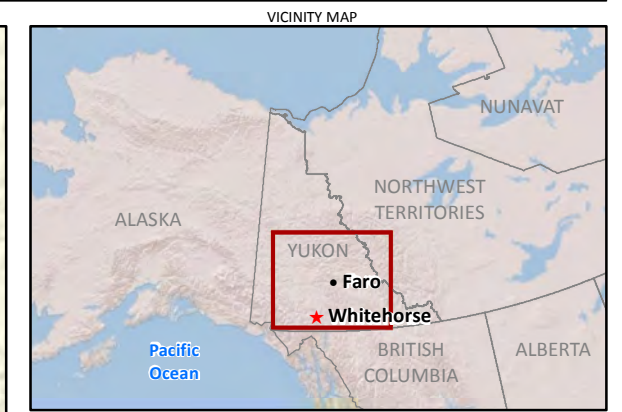
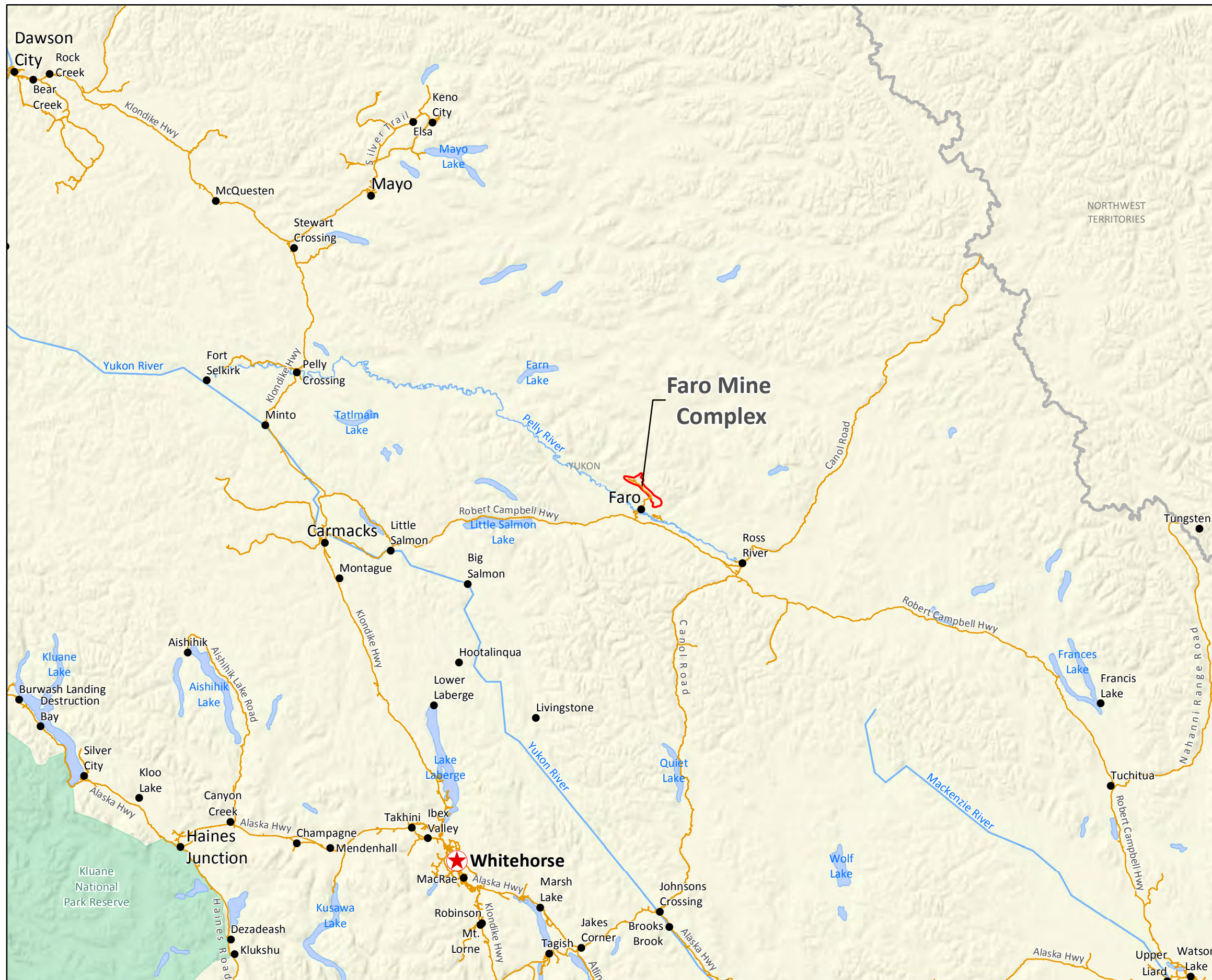



Appendix A

Figures



LEGEND

-  Faro Mine Complex
-  Province Boundary

Service Layer Credits: Copyright:© 2013 Esri

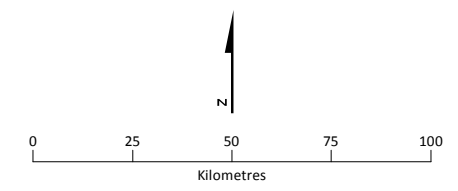




FIGURE 1-1
Faro Mine Complex Location
 Faro Mine Remediation Project



LEGEND
 Rose Creek Watershed
 Vangorda Creek Watershed

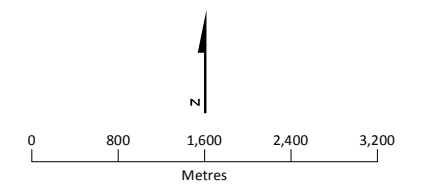
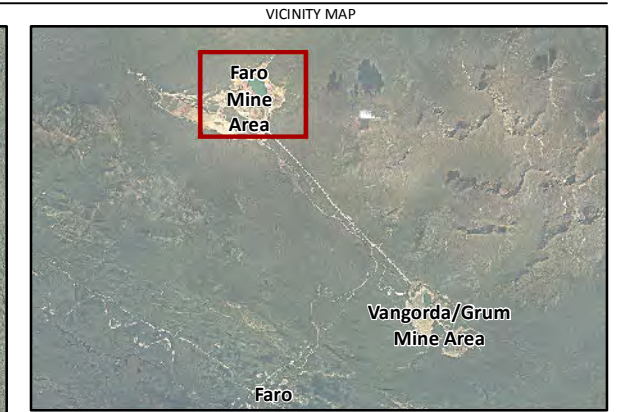


FIGURE 1-2
Faro Mine Complex Overview
 Faro Mine Remediation Project



LEGEND
 — Road Unpaved

Notes:
 1. Aerial photography acquired by Peregrine Aerial Surveyors Inc. and Eagle Mapping in August 2012.
 2. Orthophotography prepared by Critigen Canada Corp.

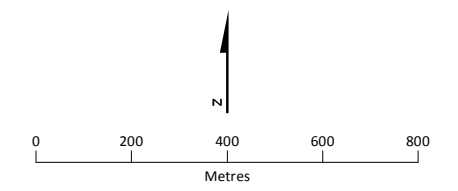
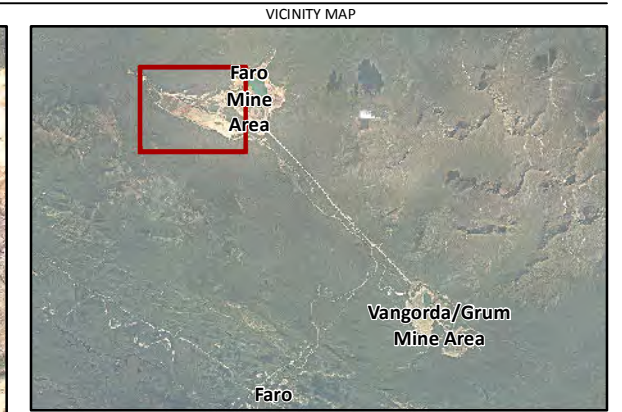


FIGURE 1-3
Faro Mine Area
 Faro Mine Remediation Project



LEGEND
 — Road Unpaved

Notes:
 1. Aerial photography acquired by Peregrine Aerial Surveyors Inc. and Eagle Mapping in August 2012.
 2. Orthophotography prepared by Critigen Canada Corp.

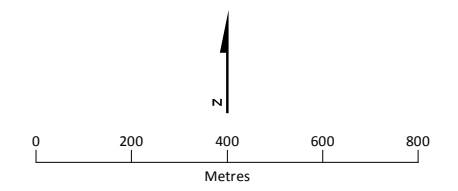
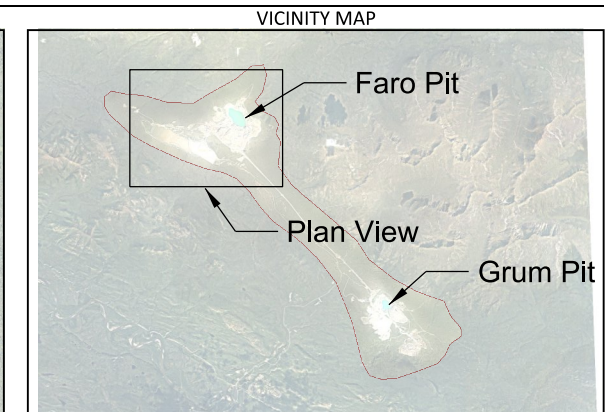
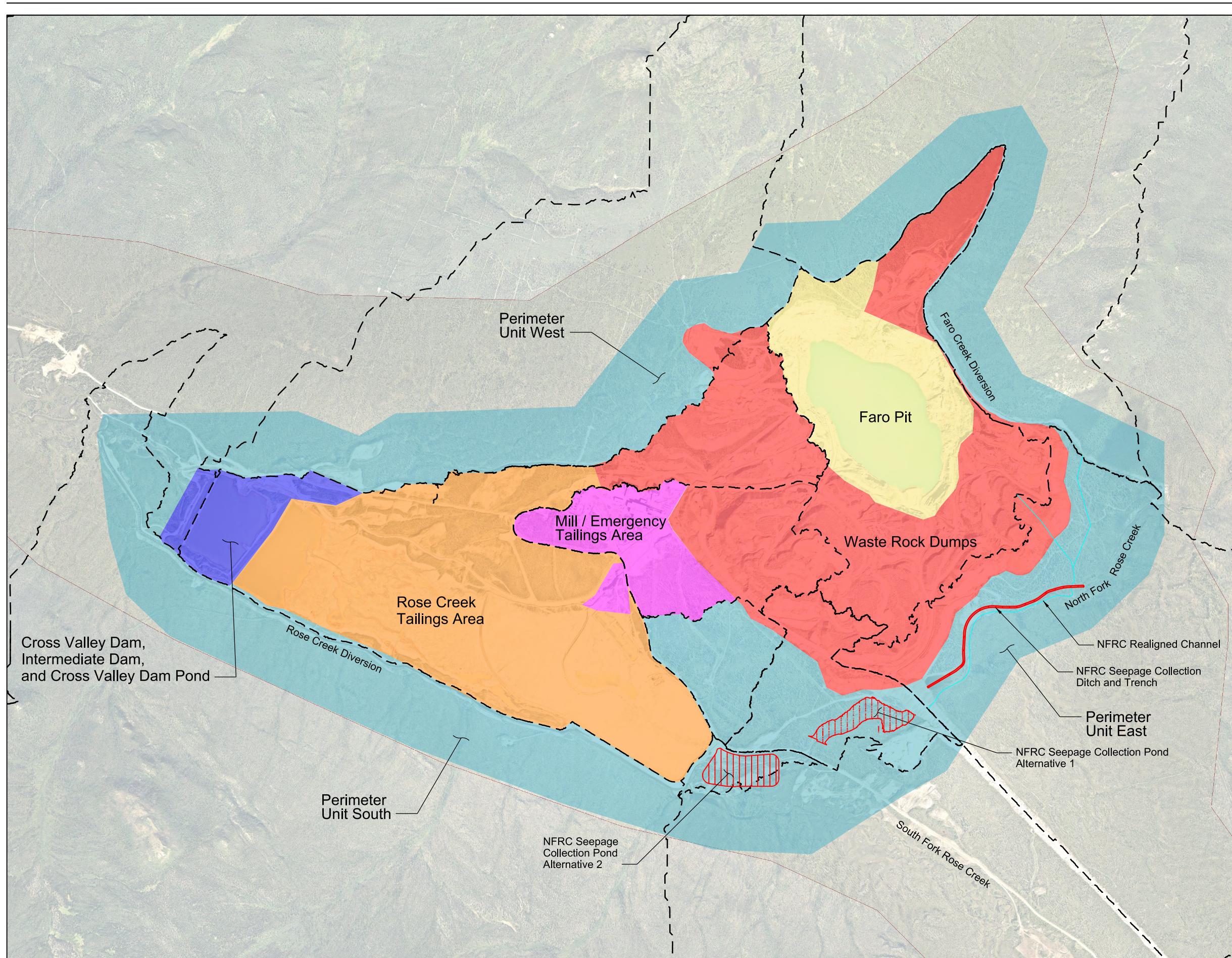


FIGURE 1-4
Rose Creek Tailings Area
 Faro Mine Remediation Project



LEGEND

- - - Surface Water Catchment Boundaries

Note:

1. Planned For NFRC Project:

- NFRC Realigned Channel
- NFRC Seepage Collection Ditch and Trench
- NFRC Seepage Collection Pond

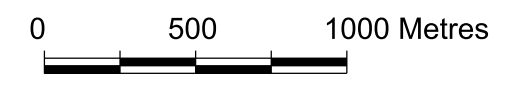
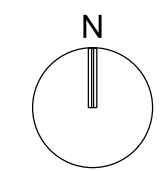
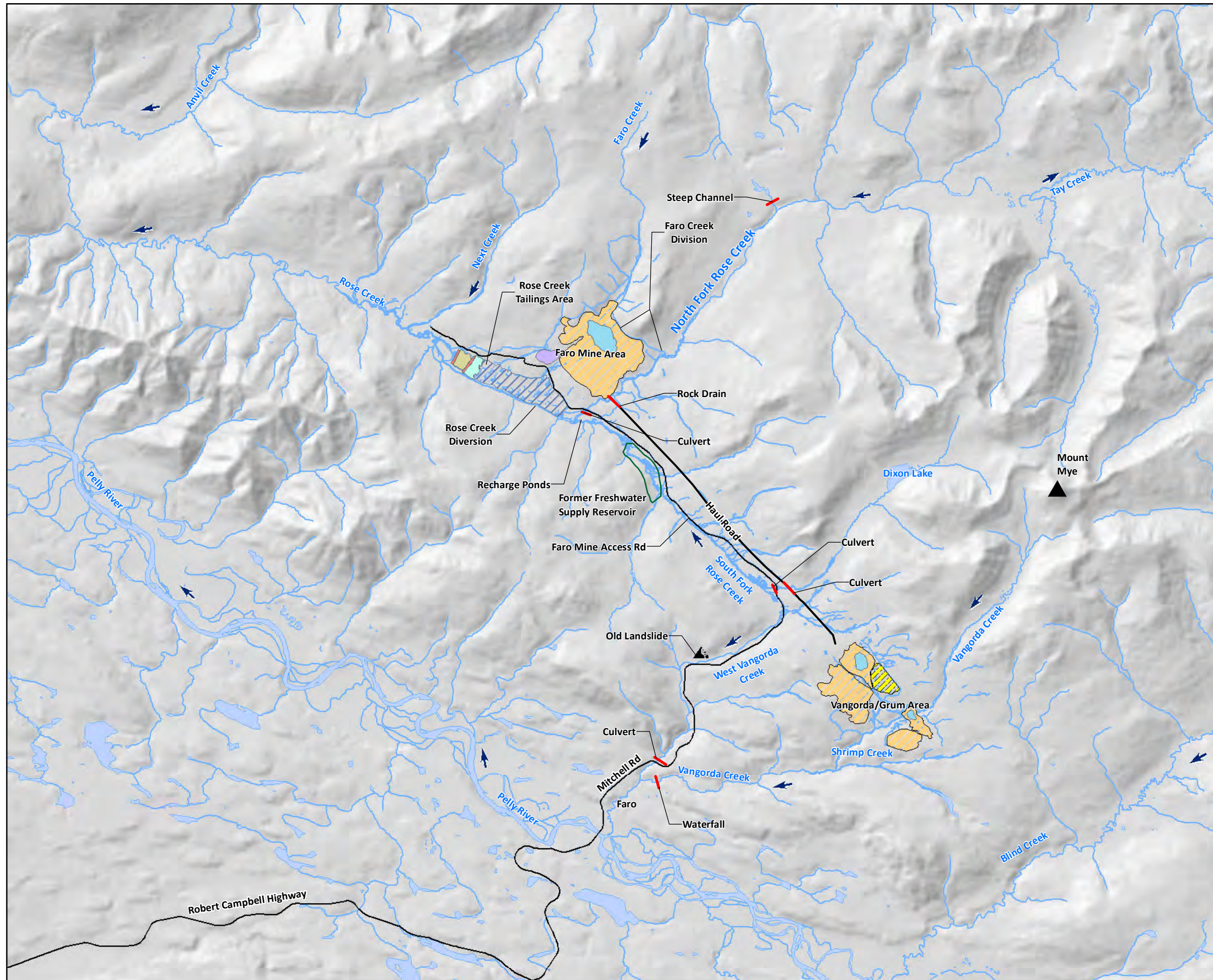


Figure 1-5
Remedial Units
 Faro Mine Remediation Project



LEGEND

- ▲ Mountains
- Barrier to Fish Migration

Mine Infrastructure:

- Open Pit
- Waste Dump
- Impoundment Area
- Overburden Dump
- Polishing Pond
- Tailings Pond
- Dam
- Mill Buildings Area

Notes:

1. Service Layer Credits: Yukon Government
2. Faro = Town of Faro

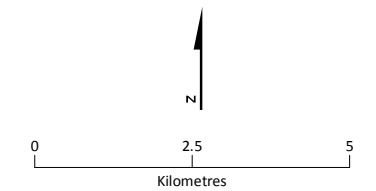
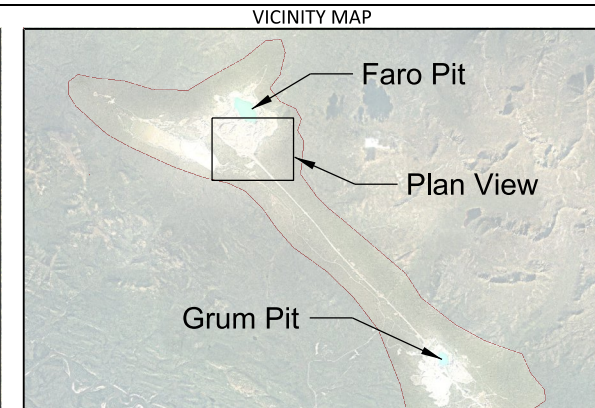


FIGURE 1-6
Existing Features - North Fork of Rose Creek
Faro Mine Remediation Project



- LEGEND
- Surface Water Catchment Boundaries
 - NFRC Realigned Channel Alternatives

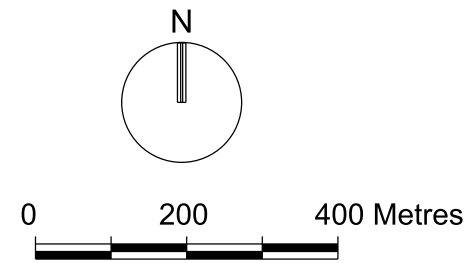
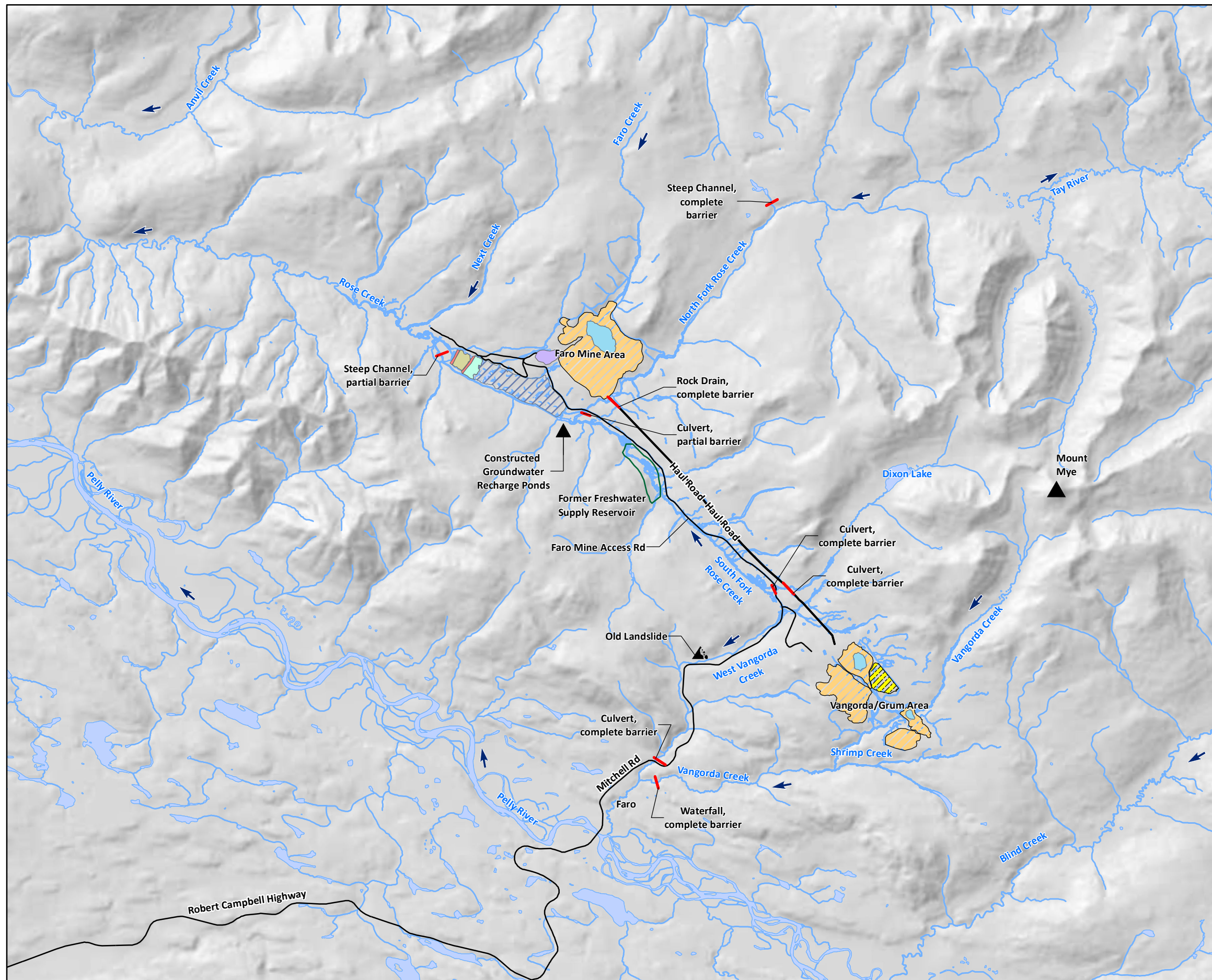


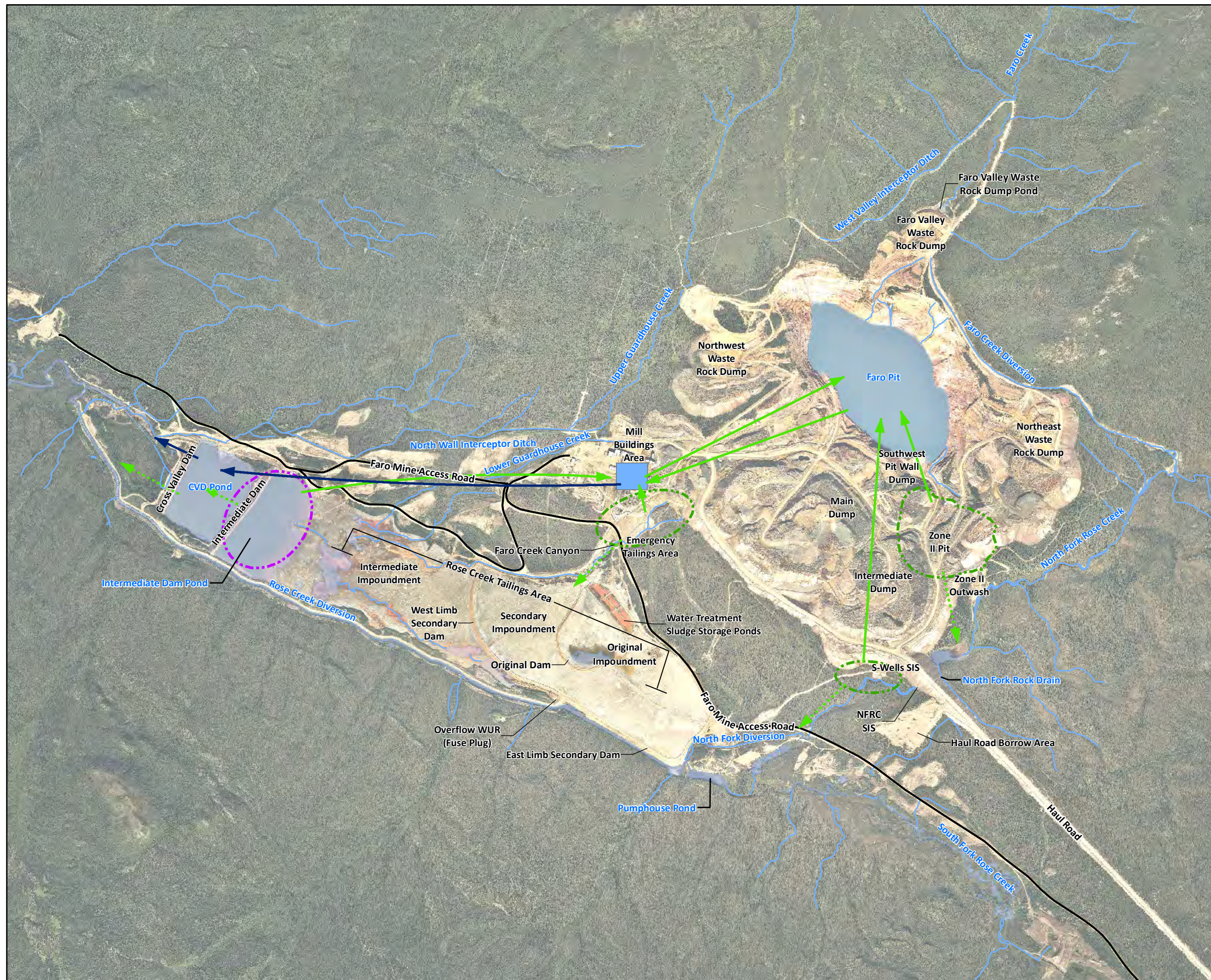
Figure 3-1
**NFRC Project Planning Areas/
 Realigned Channel Alternatives**
 Faro Mine Remediation Project



- LEGEND**
- ▲ Mountains
 - Barrier to Fish Migration
 - ➔ Direction of Flow
- Mine Infrastructure:**
- Open Pit
 - ▨ Grum Ore Transfer Pad
 - ▨ Waste Dump
 - ▨ Impoundment Area
 - ▨ Overburden Dump
 - ▨ Polishing Pond
 - ▨ Tailings Pond
 - ▨ Dam
 - ▨ Mill Buildings Area

- Notes:**
1. Service Layer Credits: Yukon Government
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community
 2. Faro = Town of Faro

FIGURE 3-2
Habitat Features of Rose and Vangorda Creeks
 Faro Mine Remediation Project



- LEGEND**
- Water to Pit or Treatment
 - - - Seepage Bypassing Current Collection
 - Treated Water Discharge
 - Installed Groundwater or Surface Water Collection System
 - Installed Surface Water Collection
 - Interim Water Treatment System

- Notes:**
1. All locations are approximate pending results of the 2012 field survey.
 2. ETA - Emergency Tailings Area
 3. Aerial photography acquired by Peregrine Aerial Surveyors Inc. and Eagle Mapping in August 2012.
 4. Orthophotography prepared by Critigen Canada Corp.

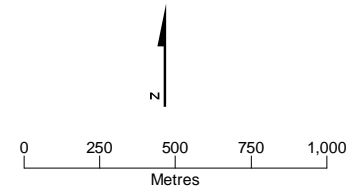
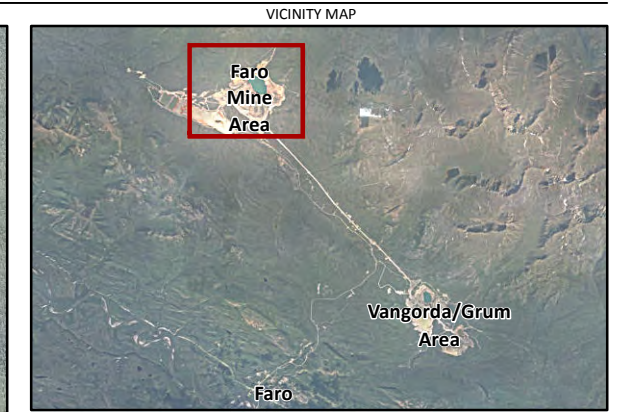


FIGURE 3-3
Faro Mine Area including Rose Creek Tailings Area
 Faro Mine Remediation Project



LEGEND

- Continuous Flow Monitoring Location
- Spot Flow Monitoring Location
- ▲ Catchment Pour Point
- Catchment Area
- Waste Dump

- Notes:**
- Aerial photography acquired by Peregrine Aerial Surveyors Inc. and Eagle Mapping in August 2012.
 - Orthophotography prepared by Critigen Canada Corp.
 - Rose Creek Tailings Area is also called Down Valley Tailings Area, and is where the Rose Creek Alluvial Aquifer is located.
 - Waste Dump Definitions:

CHSP - Crusher Stockpile	NEL - Northeast Lower
FTE - Fuel Tank East	NELS - Northeast Lower Sulphide Cell
FTW - Fuel Tank West	NEO - Northeast Outer
FVN - Faro Valley North	NEU - Northeast Upper
FVS - Faro Valley South	NWL - Northwest Lower
ID - Intermediate Dump	NWM - Northwest Middle
IDSC - Intermediate Dump Sulphide Cell	NWU - Northwest Upper
LGSPA - Low Grade Stockpile A	OHRE - Outer Haul Road East
LGSPC - Low Grade Stockpile C	OHRW - Outer Haul Road West
LPL - Lower Parking Lot	OXSP - Oxide Fines Stockpile
MDE - Main Dump East	RD - Ranch Dump
MDW - Main Dump West	RZD - Ramp Zone Dump
MESC - Main Dump Sulphide Cell	SPB - Stock Piles Base
MGSP - Medium Grade Stockpile	SWPWD - Southwest Pit Wall Dump
MME - Mt. Mungly East	UPL - Upper Parking Lot
MMW - Mt. Mungly West	

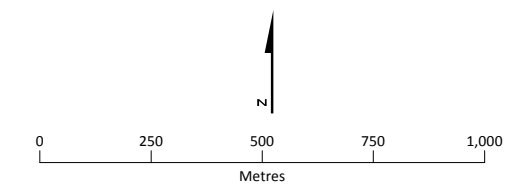
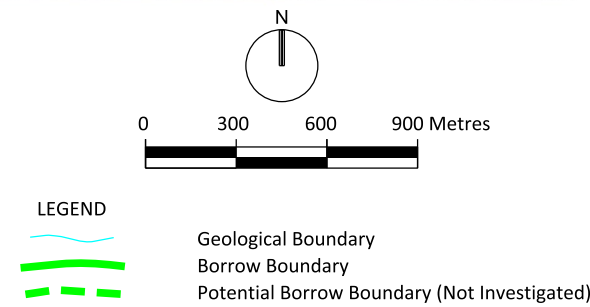
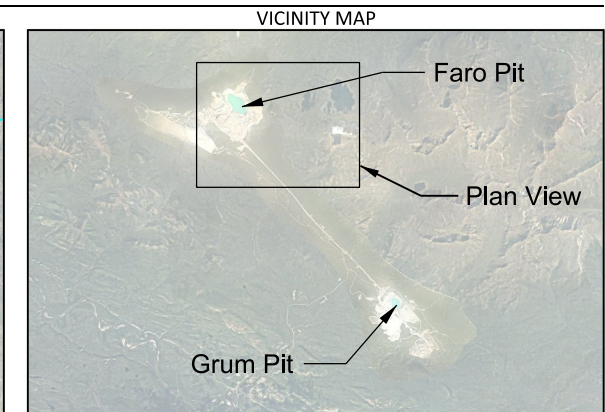
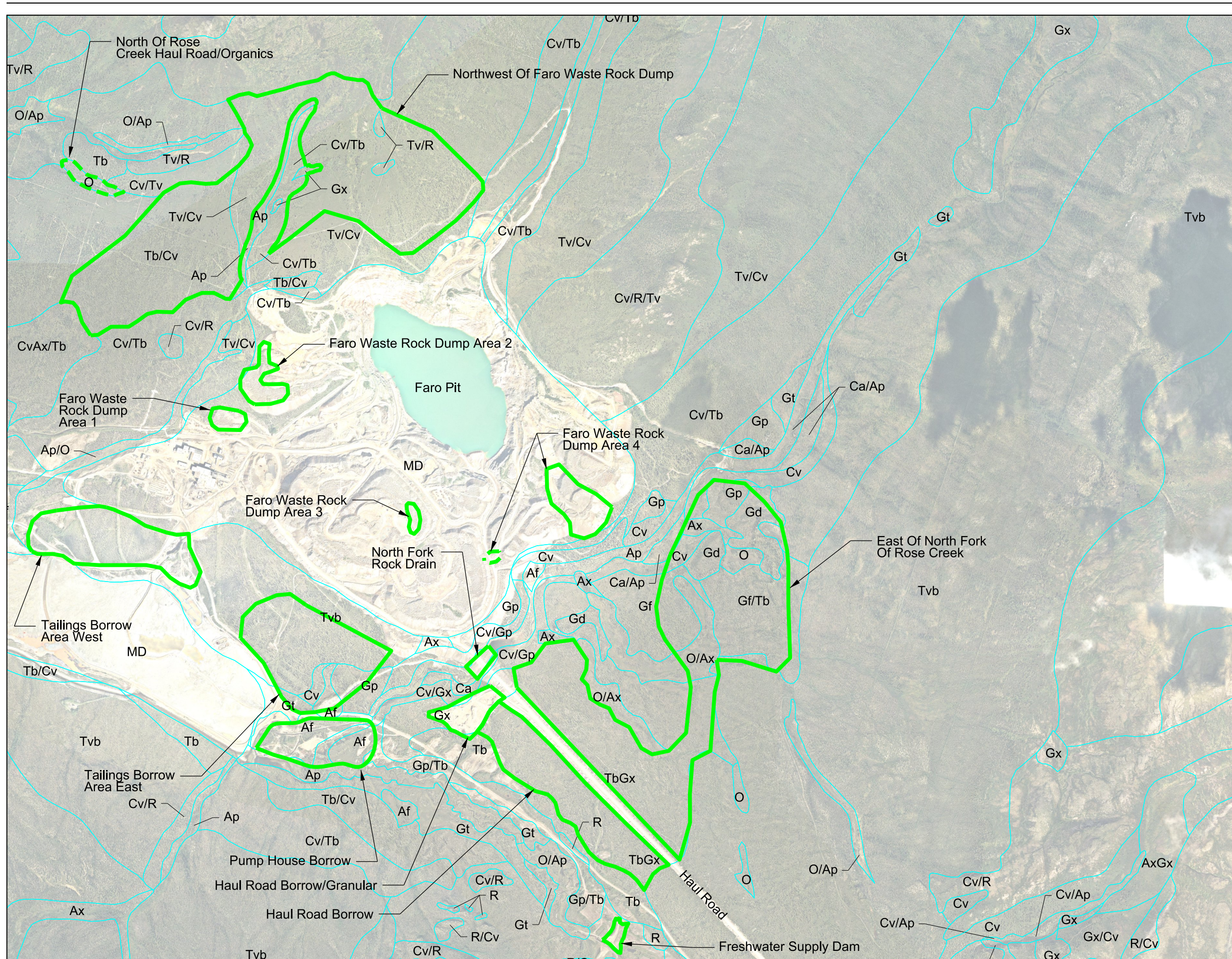


FIGURE 3-4
Faro Mine Waste Dump Footprints
and Catchment Boundaries
 Faro Mine Remediation Project



SURFICIAL GEOLOGY (BOND, 1999)

QUATERNARY

HOLOCENE

MINE DISTURBANCE
 MD - mine disturbance; consisting of an open-pit and stripped till and bedrock accumulations. Bedrock and surficial sediments exposed in open-pit.

MINE TAILINGS
 MT - mine tailings; consisting of sand, silt and some clay.

ORGANIC DEPOSITS
 O - organics; consisting of woody sedge peat, variable thickness. White River ash accumulations are commonly associated with poorly drained peaty areas.

ALLUVIAL DEPOSITS
 Ap - alluvial plain; silt, sand and pebbles with reworked cobbles and boulders occurring as bars, overbank floodplain deposits, 0 - 10 m thick; floodplain subject to periodic floods. Small valley alluvial plains may not be mapped at this scale.
 Ap (active) - alluvial plain; area of Pelly River floodplain that has been recently active.
 At - alluvial terrace; silt, sand, and pebbles with reworked cobbles and boulders occurring as low terrace deposits, 0 - 10 m thick.
 Af - alluvial fan; coarse sand, pebbles, cobbles and mudflow deposits, up to or >10 m thick. Appear as vegetated, often peat covered, landforms developed during post-glacial sedimentation.
 Ax - complexes of Ap and Af undivided. Common when a stream is unconfined and also in narrow valleys where side-entry alluvial fans cannot be differentiated from an alluvial plain.

PLEISTOCENE AND HOLOCENE (UNDIVIDED)

COLLUVIAL DEPOSITS
 Cv - colluvium veneer; conforms to bedrock topography, <1 m thick.
 Ca - colluvium apron; coalescing colluvial fans at the base of a slope, >1 m thick.
 Cz - mass wasting; includes slumping, debris slides and rockfalls. Slumping and rockfalls are common on Mt. Mye.

LATE PLEISTOCENE (WISCONSINAN) - McCONNELL GLACIATION

GLACIOLACUSTRINE DEPOSITS
 Lb - glaciolacustrine blanket; 1- 40 m thick.

GLACIOFLUVIAL DEPOSITS
 Gp - glaciofluvial plain; 3 - 10 m thick.
 Gt - glaciofluvial terrace; <10 m thick.

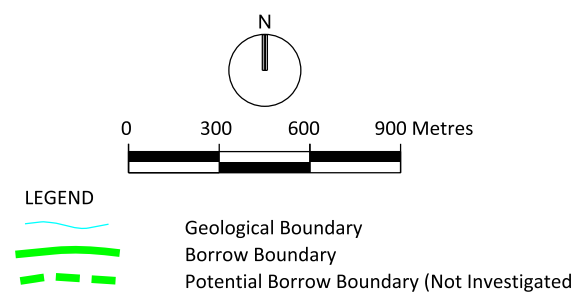
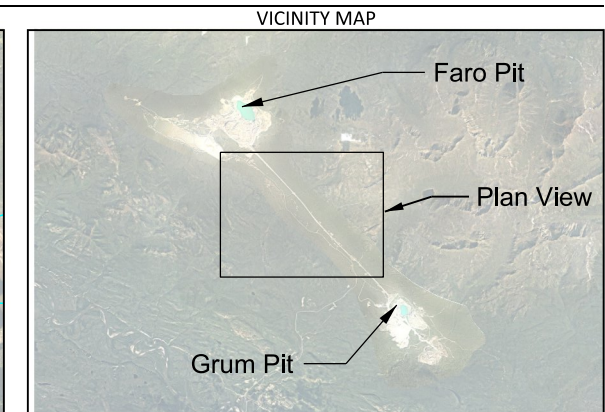
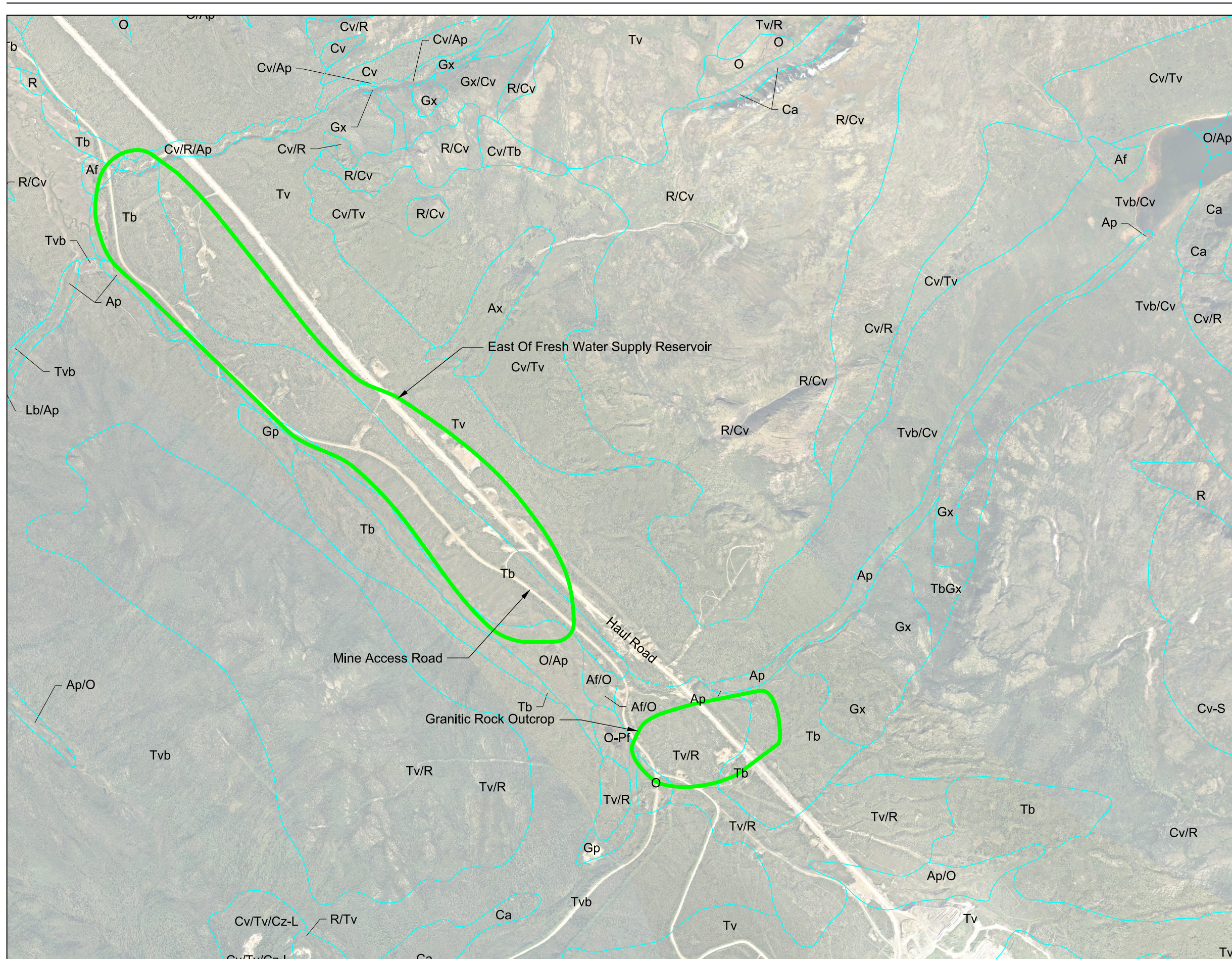
GLACIOFLUVIAL COMPLEX
 Gx - glaciofluvial complex; 1 - 30 m thick, composed of deposits of outwash, glaciolacustrine and minor till deposited in an ice contact environment. Hummocky topography is associated with this depositional setting. Crevasse fillings were mapped in the upper part of Vangorda Creek valley.

GLACIAL DEPOSITS
 Tv - till veneer; conforms to underlying topography, <1 m thick.
 Tb - till blanket; gently to moderately sloping plain controlled by bedrock or underlying surficial deposits, >1 m thick.
 Tx - till complex; till blanket or veneer composed of meltout till and minor ice contact glaciofluvial deposits.

LOWER CAMBRIAN TO CRETACEOUS

BEDROCK
 R - bedrock; common on plateau summits and ridges on Mt. Mye and Sheep Mountain.

FIGURE 3-5
Faro Mine Borrow Areas
 Faro Mine Remediation Project



SURFICIAL GEOLOGY (BOND, 1999)

QUATERNARY

HOLOCENE

MINE DISTURBANCE
 MD- mine disturbance; consisting of an open-pit and stripped till and bedrock accumulations. Bedrock and surficial sediments exposed in open-pit.

MINE TAILINGS
 MT - mine tailings; consisting of sand, silt and some clay.

ORGANIC DEPOSITS
 O - organics; consisting of woody sedge peat, variable thickness. White River ash accumulations are commonly associated with poorly drained peaty areas.

ALLUVIAL DEPOSITS
 Ap - alluvial plain; silt, sand and pebbles with reworked cobbles and boulders occurring as bars, overbank floodplain deposits, 0 - 10 m thick; floodplain subject to periodic floods. Small valley alluvial plains may not be mapped at this scale.
 Ap (active) - alluvial plain; area of Pelly River floodplain that has been recently active.
 At - alluvial terrace; silt, sand, and pebbles with reworked cobbles and boulders occurring as low terrace deposits, 0 - 10 m thick.
 Af - alluvial fan; coarse sand, pebbles, cobbles and mudflow deposits, up to or >10 m thick. Appear as vegetated, often peat covered, landforms developed during post-glacial sedimentation.
 Ax - complexes of Ap and Af undivided. Common when a stream is unconfined and also in narrow valleys where side-entry alluvial fans cannot be differentiated from an alluvial plain.

PLEISTOCENE AND HOLOCENE (UNDIVIDED)

COLLUVIAL DEPOSITS
 Cv - colluvium veneer; conforms to bedrock topography, <1 m thick.
 Ca - colluvium apron; coalescing colluvial fans at the base of a slope, >1 m thick.
 Cz - mass wasting; includes slumping, debris slides and rockfalls. Slumping and rockfalls are common on Mt. Mye.

LATE PLEISTOCENE (WISCONSINAN) - McCONNELL GLACIATION

GLACIOLACUSTRINE DEPOSITS
 Lb - glaciolacustrine blanket, 1- 40 m thick.

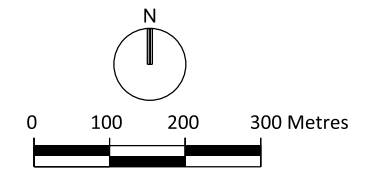
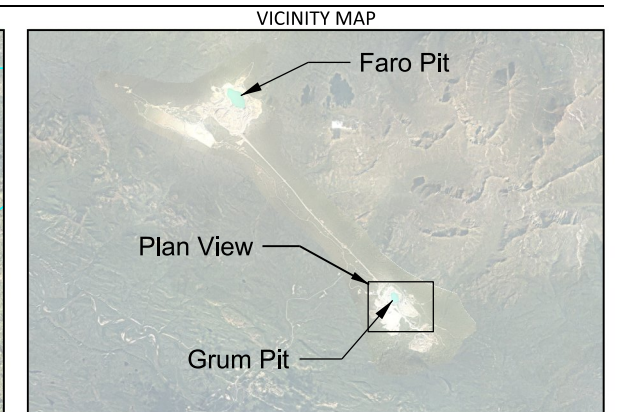
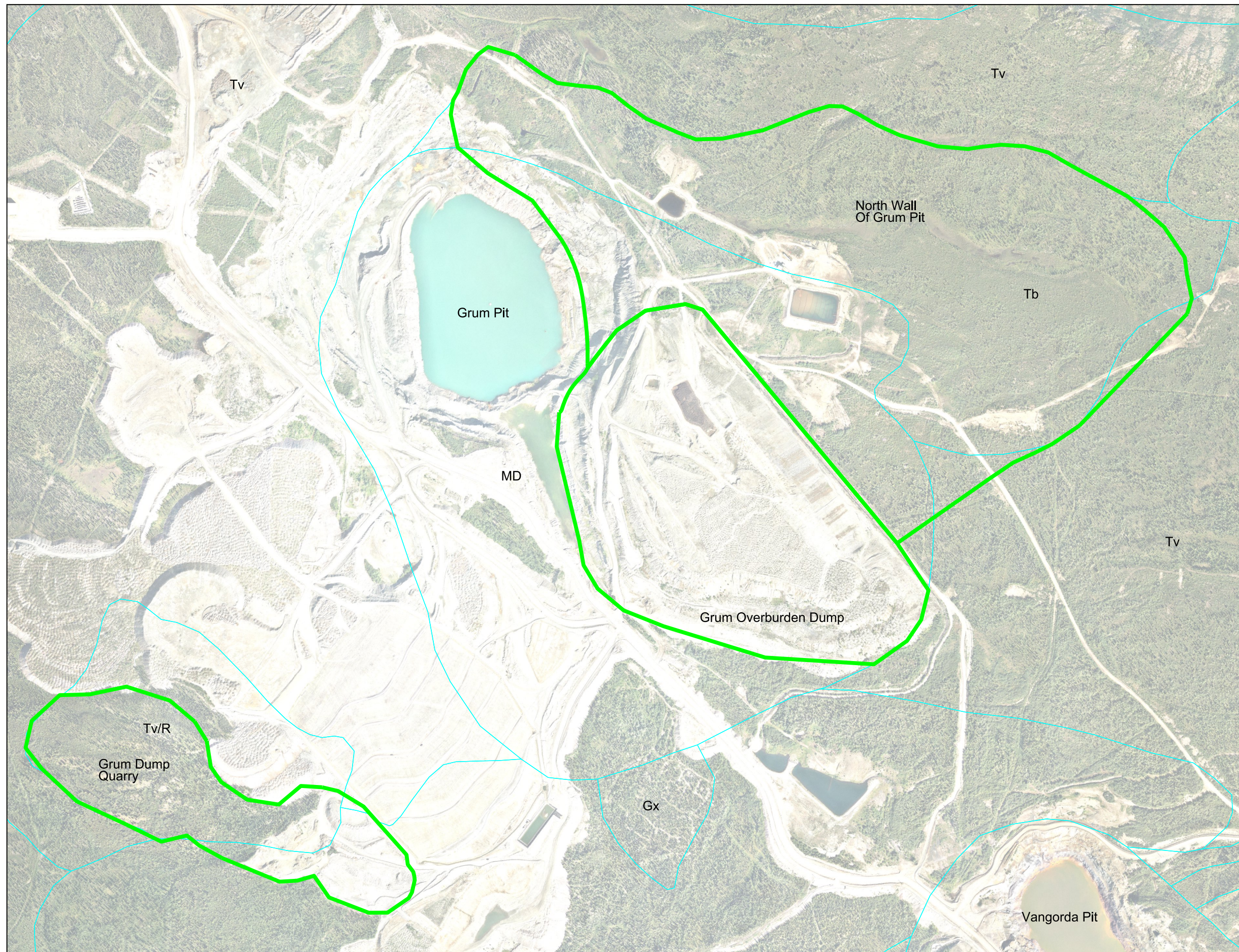
GLACIOFLUVIAL DEPOSITS
 Gp - glaciofluvial plain; 3 - 10 m thick.
 Gt - glaciofluvial terrace; <10 m thick.
 Gx - glaciofluvial complex; 1 - 30 m thick, composed of deposits of outwash, glaciolacustrine and minor till deposited in an ice contact environment. Hummocky topography is associated with this depositional setting. Crevasse fillings were mapped in the upper part of Vangorda Creek valley.

GLACIAL DEPOSITS
 Tv - till veneer; conforms to underlying topography, <1 m thick.
 Tb - till blanket; gently to moderately sloping plain controlled by bedrock or underlying surficial deposits, >1 m thick.
 Tx - till complex; till blanket or veneer composed of meltout till and minor ice contact glaciofluvial deposits.

LOWER CAMBRIAN TO CRETACEOUS

BEDROCK
 R - bedrock; common on plateau summits and ridges on Mt. Mye and Sheep Mountain.

FIGURE 3-6
Haul Road Borrow Areas
 Faro Mine Remediation Project



LEGEND

	Geological Boundary
	Borrow Boundary

SURFICIAL GEOLOGY (BOND, 1999)

QUATERNARY

HOLOCENE

MINE DISTURBANCE
 MD - mine disturbance; consisting of an open-pit and stripped till and bedrock accumulations. Bedrock and surficial sediments exposed in open-pit.

MINE TAILINGS
 MT - mine tailings; consisting of sand, silt and some clay.

ORGANIC DEPOSITS
 O - organics; consisting of woody sedge peat, variable thickness. White River ash accumulations are commonly associated with poorly drained peaty areas.

ALLUVIAL DEPOSITS
 Ap - alluvial plain; silt, sand and pebbles with reworked cobbles and boulders occurring as bars, overbank floodplain deposits, 0 - 10 m thick; floodplain subject to periodic floods. Small valley alluvial plains may not be mapped at this scale.
 Ap (active) - alluvial plain; area of Pelly River floodplain that has been recently active.
 At - alluvial terrace; silt, sand, and pebbles with reworked cobbles and boulders occurring as low terrace deposits, 0 - 10 m thick.
 Af - alluvial fan; coarse sand, pebbles, cobbles and mudflow deposits, up to or >10 m thick. Appear as vegetated, often peat covered, landforms developed during post-glacial sedimentation.
 Ax - complexes of Ap and Af undivided. Common when a stream is unconfined and also in narrow valleys where side-entry alluvial fans cannot be differentiated from an alluvial plain.

PLEISTOCENE AND HOLOCENE (UNDIVIDED)

COLLUVIAL DEPOSITS
 Cv - colluvium veneer; conforms to bedrock topography, <1 m thick.
 Ca - colluvium apron; coalescing colluvial fans at the base of a slope, >1 m thick.
 Cz - mass wasting; includes slumping, debris slides and rockfalls. Slumping and rockfalls are common on Mt. Mye.

LATE PLEISTOCENE (WISCONSINAN) - McCONNELL GLACIATION

GLACIOLACUSTRINE DEPOSITS
 Lb - glaciolacustrine blanket, 1- 40 m thick.

GLACIOFLUVIAL DEPOSITS
 Gp - glaciofluvial plain; 3 - 10 m thick.
 Gt - glaciofluvial terrace; <10 m thick.
 Gx - glaciofluvial complex; 1 - 30 m thick, composed of deposits of outwash, glaciolacustrine and minor till deposited in an ice contact environment. Hummocky topography is associated with this depositional setting. Crevasse fillings were mapped in the upper part of Vangorda Creek valley.

GLACIAL DEPOSITS
 Tv - till veneer; conforms to underlying topography, <1 m thick.
 Tb - till blanket; gently to moderately sloping plain controlled by bedrock or underlying surficial deposits, >1 m thick.
 Tx - till complex; till blanket or veneer composed of meltout till and minor ice contact glaciofluvial deposits.

LOWER CAMBRIAN TO CRETACEOUS

BEDROCK
 R - bedrock; common on plateau summits and ridges on Mt. Mye and Sheep Mountain.

FIGURE 3-7
Vangorda / Grum Borrow Areas
 Faro Mine Remediation Project

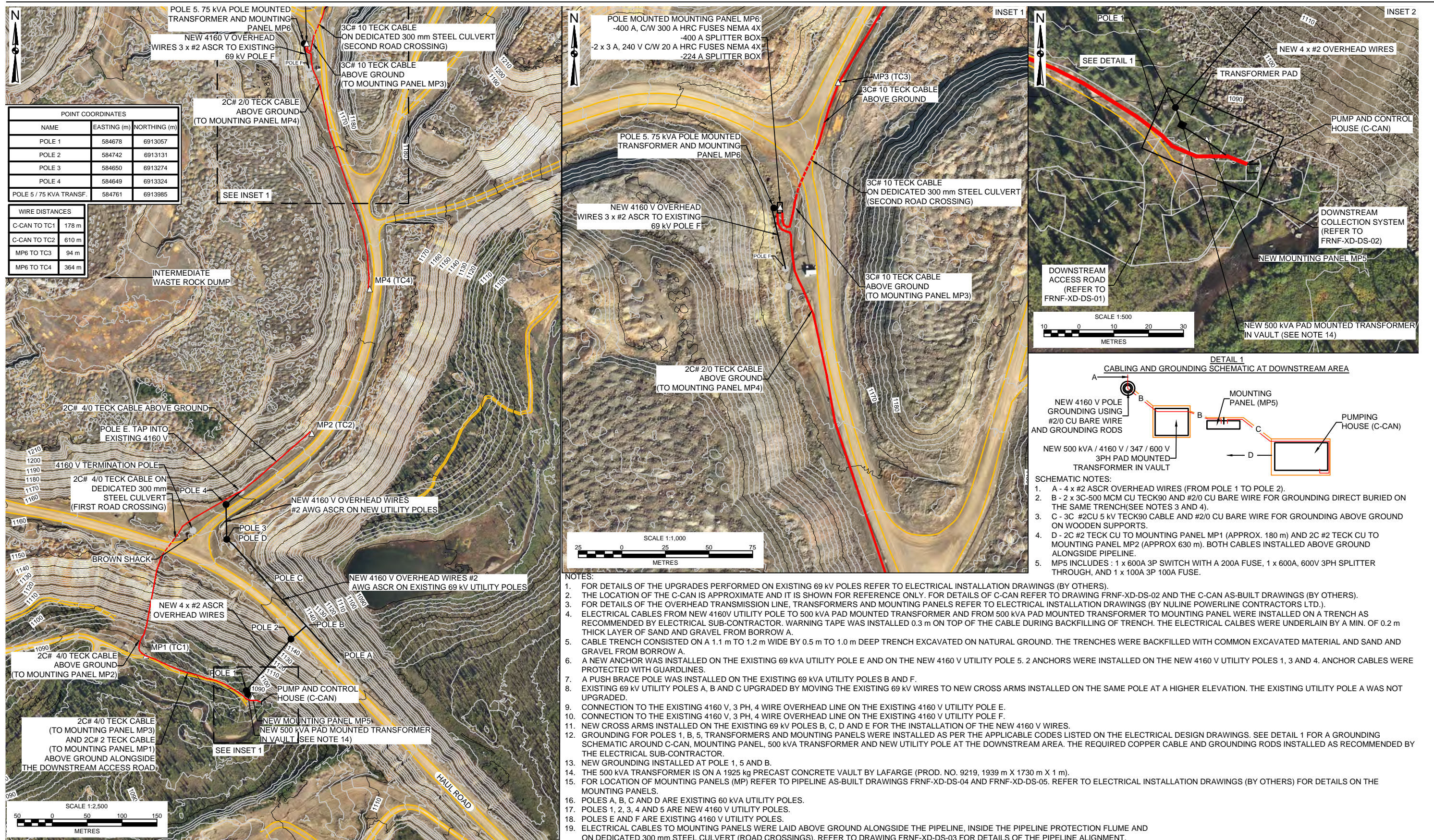
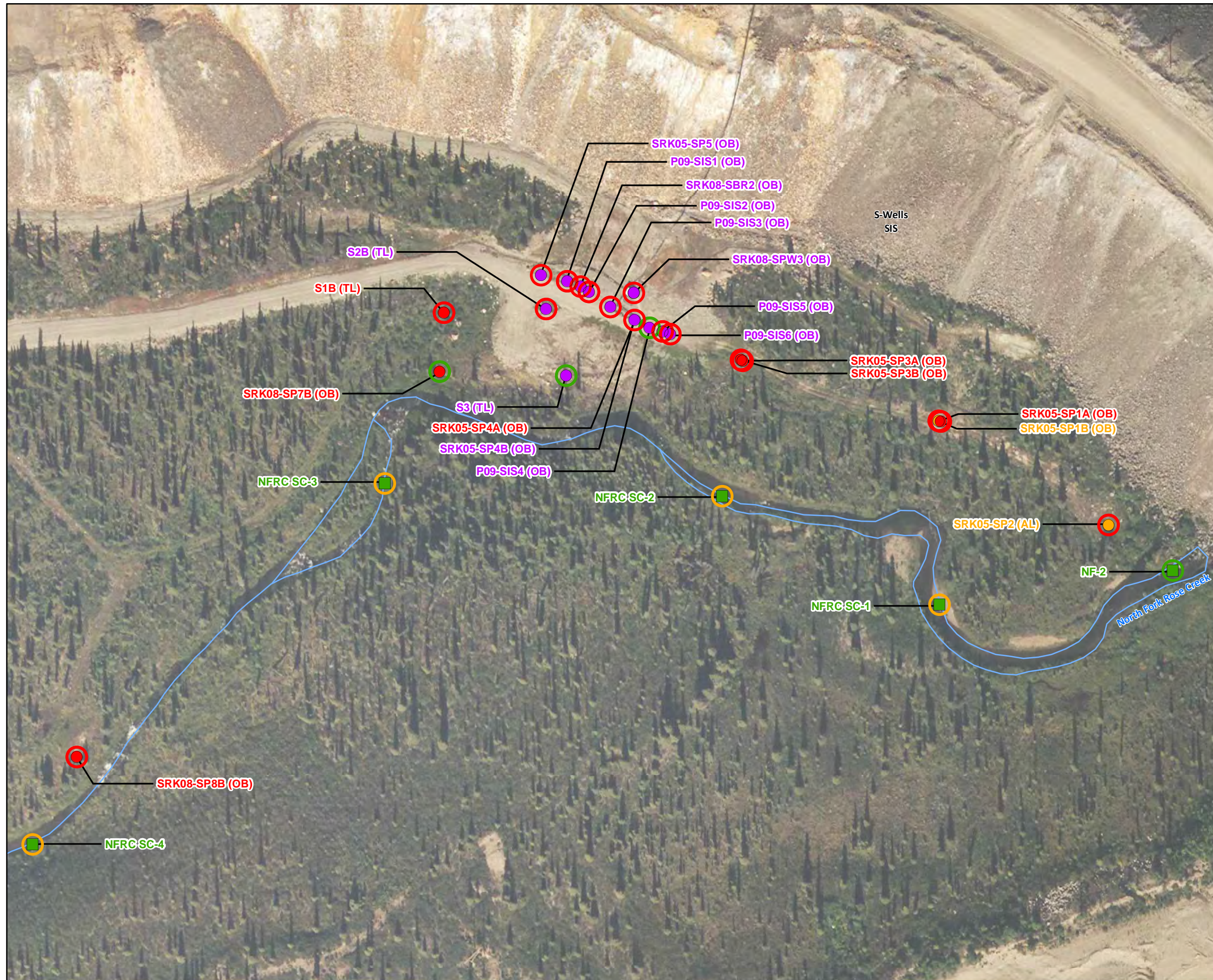


FIGURE 5-1
4.16 kV Overhead Distribution Line
As-built Drawing
Faro Mine Remediation Project



LEGEND

Location Type

- Groundwater Monitoring Well Location
- Surface Water Sampling Location
- △ Seep Sampling Location

Impact Level

- Highly Impacted (SO₄ ≥ 4,000 mg/L or Zn ≥ 5 mg/L)
- Moderately Impacted (SO₄ ≥ 400 and < 4,000 mg/L or Zn ≥ 0.5 and > 5 mg/L)
- Slightly Impacted (SO₄ ≥ 40 and < 400 mg/L or Zn ≥ 0.05 and > 0.5 mg/L)
- Not Impacted to Mildly Impacted (SO₄ < 40 mg/L and Zn < 0.05 mg/L)
- No Data

pH

- High (pH ≥ 7.5)
- Neutral (pH ≥ 6.5 and < 7.5)
- Low (pH ≥ 5 and < 6.5)
- Very Low (pH < 5)

Notes:

1. All locations are approximate pending results of the 2012 field survey.
2. Abbreviations:
(AL) = Alluvium
(OB) = Overburden
(TL) = Tailings
3. Symbol colour shows the highest impact at each well pair or cluster location. Sample location text colour shows impact level of that particular location.

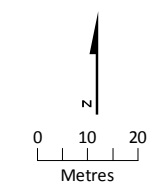
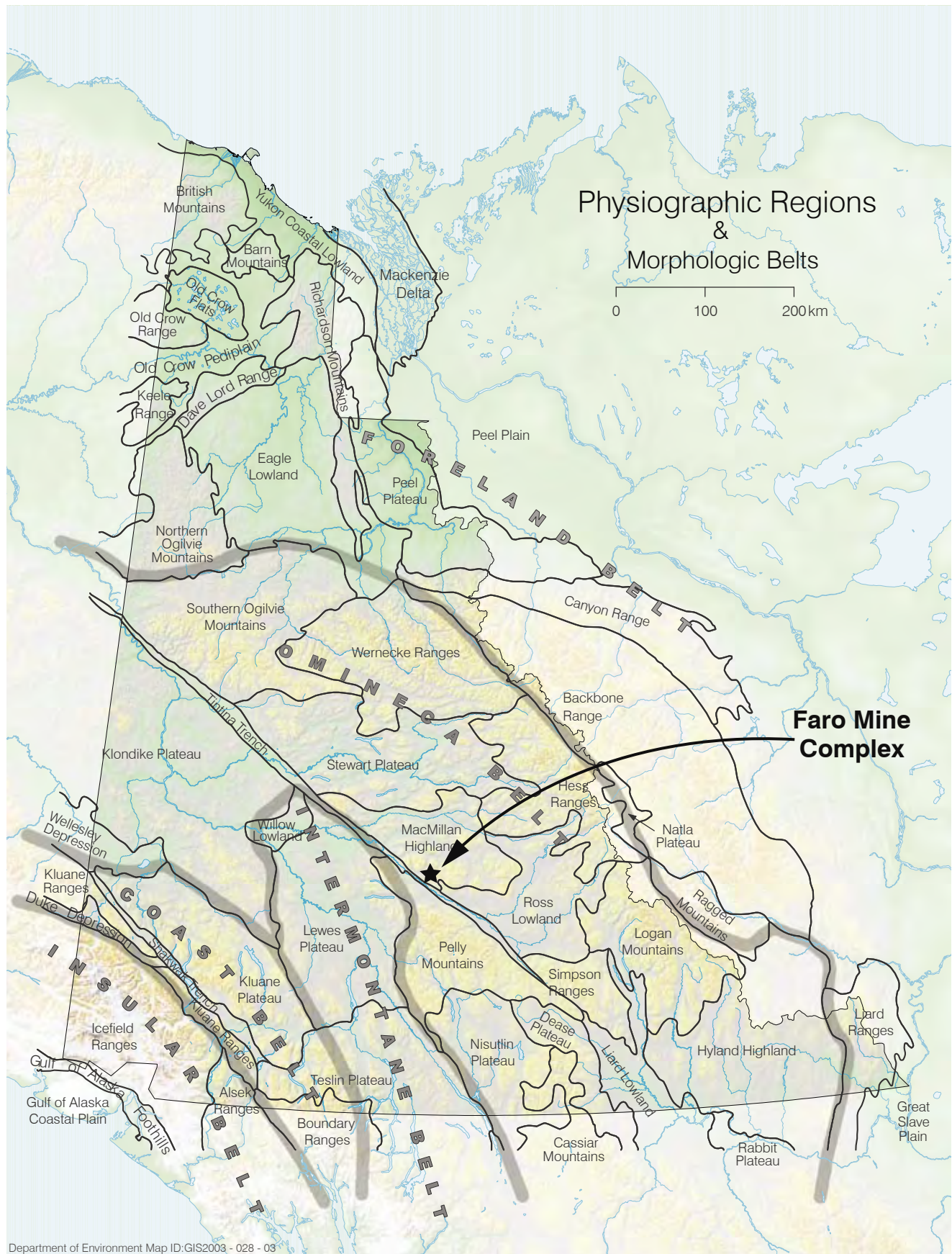


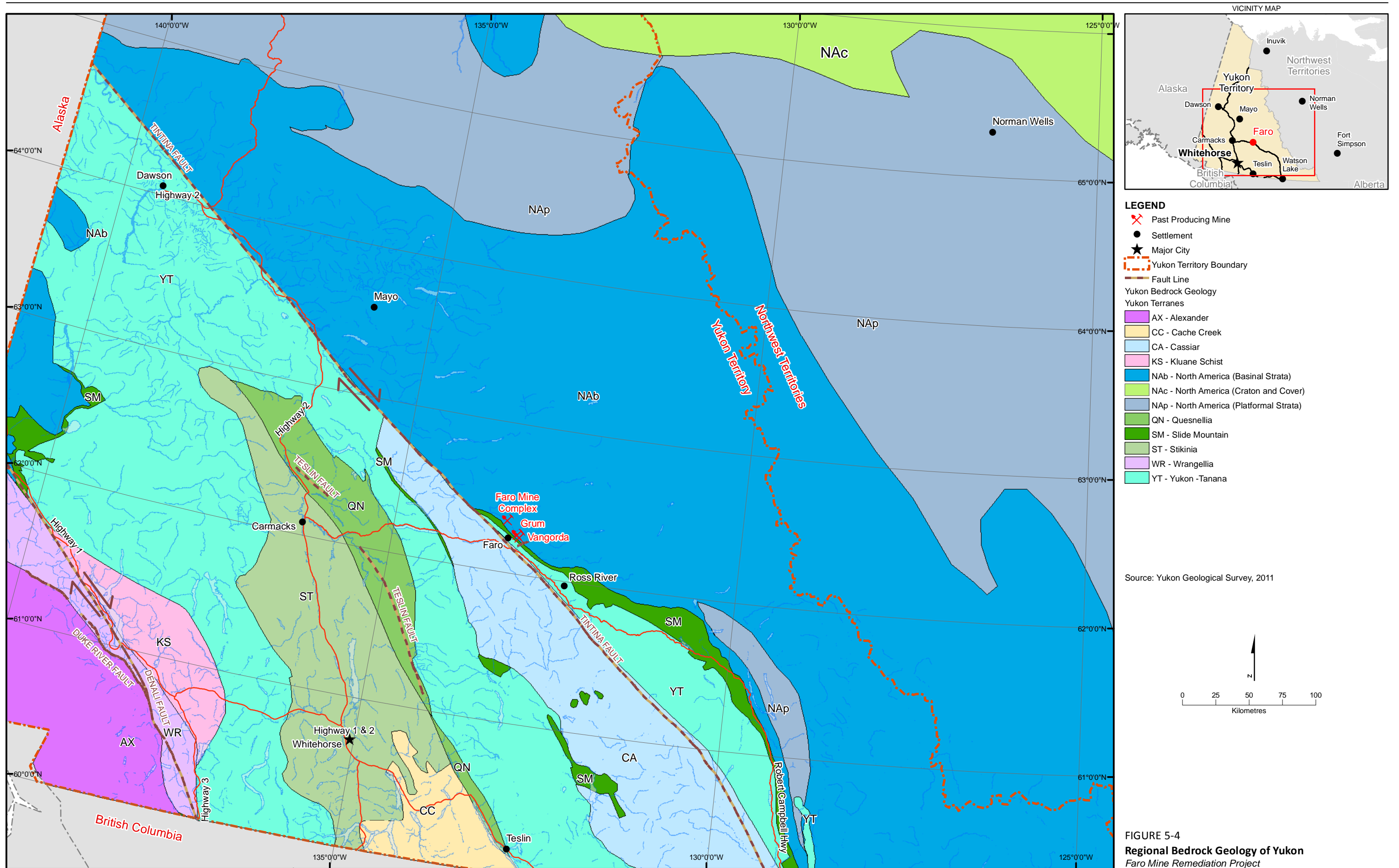
FIGURE 5-2
S-Wells Groundwater Monitoring Locations
Faro Mine Remediation Project

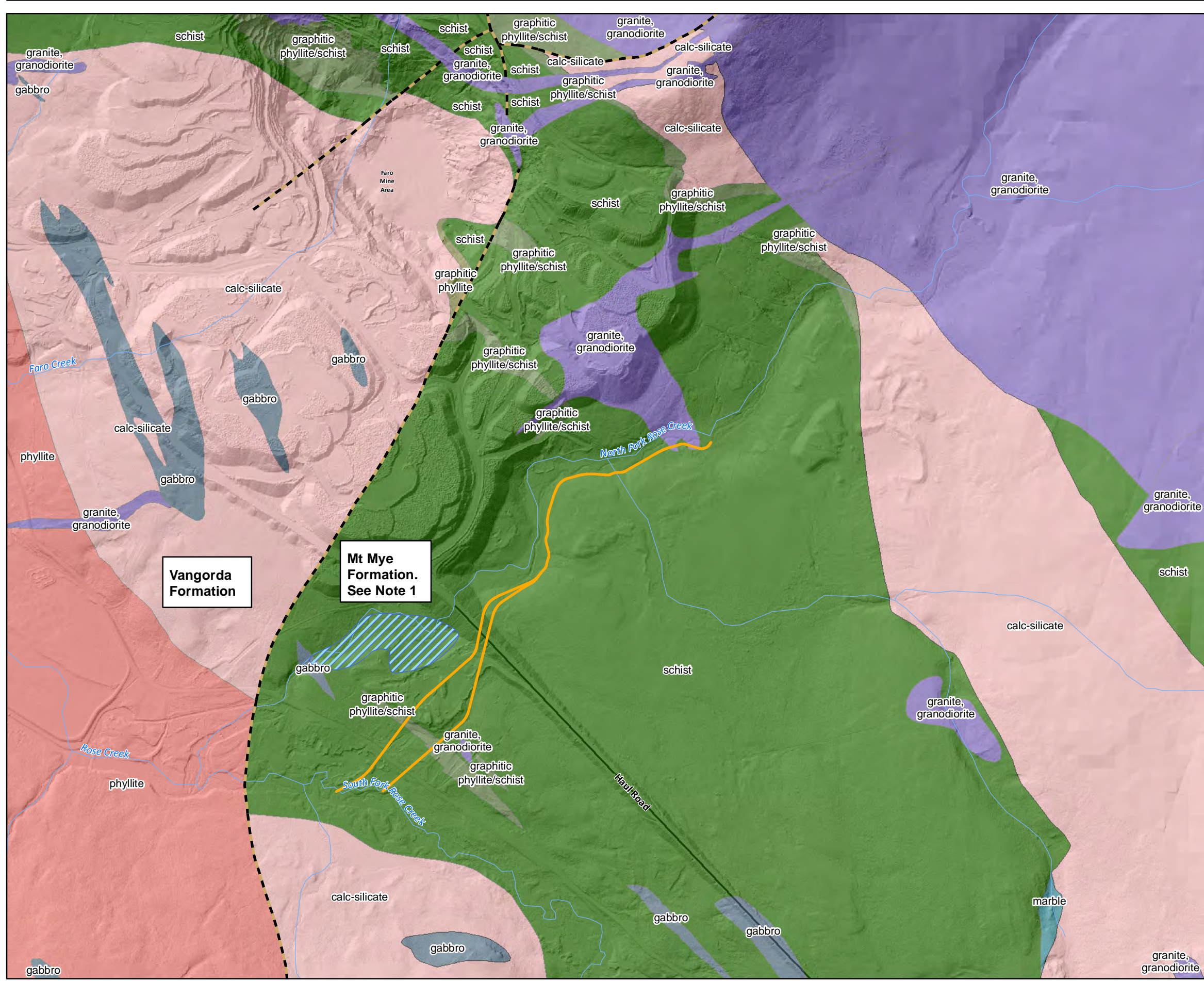


Department of Environment Map ID:GIS2003 - 028 - 03

FIGURE 5-3
Physiographic Regions and
Morphologic Belts of the Yukon
Faro Mine Remediation Project

Source: Adapted from Mathews (1986) and Gabrielse et al. (1991)





LEGEND

- NFRS Realigned Channel Options
- Major Fault
- NFRS Seepage Collection Pond

Bedrock Geology

- granite, granodiorite
- calc-silicate
- gabbro
- graphitic phyllite
- graphitic phyllite/schist
- marble
- phyllite
- schist

Notes:
 1. Portion of Menzie Creek formation not shown within Mt Mye formation.
 Source: Yukon Geological Survey, 2011

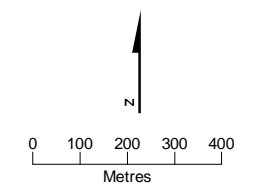
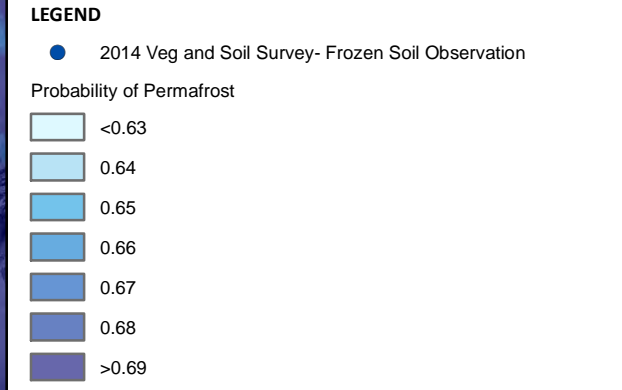
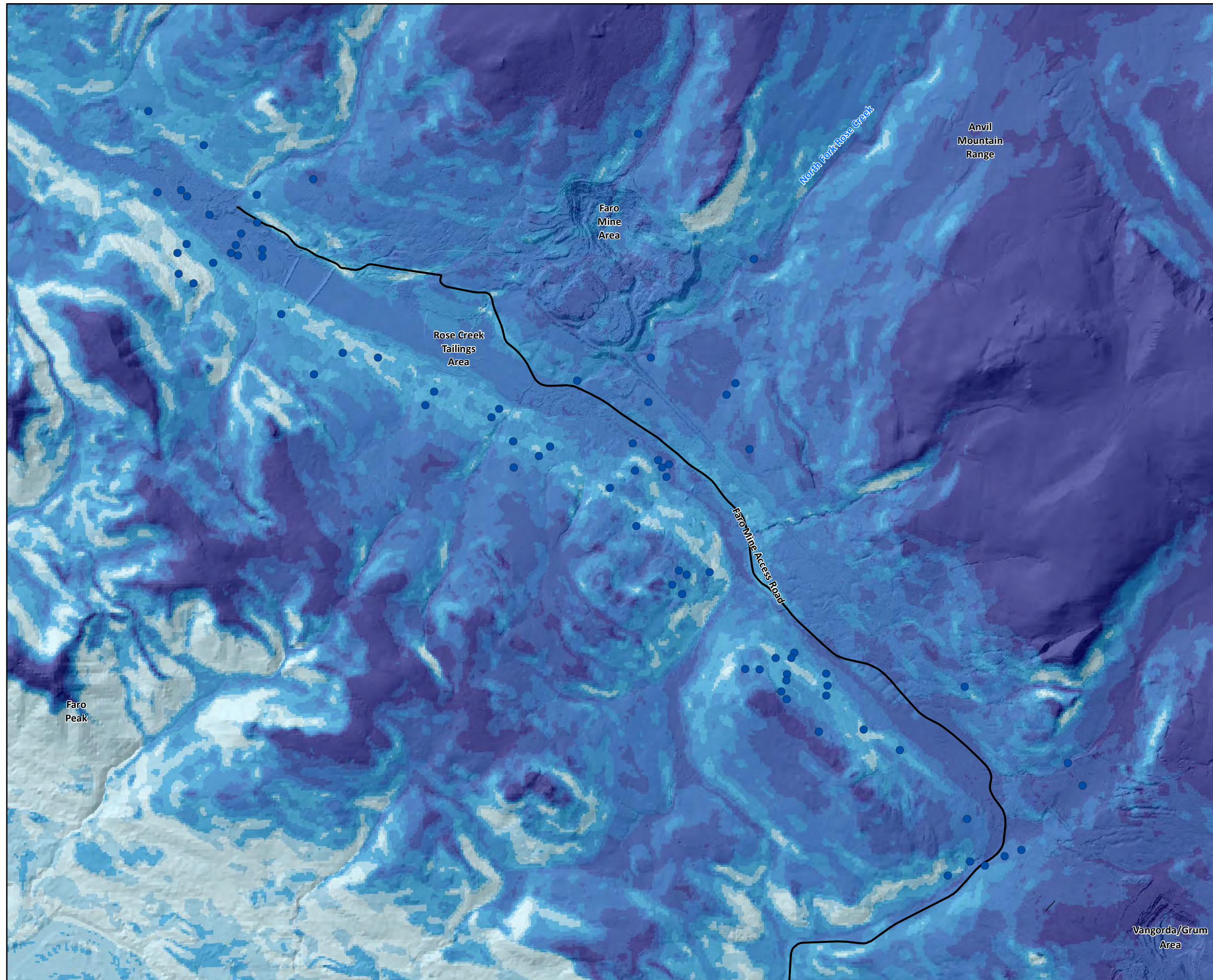


FIGURE 5-5
Bedrock Geology and Faults of the
NFRS Project Area
 Faro Mine Remediation Project



Note:
 1. Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, icubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

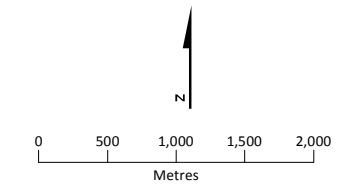


FIGURE 5-6
Probability of Permafrost
 Faro Mine Remediation Project

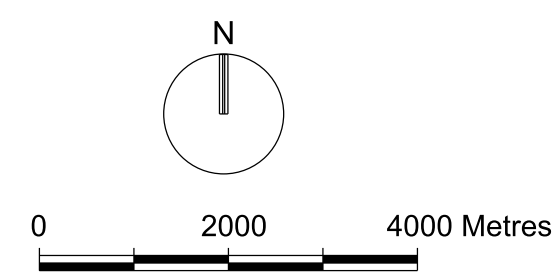
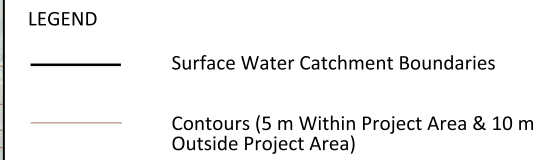
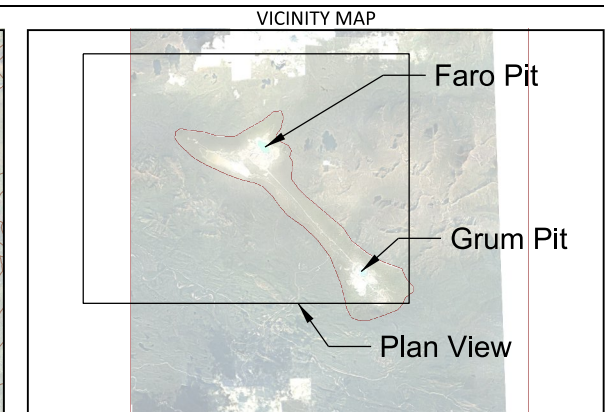
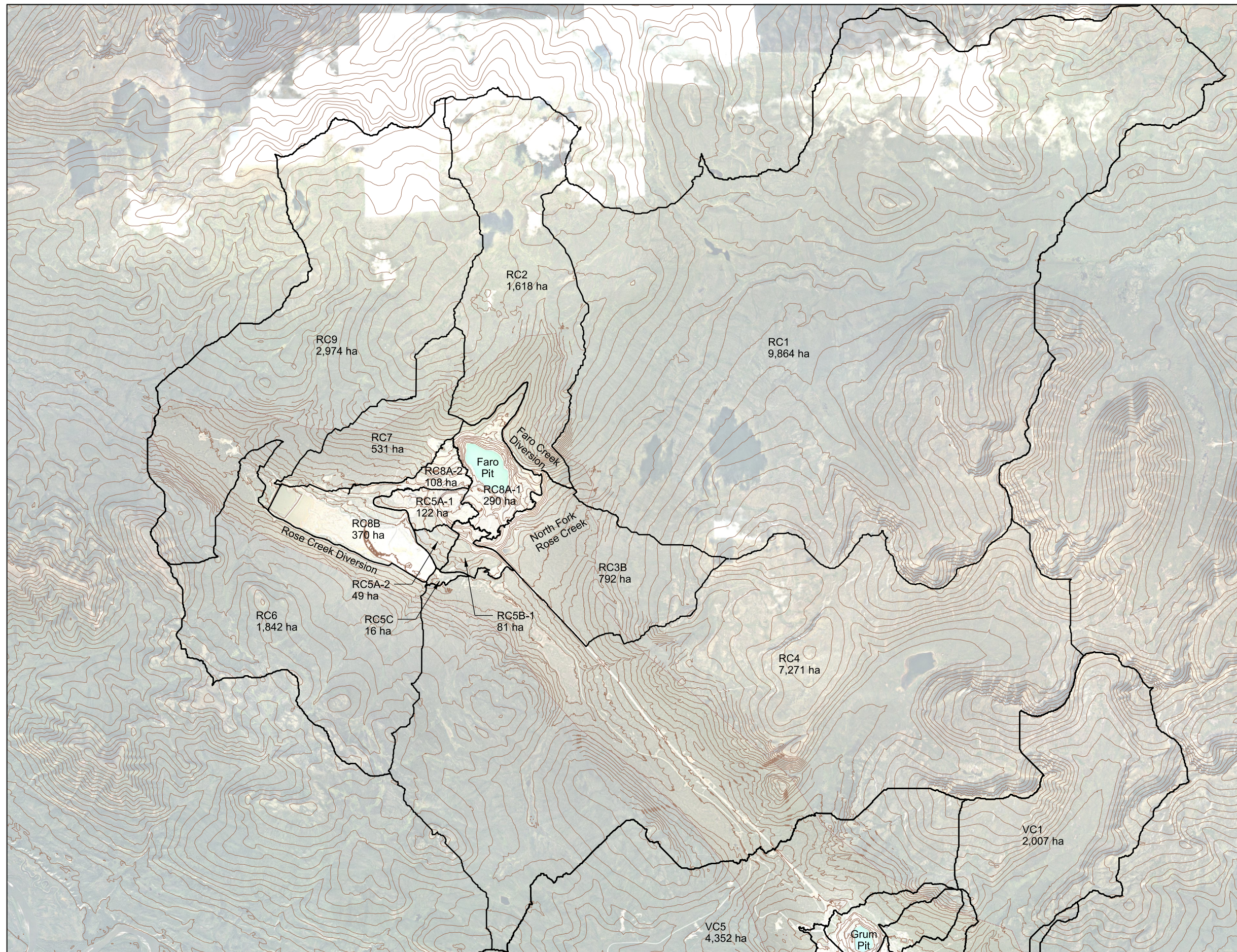


Figure 5-7
NFRC Regional Surface Water Catchment Boundaries
 Faro Mine Remediation Project



LEGEND

Location Type

- Groundwater Monitoring Well Location
- Surface Water Sampling Location
- △ Seep Sampling Location

Impact Level

- Highly Impacted
(SO₄ ≥ 4,000 mg/L or Zn ≥ 5 mg/L)
- Moderately Impacted
(SO₄ ≥ 400 and < 4,000 mg/L or Zn ≥ 0.5 and > 5 mg/L)
- Slightly Impacted
(SO₄ ≥ 40 and < 400 mg/L or Zn ≥ 0.05 and > 0.5 mg/L)
- Not Impacted to Mildly Impacted
(SO₄ < 40 mg/L and Zn < 0.05 mg/L)

Notes:

1. All locations are approximate pending results of the 2012 field survey.
2. Symbol colour shows the highest impact at each well pair or cluster location.

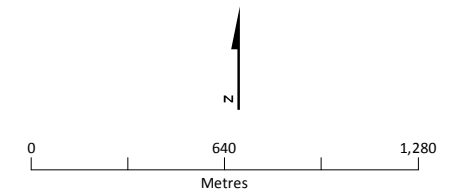
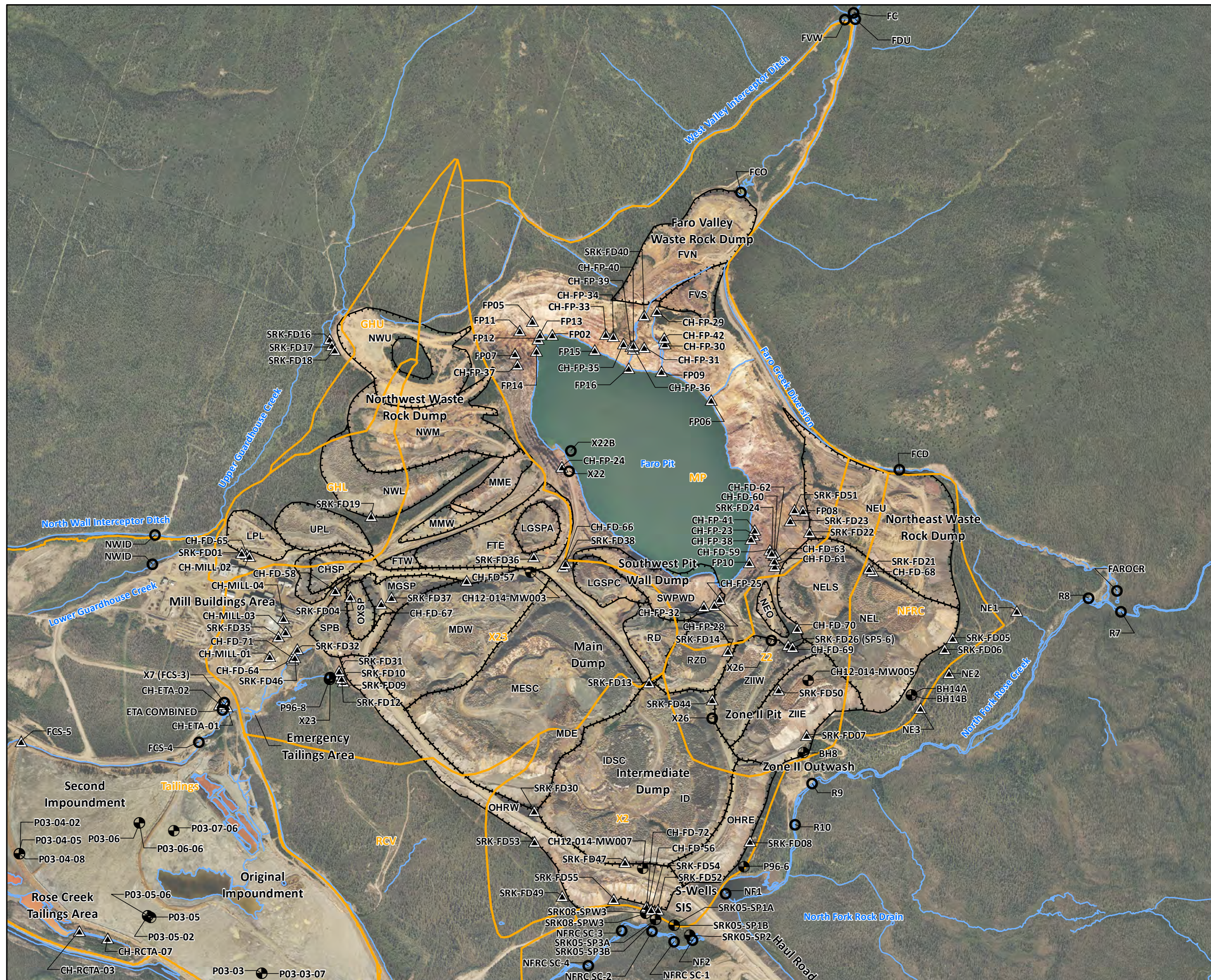


FIGURE 5-8
Water Quality at Seeps and in the Alluvial Aquifer of the Faro Mine Area
Faro Mine Remediation Project



LEGEND

- Monitoring Well Location
- Surface Water Location
- ▲ Seep Location
- ▭ Catchment Area
- ▭ Waste Dump

Notes:

1. Aerial photography acquired by Peregrine Aerial Surveyors Inc. and Eagle Mapping in August 2012.
2. Orthophotography prepared by Critigen Canada Corp.
3. Rose Creek Tailings Area is also called Down Valley Tailings Area, and is where the Rose Creek Alluvial Aquifer is located.
4. Waste Rock Dump Definitions:

<ul style="list-style-type: none"> CHSP - Crusher Stockpile FTE - Fuel Tank East FTW - Fuel Tank West FVN - Faro Valley North FVS - Faro Valley South ID - Intermediate Dump IDSC - Intermediate Dump Sulphide Cell LGSPA - Low Grade Stockpile A LGSPC - Low Grade Stockpile C LPL - Lower Parking Lot MDE - Main Dump East MDW - Main Dump West MESC - Main Dump Sulphide Cell MGSP - Medium Grade Stockpile MME - Mt. Mungly East MMW - Mt. Mungly West 	<ul style="list-style-type: none"> NEL - Northeast Lower NELS - Northeast Lower Sulphide Cell NEO - Northeast Outer NEU - Northeast Upper NWL - Northwest Lower NWM - Northwest Middle NWU - Northwest Upper OHRE - Outer Haul Road East OHRW - Outer Haul Road West OXSP - Oxide Fines Stockpile RD - Ranch Dump RZD - Ramp Zone Dump SPB - Stock Piles Base SWPWD - Southwest Pit Wall Dump UPL - Upper Parking Lot
--	--

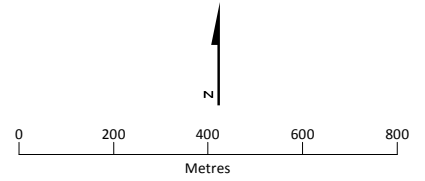
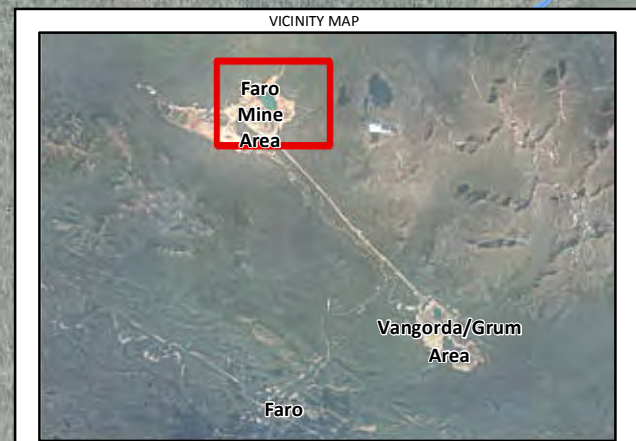
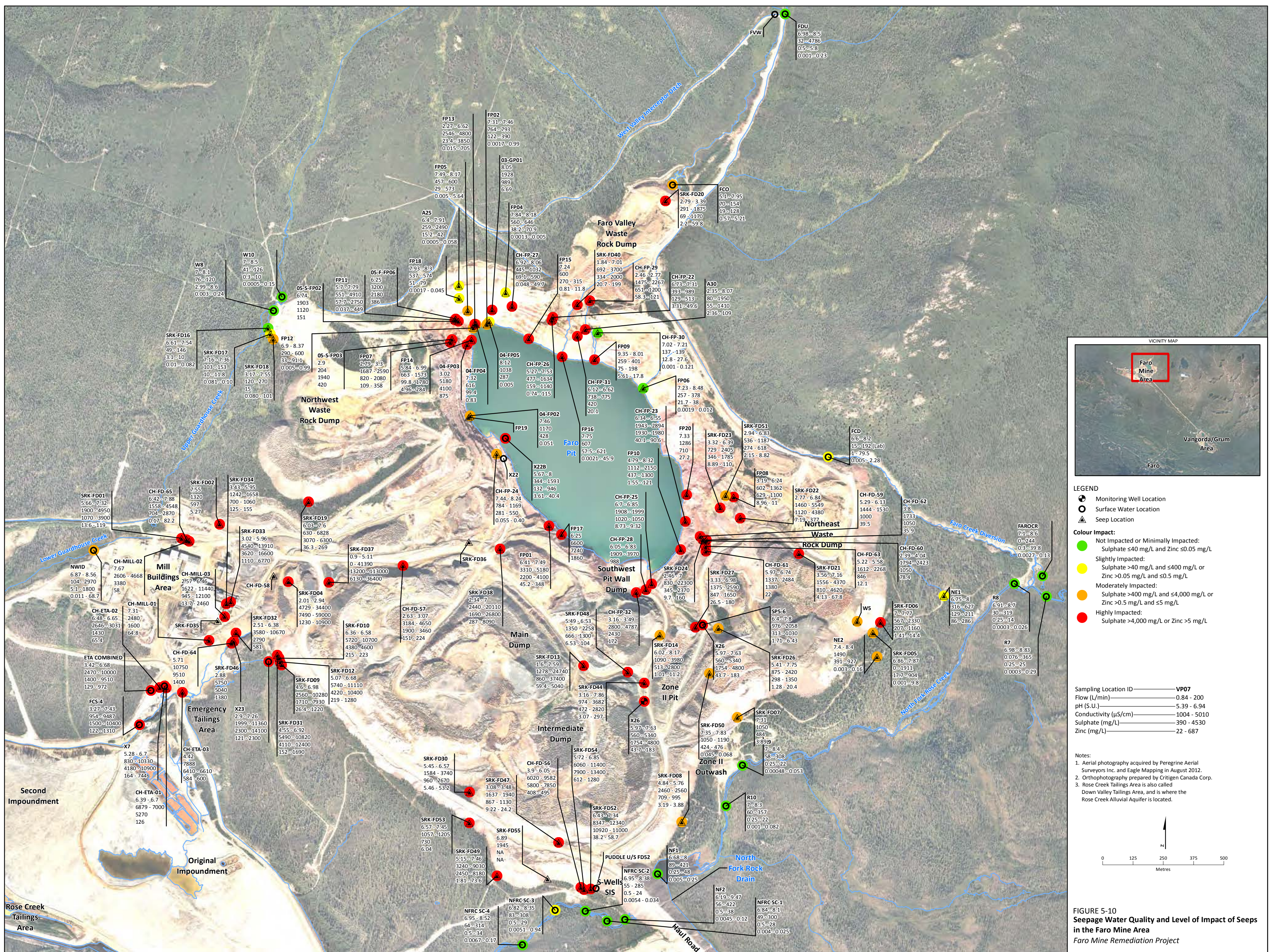


FIGURE 5-9
Seep and Surface Water Monitoring Stations,
Waste Dump Boundaries, and Catchment
Boundaries in the Faro Pit Area
 Faro Mine Remediation Project



LEGEND

- Monitoring Well Location
- Surface Water Location
- Seep Location

Colour Impact:

- Not Impacted or Minimally Impacted: Sulphate ≤ 40 mg/L and Zinc ≤ 0.05 mg/L
- Slightly Impacted: Sulphate > 40 mg/L and ≤ 400 mg/L or Zinc > 0.05 mg/L and ≤ 0.5 mg/L
- Moderately Impacted: Sulphate > 400 mg/L and $\leq 4,000$ mg/L or Zinc > 0.5 mg/L and ≤ 5 mg/L
- Highly Impacted: Sulphate $> 4,000$ mg/L or Zinc > 5 mg/L

Sampling Location ID	VP07
Flow (L/min)	0.84 - 200
pH (S.U.)	5.39 - 6.94
Conductivity (μ S/cm)	1004 - 5010
Sulphate (mg/L)	390 - 4530
Zinc (mg/L)	22 - 687

Notes:

- Aerial photography acquired by Peregrine Aerial Surveyors Inc. and Eagle Mapping in August 2012.
- Orthophotography prepared by Critigen Canada Corp.
- Rose Creek Tailings Area is also called Down Valley Tailings Area, and is where the Rose Creek Alluvial Aquifer is located.

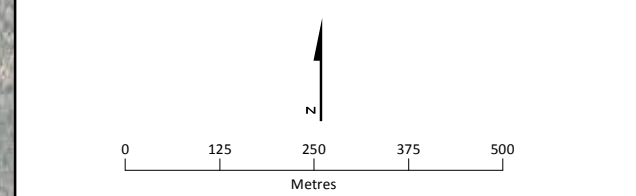


FIGURE 5-10
Seepage Water Quality and Level of Impact of Seeps in the Faro Mine Area
Faro Mine Remediation Project



- LEGEND**
- Monitoring Well Location
 - Surface Water Location
 - ▲ Seep Location
 - Catchment Area

- Notes:**
1. Aerial photography acquired by Peregrine Aerial Surveyors Inc. and Eagle Mapping in August 2012.
 2. Orthophotography prepared by Critigen Canada Corp.
 3. Rose Creek Tailings Area is also called Down Valley Tailings Area.

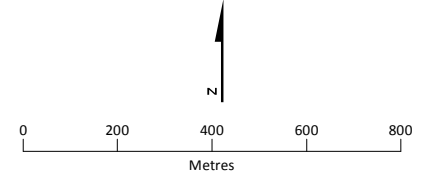


FIGURE 5-11
Seep and Surface Water Monitoring Stations in the Rose Creek Tailings Area
 Faro Mine Remediation Project

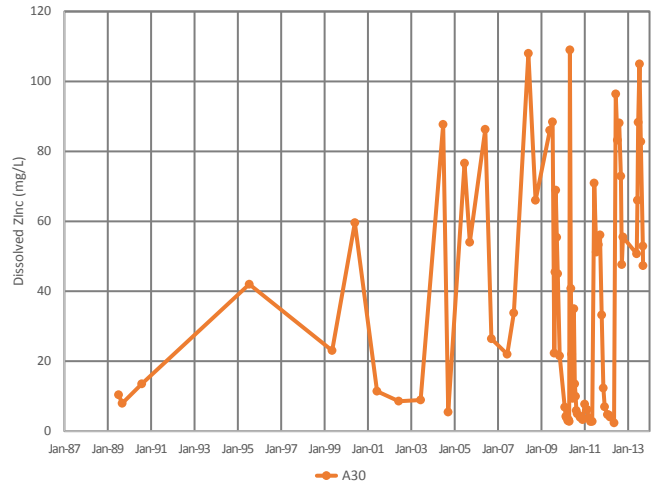
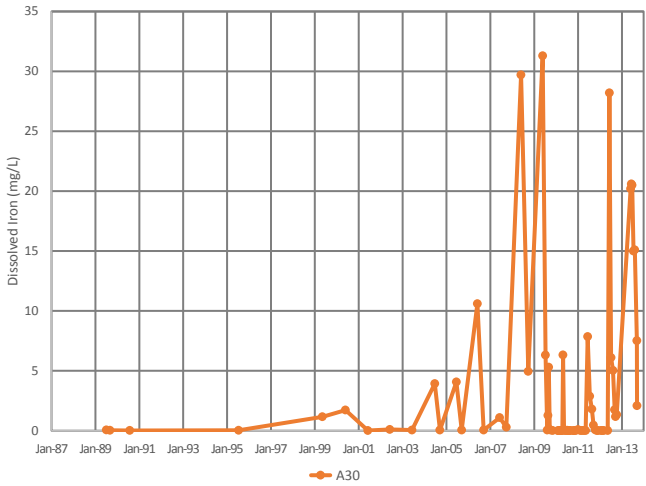
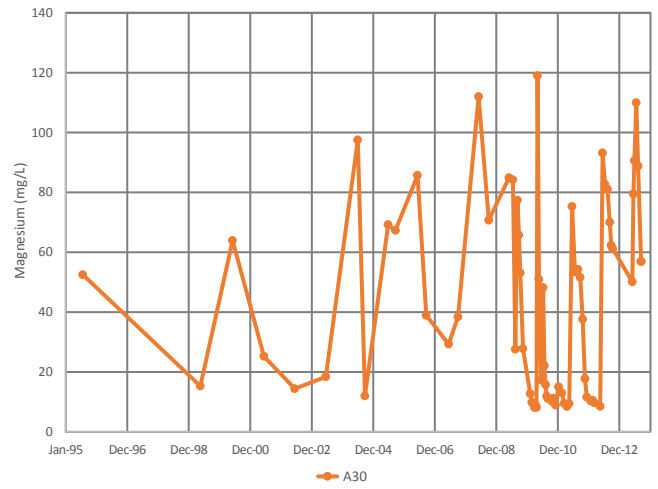
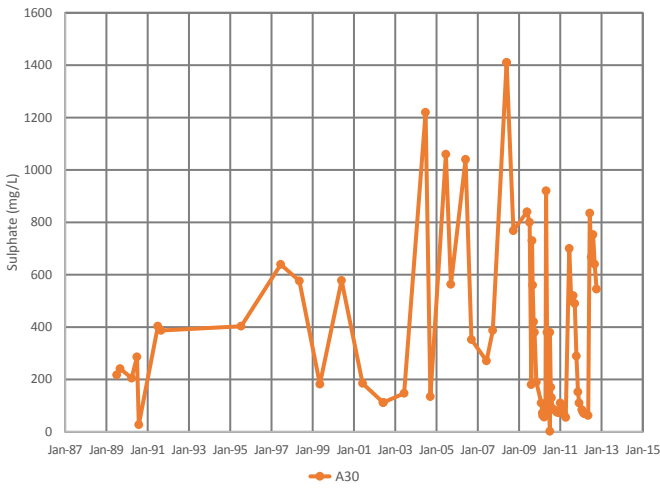
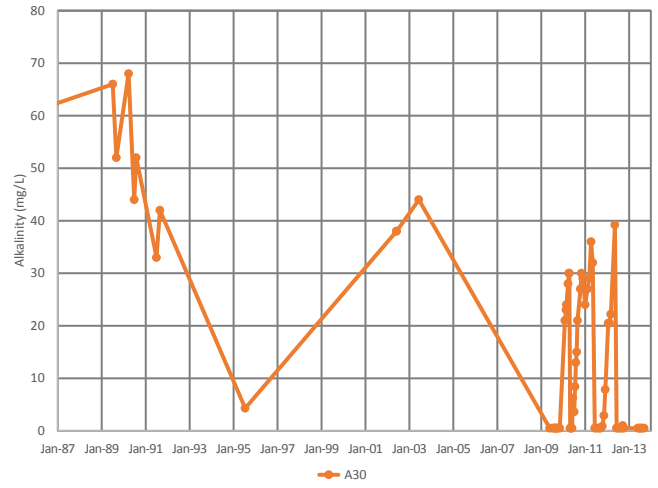
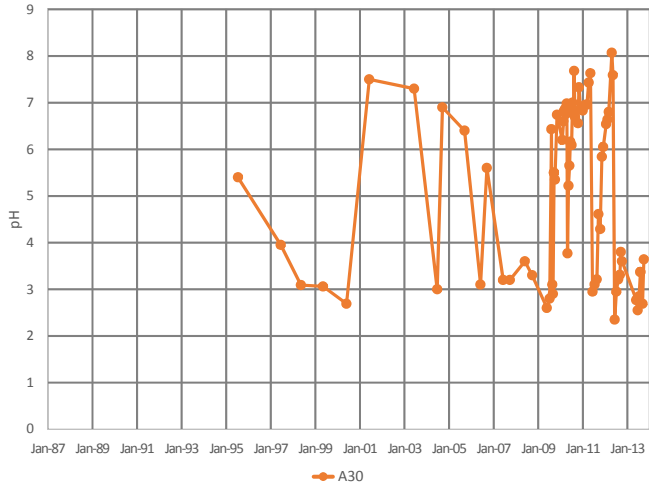


FIGURE 5-12
Trends in Selected Water Quality Parameters
of Seepage from the North Faro Pit Area
Faro Mine Remediation Project

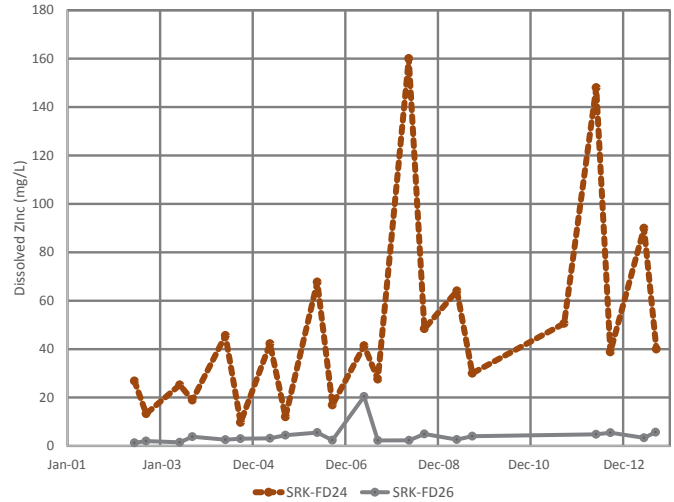
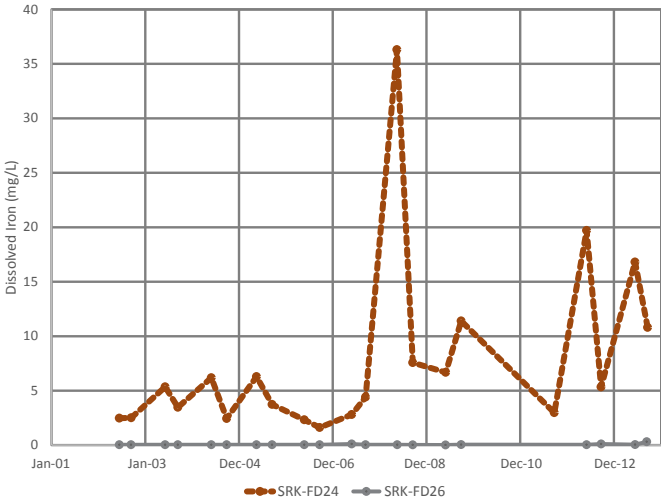
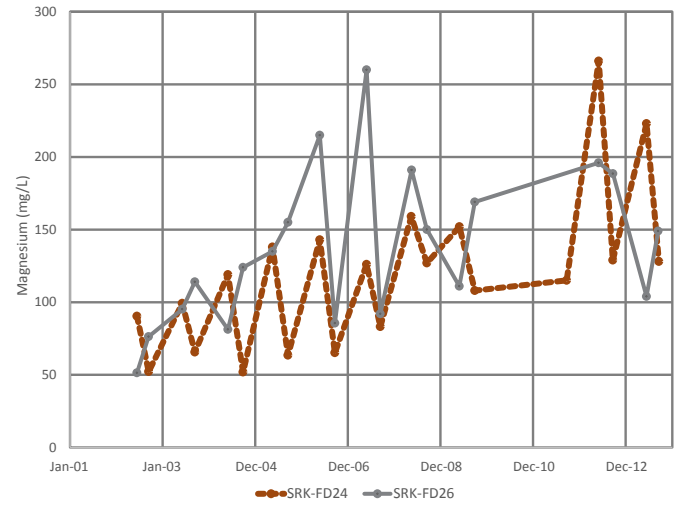
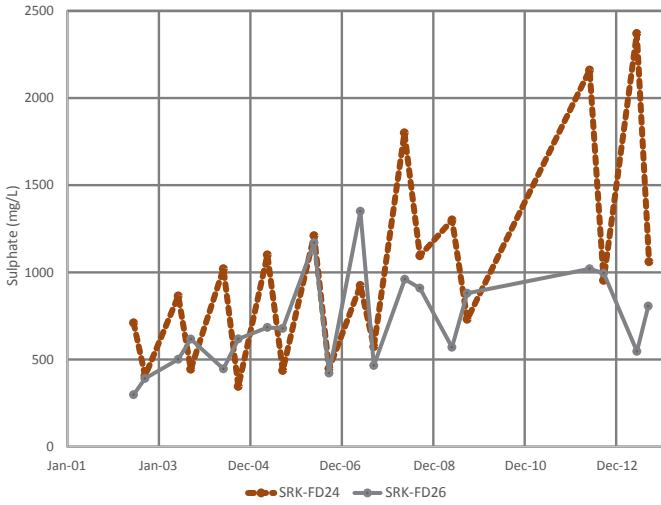
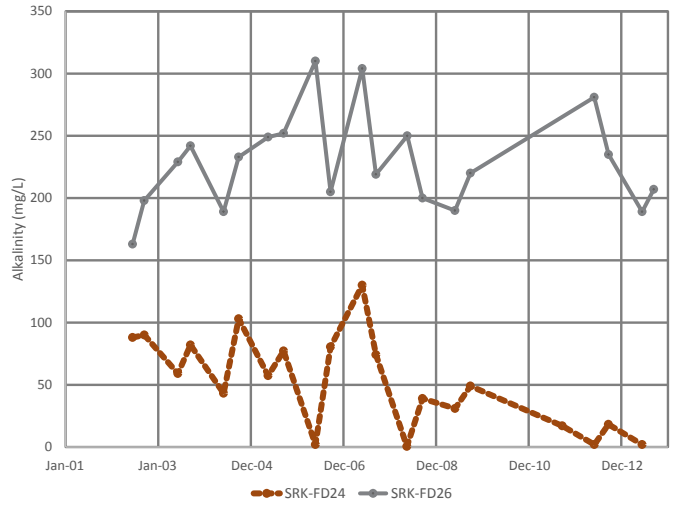
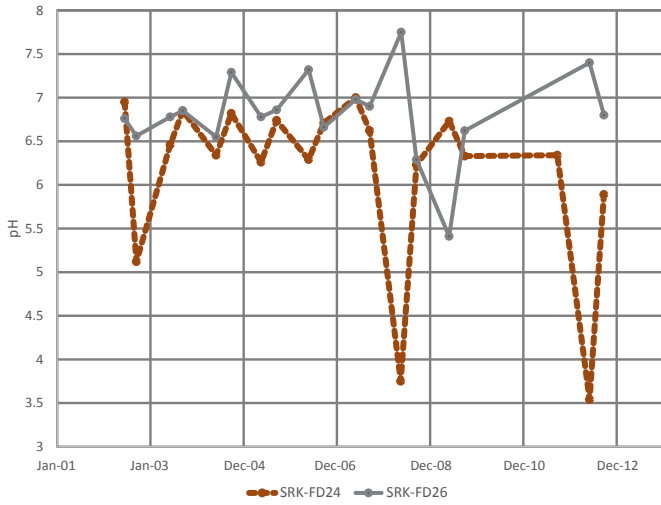


FIGURE 5-13
Trends in Selected Water Quality Parameters
of Seepage from the Northeast Faro Pit Area
Faro Mine Remediation Project

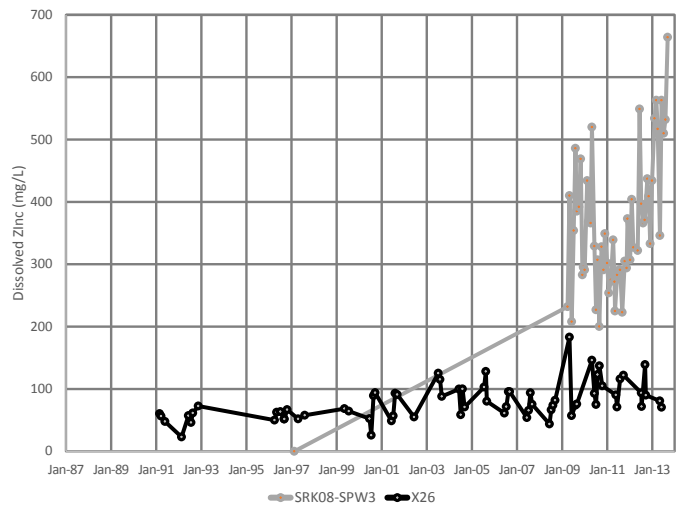
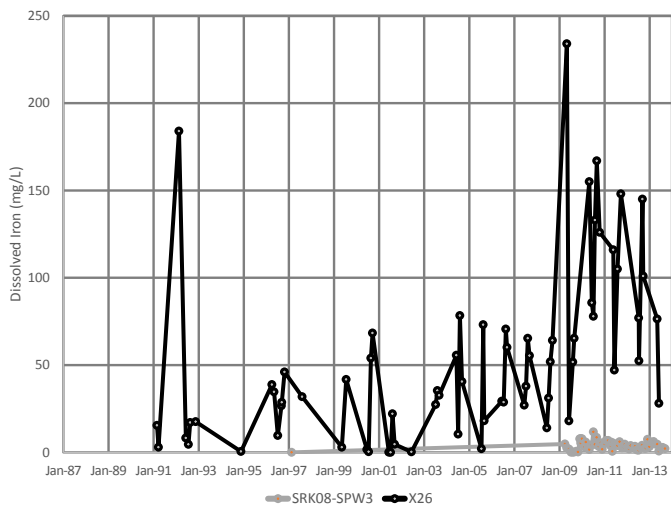
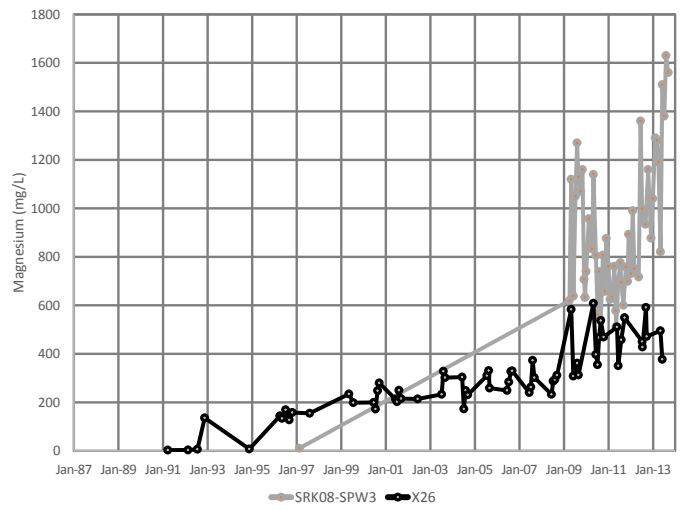
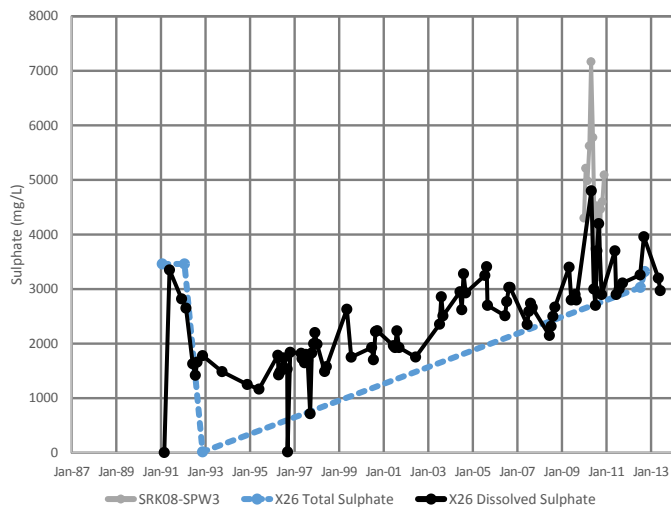
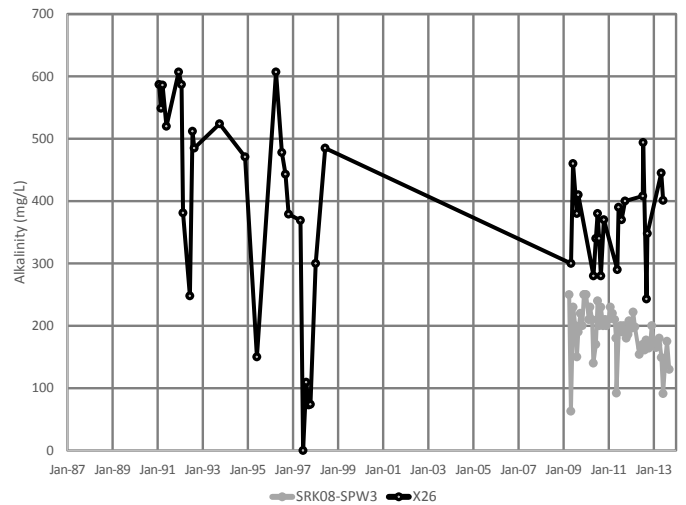
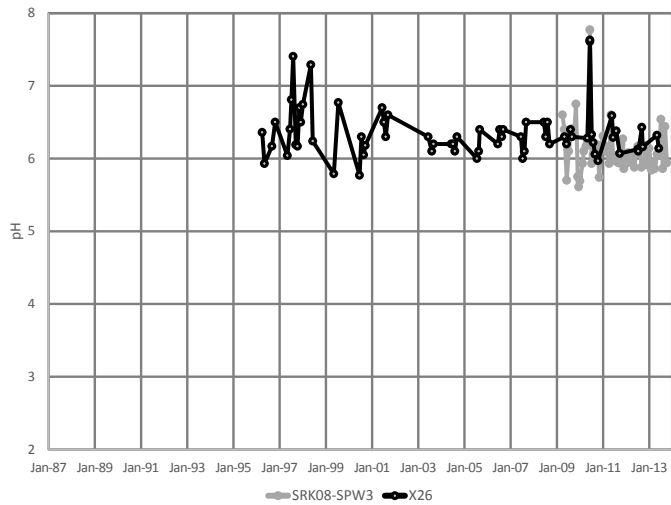


FIGURE 5-14
Trends in Selected Water Quality Parameters of
Intercepted Water from the Zone II and S-wells Area
Faro Mine Remediation Project

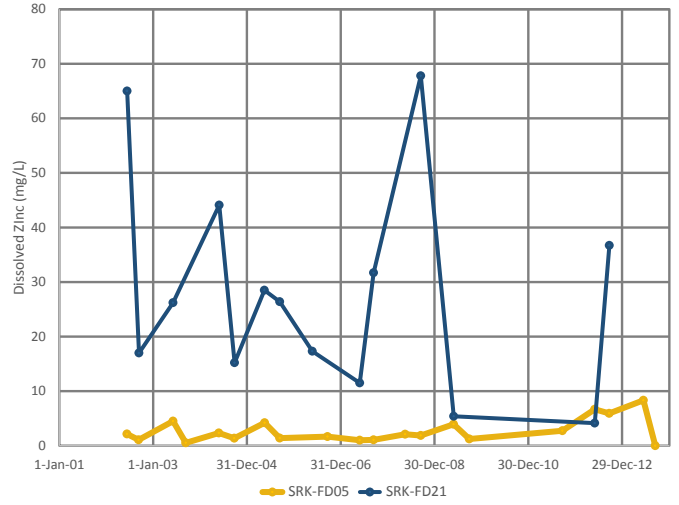
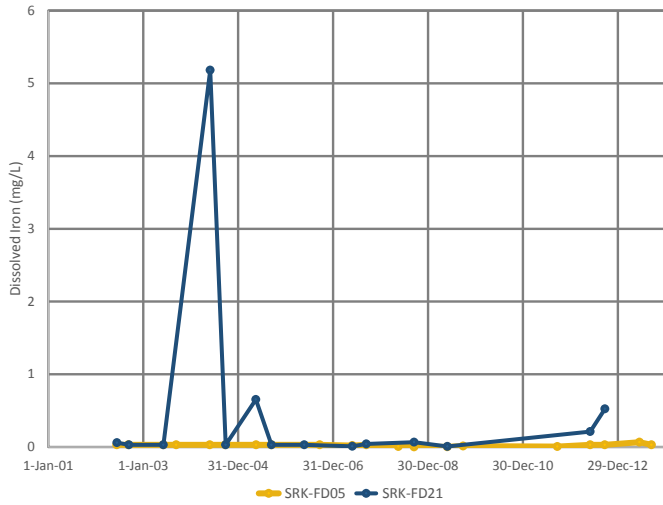
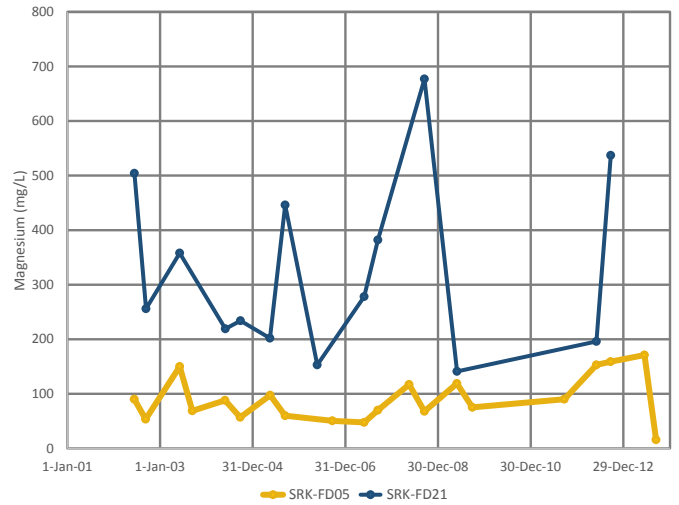
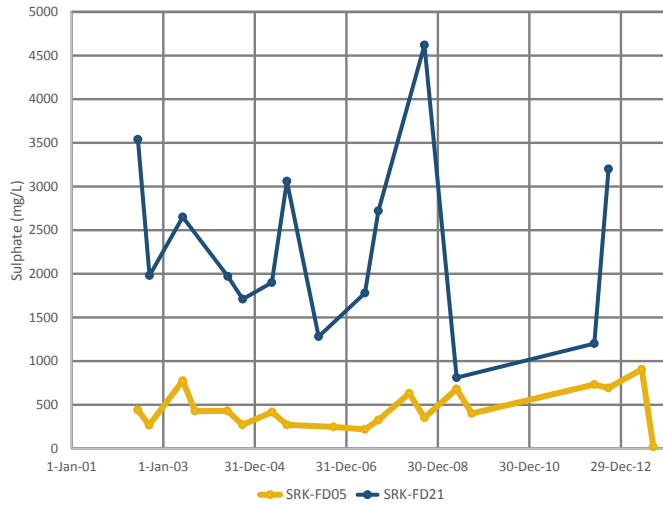
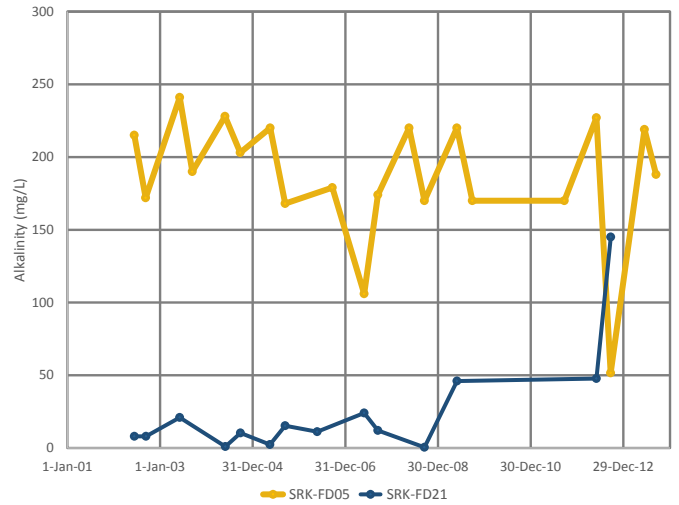
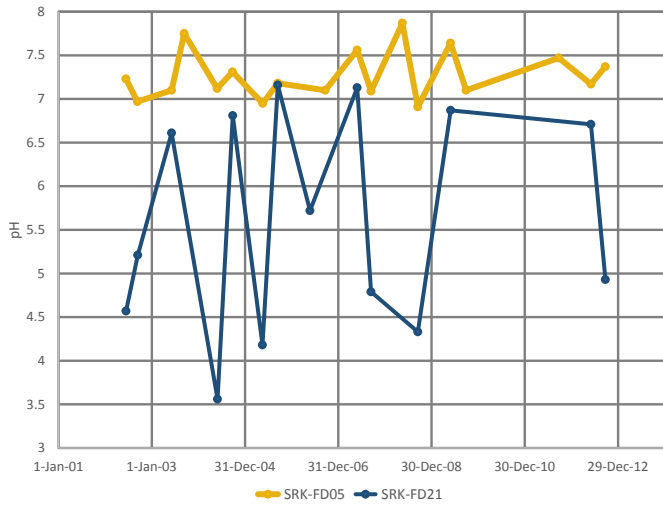
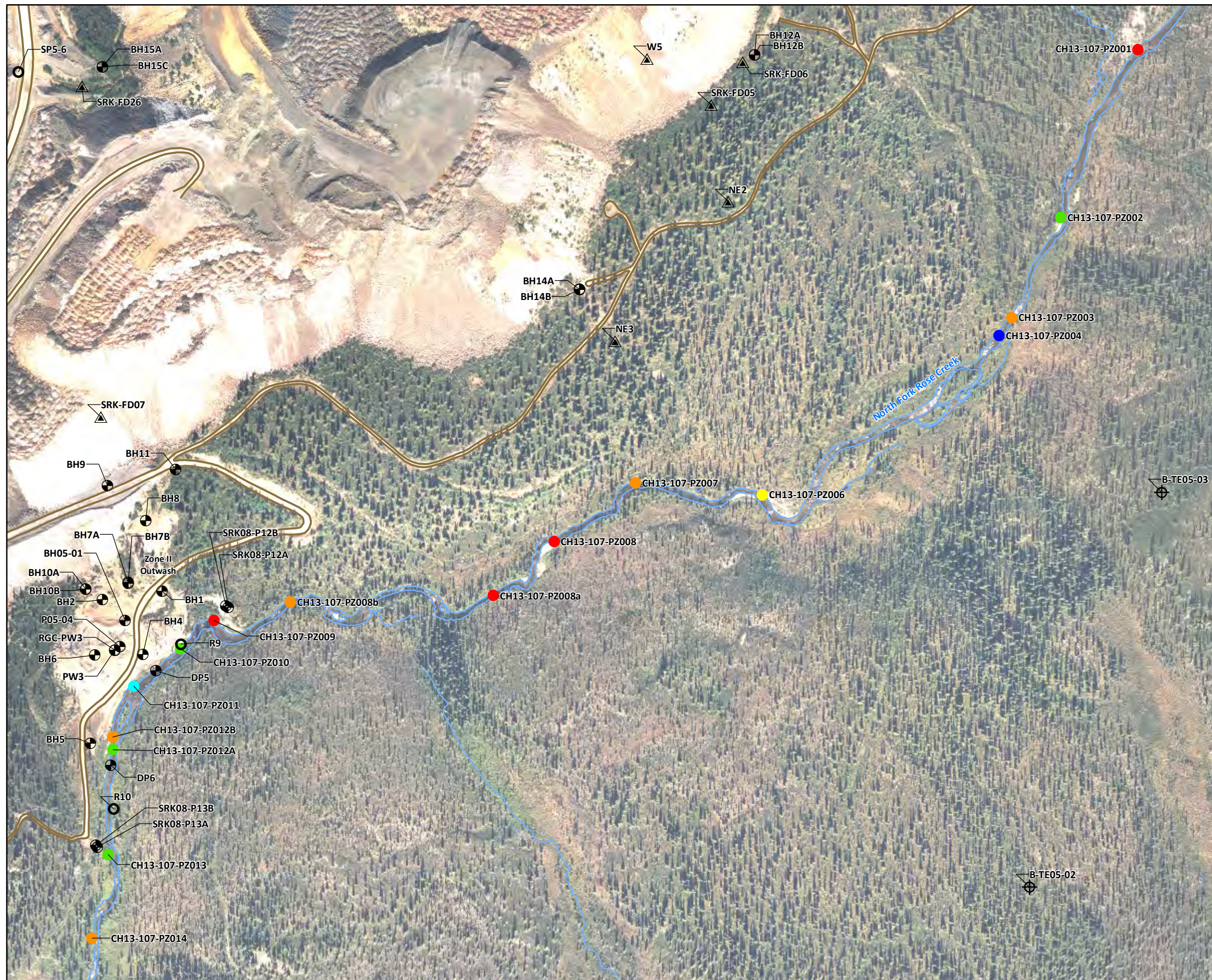


FIGURE 5-15
Trends in Selected Water Quality Parameters of
Seepage Draining toward North Fork Rose Creek
Faro Mine Remediation Project



LEGEND

- Borehole Location
- Monitoring Well Location
- Surface Water Location
- Seep Location

Streambed Piezometer VHG

- 0.10 to -0.05
- 0.05 to -0.02
- 0.02 to -0.01
- 0.01 to 0.00
- 0.00 to 0.01
- 0.01 to 0.02
- 0.02 to 0.05

Notes:

1. Vertical Hydraulic Gradient (VHG) were measured from 8/27/13 to 8/31/13.
2. Negative VHGs indicate the direction of flow is from the groundwater to the stream (gaining stream conditions).
3. Aerial photography acquired by Peregrine Aerial Surveyors Inc. and Eagle Mapping in August 2012.

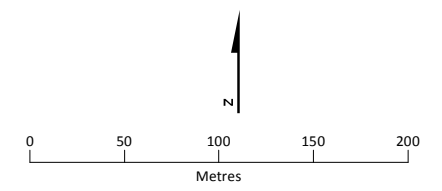


FIGURE 5-16
Approximate Streambed Piezometer Locations and Vertical Hydraulic Gradient on NFRC, Summer 2013
 Faro Mine Remediation Project

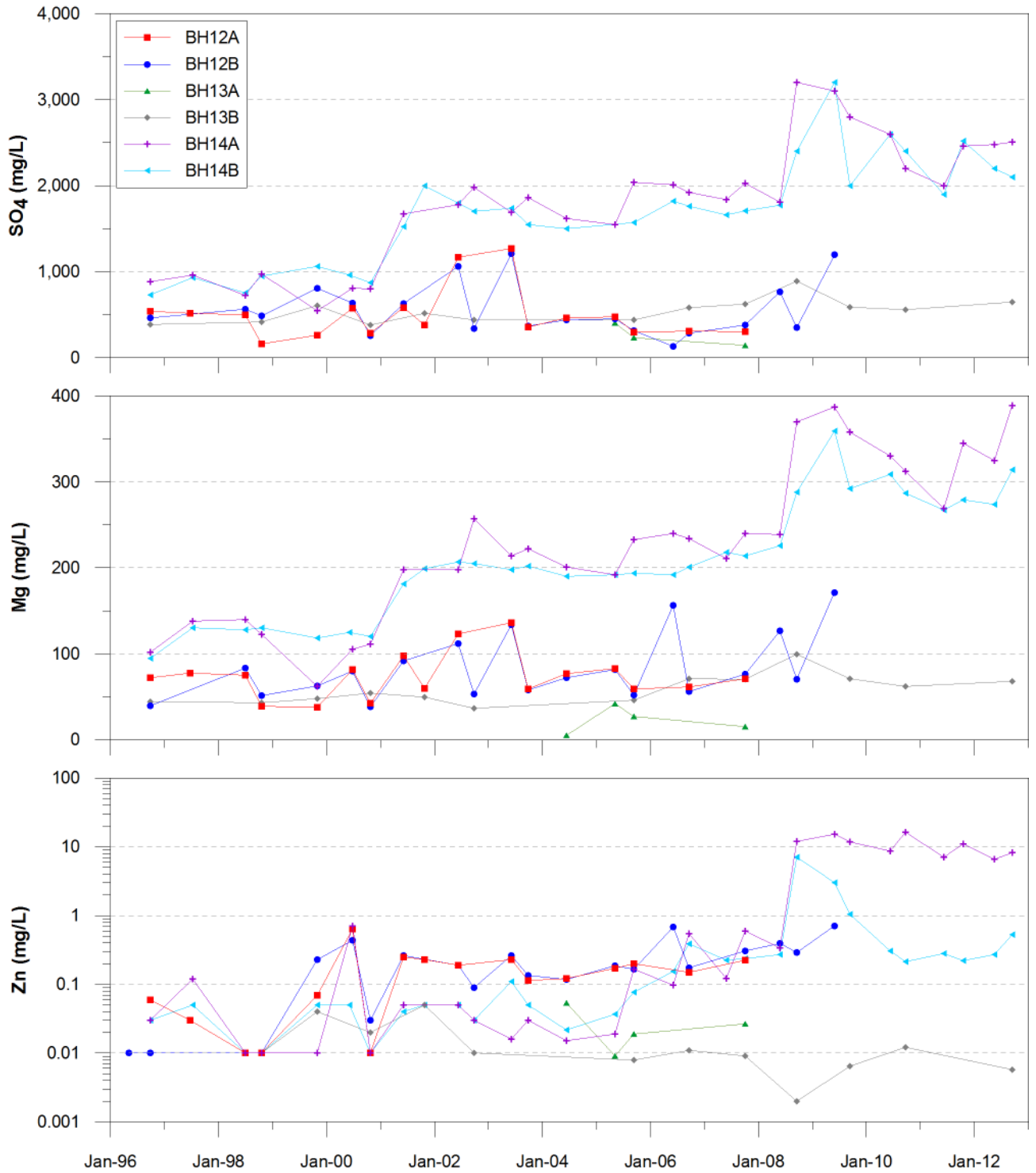


FIGURE 5-17
 Time Trends for SO₄, Mg, and Zn in Wells at the
 Toe of Northeast Waste Rock Dump
 Faro Mine Remediation Project

Note:
 Modified with permission from the Government of Yukon from
 Robertson GeoConsultants, Inc. 2013

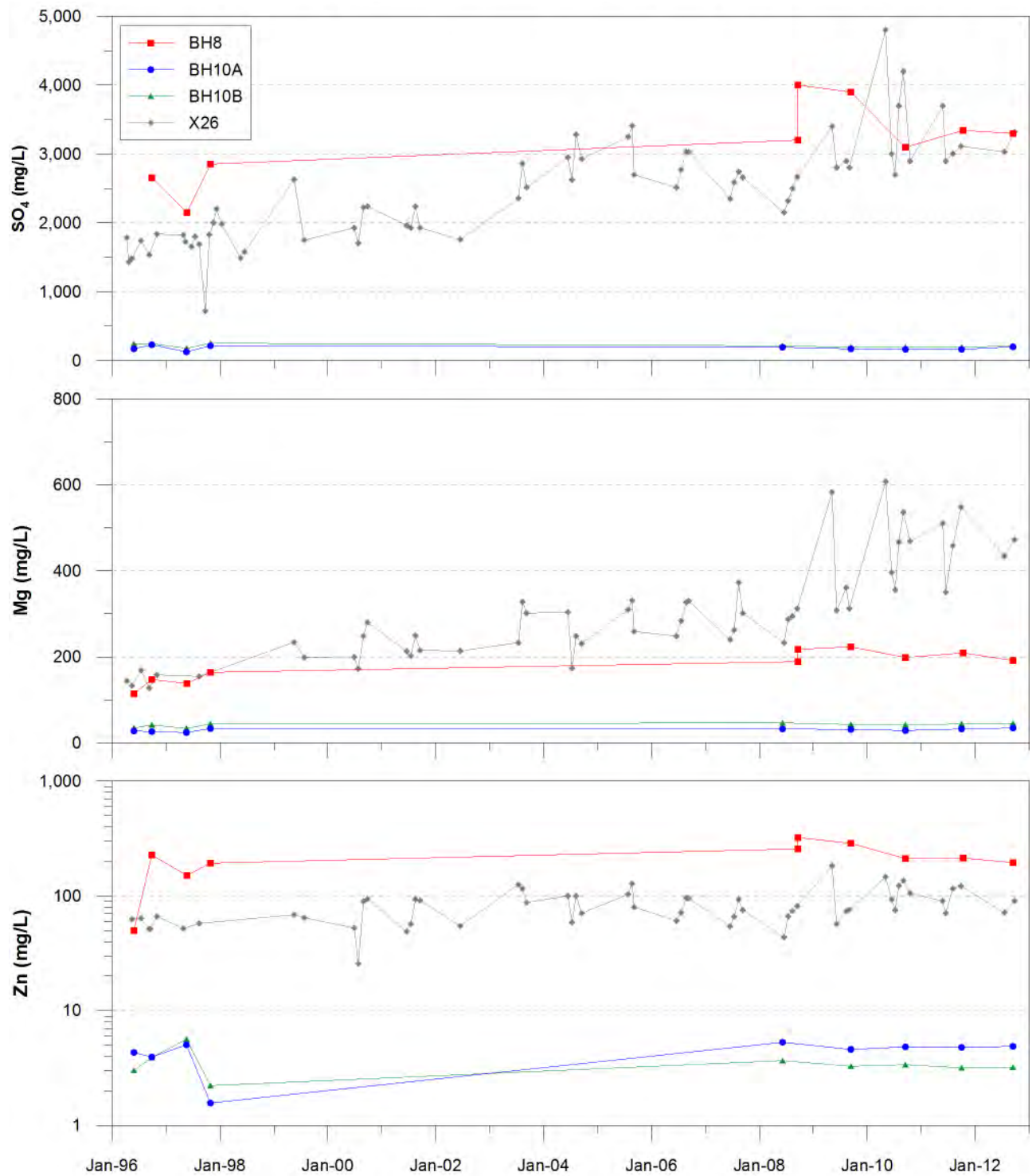


FIGURE 5-18
 Time Trends for SO₄, Mg, and Zn for Zone II Pit
 and Bedrock Wells
 Faro Mine Remediation Project

Note:
 Modified with permission from the Government of Yukon from
 Robertson GeoConsultants, Inc. 2013

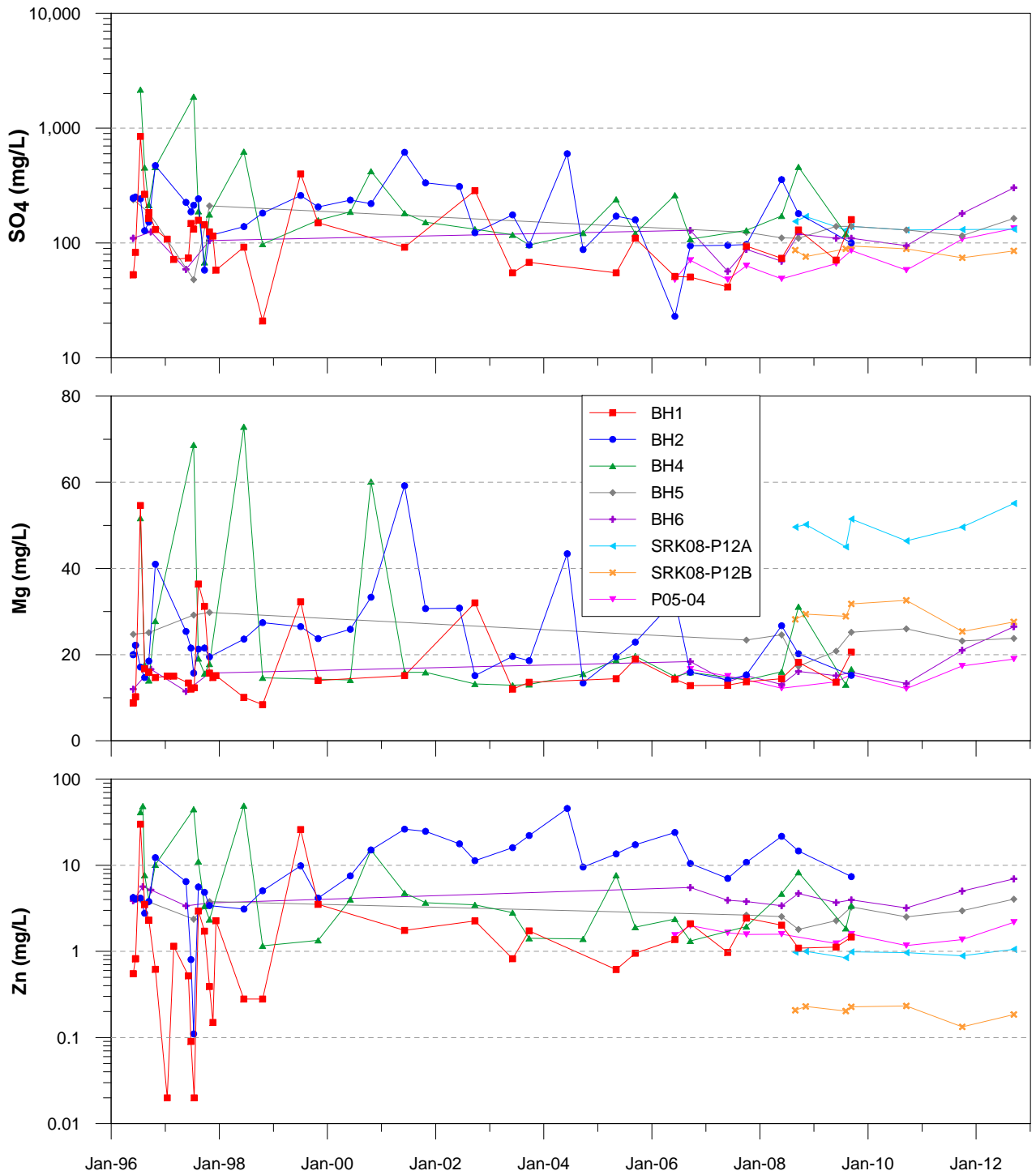


FIGURE 5-19
 Time Trends for SO₄, Mg, and Zn for Wells
 in Zone II Outwash Area
 Faro Mine Remediation Project

Note:
 Modified with permission from the Government of Yukon from
 Robertson GeoConsultants, Inc. 2013



- LEGEND**
- +— Cross Section Location
 - Generalized Groundwater Flow Direction
- 2011 Topography**
- Index Contour (40m Interval)
 - Index Depression Contour (40m Interval)

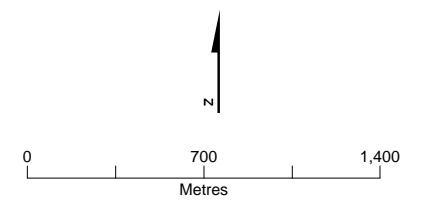


FIGURE 5-20
Faro Mine Cross Section Locations and Generalized Groundwater Flow
Faro Mine Remediation Project

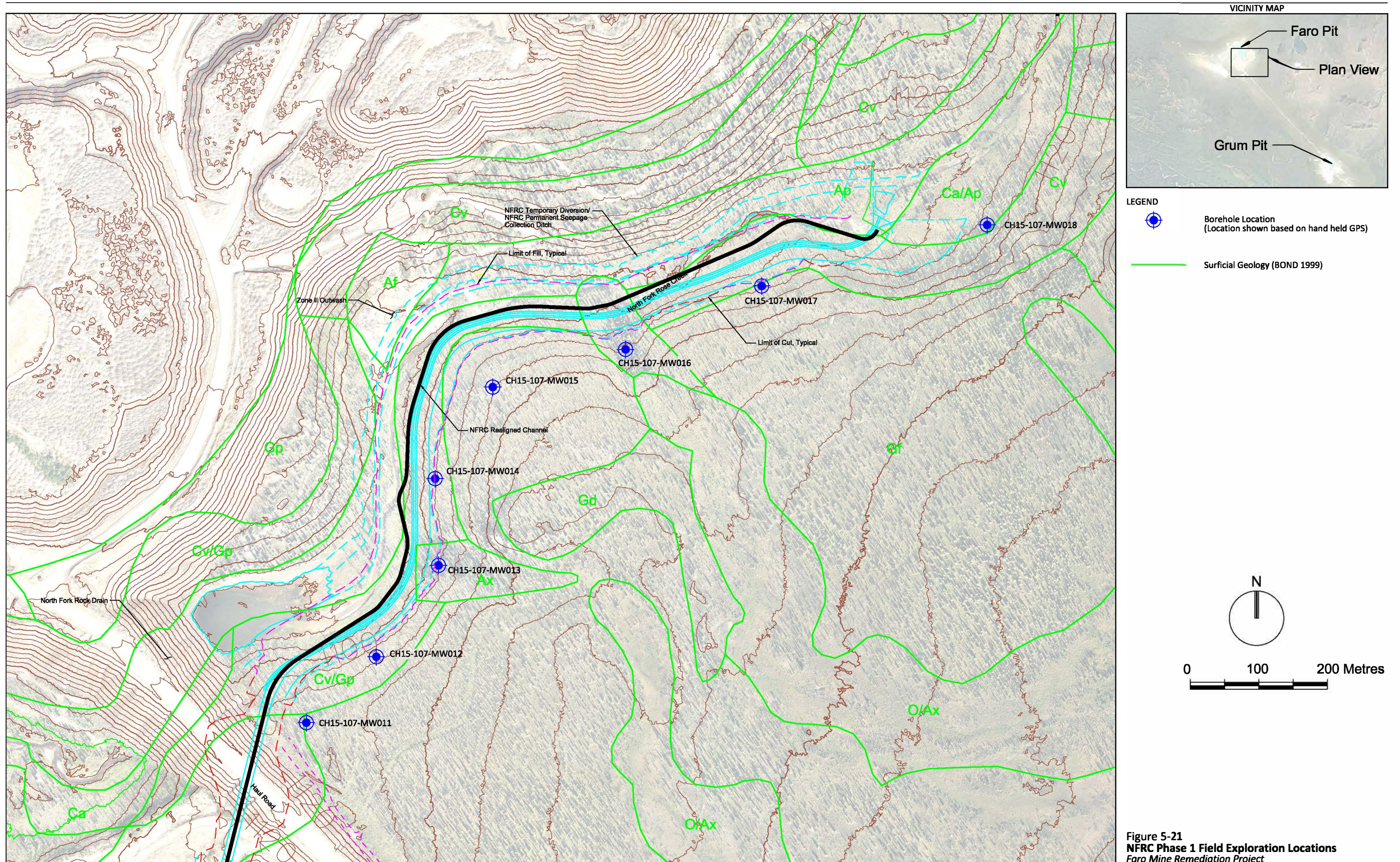
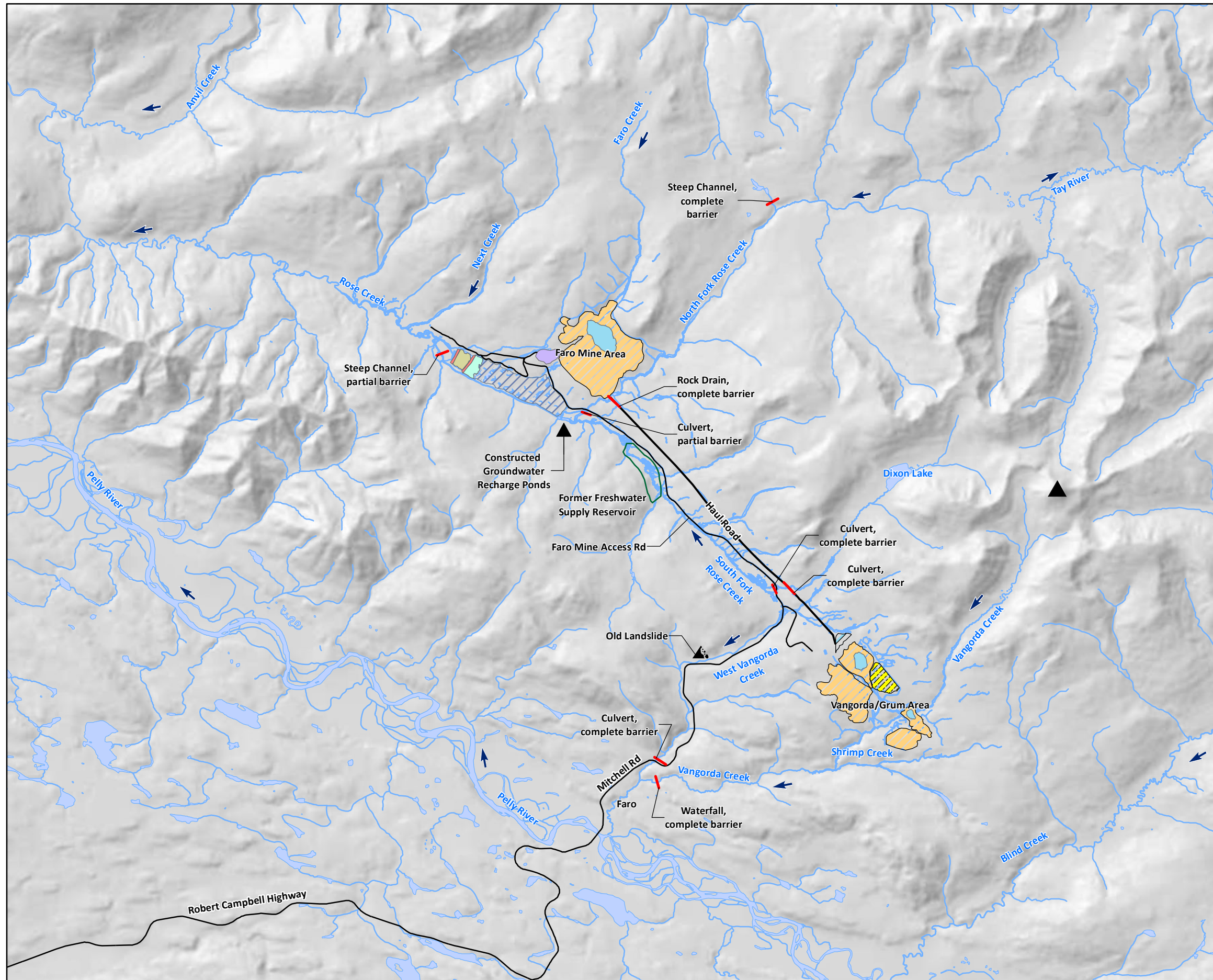


Figure 5-21
 NFRC Phase 1 Field Exploration Locations
 Faro Mine Remediation Project



- LEGEND**
- ▲ Mountains
 - Barrier to Fish Migration
 - ➔ Direction of Flow
- Mine Infrastructure:
- Open Pit
 - ▨ Grum Ore Transfer Pad
 - ▨ Waste Dump
 - ▨ Impoundment Area
 - ▨ Overburden Dump
 - ▨ Polishing Pond
 - ▨ Tailings Pond
 - ▨ Dam
 - ▨ Mill Buildings Area

Notes:

1. Service Layer Credits: Yukon Government
- Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community
2. Faro = Town of Faro

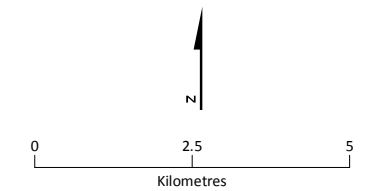
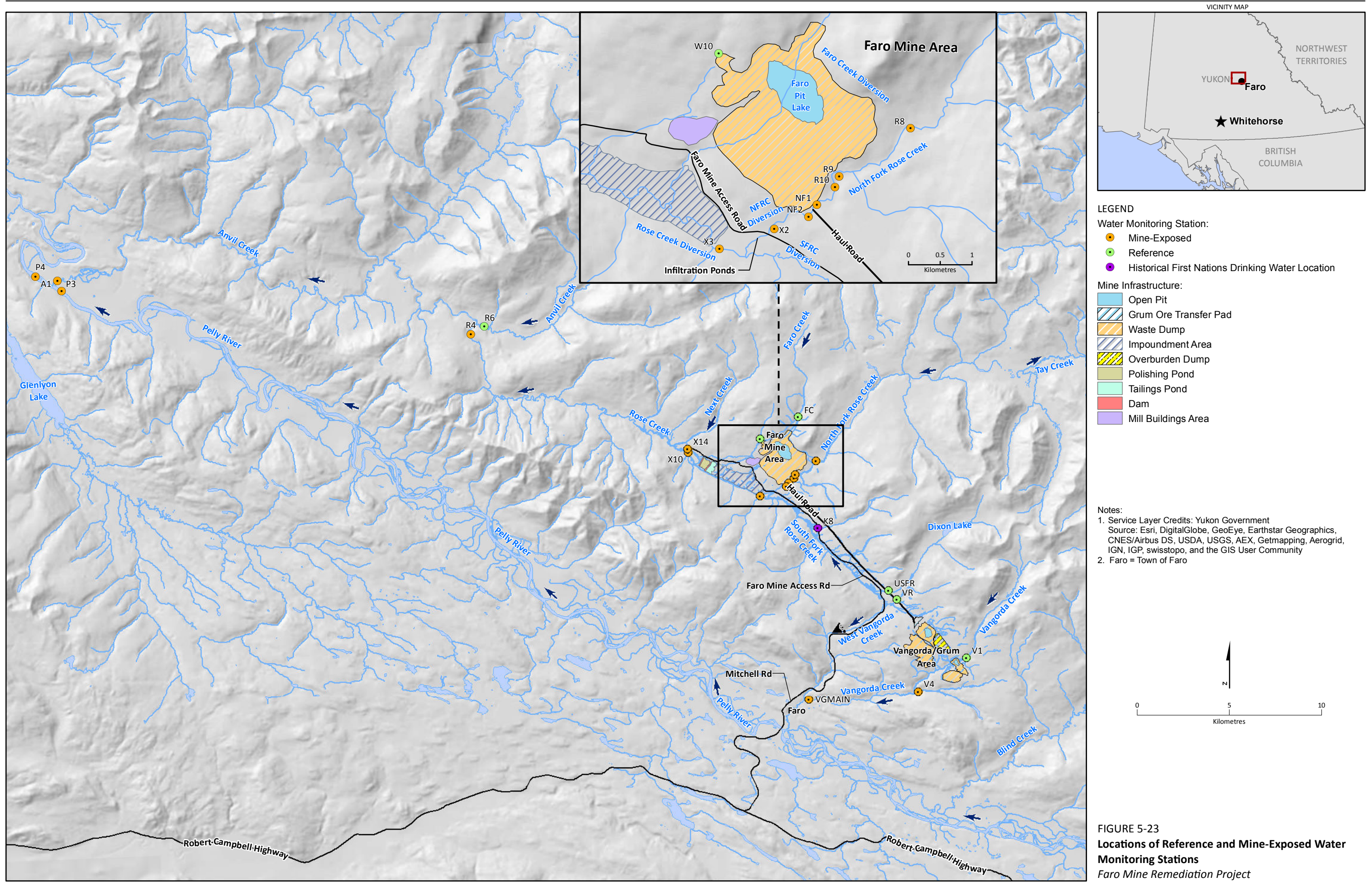


FIGURE 5-22
Habitat Features of Rose and Vangorda Creeks
 Faro Mine Remediation Project



LEGEND

Water Monitoring Station:

- Mine-Exposed
- Reference
- Historical First Nations Drinking Water Location

Mine Infrastructure:

- Open Pit
- ▨ Grum Ore Transfer Pad
- ▨ Waste Dump
- ▨ Impoundment Area
- ▨ Overburden Dump
- ▨ Polishing Pond
- ▨ Tailings Pond
- ▨ Dam
- ▨ Mill Buildings Area

Notes:

1. Service Layer Credits: Yukon Government
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community
2. Faro = Town of Faro

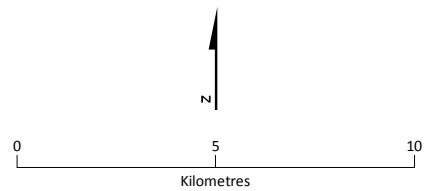


FIGURE 5-23
Locations of Reference and Mine-Exposed Water Monitoring Stations
 Faro Mine Remediation Project

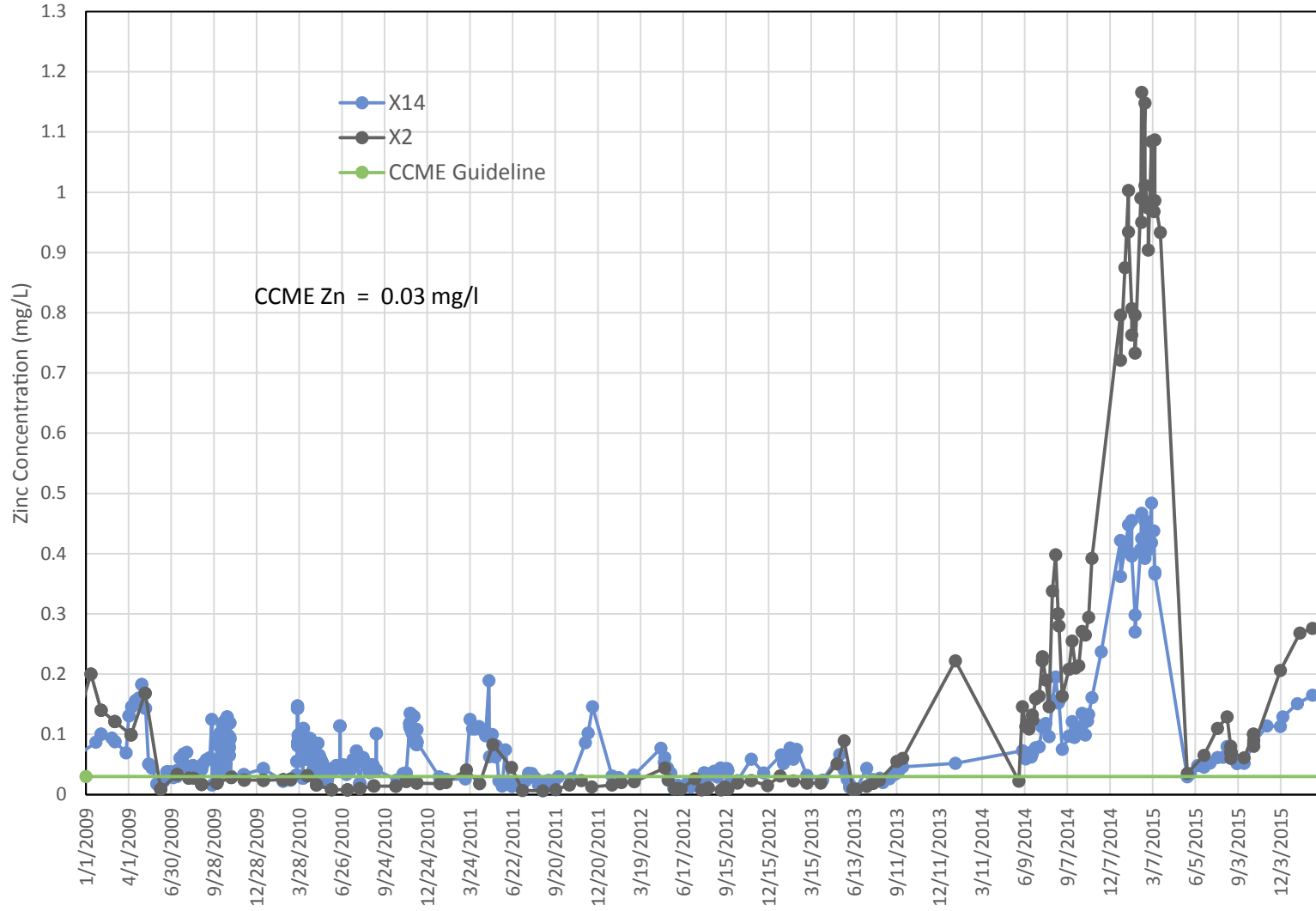


FIGURE 5-24
**Zinc Concentrations
 at Monitoring Stations
 X2 and X14**
Faro Mine Remediation Project

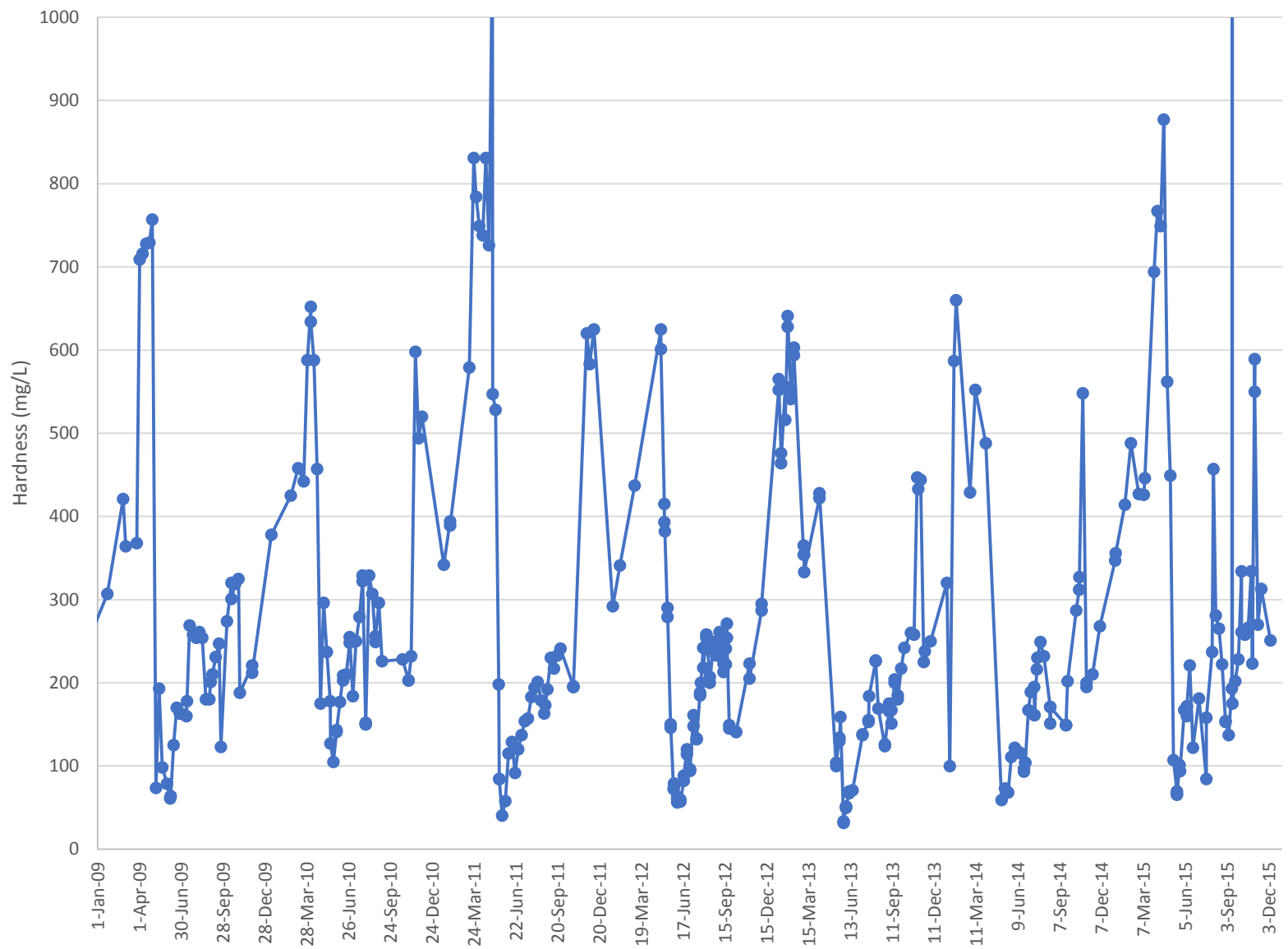
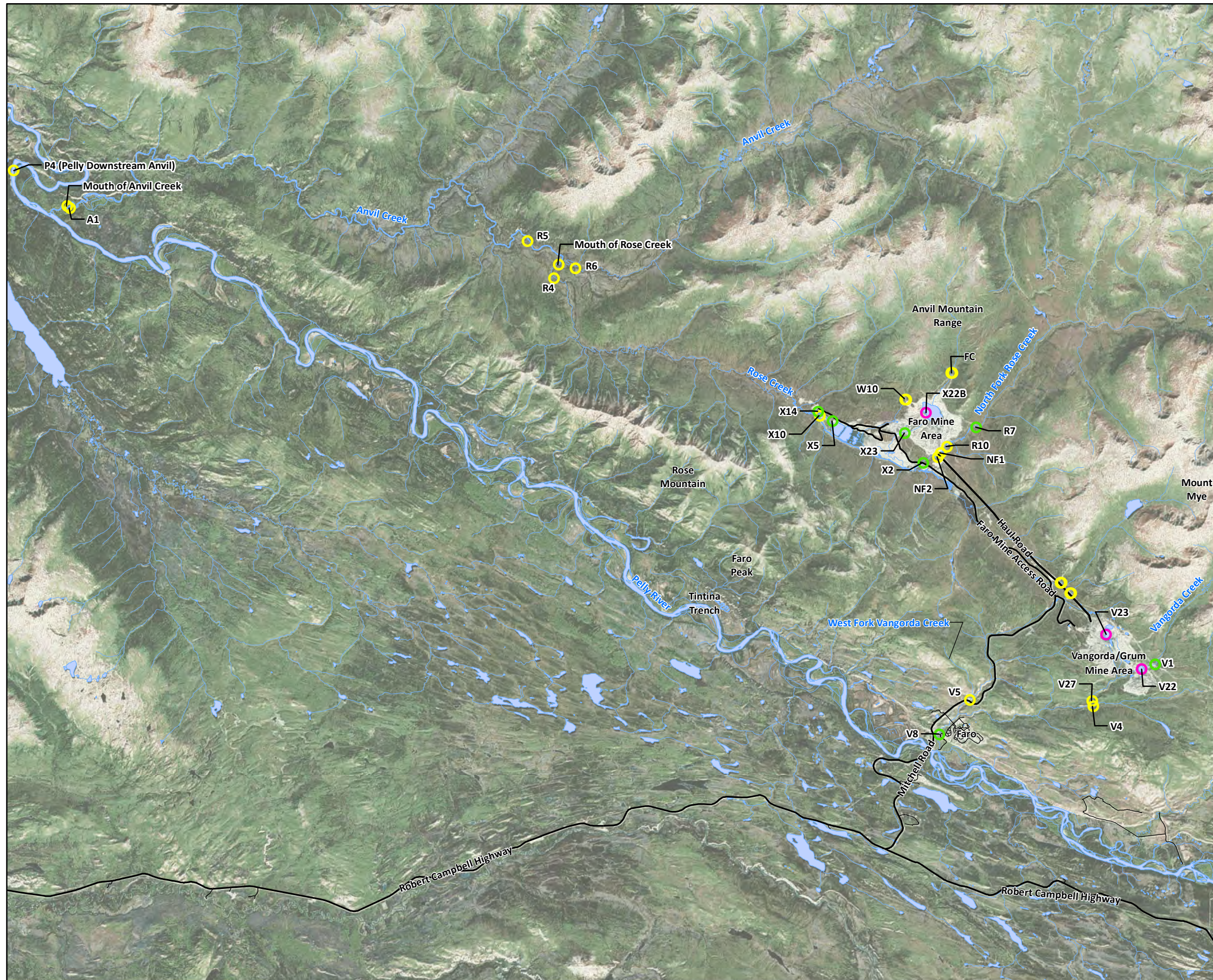


FIGURE 5-25
Hardness (As CaCO₃)
at Monitoring Station X14
Faro Mine Remediation Project



- LEGEND**
- Continuous Flow Monitoring Location
 - Spot Flow Monitoring Location
 - Water Quality and Water Level Monitoring Location

- Notes:**
1. Aerial photography acquired by Peregrine Aerial Surveyors Inc. and Eagle Mapping in August 2012.
 2. Orthophotography prepared by: Esri, DigitalGlobe, GeoEye, i-cubed, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community.

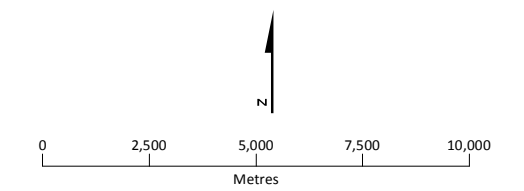


FIGURE 9-1
Site-wide Stream Network and
Main Monitoring Locations
Faro Mine Remediation Project

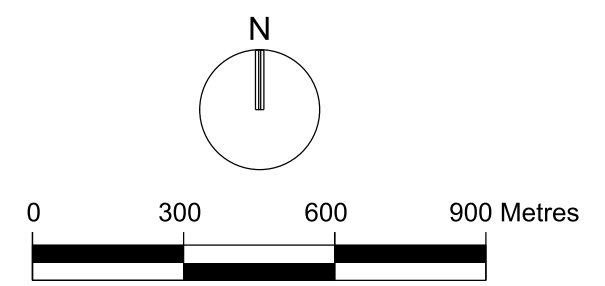
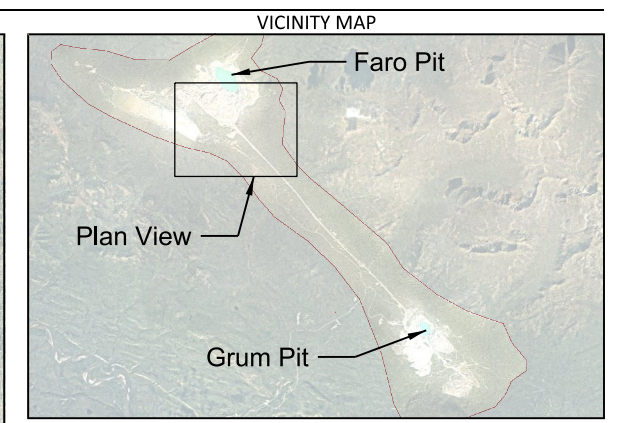
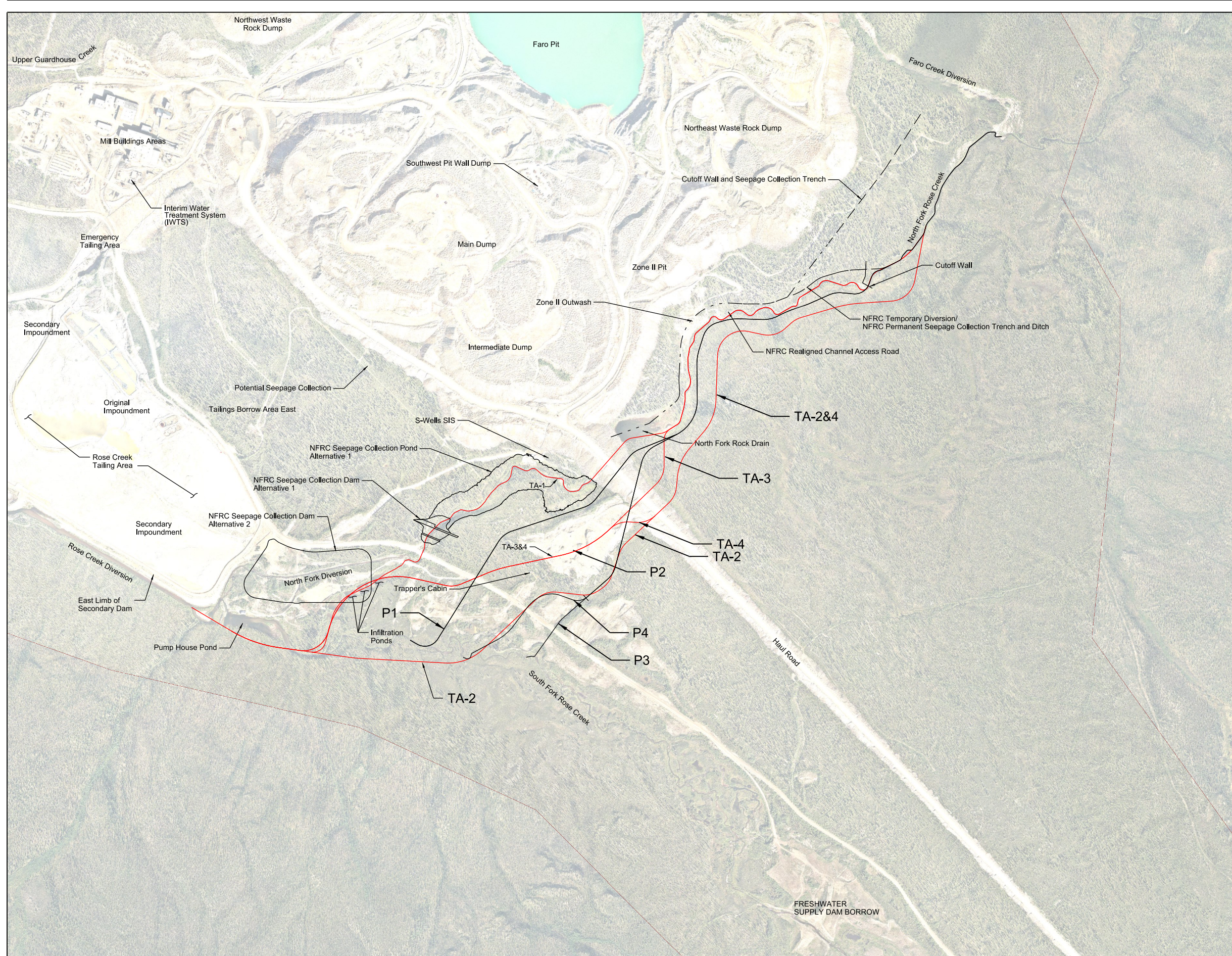
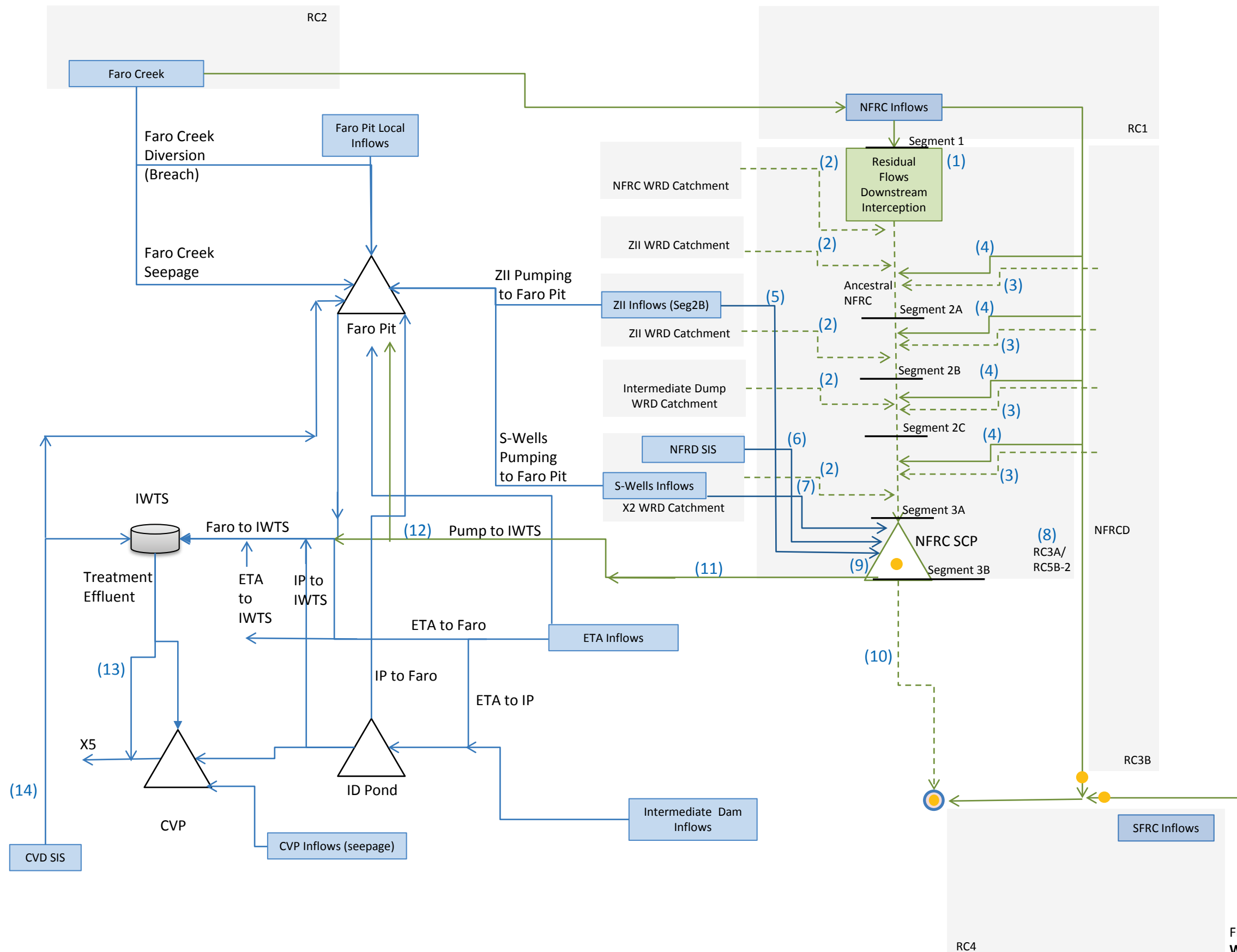


Figure 11-1
NFRC Overall Site Plan
 Faro Mine Remediation Project



Connections:

- (1) Residual flow downstream of confluence with diversion – alluvial aquifer flow.
- (2) Seepage from NFRD, ZII, X2 WRD catchments (input from GW model).
- (3) GW flow from east side of NFRC valley.
- (4) Leakage from NFRC diversion.
- (5) Zone II pumping well collection, option route to NFRC SCP reservoir instead of Faro Pit.
- (6) NFRD SIS collection, option route to NFRC SCP reservoir instead of Faro Pit.
- (7) S-Wells SIS, option route to NFRC SCP reservoir instead of Faro Pit.
- (8) Inflows are estimated for the entire contributing area then scaled down for the portion that will be draining into the NFRC SCP reservoir. Option to change the annual total average flow.
- (9) Elevation/Capacity curve based on GIS terrain analysis.
- (10) Overflow (spills) or seepage based on input from GW model.
- (11) Pumping from NFRC SCP reservoir to IWTS. IWTS capacity required for ID Pond, ETA, Faro Pit, CVD SIS and NFRC SCP. Option for user to define the operating season and pumping rate.
- (12) Water from NFRC SCP can be pumped to either IWTS or Faro Pit, in case IWTS is offline or at maximum capacity.
- (13) IWTS effluent bypass, option to discharge IWTS effluent downstream of CVP.
- (14) CVD SIS commissioned in 2025 (RGC, 2014); operations at 2,800 USgpm year round.

Catchment Areas

- Upper NFRC (RC1) – 9,864 ha
- FCD (RC2) – 1,618 ha
- NFRC SCP (RC3A) – 108 ha
- SCP (RC5B-2) – 9 ha
- NFRCD East (RC3B) – 792 ha
- SFRC (RC4) – 7,271 ha

Surface water run-off from WRDs – not explicitly represented.

- Flows in model
- New Elements/flows included (to be included) in model
- - - - - GW flow (inputs from GW model)
- Loads

FIGURE 13-1
Water Management Tool Schematic
 Faro Creek Diversion
 Faro Mine Remediation Project

Boundary Conditions (BC) Inflows to storages are based on average historical on a monthly basis.

Faro Water Management Tool

Faro Mine Remediation Project

Scenario 1.1* Run + -

Simulation Settings

Inflows

Inflow change from average (%)

Stochastic (keep hydrological sequence)

Use Stochastic MAR

FCD NFRC SFRC

Catchment Area (km2)

FCD NFRC SFRC

FCD Leakage (%)

Water Treatment

Faro Faro Treatment

Set Faro WTP Max Capacity

Early Start Season for First Year:

Start of the Season:

End of the Season:

Extend First Year Treatment to:

Vangorda Vangorda Treatment

Max Capacity Control

Start of the Season:

End of the Season:

Check All Capacities



Results

Pause Model Date

Pumping Controls

Start Date of System in place

Set IWTS Schedule/Capacity

Max Capacity Swells

Max Capacity ZII

Max Capacity CVD SIS CVD SIS operation

Max Capacity NFRD SIS

Max Capacity ETA to IP

Max Capacity ETA to Faro

Max Capacity IP to Faro/WTP IP to Faro

Max Capacity LCD to Vangorda IP-IWTP

Max Capacity GSC to Vangorda

Max Capacity V15 to Vangorda

Max Capacity Grum to Vangorda

Control of the Pumping Season

	Start Pumping		End Pumping	
	Month	Day	Month	Day
P_SW	1	1	12	31
P_ZII	1	1	12	31
P_ETA_IP	1	1	12	31
P_ETA_FR	6	15	10	15
P_IP_FR	4	15	10	15
P_FR_WTP	99999	99999	99999	99999
P_X5	99999	99999	99999	99999
P_LCD_VG	7	1	9	30
P_GSC_VG	5	1	10	30
P_V15_VG	5	1	10	30
P_GR_VG	5	1	10	30
P_VG_WTP	99999	99999	99999	99999
P_CVDSIS	1	1	12	31
P_NFRDSIS	11	1	4	30

99999 are controlled by other inputs

Storage Controls

CVP Rule Curve: Edit

Faro Pit Rule Curve: Edit

IP Rule Curve: Edit

[NFRD Storage Dashboard](#)

Start Elevation (m) Maximum Elevation (m) Lowest Elevation Target (m)

FP	1151.823	1158	1141
IP	1045.52	1047	99999
CVP	1029.223	1030.3	99999
VG	1082.455	1089.159	1083
GR	1214.316	1217.405	1213.4
LCD	1108.619	1109.992	1108

99999 are controlled by Rule Curves. Rule curves set elevation targets for each month

Other Controls

X5 Siphon Capacity (L/min)

Max CVP drawdown (cm/day)

Max IP drawdown (cm/day)

CVP Disch only 75% of the time

Faro Creek Leakage Multiplier

Vangorda Creek Leakage Multiplier

Fraction of flows diverted in a failure

Faro

Vangorda

Chance of Diversion Failure: 1 in x years

Failure at specific date

FIGURE 13-2

Water Management Tool Dashboard – Site-wide Infrastructure
Faro Creek Diversion
Faro Mine Remediation Project

Faro Water Management Tool - North Fork Storage Controls

Scenario 1.1*
Run + -

NFRS Main Switch
 Project Start Date 10/ 1/2019

Inflows

Mean Annual Runoff (1) (mm/yr) Result MAR

Return (years)	Runoff (mm/yr)
2	252
5	307
10	347
20	386
50	438
100	473
200	536
500	568
1000	599

Use Stochastic MAR(2) Inflow Monthly Pattern Edit

Alt 2 Pond Location

NFRS SCP Catchment Area (km2)

Monthly GW Inflow to SCP (L/s)

- Match Inputs to Spreadsheet Edit Alt 1 Inputs Edit Alt 2 Inputs
- Monthly Distribution Fitted to Max Input Edit Alt 1 Fitted Edit Alt2 Fitted
- Not currently used Seg2C

Contribution for Alt 2. Pond Location

NFRS Diversion Leakage (as % of flow in diversion)

Zone II PW Percentage of Flows to NFRS SCP instead of to Faro Pit

NFRD SIS Percentage of Flows to NFRS SCP instead of to Faro Pit

S-Wells Percentage of Flows to NFRS SCP instead of to Faro Pit

Storage Controls

Initial Storage (m3)

Maximum Storage Capacity (m3)

Reservoir Target Elevation (m)

Operation

Pump Capacity - Summer (US gpm) 126 l/s

Pump Capacity - Winter (US gpm) 0 l/s

Operating Months (1=ON,0-OFF)

Summer Pump Operation	
Month	Day
Start <input type="text" value="4"/>	<input type="text" value="15"/>
Stop <input type="text" value="10"/>	<input type="text" value="15"/>

Pump to Faro Pit to avoid Spills

Pump Priority to WTP:

<input type="text" value="1"/> Intermediate Pond	<input type="text" value="1"/> ETA to WTP	<input type="text" value="2"/> Faro Pit
<input type="text" value="3"/> NFRS Storage	<input type="text" value="3"/> CVD SIS to WTP	

Water Quality

Results

Main Menu

Results

Notes:

Tables are not sensitive to scenarios

(1) Although this value could be changed it should be the average value to be consistent with the inflows for the other areas of the system. In a stochastic simulation this value will be multiplied by the precipitation change factor (Year precipitation/Average Precipitation)

(2) The use of stochastic MAR will be only for the catchment draining to the NFRS storage and will correspond to flows that correlate to Pat Bryan hydrological analysis see Table 2 from HC, 2006 (Pat Bryan) - "Candidate Method for Selecting Design Flood Events for Faro Creek and Vangorda Creek Closure Diversion".

FIGURE 13-3
 Water Management Tool Dashboard – NFRS Seepage Collection Pond
 Faro Creek Diversion
 Faro Mine Remediation Project

Faro Water Management Tool - Water Quality Inputs

Scenario 1.1*

Water Quality

Fix SCP Water Quality

Background water quality (mg/L) - applied to FCD, NFRC, NFRC Leakage, SFRC

PHREEQC proportionally mixed water quality concentrations (mg/L)

Individual Water Quality Inputs (if SCP water quality not fixed)

Residual GW flow into NFRC Valley water quality (mg/L)

NFRC WRD water quality (mg/L)

Seg 2A WRD catchment water quality (mg/L)

Seg 2B WRD catchment water quality (mg/L)

Rock Drain WRD Catchment water quality (mg/L)

X2 WRD Catchment water quality (mg/L)

Seg 2 GW from east side of valley water quality (mg/L)

Seg 3 GW from east side of valley water quality (mg/L)

S-Wells water quality (mg/L)

Zone II water quality (mg/L)

NFRD SIS water quality (mg/L)



Main Menu



Results

Notes:
pH is enter as moles/L [H+]

FIGURE 13-4
Water Management Tool Dashboard – Water Quality
Faro Creek Diversion
Faro Mine Remediation Project

MAR used in the model
Values are resampled every year for stochastic and scaled for deterministic input

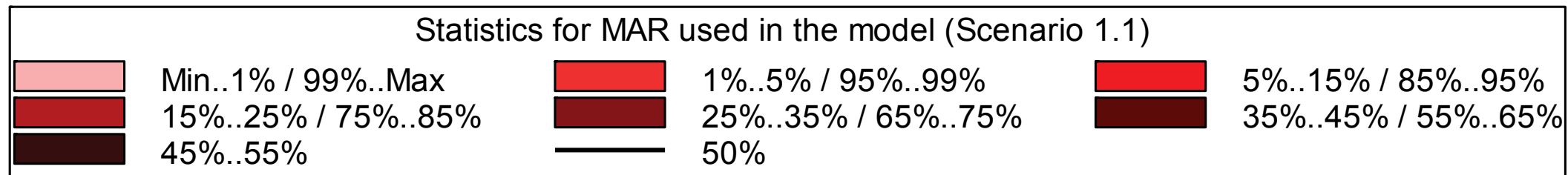
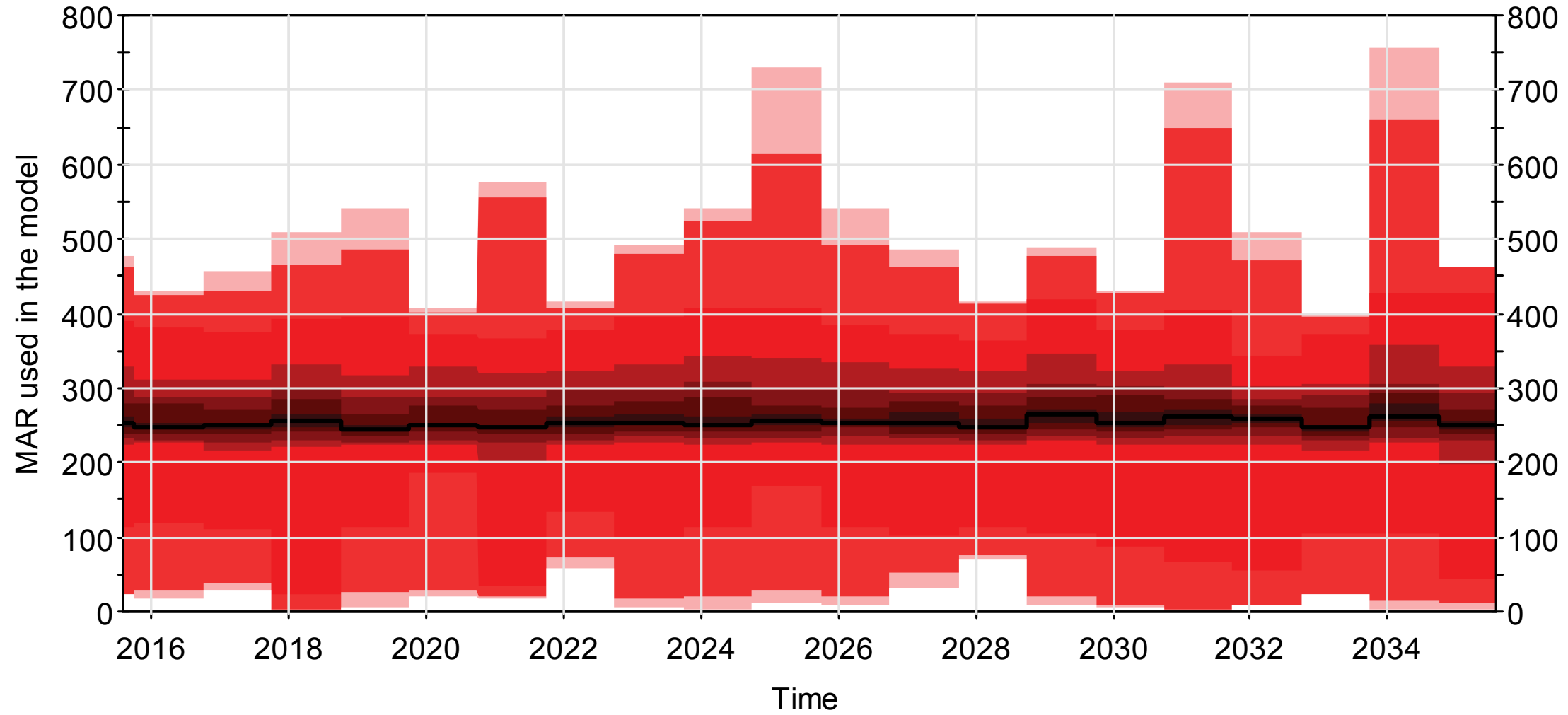
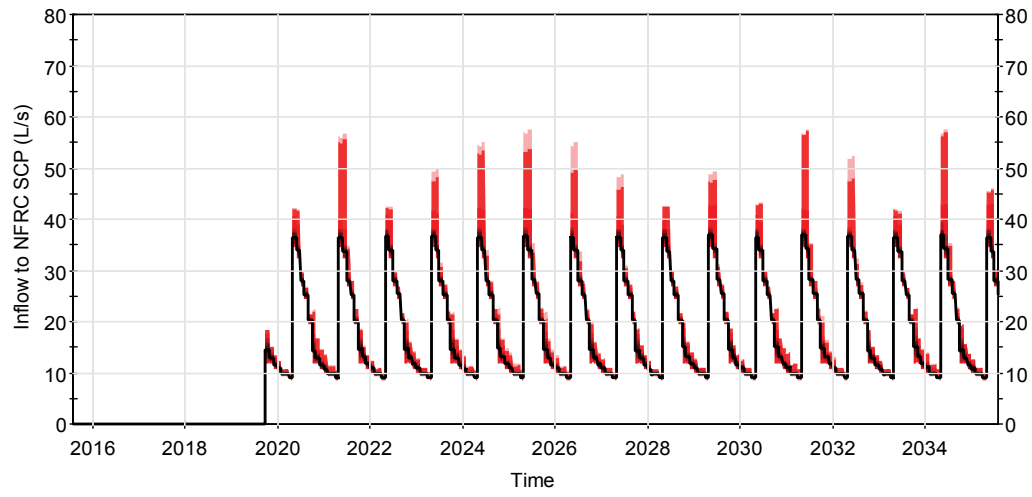


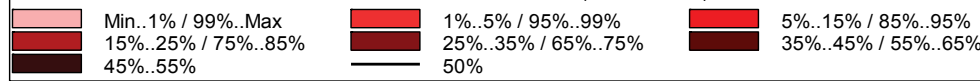
FIGURE 13-5
Mean Annual Run-off Used in Model
 Faro Creek Diversion
 Faro Mine Remediation Project

Scenario 1.1

Inflow to NFRC SCP

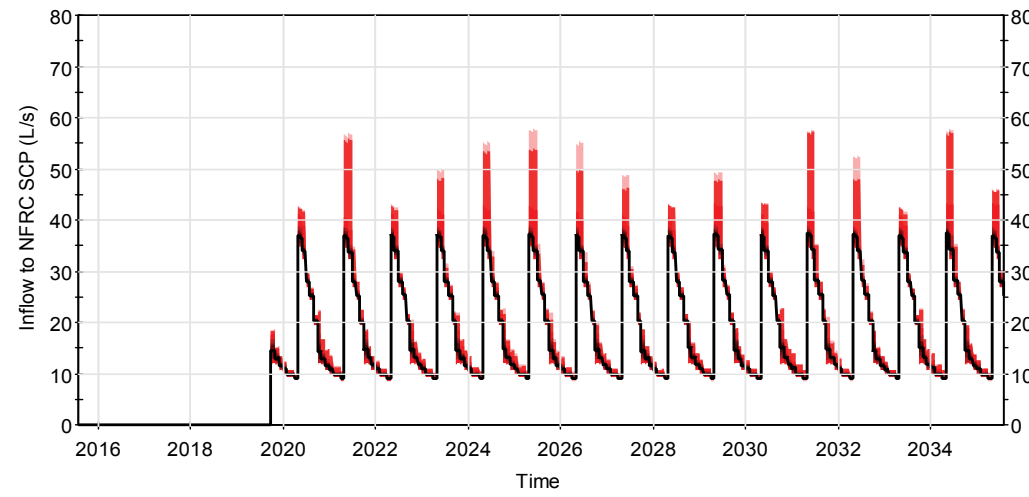


Statistics for Inflow to NFRC SCP (Scenario 1.1)

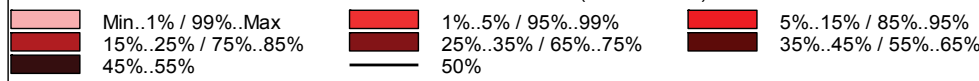


Scenario 1.2

Inflow to NFRC SCP

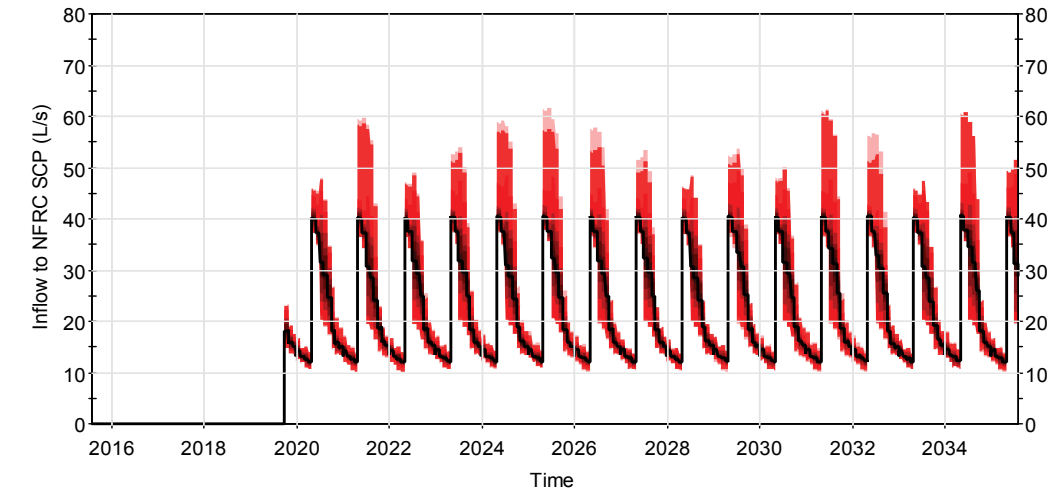


Statistics for Inflow to NFRC SCP (Scenario 1.2)

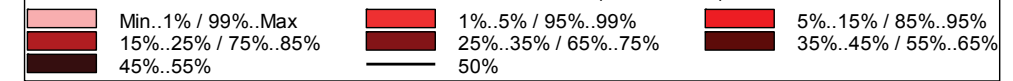


Scenario 1.3

Inflow to NFRC SCP

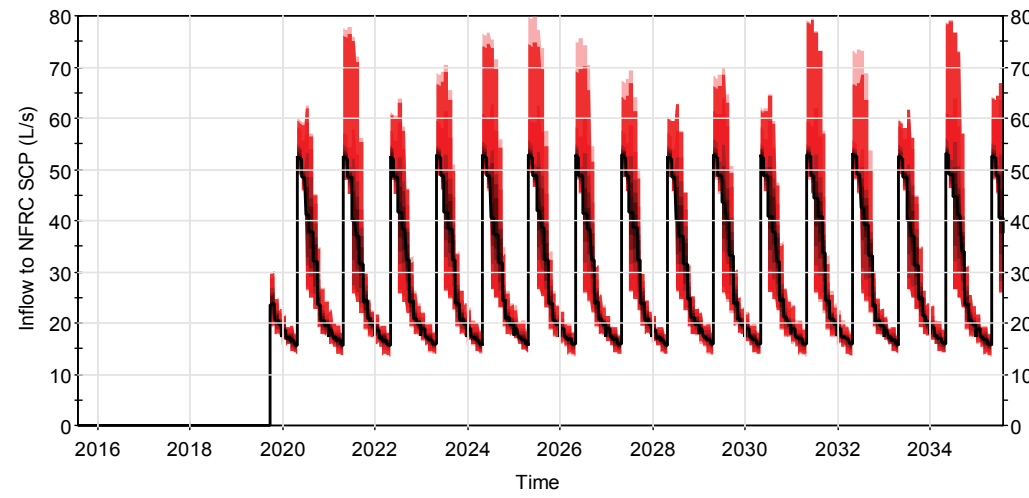


Statistics for Inflow to NFRC SCP (Scenario 1.3)

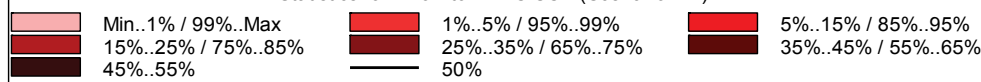


Scenario 1.4

Inflow to NFRC SCP

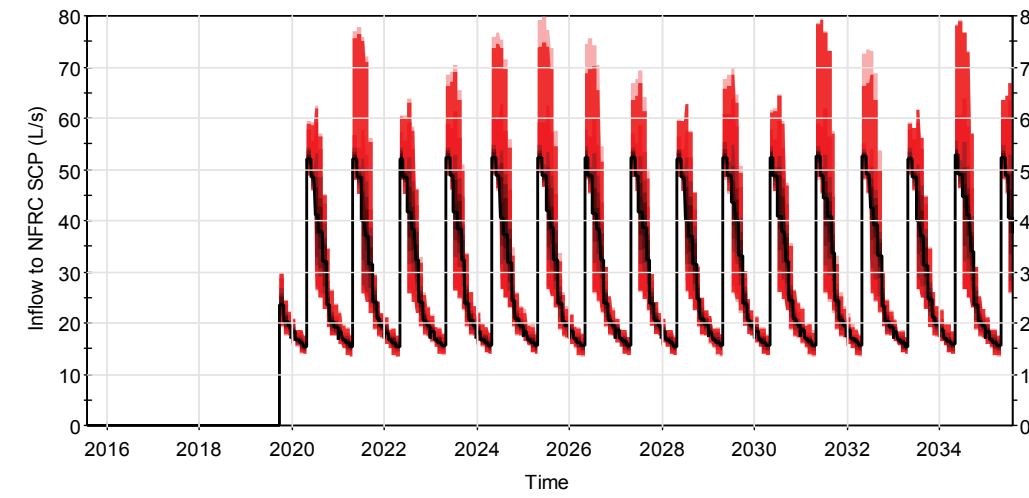


Statistics for Inflow to NFRC SCP (Scenario 1.4)



Scenario 1.5

Inflow to NFRC SCP



Statistics for Inflow to NFRC SCP (Scenario 1.5)

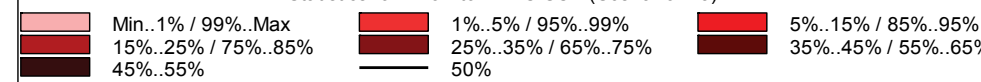
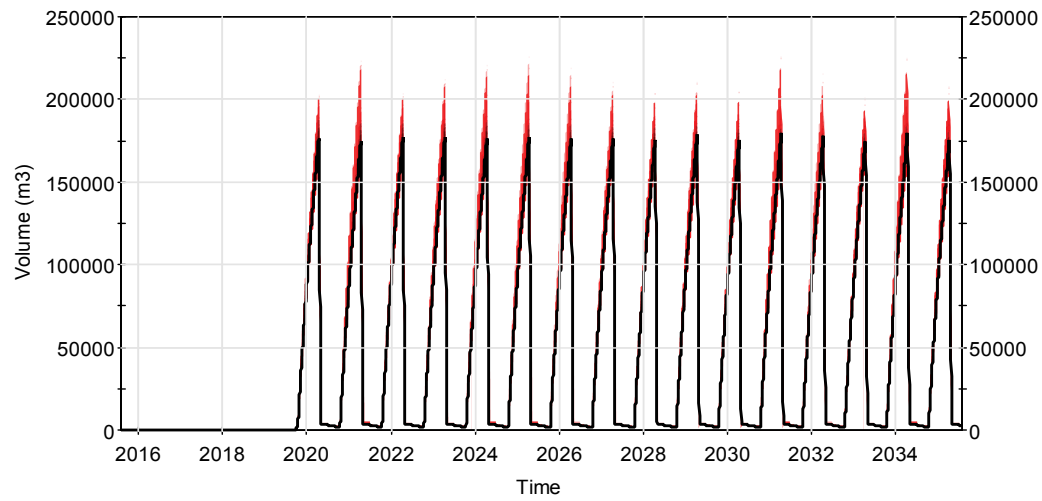


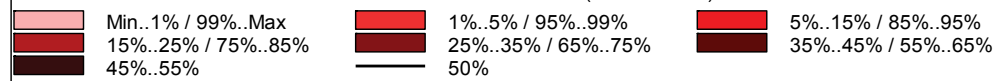
FIGURE 13-6a
Water Management Tool Results – Inflow to NFRC SCP
Faro Creek Diversion
Faro Mine Remediation Project

Scenario 1.1

NFRC SCP Storage

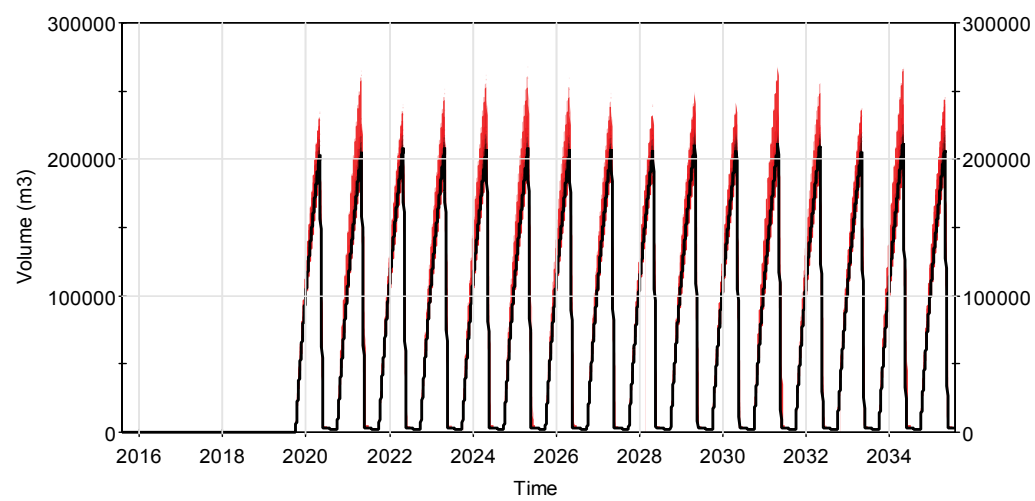


Statistics for NFRC SCP Volume (Scenario 1.1)

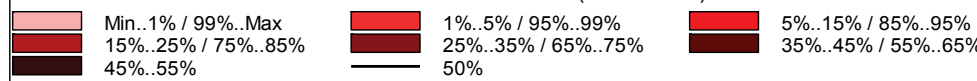


Scenario 1.2

NFRC SCP Storage

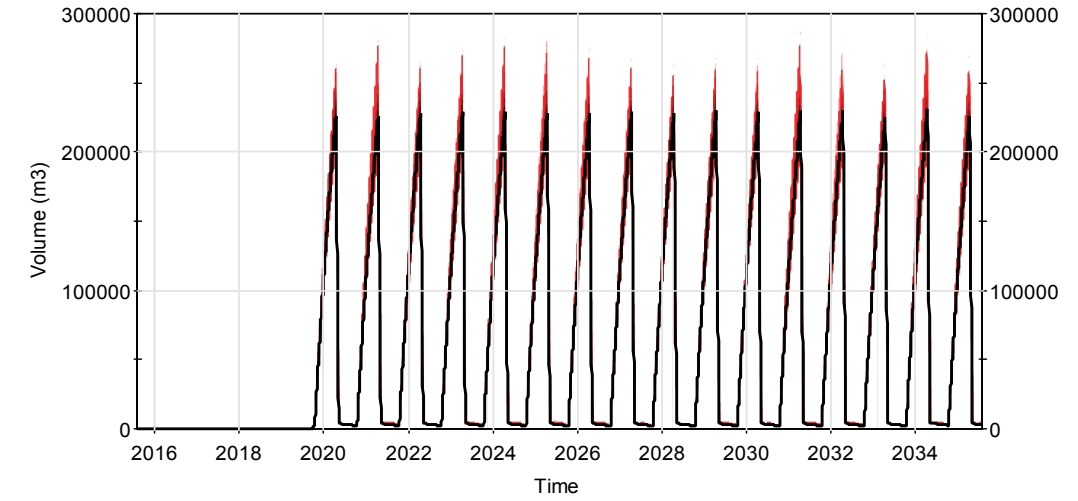


Statistics for NFRC SCP Volume (Scenario 1.2)

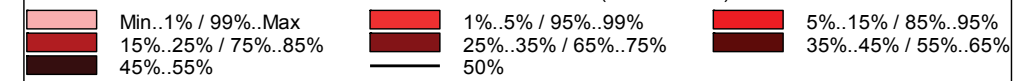


Scenario 1.3

NFRC SCP Storage

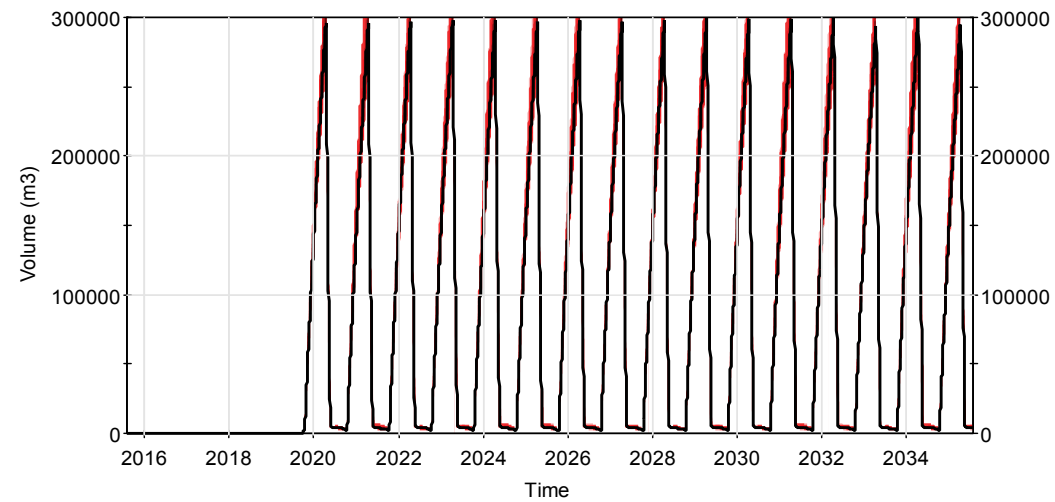


Statistics for NFRC SCP Volume (Scenario 1.3)

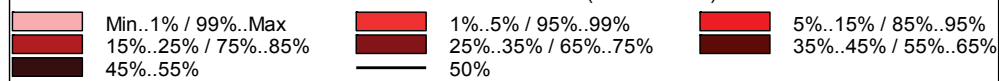


Scenario 1.4

NFRC SCP Storage

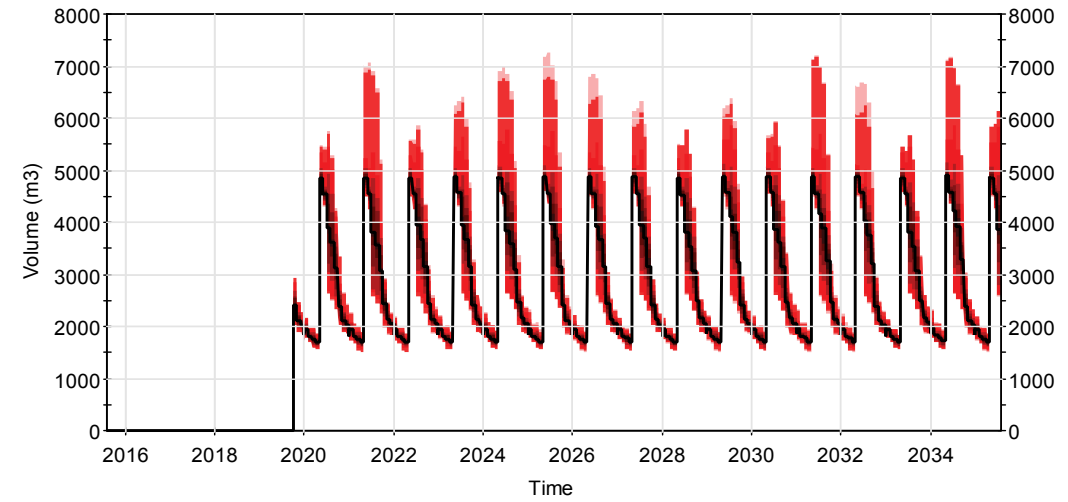


Statistics for NFRC SCP Volume (Scenario 1.4)



Scenario 1.5

NFRC SCP Storage



Statistics for NFRC SCP Volume (Scenario 1.5)

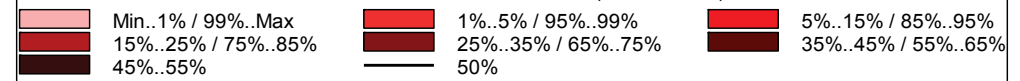
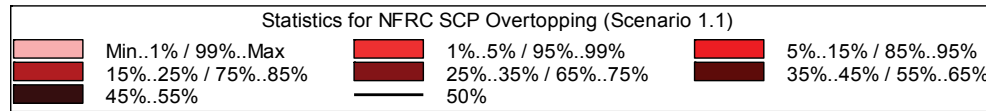
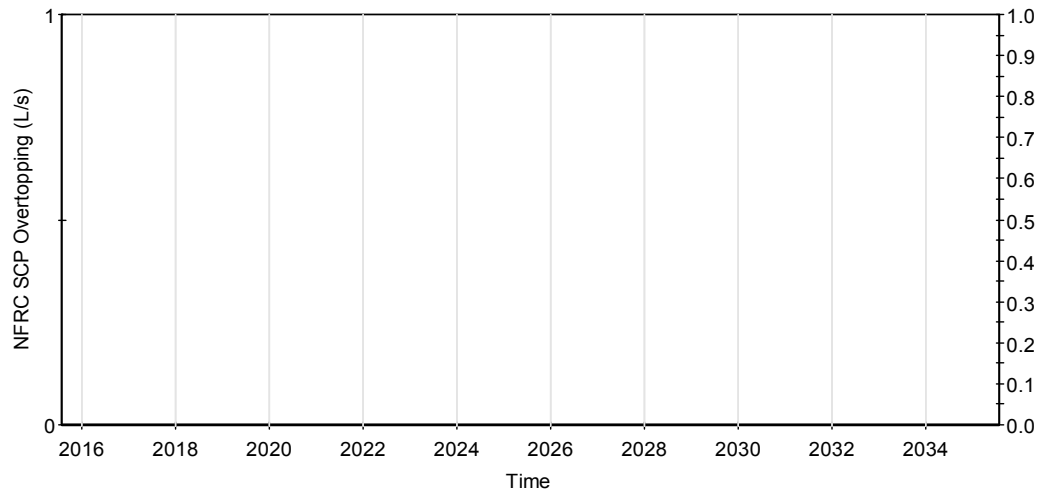


FIGURE 13-6b
Water Management Tool Results –NFRC SCP Stored Volume
Faro Creek Diversion
Faro Mine Remediation Project

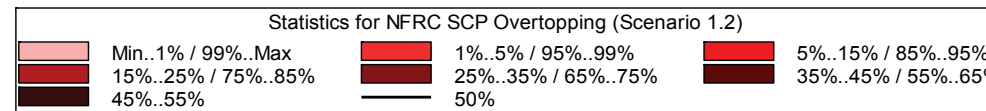
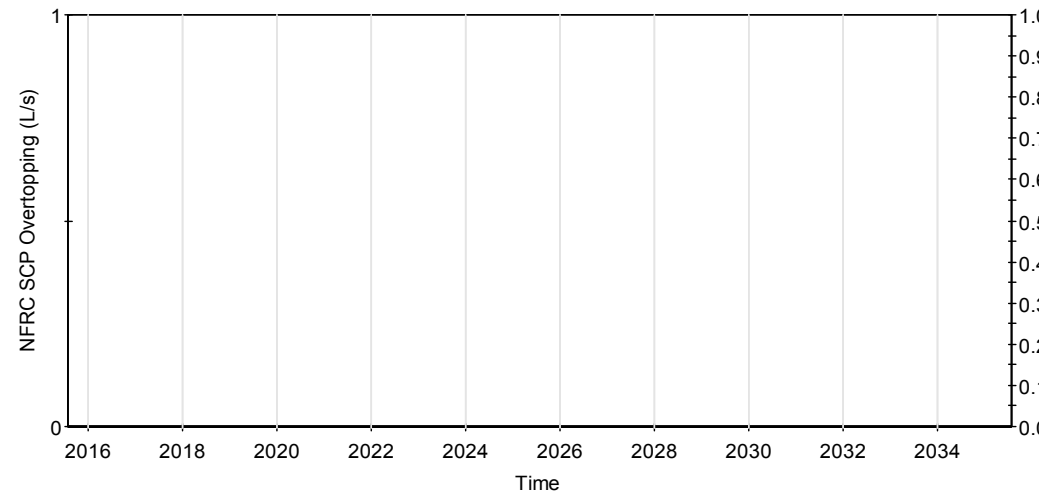
Scenario 1.1

NFRC SCP Overtopping



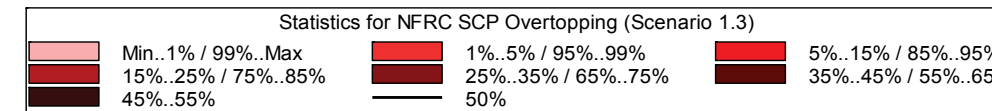
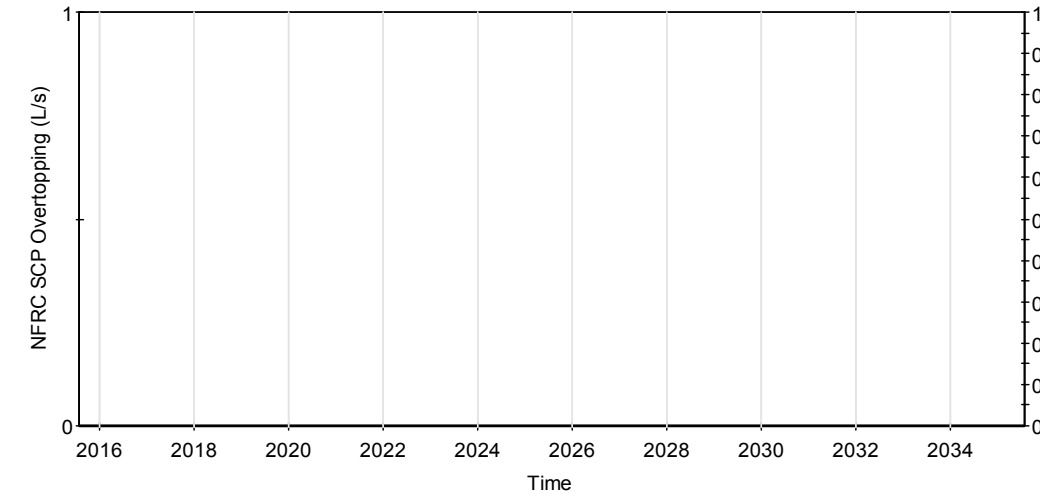
Scenario 1.2

NFRC SCP Overtopping



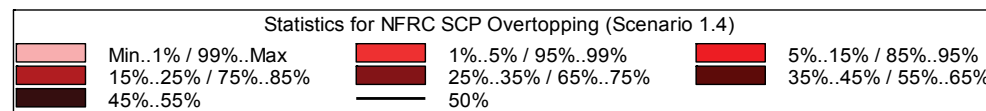
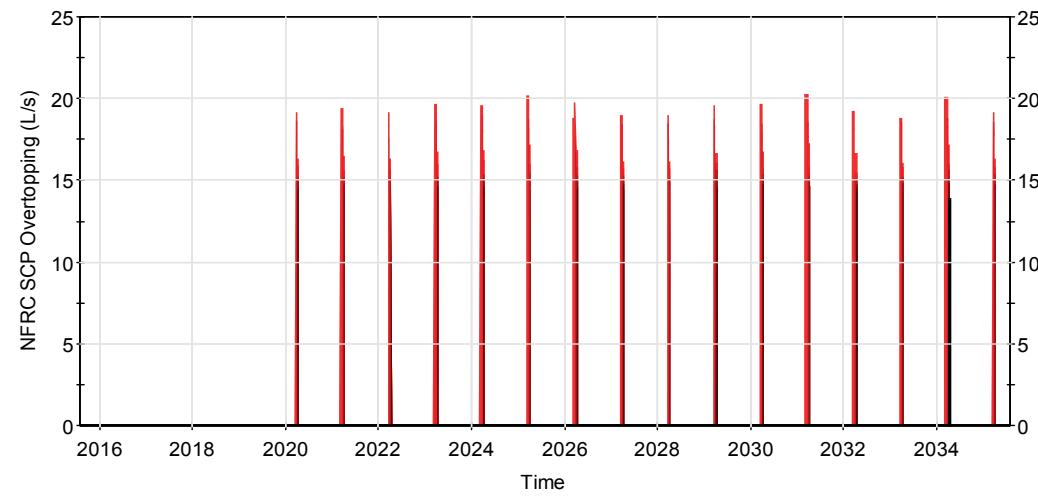
Scenario 1.3

NFRC SCP Overtopping



Scenario 1.4

NFRC SCP Overtopping



Scenario 1.5

NFRC SCP Overtopping

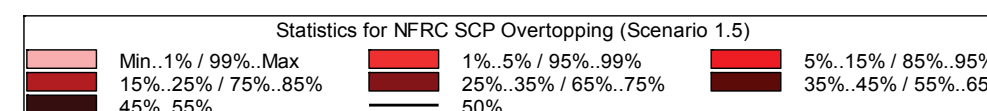
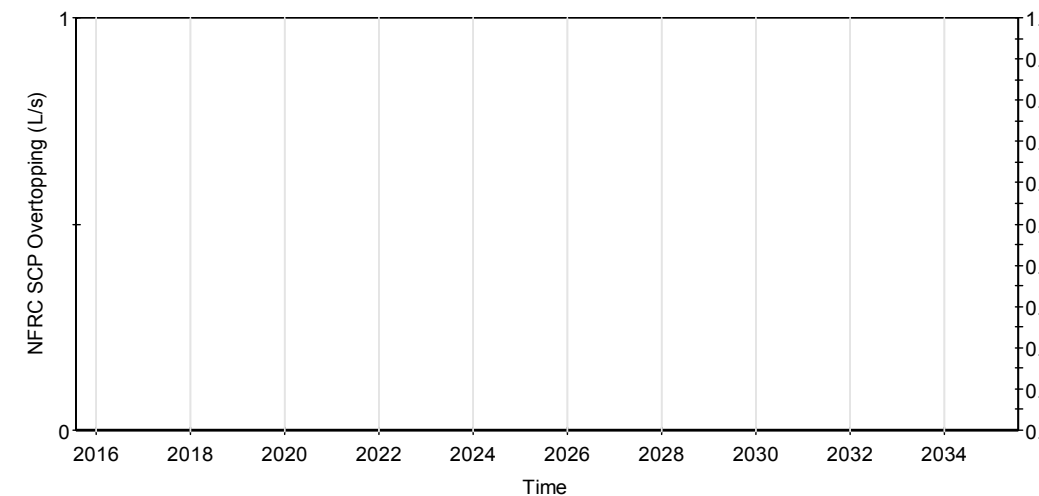
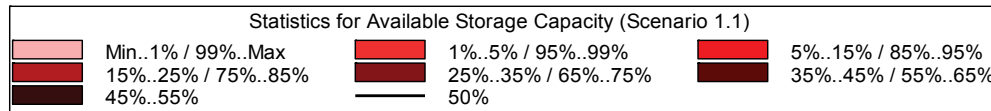
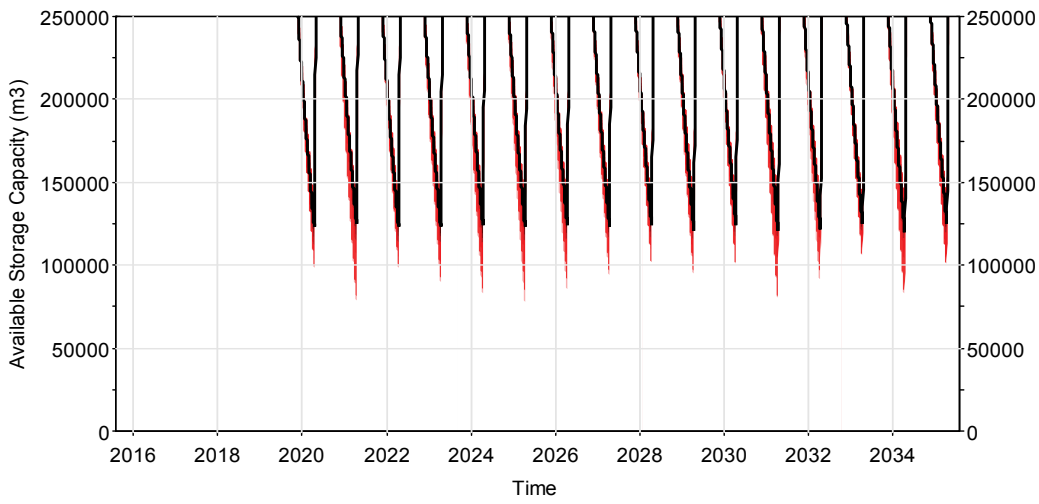


FIGURE 13-6c
Water Management Tool Results – Spills from NFRC SCP
 Faro Creek Diversion
 Faro Mine Remediation Project

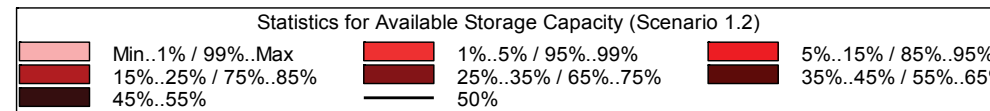
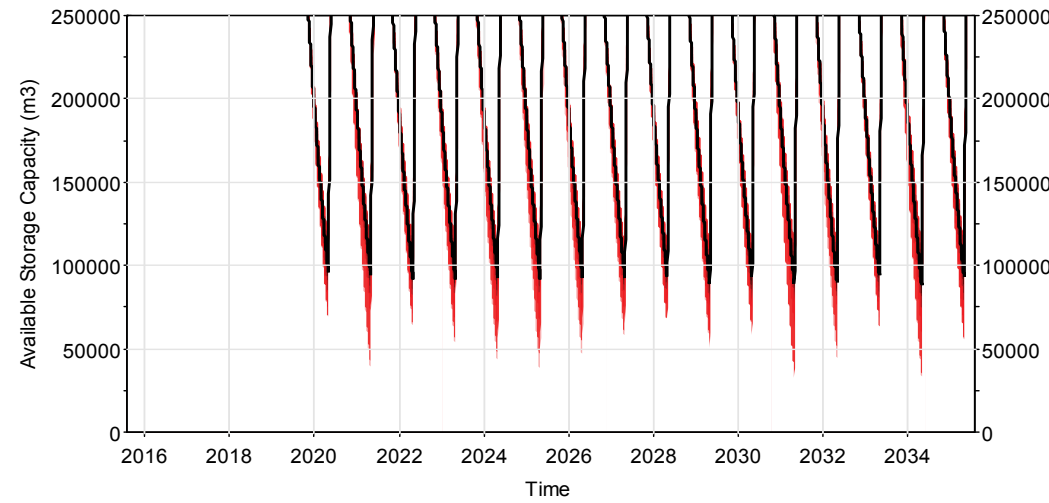
Scenario 1.1

Available Storage Capacity



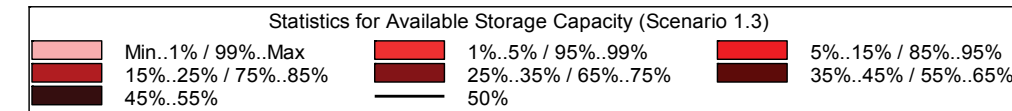
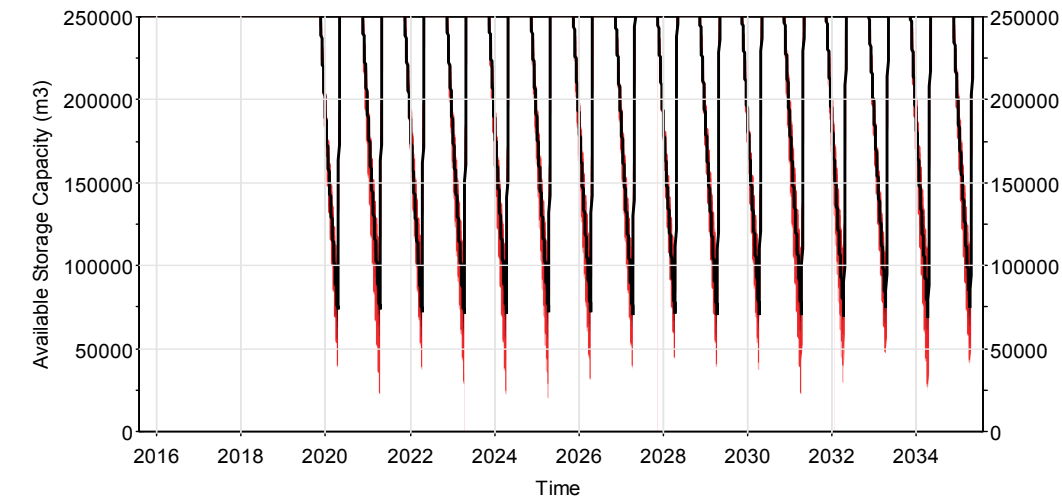
Scenario 1.2

Available Storage Capacity



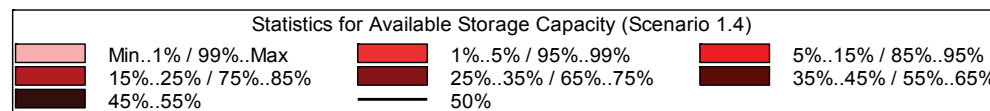
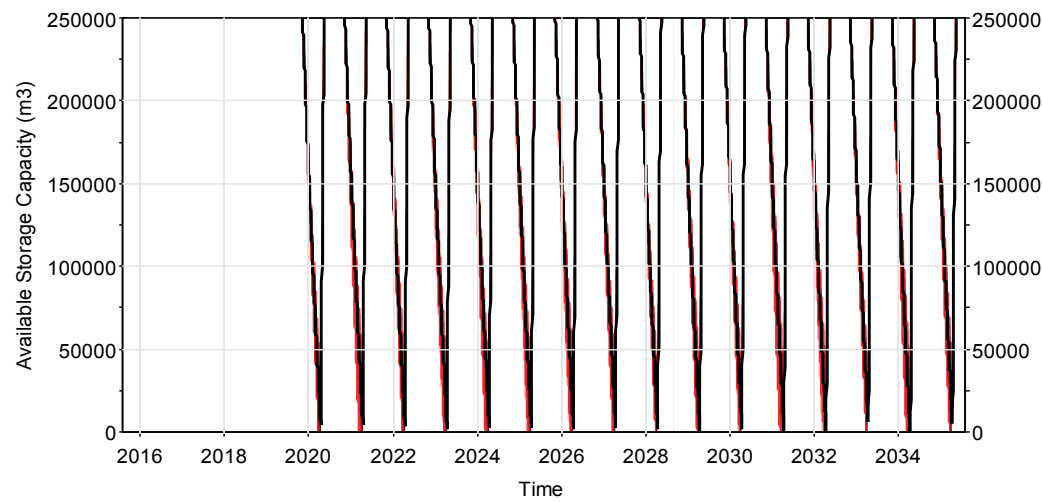
Scenario 1.3

Available Storage Capacity



Scenario 1.4

Available Storage Capacity



Scenario 1.5

Available Storage Capacity

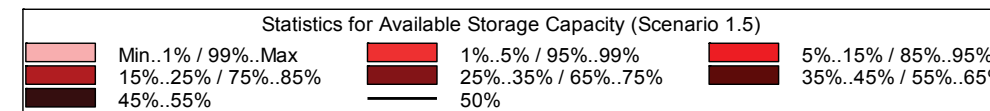
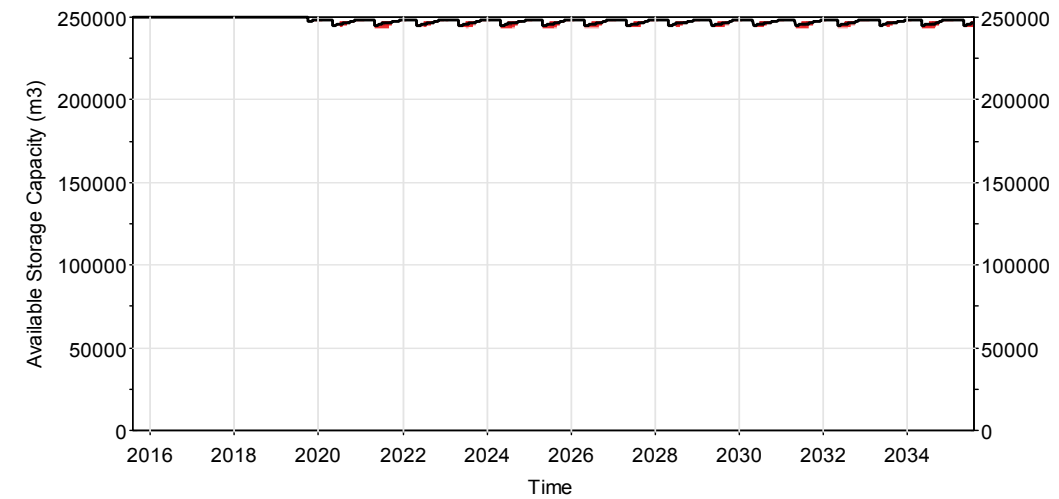
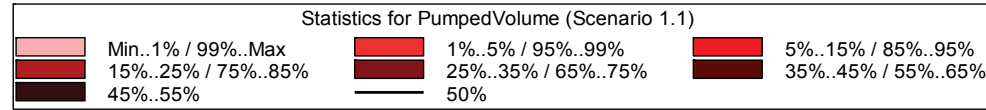
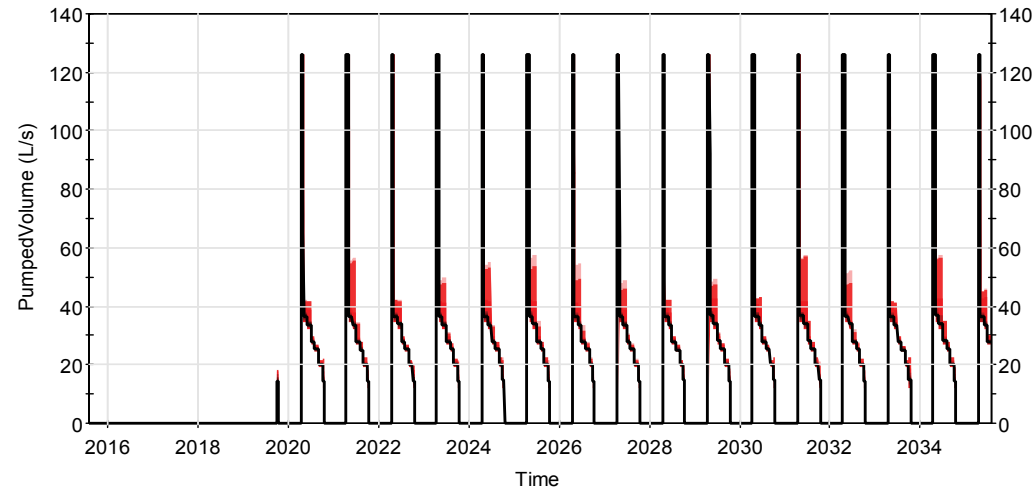


FIGURE 13-6d
Water Management Tool Results – Available Storage Capacity
 Faro Creek Diversion
 Faro Mine Remediation Project

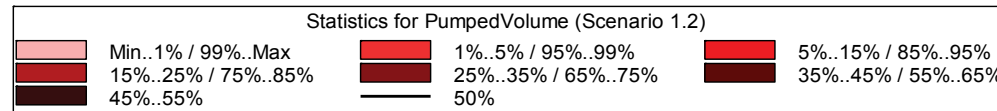
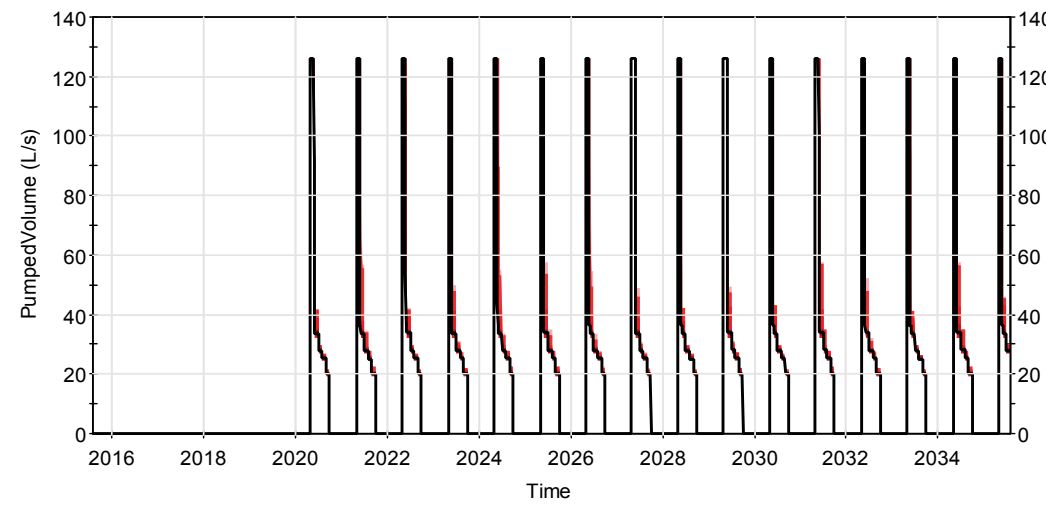
Scenario 1.1

Total Daily Volume Pumped from NFRC SCP



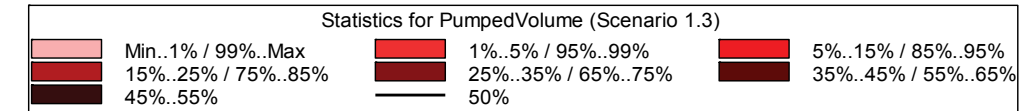
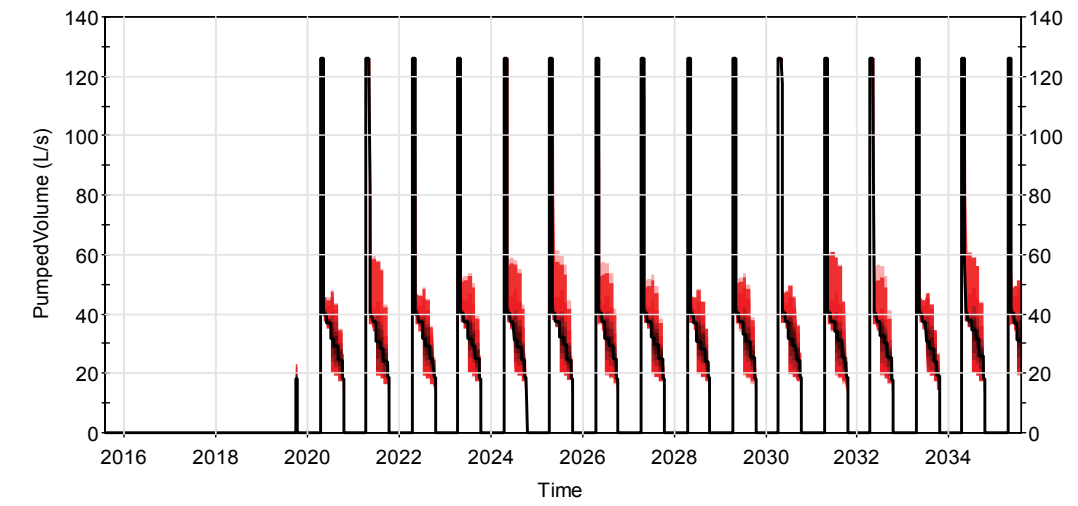
Scenario 1.2

Total Daily Volume Pumped from NFRC SCP



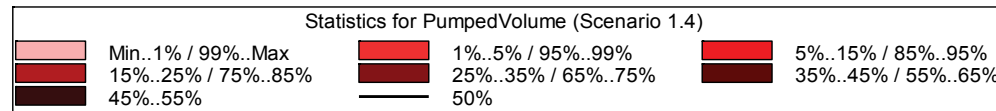
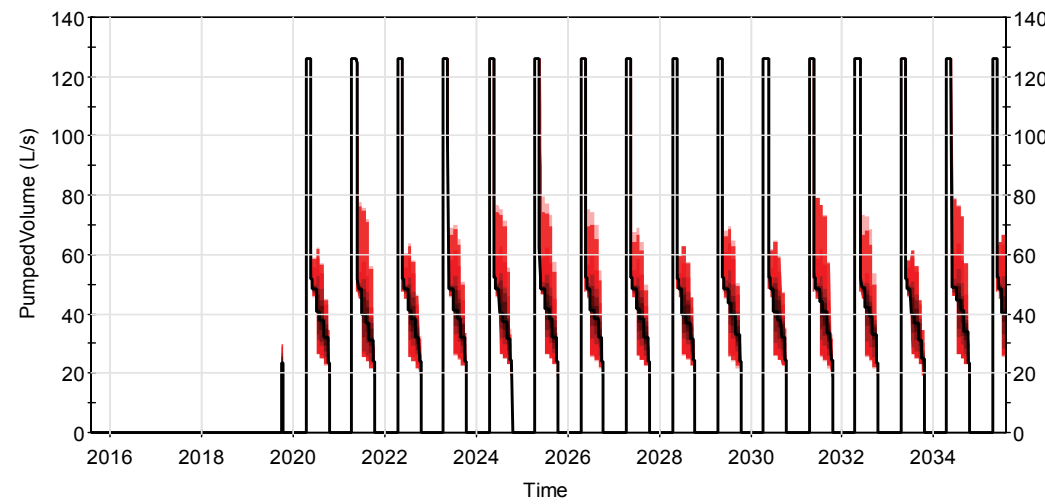
Scenario 1.3

Total Daily Volume Pumped from NFRC SCP



Scenario 1.4

Total Daily Volume Pumped from NFRC SCP



Scenario 1.5

Total Daily Volume Pumped from NFRC SCP

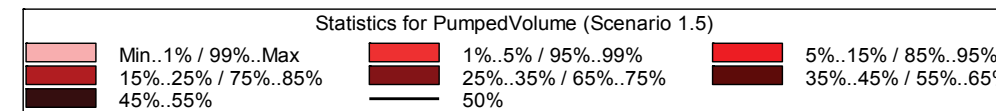
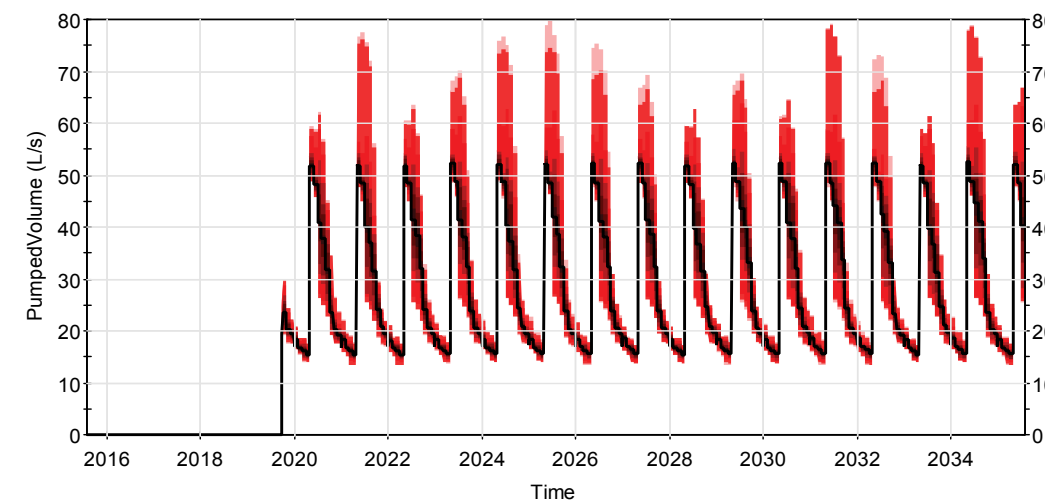
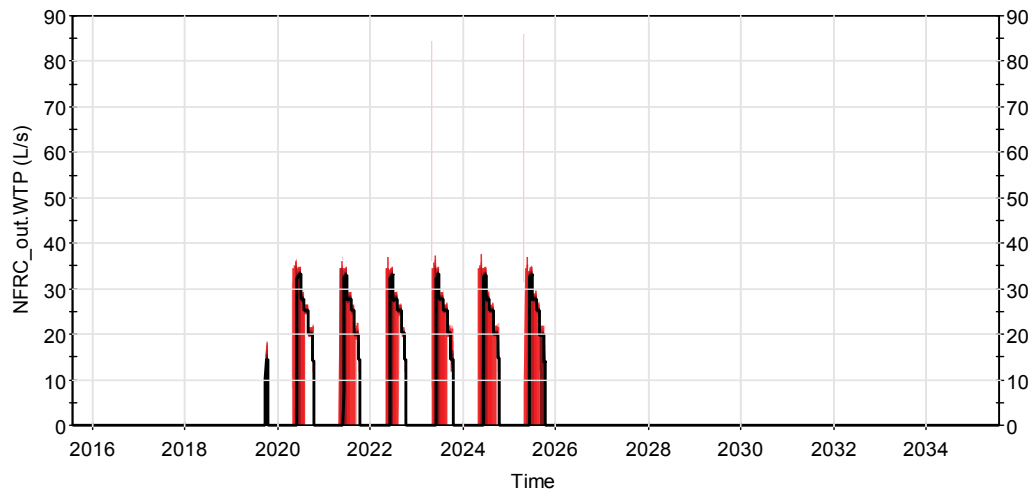


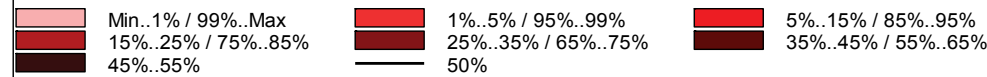
FIGURE 13-6e
Water Management Tool Results – Total Daily Volume Pumped
 Faro Creek Diversion
 Faro Mine Remediation Project

Scenario 1.1

Total Daily Volume Pumped from NFRC SCP to IWTS

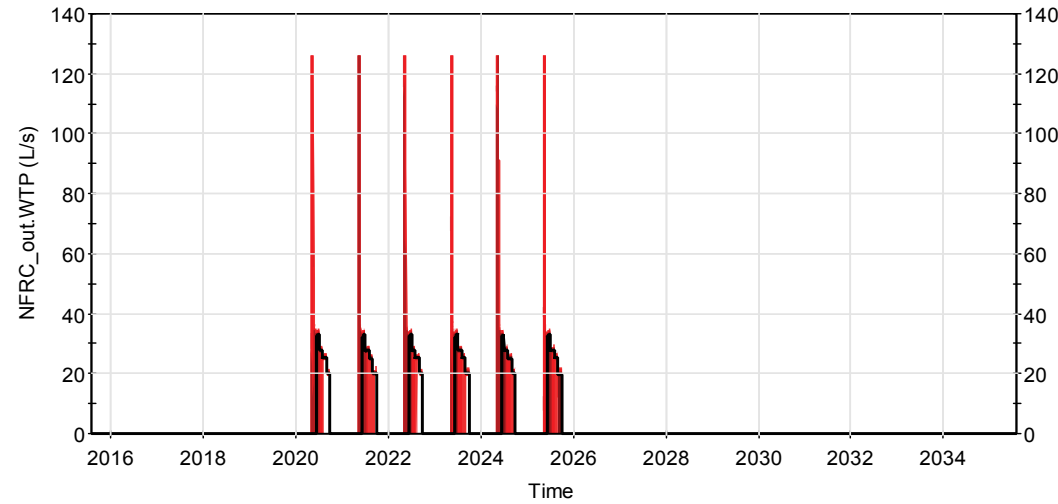


Statistics for NFRC_out.WTP (Scenario 1.1)

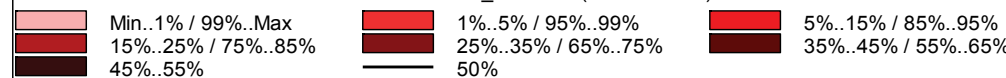


Scenario 1.2

Total Daily Volume Pumped from NFRC SCP to IWTS

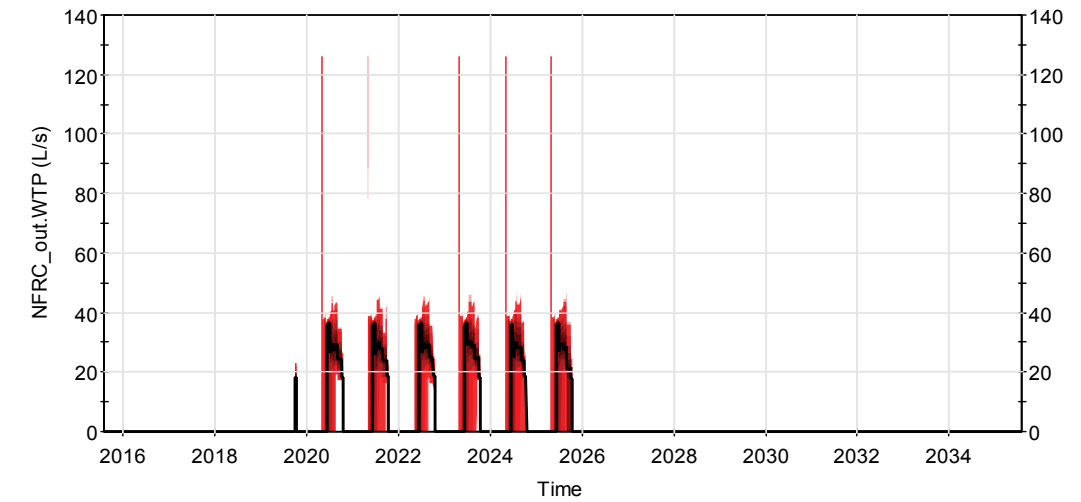


Statistics for NFRC_out.WTP (Scenario 1.2)

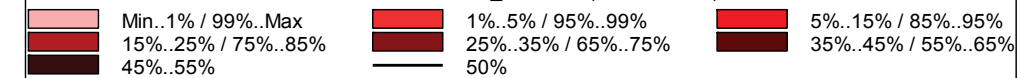


Scenario 1.3

Total Daily Volume Pumped from NFRC SCP to IWTS

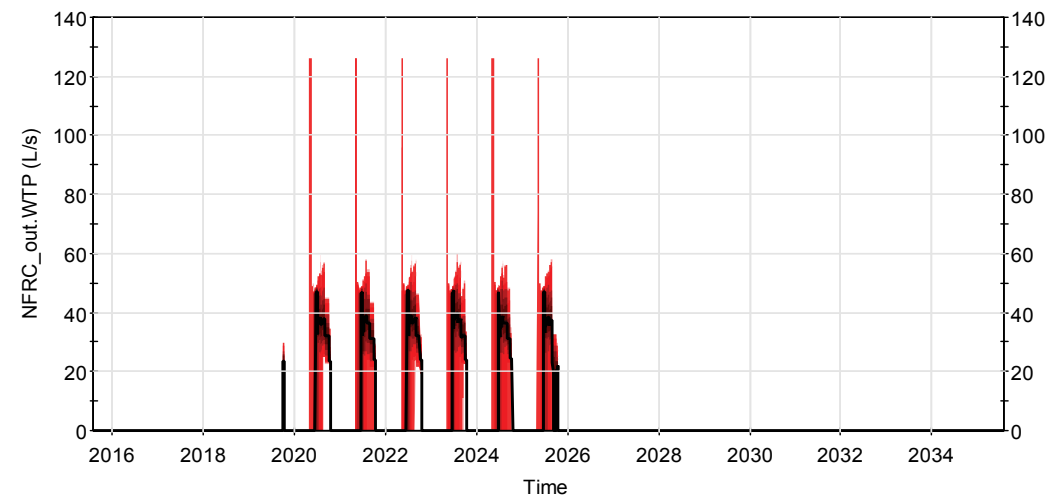


Statistics for NFRC_out.WTP (Scenario 1.3)

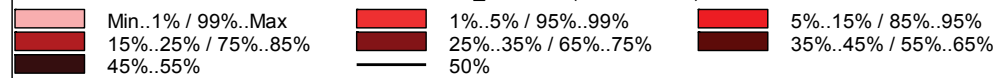


Scenario 1.4

Total Daily Volume Pumped from NFRC SCP to IWTS

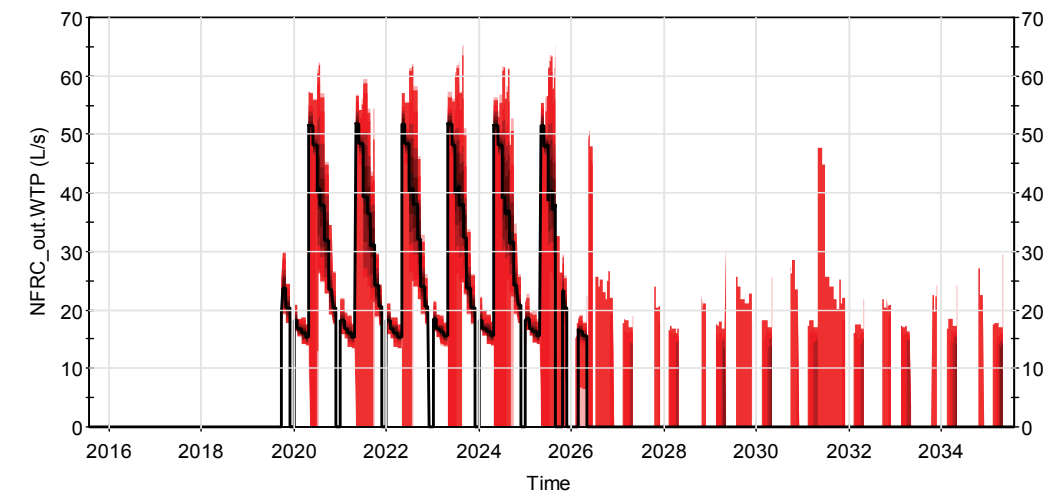


Statistics for NFRC_out.WTP (Scenario 1.4)



Scenario 1.5

Total Daily Volume Pumped from NFRC SCP to IWTS



Statistics for NFRC_out.WTP (Scenario 1.5)

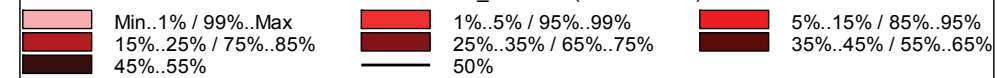
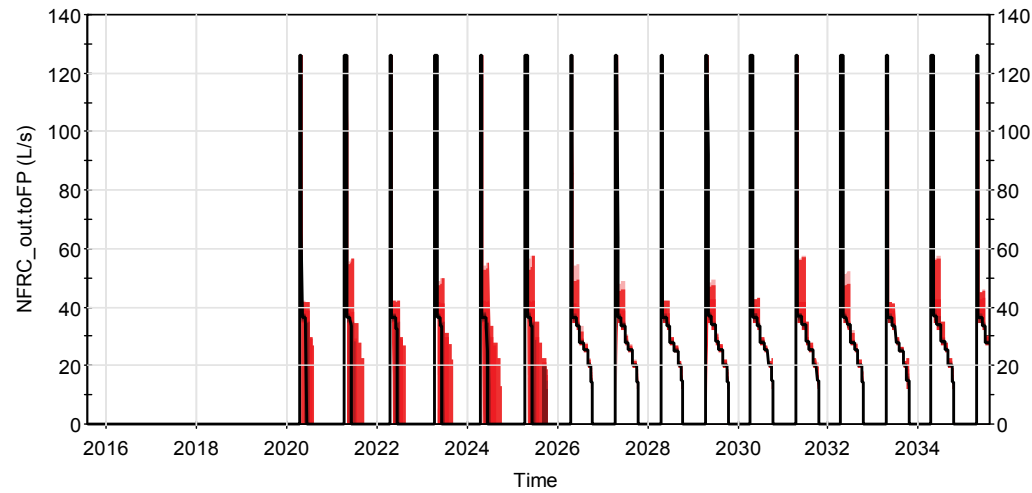


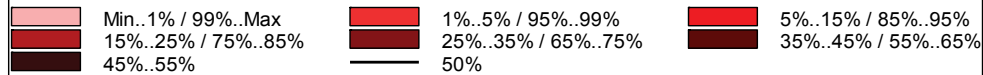
FIGURE 13-6f
Water Management Tool Results – Daily Pumping Rate to IWTS
Faro Creek Diversion
Faro Mine Remediation Project

Scenario 1.1

Total Daily Volume Pumped from NFRC SCP to Faro Pit

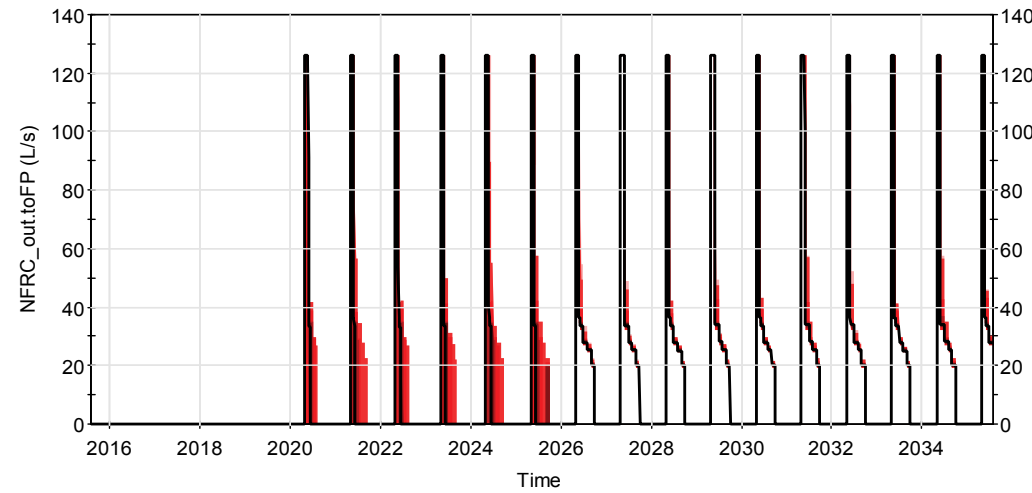


Statistics for NFRC_out.toFP (Scenario 1.1)

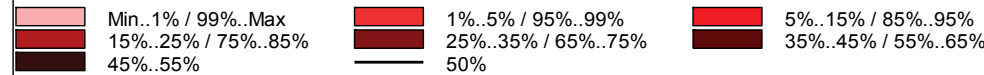


Scenario 1.2

Total Daily Volume Pumped from NFRC SCP to Faro Pit

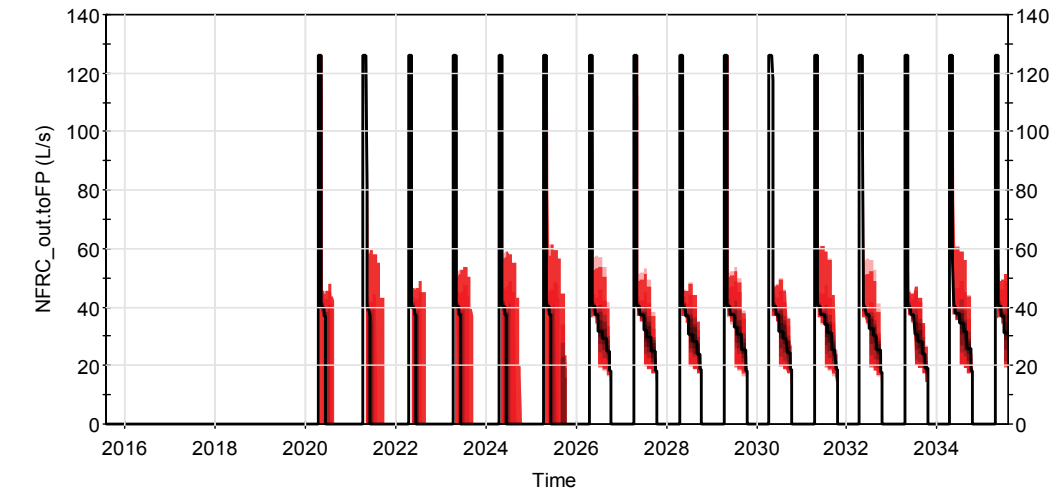


Statistics for NFRC_out.toFP (Scenario 1.2)

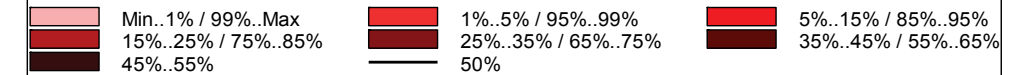


Scenario 1.3

Total Daily Volume Pumped from NFRC SCP to Faro Pit

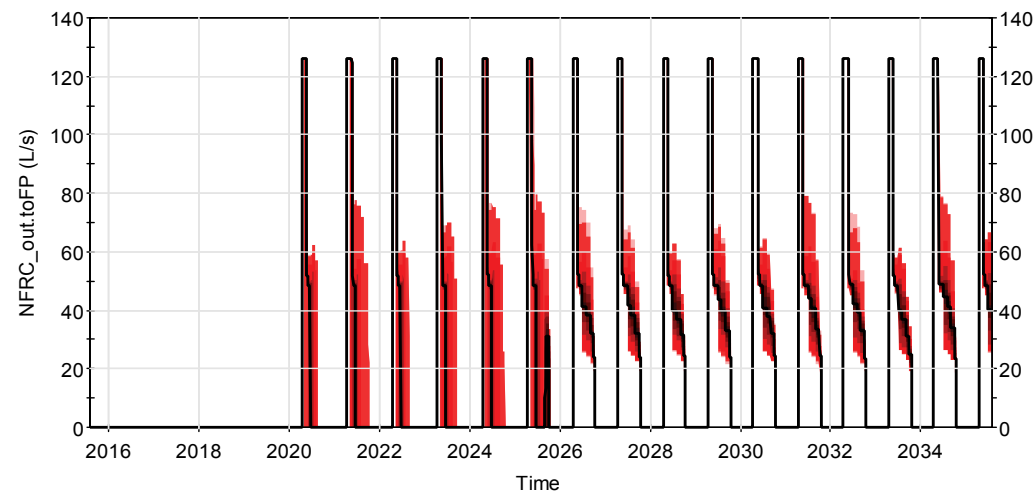


Statistics for NFRC_out.toFP (Scenario 1.3)

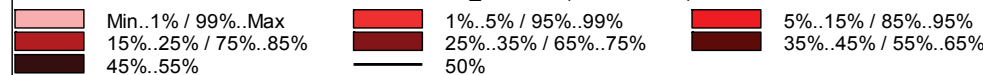


Scenario 1.4

Total Daily Volume Pumped from NFRC SCP to Faro Pit

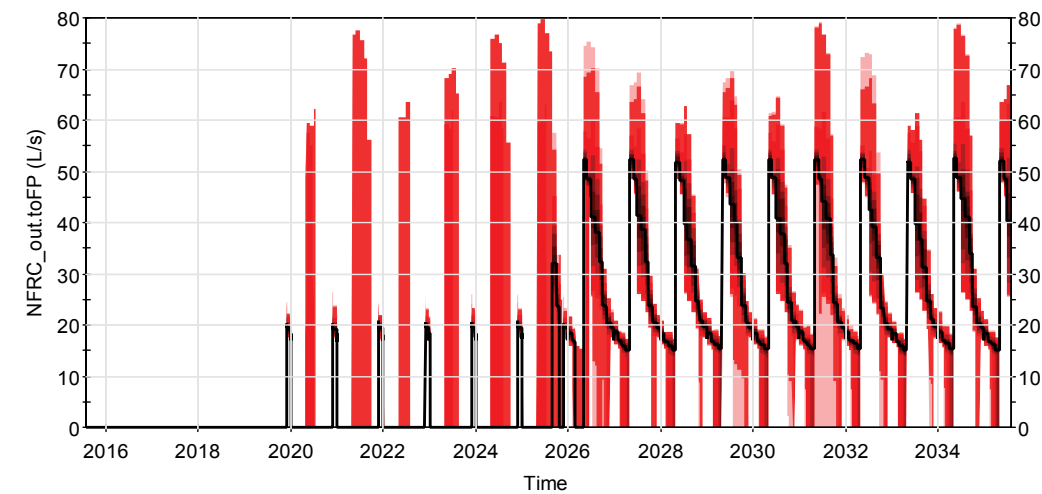


Statistics for NFRC_out.toFP (Scenario 1.4)



Scenario 1.5

Total Daily Volume Pumped from NFRC SCP to Faro Pit



Statistics for NFRC_out.toFP (Scenario 1.5)

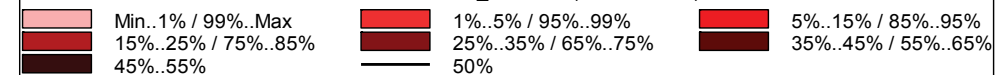
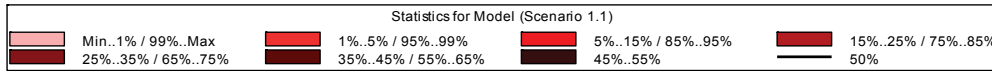
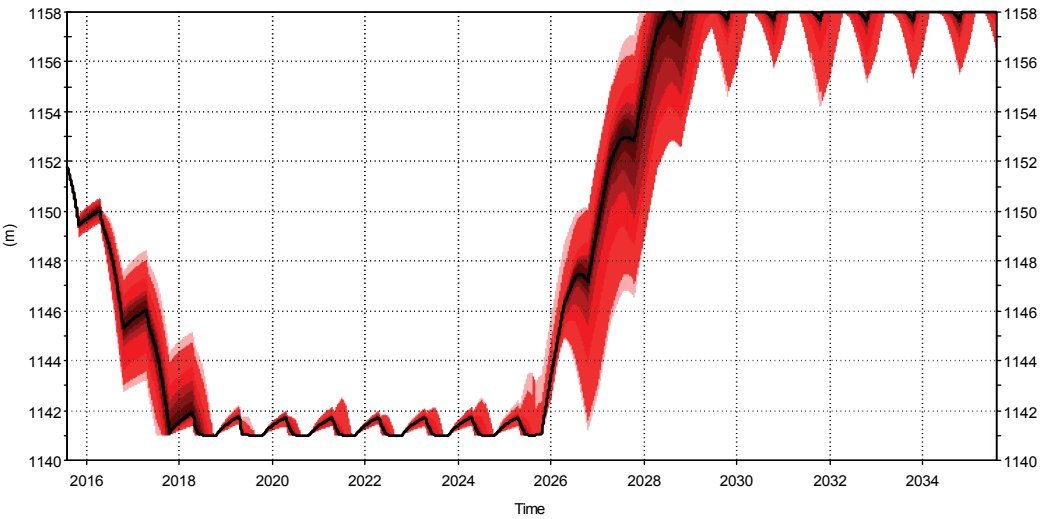


FIGURE 13-6g
Water Management Tool Results – Daily Pumping Rate to Faro Pit
Faro Creek Diversion
Faro Mine Remediation Project

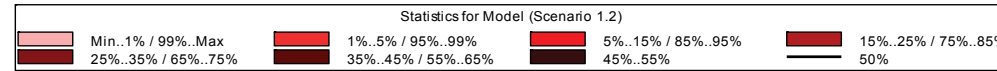
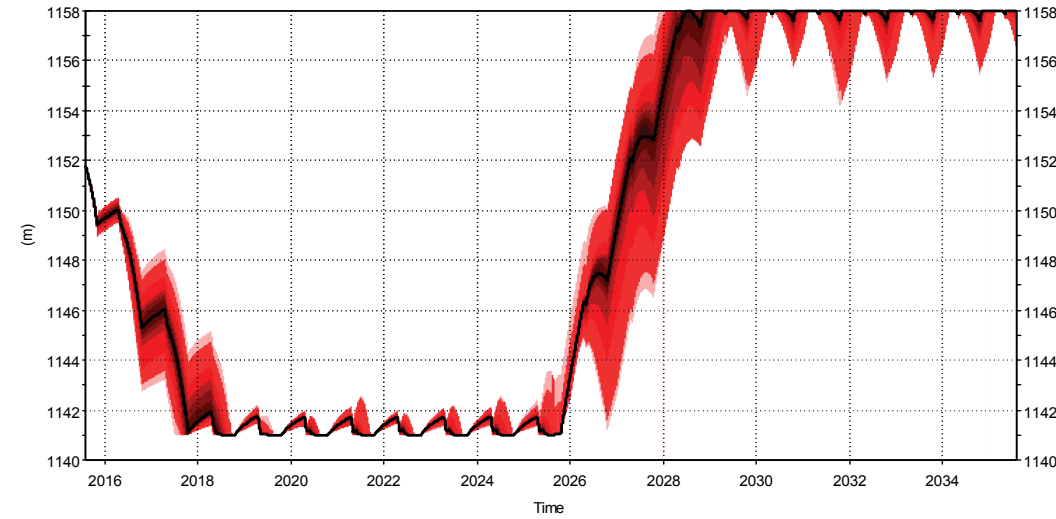
Scenario 1.1

Faro Pit Elevation



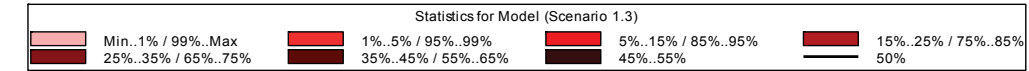
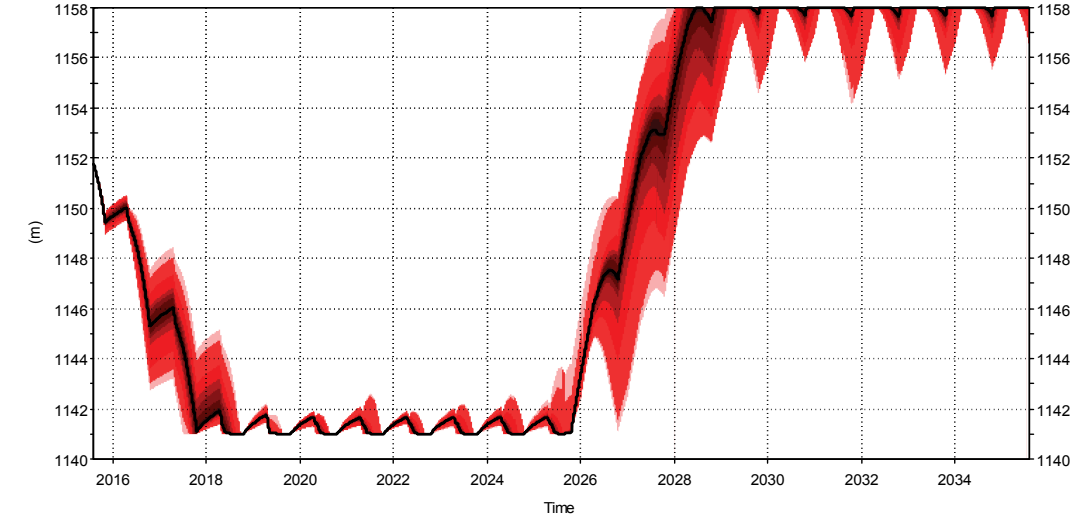
Scenario 1.2

Faro Pit Elevation



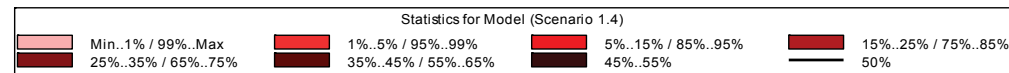
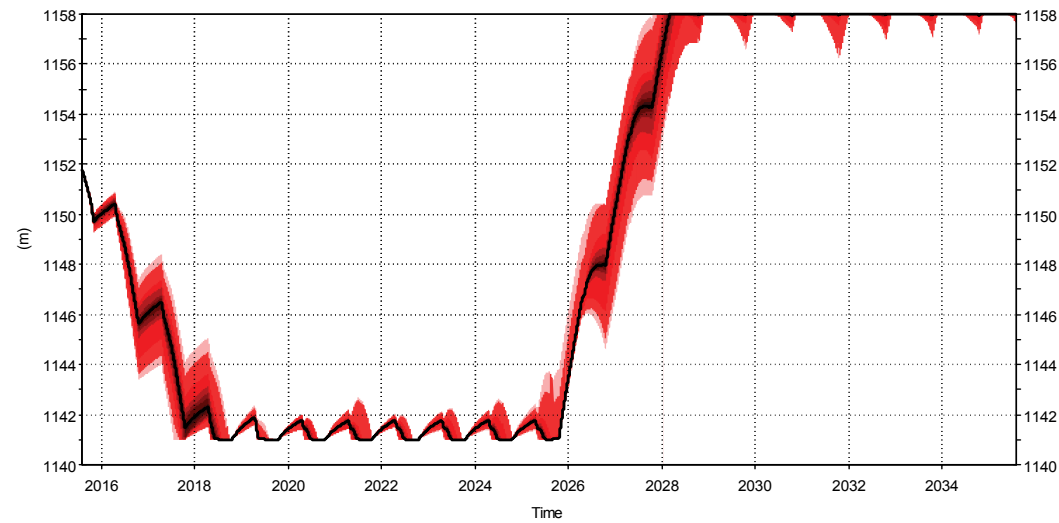
Scenario 1.3

Faro Pit Elevation



Scenario 1.4

Faro Pit Elevation



Scenario 1.5

Faro Pit Elevation

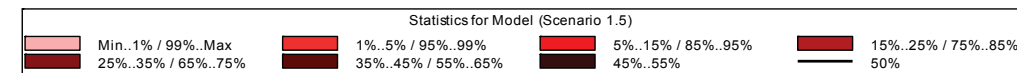
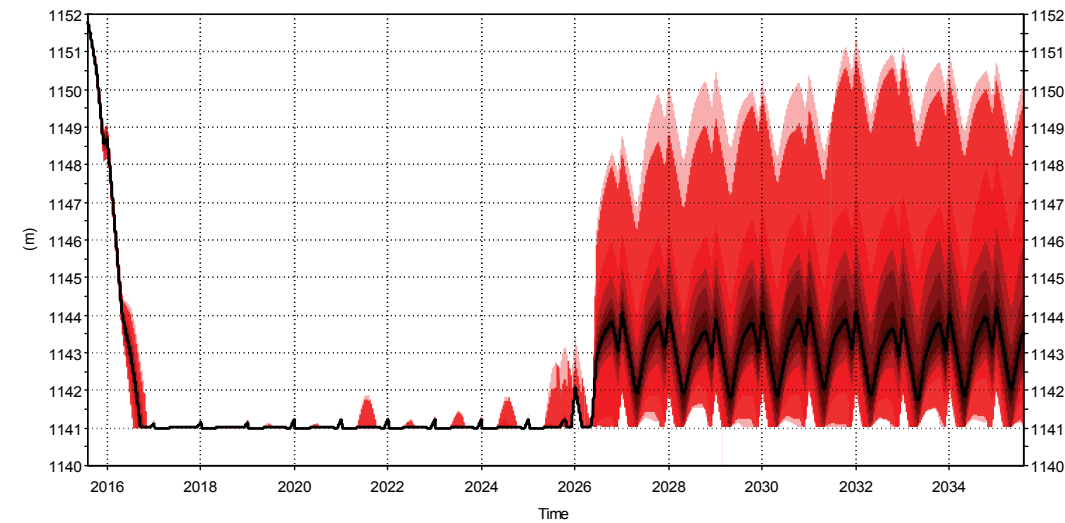
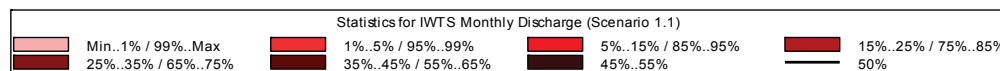
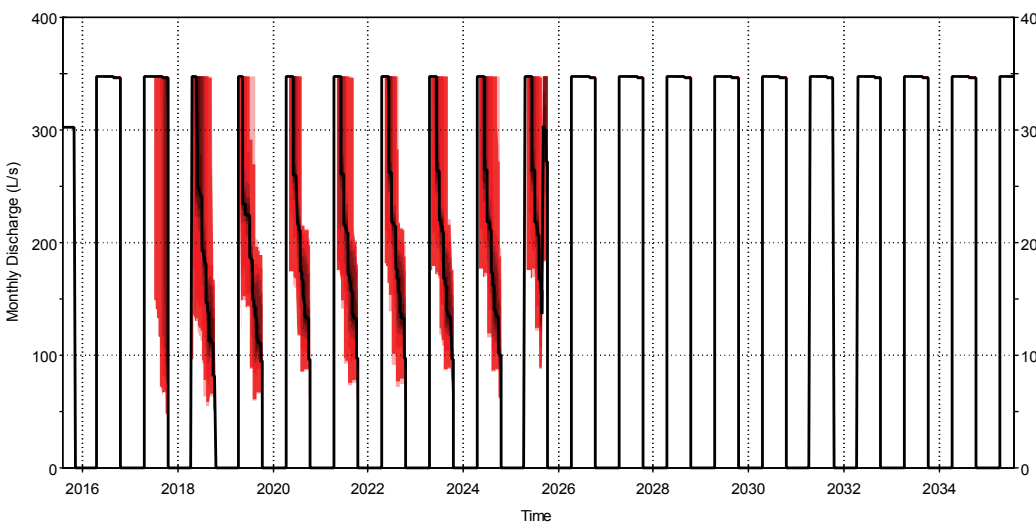


FIGURE 13-6h
Water Management Tool Results – Water Elevation In Faro Pit
Faro Creek Diversion
Faro Mine Remediation Project

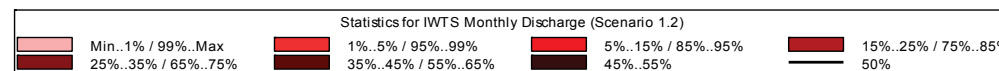
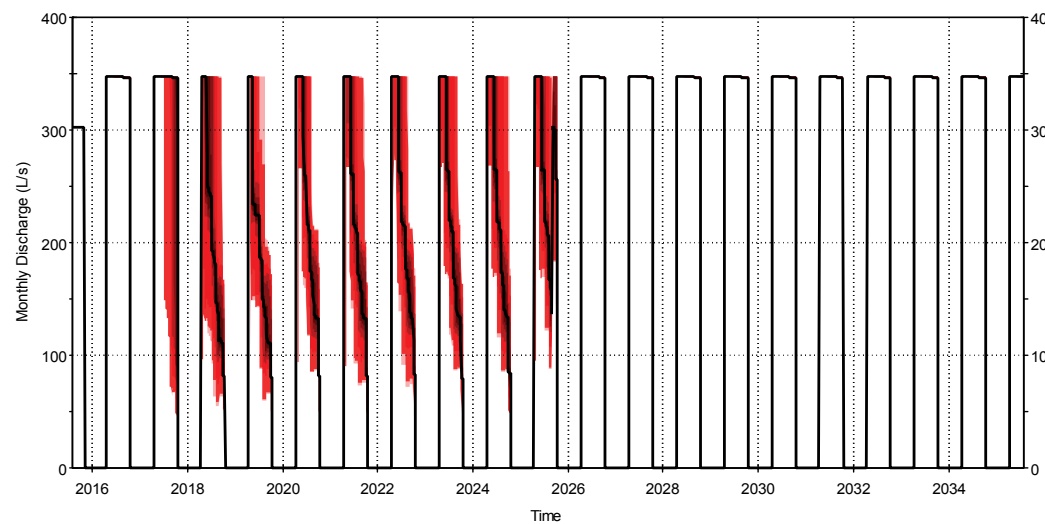
Scenario 1.1

Daily IWTS Discharge



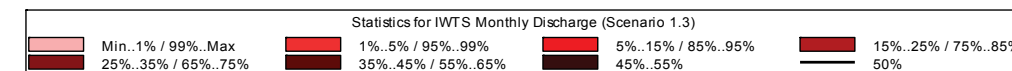
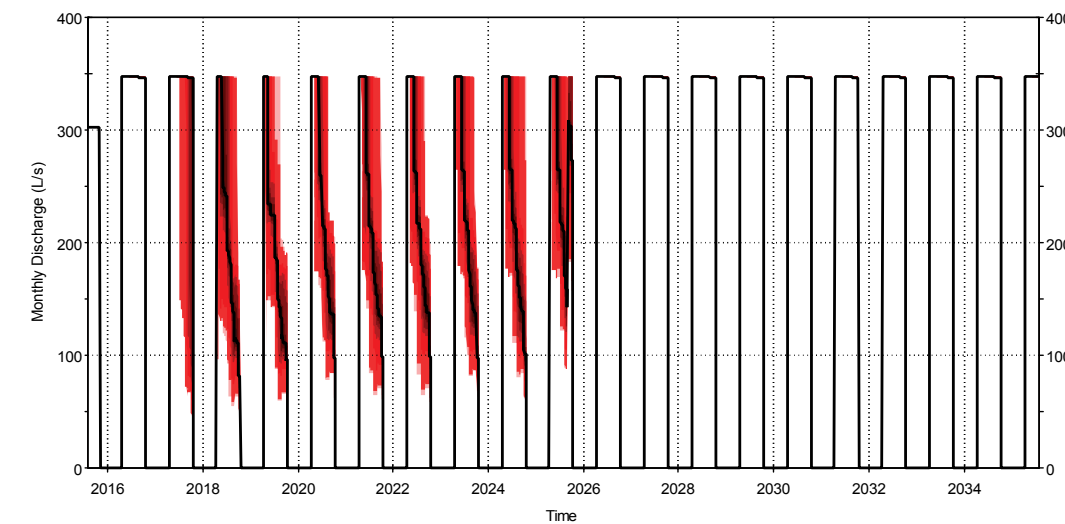
Scenario 1.2

Daily IWTS Discharge



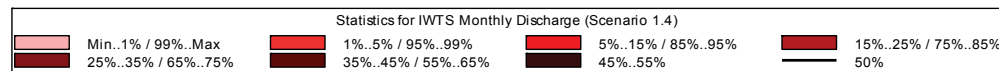
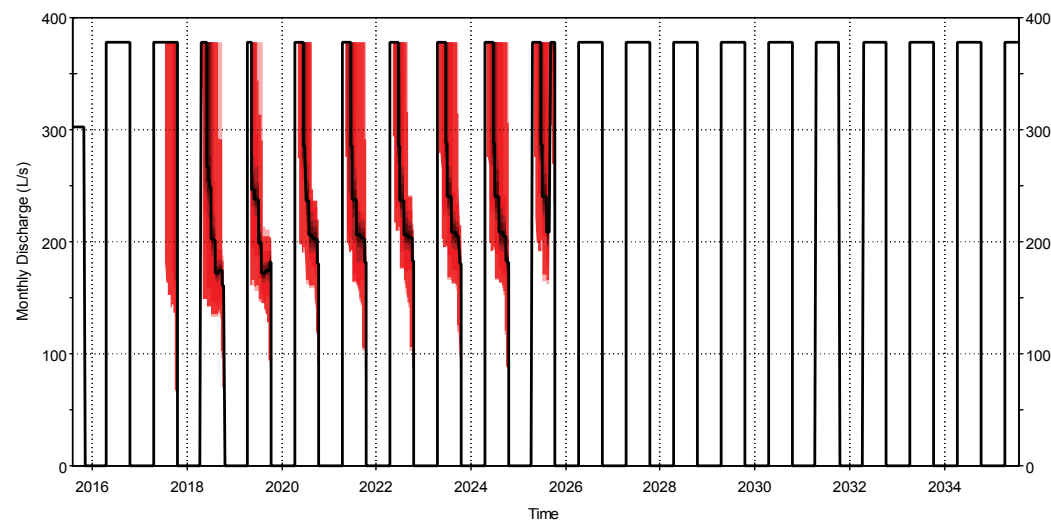
Scenario 1.3

Daily IWTS Discharge



Scenario 1.4

Daily IWTS Discharge



Scenario 1.5

Daily IWTS Discharge

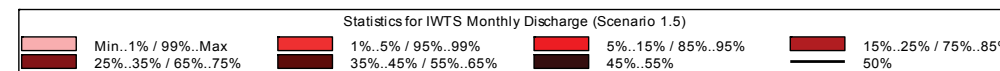
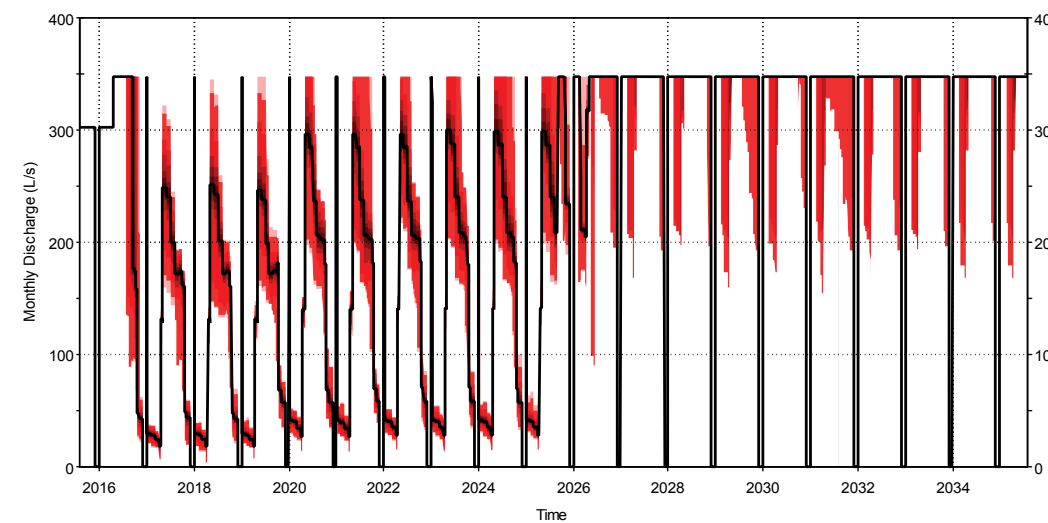
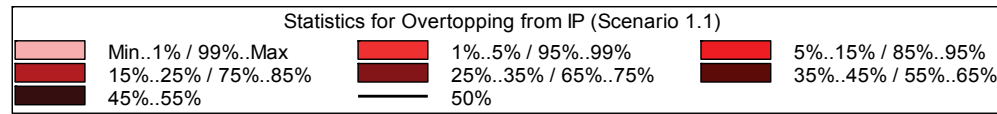
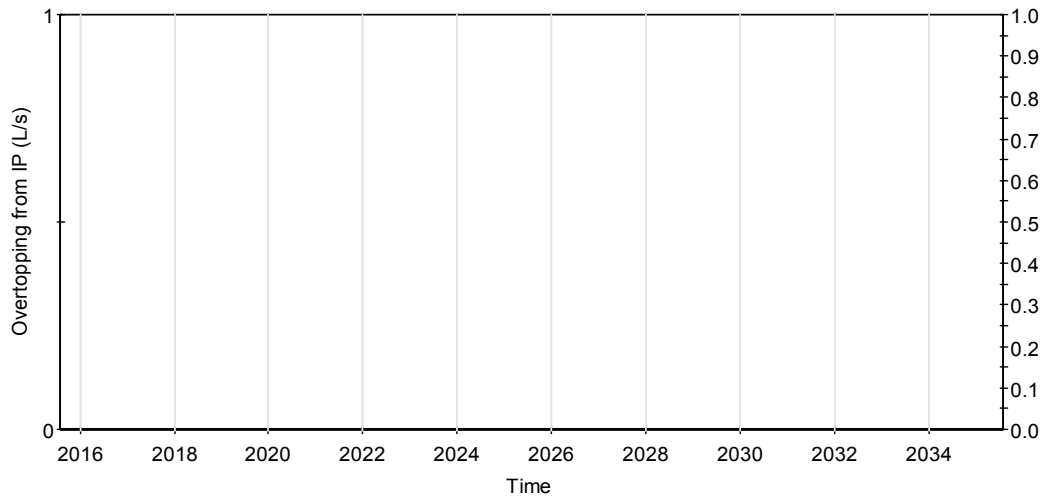


FIGURE 13-6i
Water Management Tool Results – Daily IWTS Discharge
 Faro Creek Diversion
 Faro Mine Remediation Project

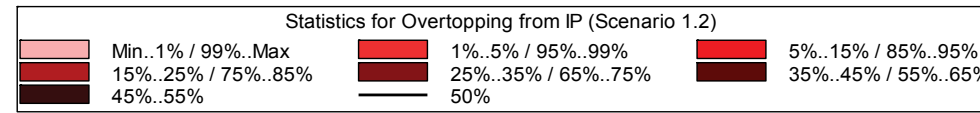
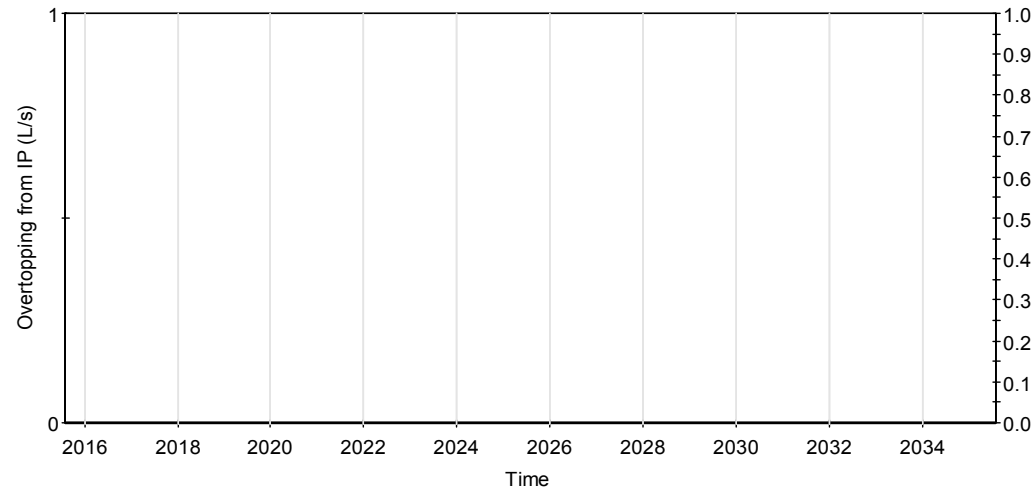
Scenario 1.1

IP Overtopping



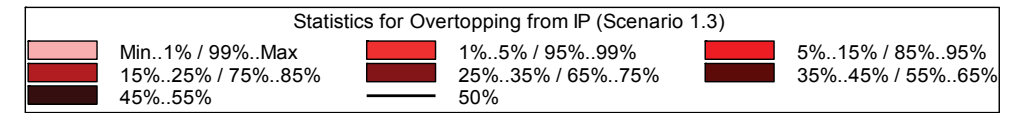
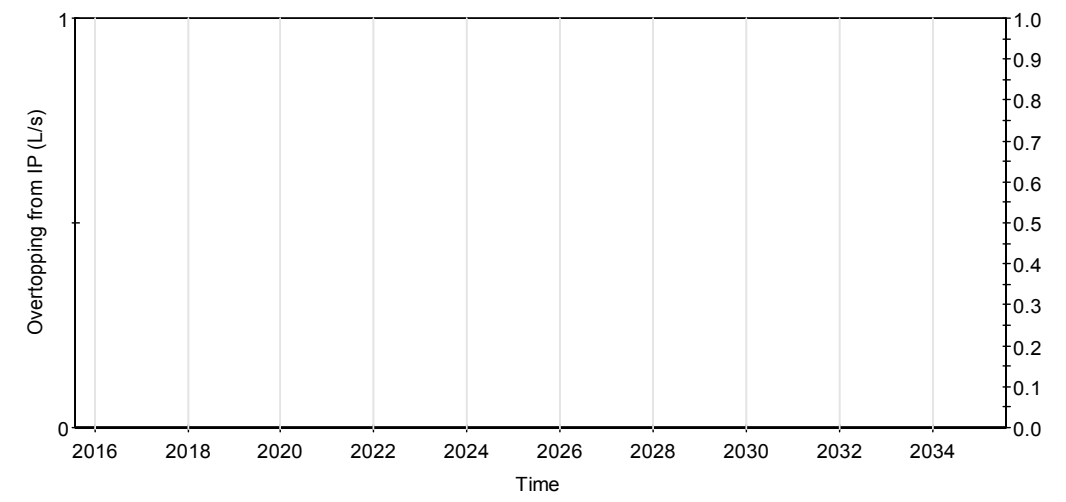
Scenario 1.2

IP Overtopping



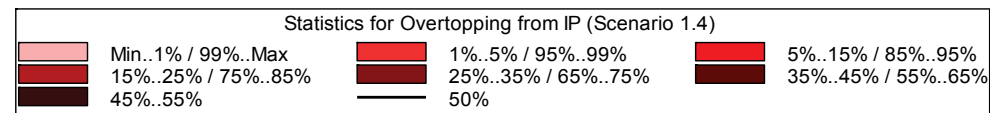
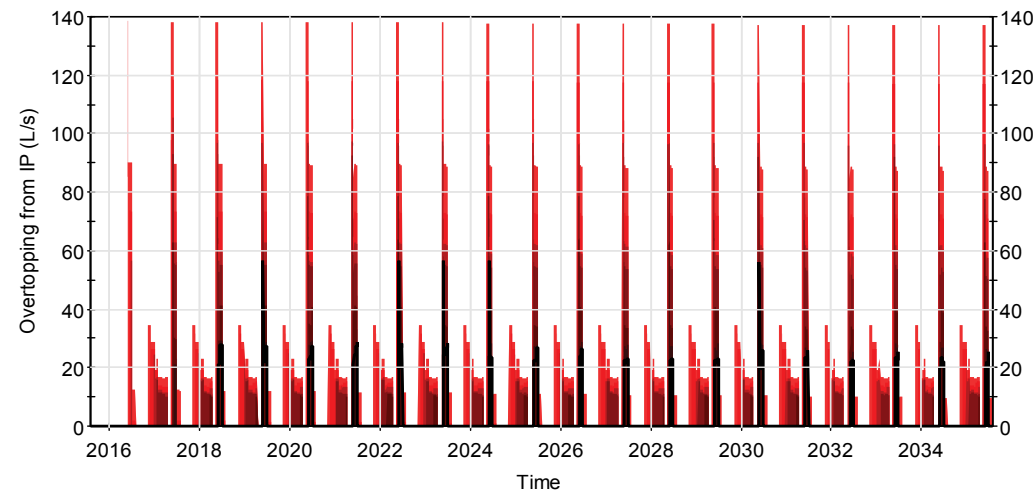
Scenario 1.3

IP Overtopping



Scenario 1.4

IP Overtopping



Scenario 1.5

IP Overtopping

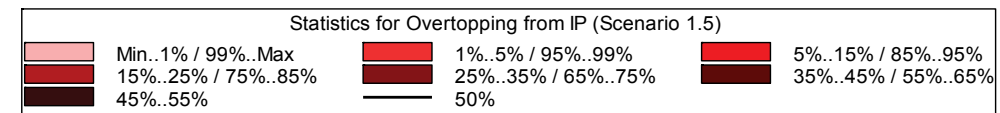
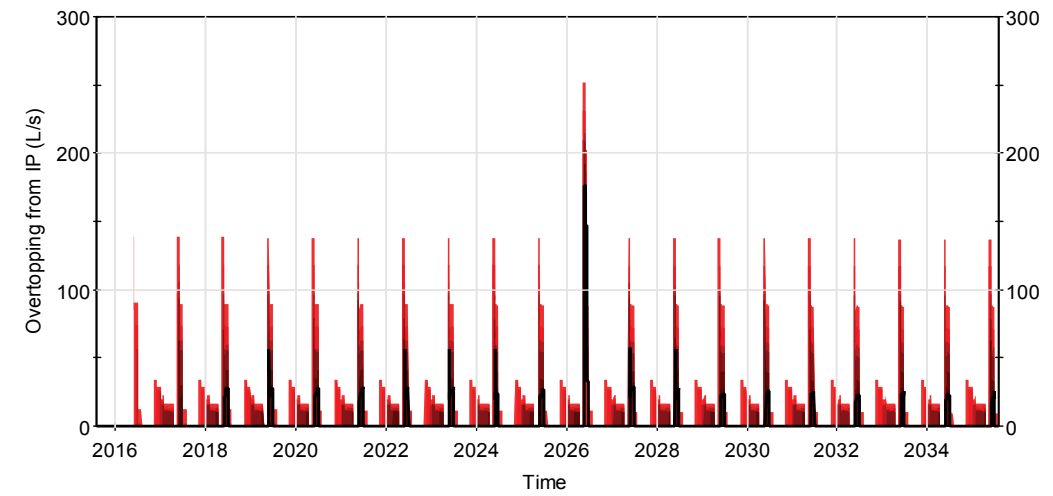
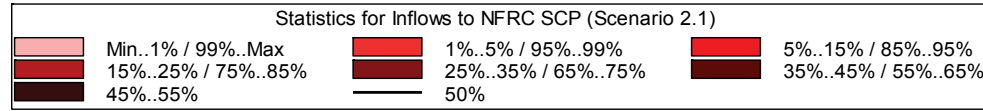
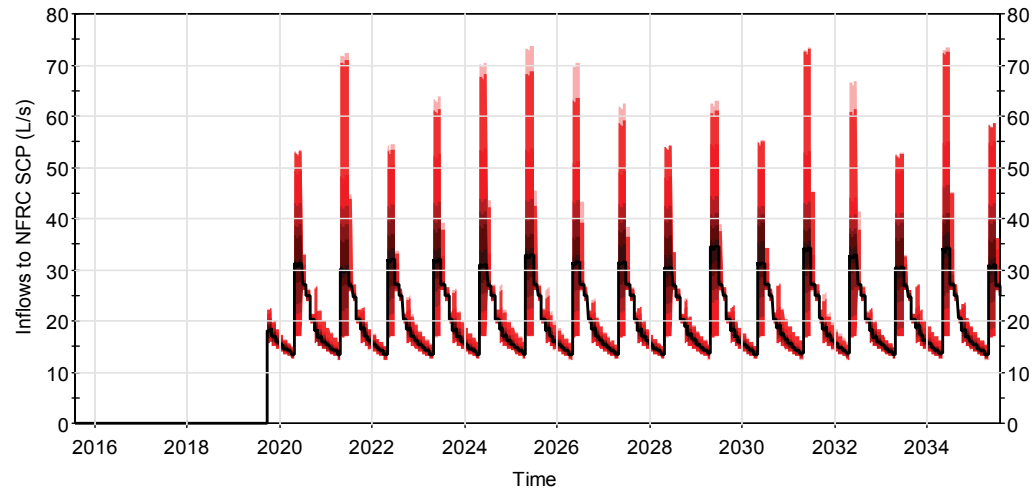


FIGURE 13-6j
Water Management Tool Results – Spills from Intermediate Dam Pond
 Faro Creek Diversion
 Faro Mine Remediation Project

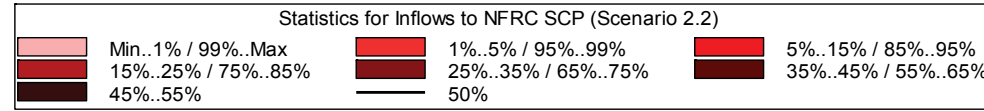
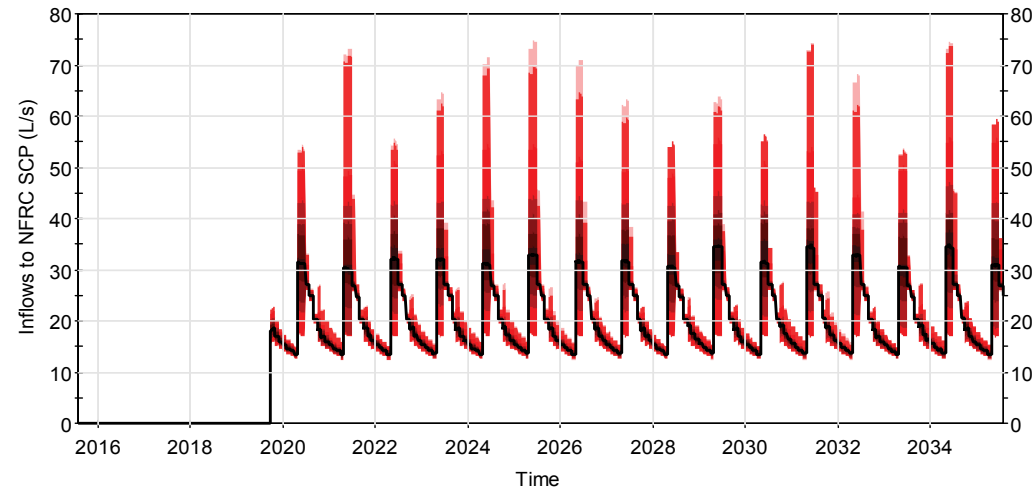
Scenario 2.1

Inflows to NFRC SCP



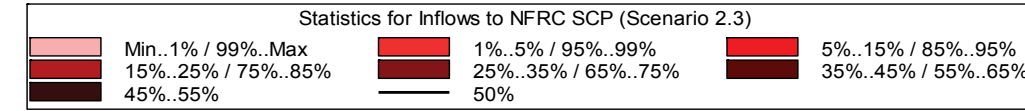
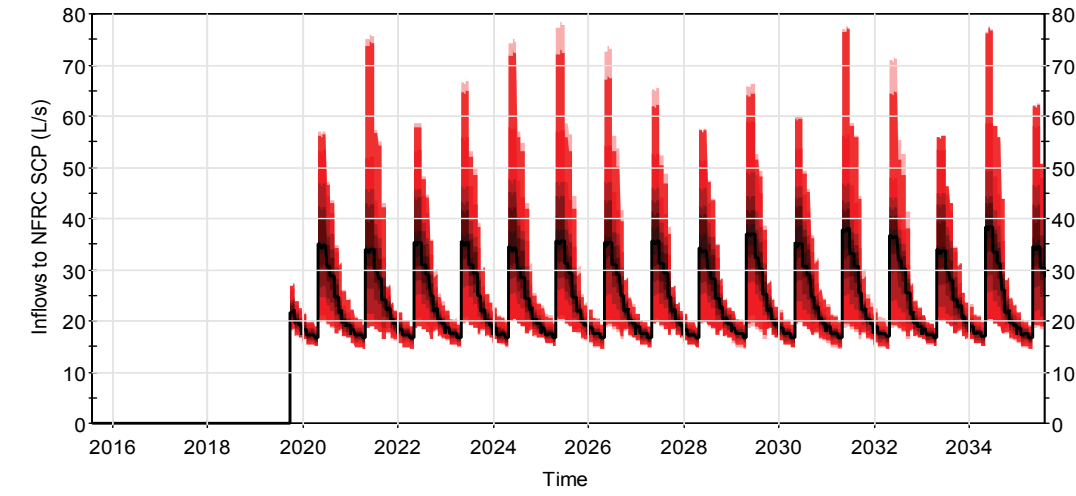
Scenario 2.2

Inflows to NFRC SCP



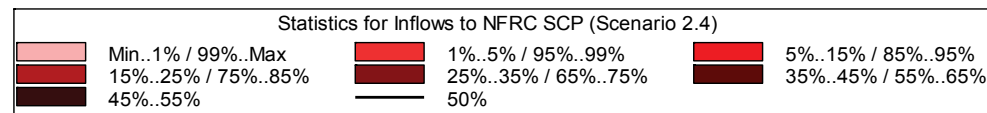
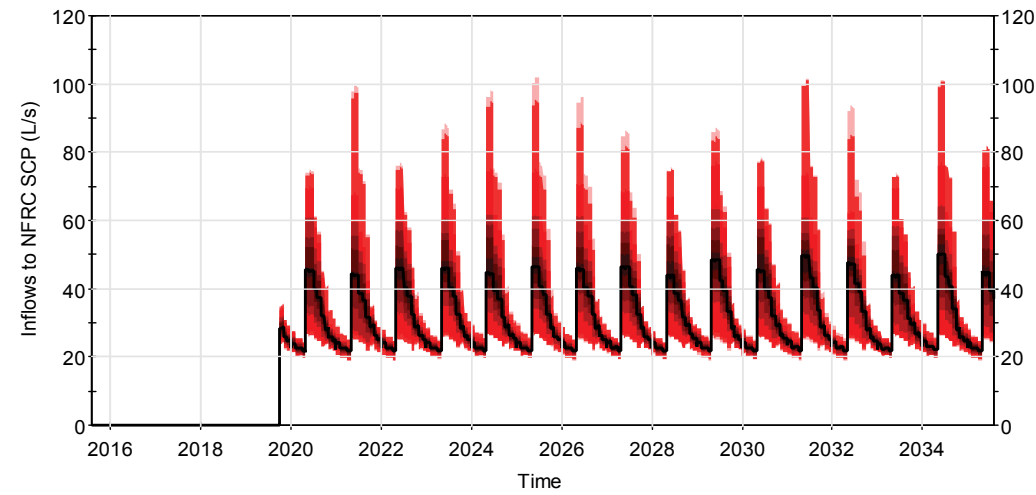
Scenario 2.3

Inflows to NFRC SCP



Scenario 2.4

Inflows to NFRC SCP



Scenario 2.5

Inflows to NFRC SCP

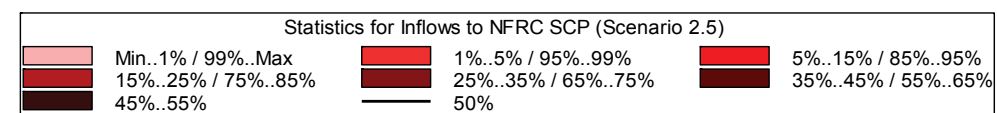
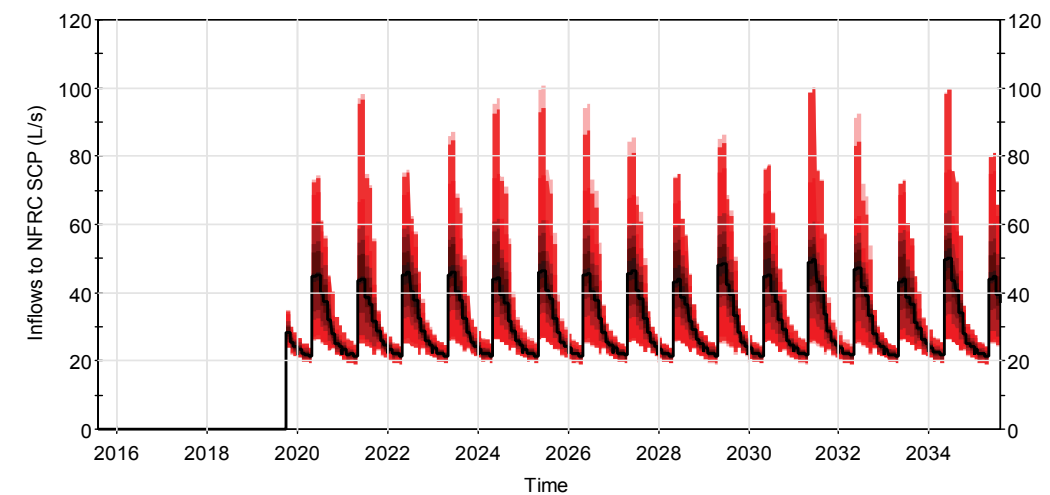
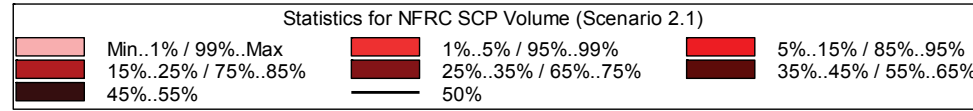
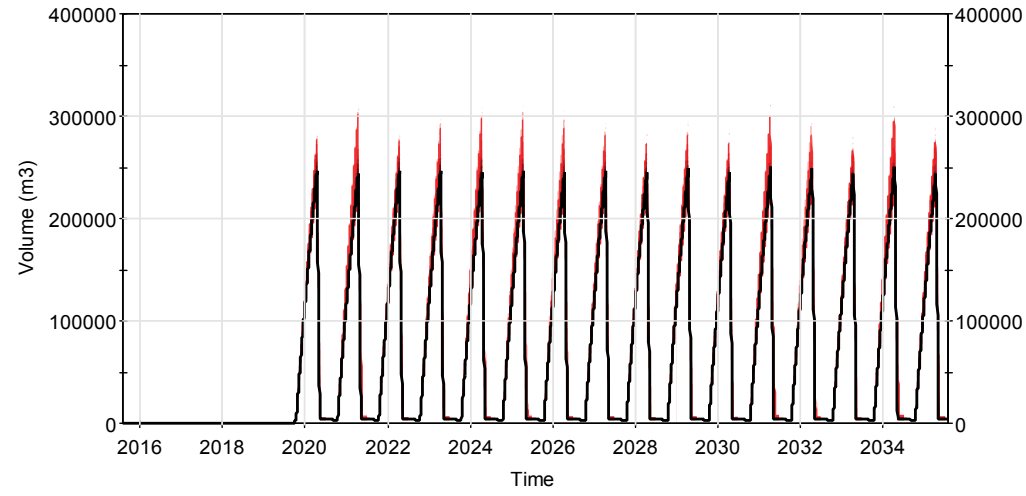


FIGURE 13-7a
Water Management Tool Results – Inflow to NFRC SCP
Faro Creek Diversion
Faro Mine Remediation Project

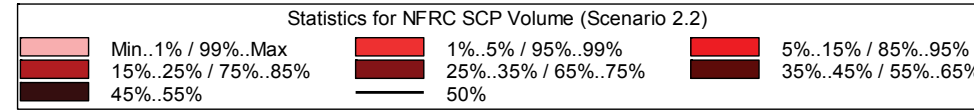
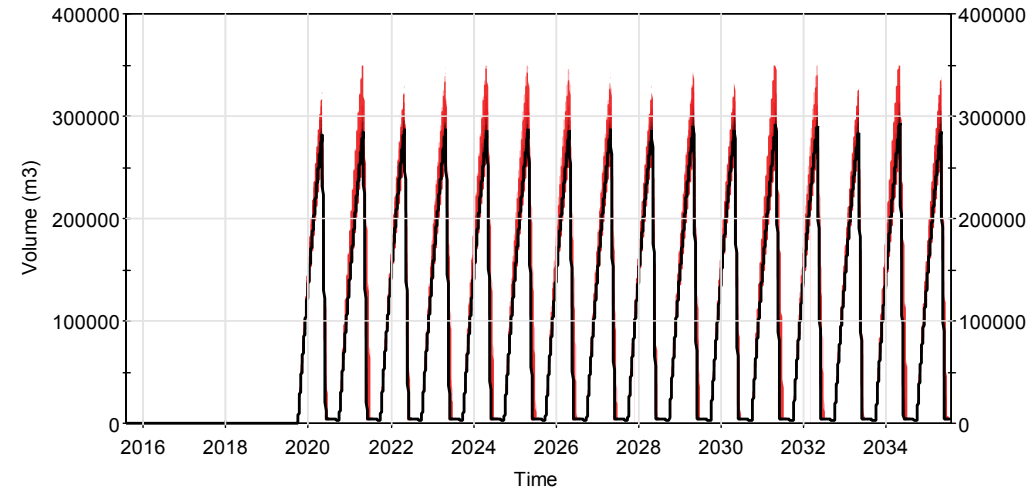
Scenario 2.1

NFRC SCP Storage



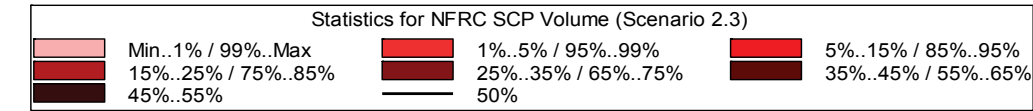
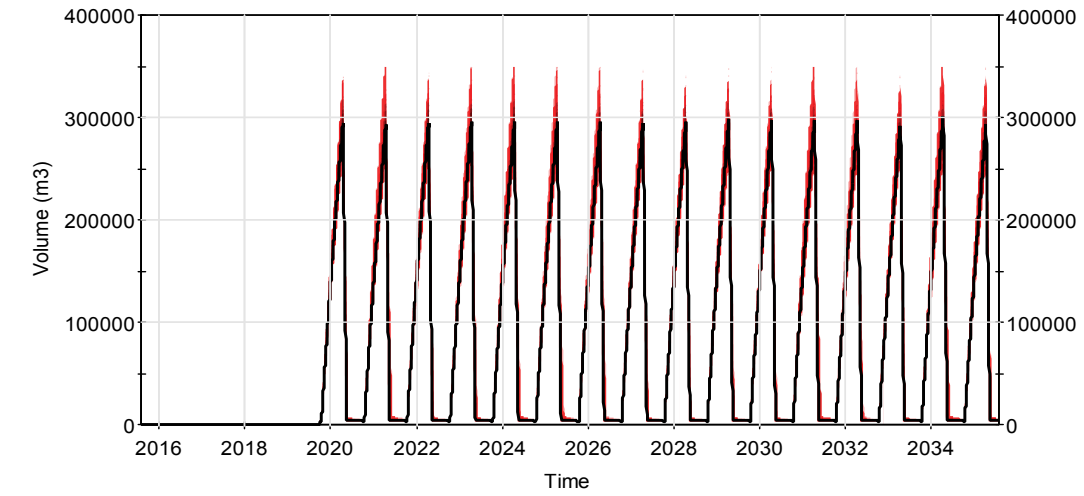
Scenario 2.2

NFRC SCP Storage



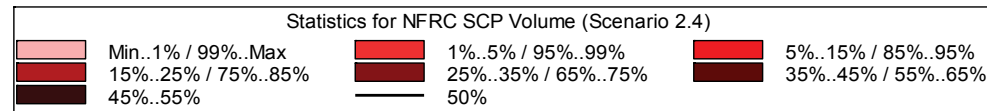
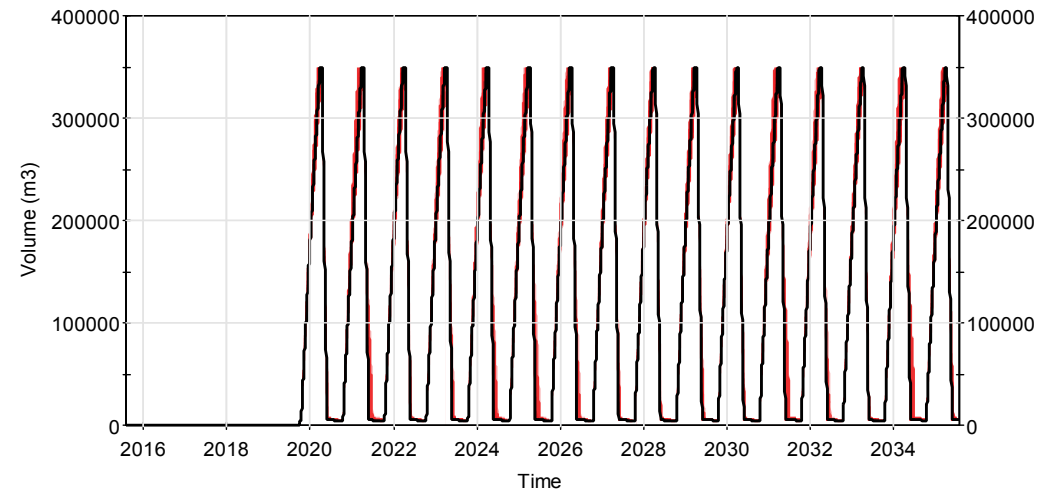
Scenario 2.3

NFRC SCP Storage



Scenario 2.4

NFRC SCP Storage



Scenario 2.5

NFRC SCP Storage

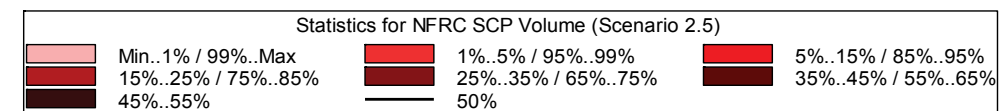
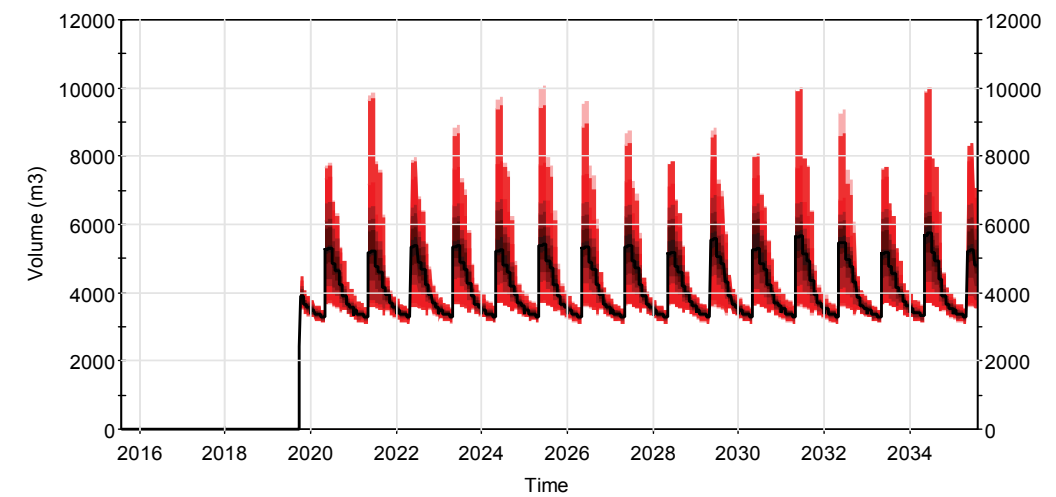
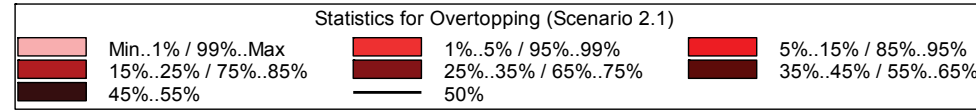
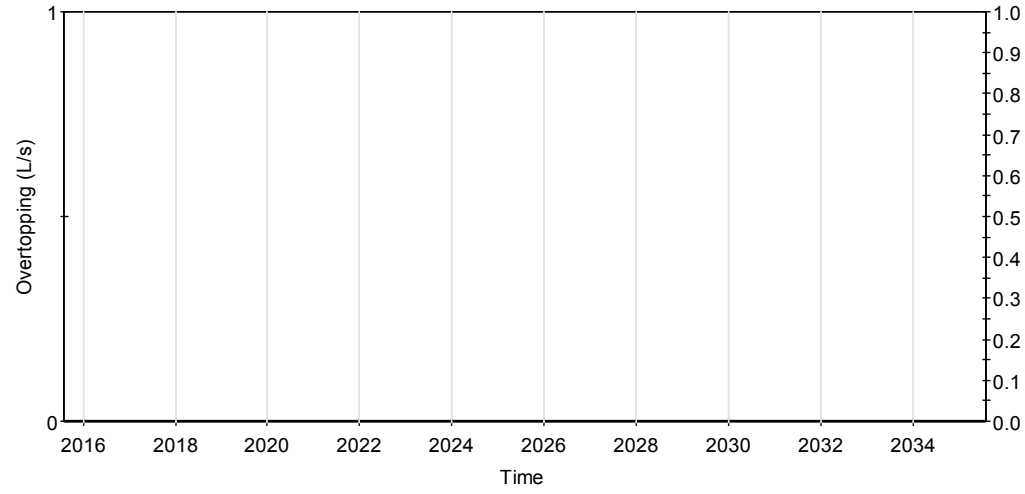


FIGURE 13-7b
Water Management Tool Results –NFRC SCP Stored Volume
 Faro Creek Diversion
 Faro Mine Remediation Project

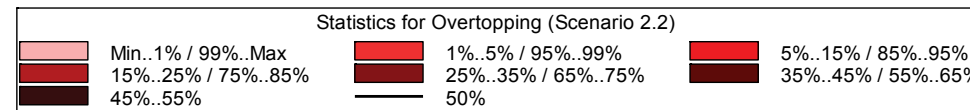
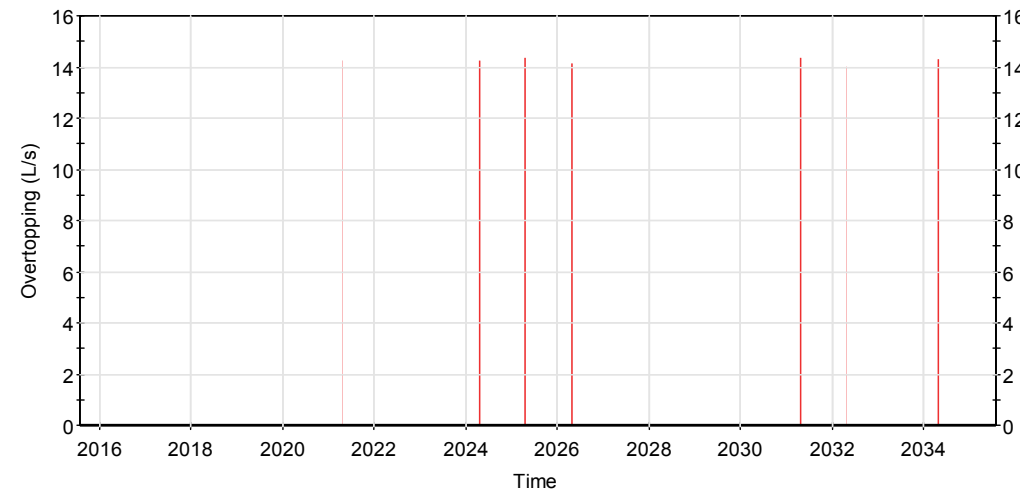
Scenario 2.1

NFRC SCP Overtopping



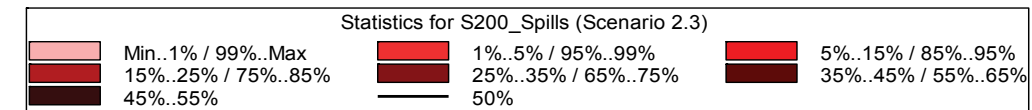
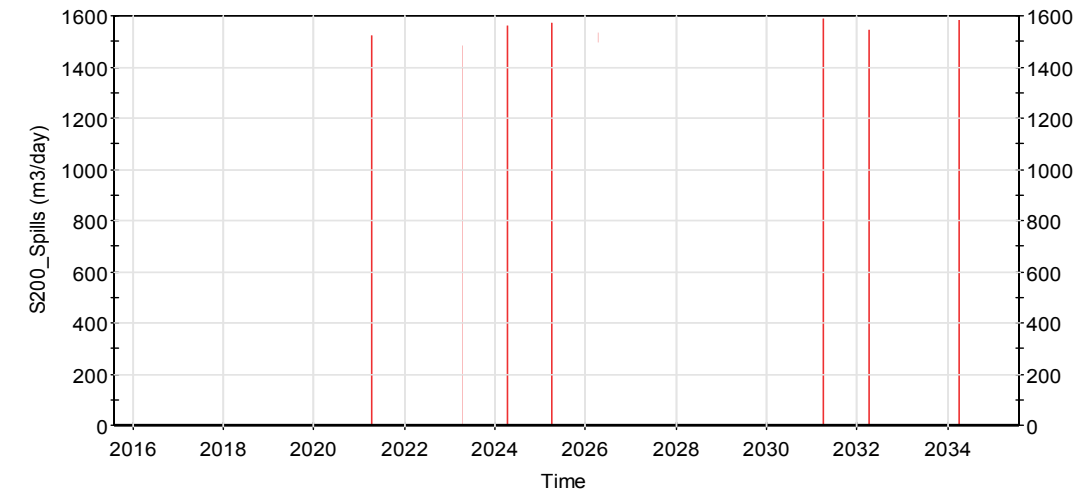
Scenario 2.2

NFRC SCP Overtopping



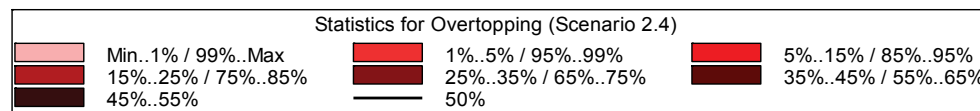
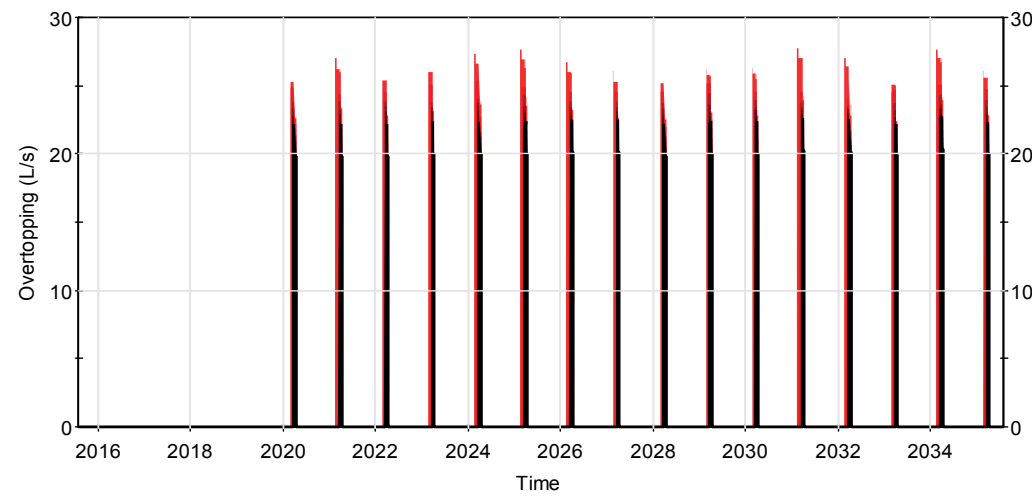
Scenario 2.3

NFRC SCP Overtopping



Scenario 2.4

NFRC SCP Overtopping



Scenario 2.5

NFRC SCP Overtopping

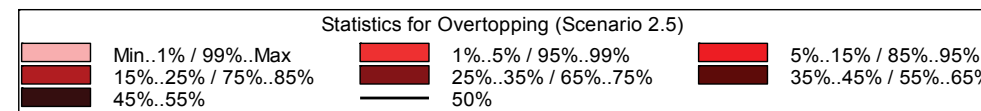
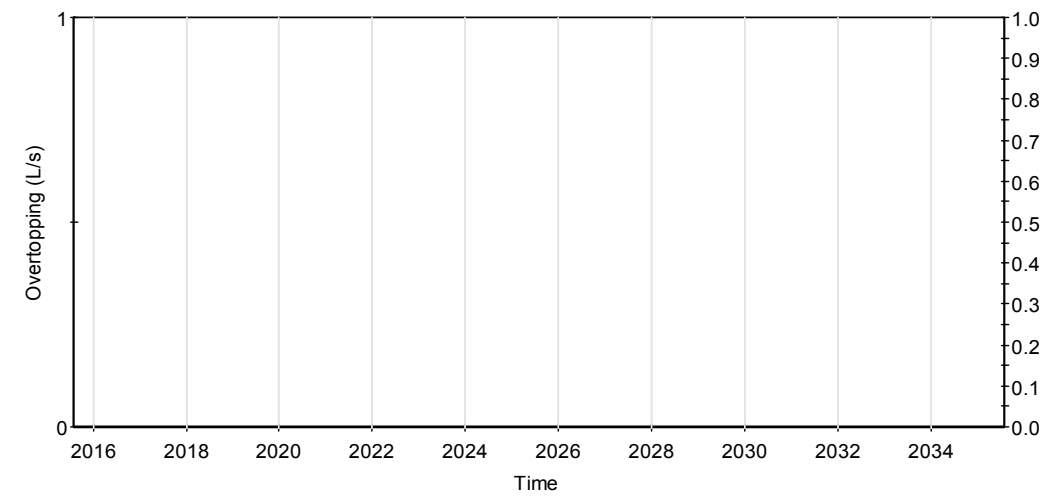
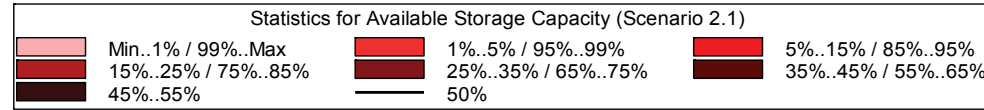
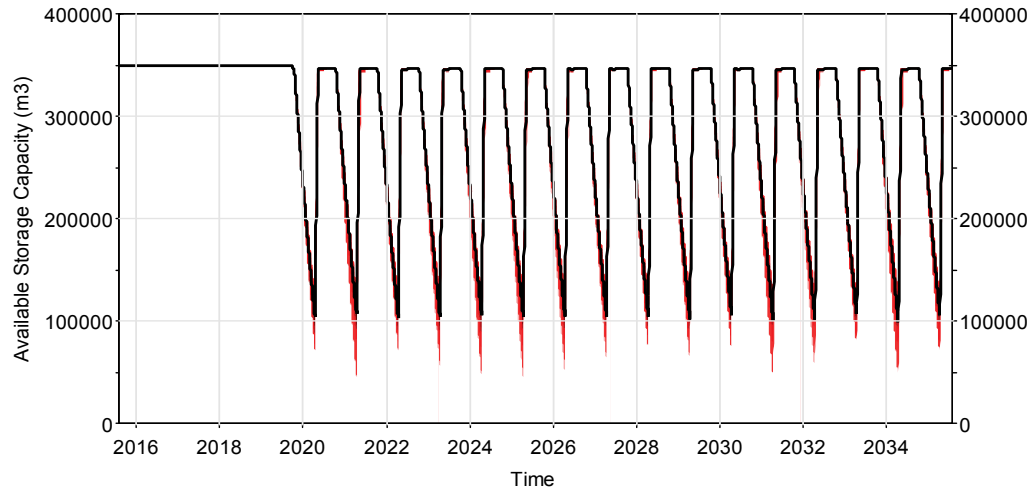


FIGURE 13-7c
Water Management Tool Results – Spills from NFRC SCP
 Faro Creek Diversion
 Faro Mine Remediation Project

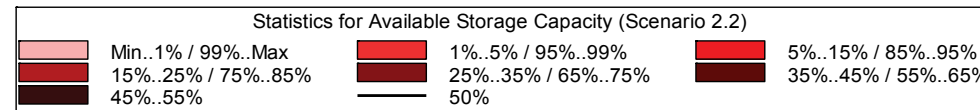
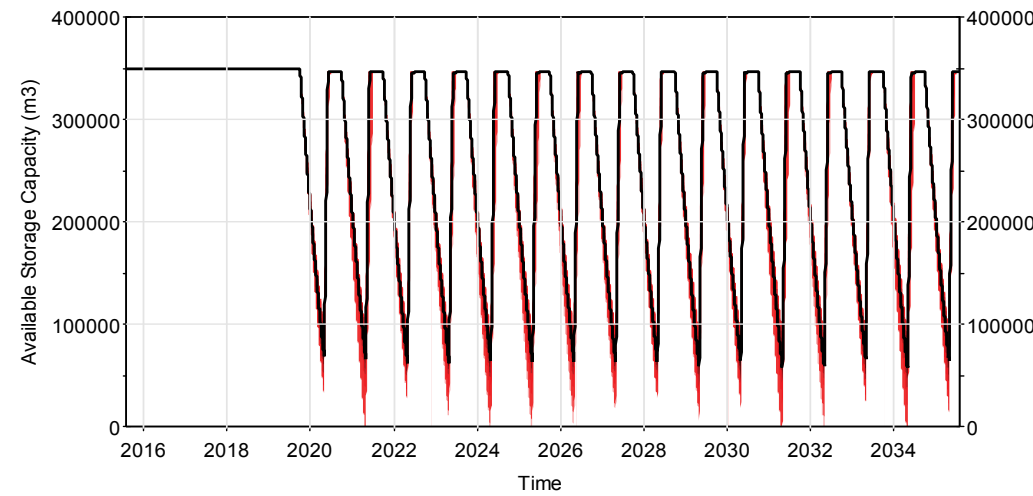
Scenario 2.1

Available Storage Capacity



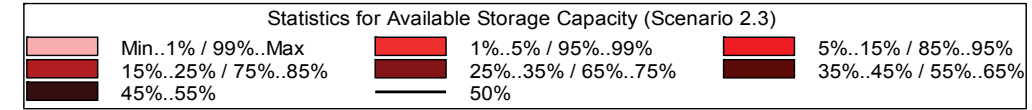
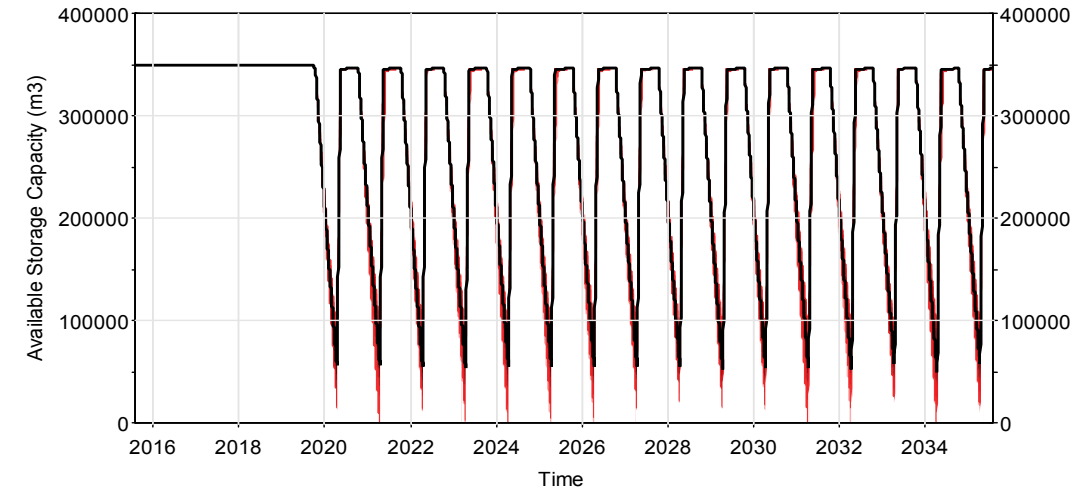
Scenario 2.2

Available Storage Capacity



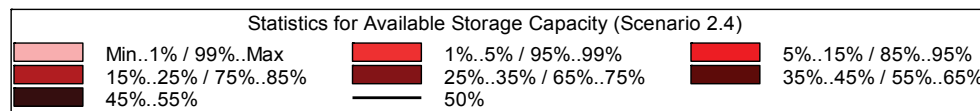
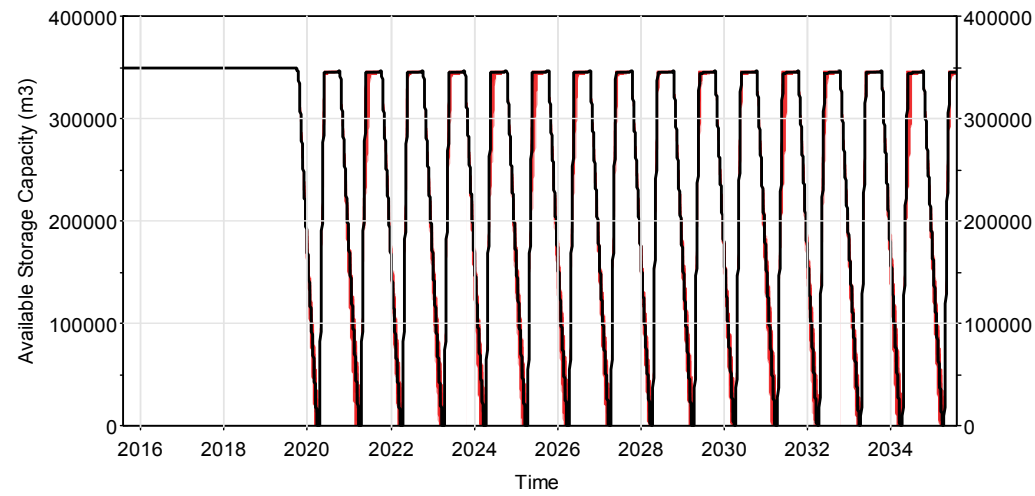
Scenario 2.3

Available Storage Capacity



Scenario 2.4

Available Storage Capacity



Scenario 2.5

Available Storage Capacity

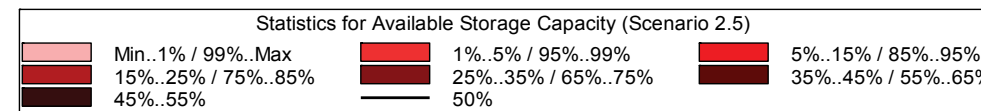
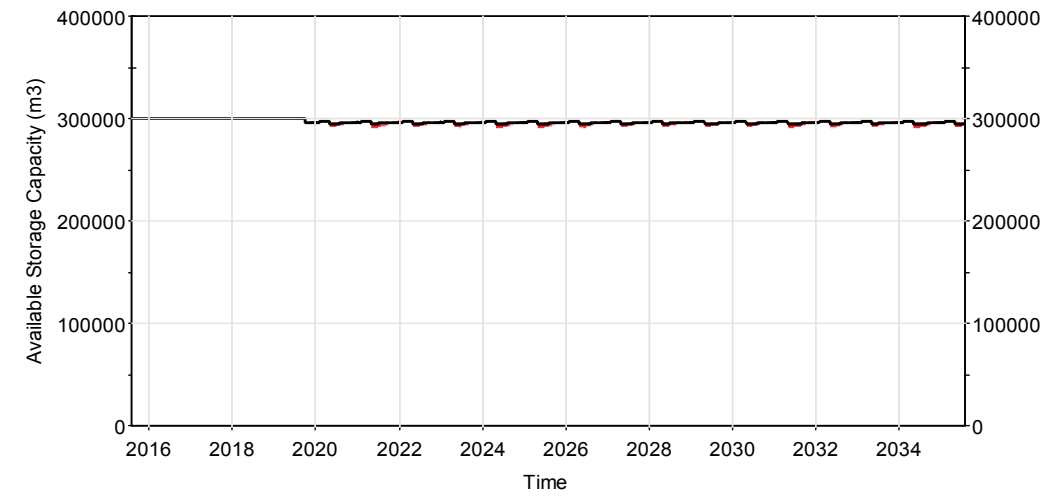
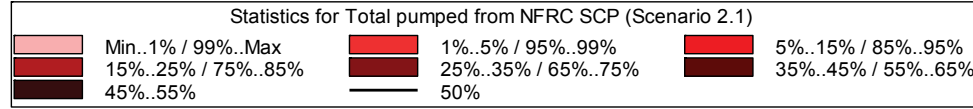
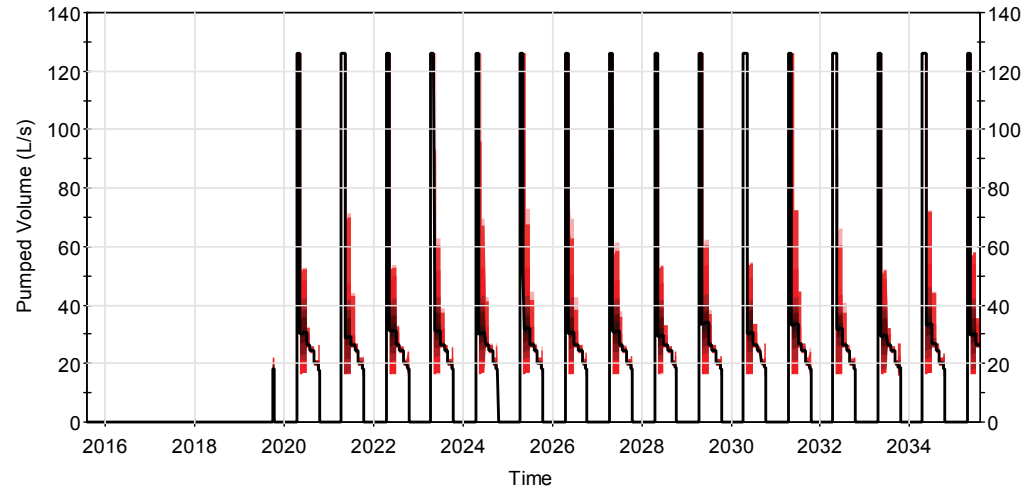


FIGURE 13-7d
Water Management Tool Results – Available Storage Capacity
 Faro Creek Diversion
 Faro Mine Remediation Project

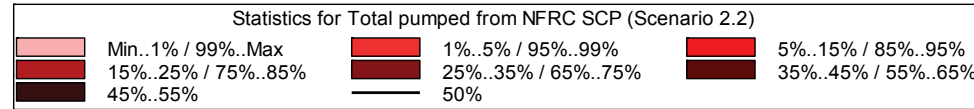
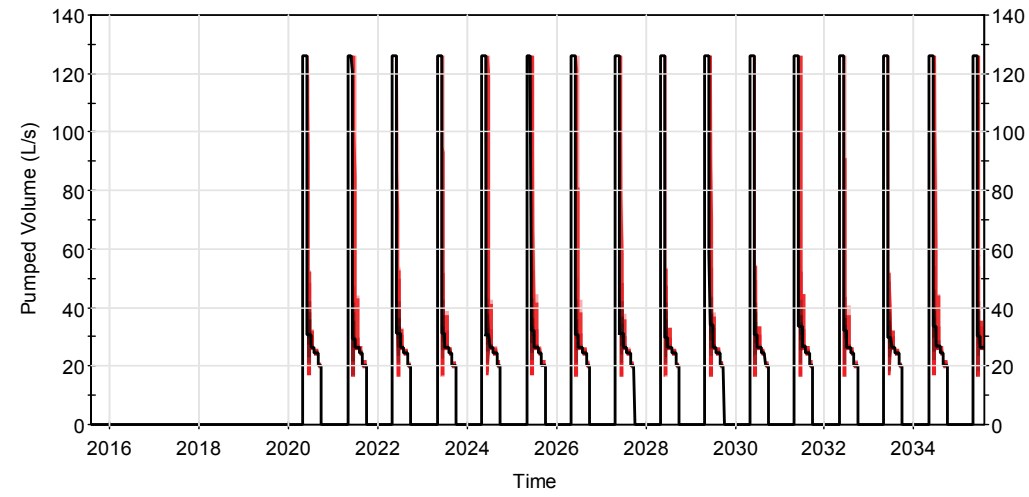
Scenario 2.1

Total Daily Volume Pumped from NFRC SCP



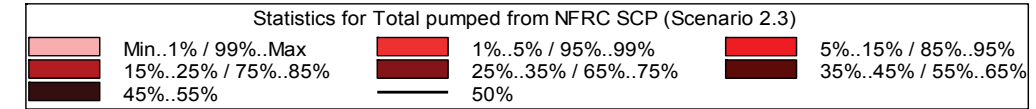
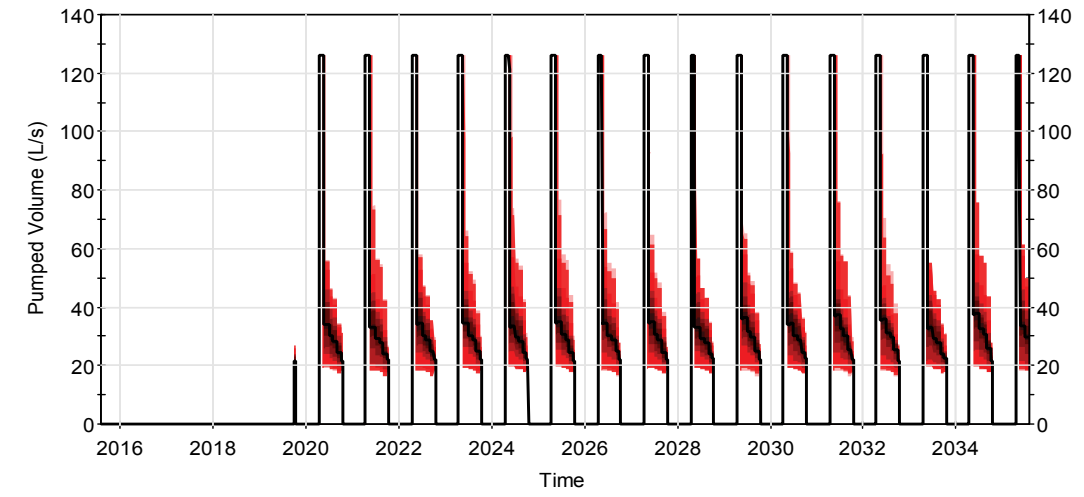
Scenario 2.2

Total Daily Volume Pumped from NFRC SCP



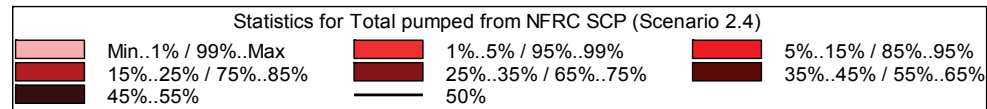
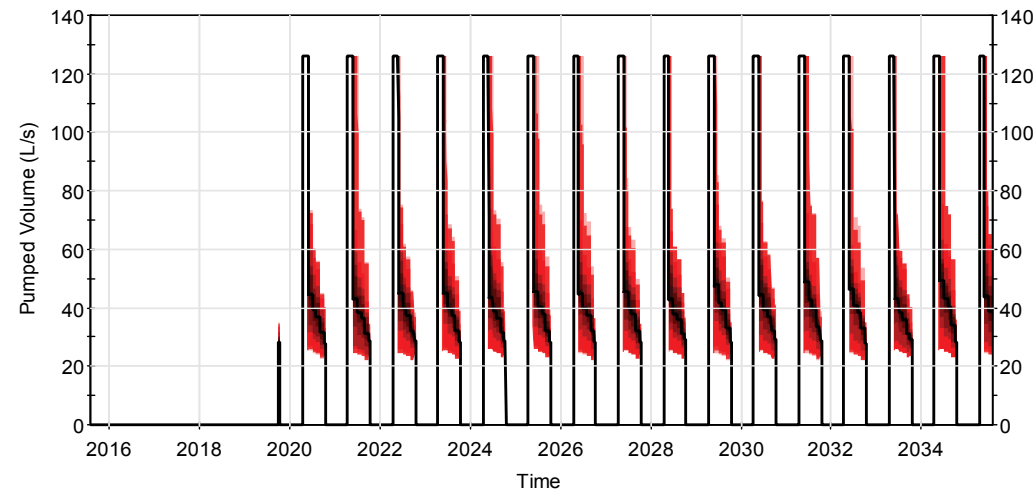
Scenario 2.3

Total Daily Volume Pumped from NFRC SCP



Scenario 2.4

Total Daily Volume Pumped from NFRC SCP



Scenario 2.5

Total Daily Volume Pumped from NFRC SCP

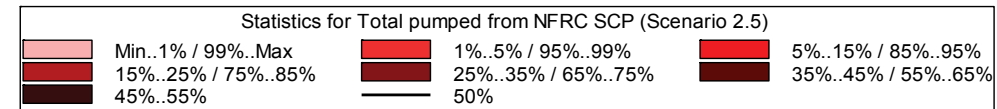
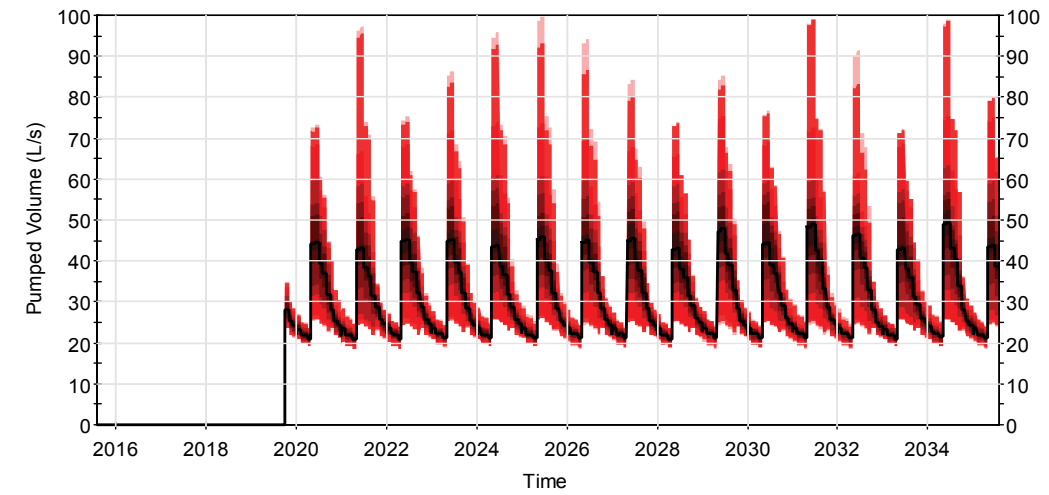
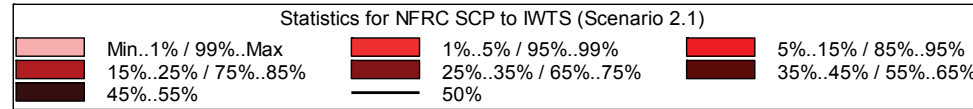
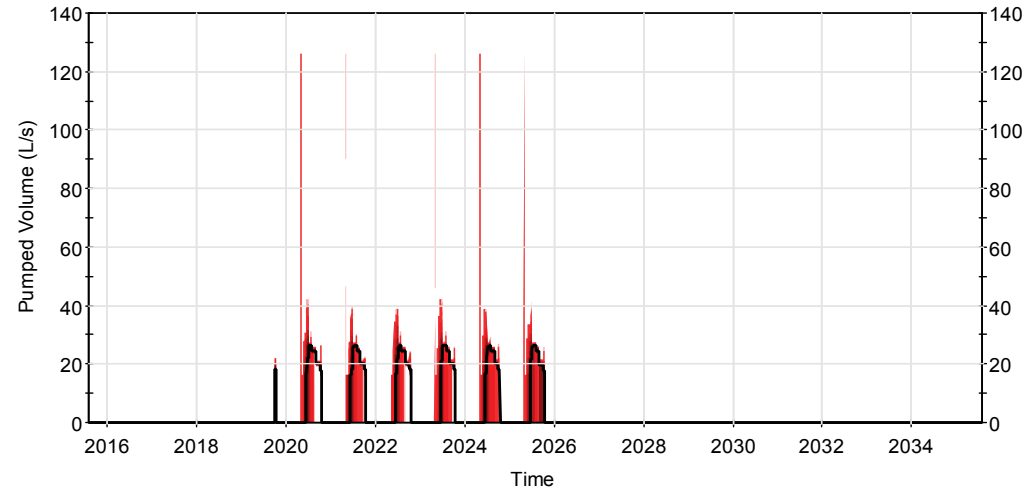


FIGURE 13-7e
Water Management Tool Results – Total Daily Volume Pumped
 Faro Creek Diversion
 Faro Mine Remediation Project

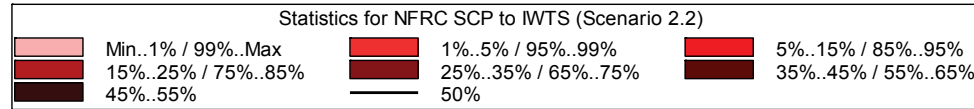
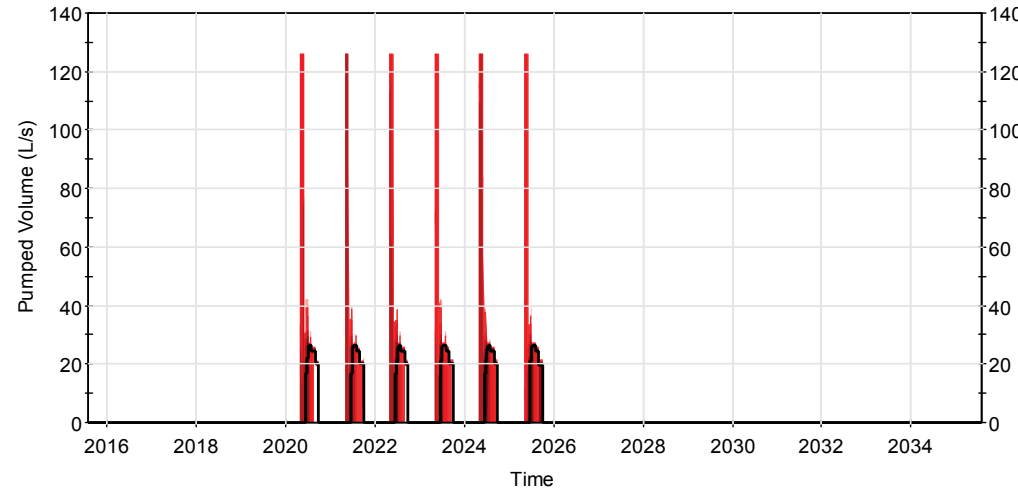
Scenario 2.1

Total Daily Volume Pumped from NFRC SCP to IWTS



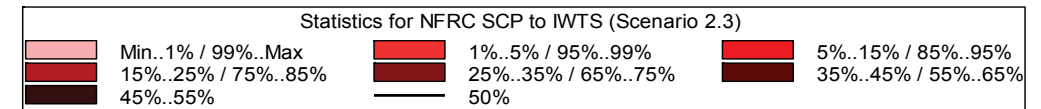
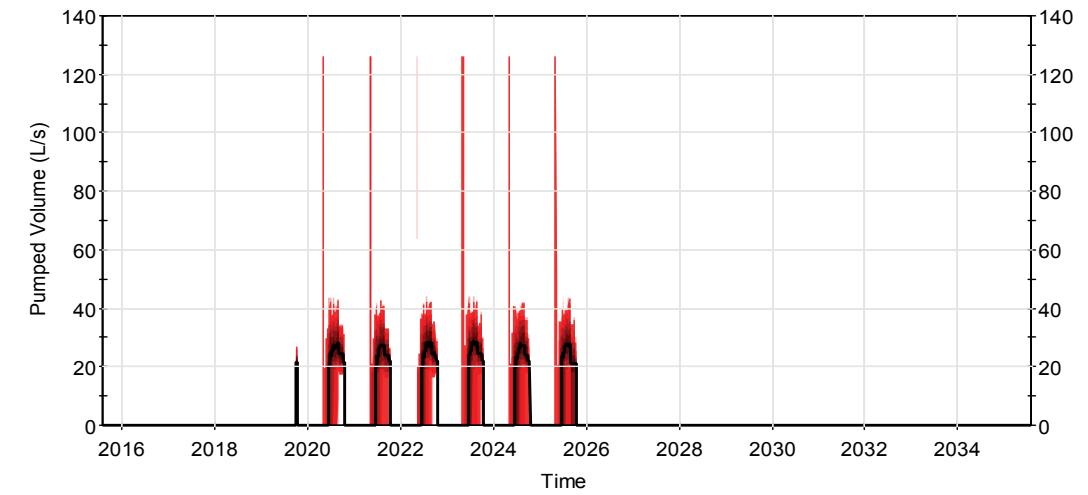
Scenario 2.2

Total Daily Volume Pumped from NFRC SCP to IWTS



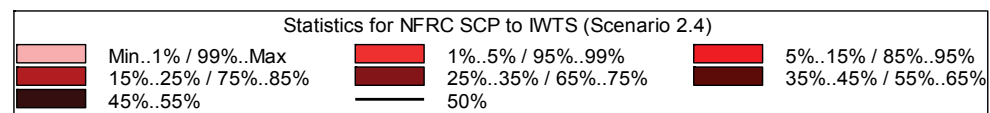
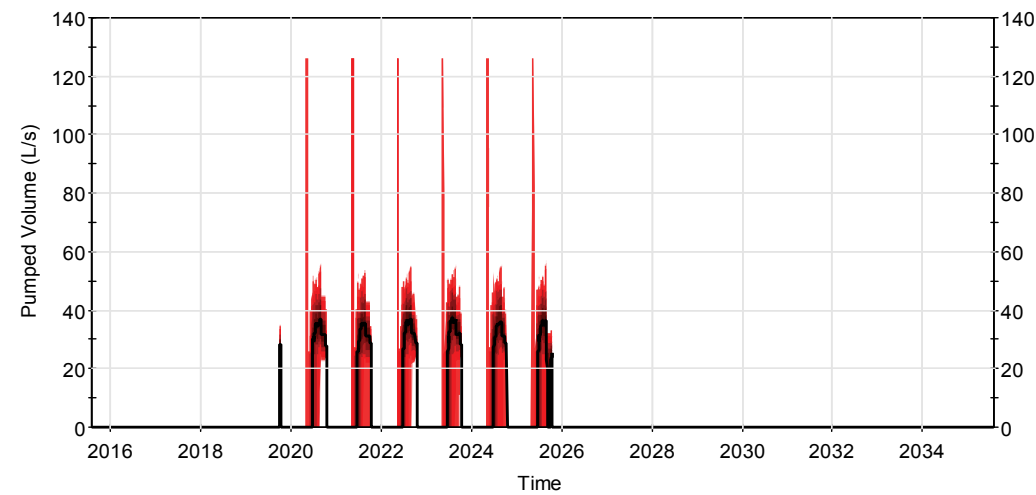
Scenario 2.3

Total Daily Volume Pumped from NFRC SCP to IWTS



Scenario 2.4

Total Daily Volume Pumped from NFRC SCP to IWTS



Scenario 2.5

Total Daily Volume Pumped from NFRC SCP to IWTS

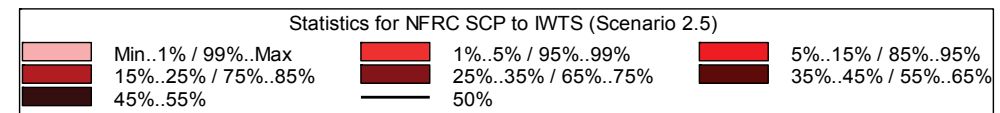
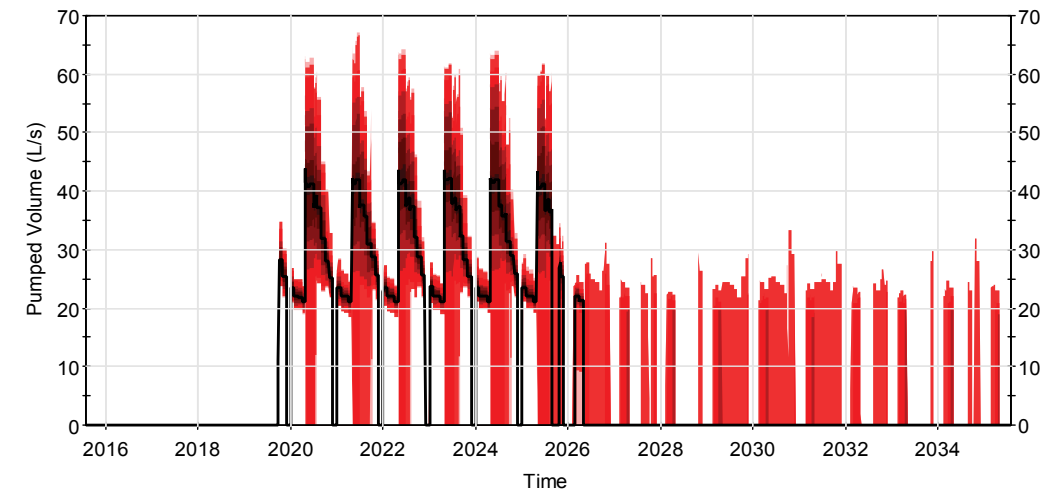
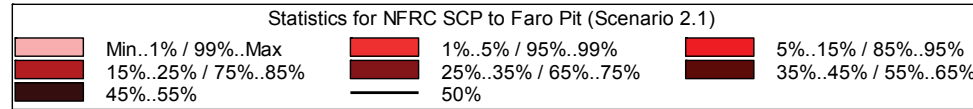
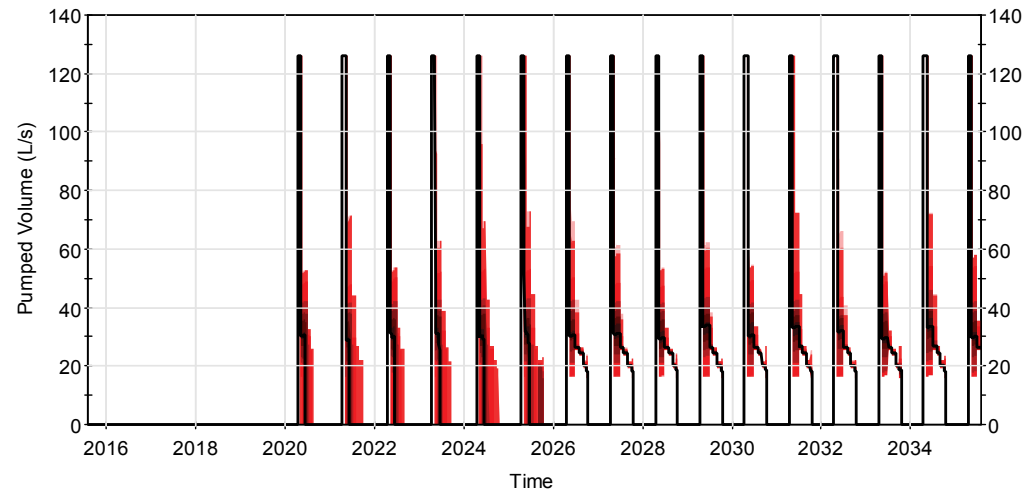


FIGURE 13-7f
Water Management Tool Results – Daily Pumping Rate to IWTS
 Faro Creek Diversion
 Faro Mine Remediation Project

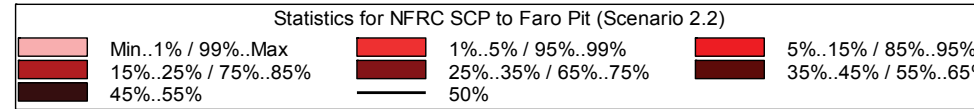
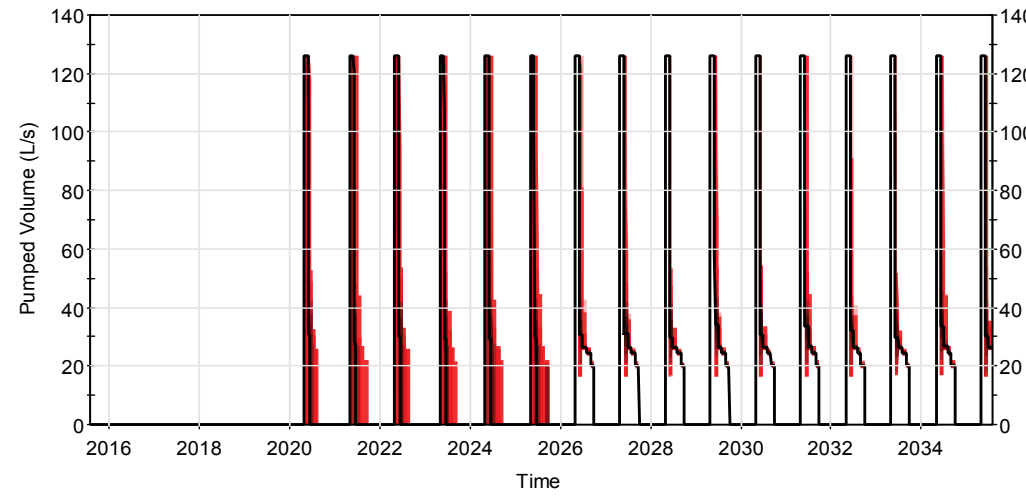
Scenario 2.1

Total Daily Volume Pumped from NFRC SCP to Faro Pit



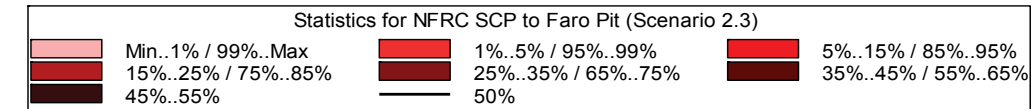
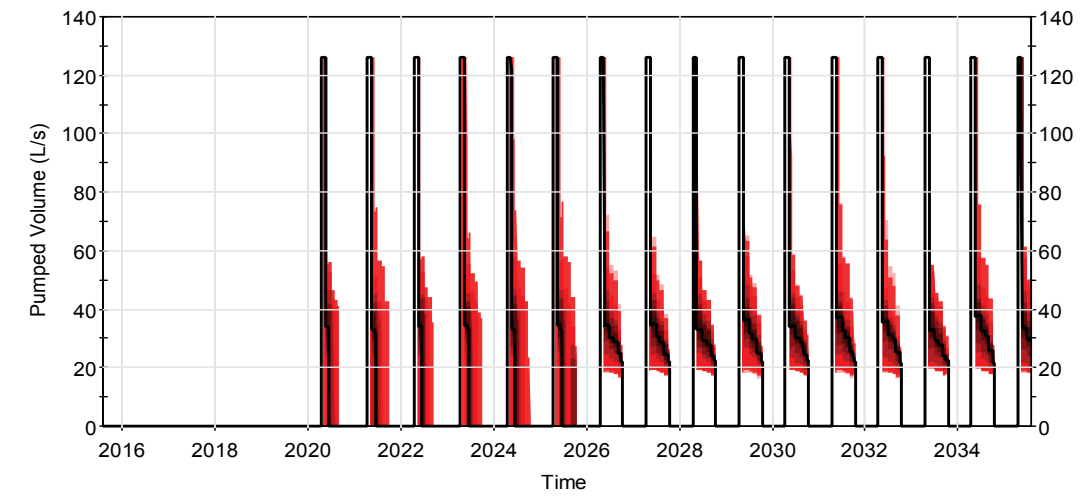
Scenario 2.2

Total Daily Volume Pumped from NFRC SCP to Faro Pit



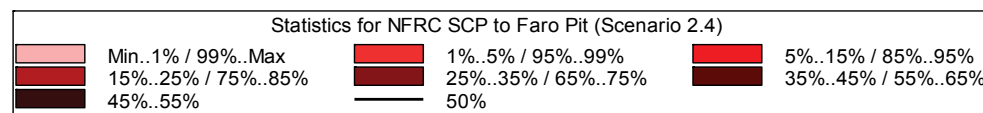
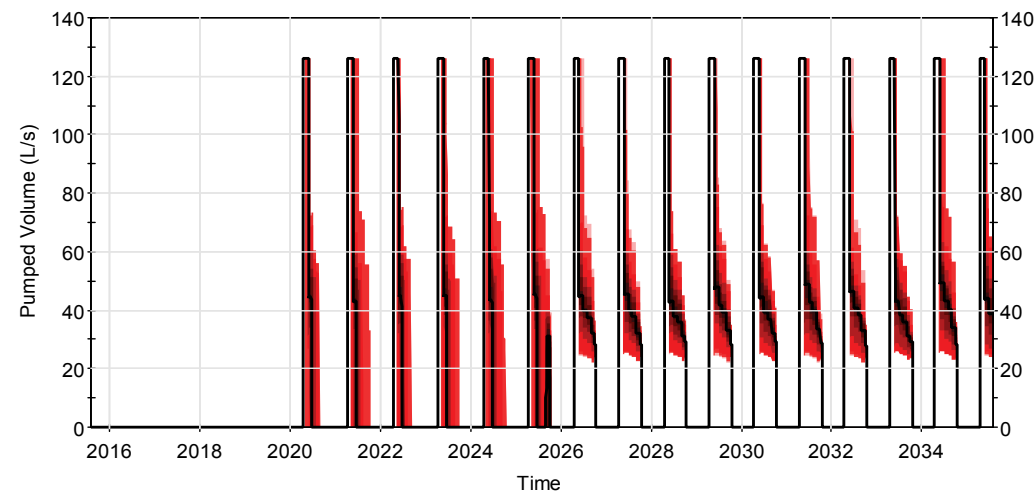
Scenario 2.3

Total Daily Volume Pumped from NFRC SCP to IWTS



Scenario 2.4

Total Daily Volume Pumped from NFRC SCP to Faro Pit



Scenario 2.5

Total Daily Volume Pumped from NFRC SCP to Faro Pit

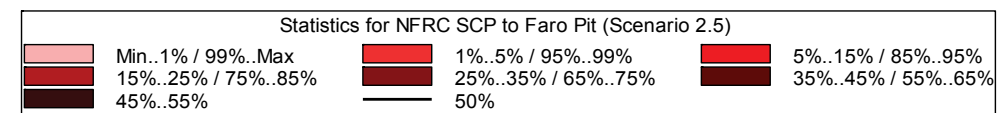
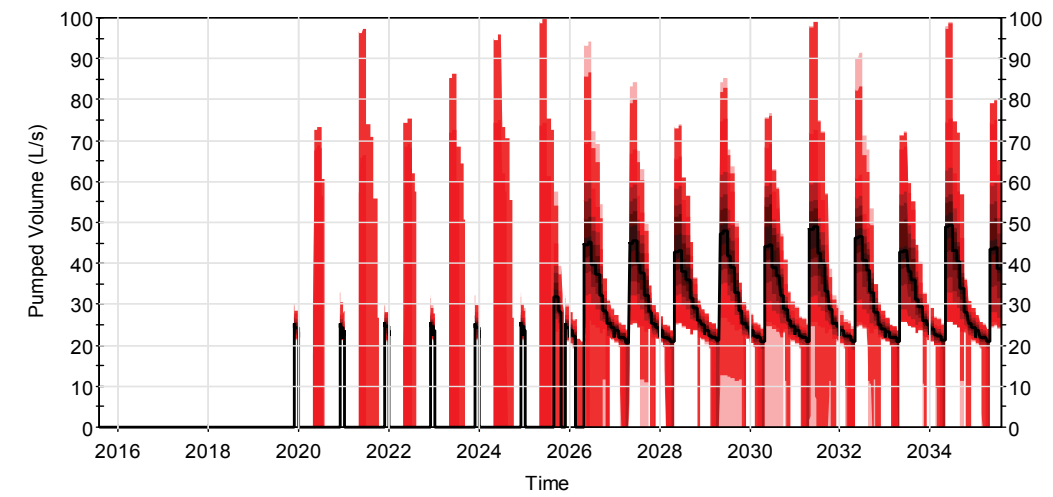
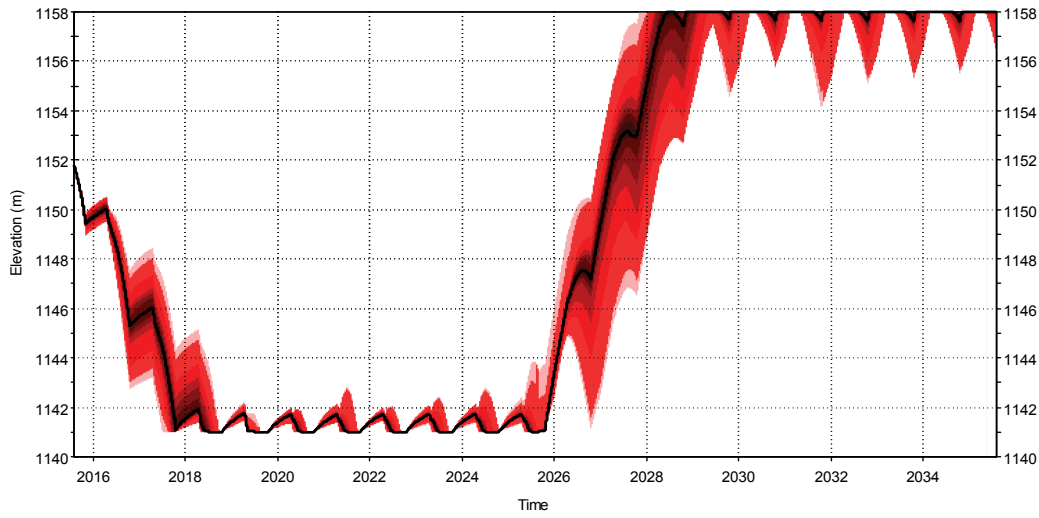


FIGURE 13-7g
Water Management Tool Results – Daily Pumping Rate to Faro Pit
Faro Creek Diversion
Faro Mine Remediation Project

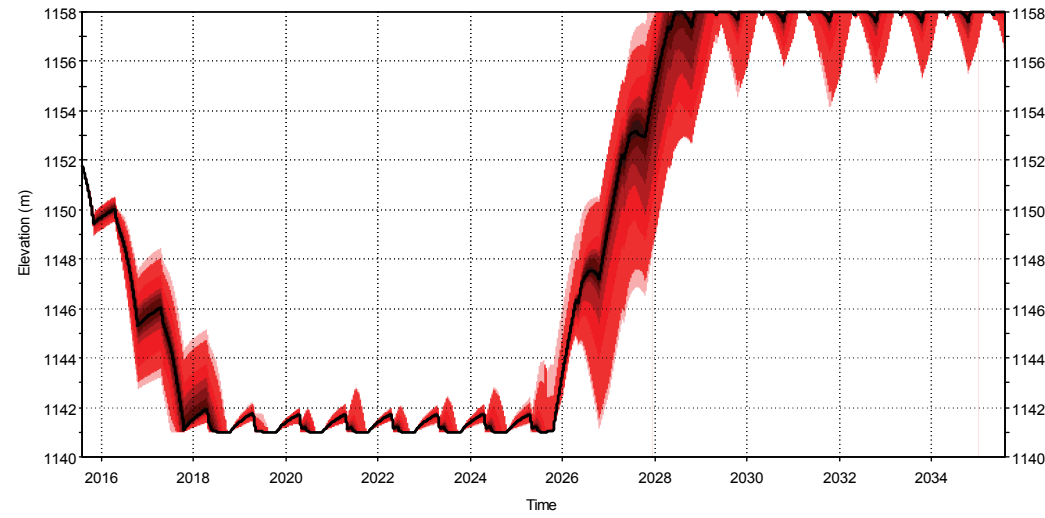
Scenario 2.1

Faro Pit Elevation



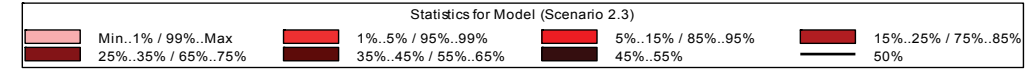
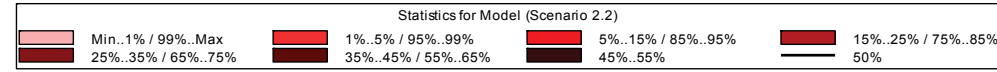
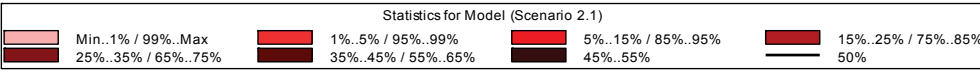
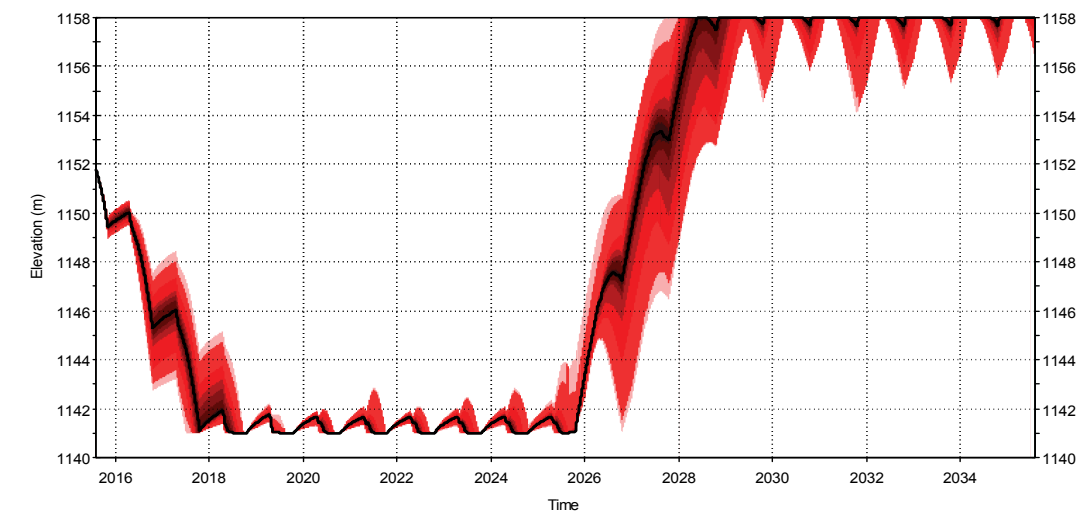
Scenario 2.2

Faro Pit Elevation



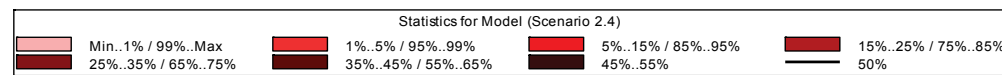
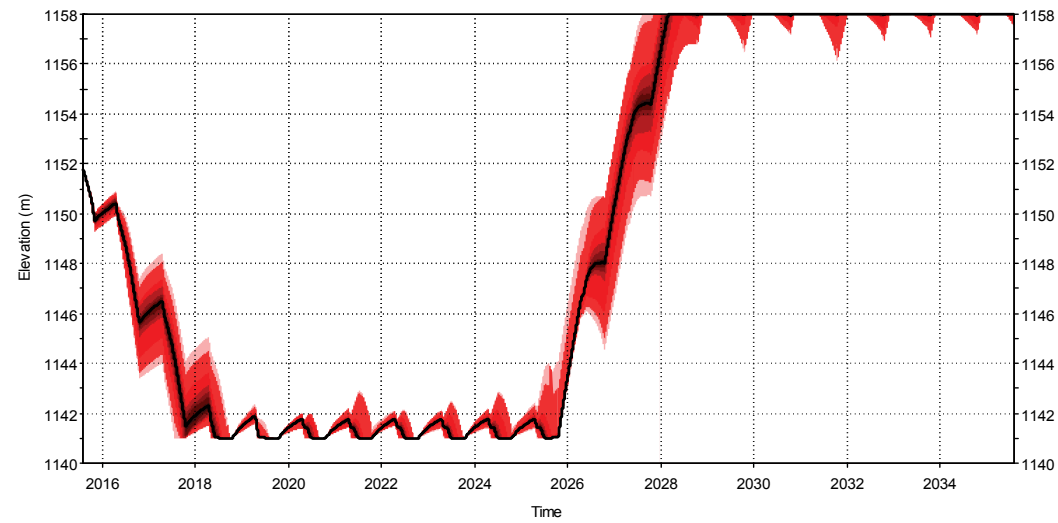
Scenario 2.3

Faro Pit Elevation



Scenario 2.4

Faro Pit Elevation



Scenario 2.5

Faro Pit Elevation

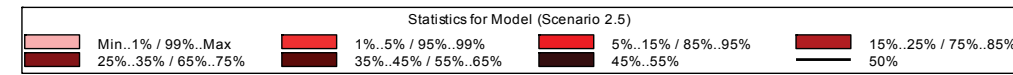
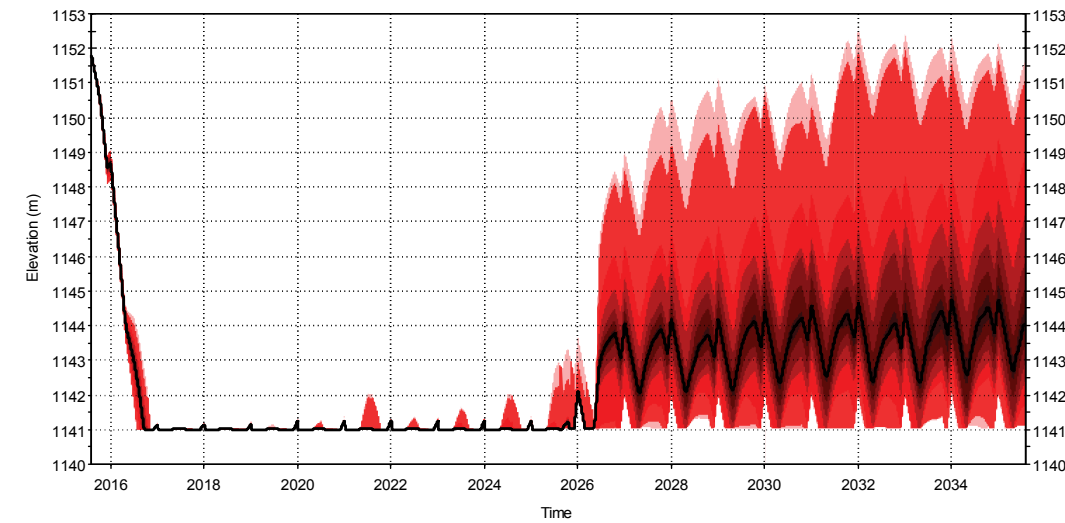
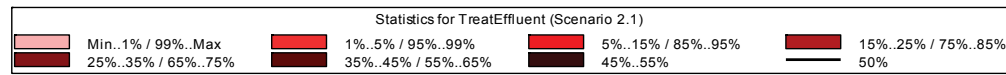
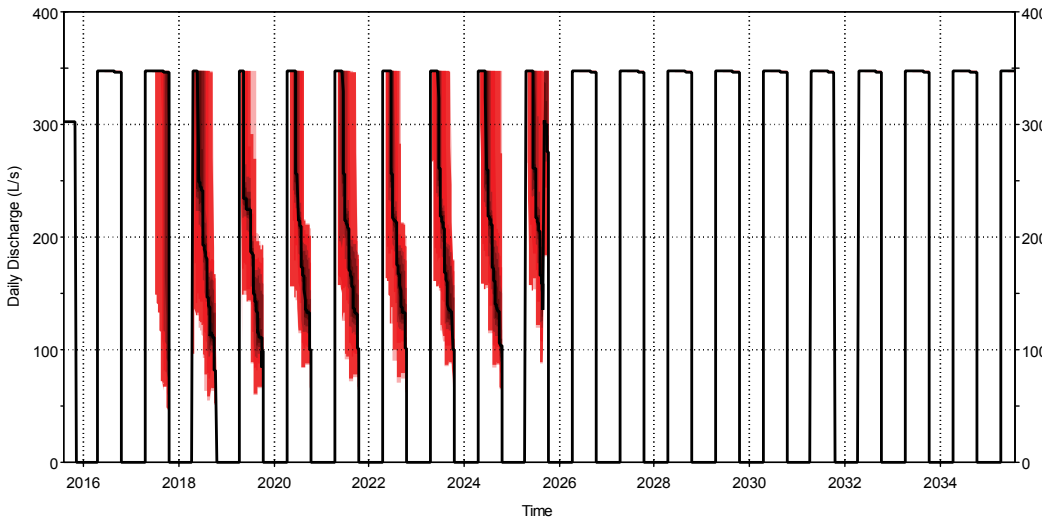


FIGURE 13-7h
Water Management Tool Results – Water Elevation In Faro Pit
 Faro Creek Diversion
 Faro Mine Remediation Project

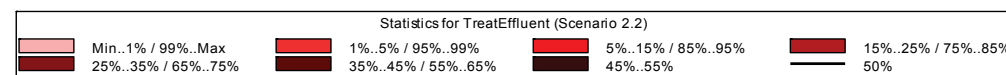
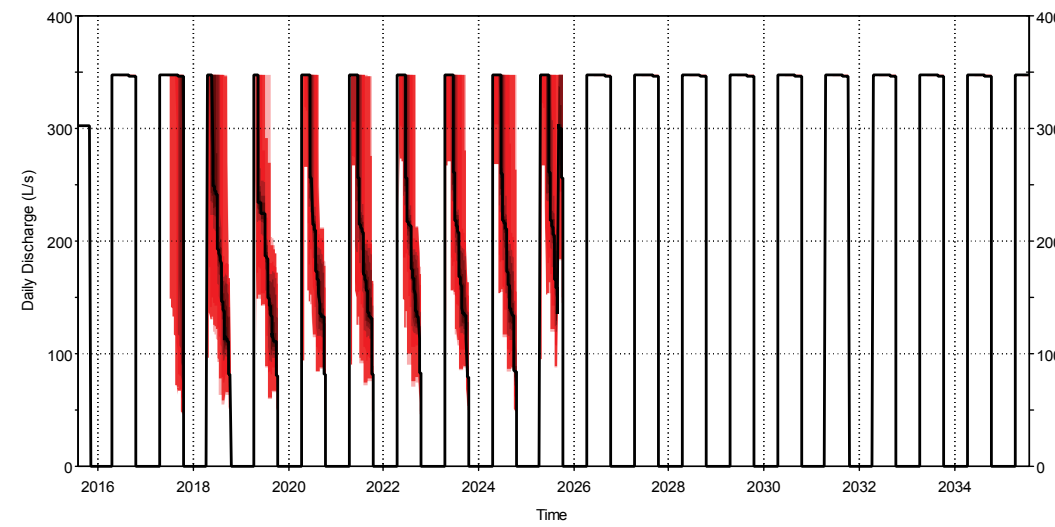
Scenario 2.1

Daily IWTS Discharge



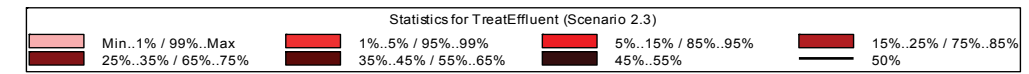
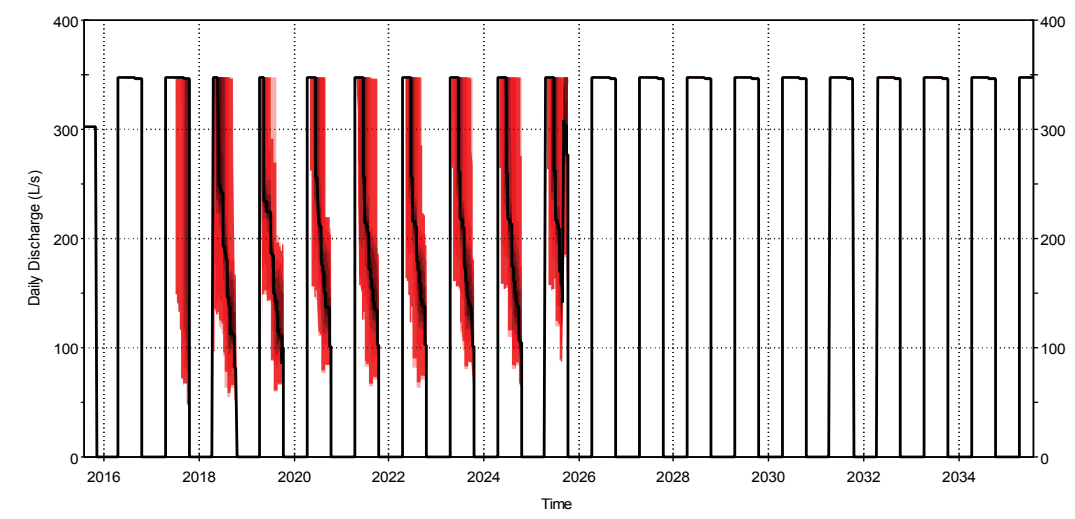
Scenario 2.2

Daily IWTS Discharge



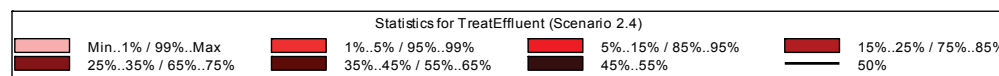
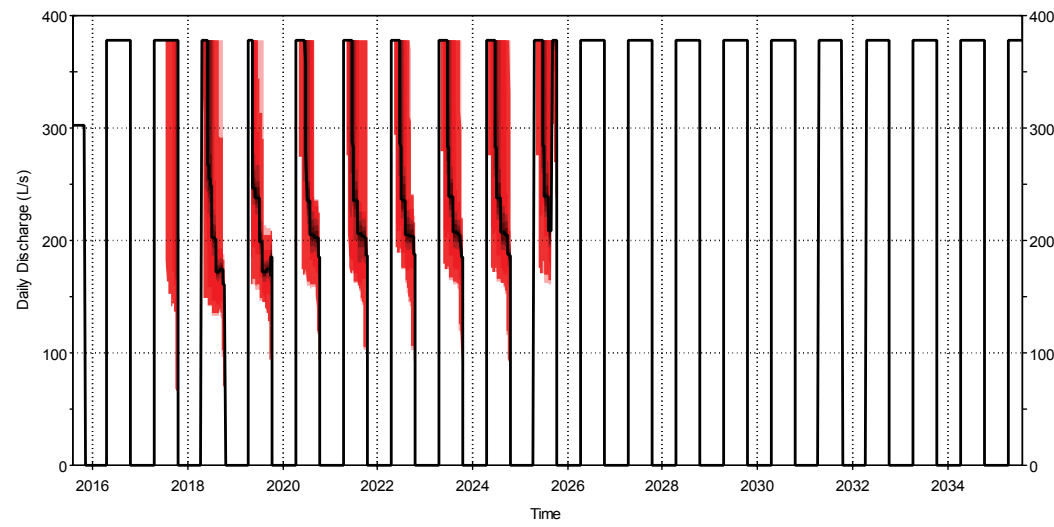
Scenario 2.3

Daily IWTS Discharge



Scenario 2.4

Daily IWTS Discharge



Scenario 2.5

Daily IWTS Discharge

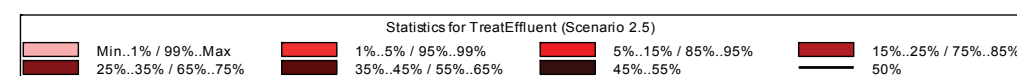
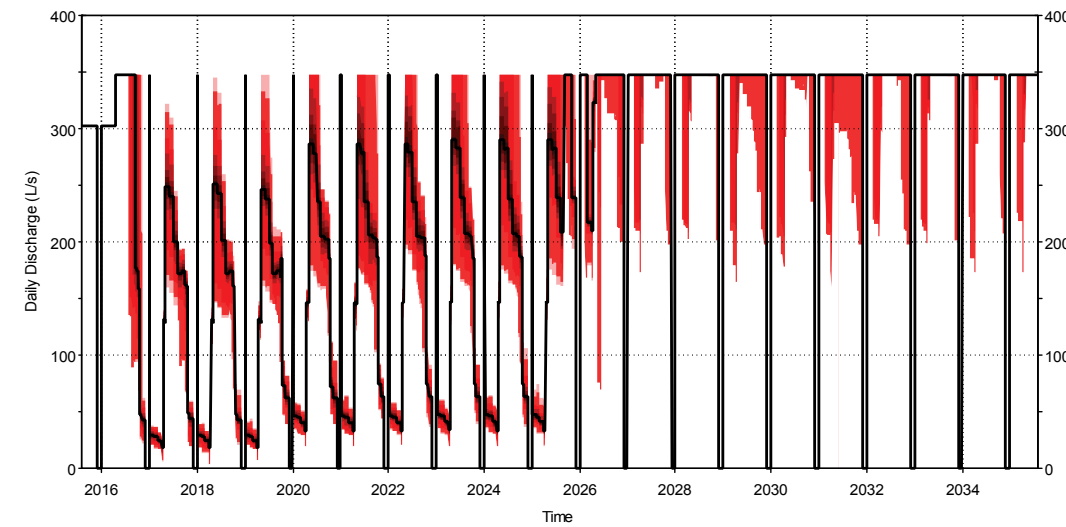
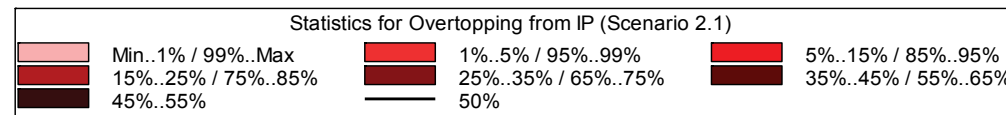
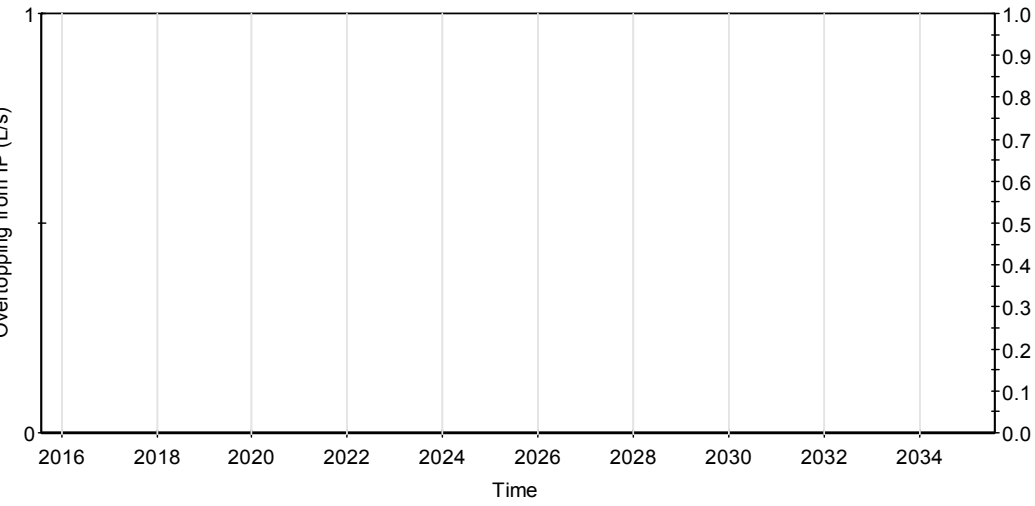


FIGURE 13-7i
Water Management Tool Results – Daily IWTS Discharge
 Faro Creek Diversion
 Faro Mine Remediation Project

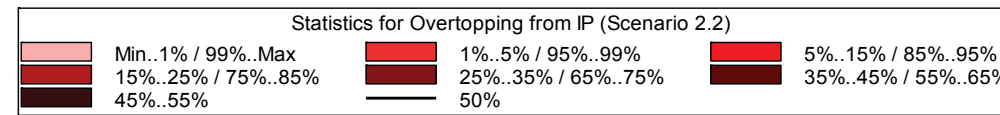
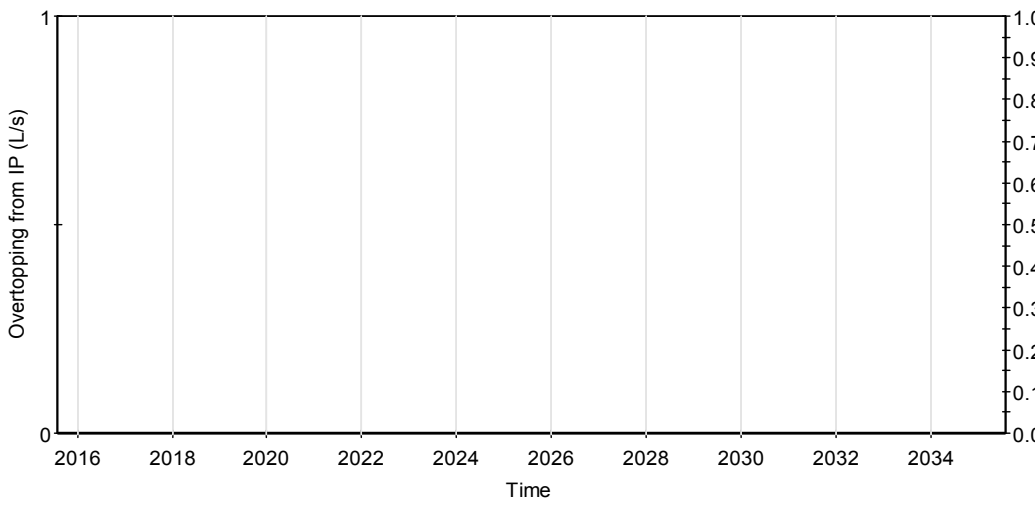
Scenario 2.1

IP Overtopping



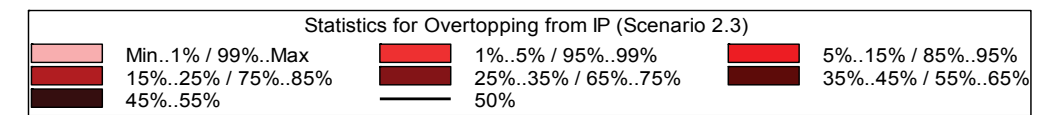
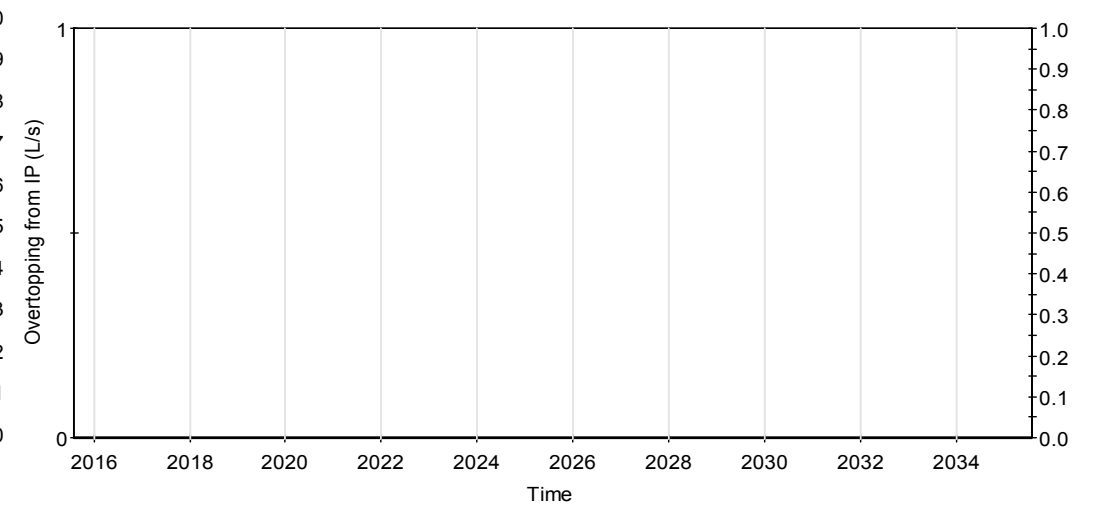
Scenario 2.2

IP Overtopping



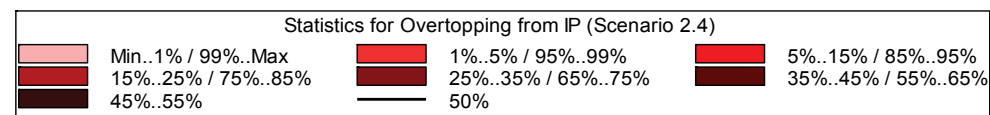
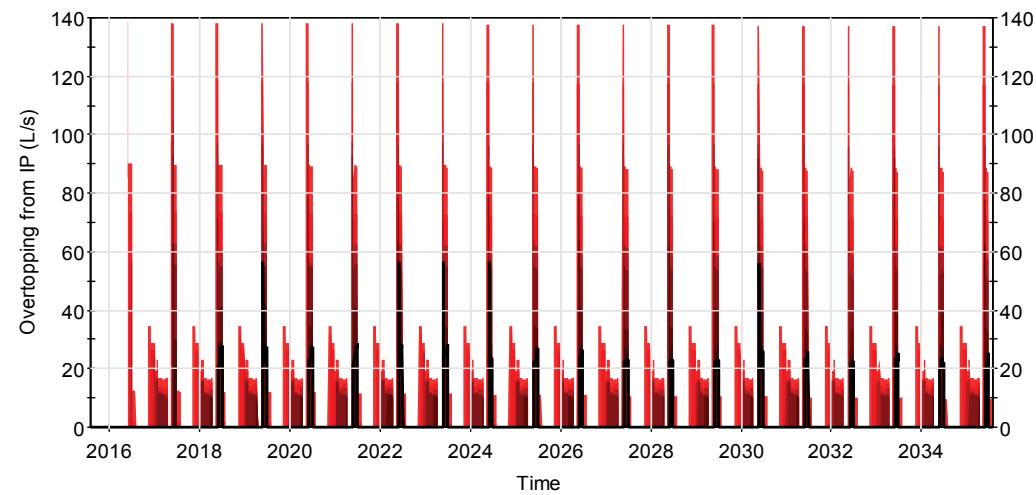
Scenario 2.3

IP Overtopping



Scenario 2.4

IP Overtopping



Scenario 2.5

IP Overtopping

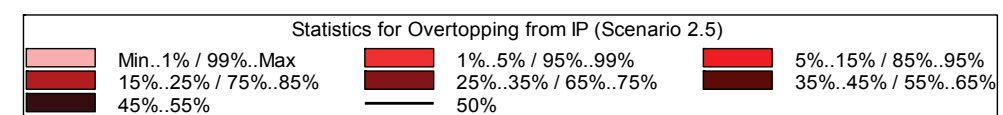
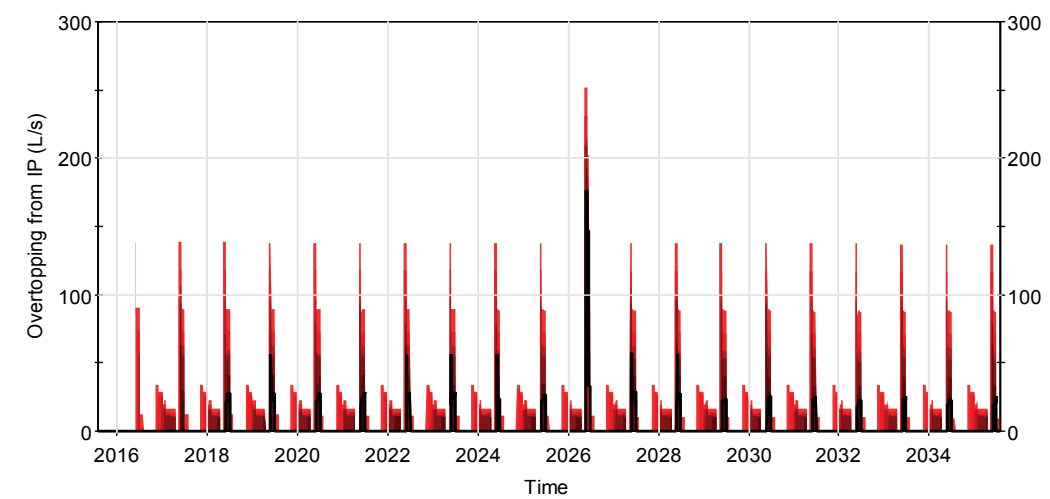
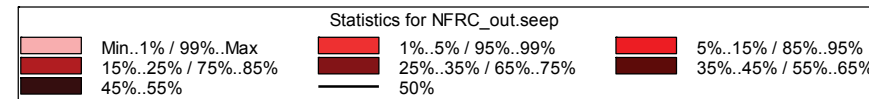
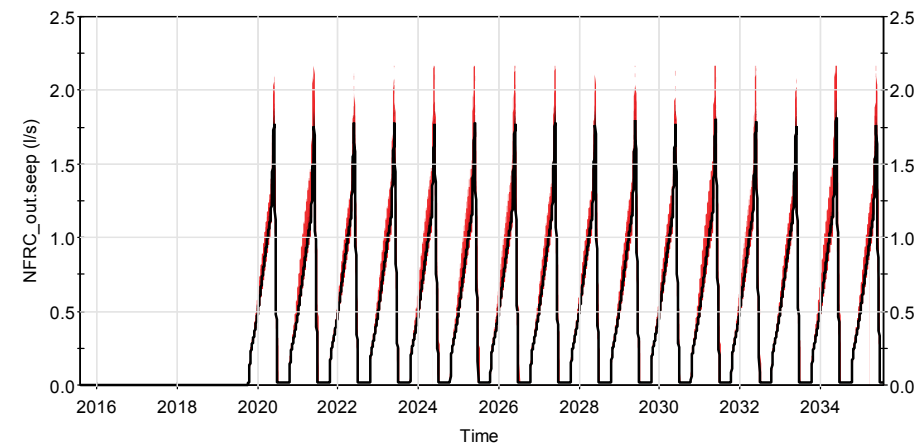


FIGURE 13-7j
Water Management Tool Results – Spills from Intermediate Dam Pond
 Faro Creek Diversion
 Faro Mine Remediation Project

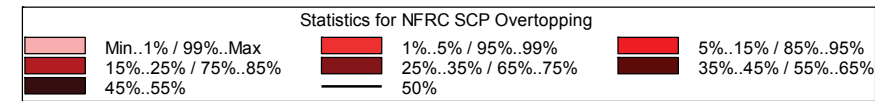
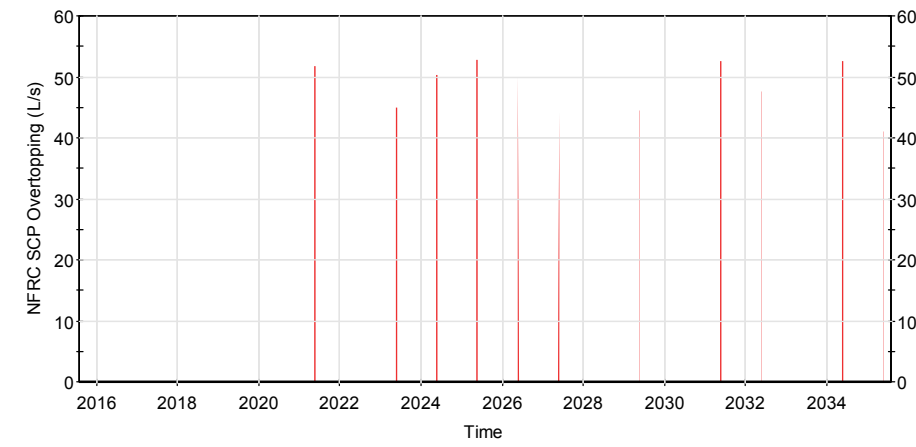
Scenario 3.1

Seepage Rate



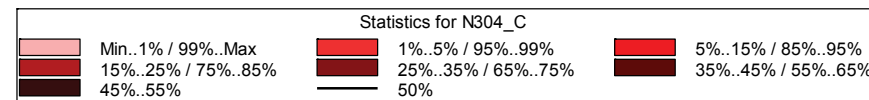
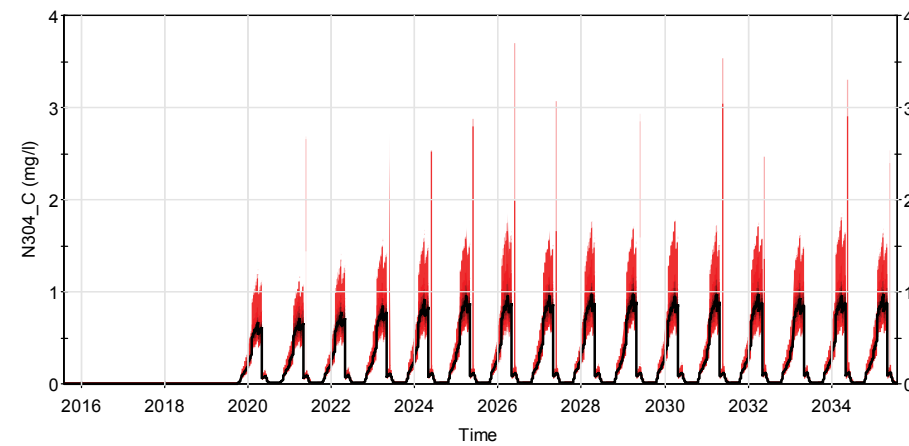
Scenario 3.1

Spills



Scenario 3.1

Zinc Concentration



Scenario 3.1

Sulphate Concentration

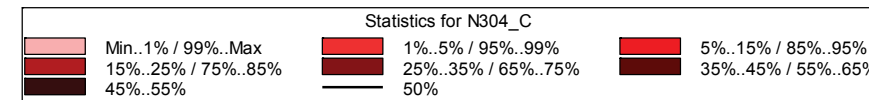
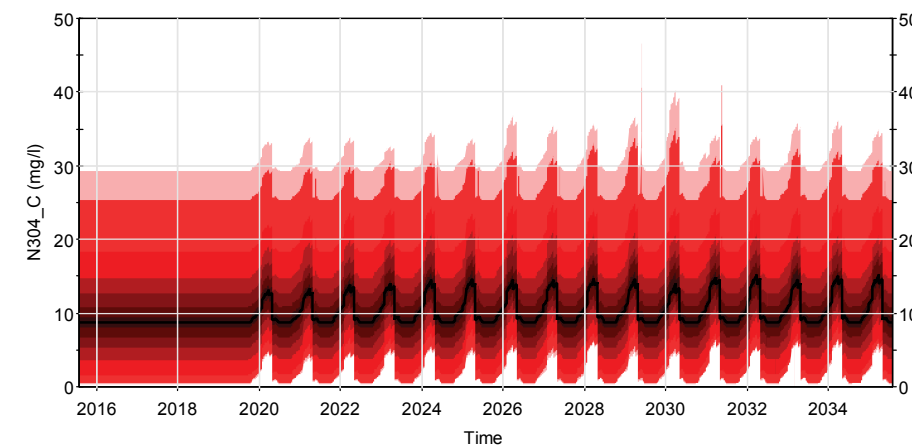


FIGURE 13-8
Water Management Tool Results – Water Quality
 Faro Creek Diversion
 Faro Mine Remediation Project