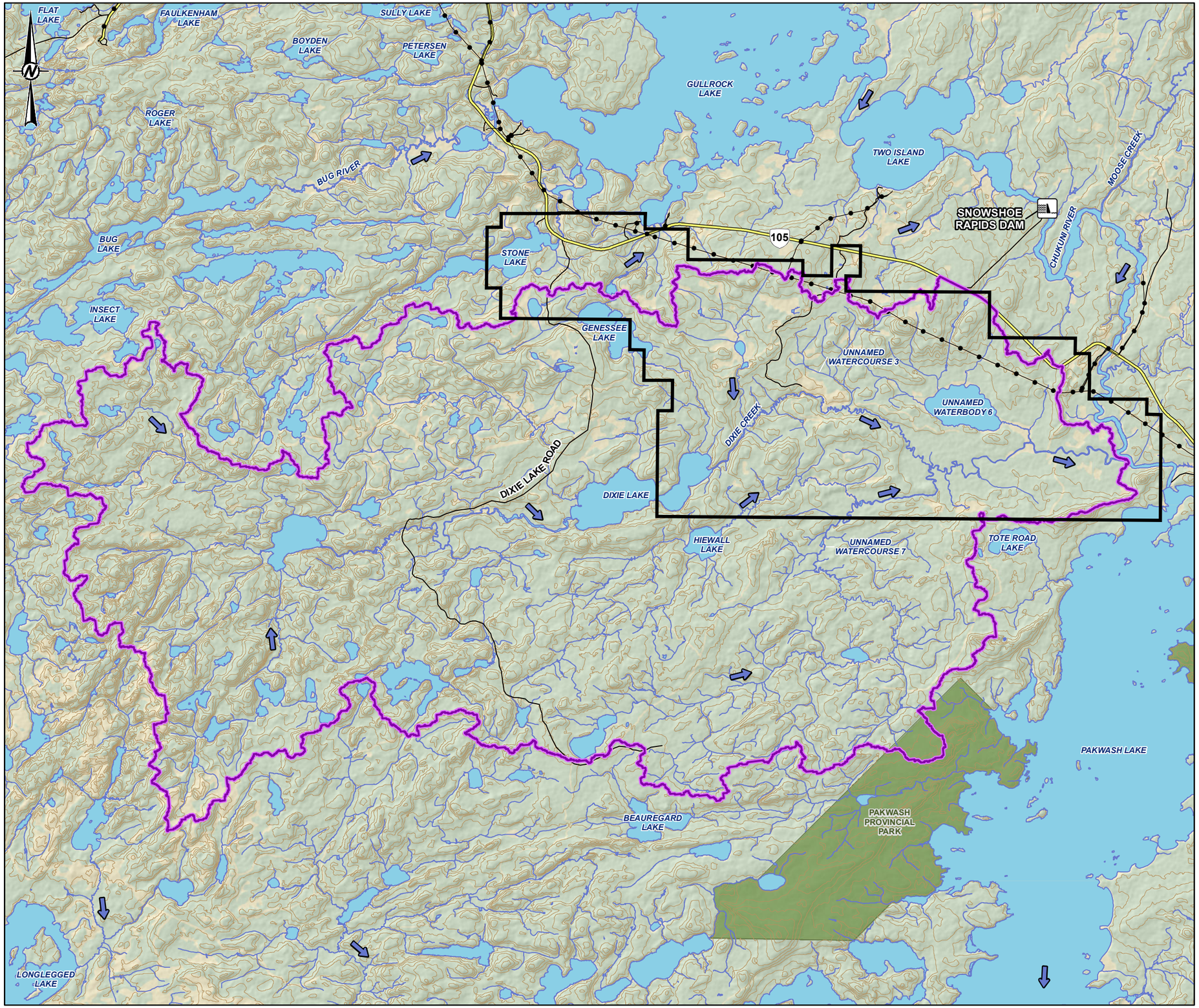

LEGEND

- PROPERTY BOUNDARY
- DIXIE CREEK WATERSHED
- HIGHWAY
- LOCAL ROAD
- SNOWSHOE RAPIDS DAM
- POWER LINE
- CONTOURS (10 M INTERVAL)
- PROVINICAL PARK
- WATERCOURSE
- WATERBODY
- FLOW DIRECTION

0 1.5 3 6

1:118,000 KILOMETRES

NOTE(S)

1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)

1. CONTAINS INFORMATION LICENSED UNDER THE OPEN GOVERNMENT LICENCE - ONTARIO
2. WATERCOURSES AND WATERBODY ACQUIRED FROM LAND INFORMATION ONTARIO (MNRF) AND MODIFIED TO MATCH AERIAL IMAGERY AND LIDAR.
3. ROADS INFORMATION PROVIDED BY KINROSS, AUGUST 2022.
4. PROPERTY BOUNDARY PROVIDED BY KINROSS, AUGUST 2024.
5. COORDINATE SYSTEM: NAD 1983 UTM ZONE 15N

CLIENT
GREAT BEAR RESOURCES

PROJECT
GREAT BEAR PROJECT

TITLE
DIXIE CREEK WATERSHED

CONSULTANT

wsp

YYYY-MM-DD	2024-12-16
DESIGNED	----
PREPARED	MD
REVIEWED	----
APPROVED	----

PROJECT NO.	CONTROL	REV.	FIGURE
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2 METHODOLOGY

The receiver water balance model simulates monthly flows at various modeling nodes in the receiving environment, which were strategically placed where changes to water quantity or quality may be observed as a result of the Project. These include nodes in the Dixie Creek, Chukuni River and Pakwash Lake watersheds, including small inland watercourses within and adjacent to the Project. A detailed description of the selection of these nodes is provided in Section 2.1.

Over the life of the Project, flow reporting to each node will change as a result of changes to watershed areas, freshwater takings required by the Project, discharges from the Project, seepage sources, and changes to fresh groundwater flow conditions. All are discussed in Section 3. The concept of flows through a node is depicted schematically in Figure 2-1.

Existing monthly flows were simulated at each node for average, 1:100 dry and 1:100 wet year climate conditions. Monthly flows resulting from the various Project phases were then simulated and compared to existing conditions to estimate the potential change in flow at each node, resulting from the Project. The influence of climate change was also simulated for the closure phase and post-closure.

The receiver water balance model has been assessed as a continous time series, with a daily time step and are reported on a monthly basis for all phases of the Project. Runoff generated from the natural watersheds reporting to each node were estimated by pro-rating flows from long-term flow statistics from representative Water Survey of Canada (WSC) gauges. Runoff from the Project site is calculated in the mine site water balance (WSP 2025b) and utilizes runoff coefficients developed from the same representative WSC gauges, aligning the two models.

2.1 MODELING NODES

A total of 14 modeling nodes were selected within the Dixie Creek, Chukuni River and Pakwash Lake watersheds. Figure 2-2 presents the existing watersheds reporting to each node. A flow schematic outlining the relationship between all modeling nodes is presented in Figure 2-3.

Modeling nodes were named and organized as follows:

- Nodes with the *DIX* prefix are located on Dixie Creek, from Dixie Lake (DIX-1) to the Tote Road bridge crossing (DIX-5), approximately 3.6 km upstream from its confluence with the Chukuni River.
- Nodes with the *UN* prefix are located on unnamed waterbodies / watercourses, within and adjacent to the Project area.
- The node with the *GEN* prefix is located at the outlet of Gennesse Lake; GEN-1 is the most upstream modeling node which contributes to Dixie Creek.
- Nodes with the *CHK* prefix are loacted on the Chukuni River, both upstream and downstream of the Dixie Creek confluence.
- The node with the *PAK* prefix is located at the outlet of Pakwash Lake. PAK-OUT is the most downstream modeling node.

2.2 MODEL PHASES

In addition to existing conditions and post-closure, three Project phases (Figure 2-4) were evaluated in the receiver water balance model:

- Construction phase (Year -3 to Year -1).
- Operations phase (Year 1 to Year 26).

- Closure phase (including active closure and passive closure periods; Year 27 to Year 33).

After the completion of the closure phase, Project post-closure will occur from Year 34 to Year 55.

Throughout the construction, operations and closure phases, runoff from the Project site (approximately 18.16 km^2) will be collected, treated, and discharged, in accordance with regulatory requirements, to the Chukuni River, immediately upstream of node CHK-1, further outlined in the mine site water balance modeling (WSP 2025b). This will remove watershed area from many Dixie Creek and unnamed waterbody / watercourse nodes and add treated effluent flows to node CHK-1. Watershed areas are largely restored to pre-development conditions at post-closure.

During the construction phase, non-contact water as defined under the Metal and Diamond Mining Effluent Regulation will be diverted to minimize water entering the Project. Approximately 1.35 km^2 from the existing DIX-3 drainage area will be permanently diverted to UN-3 drainage area. In addition, the drainage from approximately 0.22 km^2 of existing UN-1 drainage area will be permanently diverted to the UN-4 drainage area by the TMF north dam placement..

The cumulative watershed areas reporting to each node during each Project phase, are presented in Table 2-1. There is a large increase in cumulative watershed area between DIX-5 (the most downstream node on Dixie Creek) and the Chukuni River (CHK-2), as the Chukuni River watershed area is over ten times larger than the Dixie Creek watershed area.

2.2.1 CONSTRUCTION PHASE

The construction phase will take place from Year -3 to Year -1. The development of the Project during this period was simulated continuously, with key changes to water management occurring as the site develops. For the purposes of this model, three sub-phases are detailed below, consistent with the mine site water balance (WSP 2025b), and visually outlined in Appendix A.

The first sub-phase was modeled using the assumed Project footprint for Year -3 (Figure A-1), which accounts for the Advanced Exploration (AEX) Program and access roads. Water collected from the AEX Program will be treated and discharged to the Chukuni River upstream of node CHK-1.

The second sub-phase represents Year -2 (Figure A-2). At this time, runoff from areas that may contain potentially acid generating (PAG) materials will be collected from the following areas:

- AEX and underground mine dewatering.
- The west and east Viggo pits (collectively referred to as Viggo pit).
- Portions of the LGO and mine rock stockpile (PAG).

Water collected from these areas will be treated and discharged to the Chukuni River upstream of node CHK-1.

Runoff generated from typical construction activities (not subject to potentially deleterious materials) will be managed locally and tested for total suspended solids (TSS) and nitrogen species prior to being discharged into the receiving environment, at its natural receiver. These areas include:

- Accommodations camp complex
- Administration area
- Process plant
- Ancillary infrastructure
- ROM stockpile
- OVB 1 and OVB 2
- Collection water pond
- TMF south dam

- Roadways outside of captured water locations.

Runoff from these areas has been adjusted to align with the changes to the land types (and runoff coefficients). The land types used to represent the areas above are disturbed, overburden, and quarry.

The third sub-phase modeled represents Year -1 (Figure A-3). The third sub-phase will be similar to the second sub-phase (Year -2), however, the entire TMF catchment area will also be collected. Contact water that may have come in contact with potentially deleterious material, from the collected areas (including the TMF) will be stored in the TMF for the first six months of Year -1 to support process plant commissioning and start-up. No discharge to the Chukuni River has been simulated during the first six months of Year -1. In mid Year -1, operational water management systems will be ready, and all operational areas from the Project will be collected, treated and discharged to the Chukuni River. Commissioning and start-up of the process plant is planned to start mid Year -1.

2.2.2 OPERATIONS PHASE

The operation phase extends from Year 1 to Year 26. The water management plan during this phase is described in two sub-phases. During the first sub-phase, which addresses the majority of operations (Year 1 to Year 15), contact water from the Project's watershed (17.68 km^2) will be primarily collected in the TMF pond and VMF, treated and discharged to the environment, in accordance with regulatory requirements. The discharge point is located in the Chukuni River, immediately upstream of CHK-1. Node watersheds for the first sub-phase are provided in Figure 2-5.

The second sub-phase starts in approximately Year 16. At that time, the MWP will be constructed within Unnamed Waterbody 1, downstream of the TMF pond, to provide the Project with additional contact water storage. The MWP will add an additional 0.48 km^2 to the Project's watersheds (18.16 km^2). Node watersheds for this sub-phase (including the MWP) are provided in Figure 2-6.

Freshwater takings are required to supply the process plant and accommodations camp complex during the operations phase. The freshwater supply will be taken from the Chukuni River, upstream of both the discharge point and CHK-1.

Seepage contributions and changes to fresh groundwater conditions during the operations phase are defined by the same two sub-phases outlined above and are driven by the development of features such as the underground mine, LP Central pit, TMF, TMF pond, VMF, mine rock stockpiles and the MWP.

2.2.3 CLOSURE PHASE

The Project will enter the active closure period once the operations phase has ended, and mining and process plant operations have ceased. The active closure period (considered as a water management sub-phase) will begin with reclamation of the site infrastructure and filling of LP Central pit, VMF and underground mine with water. To expedite the time required to fill the LP Central pit, the main collection channel will be modified to direct runoff from the mine rock stockpile watershed and area east of the TMF (referred to as watershed 103 in the *Mine Site Water Balance Report*) to the LP Central pit. The TMF pond, MWP, AEX ponds will be pumped to the LP Central pit. As contact waters are being collected in the LP Central pit, discharge of treated effluent to the Chukuni River will cease, and the treated effluent pipeline will be repurposed to pump freshwater from the Chukuni River (CHK-1) to actively fill the LP Central pit, west and east VMF and the underground workings. With these expediting measures in place, the VMF is estimated to fill in approximately one month and the LP Central pit is estimated to take approximately four years under average climate conditions. All pit filling is completed by the end of Year 30.

In order to evaluate potential effects from the scenario where site water quality is not yet suitable for passive discharge to the environment following pit filling, it has been assumed that passive closure (considered as a water management sub-phase) will extend approximately three calendar years after LP Central pit has been filled. During this time, water management will remain the same, but water from the filled LP Central pit will still require treatment and discharge to the Chukuni River (CHK-1).

Freshwater takings from the Chukuni River to supply the process plant and accommodations camp complex will cease at the start of closure. Seepage contributions and changes to groundwater conditions during the closure phase are driven by the filling of VMF and LP Central pit with water.

Climate change conditions were also simulated for the closure phase, to determine the effect of the Project on the receiving environment, under a climate change scenario.

2.2.4 POST-CLOSURE

Post-closure is assumed to start three calendar years after the LP Central pit is filled (approximately Year 34). At this time the Project will drain passively to the environment. Drainage will be restored to pre-development conditions, with some exceptions, such as the permanent non-contact water diversions described in Section 2.2:

- Former AEX watershed will passively drain to Dixie Creek, upstream of node DIX-2.
- LP Central pit will passively discharge to Dixie Creek, upstream of node DIX-3.
- MWP will passively discharge to Unnamed Watercourse 1, upstream of node UN-1.
- A portion of the former VMF watershed will passively discharge to Unnamed Watercourse 6A, upstream of node UN-2.
- A portion of OVB 1 will passively discharge to Unnamed Watercourse 6A, upstream of node UN-2.
- Decommissioned TMF seepage collection pump stations 2 and 3 will passively discharge to Unnamed Watercourse 8B, upstream of node UN-4.

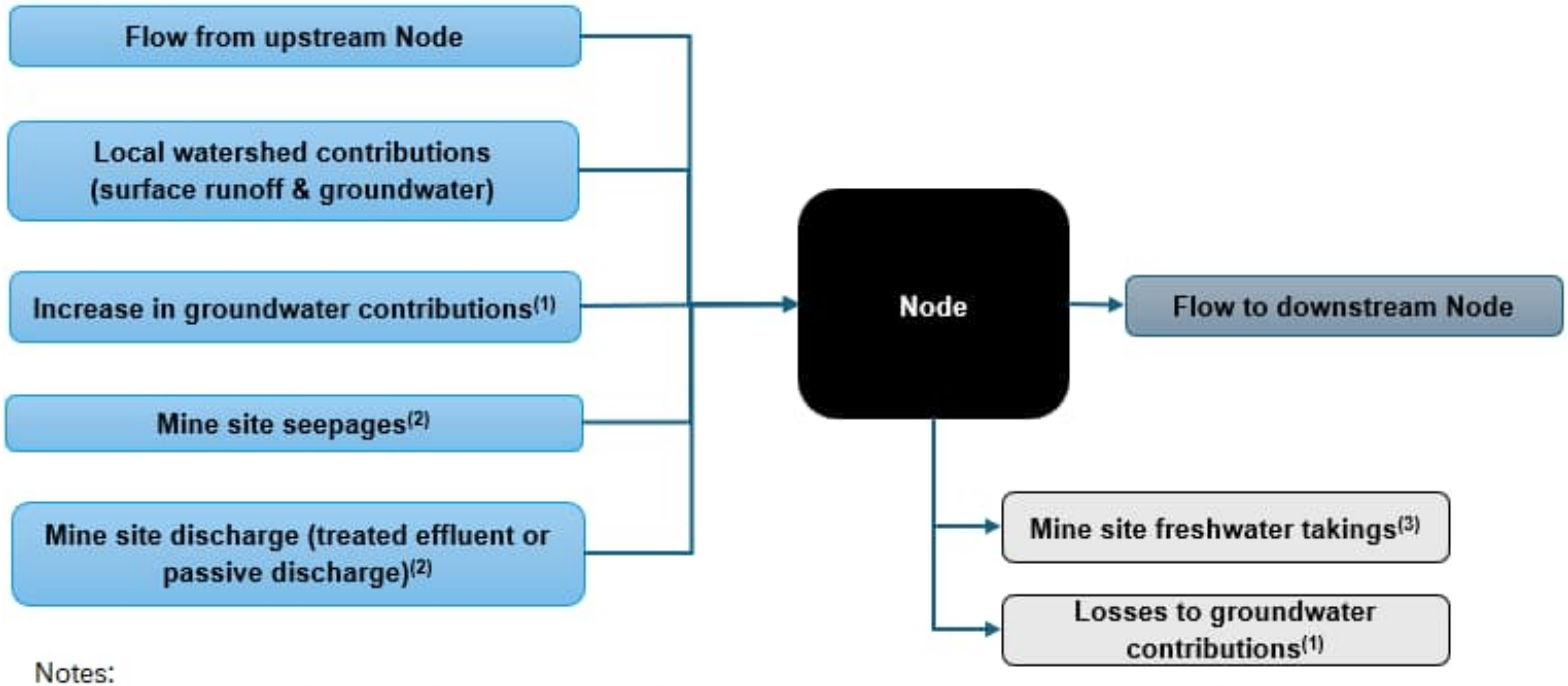
The passive site discharge locations are shown in Figure 2-7 and will flow to the respective downstream nodes outlined above.

Water levels in the Viggo pit lake will stabilize at the natural groundwater level of approximately 353.8 masl as per WSP (2025c). The lowest elevation of the natural perimeter of Viggo pit is approximately 358 masl, as a result, no surface water discharge from Viggo pit is anticipated during post-closure. Seepage contributions and changes to groundwater conditions during the closure phase are driven by the rehabilitated TMF and Viggo pit lake.

Climate change conditions were also simulated for post-closure, to determine the effect of post-closure on the Project on the receiving environment, under a climate change scenario.

Table 2-1: Cumulative Natural Watershed Area, Excluding Project Footprint

Node	Existing	Construction (Year -3)	Construction (Year -2)	Construction (Year -1)	Operations (Pre MWP-Development)	Operations (Post MWP-Development), Closure, and Post-Closure
	Area (km^2)					
UN-1	9.4	9.4	8.5	2.7	2.5	2.0
UN-2	2.9	2.9	2.6	2.6	1.6	1.6
UN-3	15.2	15.2	15.0	15.0	15.3	15.3
UN-4	2.0	2.0	2.0	2.0	2.2	2.2
UN-5	15.4	15.4	15.4	15.4	15.4	15.4
GEN-1	11.1	11.1	11.1	11.1	11.1	11.1
DIX-1	187	187	187	187	187	187
DIX-2	202	202	201	195	195	194
DIX-3	214	214	211	204	196	196
DIX-4	333	333	330	322	315	315
DIX-5	360	359	357	349	342	341
CHK-1	4,415	4,415	4,415	4,415	4,416	4,416
CHK-2	4,786	4,786	4,783	4,775	4,768	4,768
PAK-OUT	8,047	8,047	8,044	8,036	8,030	8,029



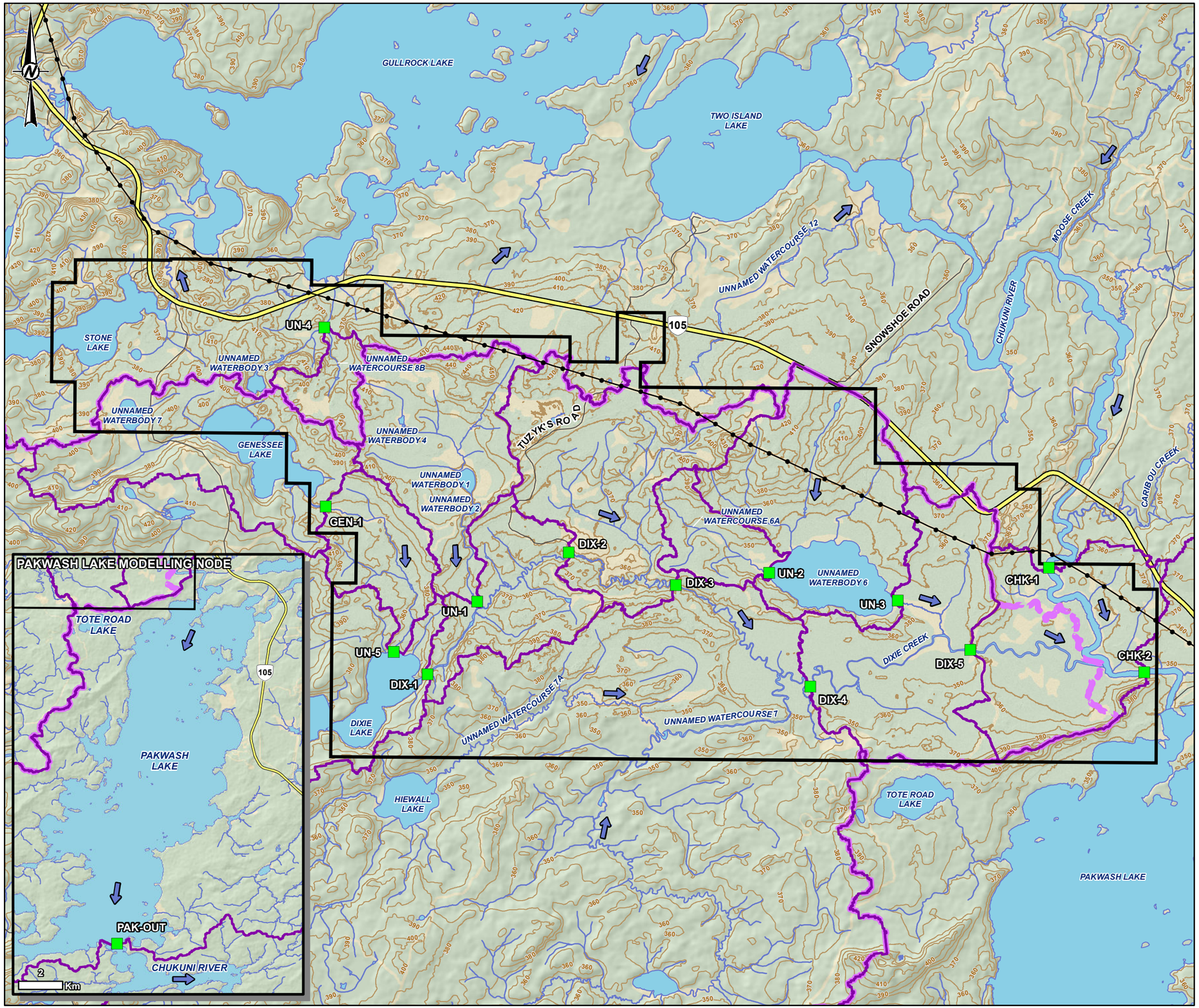
Notes:

1 Changes to groundwater contributions result from the Project and are decribed in Section 3.4.

2 Mine site discharge and seepages are not present at all nodes, site discharge and seepage contributions and are described in Sections 3.3 and 3.4, respectively.

3 Mine site freshwater takings only occur at CHK-1, refer to Section 3.2 for water taking distributions.

Figure 2-1: Conceptual Schematic of Node Flows



LEGEND

- PROPERTY BOUNDARY
- HYDROLOGY MODELLING NODE
- DIXIE CREEK WATERSHED (NOT USED FOR NODE AREAS)
- MODELLING NODE WATERSHED
- HIGHWAY
- LOCAL ROAD
- EXISTING TRANSMISSION LINE
- CONTOURS (10 M INTERVAL)
- WATERCOURSE
- WATERBODY
- FLOW DIRECTION

NODE WATERSHED AREAS
(NATURAL WATERSHED AREAS, EXCLUDING THE PROJECT FOOTPRINT)

NODE ID	INCREMENTAL (KM^2)	CUMULATIVE (KM^2)
CHK-1	4413.4	4415.4
CHK-2	10.6	4785.9
DIX-1	171.4	186.8
DIX-2	5.9	202.1
DIX-3	11.9	214.0
DIX-4	119.0	333.0
DIX-5	11.6	359.8
GEN-1	11.1	11.1
PAK-OUT	3261.4	8047.2
UN-1	9.4	9.4
UN-2	2.9	2.9
UN-3	12.3	15.2
UN-4	2.0	2.0
UN-5	4.3	15.4

0 1 2 4
1:72,000 KILOMETRES

NOTE(S)
1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)
1. CONTAINS INFORMATION LICENSED UNDER THE OPEN GOVERNMENT LICENCE - ONTARIO
2. PROPERTY BOUNDARY PROVIDED BY GREAT BEAR RESOURCES, AUGUST 2024.
3. CONTOURS ACQUIRED FROM LAND INFORMATION ONTARIO (MNRF), 2022
AND DERIVED FROM 2022 LIDAR PROVIDED BY GREAT BEAR RESOURCES.
4. COORDINATE SYSTEM: NAD 1983 UTM ZONE 15N

CLIENT
GREAT BEAR RESOURCES

PROJECT
GREAT BEAR PROJECT

TITLE
EXISTING CONDITIONS MODELLING NODE WATERSHEDS

CONSULTANT

YYYY-MM-DD	2025-02-19
DESIGNED	----
PREPARED	MD
REVIEWED	----
APPROVED	----

PROJECT NO.	CONTROL	REV.	FIGURE
CA0031271	0001	A	2-2

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B

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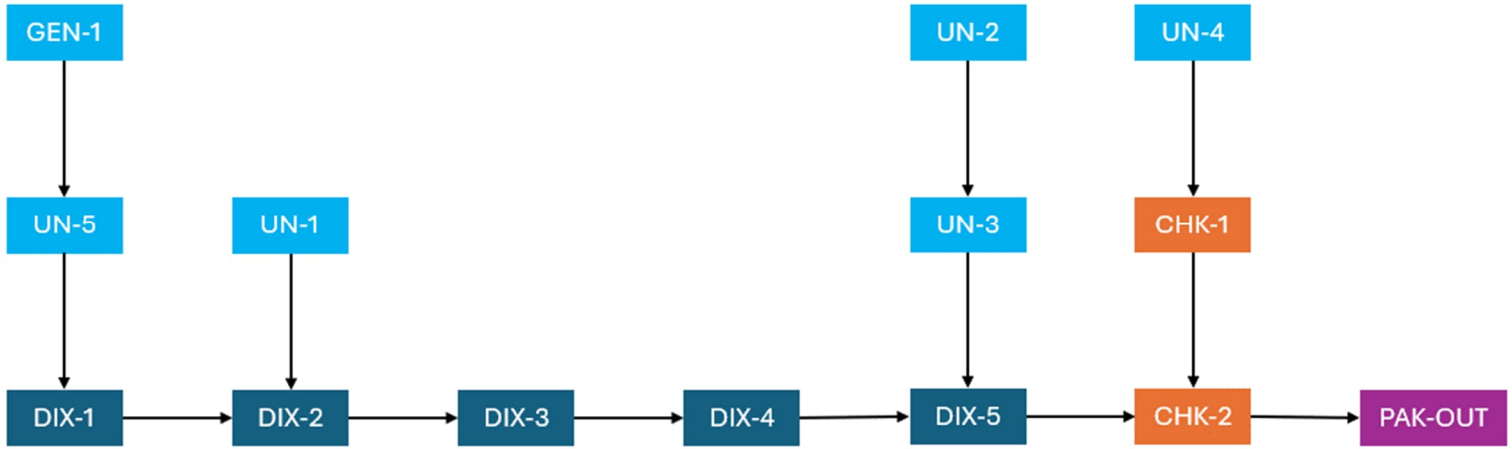
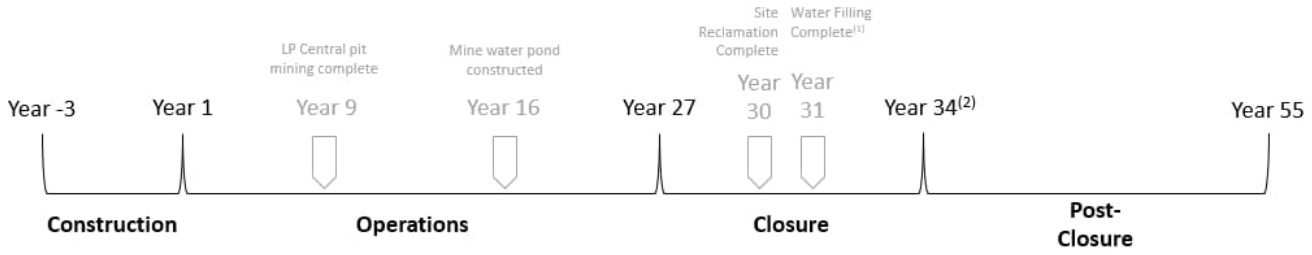
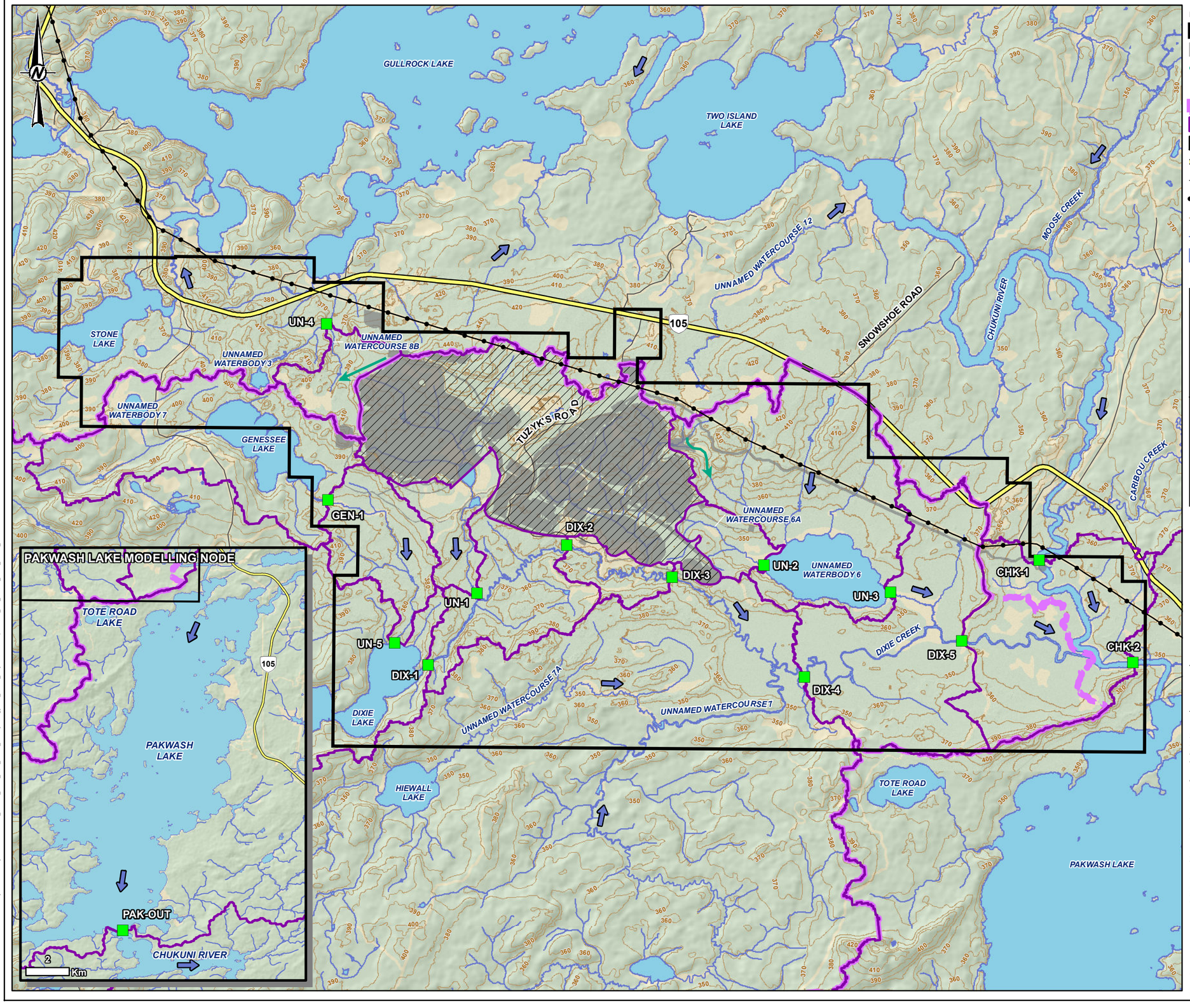


Figure 2-3: Connectivity of Modelling Nodes



Notes:
Years indicated on the timeline represent the first day of the year, therefore the operations phase extends Years 1 to 26.
1 Filling of the VMF, LP Central pit and underground mine with site contact water and freshwater from the Chukuni River is expected to take approximately four years under average climate conditions, with the closure water management strategy described in Section 2.2.3.
2 Post-closure will begin once site contact water no longer requires water treatment. For the purposes of this model, it is assumed to commence three calendar years (January to December) after water filling has completed. For example, if the LP Central pit is anticipated to fill in August Year 30, post closure will begin Year 34.

Figure 2-4: Project Timeline – Water Balance Phases



LEGEND

- PROPERTY BOUNDARY
- GREAT BEAR PROJECT FOOTPRINT
- CLEAN WATER DIVERSION
- HYDROLOGY MODELLING NODE
- DIXIE CREEK WATERSHED (NOT USED FOR NODE AREAS)
- MODELLING NODE WATERSHED
- PROJECT WATERSHED
- HIGHWAY
- LOCAL ROAD
- EXISTING TRANSMISSION LINE
- CONTOURS (10 M INTERVAL)
- WATERCOURSE
- WATERBODY
- FLOW DIRECTION

NODE WATERSHED AREAS
(NATURAL WATERSHED AREAS, EXCLUDING THE PROJECT FOOTPRINT)

NODE ID	INCREMENTAL (KM^2)	CUMULATIVE (KM^2)
CHK-1	4413.4	4415.6
CHK-2	10.6	4768.2
DIX-1	171.4	186.8
DIX-2	5.3	194.5
DIX-3	1.7	196.1
DIX-4	118.9	315.1
DIX-5	11.6	341.9
GEN-1	11.1	11.1
PAK-OUT	3261.4	8029.6
UN-1	2.5	2.5
UN-2	1.6	1.6
UN-3	13.7	15.3
UN-4	2.2	2.2
UN-5	4.3	15.4

0 1 2 4
1:72,000 KILOMETRES

NOTE(S)
1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)
1. CONTAINS INFORMATION LICENSED UNDER THE OPEN GOVERNMENT LICENCE - ONTARIO
2. PROPERTY BOUNDARY PROVIDED BY GREAT BEAR RESOURCES, AUGUST 2024.
3. CONTOURS ACQUIRED FROM LAND INFORMATION ONTARIO (MNRF), 2022
AND DERIVED FROM 2022 LIDAR PROVIDED BY GREAT BEAR RESOURCES
4. COORDINATE SYSTEM: NAD 1983 UTM ZONE 15N

CLIENT
GREAT BEAR RESOURCES

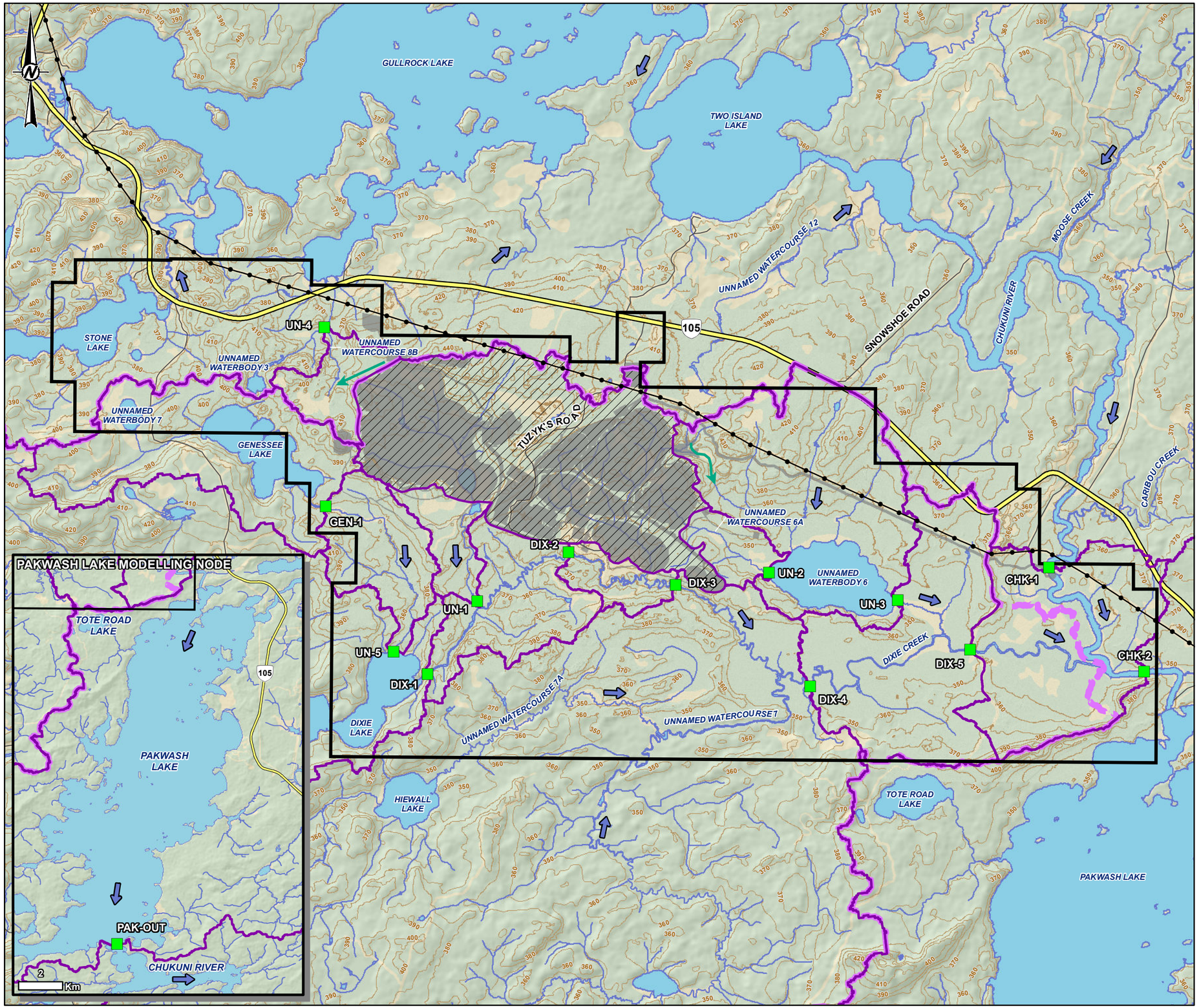
PROJECT
GREAT BEAR PROJECT

TITLE
OPERATIONS MODELLING NODE WATERSHEDS (WITHOUT MINE WATER POND)

CONSULTANT

YYYY-MM-DD	2025-09-17
DESIGNED	----
PREPARED	MD
REVIEWED	----
APPROVED	----

PROJECT NO.	CONTROL	REV.	FIGURE
CA0031271	0001	A	2-5



LEGEND

- PROPERTY BOUNDARY
- GREAT BEAR PROJECT FOOTPRINT
- CLEAN WATER DIVERSION
- HYDROLOGY MODELLING NODE
- DIXIE CREEK WATERSHED (NOT USED FOR NODE AREAS)
- MODELLING NODE WATERSHED
- PROJECT WATERSHED
- HIGHWAY
- LOCAL ROAD
- EXISTING TRANSMISSION LINE
- CONTOURS (10 M INTERVAL)
- WATERCOURSE
- WATERBODY
- FLOW DIRECTION

NODE WATERSHED AREAS
(NATURAL WATERSHED AREAS, EXCLUDING THE PROJECT FOOTPRINT)

NODE ID	INCREMENTAL (KM ^{2})	CUMULATIVE (KM ^{2})
CHK-1	4413.4	4415.6
CHK-2	10.6	4767.7
DIX-1	171.4	186.8
DIX-2	5.3	194.0
DIX-3	1.7	195.7
DIX-4	118.9	314.6
DIX-5	11.6	341.5
GEN-1	11.1	11.1
PAK-OUT	3261.4	8029.1
UN-1	2.0	2.0
UN-2	1.6	1.6
UN-3	13.7	15.3
UN-4	2.2	2.2
UN-5	4.3	15.4

0 1 2 4
1:72,000 KILOMETRES

NOTE(S)
1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)
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2. PROPERTY BOUNDARY PROVIDED BY GREAT BEAR RESOURCES, AUGUST 2024.
3. CONTOURS ACQUIRED FROM LAND INFORMATION ONTARIO (MNRF), 2022
AND DERIVED FROM 2022 LIDAR PROVIDED BY GREAT BEAR RESOURCES
4. COORDINATE SYSTEM: NAD 1983 UTM ZONE 15N

CLIENT
GREAT BEAR RESOURCES

PROJECT
GREAT BEAR PROJECT

TITLE
OPERATIONS / CLOSURE MODELLING NODE WATERSHEDS

CONSULTANT
wsp

YYYY-MM-DD	2025-07-24
DESIGNED	----
PREPARED	MD
REVIEWED	----
APPROVED	----

PROJECT NO.	CONTROL	REV.	FIGURE
CA0031271	0001	A	2-6

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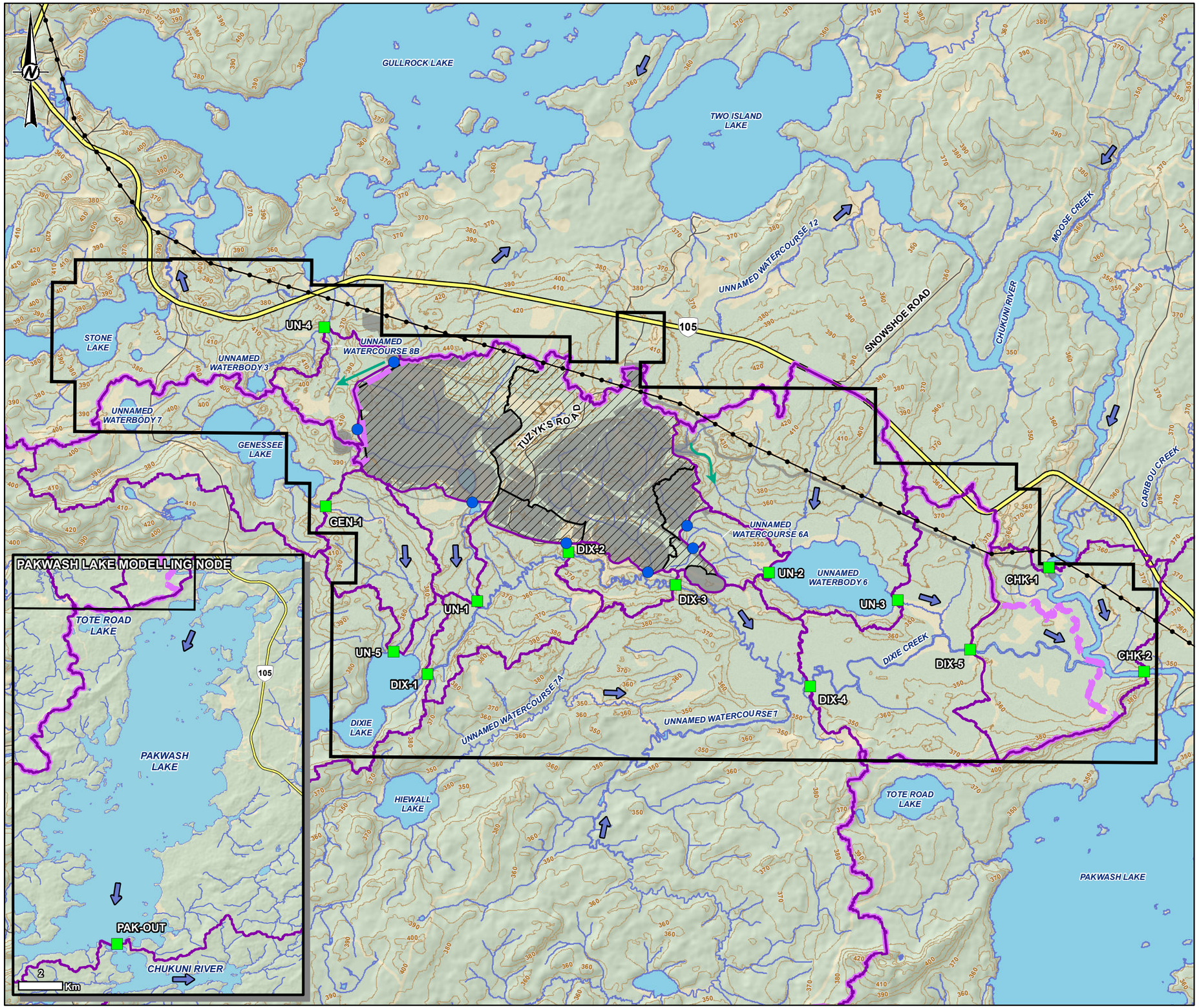

LEGEND

- PROPERTY BOUNDARY
- GREAT BEAR PROJECT FOOTPRINT
- CLEAN WATER DIVERSION
- HYDROLOGY MODELLING NODE
- DIXIE CREEK WATERSHED (NOT USED FOR NODE AREAS)
- MODELLING NODE WATERSHED
- PASSIVE DISCHARGE LOCATION
- PASSIVE DISCHARGE WATERSHED
- HIGHWAY
- LOCAL ROAD
- EXISTING TRANSMISSION LINE
- CONTOURS (10 M INTERVAL)
- WATERCOURSE
- WATERBODY
- FLOW DIRECTION

NODE WATERSHED AREAS
(NATURAL WATERSHED AREAS, EXCLUDING THE PROJECT FOOTPRINT)

NODE ID	INCREMENTAL (KM ^{2})	CUMULATIVE (KM ^{2})
CHK-1	4413.4	4415.6
CHK-2	10.6	4767.7
DIX-1	171.4	186.8
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DIX-3	1.7	195.7
DIX-4	118.9	314.6
DIX-5	11.6	341.5
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UN-1	2.0	2.0
UN-2	1.6	1.6
UN-3	13.7	15.3
UN-4	2.2	2.2
UN-5	4.3	15.4

0 1 2 4
1:72,000 KILOMETRES

NOTE(S)
1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)
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AND DERIVED FROM 2022 LIDAR PROVIDED BY GREAT BEAR RESOURCES
4. COORDINATE SYSTEM: NAD 1983 UTM ZONE 15N

CLIENT
GREAT BEAR RESOURCES

PROJECT
GREAT BEAR PROJECT

TITLE
POST CLOSURE MODELLING NODE WATERSHEDS

CONSULTANT

YYYY-MM-DD	2025-07-25
DESIGNED	----
PREPARED	MD
REVIEWED	----
APPROVED	----

PROJECT NO.	CONTROL	REV.	FIGURE
CA0031271	0001	A	2-7

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM ANSI B

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3 MODEL INPUTS

3.1 WATERSHED RUNOFF

Runoff generated from the natural watersheds reporting to each node were estimated by pro-rating flows from long-term flow statistics from representative Water Survey of Canada gauges to the areas presented in Table 2-1. Representative WSC gauges were selected for sub-watersheds within the Property based on watershed characteristics such as watershed area, and correlation to on site hydrometric monitoring data. As outlined in the *Hydrology Baseline Report* (WSP 2025a), both mean annual runoff and the shape of the hydrographs were considered in this selection. The WSC gauges considered in the selection process and their watershed and runoff characteristics are presented in Table 3-1.

The *Hydrology Baseline Report* (WSP 2025a) noted that Golden Creek generally shows a higher mean annual runoff (270 mm) than Long-Legged River (200 mm) or Chukuni River (218 mm). The Golden Creek watershed generally lacks surface water storage features (i.e., lakes) that are present in the other two WSC station watersheds. In terms of mean annual runoff, the onsite hydrometric data generally show a better fit with the Long-Legged River station. As a result, the Long-Legged River station was used as a representative station for the development of long-term flow statistics for the majority of the modeling nodes.

The hydrograph shape at the smaller watersheds that were gauged in the hydrometric study closely aligned with the Golden Creek (attributed to the similarities in watershed size), however, the annual runoff still matched that of the Long-Legged River station. Therefore, for the smaller watersheds in the study (less than 10 km^2) the Golden Creek long term flow statistics were pro-rated to Long-Legged station annual runoff for all climate conditions (Long-Legged Runoff / Golden Creek Runoff = Pro-rated Ratio). The ratio applied to Golden Creek monthly flow statistics vary depending on the climate condtions, however, the ratio was calculated using the same methodology and are provided in Table 3-1.

During the construction phase, runoff from some developed Project areas is managed locally, tested for TSS and nitrogen species and discharged to the natural watershed nodes. These areas and land types are outlined in Section 2.2.1 and presented in Appendix A. The runoff generated by these areas is adjusted with runoff coefficients for the assigned land types, consistent with the mine site water balance (WSP 2025b).

The representative WSC guage selected for each modeling node is defined in Table 3-2 including any ratio applied to the pro-rated flow statistics.

3.2 FRESHWATER TAKINGS

Freshwater takings are required during the construction and operations phases, and active closure period. During the construction phase, water takings are required for accommodations camp complex, dust suppression and the batch plant. During operations water taking is required for the accommodations camp complex and process plant, during active closure water taking will be required for LP Central pit, VMF, and underground mine filling.

Freshwater takings will be consistent across all climate conditions. These freshwater takings are estimated in the *Mine Site Water Balance Report* (WSP 2025b) and are presented in Figure 3-1. Fresh water for the Project will come from the Chukuni River, upstream of the final discharge point. Fresh water requirements for the process plant decrease in Year 14 as a result of reduced plant throughput.

Water takings are applied to node CHK-1 and are observed at the downstream nodes CHK-2 and PAK-OUT.

3.3 SITE DISCHARGE

During the construction and operations phases, contact water from the Project that may have come in contact with potentially deleterious material will be treated, pumped, and discharged to the Chukuni River, upstream of node CHK-1, in accordance with regulatory requirements. The rate of discharge will vary throughout the Project, as simulated by the mine site water balance model (WSP 2025b). Site discharge for the average climate condition is presented Figure 3-2. The rate of discharge generally increases throughout operations and peaks at around 7.22 Mm^3/year in Year 26 (the last year in operations). During the pit filling period of the closure phase, contact water will be directed to the LP Central pit, and therefore there will be no discharge to the environment. Once filling of the LP Central pit, VMF and underground mine is complete, it has been assumed that contact water from the Project will require treatment and discharge to the Chukuni River (CHK-1) for a period of at least three calendar years. The duration of this period will be determined based on water quality results at the time.

During post-closure, the WTP and related infrastructure will be decommissioned, and the site will passively discharge to the environment, as described in Section 2.2.4. The expected passive discharge locations to the environment are provided in Figure 2-7. Passive discharge rates for average climate conditions are presented in Figure 3-3. The MWP discharge to modeling node UN-1 peaks in the first year of passive closure (Year 34) as the TMF pond and MWP dams will be lowered, and excess water will be directed to the environment.

3.4 GROUNDWATER AND SEEPAGE

A hydrogeological model was developed for all Project phases, including existing conditions, and used to estimate the effects of the Project on local groundwater and / or surface water conditions (WSP 2025c). The change to groundwater contributions at each surface water node, compared to existing conditions, is presented in Table 3-3, Figure 3-4 and Figure 3-5. The most notable effects will occur as a result of the groundwater drawdown from development of the underground mine and LP Central pit, reducing the local groundwater contributions to nearby surface water features. The largest change in groundwater conditions is predicted to occur at DIX-3 during operations, where a reduction of 1,140 m^3/d is estimated. Node DIX-3 is located adjacent to the LP Central pit. Other groundwater losses are predicted at Nodes UN-1 and DIX-2, prior to the construction of the MWP. At post-closure, UN-1 will also have a groundwater loss due to changes in upstream watershed land types as a result of the Project which reduces the amount of groundwater contributing to the node. Smaller groundwater gains are predicted by the hydrogeology model (2025c) at four nodes, with the largest gain occurring at DIX-2 in the closure phase and post-closure (20 m^3/d).

Seepage from Project features were estimated in the hydrogeological model (WSP 2025c) for each phase of the Project. A seepage collection system will be in place for the Project. Thus, seepage to the environment considered in this model is described as fugitive seepage. The greatest seepage source to the model nodes is the TMF, which is estimated to contribute 507.5 m^3/d of seepage to node UN-1 during post-closure (the seepage from the TMF at post-closure replaces the natural groundwater flow to UN-1, indicating a loss in fresh groundwater at this node). Seepage contributions to each node, during each Project phase, are provided in Table 3-4 and Figure 3-6.

For modeling purposes, when the groundwater losses exceed the surface inflows (prior to the addition of seepage) at a given node, the seepage flow will be routed to the next downstream node. This is to maintain mass balance and seepage loading within the model. This only occurs at the small watersheds with groundwater losses (UN-1 and UN-2) during the low flow months.

3.5 CLIMATE CHANGE

A high-level climate change scenario was modeled for the closure phase and post-closure. The estimated changes to precipitation and temperature are provided in the detailed climate dataset (WSP 2025d). The

detailed climate dataset (WSP 2025d) determined that annual precipitation and temperatures (and therefore evaporation) are expected to increase. The expected annual runoff for 2050 and 2080 climate change scenarios is 183 mm. As a result of the total projected runoff for 2050 and 2080 being similar, the 2080 climate projections were used to model all climate change scenarios within this model. The analysis indicates that the average annual precipitation (633 mm) is expected to increase 6% by 2080 to 671 mm. The detailed climate data set also indicated that evapotranspiration will increase by 13% by 2080 to 489 mm. The detailed climate data indicated an increase in extreme precipitation for all durations, however, the extreme combined rainfall and snowmelt statistics generally remained unchanged for longer durations (30 to 120 days).

Canada's Changing Climate Report (Bush et al. 2019) summarizes anticipated changes to mean annual runoff as a result of climate change. Projected higher temperatures will result in a shift from more snow-melt dominated regimes toward rainfall dominated regimes. In some areas, reduced summer flows have already been observed and are expected to continue to decline. Projected increases in extreme precipitation are expected to increase the potential for flooding.

There have been no consistent trends in estimated annual streamflow amounts across Canada as a result of climate change. Rivers in southern and northern Manitoba are projected to have an increase in flow. In Ontario, the projected changes in future annual runoff are mixed, while in Quebec annual mean flow is anticipated to increase in northern regions and decrease in the south (Bush et al. 2019). The Quebec study (CEHQ 2015) indicated that southern rivers will be characterized by earlier and smaller spring peak flow and lower summer runoff.

One of the Manitoba studies (Poitras et al. 2011) reviewed changes in streamflow in the Nelson River basin, in which the Project is located. The study indicated that 2041 to 2070 mean annual flows for the entire Nelson River basin would increase approximately 13%, however, the spatial distribution of projected changes indicated changes in mean annual flows were not significant for the portion of the basin located in Ontario.

Given the uncertainty regarding future streamflow under a climate change condition, and aligning with the Manitoba study above, no change in mean annual flow was modeled. However, to account for the changes in annual distribution of flow, changes in monthly streamflow from the Quebec study (CEHQ 2015) were implemented. The average change in monthly flow for the higher climate change scenario (RCP 8.5) was extracted for the Rouyn-Noranda region (similar projected change to annual precipitation resulting from climate change) and applied to the hydrographs used for the Project. The resulting changes to monthly runoff are provided in Figure 3-7. The changes generally result in higher flows in the winter, a less intense spring freshet, and lower summer flows.

Table 3-1: Local WSC Stations and Watershed Characteristics

WSC Gauge Station	Drainage Area (km^2)	Mean Annual Runoff (mm)	1:100 Dry Year Runoff (mm)	1:100 Wet Year Runoff (mm)	Period of Record
Chukuni River Near Ear Falls (05QC001)	4,360	218.1	70.2	452.8	1963 – 2023 (61 years)
Long-Legged River Below Long-Legged Lake (05QE012)	548	200.0	44.8	442.2	1980 – 2023 (44 years)
Golden Creek Near Red Lake (05QC006)	58.1	270.4	121.1	502.8	2009 – 2023 (14 years)
Ratio of mean Annual Runoff (Long-Legged River / Golden Creek)	-	0.74	0.37	0.88	-

Source: WSP 2025a.
Note:
Any years without a complete data set were removed for use in this receiver water balance model.

Table 3-2: Selected Representative WSC Stations

Node	WSC Reference Gauge	Mean Annual Runoff (mm)
UN-1	Golden Creek*Ratio	200.0
UN-2	Golden Creek*Ratio	200.0
UN-3	Long-Legged	200.0
UN-4	Golden Creek*Ratio	200.0
UN-5	Golden Creek*Ratio	200.0
GEN-1	Long-Legged	200.0
DIX-1	Long-Legged	200.0
DIX-2	Golden Creek*Ratio	200.0
DIX-3	Long-Legged	200.0
DIX-4	Long-Legged	200.0
DIX-5	Long-Legged	200.0
CHK-1	Chukuni River	218.1
CHK-2	Chukuni River	216.7
PAK-OUT	Chukuni River	217.3

Note:
Ratios used for the proration of the Golden Creek WSC reference gauge are as follows: Average 0.74, Dry 0.37, Wet 0.88.

Table 3-3: Net Changes to Groundwater Flow

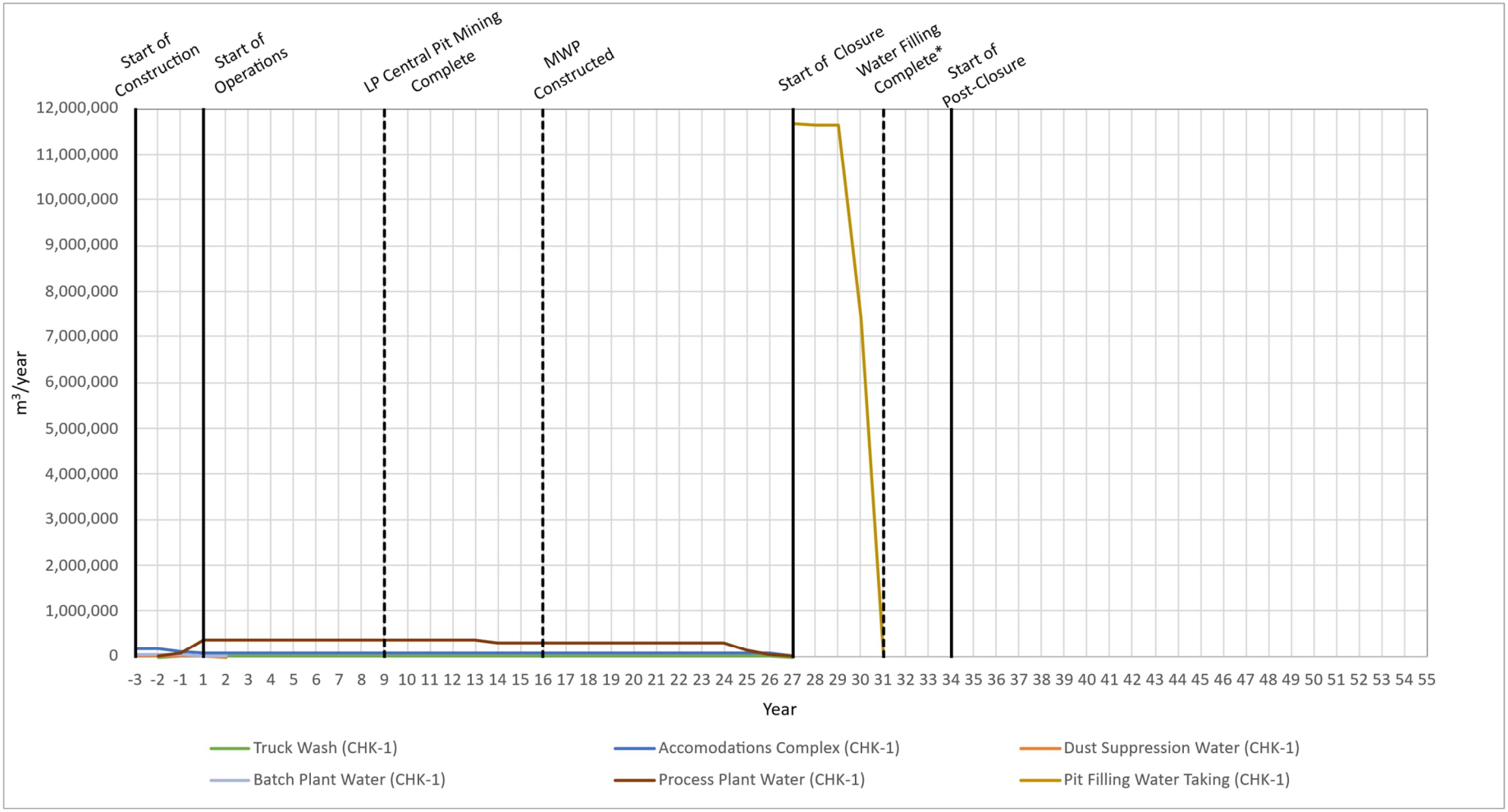
Node	Change in Groundwater (m^3/d)				
	Construction	Operations (Pre MWP-Development)	Operations (Post MWP-Development)	Closure	Post-Closure
UN-1	-70	-612	-581	-418	-418
UN-2	-45	-158	-91	0	0
UN-3	-124	-102	-131	-5	-5
UN-4	5	-21	-21	5	5
UN-5	0	-40	-20	18	18
GEN-1	0	5	5	15	15
DIX-1	0	-10	-10	-33	-33
DIX-2	-120	-575	-260	20	20
DIX-3	-175	-1,129	-1,140	-636	-636
DIX-4	-50	-280	-277	-16	-16
DIX-5	0	-5	-5	0	0
CHK-1	0	-130	-100	-30	-30
CHK-2	0	0	0	0	0
PAK-OUT	0	0	0	0	0

Source: WSP 2025c.
Notes:
Negative values indicate a loss from the overall system occurring at the given node. Values presented represent the incremental change in groundwater. Seepage contributions are excluded from values presented.

Table 3-4: Seepage Contributions

Node	Seepage (m^3/d)				
	Construction	Operations (Pre MWP-Development)	Operations (Post MWP-Development)	Closure	Post-Closure
UN-1	0	87	189	190	508
UN-2	0	0	0	19	19
UN-3	0	0	0	2	2
UN-4	0	36	36	24	75
UN-5	0	45	45	23	28
GEN-1	0	0	0	0	0
DIX-1	0	5	5	3	33
DIX-2	0	0	0	0	0
DIX-3	0	0	0	0	0
DIX-4	0	0	0	152	152
DIX-5	0	0	0	0	0
CHK-1	0	0	0	0	0
CHK-2	0	0	0	0	0
PAK-OUT	0	0	0	0	0

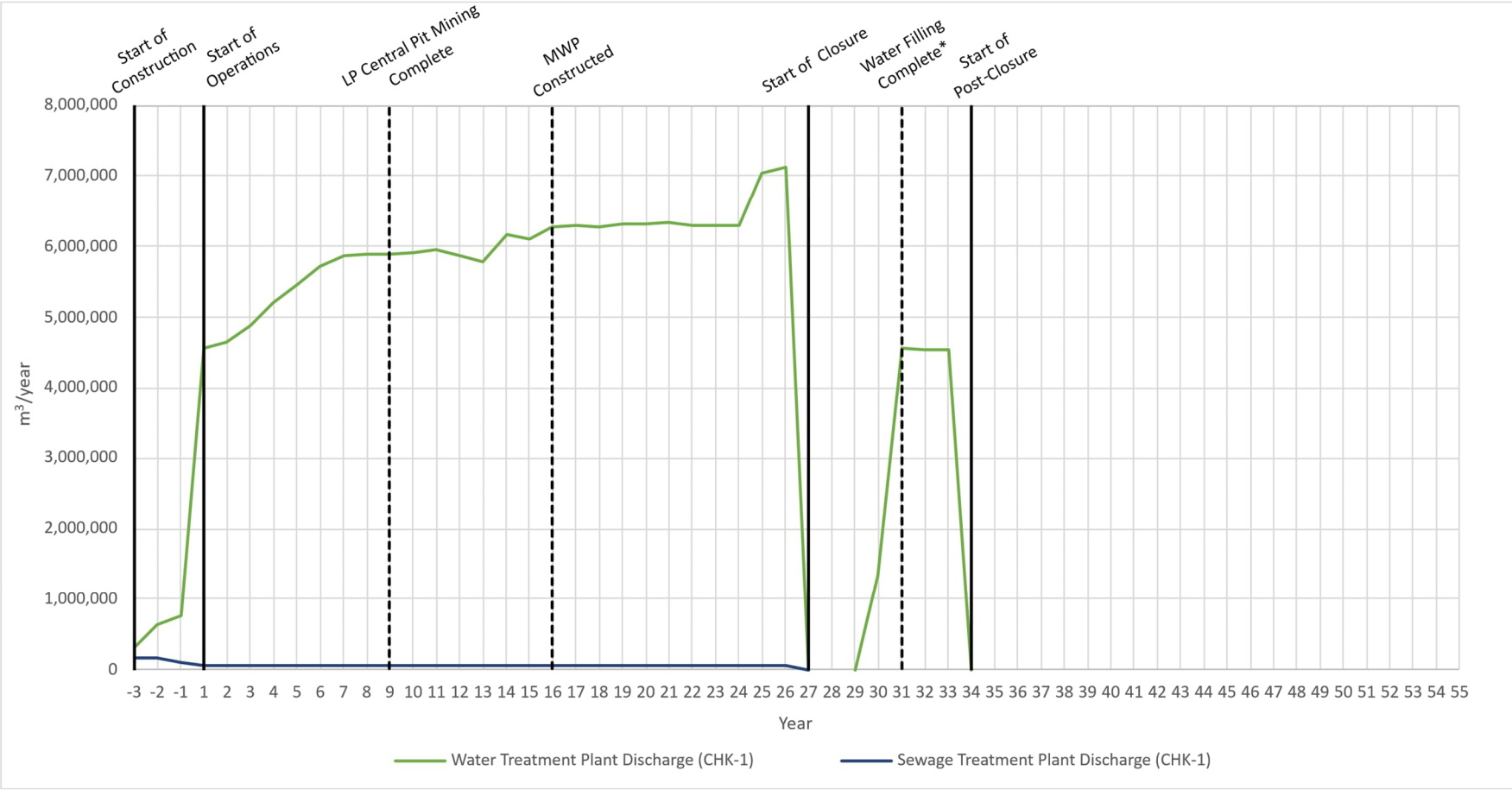
Source: WSP 2025c.
Note:
Values presented represent the incremental seepage contributions.



Note:

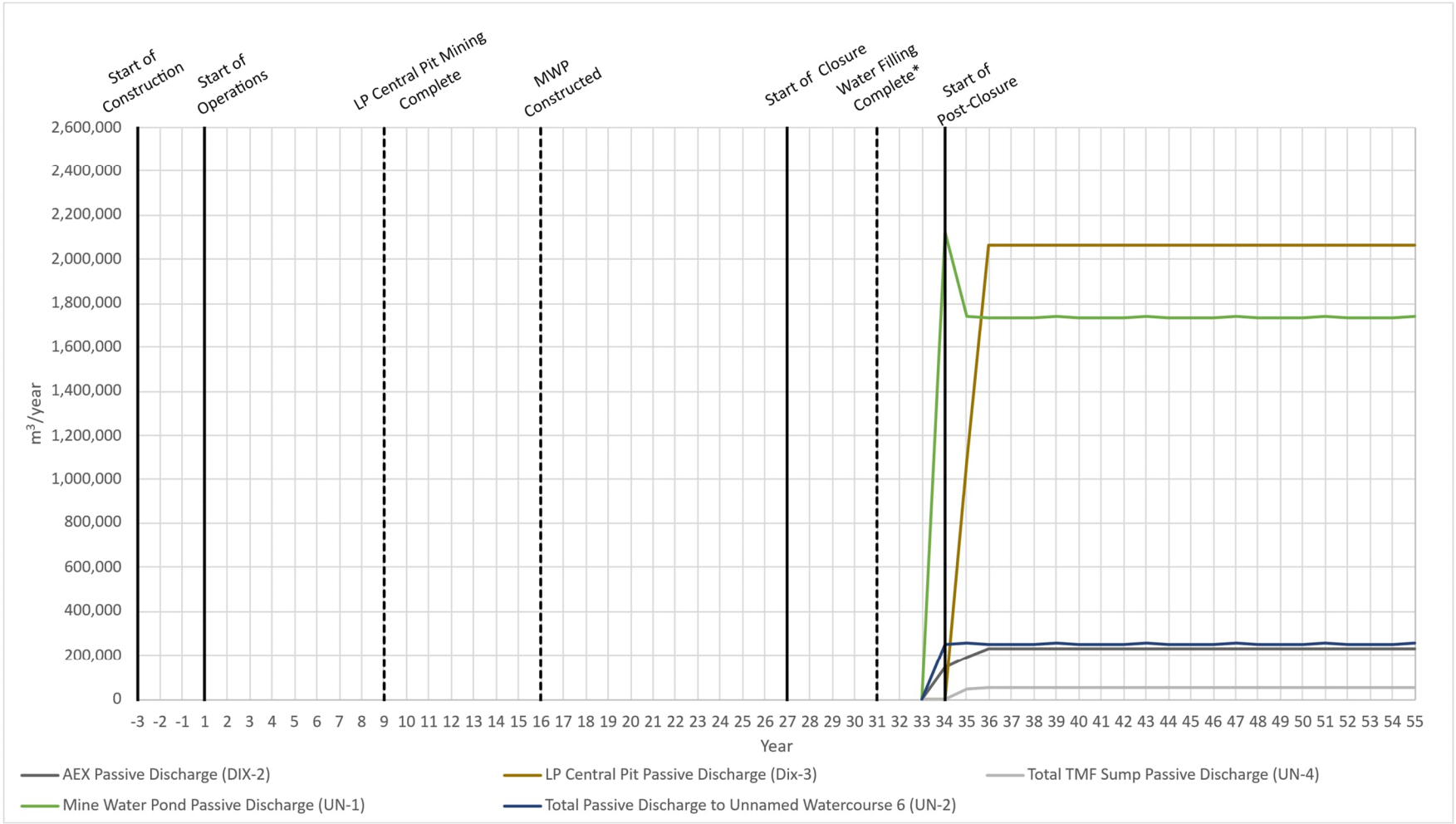
"Water Filling" refers to the filling of the LP Central pit, VMF, and underground mine with water from the Project site and freshwater from Chukuni River.

Figure 3-1: Freshwater Takings



Note:
"Water Filling" refers to the filling of the LP Central pit, VMF, and underground mine with water from the Project site and freshwater from Chukuni River.

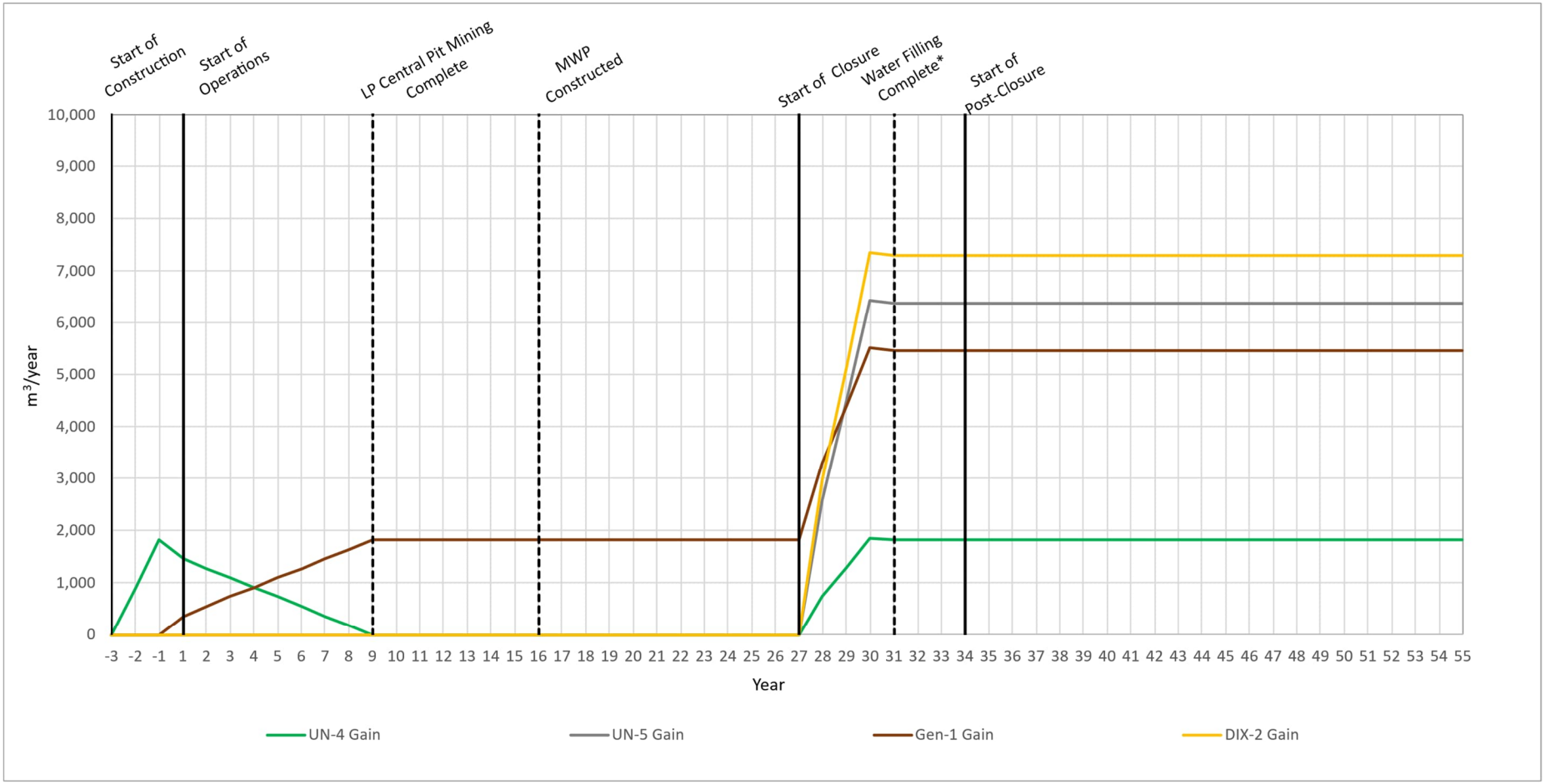
Figure 3-2: Site Discharge – Average Climate Conditions



Note:

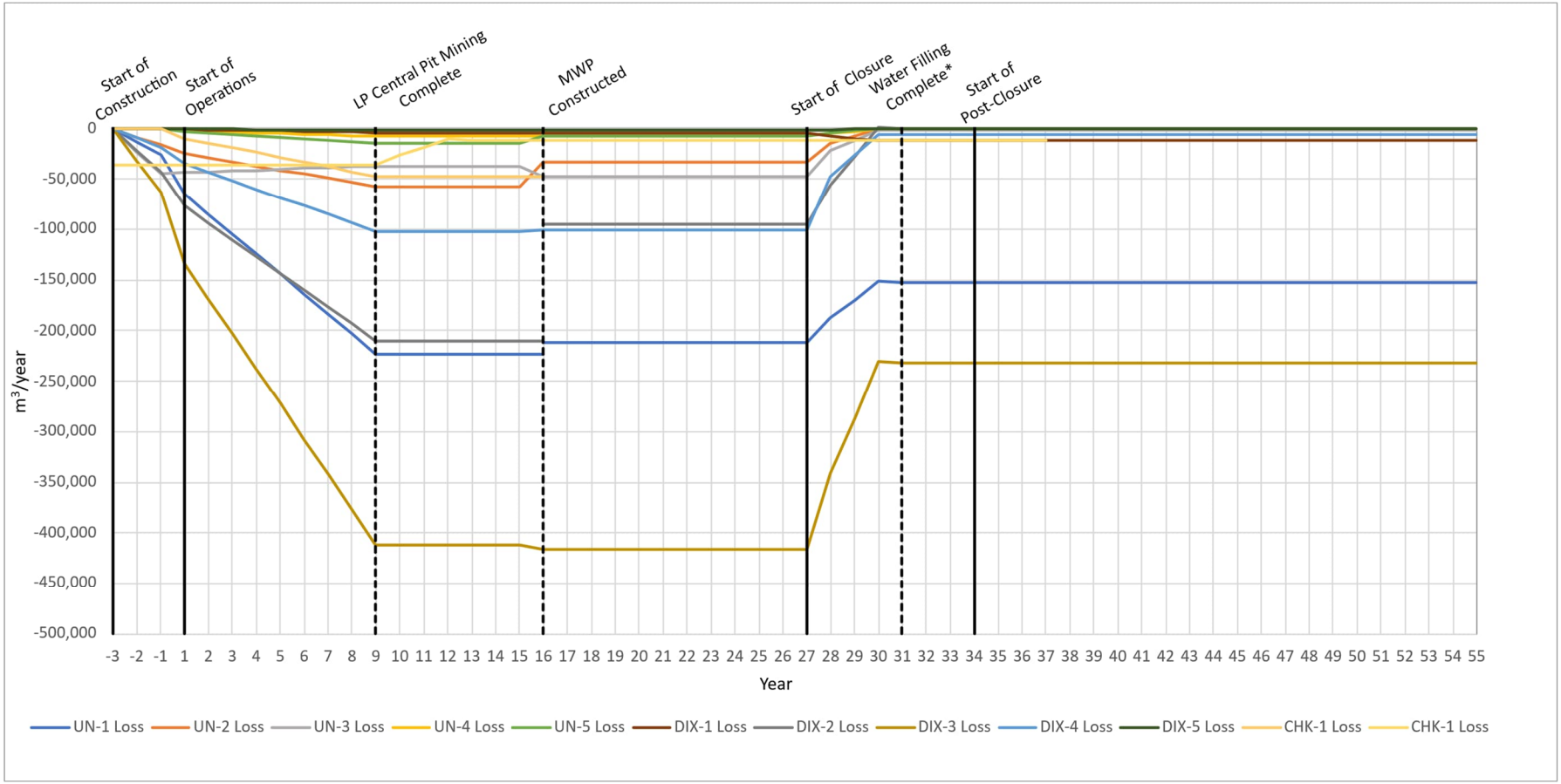
"Water Filling" refers to the filling of the LP Central pit, VMF, and underground mine with water from the Project site and freshwater from Chukuni River.

Figure 3-3: Passive Discharge – Average Climate Conditions



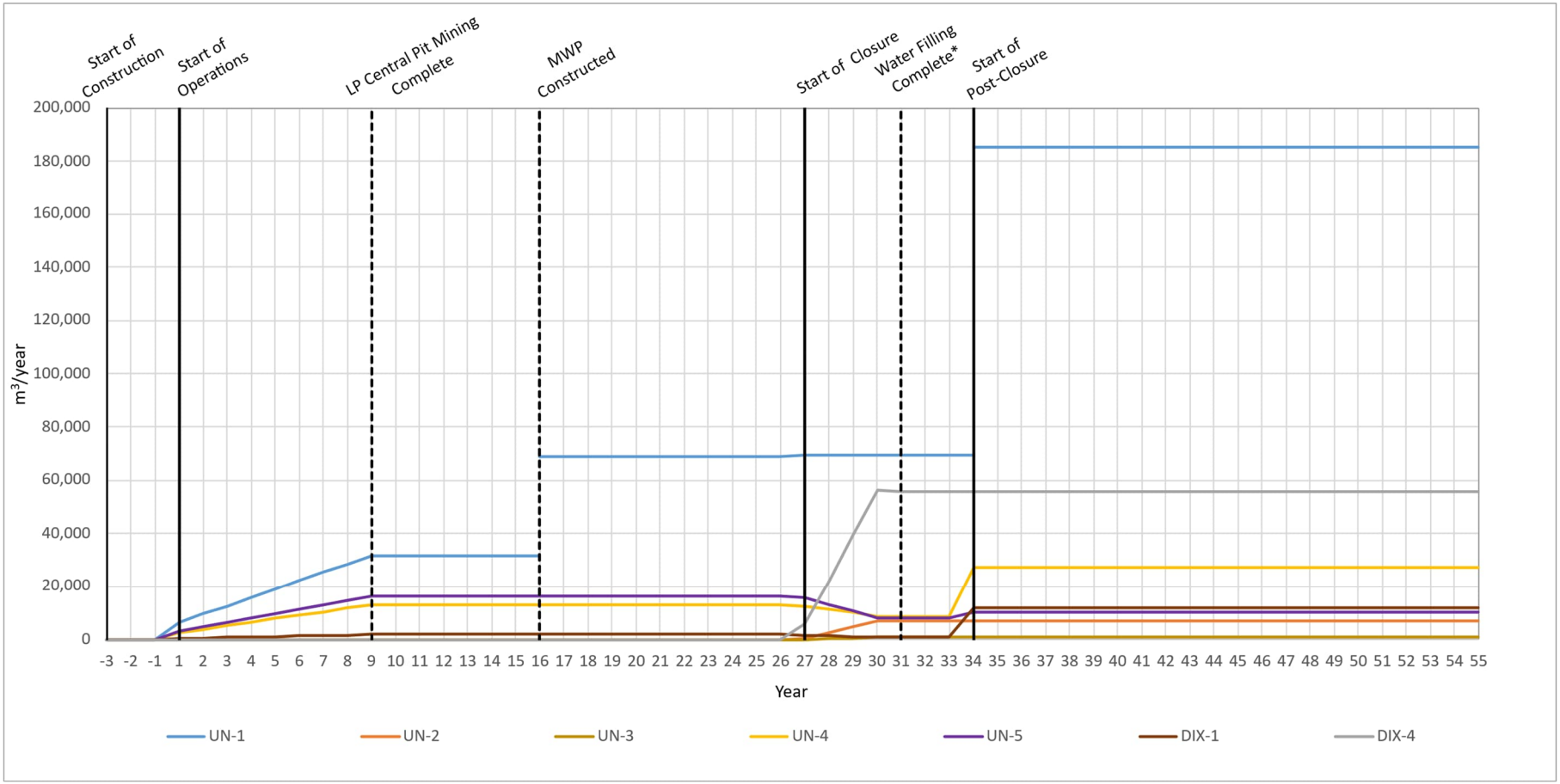
Notes:
Groundwater contributions exclude contributions from seepage as a result of the Project (Section 3.4).
"Water Filling" refers to the filling of the LP Central pit, VMF, and underground mine with water from the Project site and freshwater from Chukuni River.

Figure 3-4: Gains in Groundwater Contributions



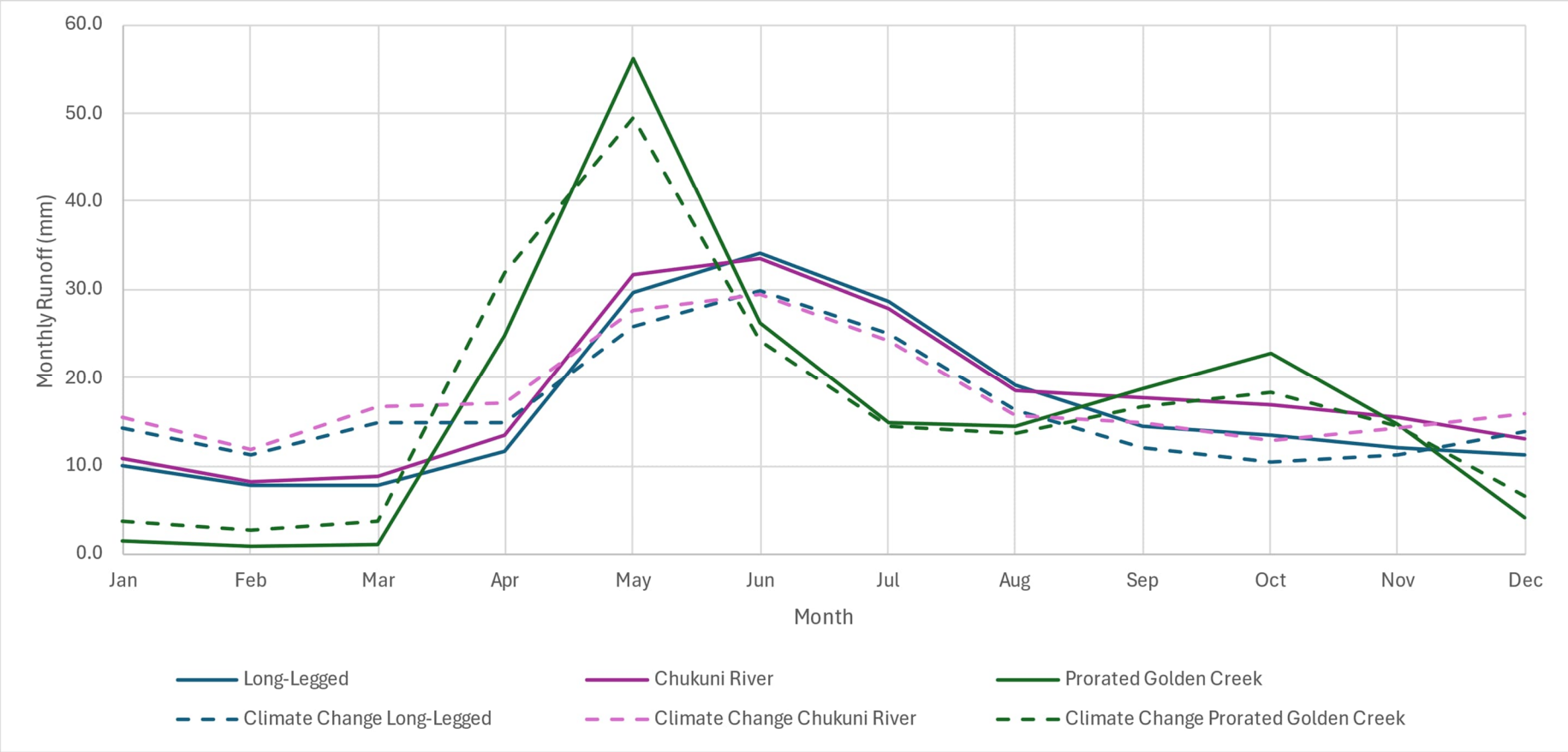
Notes:
Groundwater contributions exclude contributions from seepage as a result of the Project (Section 3.4).
"Water Filling" refers to the filling of the LP Central pit, VMF, and underground mine with water from the Project site and freshwater from Chukuni River.

Figure 3-5: Losses in Groundwater Contributions



Note:
"Water Filling" refers to the filling of the LP Central pit, VMF, and underground mine with water from the Project site and freshwater from Chukuni River.

Figure 3-6: Seepage Contributions



Note:
- Prorated Golden Creek represents monthly runoff from Golden Creek Near Red Lake, pro-rated to align with the total annual runoff from Long-Legged River Below Long-Legged Lake (Section 3.1).

Figure 3-7: Receiver Climate Change Hydrographs

4 RESULTS

Annual results from the receiver water balance model, simulating a 58-year period encompassing the construction, operations, closure and post-closure conditions are provided in Figures 4-1 to 4-3 for the average climate condition. An existing conditions scenario was simulated for comparison to the various Project phases and is also provided in Figures 4-1 to 4-3. The annual change in flow is provided in Figures 4-4 to 4-6.

Tables 4-1 to 4-3 summarize the change in annual flow from a single year, selected within each Project phase, which produced the most substantial change in flow within that phase. The selected year for each phase and climate scenario may differ between nodes. Yellow cells indicate an increase in flow, while green cells indicate a decrease in annual flow. Generally, the largest changes in annual flow are observed at nodes UN-1 (downstream of the TMF, TMF pond and MWP), UN-2 (tributary to Unnamed Waterbody 6A) and UN-4 (upstream of Unnamed Watercourse 8B), primarily in response to changes in watershed areas.

The mean monthly flows from the select years presented in Tables 4-1 to 4-3 are provided in Appendix B.

4.1 EXISTING CONDITIONS

Flows to each modeling node have been simulated continuously under the three climate scenarios for use in comparison to each Project phase. The existing mean monthly discharge is presented in Appendix B. Model results suggest that the mean annual discharge at the final node (PAK-OUT) will be 55.45 m^3/s, under average climate conditions.

4.2 CONSTRUCTION PHASE

The construction phase was modeled continuously using construction sub-phases developed for Year -3, Year -2 and Year -1 of which the worst case was presented for each node. Effects to the groundwater regime and changes to the watershed areas, resulting from the development of the Project site will be the driving force in estimated changes to flow.

Runoff from the TMF to UN-1 will see a reduction in annual flow under all climate conditions ranging from 71.7% to 75.9%, which can be attributed to the overprinting of the existing watershed area (71.3% reduction) in Year -1. UN-2 is expected to see a decrease in annual flow ranging between 21.5% and 30.5% under all climate conditions, which can be attributed to the changes to groundwater conditions in the UN-2 watershed area and watershed overprinting (8.4% reduction). Node UN-3 indicates a decrease in flow ranging from 1.2% to 7.7% for all conditions due to reductions in upstream nodes. Node UN-4 is estimated to have an increase in mean annual flow ranging from 5.1% to 6.9% under all climate conditions.

A reduction in flow is expected for UN-5, GEN-1, or DIX-1 across all climate conditions ranging from 0.1% to 0.2%. Nodes DIX-2, DIX-3, DIX-4, and DIX-5 indicate a reduction in flow ranging from 3.5% to 7.1% for all climate conditions. These reductions are largely a result of the change to upstream watershed areas, with further reductions driven by the reduction of groundwater contributions. CHK-1, CHK-2, and PAK-OUT indicate a change in flow ranging from 0.1% to 0.3% for all climate conditions.

4.3 OPERATIONS PHASE

The mean monthly discharge and estimated change in annual flow, compared to existing conditions, is presented in Table B-3 for all climate conditions. As the operations phase progresses, the MWP is constructed adding additional watershed area to the Project footprint. For the purposes of this analysis the year with the largest annual percent change for each node is presented.

Results generally indicate that nodes on Dixie Creek, downstream of the Project, will have reductions in flow as a result of reduction in natural watershed area, as well as the groundwater drawdown effect of LP Central pit. These effects are diminished in the Chukuni River and further downstream due to the site discharge, as well as the larger watershed size (and flow) of the Chukuni River watershed.

A reduction in flow is estimated at nodes DIX-2, DIX-3, DIX-4, DIX-5 ranging from 4.8% to 10.3% under average climate conditions. These reductions in flow can be attributed to the development of the Project, resulting in a cumulative reduction in watershed area at theses nodes ranging from 4.0% to 8.6%. The greatest reduction in flow is observed during dry conditions at DIX-3, estimated at 15.6%. A 0.1% reduction in flow is estimated at DIX-1, under all climate conditions.

Model results indicate that UN-1 (downstream of MWP) and UN-2 (tributary to Unnamed Waterbody 6A) observe an annual reduction in flow of 85.2% and 53.1% under average conditions, respectively. Under a dry climate condition UN-1 is estimated to have a reduction in flow of 97.3%. The estimated reduction in flow at UN-1 and UN-2 is driven largely by the reduction in watershed area by 79.1% and 43.9% respectively, with further reductions attributed to the change in the groundwater regime, which are more impactful during dry conditions. Effects observed at UN-2 are reduced downstream at UN-3, which is estimated to experience an annual reduction in flow of 2.5% in average climate conditions.

An increase in annual flow is predicted at node UN-4 ranging from 11.7% to 16.3% for all three climate conditions, as a result of the increase in its watershed area by 11.1%. Node UN-5 indicates a maximum increase in flow of 1.6% under all climate conditions, as a result of small seepage inputs and changes in the groundwater regime. GEN-1 is estimated to see a change in flow ranging from 0.0% to 0.4% under all three climate conditions. The most downstream nodes CHK-1, CHK-2, and PAK-OUT indicate a change in flow ranging from 0.2% to 0.8% under all climate conditions, with the maximum change occurring at CHK-1 under dry climate conditions (0.8%).

4.4 CLOSURE PHASE

Results generally indicate similar trends from previous Project phases; nodes on Dixie Creek downstream of the Project are estimated to see reductions in flow as a result of Project related activities. These effects are diminished in the Chukuni River and further downstream given the larger watershed size (and flow) of the Chukuni River watershed.

Runoff from the entire Project watershed will be directed to the LP Central pit, which will result in zero discharge at the final discharge point (CHK-1) during the pit filling period of the closure phase. During the closure phase, DIX-2, DIX-3, DIX-4 and DIX-5 show a reduction in flow ranging from 4.4% to 13.7% under all climate conditions. The maximum reduction of flow for these nodes is seen under dry climate conditions at DIX-3. Node DIX-1 is estimated to experience a reduction in flow of 0.1% under average climate conditions.

Nodes UN-1 and UN-2 continue to show the largest change in flow, showing reductions ranging from 97.2% to 59.5% during the closure phase for all climate conditions. Effects observed at UN-2 are reduced downstream at UN-3, which is estimated to experience an annual decrease in flow of 1.7% in average climate conditions. UN-4 is estimated to have an increase from existing conditions of 13.8% under average climate conditions. Nodes GEN-1 and UN-5 indicate an increase in flow ranging from 0.1% to 2.9% under all climate conditions. The most downstream nodes CHK-1, CHK-2 and PAK-OUT indicate a maximum reduction in flow of 4.2% for all climate conditions as a result of freshwater takings from the Chukuni River during the pit filling period of the closure phase.

4.5 CLOSURE PHASE WITH CLIMATE CHANGE

Results indicate that the anticipated effects of the Project on local watercourse flows during the closure phase are slightly greater under a climate change scenario (Table 4-1). The estimated change in flow is similar to closure under average climate conditions. UN-1 and UN-2 see a reduction in flow of 85.9% (84.8% under current climate conditions) and 48.5% (48.3% under current climate conditions). DIX-5 is

estimated to have a reduction in flow of 6.1% (6.2% under current climate conditions). The most downstream node PAK-OUT is estimated to experience a reduction in flow of 1.0% (1.1% under current climate conditions). All other nodes are estimated to have a similar change in flow to what was estimated for current climate conditions.

4.6 POST-CLOSURE

During post-closure, the LP Central pit, VMF and underground mine are filled with water, collection of site runoff has ceased, and there is no site discharge to the Chukuni River. Site runoff will passively discharge to nodes DIX-2, DIX-3, UN-1, UN-2, and UN-4. The watershed areas reporting to each passive discharge location are shown in Figure 2-7.

Generally, the Project watersheds are returned to their pre-development watersheds, with some exceptions, such as the non-contact water diversions. Nodes that experienced a reduction in flow during previous Project phases (due to the capture of contact water from the Project watersheds), generally now see an increase in flow due to the restoration of total watershed areas and changed land types from existing conditions. Nodes DIX-1, DIX-2, DIX-3, DIX-4, and DIX-5 will have a change in flow when compared to existing conditions ranging from 0.1% to 1.1% for average climate conditions.

The greatest change in flow is estimated at node UN-1, which is estimated to have an increase in flow of 35.3% at the start of post-closure (Year 34) under average climate conditions. This single year peak is a result of the lowering of pond levels in the TMF pond and MWP at the start of post-closure. The remainder of post-closure is estimated to have an increase in flow of 13.9% under average climate conditions, primarily due to the increased runoff potential of the reclaimed TMF compared to existing conditions. Reductions in flow of 13.4% for dry conditions and 8.3% for wet conditions are expected.

Node UN-2 is estimated to have an increase in annual flow of 1.4% and 8.5% for average and dry conditions respectively, but a decrease in flow of 12.5% during wet conditions. Node UN-3 is estimated to observe an increase in annual flow ranging from 6.5% to 10.3% for all climate conditions. It is estimated that UN-4 will experience an annual increase in flow ranging from 23.7% to 57.9% for all three climate conditions, due to increased watershed area and seepage from the TMF during post-closure. Nodes GEN-1 and UN-5 indicate an increase in annual flow similar to that of the closure phase. The maximum increase in flow for these nodes is 3.2% during all climate conditions.

The most downstream nodes, CHK-1, CHK-2 and PAK-OUT, are estimated to experience a change in annual flow ranging from 0.0% to 0.1% under all climate conditions.

4.7 POST-CLOSURE WITH CLIMATE CHANGE

Results indicate that the anticipated effects of the Project on local watercourse flows during the post-closure are slightly greater under a climate change scenario (Table 4-1). Nodes DIX-1, DIX-2, DIX-3, DIX-4, and DIX-5 estimate an increase to annual flow ranging from 0.1% to 1.4% (slightly greater than a maximum change of 1.1% in the post-closure, current climate conditions). The largest changes in annual flows are estimated at UN-4 with an increase of 33.0%, and UN-1 with an increase of 23.0%. These are greater effects than those estimated under the post-closure, current climate condition (31.7% and 13.9%, respectively). An increase in flow is expected at nodes UN-2 and UN-3, which are estimated to have an increase in flow of 6.0% and 9.9% respectively. The most downstream nodes CHK-1, CHK-2, and PAK-OUT are estimated to experience a change in annual flow ranging from 0.0% to 0.1%.

Table 4-1: Largest Annual Percent Change in Flow – Average Climate Conditions

	UN-1	UN-2	UN-3	UN-4	UN-5	GEN-1	DIX-1	DIX-2	DIX-3	DIX-4	DIX-5	CHK-1	CHK-2	PAK-OUT
Watercourse	**Unnamed Watercourse 1**	**Unnamed Watercourse 6A**	**Unnamed Waterbody 6 Outlet**	**Unnamed Watercourse 8B**	**Unnamed Watercourse 11**	**Genessee Lake Outlet**	**Dixie Creek**	**Dixie Creek**	**Dixie Creek**	**Dixie Creek**	**Dixie Creek**	**Chukuni River**	**Chukuni River**	**Pakwash Lake Outlet**
Construction	-71.7%	-21.5%	-1.2%	5.4%	-0.2%	-0.1%	-0.1%	-3.5%	-6.0%	-3.9%	-3.7%	-0.1%	-0.2%	-0.1%
Operations	-85.2%	-53.1%	-2.5%	12.5%	0.4%	-0.1%	-0.1%	-4.8%	-10.3%	-6.8%	-6.4%	0.7%	0.3%	0.2%
Closure	-84.8%	-48.3%	-1.7%	13.8%	0.7%	0.2%	-0.1%	-4.5%	-10.0%	-6.6%	-6.2%	-1.3%	-1.7%	-1.1%
Closure with Climate Change	-85.9%	-48.5%	-1.7%	13.8%	0.7%	0.2%	-0.1%	-4.5%	-10.0%	-6.6%	-6.1%	-1.3%	-1.6%	-1.0%
Post-Closure	13.9%	1.4%	9.1%	31.7%	0.7%	0.2%	0.1%	1.1%	0.5%	0.4%	0.7%	0.0%	0.1%	0.0%
Post-Closure with Climate Change	23.0%	6.0%	9.9%	33.0%	0.7%	0.2%	0.1%	1.4%	1.1%	0.8%	1.1%	0.0%	0.1%	0.1%

Notes:
The change in flows presented are from a single year, selected within each Project phase, which produced the most substantial change in flow within the phase. The selected year will vary between nodes, and climate condition. Post-Closure with Climate Change percentages are based on climate change conditions with and without the Project.
A colour gradient was used to visually represent percent increase (yellow) and percent decrease (green) at the modelled node locations.

Table 4-2: Largest Annual Percent Change in Flow – 1:100 Dry Climate Conditions

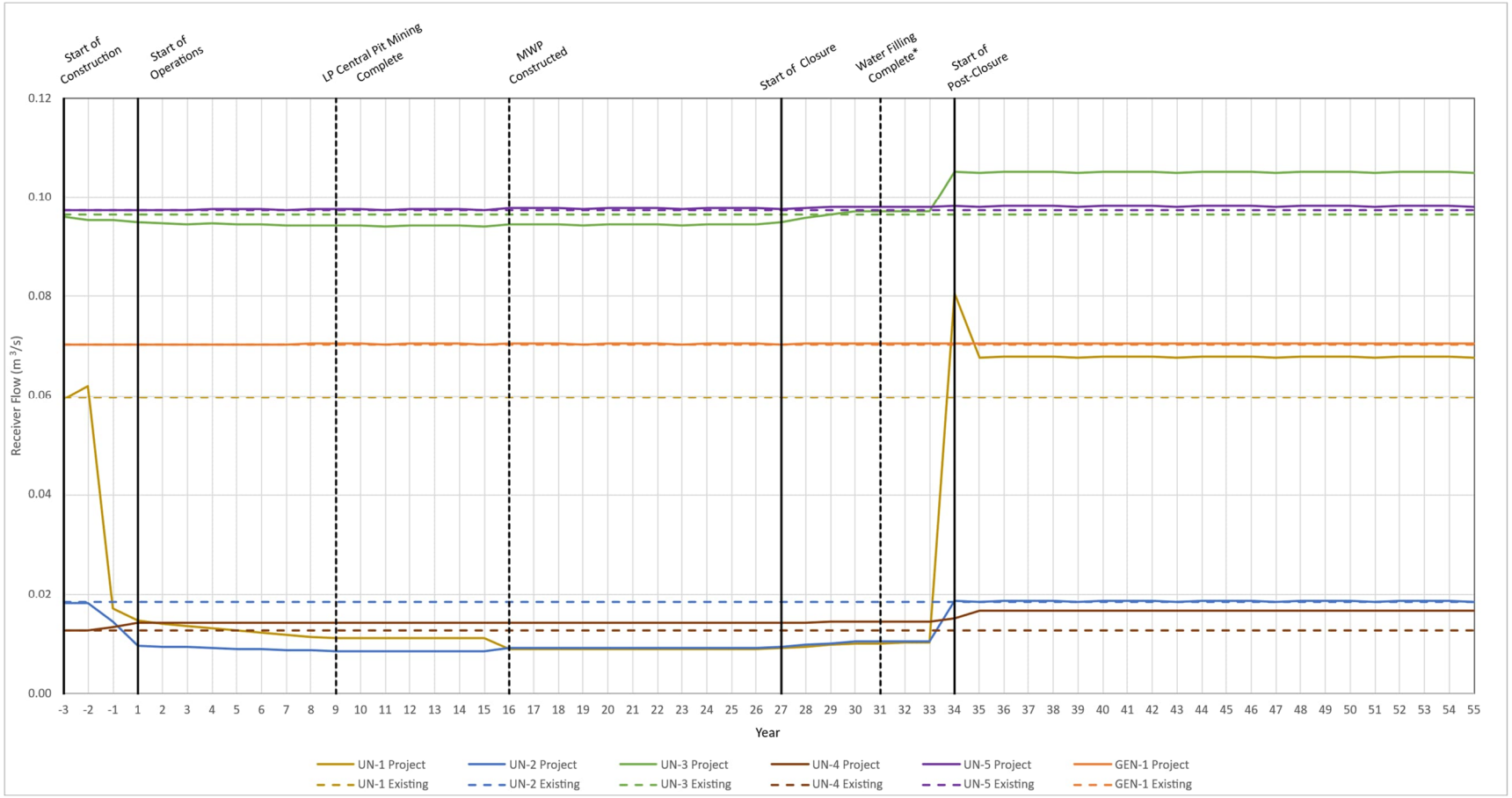
	UN-1	UN-2	UN-3	UN-4	UN-5	GEN-1	DIX-1	DIX-2	DIX-3	DIX-4	DIX-5	CHK-1	CHK-2	PAK-OUT
Watercourse	**Unnamed Watercourse 1**	**Unnamed Watercourse 6A**	**Unnamed Waterbody 6 Outlet**	**Unnamed Watercourse 8B**	**Unnamed Watercourse 11**	**Genessee Lake Outlet**	**Dixie Creek**	**Dixie Creek**	**Dixie Creek**	**Dixie Creek**	**Dixie Creek**	**Chukuni River**	**Chukuni River**	**Pakwash Lake Outlet**
Construction	-75.9%	-30.5%	-7.7%	6.9%	-0.2%	-0.1%	-0.1%	-4.1%	-7.1%	-4.7%	-4.7%	-0.1%	-0.3%	-0.2%
Operations	-97.3%	-76.5%	-11.2%	16.3%	1.6%	0.4%	-0.1%	-7.0%	-15.6%	-10.8%	-10.5%	0.8%	-0.5%	-0.3%
Closure	-97.2%	-59.5%	-8.2%	22.9%	2.9%	1.1%	0.1%	-5.1%	-13.7%	-9.4%	-9.0%	-3.9%	-4.2%	-2.5%
Post-Closure	-13.4%	8.5%	10.3%	57.9%	3.2%	1.1%	0.3%	1.1%	2.0%	1.6%	1.9%	0.0%	0.1%	0.1%

Note:
The change in flows presented are from a single year, selected within each Project phase, which produced the most substantial change in flow within the phase. The selected year will vary between nodes, and climate condition.
A colour gradient was used to visually represent percent increase (yellow) and percent decrease (green) at the modelled node locations.

Table 4-3: Largest Annual Percent Change in Flow – 1:100 Wet Climate Conditions

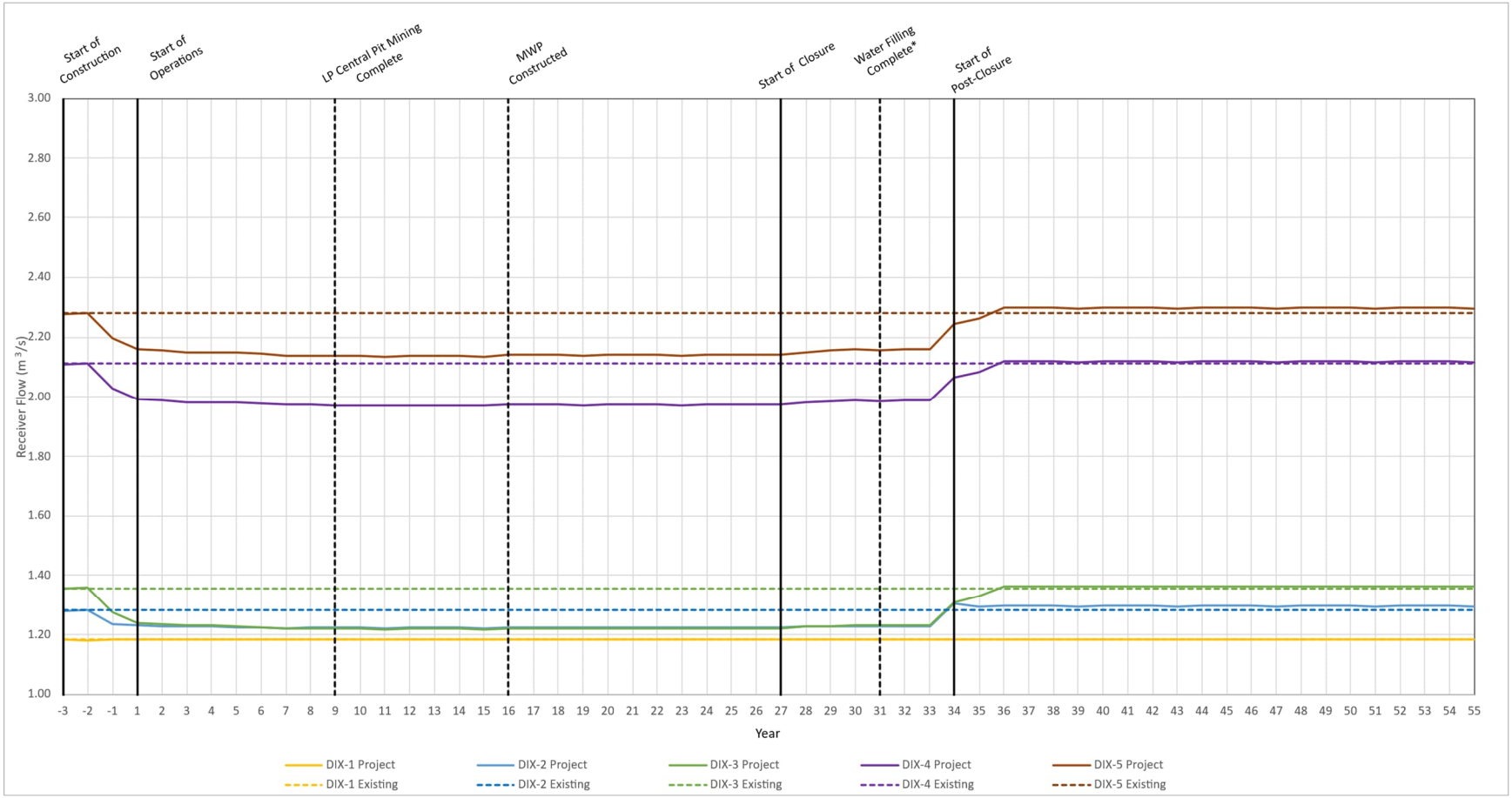
	UN-1	UN-2	UN-3	UN-4	UN-5	GEN-1	DIX-1	DIX-2	DIX-3	DIX-4	DIX-5	CHK-1	CHK-2	PAK-OUT
Watercourse	**Unnamed Watercourse 1**	**Unnamed Watercourse 6A**	**Unnamed Waterbody 6 Outlet**	**Unnamed Watercourse 8B**	**Unnamed Watercourse 11**	**Genessee Lake Outlet**	**Dixie Creek**	**Dixie Creek**	**Dixie Creek**	**Dixie Creek**	**Dixie Creek**	**Chukuni River**	**Chukuni River**	**Pakwash Lake Outlet**
Construction	-72.1%	-22.9%	-1.5%	5.1%	-0.2%	-0.1%	-0.1%	-3.6%	-6.3%	-4.1%	-3.8%	0.1%	-0.2%	-0.1%
Operations	-82.4%	-48.5%	-1.0%	11.7%	0.2%	0.0%	-0.1%	-4.3%	-9.3%	-6.1%	-5.7%	0.5%	-0.2%	-0.2%
Closure	-82.1%	-46.1%	0.6%	12.3%	0.3%	0.1%	-0.1%	-4.4%	-9.3%	-6.1%	-5.7%	-0.7%	-1.1%	-0.7%
Post-Closure	-8.3%	-12.5%	6.5%	23.7%	0.3%	0.1%	0.0%	-0.2%	-1.7%	-1.1%	-0.7%	0.0%	0.0%	0.0%

Note: The change in flows presented are from a single year, selected within each Project phase, which produced the most substantial change in flow within the phase. The selected year will vary between nodes, and climate condition.
A colour gradient was used to visually represent percent increase (yellow) and percent decrease (green) at the modelled node locations.



Notes:
Minor deviations in annual flow are present every 4 years and can be attributed to the occurrence of leap years.
"Water Filling" refers to the filling of the LP Central pit, VMF, and underground mine with water from the Project site and freshwater from Chukuni River.

Figure 4-1: Annual Flow in Unnamed Watercourses – Average Climate Conditions

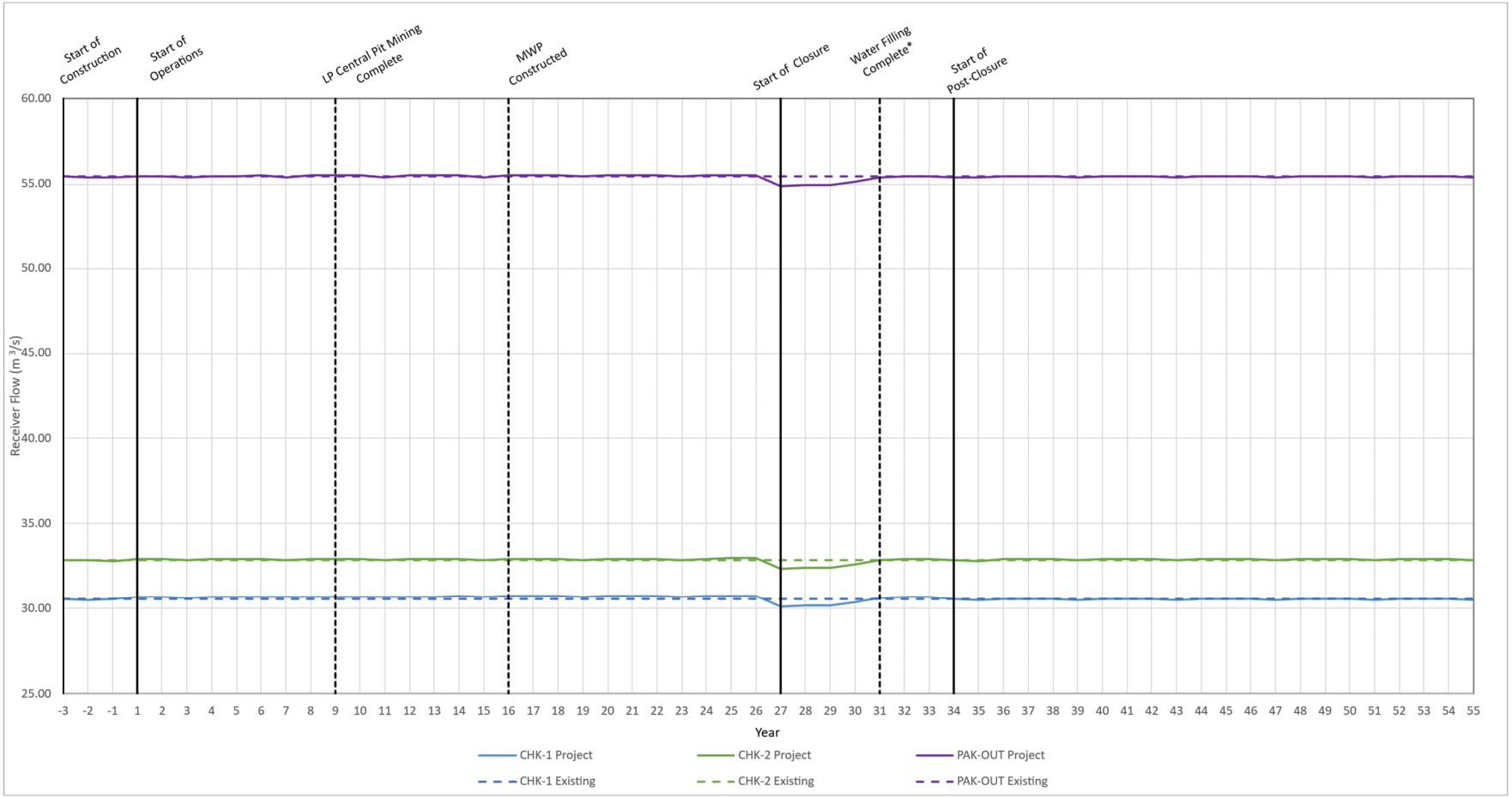


Note:

- Minor deviations in annual flow are present every 4 years and can be attributed to the occurrence of leap years.

"Water Filling" refers to the filling of the LP Central pit, VMF, and underground mine with water from the Project site and freshwater from Chukuni River.

Figure 4-2: Annual Flow in Dixie Creek – Average Climate Conditions

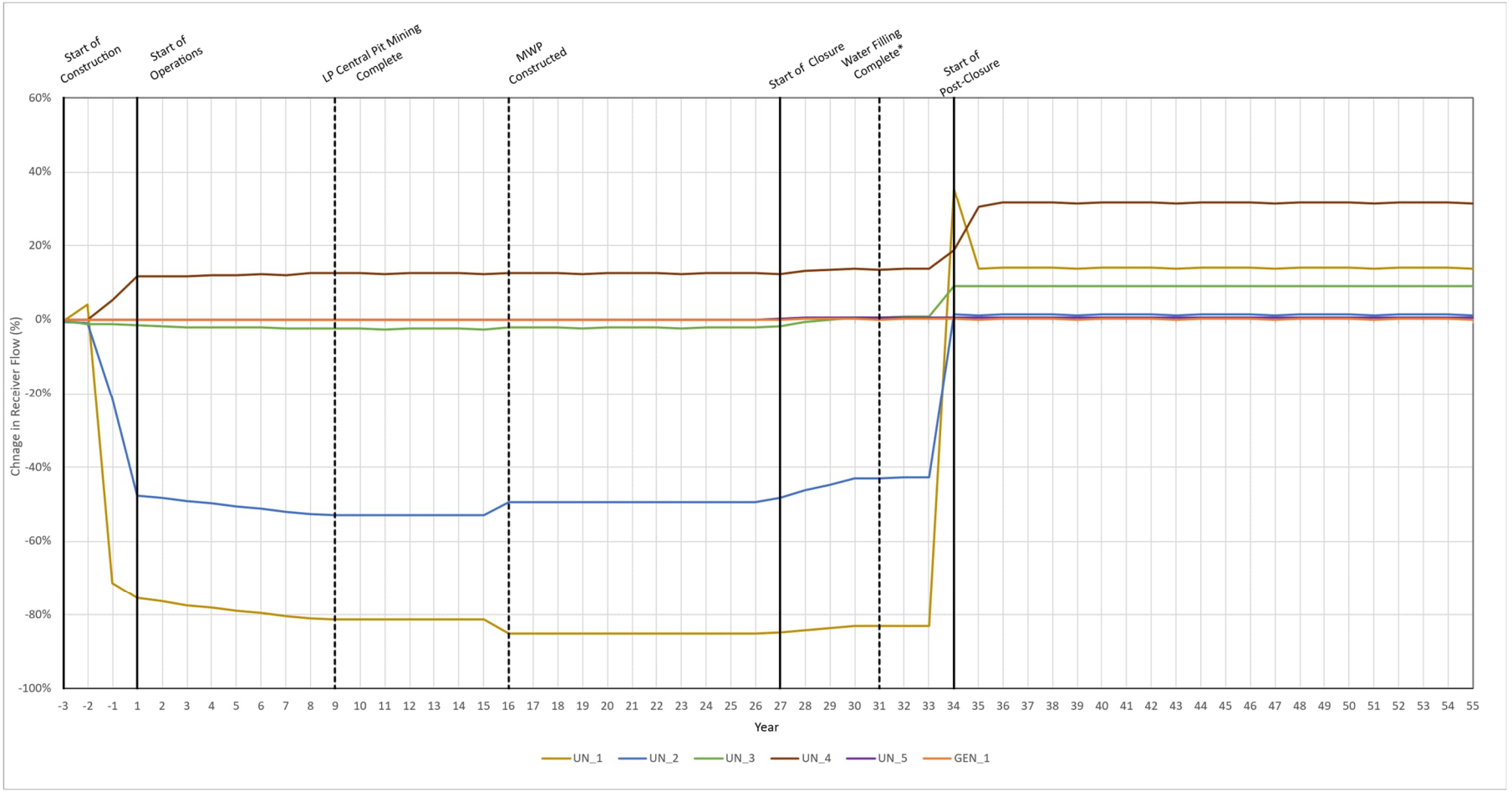


Note:

- Minor deviations in annual flow are present every 4 years and can be attributed to the occurrence of leap years.

"Water Filling" refers to the filling of the LP Central pit, VMF, and underground mine with water from the Project site and freshwater from Chukuni River.

Figure 4-3: Annual Flow in Chukuni River and Pakwash Lake – Average Climate Conditions

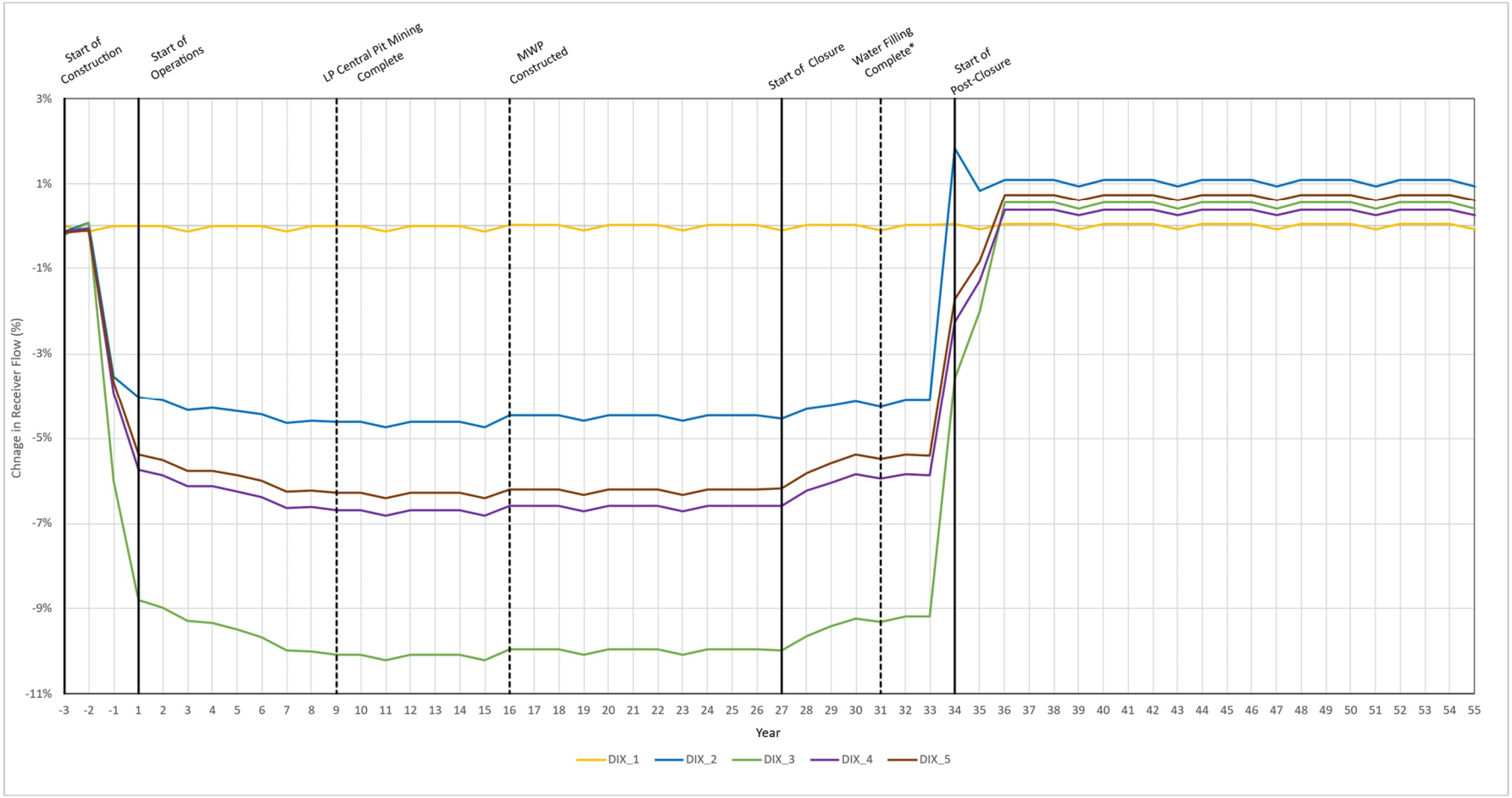


Note:

- Minor deviations in annual flow are present every 4 years and can be attributed to the occurrence of leap years.

"Water Filling" refers to the filling of the LP Central pit, VMF, and underground mine with water from the Project site and freshwater from Chukuni River.

Figure 4-4: Annual Percent Change in Unnamed Watercourse – Average Climate Conditions

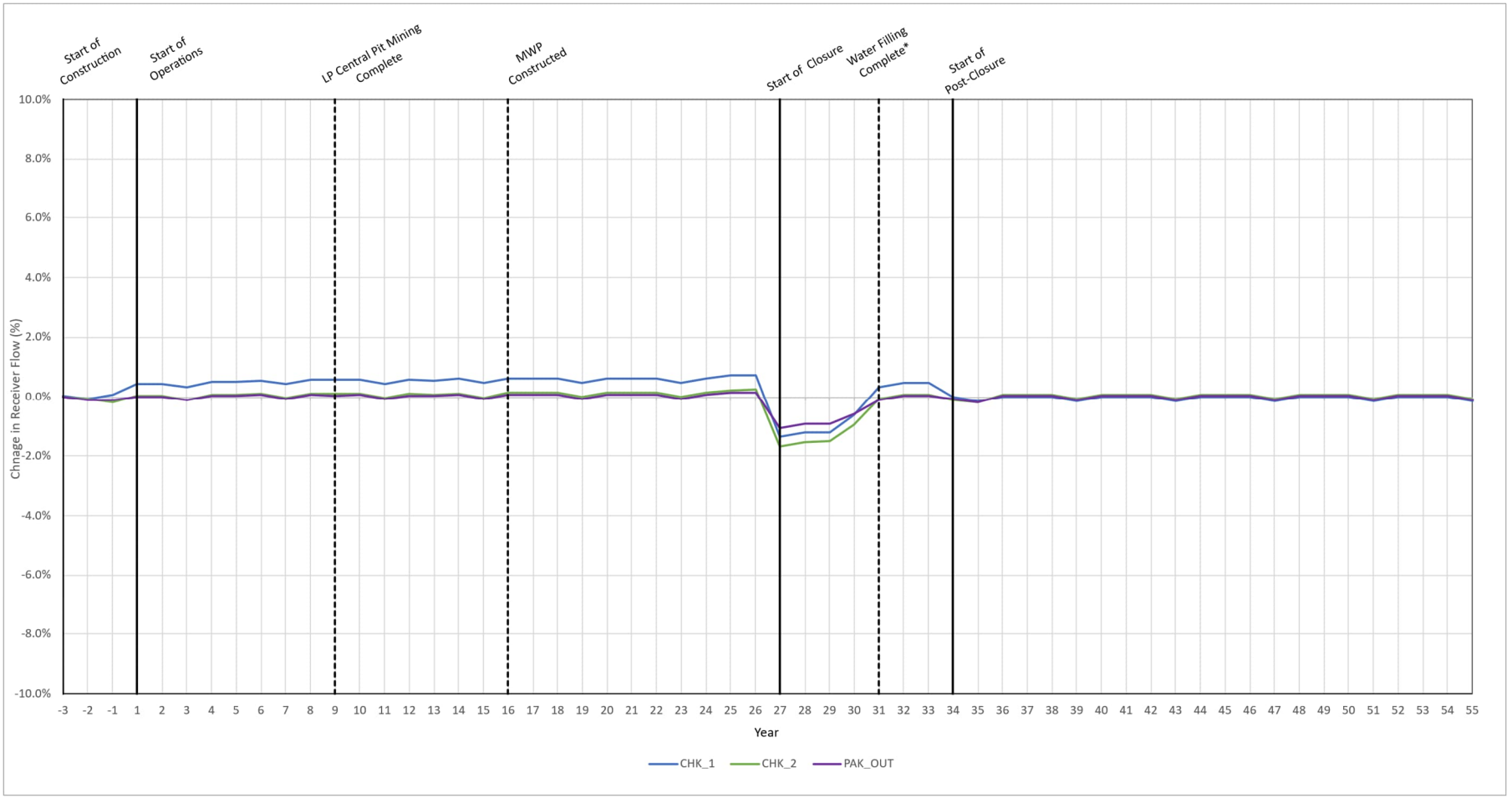


Note:

- Minor deviations in annual flow are present every 4 years and can be attributed to the occurrence of leap years.

"Water Filling" refers to the filling of the LP Central pit, VMF, and underground mine with water from the Project site and freshwater from Chukuni River.

Figure 4-5: Annual Percent Change in Dixie Creek – Average Climate Conditions



Notes:
Minor deviations in annual flow are present every 4 years and can be attributed to the occurrence of leap years.
"Water Filling" refers to the filling of the LP Central pit, VMF, and underground mine with water from the Project site and freshwater from Chukuni River.

Figure 4-6: Annual Percent Change in Chukuni River and Pakwash Lake – Average Climate Conditions

5 SUMMARY

The receiver water balance analysis for the Project estimates mean monthly flow at 14 modeling nodes, within the Dixie Creek, Chukuni River and Pakwash Lake watersheds, across the Project phases. Three climate scenarios (average, 1:100 dry year and 1:100 wet year) were evaluated, as well as a high-level climate change scenario. Model results are summarized below.

Results generally indicate that the change in flow is greatest in the smaller unnamed watercourses adjacent to or within the Property (UN-1 to UN-4). The calculated change in flow is lesser in Dixie Creek, as a result of the larger contributing watershed areas (and flow). Change in flow is estimated to be a maximum of 10.2% in Dixie Creek (DIX-1 to DIX-5) under average conditions, under all Project phases. Change in flow is further reduced to less than 2% under average climate conditions, under all Project phases, in the more downstream nodes located in the Chukuni River and Pakwash Lake (CHK-1, CHK-2, PAK-OUT).

The receiving environment will see the greatest reductions in mean annual flow occur during the operations and closure phases, resulting from a need to collect contact water and runoff from the Project footprint, which is located primarily in the Dixie Creek watershed, in addition to water takings to expedite the LP Central pit, VMF, and underground mine filling. During the operations phase, the largest reduction in flow is estimated at UN-1 which is located on an unnamed tributary to Dixie Creek, in which the TMF is located. Reduction in flow is estimated to be 85.2% under average climate conditions, largely attributed to the reduction in watershed area (79.1%) as the Project's water management system will collect and divert water away from UN-1's natural watershed. The greatest change in flow in Dixie Creek (DIX-1 to DIX-5) is expected to occur during the operations phase with DIX-3 estimated to have 10.2% reduction in annual flow during average climate conditions.

Conversely, the Project will see an increase in mean annual flow during post-closure at UN-1 (13.9% under average climate conditions), where the reclaimed TMF surface area is expected to produce slightly more runoff than existing conditions. This is a result of returning the majority of the Project watersheds to pre-development receivers, with the exception of some permanent diversions, as well as changes to land types and runoff coefficients stemming from the restoration of the Property. Post-closure runoff coefficients are generally greater than existing runoff coefficients. The greatest change is estimated to occur at UN-4 (31.7% change in flow under average climate conditions), as a result of the clean water diversion and TMF sump passive discharge.

Nodes DIX-2, DIX-3, DIX-4, and DIX-5 are estimated to experience a reduction in mean annual flow during the construction, operations, and closure phases. Similar to UN-1, this is attributed to the reduction in natural watershed areas reporting to them, resulting from a need to collect contact water and runoff from the Project footprint. The reductions at these nodes range from 3.5% to 10.2% under average climate conditions. During post-closure, these nodes are expected to experience less than a 1.5% change in annual flow compared to existing conditions for average climate conditions. Similar to UN-1, this is a result of returning the majority of the Project watersheds to pre-development watershed areas, with the exception of some permanent diversions, as well as changes to land types and runoff coefficients stemming from the restoration of the Property.

The most downstream nodes in relation to the Project are CHK-1, CHK-2, and PAK-OUT, showing a change in mean annual flow ranging from 0.1% to 1.7% for average climate conditions, across the Project phases. The estimated change in flow is within the range of natural variability of node watersheds. The largest change (a reduction in flow of 1.7%) is the result of freshwater taking from the Chukuni River during the pit filling period of the closure phase. During post-closure, the estimated change in flow at PAK-OUT (furthest downstream node) is estimated to be a 0.0% change from the existing conditions under average climate conditions.

A high-level climate change scenario was also evaluated to determine the effect of the closure phase and post-closure on the Project receiving environment, under a climate change setting. Comparing these results to those without climate change, indicates that the anticipated effects of the Project on local watercourse flows are generally greater under a climate change scenario.

6 REFERENCES

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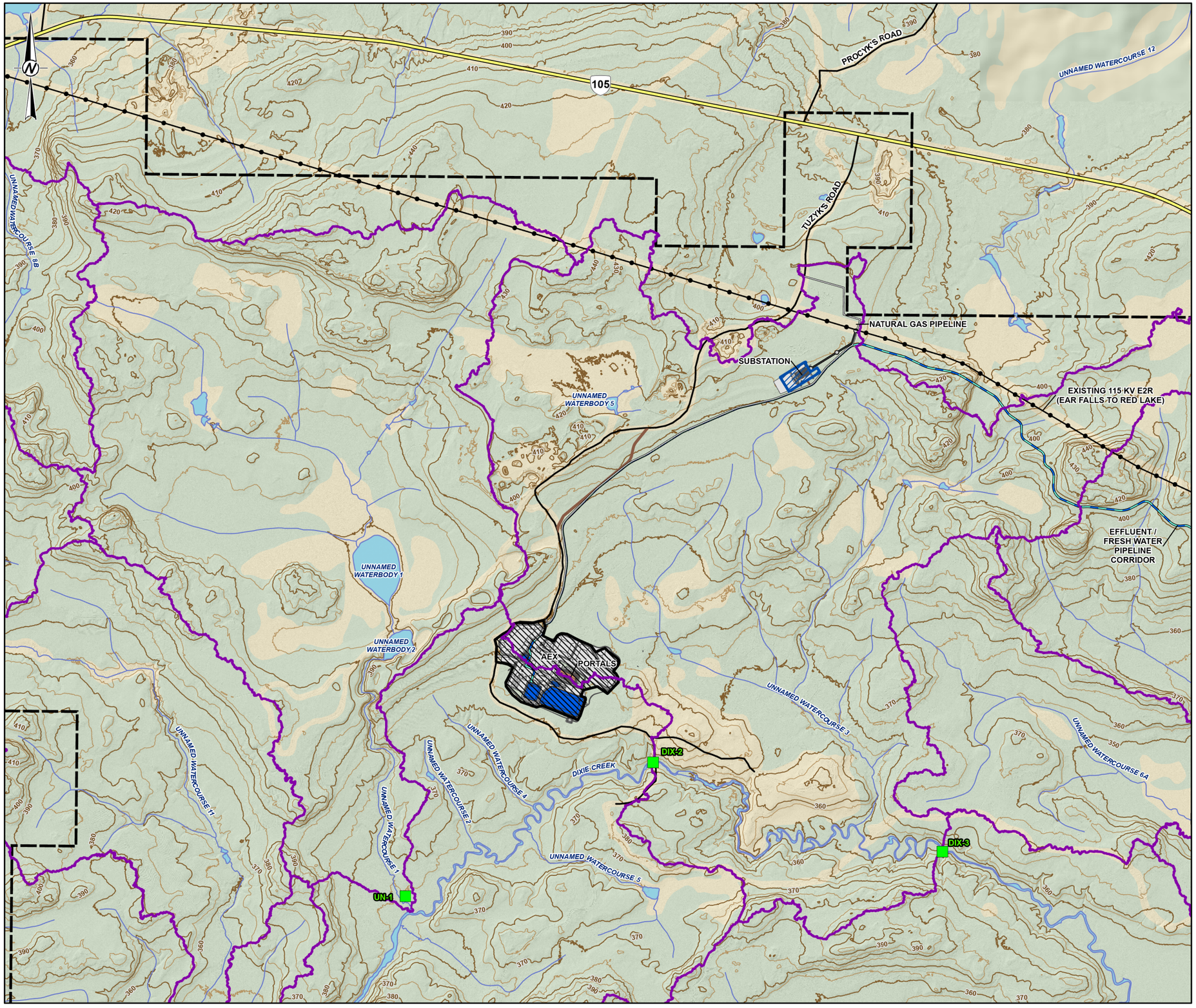
Appendix A
Construction Sub-Phases - Figures



LEGEND

- PROPERTY BOUNDARY
- AREA COLLECTED FOR TREATMENT
- PASSIVE DISCHARGE AREA
- HYDROLOGY MODELLING NODE
- MODELLING NODE WATERSHED
- HIGHWAY (INCLUDING ENBRIDGE PIPELINE)
- LOCAL ROAD
- EXISTING TRANSMISSION LINE
- WATERCOURSE
- WATERBODY
- MAJOR CONTOURS (10 M INTERVAL)
- MINOR CONTOURS (5 M INTERVAL)

PROPOSED MINE FEATURE

- ADVANCED EXPLORATION SITE (AEX)
- PORTAL
- POND
- ROAD
- TRANSMISSION LINE
- NATURAL GAS PIPELINE
- EFFLUENT / FRESH WATER PIPELINE CORRIDOR

0 0.25 0.5 1

1:26,500 KILOMETRES

NOTE(S)

1. ALL LOCATIONS ARE APPROXIMATE

REFERENCE(S)

1. CONTAINS INFORMATION LICENSED UNDER THE OPEN GOVERNMENT LICENCE - ONTARIO
2. CONTOURS ACQUIRED FROM 2022 LIDAR SURVEY.
3. PROPERTY BOUNDARY PROVIDED BY GREAT BEAR RESOURCES, AUGUST 2024.
4. ROADS INFORMATION PROVIDED BY GREAT BEAR RESOURCES, AUGUST 2022.
5. COORDINATE SYSTEM: NAD 1983 UTM ZONE 15N

CLIENT
GREAT BEAR RESOURCES

PROJECT
GREAT BEAR PROJECT

TITLE
CONSTRUCTION PHASE WATER MANAGEMENT (YEAR -3)

CONSULTANT

wsp

YYYY-MM-DD	2025-08-18
DESIGNED	----
PREPARED	MD
REVIEWED	JM
APPROVED	----

PROJECT NO.	CONTROL	REV.	FIGURE
CA0031271	0001	A	A-1

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B

25mm

0

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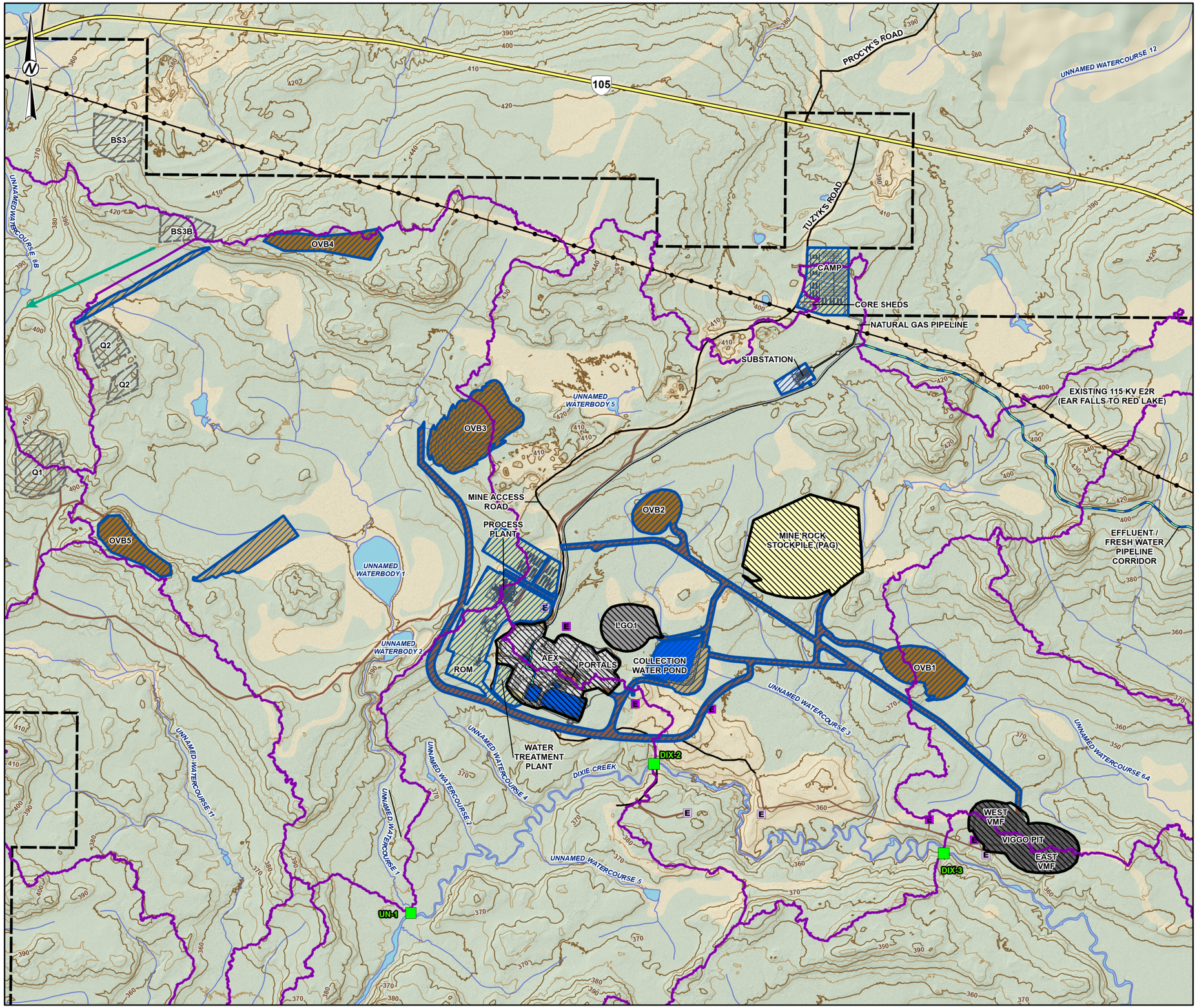

LEGEND

- PROPERTY BOUNDARY
- AREA COLLECTED FOR TREATMENT
- PASSIVE DISCHARGE AREA
- HYDROLOGY MODELLING NODE
- MODELLING NODE WATERSHED
- HIGHWAY (INCLUDING ENBRIDGE PIPELINE)
- LOCAL ROAD
- EXISTING TRANSMISSION LINE
- WATERCOURSE
- WATERBODY
- MAJOR CONTOURS (10 M INTERVAL)
- MINOR CONTOURS (5 M INTERVAL)

PROPOSED MINE FEATURES

- OPEN PIT
- MINE ROCK STOCKPILE (PAG)
- LOW GRADE ORE STOCKPILE (LGO)
- OVERBURDEN STOCKPILE (OVB)
- DAM
- POND
- MINE FACILITIES / INFRASTRUCTURE
- PORTAL
- ADVANCED EXPLORATION SITE (AEX)
- AGGREGATE SOURCE
- CLEAN WATER DIVERSION
- EXHAUST VENT RAISE
- FRESH AIR VENT RAISE
- TRANSMISSION LINE
- NATURAL GAS PIPELINE
- EFFLUENT / FRESH WATER PIPELINE CORRIDOR

0 0.25 0.5 1

1:26,500 KILOMETRES

NOTE(S)

1. ALL LOCATIONS ARE APPROXIMATE
2. VMF: VIGGO MANAGEMENT FACILITY

REFERENCE(S)

1. CONTAINS INFORMATION LICENSED UNDER THE OPEN GOVERNMENT LICENCE - ONTARIO
2. CONTOURS ACQUIRED FROM 2022 LIDAR SURVEY.
3. PROPERTY BOUNDARY PROVIDED BY GREAT BEAR RESOURCES, AUGUST 2024.
4. ROADS INFORMATION PROVIDED BY GREAT BEAR RESOURCES, AUGUST 2022.
5. COORDINATE SYSTEM: NAD 1983 UTM ZONE 15N

CLIENT
GREAT BEAR RESOURCES

PROJECT
GREAT BEAR PROJECT

TITLE
CONSTRUCTION PHASE WATER MANAGEMENT (YEAR -2)

CONSULTANT

wsp

YYYY-MM-DD	2025-08-19
DESIGNED	----
PREPARED	MD/DB
REVIEWED	JM
APPROVED	----

PROJECT NO.	CONTROL	REV.	FIGURE
CA0031271	0001	A	A-2

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM: ANSI B

0 25mm

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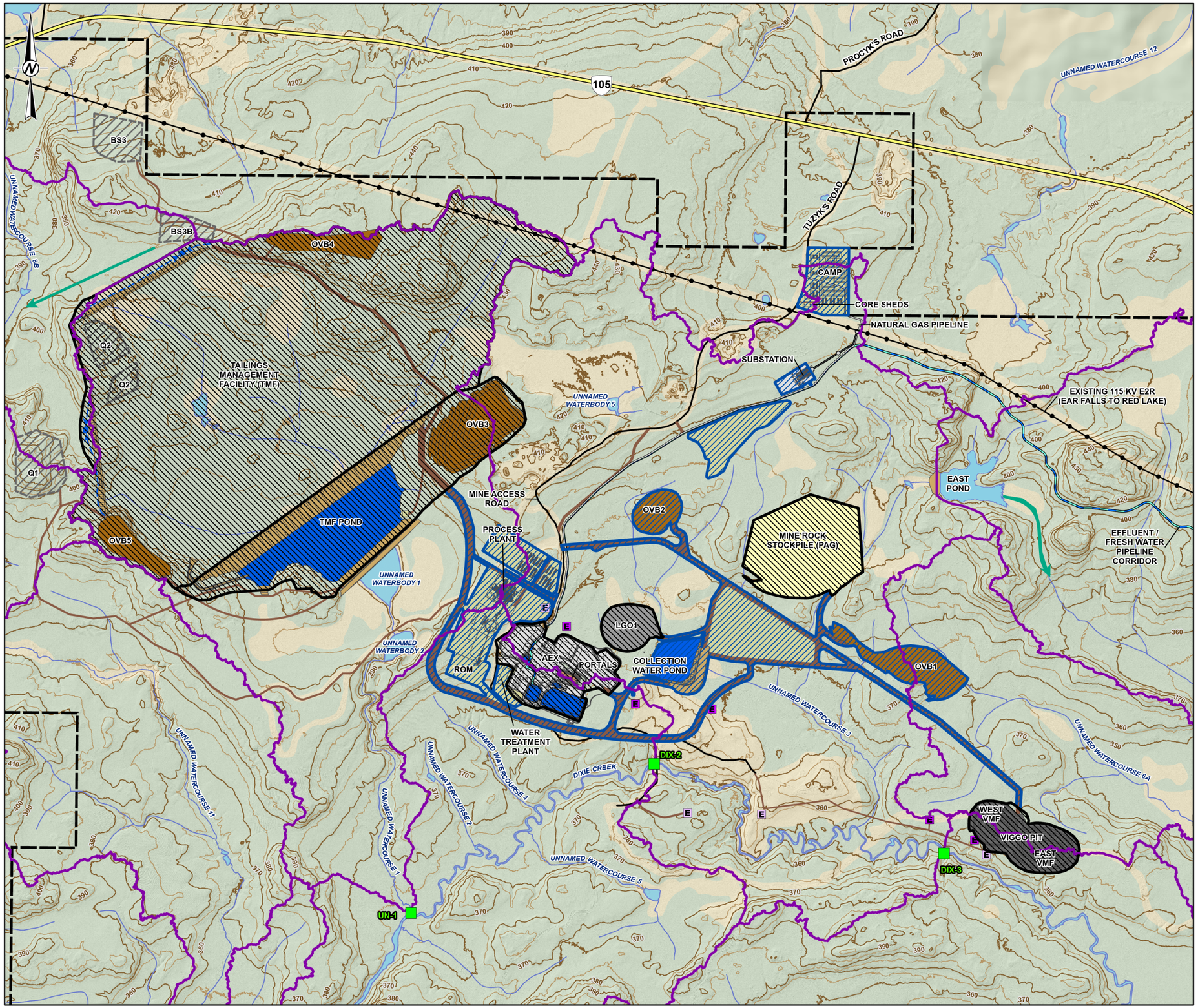

LEGEND

- PROPERTY BOUNDARY
- AREA COLLECTED FOR TREATMENT
- PASSIVE DISCHARGE AREA
- HYDROLOGY MODELLING NODE
- MODELLING NODE WATERSHED
- HIGHWAY (INCLUDING ENBRIDGE PIPELINE)
- LOCAL ROAD
- EXISTING TRANSMISSION LINE
- WATERCOURSE
- WATERBODY
- MAJOR CONTOURS (10 M INTERVAL)
- MINOR CONTOURS (5 M INTERVAL)

PROPOSED MINE FEATURES

- OPEN PIT
- MINE ROCK STOCKPILE (PAG)
- LOW GRADE ORE STOCKPILE (LGO)
- OVERBURDEN STOCKPILE (OVB)
- DAM
- POND
- COLLECTION DITCH
- MINE FACILITIES / INFRASTRUCTURE
- ROAD
- PORTAL
- ADVANCED EXPLORATION SITE (AEX)
- AGGREGATE SOURCE
- CLEAN WATER DIVERSION
- E EXHAUST VENT RAISE
- E FRESH AIR VENT RAISE
- TRANSMISSION LINE
- NATURAL GAS PIPELINE
- EFFLUENT / FRESH WATER PIPELINE CORRIDOR

0 0.25 0.5 1

1:26,500 KILOMETRES

NOTE(S)

1. ALL LOCATIONS ARE APPROXIMATE
2. VMF: VIGGO MANAGEMENT FACILITY

REFERENCE(S)

1. CONTAINS INFORMATION LICENSED UNDER THE OPEN GOVERNMENT LICENCE - ONTARIO
2. CONTOURS ACQUIRED FROM 2022 LIDAR SURVEY.
3. PROPERTY BOUNDARY PROVIDED BY GREAT BEAR RESOURCES, AUGUST 2024.
4. ROADS INFORMATION PROVIDED BY GREAT BEAR RESOURCES, AUGUST 2022.
5. COORDINATE SYSTEM: NAD 1983 UTM ZONE 15N

CLIENT
GREAT BEAR RESOURCES

PROJECT
GREAT BEAR PROJECT

TITLE
CONSTRUCTION PHASE WATER MANAGEMENT (YEAR -1)

CONSULTANT

wsp

YYYY-MM-DD	2025-08-19
DESIGNED	----
PREPARED	MD/DB
REVIEWED	JM
APPROVED	----

PROJECT NO.	CONTROL	REV.	FIGURE
CA0031271	0001	A	A-3

IF THIS MEASUREMENT DOES NOT MATCH WHAT IS SHOWN, THE SHEET SIZE HAS BEEN MODIFIED FROM ANSI B

0 25mm

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Appendix B
Model Results – Monthly Flows and Annual Percent Change

Table B-1: Results for Existing Conditions - Average, Dry, and Wet Conditions

Watershed ID	Climate Condition	Watershed Area (km^2)[1]	Calculated Flow (m^3/s)													Mean Annual Runoff (mm)
			January	February	March	April	May	June	July	August	September	October	November	December	Annual Average	
UN-1	Average Year	9.40	0.0049	0.0031	0.0109	0.0888	0.1873	0.1018	0.0530	0.0531	0.0640	0.0796	0.0515	0.0142	0.0596	199.99
	1:100 Dry Year		0.0011	0.0007	0.0024	0.0199	0.0420	0.0228	0.0119	0.0119	0.0143	0.0178	0.0115	0.0032	0.0134	44.82
	1:100 Wet Year		0.0108	0.0069	0.0241	0.1964	0.4142	0.2251	0.1171	0.1175	0.1415	0.1760	0.1138	0.0314	0.1318	442.24
UN-2	Average Year	2.88	0.0015	0.0010	0.0033	0.0272	0.0573	0.0312	0.0162	0.0163	0.0196	0.0244	0.0158	0.0043	0.0183	199.99
	1:100 Dry Year		0.0003	0.0002	0.0007	0.0061	0.0129	0.0070	0.0036	0.0036	0.0044	0.0055	0.0035	0.0010	0.0041	44.82
	1:100 Wet Year		0.0033	0.0021	0.0074	0.0601	0.1268	0.0689	0.0358	0.0360	0.0433	0.0539	0.0348	0.0096	0.0404	442.24
UN-3	Average Year	15.21	0.0476	0.0411	0.0391	0.0827	0.1937	0.1933	0.1483	0.1045	0.0880	0.0863	0.0732	0.0557	0.0964	199.99
	1:100 Dry Year		0.0107	0.0092	0.0088	0.0185	0.0434	0.0433	0.0332	0.0234	0.0197	0.0193	0.0164	0.0125	0.0216	44.82
	1:100 Wet Year		0.1053	0.0909	0.0865	0.1829	0.4284	0.4274	0.3280	0.2311	0.1946	0.1909	0.1620	0.1231	0.2133	442.24
UN-4	Average Year	1.99	0.0010	0.0007	0.0023	0.0188	0.0397	0.0216	0.0112	0.0113	0.0136	0.0169	0.0109	0.0030	0.0126	199.99
	1:100 Dry Year		0.0002	0.0001	0.0005	0.0042	0.0089	0.0048	0.0025	0.0025	0.0030	0.0038	0.0024	0.0007	0.0028	44.82
	1:100 Wet Year		0.0023	0.0015	0.0051	0.0417	0.0879	0.0478	0.0248	0.0249	0.0300	0.0373	0.0241	0.0067	0.0280	442.24
UN-5	Average Year	15.4	0.0437	0.0376	0.0371	0.0902	0.2076	0.1920	0.1429	0.1035	0.0906	0.0918	0.0751	0.0526	0.0974	199.99
	1:100 Dry Year		0.0098	0.0084	0.0083	0.0202	0.0465	0.0430	0.0320	0.0232	0.0203	0.0206	0.0168	0.0118	0.0218	44.82
	1:100 Wet Year		0.0967	0.0831	0.0821	0.1994	0.4590	0.4246	0.3161	0.2289	0.2003	0.2030	0.1660	0.1164	0.2154	442.24
GEN-1	Average Year	11.1	0.0415	0.0362	0.0322	0.0500	0.1228	0.1460	0.1190	0.0795	0.0616	0.0558	0.0518	0.0462	0.0704	199.99
	1:100 Dry Year		0.0093	0.0081	0.0072	0.0112	0.0275	0.0327	0.0267	0.0178	0.0138	0.0125	0.0116	0.0104	0.0158	44.82
	1:100 Wet Year		0.0918	0.0800	0.0712	0.1106	0.2716	0.3227	0.2631	0.1757	0.1362	0.1234	0.1145	0.1022	0.1557	442.24
DIX-1	Average Year	187	0.6849	0.596	0.534	0.862	2.104	2.446	1.980	1.330	1.042	0.953	0.874	0.766	1.184	199.99
	1:100 Dry Year		0.1535	0.134	0.120	0.193	0.471	0.548	0.444	0.298	0.233	0.214	0.196	0.172	0.265	44.82
	1:100 Wet Year		1.5145	1.318	1.181	1.907	4.652	5.408	4.378	2.942	2.304	2.108	1.933	1.694	2.619	442.24
DIX-2	Average Year	202	0.6929	0.601	0.552	1.007	2.410	2.612	2.066	1.417	1.146	1.083	0.958	0.789	1.282	199.99
	1:100 Dry Year		0.1553	0.135	0.124	0.226	0.540	0.585	0.463	0.318	0.257	0.243	0.215	0.177	0.287	44.82
	1:100 Wet Year		1.5322	1.329	1.221	2.227	5.328	5.775	4.569	3.134	2.535	2.395	2.119	1.745	2.834	442.24
DIX-3	Average Year	214	0.7374	0.640	0.587	1.061	2.541	2.768	2.194	1.502	1.212	1.143	1.014	0.839	1.357	199.99
	1:100 Dry Year		0.1652	0.143	0.131	0.238	0.569	0.620	0.492	0.337	0.272	0.256	0.227	0.188	0.304	44.82
	1:100 Wet Year		1.6305	1.414	1.297	2.345	5.619	6.121	4.851	3.322	2.681	2.527	2.242	1.854	3.001	442.24
DIX-4	Average Year	333	1.1826	1.027	0.932	1.597	3.858	4.333	3.469	2.354	1.873	1.741	1.569	1.334	2.112	199.99
	1:100 Dry Year		0.2650	0.230	0.209	0.358	0.865	0.971	0.777	0.528	0.420	0.390	0.352	0.299	0.473	44.82
	1:100 Wet Year		2.6151	2.272	2.060	3.531	8.531	9.581	7.672	5.206	4.142	3.850	3.469	2.950	4.670	442.24
DIX-5	Average Year	360	1.2736	1.106	1.004	1.732	4.180	4.678	3.742	2.542	2.025	1.886	1.696	1.438	2.282	199.99
	1:100 Dry Year		0.2854	0.248	0.225	0.388	0.937	1.048	0.839	0.570	0.454	0.423	0.380	0.322	0.511	44.82
	1:100 Wet Year		2.8163	2.446	2.221	3.829	9.243	10.346	8.274	5.620	4.478	4.170	3.751	3.179	5.046	442.24
CHK-1	Average Year	4,415	17.5	14.8	14.4	22.7	51.4	54.8	45.5	32.8	32.4	30.2	27.3	21.7	30.5	218.11
	1:100 Dry Year		5.6	4.8	4.6	7.3	16.5	17.6	14.6	10.5	10.4	9.7	8.8	7.0	9.8	70.15
	1:100 Wet Year		36.4	30.7	29.9	47.1	106.6	113.7	94.4	68.1	67.2	62.7	56.7	45.0	63.4	452.78
CHK-2	Average Year	4,786	18.8	15.9	15.5	24.5	55.7	59.6	49.3	35.4	34.5	32.2	29.1	23.2	32.9	216.75
	1:100 Dry Year		5.9	5.0	4.9	7.7	17.5	18.7	15.5	11.1	10.9	10.2	9.2	7.3	10.4	68.24
	1:100 Wet Year		39.3	33.2	32.2	51.1	116.1	124.3	102.9	73.9	71.8	67.1	60.6	48.3	68.6	451.99
PAK-OUT	Average Year	8,047	31.8	26.9	26.1	41.3	93.6	100.0	82.9	59.6	58.4	54.5	49.3	39.2	55.5	217.31
	1:100 Dry Year		10.1	8.5	8.3	13.1	29.7	31.7	26.3	18.9	18.6	17.3	15.7	12.5	17.6	69.03
	1:100 Wet Year		66.2	55.9	54.3	85.9	194.8	208.2	172.6	124.2	121.5	113.4	102.5	81.5	115.4	452.31

Note:

[1] *Watershed area represents cumulative area to the respective node.*

Table B-2: Results for Construction Phase - Average, Dry, and Wet Conditions

Watershed Id	Climate Condition	Project Phase	Calculated Flow (m³/s)														Change in Flow (%)
			January	February	March	April	May	June	July	August	September	October	November	December	Annual Average	Change in Flow	
UN-1	Average Year	Existing	0.0049	0.0031	0.0109	0.0888	0.1873	0.1018	0.0530	0.0531	0.0640	0.0796	0.0515	0.0142	0.0596		
		Construction	0.0007	0.0002	0.0024	0.0285	0.0595	0.0342	0.0130	0.0130	0.0157	0.0197	0.0124	0.0026	0.0169	-0.0427	-71.7%
	1:100 Dry Year	Existing	0.0011	0.0007	0.0024	0.0199	0.0420	0.0228	0.0119	0.0119	0.0143	0.0178	0.0115	0.0032	0.0134		
		Construction	0.0000	0.0000	0.0000	0.0058	0.0127	0.0070	0.0023	0.0022	0.0028	0.0037	0.0020	0.0000	0.0032	-0.0101	-75.9%
	1:100 Wet Year	Existing	0.0108	0.0069	0.0241	0.1964	0.4142	0.2251	0.1171	0.1175	0.1415	0.1760	0.1138	0.0314	0.1318		
		Construction	0.0024	0.0013	0.0062	0.0593	0.1245	0.0695	0.0297	0.0297	0.0359	0.0449	0.0286	0.0071	0.0368	-0.0951	-72.1%
UN-2	Average Year	Existing	0.0015	0.0010	0.0033	0.0272	0.0573	0.0312	0.0162	0.0163	0.0196	0.0244	0.0158	0.0043	0.0183		
		Construction	0.0009	0.0004	0.0026	0.0272	0.0570	0.0325	0.0086	0.0086	0.0104	0.0131	0.0083	0.0018	0.0143	-0.0039	-21.5%
	1:100 Dry Year	Existing	0.0003	0.0002	0.0007	0.0061	0.0129	0.0070	0.0036	0.0036	0.0044	0.0055	0.0035	0.0010	0.0041		
		Construction	0.0000	0.0000	0.0002	0.0057	0.0124	0.0069	0.0015	0.0015	0.0019	0.0025	0.0014	0.0000	0.0028	-0.0012	-30.5%
	1:100 Wet Year	Existing	0.0033	0.0021	0.0074	0.0601	0.1268	0.0689	0.0358	0.0360	0.0433	0.0539	0.0348	0.0096	0.0404		
		Construction	0.0026	0.0015	0.0063	0.0573	0.1206	0.0670	0.0196	0.0196	0.0237	0.0296	0.0190	0.0048	0.0311	-0.0093	-22.9%
UN-3	Average Year	Existing	0.0476	0.0411	0.0391	0.0827	0.1937	0.1933	0.1483	0.1045	0.0880	0.0863	0.0732	0.0557	0.0964		
		Construction	0.0467	0.0402	0.0379	0.0822	0.1928	0.1939	0.1481	0.1040	0.0874	0.0848	0.0705	0.0538	0.0953	-0.0011	-1.2%
	1:100 Dry Year	Existing	0.0107	0.0092	0.0088	0.0185	0.0434	0.0433	0.0332	0.0234	0.0197	0.0193	0.0164	0.0125	0.0216		
		Construction	0.0092	0.0078	0.0070	0.0168	0.0416	0.0418	0.0329	0.0220	0.0175	0.0165	0.0143	0.0113	0.0200	-0.0017	-7.7%
	1:100 Wet Year	Existing	0.1053	0.0909	0.0865	0.1829	0.4284	0.4274	0.3280	0.2311	0.1946	0.1909	0.1620	0.1231	0.2133		
		Construction	0.1042	0.0899	0.0849	0.1796	0.4217	0.4248	0.3261	0.2289	0.1920	0.1869	0.1576	0.1207	0.2101	-0.0032	-1.5%
UN-4	Average Year	Existing	0.0010	0.0007	0.0023	0.0188	0.0397	0.0216	0.0112	0.0113	0.0136	0.0169	0.0109	0.0030	0.0126		
		Construction	0.0011	0.0007	0.0024	0.0189	0.0398	0.0217	0.0125	0.0126	0.0151	0.0188	0.0122	0.0034	0.0133	0.0007	5.4%
	1:100 Dry Year	Existing	0.0002	0.0001	0.0005	0.0042	0.0089	0.0048	0.0025	0.0025	0.0030	0.0038	0.0024	0.0007	0.0028		
		Construction	0.0003	0.0002	0.0006	0.0043	0.0090	0.0049	0.0029	0.0029	0.0034	0.0043	0.0028	0.0008	0.0030	0.0002	6.9%
	1:100 Wet Year	Existing	0.0023	0.0015	0.0051	0.0417	0.0879	0.0478	0.0248	0.0249	0.0300	0.0373	0.0241	0.0067	0.0280		
		Construction	0.0023	0.0015	0.0052	0.0417	0.0879	0.0478	0.0277	0.0278	0.0334	0.0415	0.0269	0.0075	0.0294	0.0014	5.1%
UN-5	Average Year	Existing	0.0437	0.0376	0.0371	0.0902	0.2076	0.1920	0.1429	0.1035	0.0906	0.0918	0.0751	0.0526	0.0974		
		Construction	0.0437	0.0376	0.0371	0.0902	0.2076	0.1920	0.1429	0.1035	0.0906	0.0918	0.0751	0.0526	0.0972	-0.0002	-0.2%
	1:100 Dry Year	Existing	0.0098	0.0084	0.0083	0.0202	0.0465	0.0430	0.0320	0.0232	0.0203	0.0206	0.0168	0.0118	0.0218		
		Construction	0.0098	0.0084	0.0083	0.0202	0.0465	0.0430	0.0320	0.0232	0.0203	0.0206	0.0168	0.0118	0.0218	0.0000	-0.2%
	1:100 Wet Year	Existing	0.0967	0.0831	0.0821	0.1994	0.4590	0.4246	0.3161	0.2289	0.2003	0.2030	0.1660	0.1164	0.2154		
		Construction	0.0967	0.0831	0.0821	0.1994	0.4590	0.4246	0.3161	0.2289	0.2003	0.2030	0.1660	0.1164	0.2150	-0.0004	-0.2%
GEN-1	Average Year	Existing	0.0415	0.0362	0.0322	0.0500	0.1228	0.1460	0.1190	0.0795	0.0616	0.0558	0.0518	0.0462	0.0704		
		Construction	0.0415	0.0362	0.0322	0.0500	0.1228	0.1460	0.1190	0.0795	0.0616	0.0558	0.0518	0.0462	0.0703	-0.0001	-0.1%
	1:100 Dry Year	Existing	0.0093	0.0081	0.0072	0.0112	0.0275	0.0327	0.0267	0.0178	0.0138	0.0125	0.0116	0.0104	0.0158		
		Construction	0.0093	0.0081	0.0072	0.0112	0.0275	0.0327	0.0267	0.0178	0.0138	0.0125	0.0116	0.0104	0.0158	0.0000	-0.1%
	1:100 Wet Year	Existing	0.0918	0.0800	0.0712	0.1106	0.2716	0.3227	0.2631	0.1757	0.1362	0.1234	0.1145	0.1022	0.1557		
		Construction	0.0918	0.0800	0.0712	0.1106	0.2716	0.3227	0.2631	0.1757	0.1362	0.1234	0.1145	0.1022	0.1555	-0.0002	-0.1%
DIX-1	Average Year	Existing	0.685	0.596	0.534	0.862	2.104	2.446	1.980	1.330	1.042	0.953	0.874	0.766	1.184		
		Construction	0.685	0.596	0.534	0.862	2.104	2.446	1.980	1.330	1.042	0.953	0.874	0.766	1.183	-0.002	-0.1%
	1:100 Dry Year	Existing	0.153	0.134	0.120	0.193	0.471	0.548	0.444	0.298	0.233	0.214	0.196	0.172	0.265		
		Construction	0.153	0.134	0.120	0.193	0.471	0.548	0.444	0.298	0.233	0.214	0.196	0.172	0.265	0.000	-0.1%
	1:100 Wet Year	Existing	1.515	1.318	1.181	1.907	4.652	5.408	4.378	2.942	2.304	2.108	1.933	1.694	2.619		
		Construction	1.515	1.318	1.181	1.907	4.652	5.408	4.378	2.942	2.304	2.108	1.933	1.694	2.616	-0.004	-0.1%

Table B-2: Results for Construction Phase - Average, Dry, and Wet Conditions

Watershed Id	Climate Condition	Project Phase	Calculated Flow (m^3/s)														Change in Flow (%)
			January	February	March	April	May	June	July	August	September	October	November	December	Annual Average	Change in Flow	
DIX-2	Average Year	Existing	0.693	0.601	0.552	1.007	2.410	2.612	2.066	1.417	1.146	1.083	0.958	0.789	1.282		
		Construction	0.687	0.597	0.542	0.947	2.282	2.547	2.021	1.371	1.092	1.016	0.914	0.775	1.236	-0.045	-3.5%
	1:100 Dry Year	Existing	0.155	0.135	0.124	0.226	0.540	0.585	0.463	0.318	0.257	0.243	0.215	0.177	0.287		
		Construction	0.153	0.133	0.120	0.211	0.510	0.569	0.451	0.306	0.243	0.226	0.203	0.172	0.275	-0.012	-4.1%
	1:100 Wet Year	Existing	1.532	1.329	1.221	2.227	5.328	5.775	4.569	3.134	2.535	2.395	2.119	1.745	2.834		
		Construction	1.522	1.322	1.200	2.085	5.028	5.617	4.472	3.036	2.417	2.250	2.024	1.717	2.732	-0.102	-3.6%
DIX-3	Average Year	Existing	0.737	0.640	0.587	1.061	2.541	2.768	2.194	1.502	1.212	1.143	1.014	0.839	1.357		
		Construction	0.718	0.623	0.565	1.009	2.418	2.696	2.037	1.381	1.099	1.022	0.919	0.779	1.276	-0.081	-6.0%
	1:100 Dry Year	Existing	0.165	0.143	0.131	0.238	0.569	0.620	0.492	0.337	0.272	0.256	0.227	0.188	0.304		
		Construction	0.159	0.137	0.124	0.223	0.539	0.601	0.453	0.306	0.243	0.225	0.202	0.171	0.283	-0.022	-7.1%
	1:100 Wet Year	Existing	1.631	1.414	1.297	2.345	5.619	6.121	4.851	3.322	2.681	2.527	2.242	1.854	3.001		
		Construction	1.591	1.382	1.254	2.193	5.279	5.902	4.509	3.060	2.436	2.266	2.039	1.729	2.811	-0.190	-6.3%
DIX-4	Average Year	Existing	1.183	1.027	0.932	1.597	3.858	4.333	3.469	2.354	1.873	1.741	1.569	1.334	2.112		
		Construction	1.162	1.010	0.909	1.544	3.733	4.259	3.310	2.232	1.758	1.619	1.473	1.273	2.029	-0.083	-3.9%
	1:100 Dry Year	Existing	0.265	0.230	0.209	0.358	0.865	0.971	0.777	0.528	0.420	0.390	0.352	0.299	0.473		
		Construction	0.258	0.224	0.200	0.342	0.833	0.951	0.738	0.496	0.390	0.358	0.326	0.281	0.451	-0.022	-4.7%
	1:100 Wet Year	Existing	2.615	2.272	2.060	3.531	8.531	9.581	7.672	5.206	4.142	3.850	3.469	2.950	4.670		
		Construction	2.575	2.238	2.016	3.377	8.187	9.359	7.326	4.941	3.894	3.587	3.264	2.823	4.478	-0.192	-4.1%
DIX-5	Average Year	Existing	1.274	1.106	1.004	1.732	4.180	4.678	3.742	2.542	2.025	1.886	1.696	1.438	2.282		
		Construction	1.251	1.087	0.980	1.677	4.053	4.604	3.588	2.420	1.907	1.758	1.597	1.379	2.198	-0.084	-3.7%
	1:100 Dry Year	Existing	0.285	0.248	0.225	0.388	0.937	1.048	0.839	0.570	0.454	0.423	0.380	0.322	0.511		
		Construction	0.277	0.240	0.215	0.371	0.903	1.027	0.799	0.537	0.422	0.388	0.352	0.303	0.487	-0.024	-4.7%
	1:100 Wet Year	Existing	2.816	2.446	2.221	3.829	9.243	10.346	8.274	5.620	4.478	4.170	3.751	3.179	5.046		
		Construction	2.774	2.410	2.174	3.671	8.891	10.120	7.943	5.359	4.227	3.896	3.542	3.059	4.853	-0.193	-3.8%
CHK-1	Average Year	Existing	17.52	14.79	14.42	22.71	51.36	54.76	45.46	32.80	32.37	30.23	27.34	21.68	30.54		
		Construction	17.52	14.79	14.42	22.73	51.40	54.80	45.49	32.82	32.40	30.25	27.34	21.68	30.51	-0.02	-0.1%
	1:100 Dry Year	Existing	5.64	4.76	4.64	7.30	16.52	17.61	14.62	10.55	10.41	9.72	8.79	6.97	9.82		
		Construction	5.64	4.76	4.64	7.31	16.53	17.62	14.63	10.55	10.42	9.73	8.80	6.98	9.81	-0.01	-0.1%
	1:100 Wet Year	Existing	36.37	30.71	29.93	47.14	106.63	113.67	94.36	68.08	67.21	62.75	56.75	45.00	63.39		
		Construction	36.37	30.70	29.92	47.14	106.63	113.67	94.52	68.19	67.43	63.08	56.90	45.10	63.48	0.09	0.1%
CHK-2	Average Year	Existing	18.84	15.93	15.46	24.49	55.67	59.57	49.31	35.42	34.48	32.18	29.10	23.17	32.89		
		Construction	18.81	15.91	15.43	24.44	55.54	59.49	49.26	35.36	34.40	32.10	29.00	23.10	32.83	-0.06	-0.2%
	1:100 Dry Year	Existing	5.94	5.02	4.87	7.71	17.49	18.70	15.50	11.14	10.89	10.17	9.19	7.31	10.36		
		Construction	5.93	5.01	4.86	7.69	17.46	18.68	15.45	11.10	10.85	10.13	9.16	7.29	10.33	-0.03	-0.3%
	1:100 Wet Year	Existing	39.28	33.23	32.22	51.08	116.13	124.29	102.87	73.87	71.85	67.07	60.63	48.29	68.59		
		Construction	39.23	33.19	32.17	50.92	115.78	124.06	102.69	73.71	71.82	67.13	60.58	48.27	68.49	-0.10	-0.2%
PAK-OUT	Average Year	Existing	31.79	26.87	26.11	41.25	93.58	100.01	82.90	59.65	58.39	54.51	49.29	39.19	55.45		
		Construction	31.77	26.85	26.08	41.19	93.45	99.94	82.85	59.59	58.32	54.42	49.19	39.13	55.39	-0.06	-0.1%
	1:100 Dry Year	Existing	10.10	8.54	8.30	13.10	29.69	31.71	26.30	18.94	18.58	17.35	15.69	12.47	17.61		
		Construction	10.09	8.53	8.29	13.08	29.65	31.69	26.25	18.90	18.55	17.31	15.66	12.44	17.59	-0.03	-0.2%
	1:100 Wet Year	Existing	66.16	55.92	54.33	85.87	194.83	208.25	172.59	124.16	121.49	113.40	102.55	81.55	115.42		
		Construction	66.15	55.91	54.32	85.89	194.82	208.26	172.61	124.18	121.51	113.42	102.54	81.52	115.26	-0.16	-0.1%

Note:
Monthly flows presented are from a single year, selected within each Project phase, which produced the most substantial change in flow within the phase. The selected year will vary between nodes, and climate condition.

Table B-3: Results for Operations Phase - Average, Dry, and Wet Conditions

Watershed Id	Climate Condition	Project Phase	Calculated Flow (m³/s)														Change in Flow (%)
			January	February	March	April	May	June	July	August	September	October	November	December	Annual Average	Change in Flow	
UN-1	Average Year	Existing	0.0049	0.0031	0.0109	0.0888	0.1873	0.1018	0.0530	0.0531	0.0640	0.0796	0.0515	0.0142	0.0596		
		Operations	0.0000	0.0000	0.0000	0.0141	0.0347	0.0168	0.0066	0.0066	0.0089	0.0121	0.0062	0.0000	0.0088	-0.0508	-85.2%
	1:100 Dry Year	Existing	0.0011	0.0007	0.0024	0.0199	0.0420	0.0228	0.0119	0.0119	0.0143	0.0178	0.0115	0.0032	0.0134		
		Operations	0.0000	0.0000	0.0000	0.0000	0.0043	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0004	-0.0130	-97.3%
	1:100 Wet Year	Existing	0.0108	0.0069	0.0241	0.1964	0.4142	0.2251	0.1171	0.1175	0.1415	0.1760	0.1138	0.0314	0.1318		
		Operations	0.0000	0.0000	0.0000	0.0366	0.0822	0.0426	0.0200	0.0201	0.0251	0.0323	0.0193	0.0000	0.0232	-0.1086	-82.4%
UN-2	Average Year	Existing	0.0015	0.0010	0.0033	0.0272	0.0573	0.0312	0.0162	0.0163	0.0196	0.0244	0.0158	0.0043	0.0183		
		Operations	0.0000	0.0000	0.0000	0.0134	0.0303	0.0156	0.0073	0.0073	0.0092	0.0118	0.0070	0.0006	0.0086	-0.0097	-53.1%
	1:100 Dry Year	Existing	0.0003	0.0002	0.0007	0.0061	0.0129	0.0070	0.0036	0.0036	0.0044	0.0055	0.0035	0.0010	0.0041		
		Operations	0.0000	0.0000	0.0000	0.0016	0.0054	0.0021	0.0002	0.0002	0.0006	0.0012	0.0002	0.0000	0.0010	-0.0031	-76.5%
	1:100 Wet Year	Existing	0.0033	0.0021	0.0074	0.0601	0.1268	0.0689	0.0358	0.0360	0.0433	0.0539	0.0348	0.0096	0.0404		
		Operations	0.0000	0.0000	0.0023	0.0319	0.0693	0.0368	0.0183	0.0183	0.0225	0.0284	0.0177	0.0036	0.0208	-0.0196	-48.5%
UN-3	Average Year	Existing	0.0476	0.0411	0.0391	0.0827	0.1937	0.1933	0.1483	0.1045	0.0880	0.0863	0.0732	0.0557	0.0964		
		Operations	0.0500	0.0434	0.0385	0.0738	0.1804	0.1943	0.1526	0.1040	0.0839	0.0794	0.0696	0.0563	0.0940	-0.0024	-2.5%
	1:100 Dry Year	Existing	0.0107	0.0092	0.0088	0.0185	0.0434	0.0433	0.0332	0.0234	0.0197	0.0193	0.0164	0.0125	0.0216		
		Operations	0.0103	0.0088	0.0077	0.0142	0.0381	0.0412	0.0319	0.0210	0.0165	0.0155	0.0133	0.0116	0.0192	-0.0024	-11.2%
	1:100 Wet Year	Existing	0.1053	0.0909	0.0865	0.1829	0.4284	0.4274	0.3280	0.2311	0.1946	0.1909	0.1620	0.1231	0.2133		
		Operations	0.1120	0.0973	0.0888	0.1669	0.4026	0.4332	0.3412	0.2336	0.1891	0.1792	0.1575	0.1282	0.2111	-0.0021	-1.0%
UN-4	Average Year	Existing	0.0010	0.0007	0.0023	0.0188	0.0397	0.0216	0.0112	0.0113	0.0136	0.0169	0.0109	0.0030	0.0126		
		Operations	0.0013	0.0009	0.0027	0.0211	0.0443	0.0242	0.0127	0.0127	0.0153	0.0189	0.0123	0.0035	0.0142	0.0016	12.5%
	1:100 Dry Year	Existing	0.0002	0.0001	0.0005	0.0042	0.0089	0.0048	0.0025	0.0025	0.0030	0.0038	0.0024	0.0007	0.0028		
		Operations	0.0004	0.0000	0.0007	0.0049	0.0101	0.0056	0.0030	0.0030	0.0036	0.0044	0.0029	0.0009	0.0033	0.0005	16.3%
	1:100 Wet Year	Existing	0.0023	0.0015	0.0051	0.0417	0.0879	0.0478	0.0248	0.0249	0.0300	0.0373	0.0241	0.0067	0.0280		
		Operations	0.0027	0.0018	0.0059	0.0465	0.0978	0.0532	0.0278	0.0279	0.0335	0.0416	0.0270	0.0076	0.0312	0.0033	11.7%
UN-5	Average Year	Existing	0.0437	0.0376	0.0371	0.0902	0.2076	0.1920	0.1429	0.1035	0.0906	0.0918	0.0751	0.0526	0.0974		
		Operations	0.0441	0.0379	0.0375	0.0905	0.2079	0.1924	0.1433	0.1039	0.0909	0.0922	0.0754	0.0530	0.0977	0.0003	0.4%
	1:100 Dry Year	Existing	0.0098	0.0084	0.0083	0.0202	0.0465	0.0430	0.0320	0.0232	0.0203	0.0206	0.0168	0.0118	0.0218		
		Operations	0.0102	0.0088	0.0087	0.0206	0.0469	0.0434	0.0324	0.0235	0.0206	0.0209	0.0172	0.0121	0.0222	0.0003	1.6%
	1:100 Wet Year	Existing	0.0967	0.0831	0.0821	0.1994	0.4590	0.4246	0.3161	0.2289	0.2003	0.2030	0.1660	0.1164	0.2154		
		Operations	0.0971	0.0834	0.0825	0.1998	0.4594	0.4250	0.3164	0.2292	0.2006	0.2034	0.1663	0.1167	0.2157	0.0003	0.2%
GEN-1	Average Year	Existing	0.0415	0.0362	0.0322	0.0500	0.1228	0.1460	0.1190	0.0795	0.0616	0.0558	0.0518	0.0462	0.0704		
		Operations	0.0415	0.0362	0.0322	0.0500	0.1228	0.1460	0.1190	0.0795	0.0616	0.0558	0.0518	0.0462	0.0703	-0.0001	-0.1%
	1:100 Dry Year	Existing	0.0093	0.0081	0.0072	0.0112	0.0275	0.0327	0.0267	0.0178	0.0138	0.0125	0.0116	0.0104	0.0158		
		Operations	0.0094	0.0082	0.0073	0.0113	0.0276	0.0328	0.0267	0.0179	0.0139	0.0126	0.0117	0.0104	0.0158	0.0001	0.4%
	1:100 Wet Year	Existing	0.0918	0.0800	0.0712	0.1106	0.2716	0.3227	0.2631	0.1757	0.1362	0.1234	0.1145	0.1022	0.1557		
		Operations	0.0919	0.0800	0.0713	0.1106	0.2716	0.3228	0.2631	0.1758	0.1363	0.1234	0.1145	0.1022	0.1557	0.0001	0.0%
DIX-1	Average Year	Existing	0.685	0.596	0.534	0.862	2.104	2.446	1.980	1.330	1.042	0.953	0.874	0.766	1.184		
		Operations	0.685	0.596	0.534	0.862	2.104	2.446	1.980	1.330	1.042	0.953	0.874	0.766	1.183	-0.002	-0.1%
	1:100 Dry Year	Existing	0.153	0.134	0.120	0.193	0.471	0.548	0.444	0.298	0.233	0.214	0.196	0.172	0.265		
		Operations	0.154	0.134	0.120	0.193	0.471	0.548	0.444	0.298	0.234	0.214	0.196	0.172	0.265	0.000	-0.1%
	1:100 Wet Year	Existing	1.515	1.318	1.181	1.907	4.652	5.408	4.378	2.942	2.304	2.108	1.933	1.694	2.619		
		Operations	1.515	1.318	1.181	1.907	4.652	5.408	4.378	2.942	2.304	2.108	1.933	1.694	2.616	-0.004	-0.1%

Table B-3: Results for Operations Phase - Average, Dry, and Wet Conditions

Watershed Id	Climate Condition	Project Phase	Calculated Flow (m³/s)														Change in Flow (%)
			January	February	March	April	May	June	July	August	September	October	November	December	Annual Average	Change in Flow	
DIX-2	Average Year	Existing	0.693	0.601	0.552	1.007	2.410	2.612	2.066	1.417	1.146	1.083	0.958	0.789	1.282		
		Operations	0.682	0.592	0.535	0.922	2.245	2.516	2.011	1.361	1.082	1.006	0.904	0.768	1.221	-0.061	-4.8%
	1:100 Dry Year	Existing	0.155	0.135	0.124	0.226	0.540	0.585	0.463	0.318	0.257	0.243	0.215	0.177	0.287		
		Operations	0.149	0.128	0.116	0.199	0.493	0.555	0.445	0.299	0.236	0.218	0.197	0.168	0.267	-0.020	-7.0%
	1:100 Wet Year	Existing	1.532	1.329	1.221	2.227	5.328	5.775	4.569	3.134	2.535	2.395	2.119	1.745	2.834		
		Operations	1.515	1.316	1.189	2.055	4.979	5.580	4.461	3.025	2.407	2.240	2.014	1.707	2.712	-0.123	-4.3%
DIX-3	Average Year	Existing	0.737	0.640	0.587	1.061	2.541	2.768	2.194	1.502	1.212	1.143	1.014	0.839	1.357		
		Operations	0.675	0.584	0.527	0.917	2.250	2.525	2.015	1.360	1.078	1.001	0.899	0.762	1.218	-0.139	-10.3%
	1:100 Dry Year	Existing	0.165	0.143	0.131	0.238	0.569	0.620	0.492	0.337	0.272	0.256	0.227	0.188	0.304		
		Operations	0.137	0.116	0.104	0.187	0.484	0.547	0.436	0.289	0.225	0.207	0.185	0.156	0.257	-0.048	-15.6%
	1:100 Wet Year	Existing	1.631	1.414	1.297	2.345	5.619	6.121	4.851	3.322	2.681	2.527	2.242	1.854	3.001		
		Operations	1.516	1.315	1.187	2.058	5.006	5.615	4.488	3.039	2.415	2.245	2.018	1.709	2.722	-0.279	-9.3%
DIX-4	Average Year	Existing	1.183	1.027	0.932	1.597	3.858	4.333	3.469	2.354	1.873	1.741	1.569	1.334	2.112		
		Operations	1.117	0.968	0.868	1.449	3.562	4.085	3.286	2.208	1.734	1.596	1.450	1.254	1.968	-0.144	-6.8%
	1:100 Dry Year	Existing	0.265	0.230	0.209	0.358	0.865	0.971	0.777	0.528	0.420	0.390	0.352	0.299	0.473		
		Operations	0.233	0.200	0.178	0.304	0.776	0.894	0.718	0.476	0.370	0.338	0.306	0.264	0.422	-0.051	-10.8%
	1:100 Wet Year	Existing	2.615	2.272	2.060	3.531	8.531	9.581	7.672	5.206	4.142	3.850	3.469	2.950	4.670		
		Operations	2.496	2.168	1.946	3.239	7.912	9.069	7.302	4.917	3.871	3.563	3.241	2.800	4.384	-0.286	-6.1%
DIX-5	Average Year	Existing	1.274	1.106	1.004	1.732	4.180	4.678	3.742	2.542	2.025	1.886	1.696	1.438	2.282		
		Operations	1.210	1.049	0.940	1.575	3.871	4.432	3.563	2.395	1.883	1.733	1.573	1.358	2.135	-0.147	-6.4%
	1:100 Dry Year	Existing	0.285	0.248	0.225	0.388	0.937	1.048	0.839	0.570	0.454	0.423	0.380	0.322	0.511		
		Operations	0.253	0.217	0.193	0.330	0.843	0.969	0.778	0.516	0.400	0.366	0.332	0.286	0.458	-0.054	-10.5%
	1:100 Wet Year	Existing	2.816	2.446	2.221	3.829	9.243	10.346	8.274	5.620	4.478	4.170	3.751	3.179	5.046		
		Operations	2.704	2.349	2.109	3.522	8.598	9.839	7.918	5.334	4.202	3.871	3.518	3.035	4.757	-0.289	-5.7%
CHK-1	Average Year	Existing	17.52	14.79	14.42	22.71	51.36	54.76	45.46	32.80	32.37	30.23	27.34	21.68	30.54		
		Operations	17.58	14.82	14.49	22.99	51.72	55.11	45.81	33.14	32.70	30.48	27.49	21.79	30.76	0.23	0.7%
	1:100 Dry Year	Existing	5.64	4.76	4.64	7.30	16.52	17.61	14.62	10.55	10.41	9.72	8.79	6.97	9.82		
		Operations	5.68	4.78	4.66	7.41	16.69	17.76	14.74	10.63	10.48	9.81	8.87	7.00	9.90	0.08	0.8%
	1:100 Wet Year	Existing	36.37	30.71	29.93	47.14	106.63	113.67	94.36	68.08	67.21	62.75	56.75	45.00	63.39		
		Operations	36.71	30.99	30.06	47.48	107.00	114.03	94.72	68.44	67.56	63.10	57.09	45.34	63.72	0.33	0.5%
CHK-2	Average Year	Existing	18.84	15.93	15.46	24.49	55.67	59.57	49.31	35.42	34.48	32.18	29.10	23.17	32.89		
		Operations	18.83	15.91	15.48	24.62	55.71	59.67	49.48	35.62	34.66	32.29	29.13	23.21	32.98	0.09	0.3%
	1:100 Dry Year	Existing	5.94	5.02	4.87	7.71	17.49	18.70	15.50	11.14	10.89	10.17	9.19	7.31	10.36		
		Operations	5.91	4.99	4.84	7.72	17.48	18.68	15.44	11.09	10.84	10.12	9.15	7.28	10.31	-0.05	-0.5%
	1:100 Wet Year	Existing	39.28	33.23	32.22	51.08	116.13	124.29	102.87	73.87	71.85	67.07	60.63	48.29	68.59		
		Operations	39.39	33.35	32.18	51.09	115.84	124.13	102.78	73.86	71.88	67.11	60.64	48.37	68.48	-0.11	-0.2%
PAK-OUT	Average Year	Existing	31.79	26.87	26.11	41.25	93.58	100.01	82.90	59.65	58.39	54.51	49.29	39.19	55.45		
		Operations	31.79	26.84	26.13	41.38	93.62	100.12	83.07	59.85	58.58	54.61	49.32	39.23	55.54	0.09	0.2%
	1:100 Dry Year	Existing	10.10	8.54	8.30	13.10	29.69	31.71	26.30	18.94	18.58	17.35	15.69	12.47	17.61		
		Operations	10.07	8.51	8.27	13.11	29.67	31.70	26.25	18.89	18.54	17.30	15.65	12.43	17.56	-0.06	-0.3%
	1:100 Wet Year	Existing	66.16	55.92	54.33	85.87	194.83	208.25	172.59	124.16	121.49	113.40	102.55	81.55	115.42		
		Operations	66.28	56.05	54.29	85.88	194.54	208.09	172.51	124.15	121.52	113.44	102.55	81.63	115.24	-0.18	-0.2%

Note:
Monthly flows presented are from a single year, selected within each Project phase, which produced the most substantial change in flow within the phase. The selected year will vary between nodes, and climate condition.

Table B-4: Results for Closure Phase - Average, Dry, and Wet Conditions

Watershed Id	Climate Condition	Project Phase	Calculated Flow (m³/s)														Change in Flow (%)
			January	February	March	April	May	June	July	August	September	October	November	December	Annual Average	Change in Flow	
UN-1	Average Year	Existing	0.0049	0.0031	0.0109	0.0888	0.1873	0.1018	0.0530	0.0531	0.0640	0.0796	0.0515	0.0142	0.0596		
		Closure	0.0000	0.0000	0.0000	0.0142	0.0349	0.0170	0.0068	0.0069	0.0092	0.0125	0.0067	0.0000	0.0091	-0.0506	-84.8%
	1:100 Dry Year	Existing	0.0011	0.0007	0.0024	0.0199	0.0420	0.0228	0.0119	0.0119	0.0143	0.0178	0.0115	0.0032	0.0134		
		Closure	0.0000	0.0000	0.0000	0.0000	0.0045	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0004	-0.0130	-97.2%
	1:100 Wet Year	Existing	0.0108	0.0069	0.0241	0.1964	0.4142	0.2251	0.1171	0.1175	0.1415	0.1760	0.1138	0.0314	0.1318		
		Closure	0.0000	0.0000	0.0000	0.0368	0.0824	0.0429	0.0203	0.0204	0.0255	0.0328	0.0198	0.0026	0.0237	-0.1082	-82.1%
UN-2	Average Year	Existing	0.0015	0.0010	0.0033	0.0272	0.0573	0.0312	0.0162	0.0163	0.0196	0.0244	0.0158	0.0043	0.0183		
		Closure	0.0000	0.0000	0.0009	0.0143	0.0313	0.0166	0.0083	0.0084	0.0103	0.0130	0.0082	0.0018	0.0094	-0.0088	-48.3%
	1:100 Dry Year	Existing	0.0003	0.0002	0.0007	0.0061	0.0129	0.0070	0.0036	0.0036	0.0044	0.0055	0.0035	0.0010	0.0041		
		Closure	0.0000	0.0000	0.0000	0.0025	0.0063	0.0031	0.0012	0.0013	0.0017	0.0024	0.0013	0.0000	0.0017	-0.0024	-59.5%
	1:100 Wet Year	Existing	0.0033	0.0021	0.0074	0.0601	0.1268	0.0689	0.0358	0.0360	0.0433	0.0539	0.0348	0.0096	0.0404		
		Closure	0.0008	0.0002	0.0032	0.0328	0.0702	0.0378	0.0193	0.0194	0.0236	0.0295	0.0189	0.0048	0.0218	-0.0186	-46.1%
UN-3	Average Year	Existing	0.0476	0.0411	0.0391	0.0827	0.1937	0.1933	0.1483	0.1045	0.0880	0.0863	0.0732	0.0557	0.0964		
		Closure	0.0497	0.0431	0.0392	0.0746	0.1812	0.1952	0.1536	0.1051	0.0850	0.0806	0.0709	0.0578	0.0948	-0.0016	-1.7%
	1:100 Dry Year	Existing	0.0107	0.0092	0.0088	0.0185	0.0434	0.0433	0.0332	0.0234	0.0197	0.0193	0.0164	0.0125	0.0216		
		Closure	0.0100	0.0085	0.0075	0.0149	0.0389	0.0421	0.0329	0.0221	0.0176	0.0167	0.0146	0.0118	0.0198	-0.0018	-8.2%
	1:100 Wet Year	Existing	0.1053	0.0909	0.0865	0.1829	0.4284	0.4274	0.3280	0.2311	0.1946	0.1909	0.1620	0.1231	0.2133		
		Closure	0.1152	0.0999	0.0920	0.1701	0.4058	0.4364	0.3444	0.2368	0.1923	0.1824	0.1607	0.1314	0.2146	0.0013	0.6%
UN-4	Average Year	Existing	0.0010	0.0007	0.0023	0.0188	0.0397	0.0216	0.0112	0.0113	0.0136	0.0169	0.0109	0.0030	0.0126		
		Closure	0.0015	0.0011	0.0029	0.0213	0.0445	0.0243	0.0128	0.0129	0.0154	0.0191	0.0125	0.0037	0.0144	0.0017	13.8%
	1:100 Dry Year	Existing	0.0002	0.0001	0.0005	0.0042	0.0089	0.0048	0.0025	0.0025	0.0030	0.0038	0.0024	0.0007	0.0028		
		Closure	0.0006	0.0005	0.0009	0.0050	0.0102	0.0057	0.0031	0.0031	0.0037	0.0045	0.0031	0.0011	0.0035	0.0007	22.9%
	1:100 Wet Year	Existing	0.0023	0.0015	0.0051	0.0417	0.0879	0.0478	0.0248	0.0249	0.0300	0.0373	0.0241	0.0067	0.0280		
		Closure	0.0029	0.0020	0.0060	0.0466	0.0980	0.0534	0.0279	0.0280	0.0337	0.0418	0.0272	0.0077	0.0314	0.0034	12.3%
UN-5	Average Year	Existing	0.0437	0.0376	0.0371	0.0902	0.2076	0.1920	0.1429	0.1035	0.0906	0.0918	0.0751	0.0526	0.0974		
		Closure	0.0444	0.0382	0.0378	0.0908	0.2082	0.1927	0.1436	0.1041	0.0912	0.0925	0.0757	0.0533	0.0980	0.0006	0.7%
	1:100 Dry Year	Existing	0.0098	0.0084	0.0083	0.0202	0.0465	0.0430	0.0320	0.0232	0.0203	0.0206	0.0168	0.0118	0.0218		
		Closure	0.0104	0.0091	0.0090	0.0208	0.0472	0.0437	0.0327	0.0238	0.0209	0.0212	0.0175	0.0124	0.0225	0.0006	2.9%
	1:100 Wet Year	Existing	0.0967	0.0831	0.0821	0.1994	0.4590	0.4246	0.3161	0.2289	0.2003	0.2030	0.1660	0.1164	0.2154		
		Closure	0.0974	0.0838	0.0828	0.2001	0.4597	0.4253	0.3168	0.2296	0.2010	0.2037	0.1667	0.1171	0.2161	0.0007	0.3%
GEN-1	Average Year	Existing	0.0415	0.0362	0.0322	0.0500	0.1228	0.1460	0.1190	0.0795	0.0616	0.0558	0.0518	0.0462	0.0704		
		Closure	0.0417	0.0363	0.0324	0.0502	0.1230	0.1461	0.1191	0.0796	0.0618	0.0560	0.0519	0.0464	0.0706	0.0002	0.2%
	1:100 Dry Year	Existing	0.0093	0.0081	0.0072	0.0112	0.0275	0.0327	0.0267	0.0178	0.0138	0.0125	0.0116	0.0104	0.0158		
		Closure	0.0095	0.0083	0.0074	0.0114	0.0277	0.0329	0.0268	0.0180	0.0140	0.0127	0.0118	0.0105	0.0160	0.0002	1.1%
	1:100 Wet Year	Existing	0.0918	0.0800	0.0712	0.1106	0.2716	0.3227	0.2631	0.1757	0.1362	0.1234	0.1145	0.1022	0.1557		
		Closure	0.0920	0.0801	0.0714	0.1107	0.2717	0.3229	0.2633	0.1759	0.1364	0.1236	0.1146	0.1023	0.1559	0.0002	0.1%
DIX-1	Average Year	Existing	0.685	0.596	0.534	0.862	2.104	2.446	1.980	1.330	1.042	0.953	0.874	0.766	1.184		
		Closure	0.685	0.596	0.535	0.862	2.104	2.446	1.980	1.331	1.042	0.954	0.875	0.766	1.183	-0.001	-0.1%
	1:100 Dry Year	Existing	0.153	0.134	0.120	0.193	0.471	0.548	0.444	0.298	0.233	0.214	0.196	0.172	0.265		
		Closure	0.154	0.134	0.120	0.194	0.472	0.548	0.444	0.298	0.234	0.214	0.196	0.172	0.266	0.000	0.1%
	1:100 Wet Year	Existing	1.515	1.318	1.181	1.907	4.652	5.408	4.378	2.942	2.304	2.108	1.933	1.694	2.619		
		Closure	1.515	1.318	1.182	1.907	4.652	5.408	4.378	2.942	2.304	2.108	1.934	1.694	2.616	-0.003	-0.1%

Table B-4: Results for Closure Phase - Average, Dry, and Wet Conditions

Watershed Id	Climate Condition	Project Phase	Calculated Flow (m³/s)													Change in Flow (%)
			January	February	March	April	May	June	July	August	September	October	November	December	Annual Average	Change in Flow	
DIX-2	Average Year	Existing	0.693	0.601	0.552	1.007	2.410	2.612	2.066	1.417	1.146	1.083	0.958	0.789	1.282		
		Closure	0.687	0.597	0.540	0.924	2.241	2.517	2.014	1.365	1.085	1.008	0.908	0.774	1.224	-0.058	-4.5%
	1:100 Dry Year	Existing	0.155	0.135	0.124	0.226	0.540	0.585	0.463	0.318	0.257	0.243	0.215	0.177	0.287		
		Closure	0.154	0.134	0.121	0.204	0.497	0.561	0.450	0.305	0.242	0.224	0.203	0.174	0.273	-0.015	-5.1%
	1:100 Wet Year	Existing	1.532	1.329	1.221	2.227	5.328	5.775	4.569	3.134	2.535	2.395	2.119	1.745	2.834		
		Closure	1.520	1.321	1.195	2.051	4.963	5.574	4.461	3.026	2.406	2.237	2.015	1.712	2.711	-0.123	-4.4%
DIX-3	Average Year	Existing	0.737	0.640	0.587	1.061	2.541	2.768	2.194	1.502	1.212	1.143	1.014	0.839	1.357		
		Closure	0.680	0.590	0.532	0.918	2.247	2.527	2.020	1.365	1.082	1.005	0.904	0.769	1.222	-0.135	-10.0%
	1:100 Dry Year	Existing	0.165	0.143	0.131	0.238	0.569	0.620	0.492	0.337	0.272	0.256	0.227	0.188	0.304		
		Closure	0.142	0.122	0.109	0.193	0.489	0.553	0.442	0.295	0.232	0.214	0.193	0.164	0.263	-0.042	-13.7%
	1:100 Wet Year	Existing	1.631	1.414	1.297	2.345	5.619	6.121	4.851	3.322	2.681	2.527	2.242	1.854	3.001		
		Closure	1.521	1.320	1.192	2.054	4.992	5.610	4.489	3.040	2.415	2.244	2.020	1.716	2.722	-0.279	-9.3%
DIX-4	Average Year	Existing	1.183	1.027	0.932	1.597	3.858	4.333	3.469	2.354	1.873	1.741	1.569	1.334	2.112		
		Closure	1.122	0.974	0.874	1.451	3.560	4.088	3.292	2.214	1.740	1.601	1.457	1.263	1.973	-0.139	-6.6%
	1:100 Dry Year	Existing	0.265	0.230	0.209	0.358	0.865	0.971	0.777	0.528	0.420	0.390	0.352	0.299	0.473		
		Closure	0.238	0.206	0.183	0.310	0.781	0.901	0.725	0.484	0.377	0.346	0.315	0.273	0.429	-0.044	-9.4%
	1:100 Wet Year	Existing	2.615	2.272	2.060	3.531	8.531	9.581	7.672	5.206	4.142	3.850	3.469	2.950	4.670		
		Closure	2.501	2.173	1.952	3.236	7.898	9.065	7.304	4.920	3.872	3.564	3.245	2.808	4.385	-0.285	-6.1%
DIX-5	Average Year	Existing	1.274	1.106	1.004	1.732	4.180	4.678	3.742	2.542	2.025	1.886	1.696	1.438	2.282		
		Closure	1.215	1.055	0.947	1.578	3.869	4.435	3.570	2.402	1.890	1.740	1.582	1.369	2.141	-0.141	-6.2%
	1:100 Dry Year	Existing	0.285	0.248	0.225	0.388	0.937	1.048	0.839	0.570	0.454	0.423	0.380	0.322	0.511		
		Closure	0.258	0.222	0.198	0.337	0.848	0.977	0.786	0.524	0.409	0.376	0.342	0.296	0.465	-0.046	-9.0%
	1:100 Wet Year	Existing	2.816	2.446	2.221	3.829	9.243	10.346	8.274	5.620	4.478	4.170	3.751	3.179	5.046		
		Closure	2.709	2.354	2.116	3.519	8.585	9.836	7.921	5.338	4.205	3.873	3.523	3.045	4.759	-0.287	-5.7%
CHK-1	Average Year	Existing	17.52	14.79	14.42	22.71	51.36	54.76	45.46	32.80	32.37	30.23	27.34	21.68	30.54		
		Closure	17.15	14.42	14.05	22.34	51.00	54.39	45.09	32.43	32.01	29.86	26.97	21.31	30.13	-0.41	-1.3%
	1:100 Dry Year	Existing	5.64	4.76	4.64	7.30	16.52	17.61	14.62	10.55	10.41	9.72	8.79	6.97	9.82		
		Closure	5.27	4.39	4.27	6.93	16.15	17.24	14.25	10.18	10.04	9.35	8.42	6.60	9.44	-0.38	-3.9%
	1:100 Wet Year	Existing	36.37	30.71	29.93	47.14	106.63	113.67	94.36	68.08	67.21	62.75	56.75	45.00	63.39		
		Closure	36.00	30.33	29.56	46.77	106.27	113.30	94.00	67.71	66.84	62.38	56.38	44.63	62.94	-0.46	-0.7%
CHK-2	Average Year	Existing	18.84	15.93	15.46	24.49	55.67	59.57	49.31	35.42	34.48	32.18	29.10	23.17	32.89		
		Closure	18.41	15.51	15.03	23.97	54.99	58.95	48.77	34.91	33.97	31.67	28.61	22.73	32.34	-0.55	-1.7%
	1:100 Dry Year	Existing	5.94	5.02	4.87	7.71	17.49	18.70	15.50	11.14	10.89	10.17	9.19	7.31	10.36		
		Closure	5.54	4.62	4.48	7.29	17.03	18.26	15.07	10.73	10.48	9.75	8.78	6.92	9.93	-0.43	-4.2%
	1:100 Wet Year	Existing	39.28	33.23	32.22	51.08	116.13	124.29	102.87	73.87	71.85	67.07	60.63	48.29	68.59		
		Closure	38.80	32.76	31.74	50.40	115.11	123.41	102.15	73.22	71.21	66.41	60.04	47.78	67.85	-0.74	-1.1%
PAK-OUT	Average Year	Existing	31.79	26.87	26.11	41.25	93.58	100.01	82.90	59.65	58.39	54.51	49.29	39.19	55.45		
		Closure	31.36	26.45	25.68	40.73	92.90	99.40	82.36	59.14	57.89	53.99	48.81	38.75	54.87	-0.58	-1.1%
	1:100 Dry Year	Existing	10.10	8.54	8.30	13.10	29.69	31.71	26.30	18.94	18.58	17.35	15.69	12.47	17.61		
		Closure	9.70	8.14	7.90	12.68	29.23	31.27	25.88	18.52	18.17	16.93	15.28	12.07	17.17	-0.44	-2.5%
	1:100 Wet Year	Existing	66.16	55.92	54.33	85.87	194.83	208.25	172.59	124.16	121.49	113.40	102.55	81.55	115.42		
		Closure	65.68	55.46	53.86	85.19	193.81	207.37	171.87	123.51	120.85	112.74	101.95	81.04	114.61	-0.81	-0.7%

Note:
Monthly flows presented are from a single year, selected within each Project phase, which produced the most substantial change in flow within the phase. The selected year will vary between nodes, and climate condition.

Table B-5: Results for Closure with Climate Change - With and Without Project Footprint

Watershed Id	Climate Condition	Project Phase	Calculated Flow (m³/s)														Change in Flow (%)
			January	February	March	April	May	June	July	August	September	October	November	December	Annual Average	Change in Flow	
UN-1	Closure with Climate Change	Without Project	0.0122	0.0103	0.0255	0.1140	0.1647	0.0932	0.0505	0.0491	0.0569	0.0636	0.0510	0.0222	0.0596		
		With Project	0.0000	0.0000	0.0000	0.0195	0.0302	0.0152	0.0063	0.0061	0.0078	0.0092	0.0066	0.0000	0.0084	-0.0512	-85.9%
UN-2	Closure with Climate Change	Without Project	0.0037	0.0032	0.0078	0.0349	0.0504	0.0285	0.0155	0.0150	0.0174	0.0195	0.0156	0.0068	0.0183		
		With Project	0.0011	0.0008	0.0034	0.0187	0.0274	0.0152	0.0079	0.0077	0.0090	0.0102	0.0081	0.0032	0.0094	-0.0089	-48.5%
UN-3	Closure with Climate Change	Without Project	0.0693	0.0609	0.0764	0.1056	0.1692	0.1709	0.1306	0.0902	0.0751	0.0675	0.0691	0.0702	0.0964		
		With Project	0.0723	0.0634	0.0782	0.0957	0.1578	0.1718	0.1344	0.0899	0.0719	0.0625	0.0665	0.0726	0.0948	-0.0016	-1.7%
UN-4	Closure with Climate Change	Without Project	0.0026	0.0022	0.0054	0.0242	0.0349	0.0198	0.0107	0.0104	0.0121	0.0135	0.0108	0.0047	0.0126		
		With Project	0.0032	0.0028	0.0064	0.0272	0.0392	0.0223	0.0122	0.0119	0.0137	0.0153	0.0123	0.0056	0.0144	0.0017	13.8%
UN-5	Closure with Climate Change	Without Project	0.0645	0.0567	0.0734	0.1152	0.1815	0.1703	0.1265	0.0899	0.0777	0.0721	0.0713	0.0671	0.0974		
		With Project	0.0652	0.0573	0.0740	0.1159	0.1821	0.1710	0.1272	0.0906	0.0783	0.0727	0.0719	0.0678	0.0980	0.0006	0.7%
GEN-1	Closure with Climate Change	Without Project	0.0590	0.0520	0.0618	0.0636	0.1069	0.1282	0.1037	0.0677	0.0519	0.0433	0.0482	0.0571	0.0704		
		With Project	0.0592	0.0522	0.0620	0.0638	0.1071	0.1283	0.1038	0.0679	0.0521	0.0435	0.0484	0.0572	0.0706	0.0002	0.2%
DIX-1	Closure with Climate Change	Without Project	0.976	0.860	1.027	1.098	1.833	2.149	1.727	1.135	0.879	0.740	0.815	0.948	1.184		
		With Project	0.976	0.860	1.028	1.098	1.833	2.149	1.728	1.136	0.880	0.741	0.816	0.949	1.184	-0.001	-0.1%
DIX-2	Closure with Climate Change	Without Project	0.996	0.876	1.069	1.284	2.101	2.301	1.810	1.215	0.972	0.844	0.899	0.985	1.282		
		With Project	0.982	0.865	1.041	1.179	1.952	2.214	1.760	1.167	0.917	0.783	0.848	0.961	1.224	-0.058	-4.5%
DIX-3	Closure with Climate Change	Without Project	1.059	0.932	1.135	1.352	2.216	2.438	1.921	1.288	1.028	0.890	0.950	1.046	1.357		
		With Project	0.978	0.860	1.038	1.175	1.956	2.221	1.763	1.165	0.913	0.778	0.844	0.958	1.222	-0.135	-10.0%
DIX-4	Closure with Climate Change	Without Project	1.692	1.490	1.798	2.034	3.363	3.813	3.032	2.014	1.585	1.355	1.467	1.658	2.112		
		With Project	1.607	1.414	1.697	1.854	3.099	3.591	2.871	1.888	1.467	1.240	1.359	1.568	1.973	-0.139	-6.6%
DIX-5	Closure with Climate Change	Without Project	1.823	1.605	1.939	2.206	3.643	4.117	3.271	2.175	1.714	1.467	1.586	1.787	2.282		
		With Project	1.741	1.531	1.840	2.017	3.368	3.897	3.114	2.049	1.593	1.348	1.476	1.700	2.142	-0.140	-6.1%
CHK-1	Closure with Climate Change	Without Project	24.95	21.36	27.65	28.86	44.78	48.25	39.76	28.02	27.06	23.19	25.22	26.70	30.54		
		With Project	24.58	20.99	27.28	28.49	44.42	47.88	39.39	27.65	26.69	22.82	24.85	26.33	30.14	-0.39	-1.3%
CHK-2	Closure with Climate Change	Without Project	26.84	23.02	29.65	31.14	48.53	52.48	43.13	30.26	28.84	24.71	26.86	28.56	32.89		
		With Project	26.38	22.57	29.19	30.58	47.89	51.90	42.60	29.76	28.35	24.22	26.38	28.10	32.36	-0.53	-1.6%
PAK-OUT	Closure with Climate Change	Without Project	45.28	38.81	50.09	52.44	81.59	88.13	72.51	50.96	48.83	41.84	45.49	48.29	55.45		
		With Project	44.83	38.36	49.62	51.88	80.95	87.54	71.98	50.46	48.34	41.35	45.01	47.83	54.90	-0.55	-1.0%

Note:
Climate Change flows are representative of Closure.

Table B-6: Results for Post-Closure - Average, Dry, and Wet Conditions

Watershed Id	Climate Condition	Project Phase	Calculated Flow (m³/s)														Change in Flow (%)
			January	February	March	April	May	June	July	August	September	October	November	December	Annual Average	Change in Flow	
UN-1	Average Year	Existing	0.0049	0.0031	0.0109	0.0888	0.1873	0.1018	0.0530	0.0531	0.0640	0.0796	0.0515	0.0142	0.0596		
		Post Closure	0.0000	0.0000	0.0000	0.1204	0.1929	0.1524	0.0729	0.0807	0.0947	0.0861	0.0118	0.0000	0.0679	0.0083	13.9%
	1:100 Dry Year	Existing	0.0011	0.0007	0.0024	0.0199	0.0420	0.0228	0.0119	0.0119	0.0143	0.0178	0.0115	0.0032	0.0134		
		Post Closure	0.0000	0.0000	0.0000	0.0376	0.0410	0.0272	0.0000	0.0000	0.0149	0.0183	0.0000	0.0000	0.0116	-0.0018	-13.4%
	1:100 Wet Year	Existing	0.0108	0.0069	0.0241	0.1964	0.4142	0.2251	0.1171	0.1175	0.1415	0.1760	0.1138	0.0314	0.1318		
		Post Closure	0.0000	0.0000	0.0061	0.1919	0.3269	0.2615	0.1465	0.1546	0.1712	0.1535	0.0249	0.0076	0.1209	-0.0109	-8.3%
UN-2	Average Year	Existing	0.0015	0.0010	0.0033	0.0272	0.0573	0.0312	0.0162	0.0163	0.0196	0.0244	0.0158	0.0043	0.0183		
		Post Closure	0.0011	0.0008	0.0021	0.0288	0.0546	0.0363	0.0204	0.0193	0.0223	0.0238	0.0091	0.0027	0.0185	0.0003	1.4%
	1:100 Dry Year	Existing	0.0003	0.0002	0.0007	0.0061	0.0129	0.0070	0.0036	0.0036	0.0044	0.0055	0.0035	0.0010	0.0041		
		Post Closure	0.0004	0.0003	0.0006	0.0071	0.0132	0.0088	0.0047	0.0044	0.0051	0.0054	0.0022	0.0008	0.0044	0.0003	8.5%
	1:100 Wet Year	Existing	0.0033	0.0021	0.0074	0.0601	0.1268	0.0689	0.0358	0.0360	0.0433	0.0539	0.0348	0.0096	0.0404		
		Post Closure	0.0021	0.0014	0.0044	0.0538	0.1042	0.0669	0.0382	0.0366	0.0425	0.0464	0.0198	0.0056	0.0353	-0.0050	-12.5%
UN-3	Average Year	Existing	0.0476	0.0411	0.0391	0.0827	0.1937	0.1933	0.1483	0.1045	0.0880	0.0863	0.0732	0.0557	0.0964		
		Post Closure	0.0522	0.0453	0.0417	0.0904	0.2058	0.2161	0.1669	0.1172	0.0981	0.0925	0.0728	0.0595	0.1052	0.0088	9.1%
	1:100 Dry Year	Existing	0.0107	0.0092	0.0088	0.0185	0.0434	0.0433	0.0332	0.0234	0.0197	0.0193	0.0164	0.0125	0.0216		
		Post Closure	0.0118	0.0103	0.0095	0.0208	0.0470	0.0491	0.0375	0.0263	0.0221	0.0208	0.0165	0.0135	0.0238	0.0022	10.3%
	1:100 Wet Year	Existing	0.1053	0.0909	0.0865	0.1829	0.4284	0.4274	0.3280	0.2311	0.1946	0.1909	0.1620	0.1231	0.2133		
		Post Closure	0.1152	0.0999	0.0920	0.1900	0.4387	0.4644	0.3623	0.2530	0.2103	0.1984	0.1607	0.1314	0.2271	0.0138	6.5%
UN-4	Average Year	Existing	0.0010	0.0007	0.0023	0.0188	0.0397	0.0216	0.0112	0.0113	0.0136	0.0169	0.0109	0.0030	0.0126		
		Post Closure	0.0021	0.0017	0.0035	0.0246	0.0498	0.0290	0.0156	0.0155	0.0183	0.0216	0.0131	0.0043	0.0167	0.0040	31.7%
	1:100 Dry Year	Existing	0.0002	0.0001	0.0005	0.0042	0.0089	0.0048	0.0025	0.0025	0.0030	0.0038	0.0024	0.0007	0.0028		
		Post Closure	0.0012	0.0011	0.0015	0.0063	0.0120	0.0073	0.0042	0.0042	0.0048	0.0056	0.0036	0.0017	0.0045	0.0016	57.9%
	1:100 Wet Year	Existing	0.0023	0.0015	0.0051	0.0417	0.0879	0.0478	0.0248	0.0249	0.0300	0.0373	0.0241	0.0067	0.0280		
		Post Closure	0.0035	0.0026	0.0066	0.0513	0.1055	0.0601	0.0322	0.0319	0.0380	0.0456	0.0277	0.0083	0.0346	0.0066	23.7%
UN-5	Average Year	Existing	0.0437	0.0376	0.0371	0.0902	0.2076	0.1920	0.1429	0.1035	0.0906	0.0918	0.0751	0.0526	0.0974		
		Post Closure	0.0444	0.0383	0.0378	0.0909	0.2083	0.1927	0.1436	0.1042	0.0913	0.0925	0.0758	0.0533	0.0981	0.0007	0.7%
	1:100 Dry Year	Existing	0.0098	0.0084	0.0083	0.0202	0.0465	0.0430	0.0320	0.0232	0.0203	0.0206	0.0168	0.0118	0.0218		
		Post Closure	0.0105	0.0091	0.0090	0.0209	0.0472	0.0437	0.0327	0.0239	0.0210	0.0213	0.0175	0.0125	0.0225	0.0007	3.2%
	1:100 Wet Year	Existing	0.0967	0.0831	0.0821	0.1994	0.4590	0.4246	0.3161	0.2289	0.2003	0.2030	0.1660	0.1164	0.2154		
		Post Closure	0.0974	0.0838	0.0828	0.2001	0.4597	0.4253	0.3168	0.2296	0.2010	0.2037	0.1667	0.1171	0.2161	0.0007	0.3%
GEN-1	Average Year	Existing	0.0415	0.0362	0.0322	0.0500	0.1228	0.1460	0.1190	0.0795	0.0616	0.0558	0.0518	0.0462	0.0704		
		Post Closure	0.0417	0.0363	0.0324	0.0502	0.1230	0.1461	0.1191	0.0796	0.0618	0.0560	0.0519	0.0464	0.0706	0.0002	0.2%
	1:100 Dry Year	Existing	0.0093	0.0081	0.0072	0.0112	0.0275	0.0327	0.0267	0.0178	0.0138	0.0125	0.0116	0.0104	0.0158		
		Post Closure	0.0095	0.0083	0.0074	0.0114	0.0277	0.0329	0.0268	0.0180	0.0140	0.0127	0.0118	0.0105	0.0160	0.0002	1.1%
	1:100 Wet Year	Existing	0.0918	0.0800	0.0712	0.1106	0.2716	0.3227	0.2631	0.1757	0.1362	0.1234	0.1145	0.1022	0.1557		
		Post Closure	0.0920	0.0801	0.0714	0.1107	0.2717	0.3229	0.2633	0.1759	0.1364	0.1236	0.1146	0.1023	0.1559	0.0002	0.1%
DIX-1	Average Year	Existing	0.685	0.596	0.534	0.862	2.104	2.446	1.980	1.330	1.042	0.953	0.874	0.766	1.184		
		Post Closure	0.686	0.597	0.535	0.863	2.104	2.446	1.981	1.331	1.043	0.954	0.875	0.767	1.185	0.001	0.1%
	1:100 Dry Year	Existing	0.153	0.134	0.120	0.193	0.471	0.548	0.444	0.298	0.233	0.214	0.196	0.172	0.265		
		Post Closure	0.154	0.134	0.120	0.194	0.472	0.549	0.444	0.299	0.234	0.214	0.197	0.172	0.266	0.001	0.3%
	1:100 Wet Year	Existing	1.515	1.318	1.181	1.907	4.652	5.408	4.378	2.942	2.304	2.108	1.933	1.694	2.619		
		Post Closure	1.515	1.318	1.182	1.907	4.653	5.409	4.379	2.942	2.305	2.109	1.934	1.694	2.620	0.001	0.0%

Table B-6: Results for Post-Closure - Average, Dry, and Wet Conditions

Watershed Id	Climate Condition	Project Phase	Calculated Flow (m³/s)														Change in Flow (%)
			January	February	March	April	May	June	July	August	September	October	November	December	Annual Average	Change in Flow	
DIX-2	Average Year	Existing	0.693	0.601	0.552	1.007	2.410	2.612	2.066	1.417	1.146	1.083	0.958	0.789	1.282		
		Post Closure	0.694	0.604	0.547	1.046	2.422	2.673	2.092	1.450	1.183	1.094	0.916	0.781	1.296	0.014	1.1%
	1:100 Dry Year	Existing	0.155	0.135	0.124	0.226	0.540	0.585	0.463	0.318	0.257	0.243	0.215	0.177	0.287		
		Post Closure	0.161	0.141	0.128	0.247	0.541	0.592	0.458	0.313	0.259	0.244	0.209	0.180	0.290	0.003	1.1%
	1:100 Wet Year	Existing	1.532	1.329	1.221	2.227	5.328	5.775	4.569	3.134	2.535	2.395	2.119	1.745	2.834		
		Post Closure	1.527	1.328	1.202	2.229	5.242	5.823	4.607	3.178	2.572	2.376	2.023	1.720	2.827	-0.007	-0.2%
DIX-3	Average Year	Existing	0.737	0.640	0.587	1.061	2.541	2.768	2.194	1.502	1.212	1.143	1.014	0.839	1.357		
		Post Closure	0.709	0.619	0.561	1.156	2.584	2.829	2.172	1.523	1.272	1.173	0.932	0.796	1.365	0.007	0.5%
	1:100 Dry Year	Existing	0.165	0.143	0.131	0.238	0.569	0.620	0.492	0.337	0.272	0.256	0.227	0.188	0.304		
		Post Closure	0.171	0.151	0.138	0.290	0.585	0.631	0.465	0.322	0.281	0.268	0.220	0.191	0.310	0.006	2.0%
	1:100 Wet Year	Existing	1.631	1.414	1.297	2.345	5.619	6.121	4.851	3.322	2.681	2.527	2.242	1.854	3.001		
		Post Closure	1.550	1.349	1.221	2.393	5.505	6.110	4.789	3.338	2.752	2.512	2.049	1.744	2.951	-0.050	-1.7%
DIX-4	Average Year	Existing	1.183	1.027	0.932	1.597	3.858	4.333	3.469	2.354	1.873	1.741	1.569	1.334	2.112		
		Post Closure	1.156	1.007	0.907	1.693	3.901	4.393	3.448	2.375	1.934	1.772	1.488	1.293	2.120	0.008	0.4%
	1:100 Dry Year	Existing	0.265	0.230	0.209	0.358	0.865	0.971	0.777	0.528	0.420	0.390	0.352	0.299	0.473		
		Post Closure	0.272	0.239	0.217	0.412	0.881	0.983	0.752	0.514	0.430	0.404	0.346	0.303	0.481	0.007	1.6%
	1:100 Wet Year	Existing	2.615	2.272	2.060	3.531	8.531	9.581	7.672	5.206	4.142	3.850	3.469	2.950	4.670		
		Post Closure	2.535	2.207	1.986	3.579	8.415	9.568	7.608	5.221	4.213	3.835	3.276	2.840	4.621	-0.050	-1.1%
DIX-5	Average Year	Existing	1.274	1.106	1.004	1.732	4.180	4.678	3.742	2.542	2.025	1.886	1.696	1.438	2.282		
		Post Closure	1.251	1.090	0.983	1.836	4.235	4.762	3.739	2.575	2.096	1.923	1.615	1.401	2.299	0.017	0.7%
	1:100 Dry Year	Existing	0.285	0.248	0.225	0.388	0.937	1.048	0.839	0.570	0.454	0.423	0.380	0.322	0.511		
		Post Closure	0.294	0.258	0.234	0.444	0.957	1.066	0.817	0.559	0.466	0.438	0.374	0.327	0.521	0.010	1.9%
	1:100 Wet Year	Existing	2.816	2.446	2.221	3.829	9.243	10.346	8.274	5.620	4.478	4.170	3.751	3.179	5.046		
		Post Closure	2.746	2.390	2.152	3.884	9.137	10.369	8.245	5.658	4.565	4.162	3.557	3.078	5.010	-0.036	-0.7%
CHK-1	Average Year	Existing	17.52	14.79	14.42	22.71	51.36	54.76	45.46	32.80	32.37	30.23	27.34	21.68	30.54		
		Post Closure	17.52	14.79	14.42	22.71	51.37	54.76	45.46	32.80	32.38	30.23	27.34	21.68	30.54	0.00	0.0%
	1:100 Dry Year	Existing	5.64	4.76	4.64	7.30	16.52	17.61	14.62	10.55	10.41	9.72	8.79	6.97	9.82		
		Post Closure	5.64	4.76	4.64	7.30	16.52	17.61	14.62	10.55	10.41	9.72	8.79	6.97	9.82	0.00	0.0%
	1:100 Wet Year	Existing	36.37	30.71	29.93	47.14	106.63	113.67	94.36	68.08	67.21	62.75	56.75	45.00	63.39		
		Post Closure	36.37	30.71	29.93	47.15	106.65	113.68	94.37	68.09	67.21	62.76	56.75	45.00	63.40	0.01	0.0%
CHK-2	Average Year	Existing	18.84	15.93	15.46	24.49	55.67	59.57	49.31	35.42	34.48	32.18	29.10	23.17	32.89		
		Post Closure	18.82	15.92	15.43	24.60	55.73	59.66	49.31	35.45	34.55	32.23	29.02	23.13	32.91	0.02	0.1%
	1:100 Dry Year	Existing	5.94	5.02	4.87	7.71	17.49	18.70	15.50	11.14	10.89	10.17	9.19	7.31	10.36		
		Post Closure	5.94	5.03	4.88	7.76	17.52	18.72	15.48	11.13	10.91	10.18	9.19	7.32	10.37	0.01	0.1%
	1:100 Wet Year	Existing	39.28	33.23	32.22	51.08	116.13	124.29	102.87	73.87	71.85	67.07	60.63	48.29	68.59		
		Post Closure	39.21	33.17	32.15	51.14	116.04	124.32	102.84	73.91	71.94	67.07	60.44	48.19	68.56	-0.03	0.0%
PAK-OUT	Average Year	Existing	31.79	26.87	26.11	41.25	93.58	100.01	82.90	59.65	58.39	54.51	49.29	39.19	55.45		
		Post Closure	31.77	26.85	26.09	41.36	93.64	100.10	82.90	59.68	58.47	54.55	49.21	39.15	55.47	0.02	0.0%
	1:100 Dry Year	Existing	10.10	8.54	8.30	13.10	29.69	31.71	26.30	18.94	18.58	17.35	15.69	12.47	17.61		
		Post Closure	10.11	8.55	8.31	13.16	29.71	31.73	26.28	18.93	18.60	17.36	15.68	12.47	17.62	0.01	0.1%
	1:100 Wet Year	Existing	66.16	55.92	54.33	85.87	194.83	208.25	172.59	124.16	121.49	113.40	102.55	81.55	115.42		
		Post Closure	66.09	55.87	54.27	85.93	194.74	208.28	172.57	124.20	121.58	113.40	102.36	81.45	115.39	-0.03	0.0%

Note:
Monthly flows presented are from a single year, selected within each Project phase, which produced the most substantial change in flow within the phase. The selected year will vary between nodes, and climate condition.

Table B-7: Results for Post-Closure with Climate Change - With and Without Project Footprint

Watershed Id	Climate Condition	Project Phase	Calculated Flow (m^3/s)														Change in Flow (%)
			January	February	March	April	May	June	July	August	September	October	November	December	Annual Average	Change in Flow	
UN-1	Post-Closure with Climate Change	Without Project	0.0122	0.0103	0.0255	0.1140	0.1647	0.0932	0.0505	0.0491	0.0569	0.0636	0.0510	0.0222	0.0596		
		With Project	0.0138	0.0166	0.0367	0.1630	0.1717	0.0932	0.0620	0.0703	0.0938	0.0914	0.0533	0.0120	0.0733	0.0137	23.0%
UN-2	Post-Closure with Climate Change	Without Project	0.0037	0.0032	0.0078	0.0349	0.0504	0.0285	0.0155	0.0150	0.0174	0.0195	0.0156	0.0068	0.0183		
		With Project	0.0036	0.0037	0.0084	0.0381	0.0490	0.0287	0.0192	0.0180	0.0214	0.0223	0.0142	0.0048	0.0193	0.0011	6.0%
UN-3	Post-Closure with Climate Change	Without Project	0.0693	0.0609	0.0764	0.1056	0.1692	0.1709	0.1306	0.0902	0.0751	0.0675	0.0691	0.0702	0.0964		
		With Project	0.0763	0.0677	0.0845	0.1165	0.1807	0.1865	0.1468	0.1014	0.0853	0.0756	0.0735	0.0751	0.1060	0.0096	9.9%
UN-4	Post-Closure with Climate Change	Without Project	0.0026	0.0022	0.0054	0.0242	0.0349	0.0198	0.0107	0.0104	0.0121	0.0135	0.0108	0.0047	0.0126		
		With Project	0.0040	0.0037	0.0077	0.0316	0.0441	0.0256	0.0149	0.0144	0.0167	0.0181	0.0140	0.0063	0.0168	0.0042	33.0%
UN-5	Post-Closure with Climate Change	Without Project	0.0645	0.0567	0.0734	0.1152	0.1815	0.1703	0.1265	0.0899	0.0777	0.0721	0.0713	0.0671	0.0974		
		With Project	0.0652	0.0574	0.0740	0.1159	0.1822	0.1710	0.1272	0.0906	0.0784	0.0728	0.0719	0.0678	0.0981	0.0007	0.7%
GEN-1	Post-Closure with Climate Change	Without Project	0.0590	0.0520	0.0618	0.0636	0.1069	0.1282	0.1037	0.0677	0.0519	0.0433	0.0482	0.0571	0.0704		
		With Project	0.0592	0.0522	0.0620	0.0638	0.1071	0.1283	0.1038	0.0679	0.0521	0.0435	0.0484	0.0572	0.0706	0.0002	0.2%
DIX-1	Post-Closure with Climate Change	Without Project	0.976	0.860	1.027	1.098	1.833	2.149	1.727	1.135	0.879	0.740	0.815	0.948	1.184		
		With Project	0.977	0.860	1.028	1.098	1.833	2.150	1.728	1.136	0.880	0.741	0.816	0.949	1.185	0.001	0.1%
DIX-2	Post-Closure with Climate Change	Without Project	0.996	0.876	1.069	1.284	2.101	2.301	1.810	1.215	0.972	0.844	0.899	0.985	1.282		
		With Project	0.999	0.885	1.083	1.343	2.116	2.306	1.827	1.242	1.016	0.879	0.903	0.974	1.300	0.018	1.4%
DIX-3	Post-Closure with Climate Change	Without Project	1.059	0.932	1.135	1.352	2.216	2.438	1.921	1.288	1.028	0.890	0.950	1.046	1.357		
		With Project	1.026	0.914	1.130	1.490	2.260	2.403	1.894	1.303	1.104	0.963	0.958	0.998	1.373	0.015	1.1%
DIX-4	Post-Closure with Climate Change	Without Project	1.692	1.490	1.798	2.034	3.363	3.813	3.032	2.014	1.585	1.355	1.467	1.658	2.112		
		With Project	1.660	1.472	1.793	2.173	3.407	3.777	3.006	2.030	1.662	1.429	1.476	1.611	2.128	0.016	0.8%
DIX-5	Post-Closure with Climate Change	Without Project	1.823	1.605	1.939	2.206	3.643	4.117	3.271	2.175	1.714	1.467	1.586	1.787	2.282		
		With Project	1.798	1.594	1.942	2.356	3.699	4.097	3.261	2.202	1.801	1.549	1.600	1.745	2.308	0.026	1.1%
CHK-1	Post-Closure with Climate Change	Without Project	24.95	21.36	27.65	28.86	44.78	48.25	39.76	28.02	27.06	23.19	25.22	26.70	30.54		
		With Project	24.95	21.36	27.65	28.87	44.79	48.26	39.77	28.02	27.06	23.19	25.22	26.70	30.54	0.00	0.0%
CHK-2	Post-Closure with Climate Change	Without Project	26.84	23.02	29.65	31.14	48.53	52.48	43.13	30.26	28.84	24.71	26.86	28.56	32.89		
		With Project	26.81	23.01	29.66	31.29	48.60	52.47	43.12	30.29	28.93	24.80	26.88	28.51	32.92	0.03	0.1%
PAK-OUT	Post-Closure with Climate Change	Without Project	45.28	38.81	50.09	52.44	81.59	88.13	72.51	50.96	48.83	41.84	45.49	48.29	55.45		
		With Project	45.26	38.80	50.09	52.60	81.65	88.11	72.50	50.99	48.92	41.92	45.51	48.25	55.48	0.03	0.1%

Note:
Climate Change flows are representative of Post Closure.