Brown AND Caldwell

Prepared for

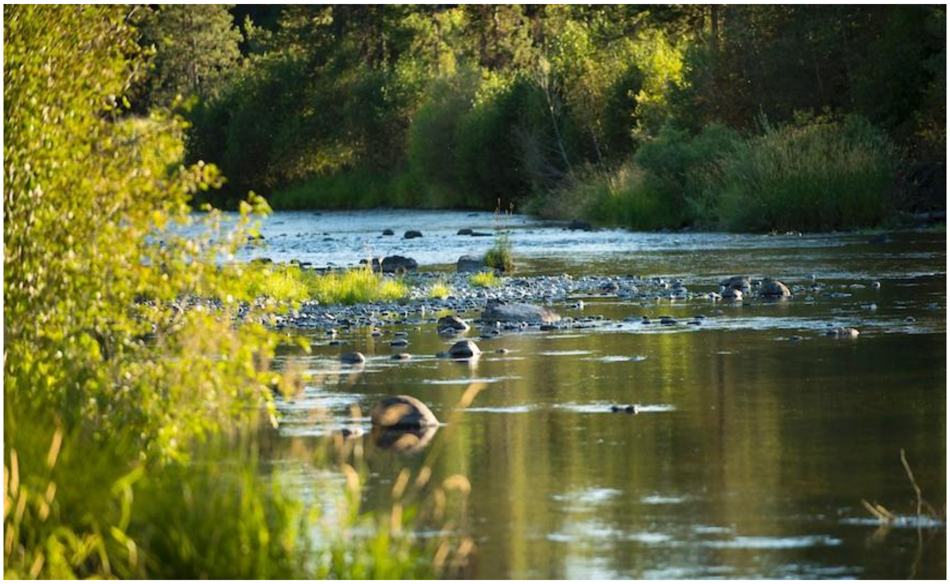
Perpetua Resources Idaho, Inc., Valley County, Idaho

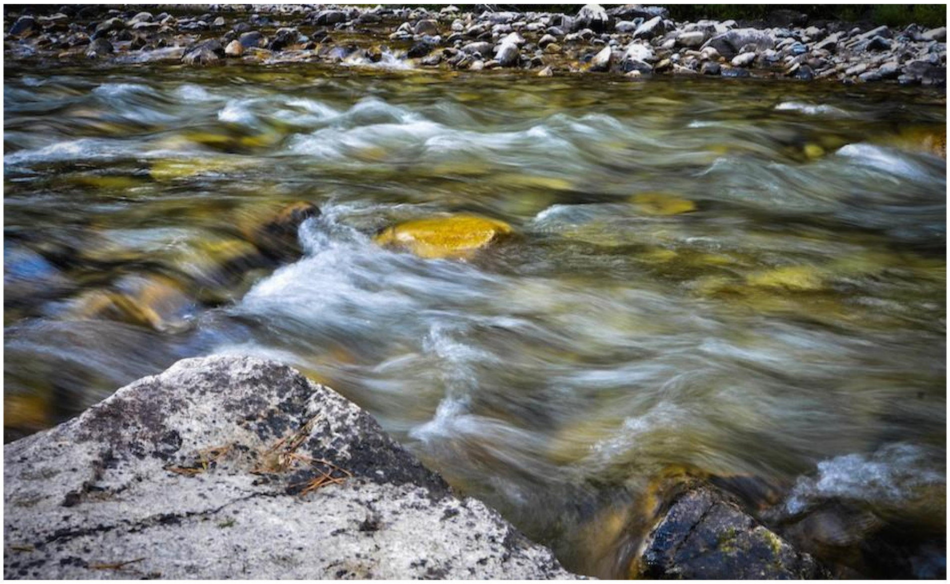
Perpetua Resources

FINAL

Hydrologic Site Model Refined Proposed Action (ModPRO2) Report

August 2021





FINAL

Stibnite Gold Project
Stibnite Hydrologic Site Model
Refined Modified Proposed Action (ModPRO2) Report

Prepared for
Perpetua Resources Idaho, Inc.
Valley County, Idaho
August 2021

Brown AND Caldwell
1290 West Myrtle Street, Suite 340
Boise, ID 83702

Table of Contents

List of Figures

List of Tables

List of Abbreviations

amsl	above mean sea level
BC	Brown and Caldwell
BDA	bedrock dominated area
CFR	Code of Federal Regulations
cfs	cubic feet per second
DRSF	development rock storage facility
EC	existing conditions
EFSFSR	East Fork of the South Fork of the Salmon River
EIS	environmental impact statement
EOY	end of year
ft	foot/feet
ft/day	foot/feet per day
gpm	gallon per minute
IDEQ	Idaho Department of Environmental Quality
IPDES	Idaho Pollutant Discharge Elimination System
LAK	lake
MAW	multi-aquifer well
MCFZ	Meadow Creek Fault Zone
Midas Gold	Midas Gold Idaho, Inc.
ModPRO	Modified Plan of Restoration and Operations
MWB	meteoric water balance
NEPA	National Environmental Policy Act
Perpetua Resources	Perpetua Resources Idaho, Inc. (formerly Midas Gold Idaho, Inc.)
PRO	Plan of Restoration and Operations
Project	Stibnite Gold Project
RIB	rapid infiltration basin
SFR	streamflow routing
SGP	Stibnite Gold Project
SHSM	Stibnite Hydrologic Site Model
SODA	Spent Ore Disposal Area
SWWB	site-wide water balance
TSF	tailings storage facility
USFS	United States Forest Service
USGS	United States Geological Survey
WTP	water treatment plant

Executive Summary

This report was prepared by Brown and Caldwell on behalf of Perpetua Resources Idaho, Inc. (Perpetua Resources), formerly Midas Gold Idaho, Inc. (Midas Gold) and presents model simulations that were developed to assess impacts to groundwater elevation and streamflow resulting from implementation of the ModPRO2 Alternative. The ModPRO2 is the refined Modified Plan of Restoration and Operations (ModPRO) Alternative and results from feasibility-level analyses of the Stibnite Gold Project and a suite of mitigation measures designed to improve water quality and restore the Project Area to an improved condition (Perpetua Resources 2021a). The ModPRO2 presents an alternative with a smaller footprint and reduced environmental impacts compared to the Plan of Restoration and Operations (PRO) and the Modified PRO (ModPRO).

The ModPRO2 incorporates information derived from agency and public scoping for Perpetua Resources' original Proposed Action (the PRO), the alternatives development process, baseline data collection and analysis, and predictive modeling (hydrologic, geochemical, water quality, stream temperature, and air quality). It was also informed by Perpetua Resources' interactions with the public; federal, state, and local governments; Native American tribes; and other Project stakeholders and considers comments submitted during the public comment period for the Draft Environmental Impact Statement (EIS).

Mining methods, ore processing, exploration activities, water management, and supporting features including structures, access and haul roads, and infrastructure remain identical to the PRO and/or the ModPRO or are slightly modified. These proposed refinements address environmental concerns raised or identified by various sources or through the effects analysis of the Draft EIS and are targeted at addressing them accordingly. These refinements align with the purpose and intent of the National Environmental Policy Act.

Key changes in the mine plan between ModPRO and ModPRO2 include elimination of the Fiddle development rock storage facility, reduction in size of the Hangar Flats pit, and complete backfilling of the Hangar Flats pit. These changes result in a significant reduction in the project footprint and improved water quality.

The hydrologic model used to assess potential changes to groundwater and surface flow conditions due to mining activities consists of a long-term meteoric water balance (MWB) that tracks precipitation, snow accumulation, and snowmelt; and a numerical groundwater flow model developed using MODFLOW 6; collectively referred to as the Stibnite Hydrologic Site Model (SHSM). The MODFLOW 6 modeling code incorporates unstructured model grids, which allows finer grid resolution in areas of particular interest, including the Meadow Creek Fault Zone while maintaining coarser grid spacing in other areas of the model.

The SHSM has been calibrated to groundwater potentiometric data, surface water flow data, and aquifer test data collected at the site, which represent existing conditions. The calibrated existing conditions model forms the basis for development of models to simulate system changes due to the ModPRO2 Alternative proposed mining actions (Perpetua Resources 2021a).

Three separate models were developed to simulate the ModPRO2. One model simulates mine year -2 through mine year 5, prior to backfilling the Yellow Pine and Hangar Flats pits. The second model simulates mine year 6 through mine year 12 to incorporate updated backfill elevations for the backfilled pits. Combined, these models focus on simulating dewatering of open pits, changes to surface recharge conditions near proposed mine facilities, and changes to surface flows due to mining activities. The third model simulates the period from mine year 13 through mine year 112 and includes simulation of the West End pit lake. Results of the ModPRO2 simulations are compared to results from the No Action simulations conducted with the SHSM.

The MWB model for the SHSM has been updated to include four sub-basins to improve the simulation of precipitation variability and snowmelt processes. Other improvements to the MWB model include the addition of vadose zone processes that affect soil storage. The MWB was calibrated in tandem with the groundwater flow component of the SHSM through the use of a Monte Carlo process described in Appendix A. A mine feature specific water balance was developed for the Tailings Storage Facility (TSF) Buttress in the Site Wide Water Balance (Perpetua Resources 2021b) and recharge and runoff data provided as input to the SHSM.

Simulated dewatering rates for the ModPRO2 Alternative are lower than the dewatering rates of the ModPRO due primarily to the reduction in size of the Hangar Flats pit and improved parameterization of the bedrock in the calibrated SHSM model. As a result of lower estimated dewatering rates, water supply wells in the Hangar Flats pit vicinity and a surface water diversion on the East Fork of the South Fork of the Salmon River (EFSFSR) are included to satisfy processing water demand. Treated effluent is simulated to be disposed of through direct discharge to surface waters at proposed Idaho Pollutant Discharge Elimination System outfalls on Meadow Creek and the EFSFSR and rapid infiltration basins (RIBs) are no longer needed for water disposal. Streamflow impacted by dewatering in the vicinity of the Hangar Flats pit is supported by discharge from water treatment rather than the RIBs proposed in the ModPRO.

Predicted baseflows in Meadow Creek are slightly higher than in the No Action SHSM simulation due to inclusion of an extended stream corridor liner in the Hangar Flats area. Some baseflow reductions are predicted in the EFSFSR compared to the No Action simulations during the operations period and early post-operations period. All streamflow returns to No Action conditions after mine year 15.

The Post-Mining SHSM (mine year 13 though mine year 112) simulates a maximum stage for the West End pit lake of 6,627 feet (ft) in mine year 70 followed by fluctuations around 6,590 ft for the last 15 years of the simulation. The Post-Mining SHSM model simulates the pit lake water elevation to remain below the spill point with no surface discharge from the pit lake.

Section 1

Introduction

Perpetua Resources Idaho, Inc. (Perpetua Resources), formerly Midas Gold Idaho, Inc. (Midas Gold) proposes to redevelop portions of the Stibnite Mining District in the headwaters of the East Fork of the South Fork of the Salmon River (EFSFSR), Valley County, central Idaho as initially outlined in the Plan of Restoration and Operations (PRO; Midas Gold 2016). Brown and Caldwell (BC) prepared this report to summarize the results of hydrologic modeling of the Refined Modified Proposed Action (ModPRO2) Alternative (Perpetua Resources 2021a). Perpetua Resources' ModPRO2 was developed to further reduce potential environmental impacts of the Stibnite Gold Project (SGP or Project) in alignment with Perpetua Resources' Core Values as set out in the PRO (Midas Gold 2016; Section 2), Conservation Principles (Midas Gold 2016; Section 2), its Sustainability Goals (Midas Gold 2016; Section 2.4) and its Environmental Goals (Midas Gold 2016; Section 6.2).

The PRO was submitted to the United States Forest Service (USFS) and the Idaho Department of Lands in September 2016 and deemed complete by the USFS in December 2016. Concurrent with preparing the environmental impact statement (EIS), federal and state permitting, and agency and stakeholder consultations, Perpetua Resources has advanced the Project's engineering design to the Canadian National Instrument 43-101 Feasibility Study level. Some Project elements have changed relative to the PRO, modified PRO (ModPRO) and the other alternatives in the Draft EIS (USFS 2020) as designs have proceeded and additional information has been learned. The ModPRO2 results from the culmination of these analyses and a suite of mitigation measures designed to improve water quality and restore the Project area to an improved condition. The ModPRO2 presents an alternative with a smaller footprint and reduced environmental impacts compared to the PRO and the ModPRO.

The ModPRO2 incorporates information derived from agency and public scoping for Perpetua Resources' PRO, the alternatives development process, baseline data collection and analysis, and predictive modeling (hydrologic, geochemical, water quality, stream temperature, and air quality). The updated hydrologic model, referred to here as the Stibnite Hydrological Site Model (SHSM), and simulation results were used to support ModPRO2 Project refinements and simulate environmental effects. The ModPRO2 was further informed by Perpetua Resources' interactions with the public; federal, state, and local governments; Native American tribes; and other Project stakeholders and considers comments submitted during the public comment period for the Draft EIS.

The purpose of this report is to present potential groundwater and surface water impacts in the vicinity of the SGP resulting from proposed mine activities described in the ModPRO2 (Perpetua Resources 2021a). The ModPRO2 is intended to be included in the Final EIS as the refined Alternative 2 to replace the Alternative 2 (ModPRO) currently described in the Draft EIS. This is consistent with the National Environmental Policy Act (NEPA); per 40 Code of Federal Regulations (CFR) 1503.4, an agency preparing a Final EIS has the option to "Modify alternatives including the proposed action" (40 CFR 1503.4(a)(1).

Previous hydrologic modeling in support of the SGP is documented in the Stibnite Gold Project Final Hydrologic Model Existing Conditions Report (BC 2018a), the Stibnite Gold Project Final Hydrologic Model Proposed Action Report (BC 2018b), the Stibnite Gold Project Final East Fork South Fork Salmon River Alternative TSF/DRSF Modeling Report (BC 2019a) and the Stibnite Gold Project Final

Modified PRO Alternative Modeling Report (BC 2019b). These previous reports describe the development of the original version of the SGP hydrologic model and assess the potential changes in the groundwater and surface water in the vicinity of the SGP resulting from alternatives described in the Draft EIS.

This report presents the hydrologic simulation of the ModPRO2 Alternative using the SHSM. The SHSM is the updated hydrologic conceptual and numerical model that is based on increased hydrogeologic knowledge and conceptual understanding of the site gained from borehole data analysis, additional site visits, and the 2019 Stibnite Gold Project Aquifer Test (BC 2021a). Improvements to the hydrologic model were undertaken to align with Perpetua Resources' effort to further understand and reduce environmental impacts, to address agency comments on the previous SGP hydrologic model reports, and to address public and agency comments on the Draft EIS (USFS 2020). The SHSM was calibrated to the same measured groundwater elevation as the previous model and surface water streamflow from 2011 to 2019. The calibrated SHSM simulates hydrologic conditions at the SGP from 1985 to 2019 and validates the model for simulating the NEPA alternatives. Appendix A of this report describes the calibrated SHSM, which is referred to here as the Existing Conditions (EC) SHSM.

The final groundwater elevation from the EC simulation serves as the initial conditions for modeling the ModPRO2 Alternative and No Action Alternative (NA). The NA Alternative simulates the future condition of the surface water and groundwater systems in the absence of mine-related activity and is the baseline condition to compare the simulated water quantity effects of the proposed actions in the ModPRO2 Alternative (Perpetua Resources 2021a). The mine phases and corresponding mine years of the ModPRO2 Alternative can differ from the ModPRO2 SHSM modeling periods and are shown in Table 1-1. Modeling periods are based on limitations of the hydrologic model that force breaks in the model for inclusion of the pit backfills and pit lake (Section 3). The SHSM model is set up to simulate a period starting in mine year -2 in the Construction phase and extending past the Post Closure phase to mine year 112. The SHSM is started in mine year -2 since none of the planned construction activities in mine year -3 will significantly impact hydrology at the site. The SHSM mining period simulates the ModPRO2 activities occurring from mine year -2 through mine year 12. This period covers the construction and active mining phases of the ModPRO2. The ModPRO2 operations mine phase extends through the first quarter of mine year 15. Operations from mine year 13 through mine year 15.25 are primarily processing of ore from stockpiles (Perpetua Resources 2021a) and these years are included in the post-mining period of the ModPRO2 SHSM. The SHSM simulates conditions through mine year 112, well past the Post Closure phase, to evaluate the long-term hydrology at the site.

Table 1-1. ModPRO2 Mine Phases and SHSM Modeling by Mine Year

<table>
<tr><th>Mine Phase</th><th>Start Mine Year</th><th>End Mine Year</th><th>SHSM Modeling Periods</th><th>Start Mine Year</th><th>End Mine Year</th></tr>
<tr><td>Construction</td><td>-3</td><td>-1</td><td rowspan="2">Mining</td><td rowspan="2">-2</td><td rowspan="2">12</td></tr>
<tr><td>Operations</td><td>1</td><td>15.25</td></tr>
<tr><td>Reclamation and Closure</td><td>15</td><td>19</td><td rowspan="2">Post-Mining</td><td rowspan="2">13</td><td rowspan="2">112</td></tr>
<tr><td>Post Closure</td><td>20</td><td>37</td></tr>
</table>

Abbreviations:

SHSM = Stibnite Hydrological Site Model

1.1 Report Organization

This report contains the description of the ModPRO2 Alternative scenario configuration in the SHSM and presents the modeling results. The ModPRO2 Alternative summary is provided in Section 2 with the ModPRO2 end of year (EOY) figures; Section 3 discusses the ModPRO2 operations and post-closure models setup; Section 4 and Section 5 present modeling results for operations and post-closure, respectively; and the model results and conclusions are summarized in Section 6. The EC SHSM is presented in Appendix A and SHSM ModPRO2 supporting data is provided in Appendix B.

Section 2

Description of the ModPRO2 Alternative

The primary ModPRO2 improvements that affect surface water and groundwater resources are discussed briefly in this section and the EOY site configuration figures are provided. The EOY site configuration figures show mine phasing and timing of mine related disturbance and restoration. The comprehensive description of the ModPRO2 Alternative can be found in the SGP Refined Proposed Action ModPRO2 Report (Perpetua Resources 2021a).

2.1 ModPRO2 Refinements to ModPRO for Hydrologic Modeling

This section introduces the ModPRO2 refinements to the ModPRO that could have a significant impact to the Project's surface and groundwater systems. This brief description of the ModPRO2 refinement describes the component, discusses the hydrologic effect, and details the reason for including the component in the alternative. All project components and timing shown in the EOY site configuration figures that could influence site hydrology are included in the ModPRO2 SHSM (Section 2.2).

2.1.1 Reduced Hangar Flats Pit Footprint

The disturbance area and volume of the Hangar Flats pit are reduced in the ModPRO2, offering several project improvements. Adjusting pit sequencing and reducing the size of the Hangar Flats pit will reduce overlapping water management requirements, reduce the overall surface disturbance footprint, allow for the (smaller) Hangar Flats pit to be completely backfilled, reduce the amount of development rock that requires storage elsewhere, and reduce the likelihood and (if required) the volume of post-closure water management. The smaller pit footprint also results in less required pit dewatering to address environmental and water management concerns. Previous simulated dewatering of Hangar Flats pit in the Proposed Action and ModPRO resulted in reduced streamflow in Meadow Creek and produced significant dewatering water that required treatment. This project refinement addresses public comments related to the reduction of the overall project footprint and provides accordant reductions in impacts to wetlands/waters of the United States, vegetation resources, and wildlife and fisheries habitat.

2.1.2 Fiddle DRSF Elimination

Elimination of the Fiddle development rock storage facility (DRSF) is a key element of the ModPRO2 to limit disturbance in a mostly undisturbed drainage, to ameliorate water quality concerns of the DRSF and the associated long-term water treatment requirement. Reducing the size of the Hangar Flats pit facilitates eliminating Fiddle DRSF and completely backfilling the Hangar Flats pit. Eliminating the Fiddle DRSF reduces operational, closure, and post-closure water management efforts, costs, and risk. Reducing the overall project footprint will also reduce impacts to numerous resources including soil, vegetation, wildlife habitat, and fisheries. This project improvement addresses numerous Draft EIS comments related to the Fiddle DRSF and its potential impacts on water quality and overall disturbance footprint.

2.1.3 Hangar Flats Pit Backfill

Backfilling the Hangar Flats pit to the approximate pre-mining valley bottom elevation partially resolves the sitewide development rock storage capacity deficit that results from the elimination of the West End DRSF and the Fiddle DRSF. The backfilled pit reduces the overall project footprint, reduces long-term water treatment requirements and water chemistry concerns from the former pit lake, decreases post-mining Meadow Creek stream temperatures, avoids post-mining relocation of the operational Meadow Creek diversion channel/floodplain corridor, and enables habitat creation on the backfill. Meadow Creek peak shaving, a ModPRO mitigation measure to reduce time required to fill the former pit lake and restore hydrologic equilibrium, is no longer necessary. Backfilling the pit also addresses geotechnical concerns of the permanent Meadow Creek channel adjacent to the Hangar Flats pit highwall. This improvement addresses numerous public comments requesting reconsideration of the need for the Fiddle DRSF as well as comments related to concerns over the potential for long- term water treatment of Hangar Flats pit lake outflow.

2.1.4 West End Pit

The ModPRO2 alternative includes modifications to the West End pit. The West End pit is larger by approximately 20%, and the pit bottom elevation is 6180 feet (ft) above mean sea level (amsl), approximately 40 ft lower than in the PRO and ModPRO. Additionally, the spill point of the resultant West End pit lake will be 6,630 ft amsl, 10 ft higher than in the PRO and ModPRO. These modifications facilitate stockpiles of lower-grade ore and the extension of mill life post-mining.

2.1.5 Water Supply Sources

The ModPRO2 Alternative includes a surface water supply and a dedicated groundwater supply in addition to the dewatering well networks to satisfy industrial water demand. Industrial make-up water supply prioritizes contact water and dewatering water, followed by groundwater supply wells then by surface water. Groundwater supply well production is capped at 0.5 cubic feet per second (cfs) in the ModPRO2 simulation. The surface water diversion is modeled at head of the EFSFSR Tunnel and the groundwater well network is modeled in the Meadow Creek valley upgradient of the Hangar Flats pit area. The additional freshwater supply is necessary to satisfy mill demand, and the system will be operated on an on-demand basis. Early modeling iterations included only the groundwater supply network to meet unmet water demand and resulted in unsatisfactory flow reductions in Meadow Creek. The surface water diversion was then included to reduce environmental impact, maintain streamflow in the stream reaches between the groundwater well network and the surface water point of diversion, and provide operational flexibility to the Project. Domestic water supply will be from groundwater wells located near the worker housing facility. Flows from these wells are not included in simulations of the ModPRO2 Alternative because the water resources in the study area will not be significantly impacted due to the minimal withdrawal (Midas Gold 2016) and distance of the potable water supply network from the active mining area.

2.1.6 Water Treatment

The approach to water treatment is consistent with the ModPRO, however at times when there is treated effluent it is planned to be directly discharged to surface water at Idaho Pollutant Discharge Elimination System (IPDES) outfall locations instead of being discharged to rapid infiltration basins (RIBs). RIBs are not modeled in the ModPRO2 Alternative thereby addressing agency comments and Draft EIS comments on RIBs permitting and operation. Water treatment plant locations are shown in the EOY site configuration figures. The three IPDES industrial outfall locations in Figure 2-2 are modeled in the ModPRO2[1]. During the operations phase, the outfall location is modeled to be on Meadow Creek upstream of Blowout Creek to mitigate potential impacts to streamflow due to mining activities. During the reclamation and closure phases streamflow mitigation is not anticipated to be needed and the outfall location is planned to initially be on the EFSFSR near the plant site where there are higher flows into which to discharge treated water. By EOY 23, the tailings storage facility (TSF) cover is complete, the streams are restored on the TSF, and water treatment transitions to treating only tailings consolidation water, not contact runoff. The outfall location moves from EFSFSR to Meadow Creek below Blowout Creek[2]. Flows to water treatment decline from approximately 1,000 gallons per minute (gpm) in mine years 15 through 23, during which time most meteoric water landing on the TSF is treated, along with consolidation water, to less than 150 gpm from EOY23 to EOY40 when the cover is complete and only consolidation water requires treatment. The water treatment plant (WTP) is downsized and relocated to the TSF buttress at this time to allow for a shorter, lower-head pipeline between the source and the WTP and allow the location of longer-term treatment on private land per USFS policy.

The industrial outfalls are phased throughout mine life with one industrial outfall simulated at a time as follows:

1. Meadow Creek upstream of East Fork Meadow Creek (mine year -2 through mine year 12)
2. EFSFSR near the Garnet Creek confluence (mine year 13 through mine year 23)
3. Meadow Creek upstream of restored section at the base of the TSF buttress (mine year 24 through mine year 40)

Water treatment in the ModPRO2 is at lower volumes in all phases than other Alternatives due to revised mine planning with less temporal overlap of disturbance, less disturbance overall (Fiddle DRSF elimination, Hangar Flats backfill, smaller Hangar Flats pit) and improved modeling. Water treatment is required to discharge excess dewatering water and contact water. Contact water runoff requiring treatment is stormwater runoff and seepage from the TSF Buttress, ore stockpiles, open pits, and portions of the ore processing area and truck shop.

1 IPDES outfall locations are preliminary and draft. The final locations will be determined through the IPDES application process with the Idaho Department of Environmental Quality (IDEQ). The locations shown were identified through initial evaluation to support mine planning and are subject to change. The EFSFSR outfall at the ore processing plant will exist during operations and will be used to discharge treated effluent not needed for streamflow augmentation at the Meadow Creek outfall. All discharge is modeled at Meadow Creek for the base case.

2 WTP phasing is preliminary and draft. Relocation timing was identified through an initial evaluation to support mine planning and is subject to change.

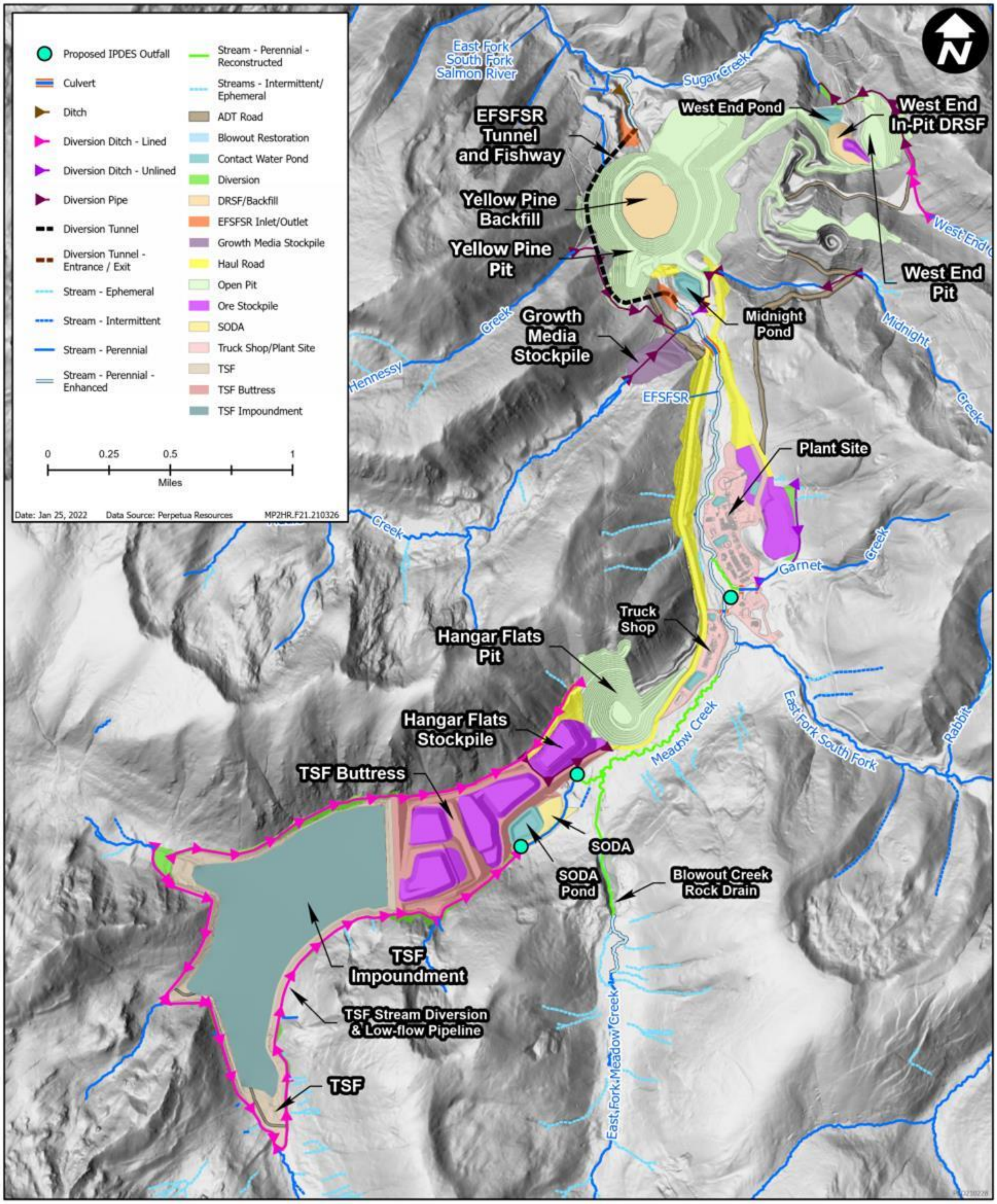


Figure 2-1. Proposed IPDES Outfall Locations[3]

[3]Figure 2-1 basemap is EOY 5 site configuration shown for reference only

2.1.7 Expanded Use of Geosynthetics

Geochemistry modeling for the ModPRO and ModPRO2 identified the need to incorporate low-permeability geosynthetics into closure covers for additional facilities to protect long-term water quality. Geosynthetics are proposed for covering the TSF, TSF buttress, and Hangar Flats and Yellow Pine pit backfills. Geosynthetic covers reduce water infiltration into the covered facility and increase surface water runoff from the facility.

2.1.8 Contact Water Storage Ponds

Contact water ponds are included the ModPRO2 Alternative. Contact water ponds are lined facilities used for contact water management. Surface water runoff routed to contact water ponds is used to meet industrial water demand or treated and discharged. The ponds are located in the proximity of water generating features where space is available, including at the toe of the TSF Buttress, near the pits, within the truck shop area, and near the plant site where contact water will be used and treated. The contact water ponds are lined features and simulated in the SHSM ModPRO2 model as zero recharge areas. Modeled contact water ponds are identified in Table 2-1, shown in the EOY site configuration figures (Section 2.2), and discussed in Sections 3.1.4 and 3.2.2.

Table 2-1. SHSM ModPRO2 Contact Water Ponds

Pond Name	Location	Duration[a]
Hangar Flats Pond	In footprint of Hangar Flats pit	Mine Years -2 to 4
SODA Pond	East of TSF Buttress in footprint of SODA/Bradley tailings	Mine Years 3 to 17
West End Pond	Downstream, and north, of West End pit in West End Creek drainage	Mine Years -1 to 9
Midnight Pond	Upstream, and south, of Yellow Pine pit near confluence of Midnight Creek and EFSFSR	Mine Years -2 to 15
Truck Shop Ponds[b]	In Meadow Creek valley, in footprint of truck shop area	Mine Years -2 to 17
Plant Ponds[b]	North of Garnet Creek, in footprint of plant site	Mine Years -2 to 17

Notes:

[a] *The pond durations are based on the best available information and are subject to change with adjustments in mine operations. Ponds may remain in place for water management and sediment control during reclamation.*

[b] *Ponds at the truck shop and plant site are aggregated in the SWWB model as a combined pond storage and listed here in accordance with the SWWB modeling.*

Abbreviations:

EFSFSR = East Fork of the South Fork of the Salmon River

SHSM = Stibnite Hydrological Site Model

SODA = Spent Ore Disposal Area

SWWB = Site-wide Water Balance

TSF = tailings storage facility

2.2 End of Year Figures

The ModPRO2 EOY site configuration figures are presented here, showing the site configuration at the approximate end of each mine year. These figures are used in the development of the hydrologic model to instruct model configuration of diversion timing, stream restoration, pit dewatering, and pit backfilling. In the model, the EOY configuration is assumed to start in September of the mine year in which they are planned because the system is near a hydrologic low (end of water year) and has not yet begun to accumulate snowpack. Further, aside from continuous operations such as open pit mining September is near the end of the construction season at the site.

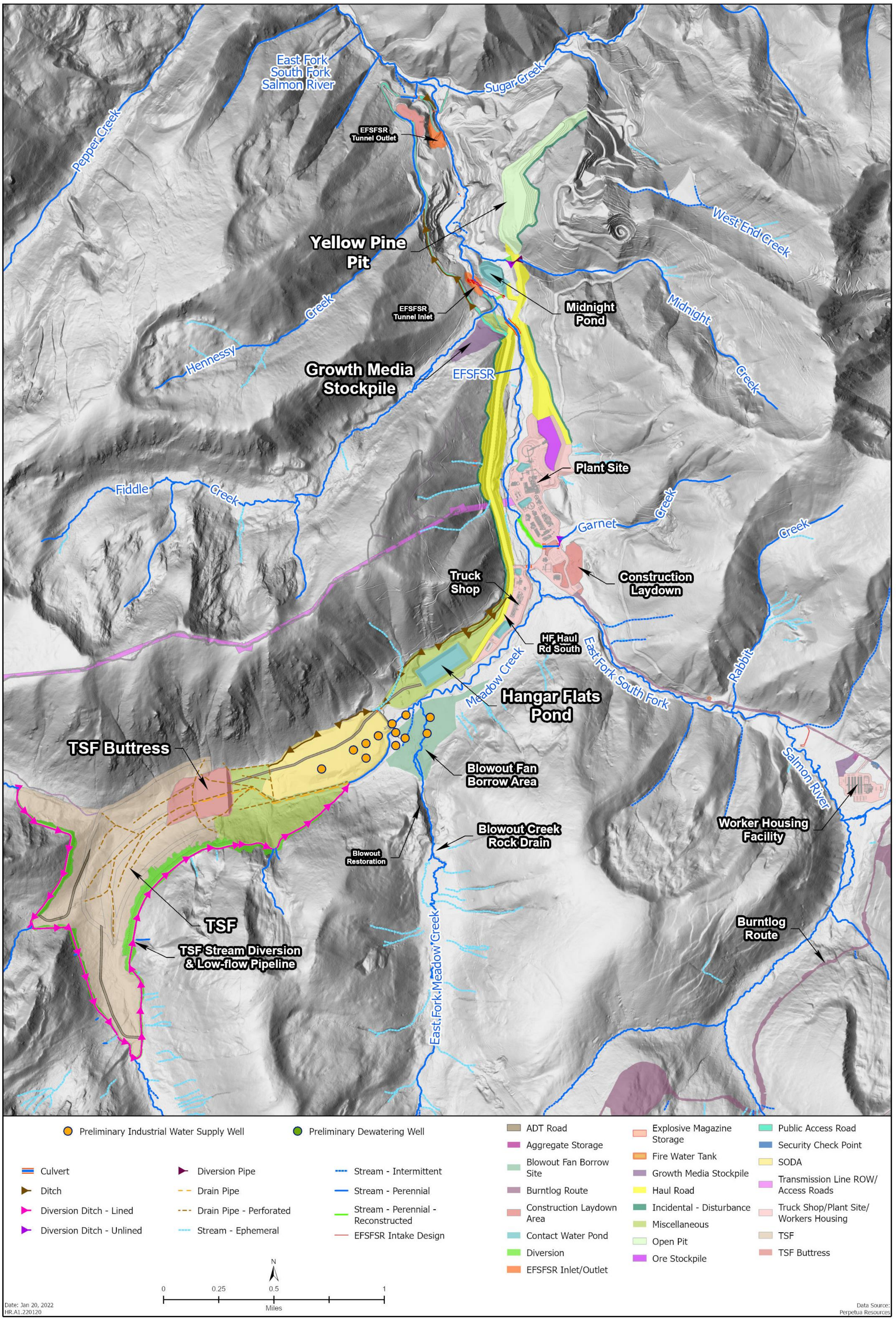


Figure 2-2. Mine Year -2 EOY Site Configuration

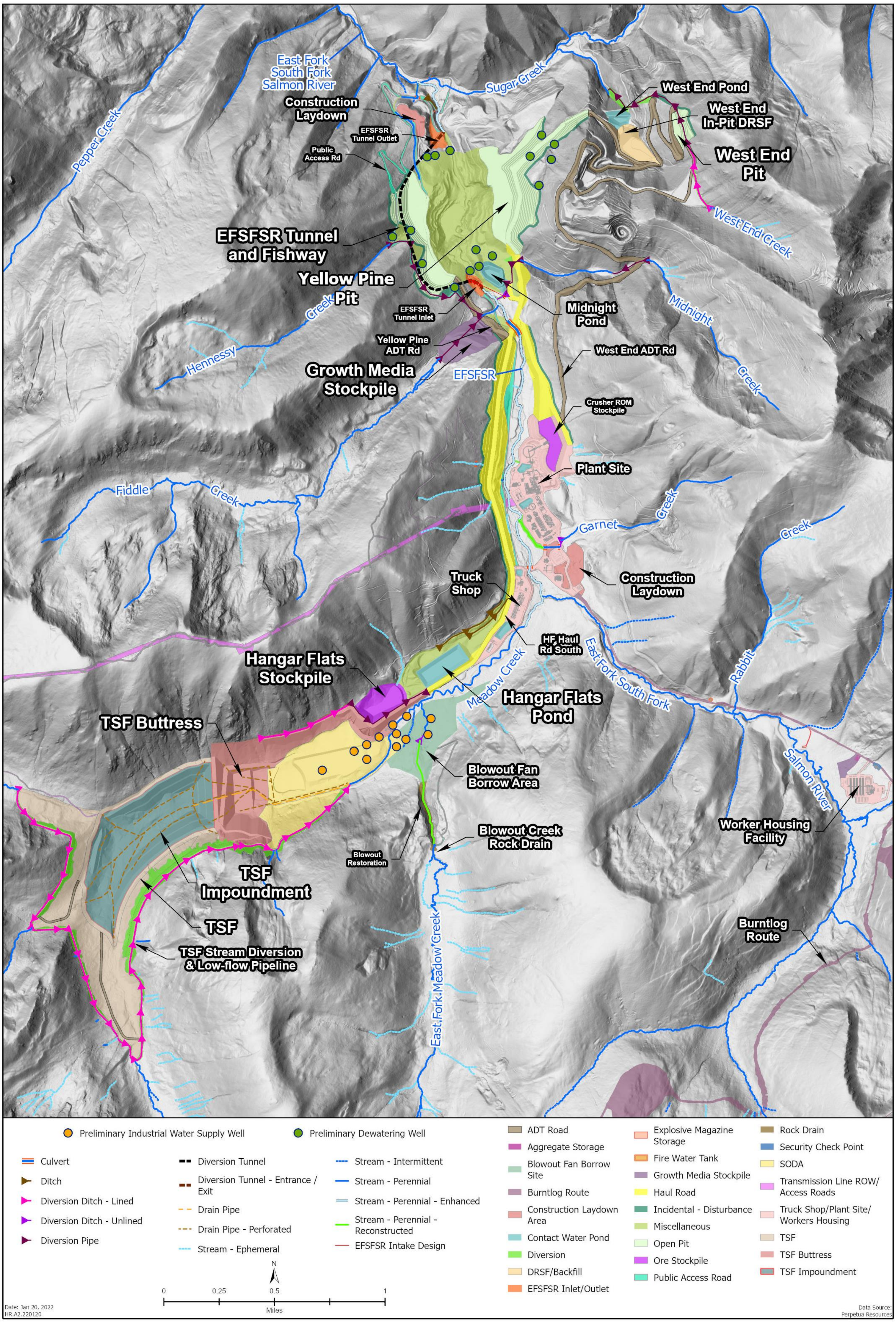


Figure 2-3. Mine Year -1 EOY Site Configuration

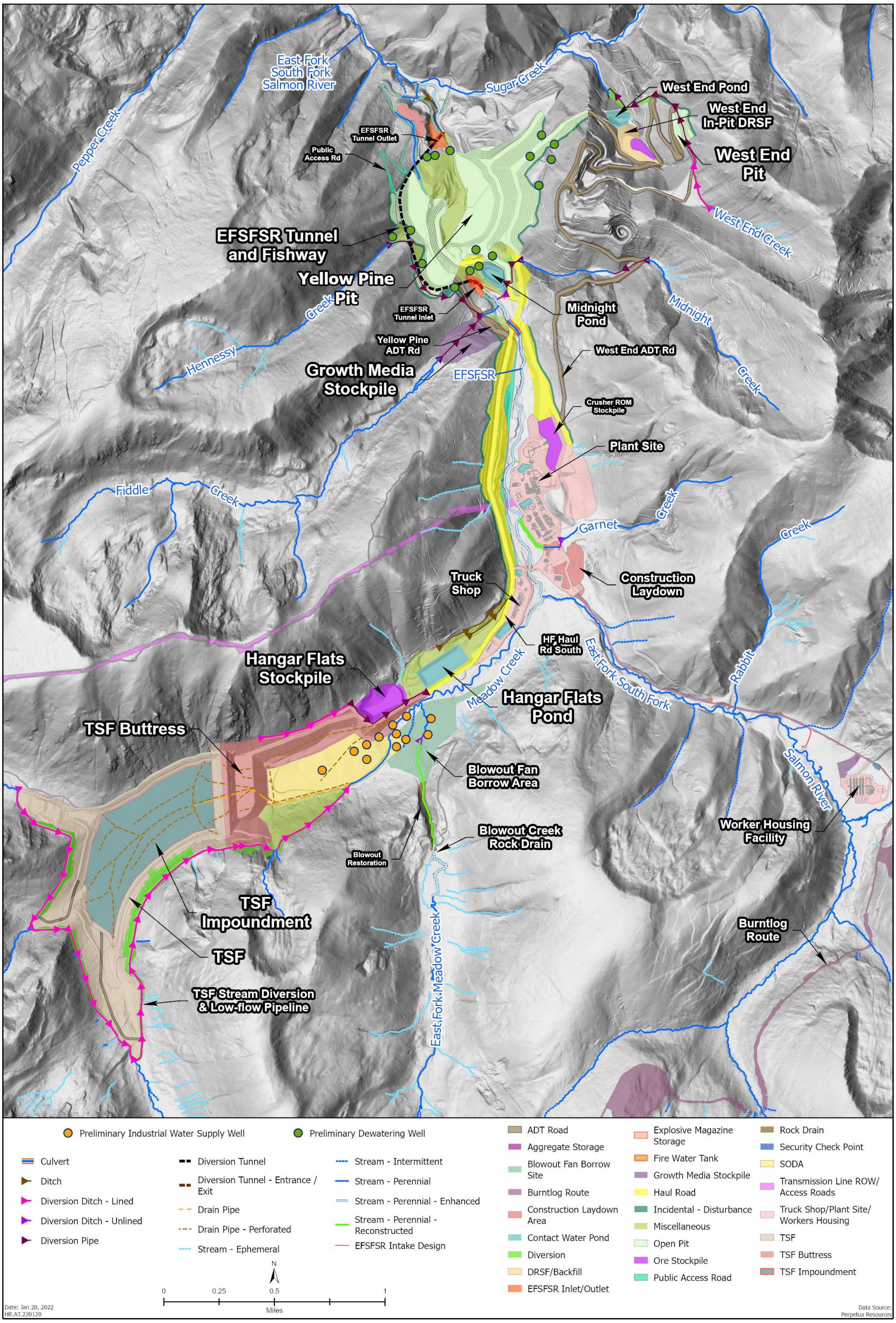


Figure 2-4. Mine Year 1 EOY Site Configuration

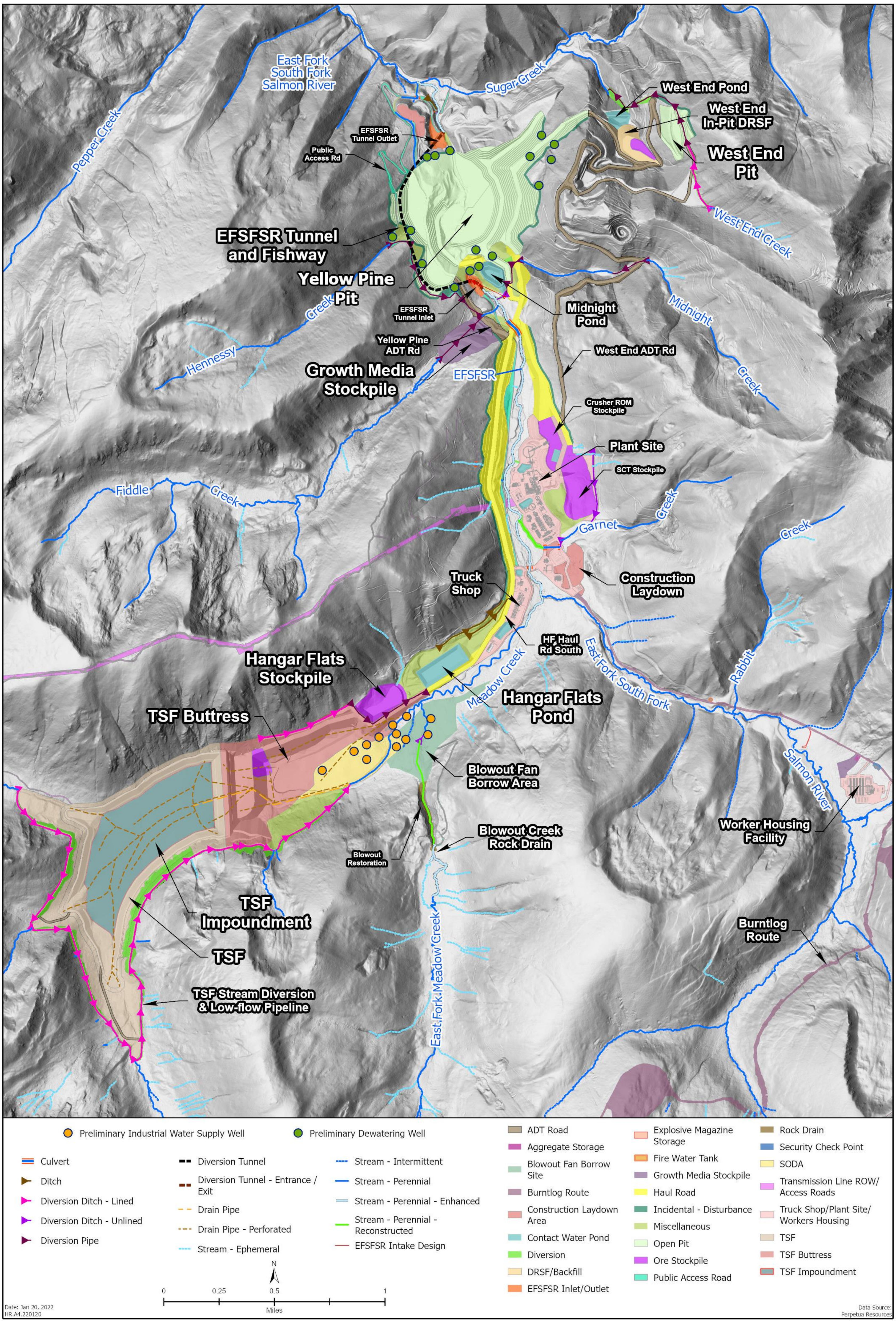


Figure 2-5. Mine Year 2 EOY Site Configuration

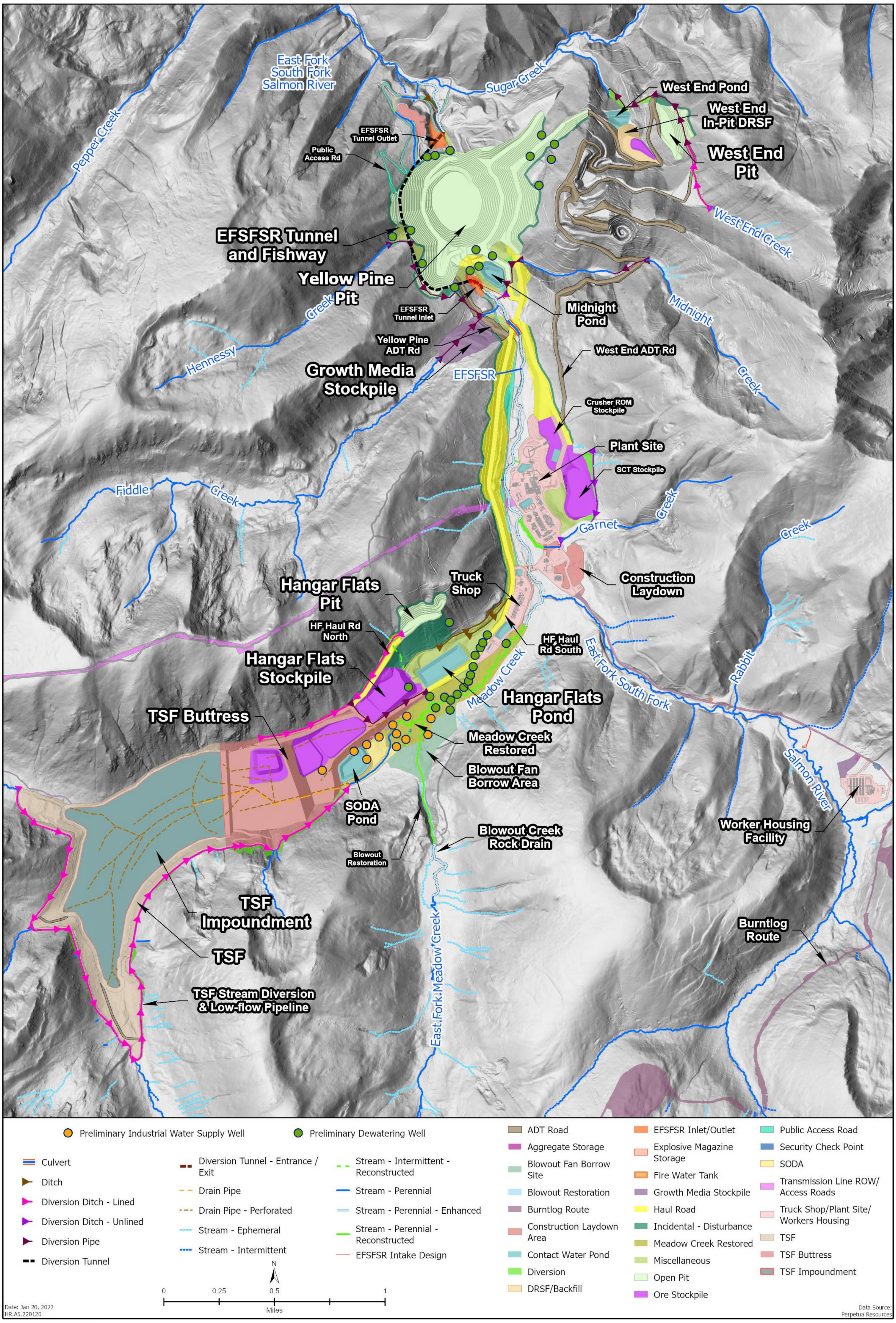


Figure 2-6. Mine Year 3 EOY Site Configuration

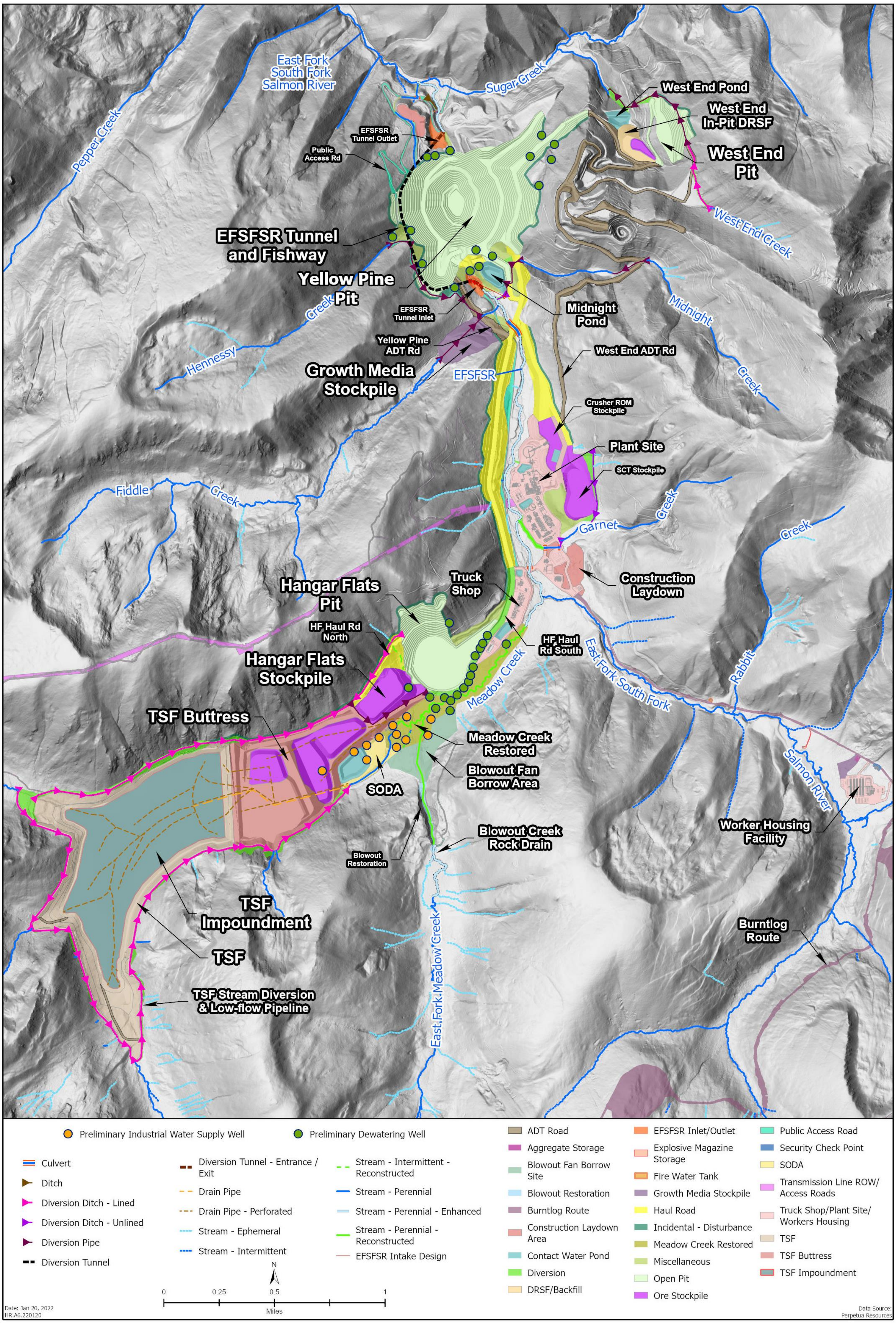


Figure 2-7. Mine Year 4 EOY Site Configuration

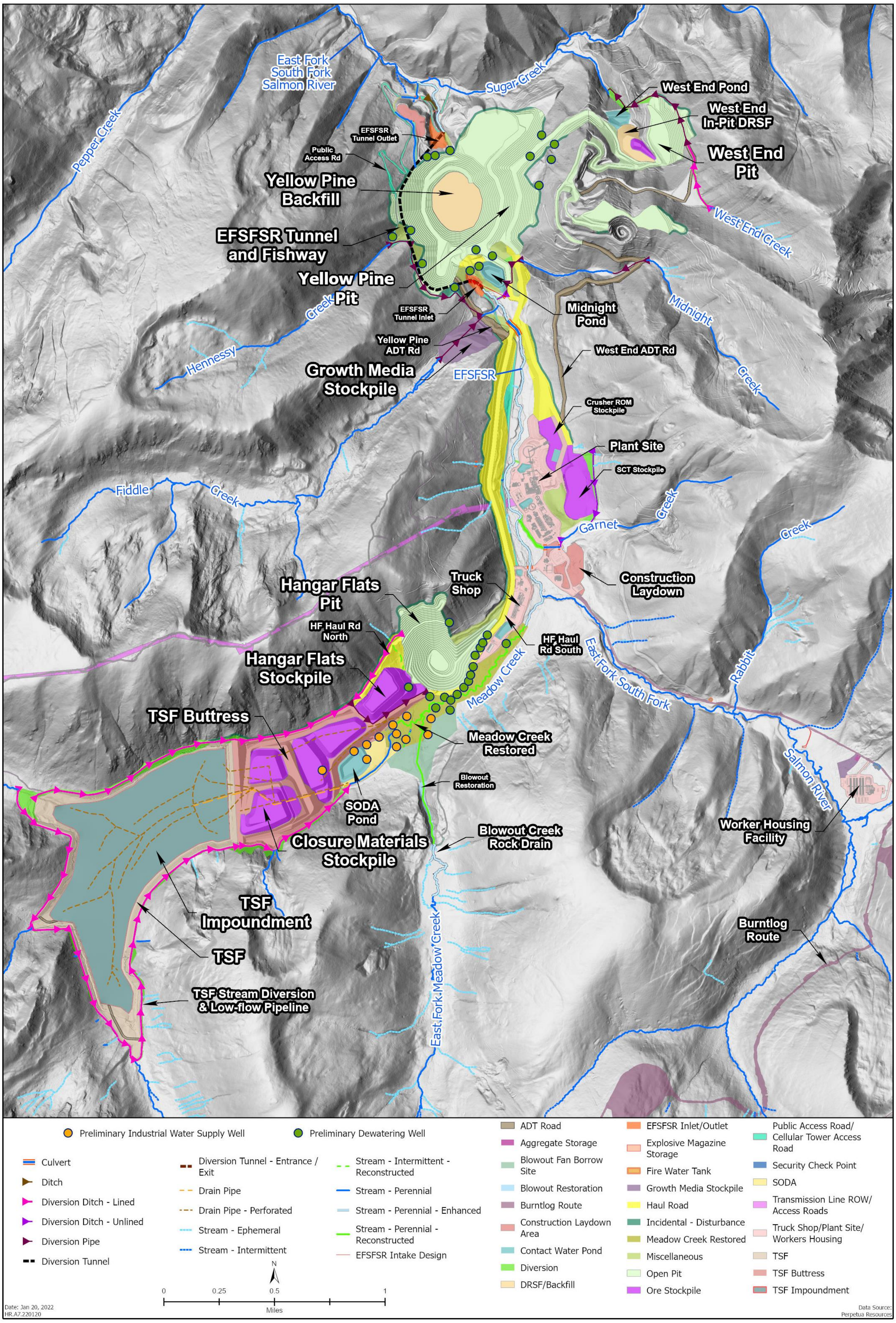


Figure 2-8. Mine Year 5 EOY Site Configuration

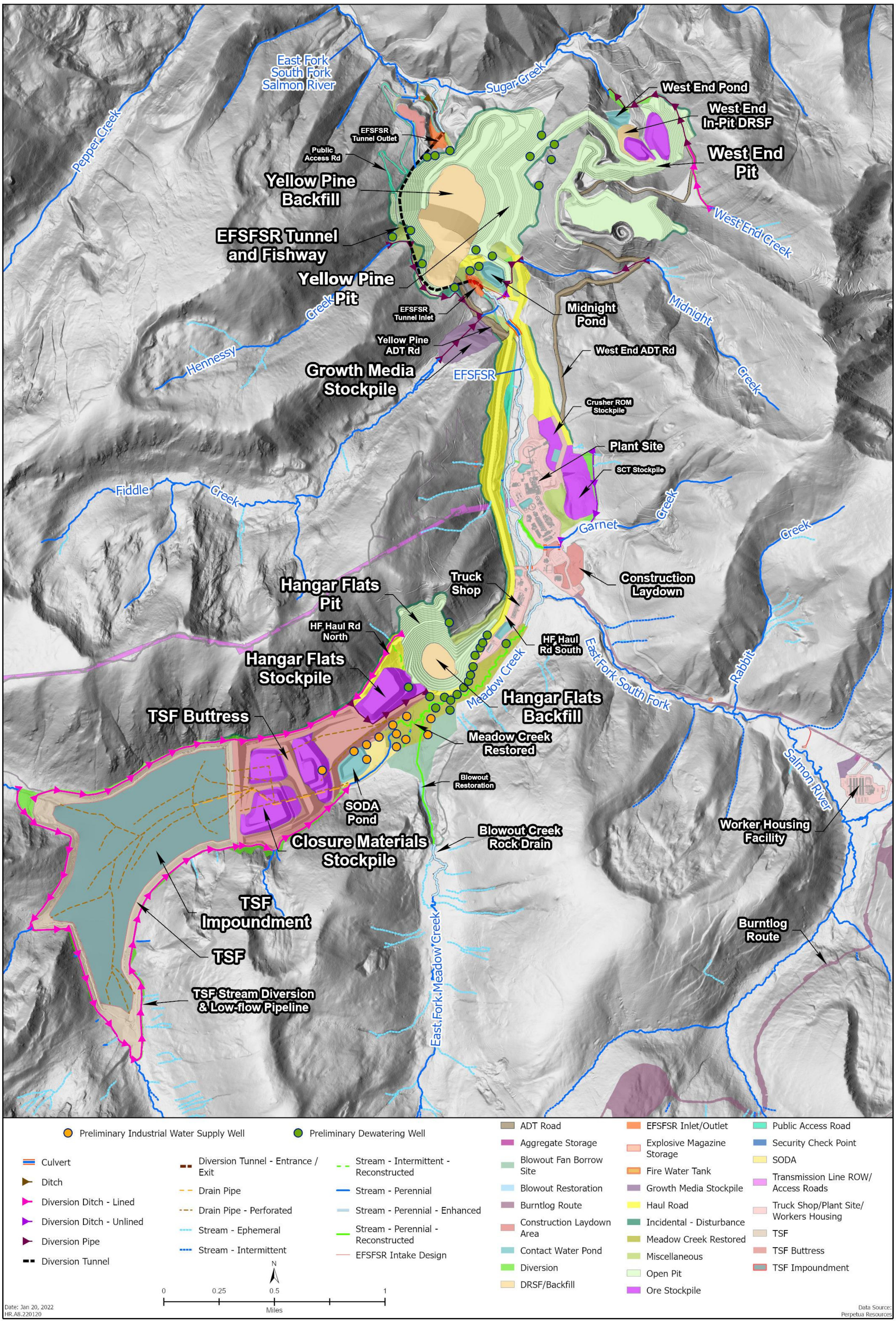


Figure 2-9. Mine Year 6 EOY Site Configuration

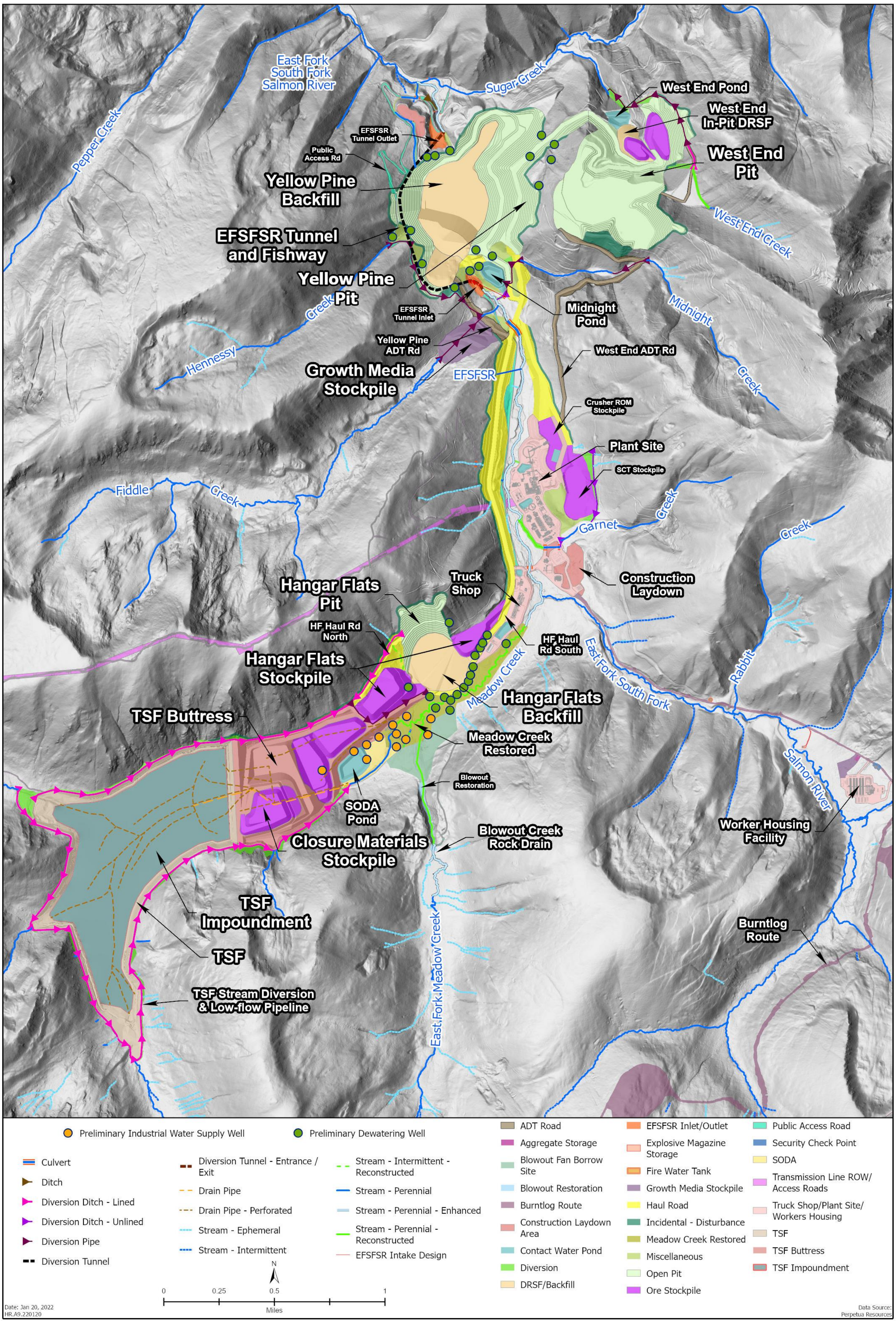


Figure 2-10. Mine Year 7 EOY Site Configuration

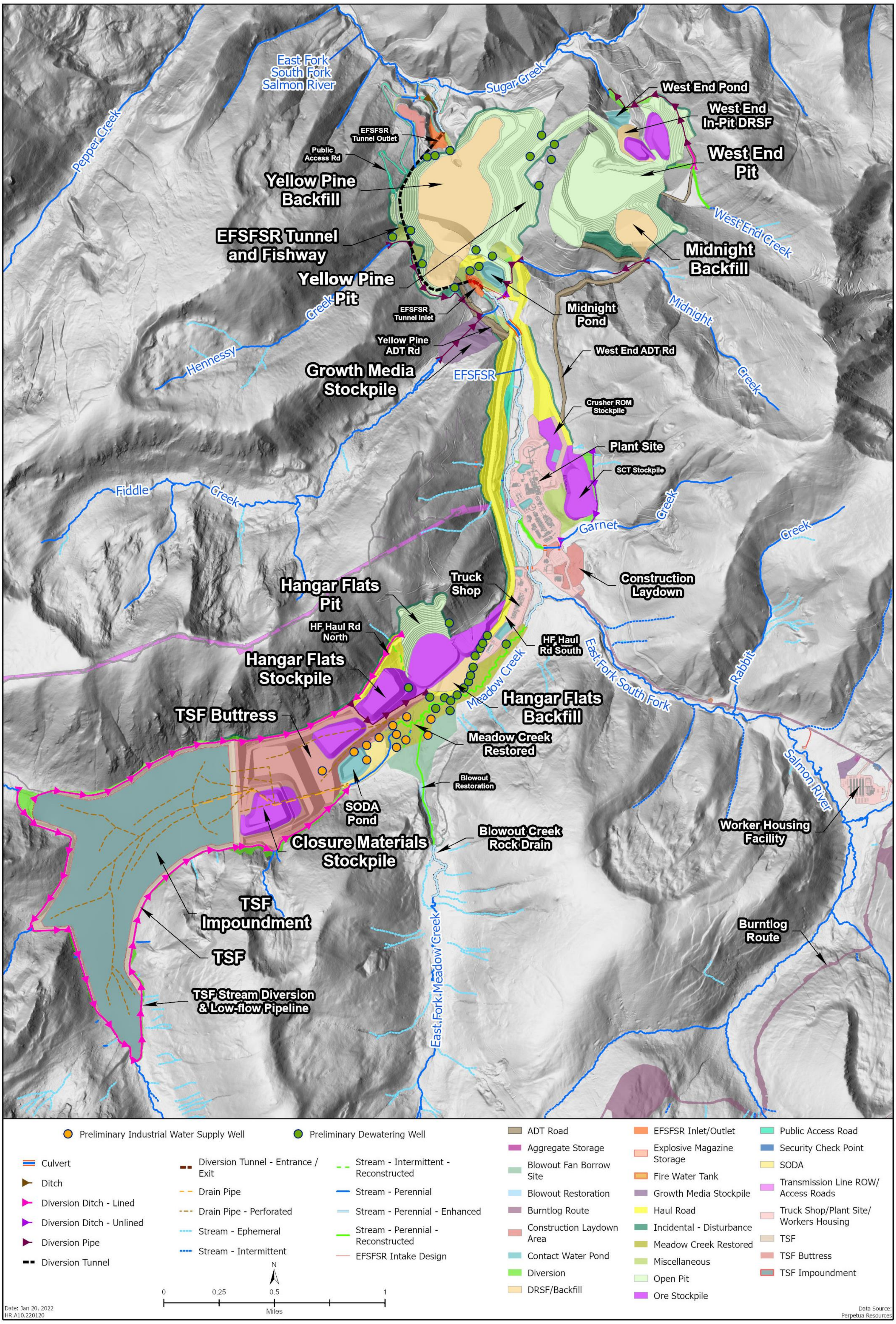


Figure 2-11. Mine Year 8 EOY Site Configuration

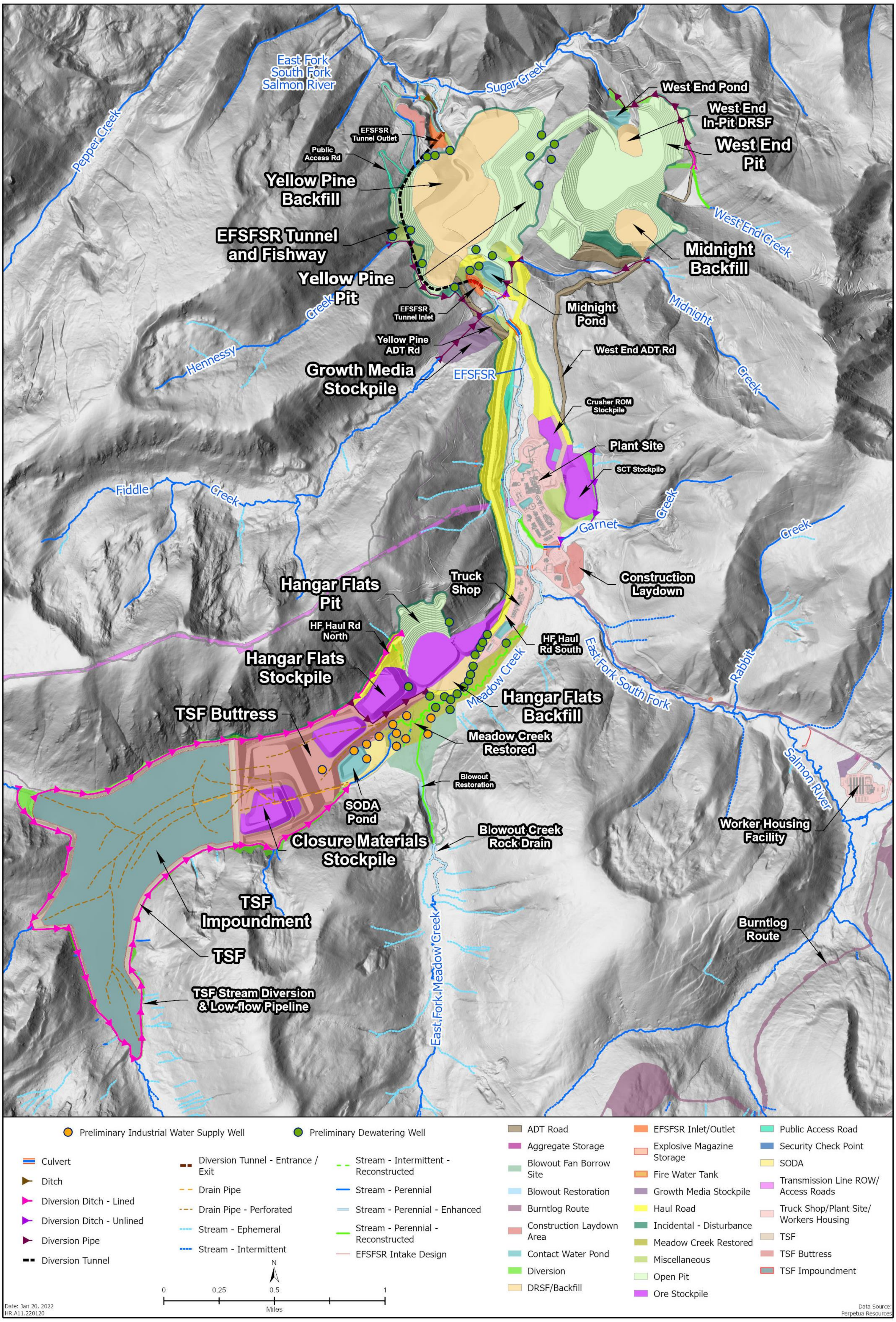


Figure 2-12. Mine Year 9 EOY Site Configuration

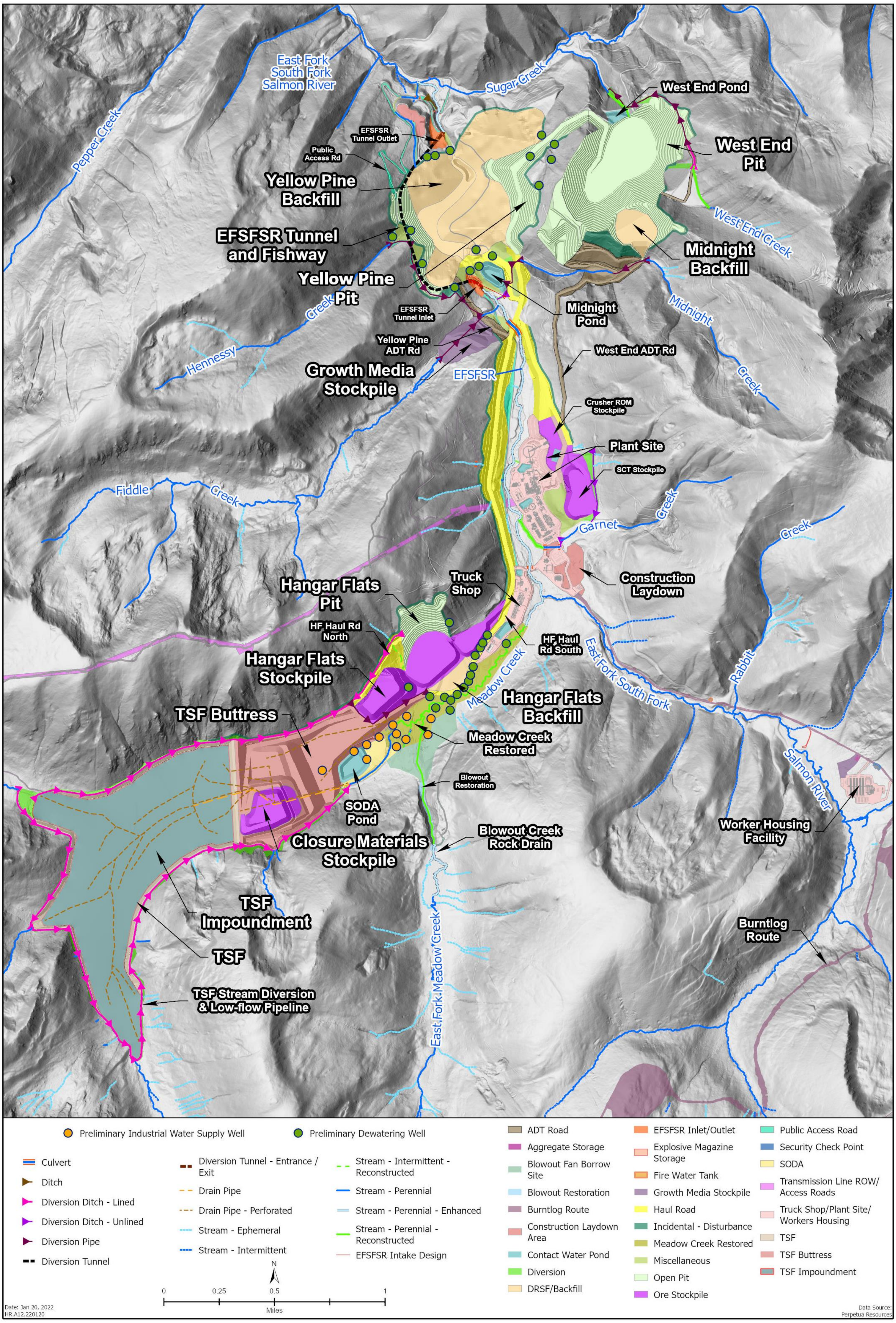


Figure 2-13. Mine Year 10 EOY Site Configuration

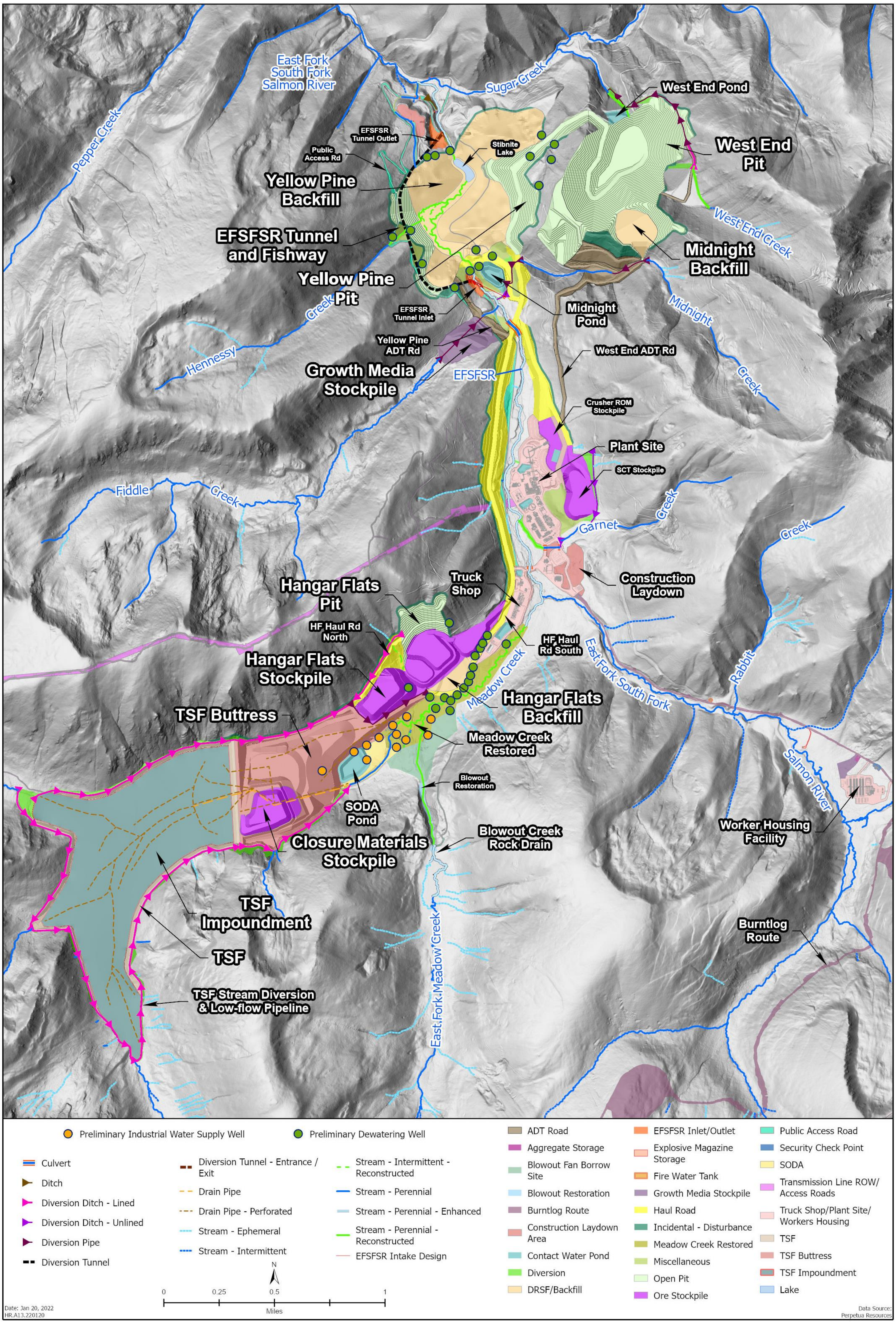


Figure 2-14. Mine Year 11 EOY Site Configuration

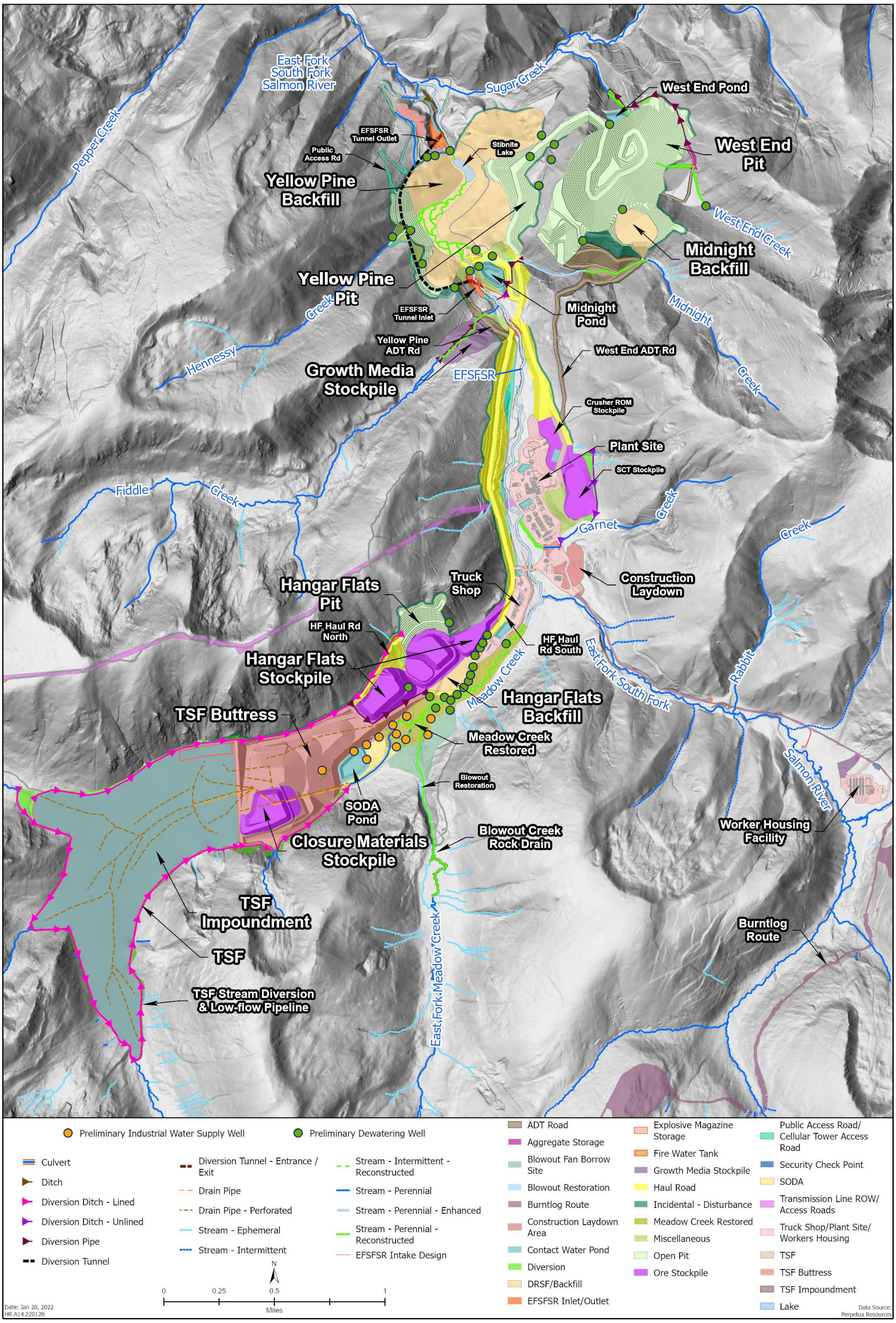


Figure 2-15. Mine Year 12 EOY Site Configuration

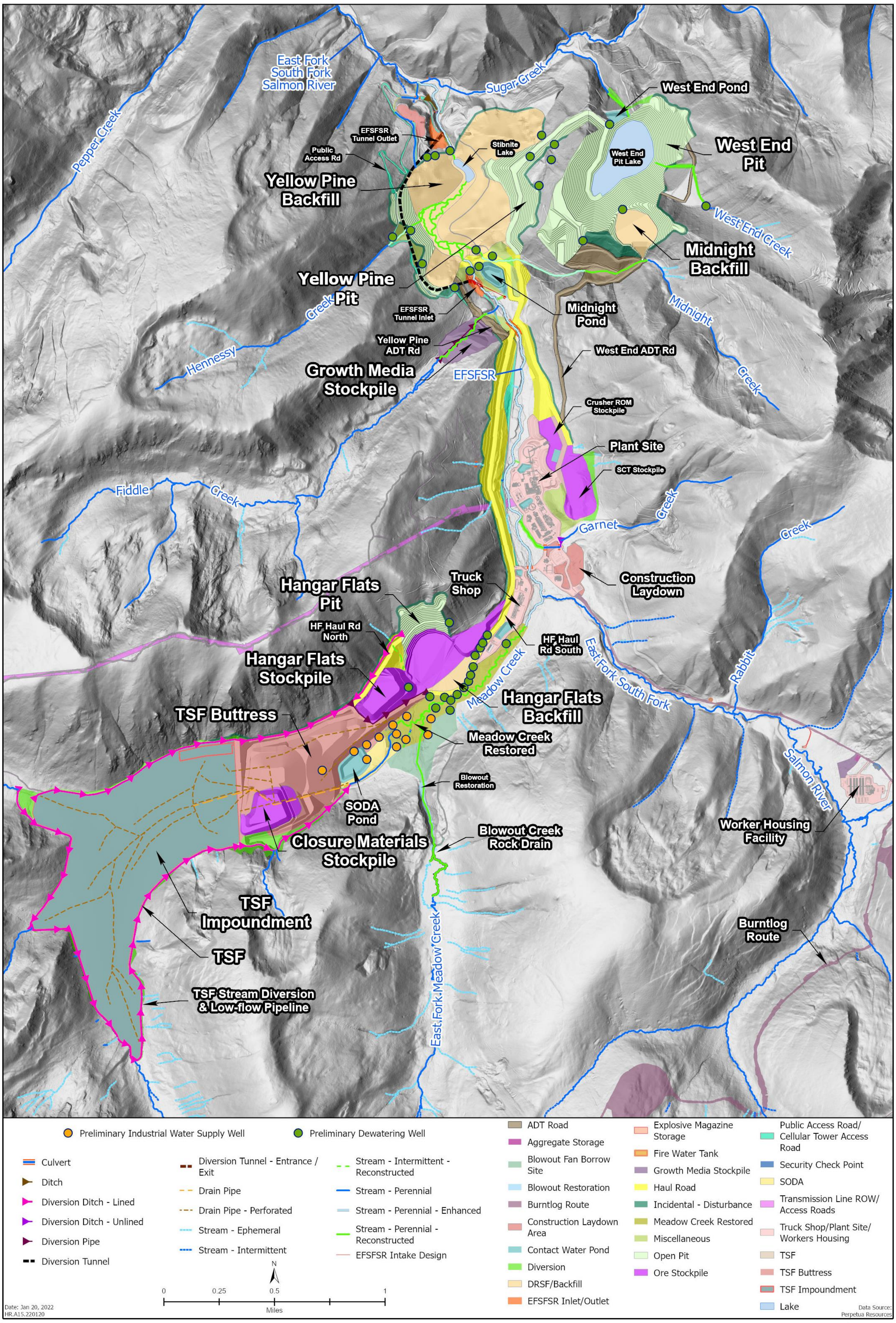


Figure 2-16. Mine Year 13 EOY Site Configuration

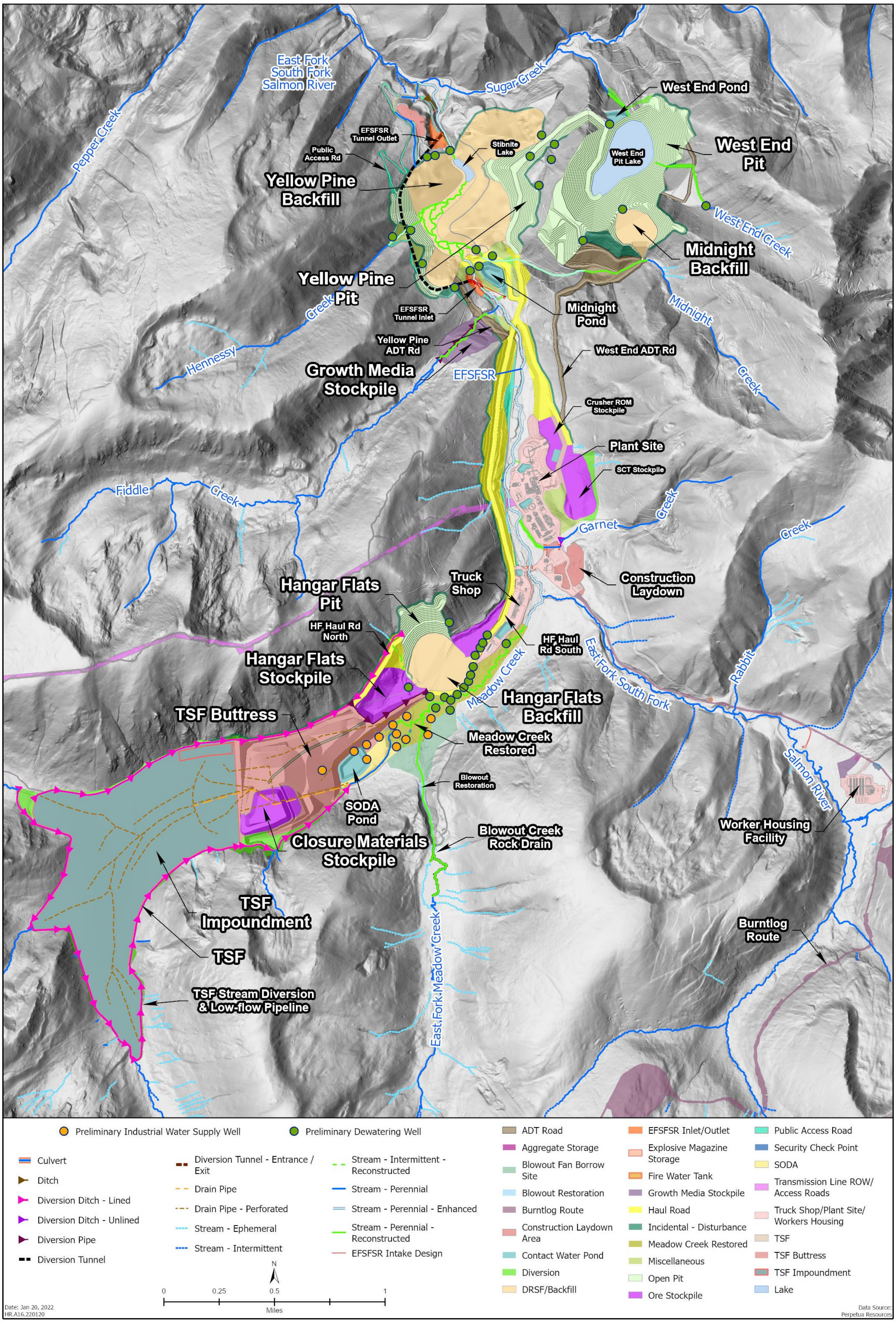


Figure 2-17. Mine Year 14 EOY Site Configuration

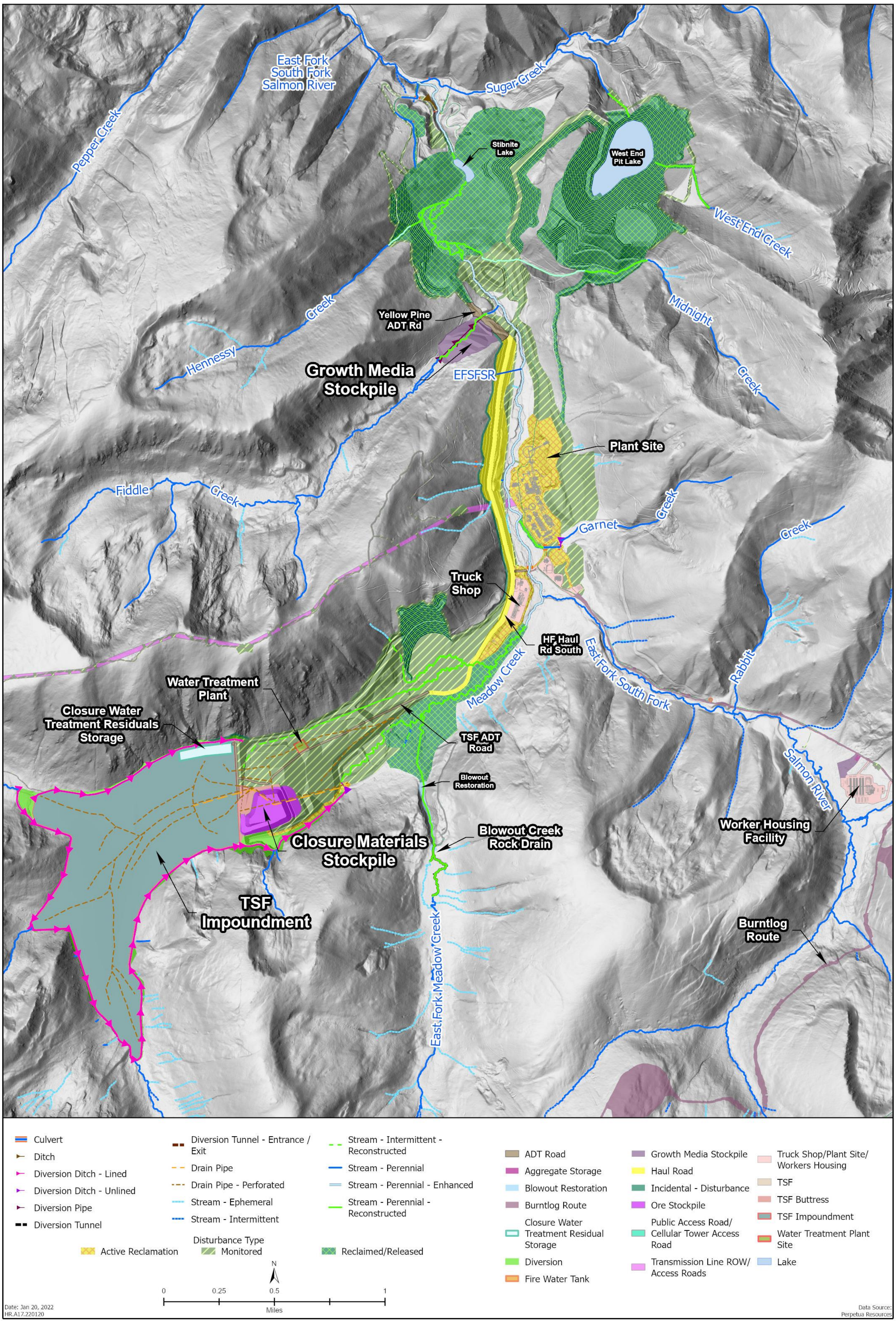


Figure 2-18. Mine Year 18 EOY Site Configuration

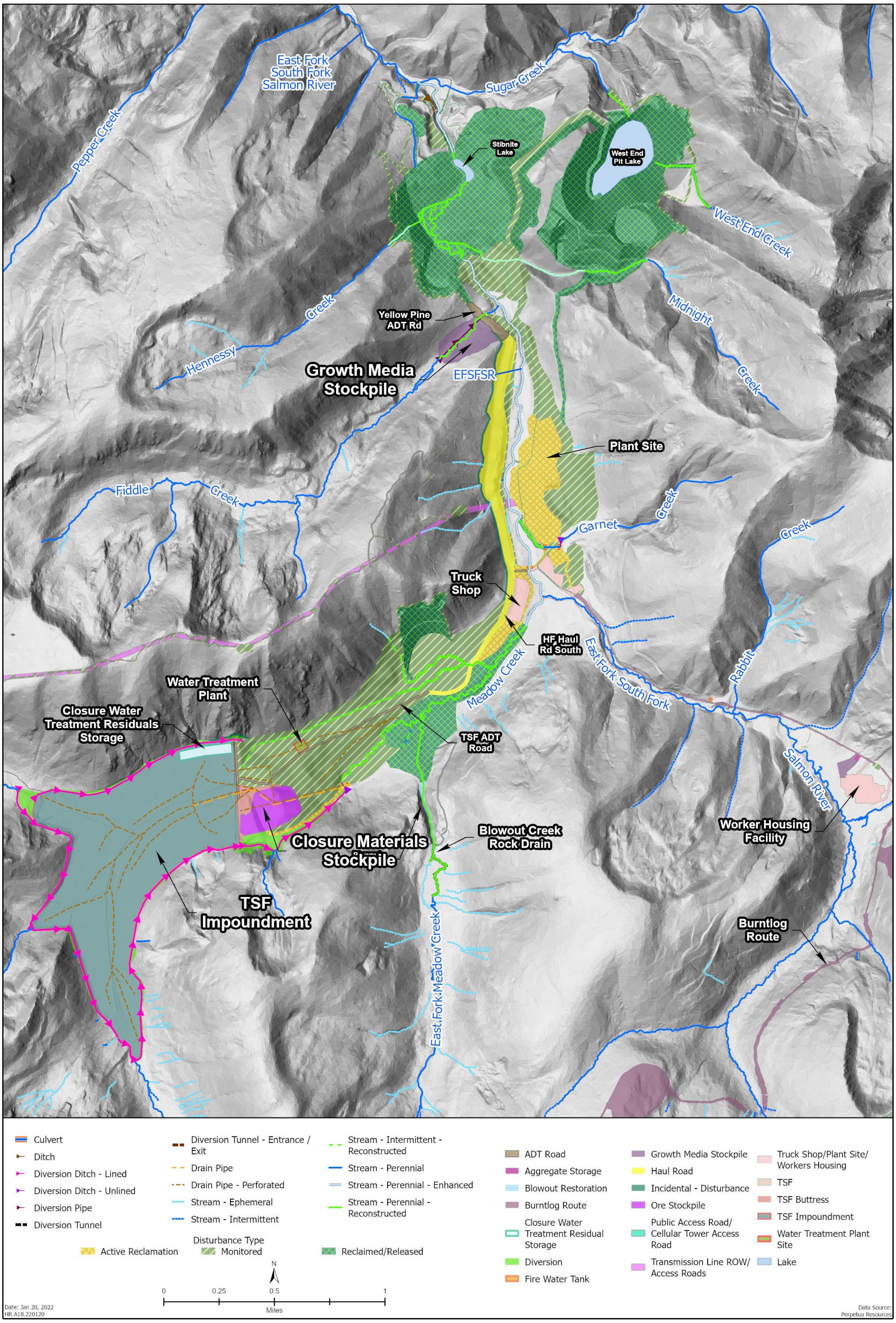


Figure 2-19. Mine Year 23 EOY Site Configuration

Section 3

ModPRO2 Model Setup

The SHSM is used to assess changes in hydrologic conditions at the SGP from proposed mining activities in the ModPRO2 Alternative. The SHSM consists of long-term, sub-basin meteoric water balances that track precipitation, snow accumulation, and snowmelt coupled with a numerical groundwater flow model developed using MODFLOW 6. The SHSM has been calibrated to groundwater elevation and surface water flow data collected at the site, which represent existing conditions (EC). A detailed description of the design, layering, construction, and calibration of the EC SHSM, including the hydrologic conceptual site model (HCSM) and the sub-basin meteoric water balances, is provided in Appendix A. The final output from the EC SHSM serves as the starting point for simulations of future conditions that include ModPRO2 mining-related activities in the study area.

The SHSM is split into Mining and Post-Mining periods to model the mine phases of the ModPRO2 Alternative (Table 1-1). The Mining SHSM covers mine years -2 through 12 and the Post-Mining SHSM spans mine years 13 through 112. Thus, the Mining SHSM simulates parts of the Construction and Operations phases, whereas the Post-Mining SHSM simulates the last two years of the Operations phase and all the Reclamation and Closure and Post Closure phases. Mine year -3 is not simulated since it does not include activities that would significantly impact groundwater hydrology at the site. The Mining SHSM includes a split between mine year 5 and mine year 6 to accommodate simulation of pit backfilling. The split between the Mining SHSM and the Post-Mining SHSM occurs after mine year 12 to explicitly simulate the filling of West End pit lake in the Post-Mining SHSM. Development and application of the Mining and Post-Mining SHSM's are described in the following sections.

3.1 Mining SHSM

The Mining SHSM is a modified version of the EC SHSM that simulates potential hydrologic changes during the mine operations period. Modifications include the addition of pit dewatering and backfill, modifications to recharge applied to mine facilities, rerouting of streams around mine facilities, and pumping from water supply wells. Modifications to the groundwater flow model input files are developed based on the annual sequence of proposed mine activities and the timing of facility development as shown in the EOY site configuration figures (Section 2). Meteoric water balance inputs from 2004 through 2017 are used in the simulations for the mine operations period, which represent historical climatic averages (BC 2018b).

The Mining SHSM simulates mining activities starting in mine year -2 and continuing through mine year 12, for a total of 14 years. The Mining SHSM is further split into an early and late mining simulation. The early mining simulation is designed to run from mine year -2 through mine year 5 and the late mining simulation is set up to run from mine year 6 through mine year 12. Mine year 6 corresponds to the time that backfilling activities have begun in the Hangar Flats, Yellow Pine, and Midnight pits.

Following the EC SHSM, the Mining SHSM uses monthly stress periods over the 14-year simulation, for a total of 168 stress periods. Simulated groundwater elevation (head) conditions at the end of the EC SHSM serve as initial head conditions for the Mining SHSM.

3.1.1 No Action Simulation

Prior to simulating changes that will occur as part of proposed mine activities in the ModPRO2 alternative, the existing conditions model was used to simulate the average climate period as done previously (BC 2018b) without mine activity modifications. This No Action SHSM represents possible future conditions if no mining were to take place, with results serving as a baseline for comparing changes in groundwater and surface water conditions due to proposed ModPRO2 mine activities. The stress period and time stepping setup is the same as that used in the Mining SHSM, allowing for direct comparison of system conditions at any simulated time from mine year -2 to mine year 112.

3.1.2 Pit Dewatering

The ModPRO2 Alternative includes open-pit mining of three primary ore deposit areas: Yellow Pine pit in the north, West End pit in the northeast, and Hangar Flats pit in the south. Mining of portions of these pits will occur below the local water table, and dewatering will be required to ensure dry mining conditions. The Mining SHSM is developed to quantify the potential groundwater volumes that need to be extracted to achieve dewatering of the open pits.

The MODFLOW 6 Drain package is used to simulate drawdown required to depress groundwater elevation in the pits as mining progresses. The MODFLOW 6 Drain package simulates the removal of groundwater down to a reference water elevation (the drain elevation). The Drain package boundary condition is assigned to model cells representing the ultimate extent of each pit.

The progression of open-pit mining is characterized by the planned pit topography at the end of each mine year (See Figure 2-2 through Figure 2-13). The volume of water required for pit dewatering is quantified by first calculating the average topographic elevation for each model cell representing part of the proposed mine pit, then assigning a reference elevation for the cells in the Drain package. Drain reference elevations were updated annually. Drain cells in the Drain package remove the volume of groundwater necessary to lower the simulated water table below the proposed bottom of the pit shell. For each mine pit, the number of drains increase as the footprint expands through time up to its maximum extent when backfilling starts.

In the late mining simulation, when backfilling of the Hangar Flats and Yellow Pine pits begins, the drains are either removed from model cells or the reference elevation is raised to the proposed elevation of the backfill material. This allows the groundwater to recover, and the pit backfill material to saturate. The timing of backfill activities follows the topography of each pit backfill at the end of each mine year. Pit backfill simulation is described in the following section.

Use of the Drain package is consistent with the model objectives of assessing 1) total dewatering requirements, 2) dewatering flows available for use in mining and ore processing, and 3) regional scale changes to groundwater and surface water conditions from overall pit depressurization. Simulation of individual dewatering wells was not performed because the groundwater model was developed to simulate average regional conditions using bulk hydraulic conductivity and storativity estimates (Appendix A).

Pit dewatering is anticipated to be accomplished by active pumping and in-pit sumps. Active pit dewatering will be conducted through pumping alluvial groundwater from dewatering wells and bedrock dewatering is anticipated to be accomplished primarily with in-pit sumps. Alluvial dewatering wells are planned for the Hangar Flats pit and the Yellow Pine pit. Bedrock dewatering wells are also anticipated for use at the Yellow Pine pit for depressurization of the northeast highwall. Dewatering of the West End pit is planned to be accomplished with in-pit sumps. The number of dewatering wells required for each pit is not yet known and the dewatering wells shown on the EOY site configuration figures are approximate.

3.1.2.1 Yellow Pine Pit Lake Dewatering

Draining of the existing Yellow Pine pit lake will be initiated during construction in mine year -1. When the EFSFSR tunnel diversion is ready, flows will start being diverted into the tunnel during a period of low flow, most likely in the warmer months, and concurrent with salvaging fish from the pit lake and diverted sections of the EFSFSR. The pit lake will drain naturally down to the elevation of the outlet of the lake, where the existing rock sill will control the water level. The drain-down process will naturally convey lake water downstream to the EFSFSR, and the quality of this water will be the same as that of the EFSFSR.

After the natural drain down, water remaining in the pit lake or local stormwater runoff from pre-stripping operations on the highwalls above the pit lake will be managed as mine-impacted water. The collected water and remaining river water will be used for construction purposes, transferred to the TSF (when it is lined and available) or contact water ponds for future use in ore processing, or treated to meet permit limits before being discharged via an IPDES permitted outfall. Additional information can be found in RFAI 117 (BC 2021).

3.1.3 Pit Backfill

In the late mining simulation, the hydraulic conductivity and specific yield within the backfill of each pit are set to 20 feet per day (ft/day) and 0.26, respectively. These values are in the range of literature values for unconsolidated medium to coarse sand (http://www.aqtesolv.com/aquifer-tests/aquifer_properties.htm. In addition, the elevations of the backfill model cells are adjusted to reflect the backfill height in each cell. In the model, any cells that were above the backfill height in Hangar Flats and Yellow Pine are set to “inactive” status.

Figure 3-1 through Figure 3-4 show the backfilled and inactive model cells in layers 1 through 4 of the late mining simulation. No model cells in layer 5 are inactive or represent backfill material, instead the bottom elevation of layer 4 model cells within the pits is adjusted to the local elevation of the bottom of the pit.

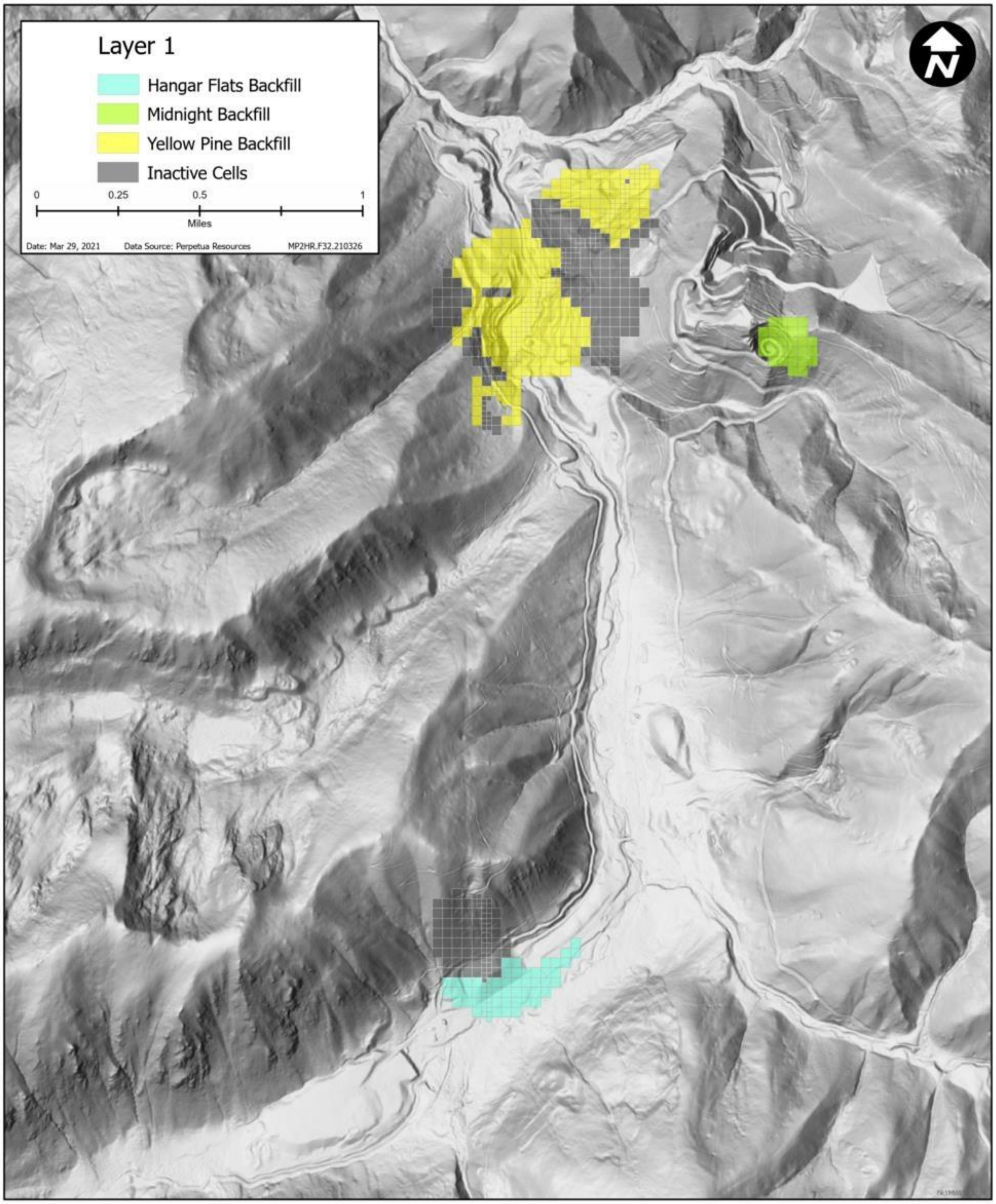


Figure 3-1. Late Mining SHSM and Post-Mining SHSM Simulations Layer 1 Inactive and Backfill Model Cells

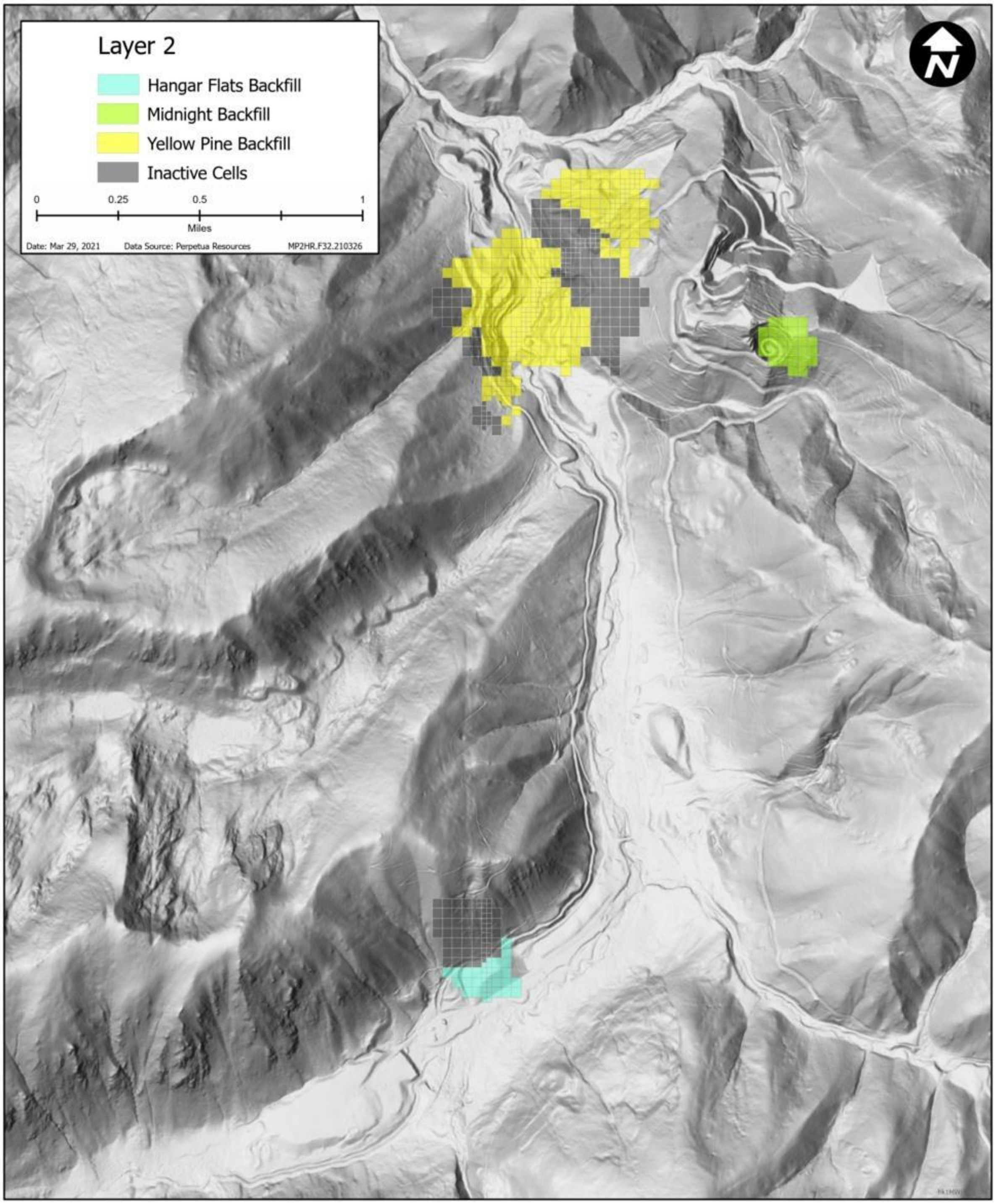


Figure 3-2. Late Mining SHSM and Post-Mining SHSM Simulations Layer 2 Inactive and Backfill Model Cells

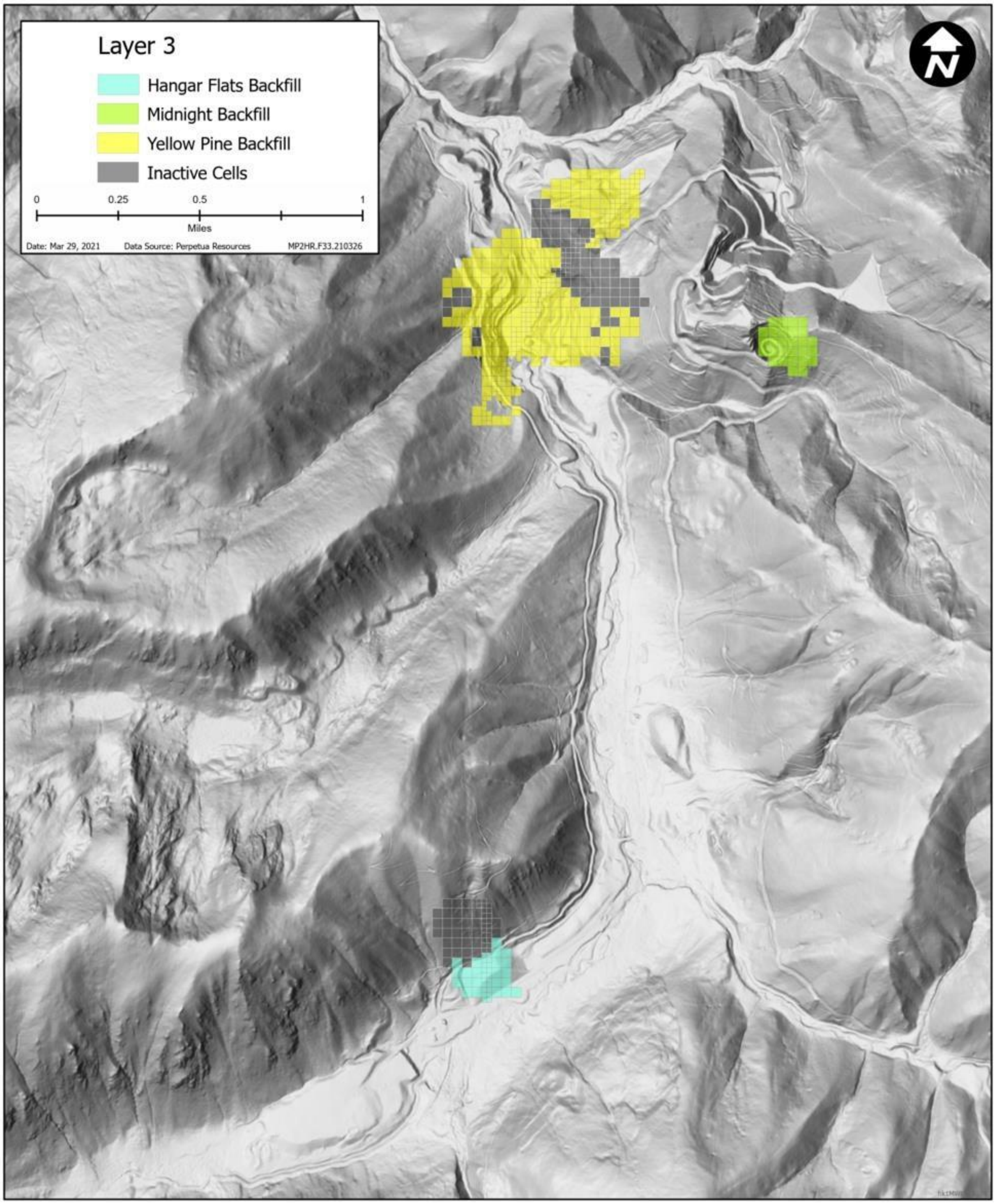


Figure 3-3. Late Mining SHSM and Post-Mining SHSM Simulations Layer 3 Inactive and Backfill Model Cells

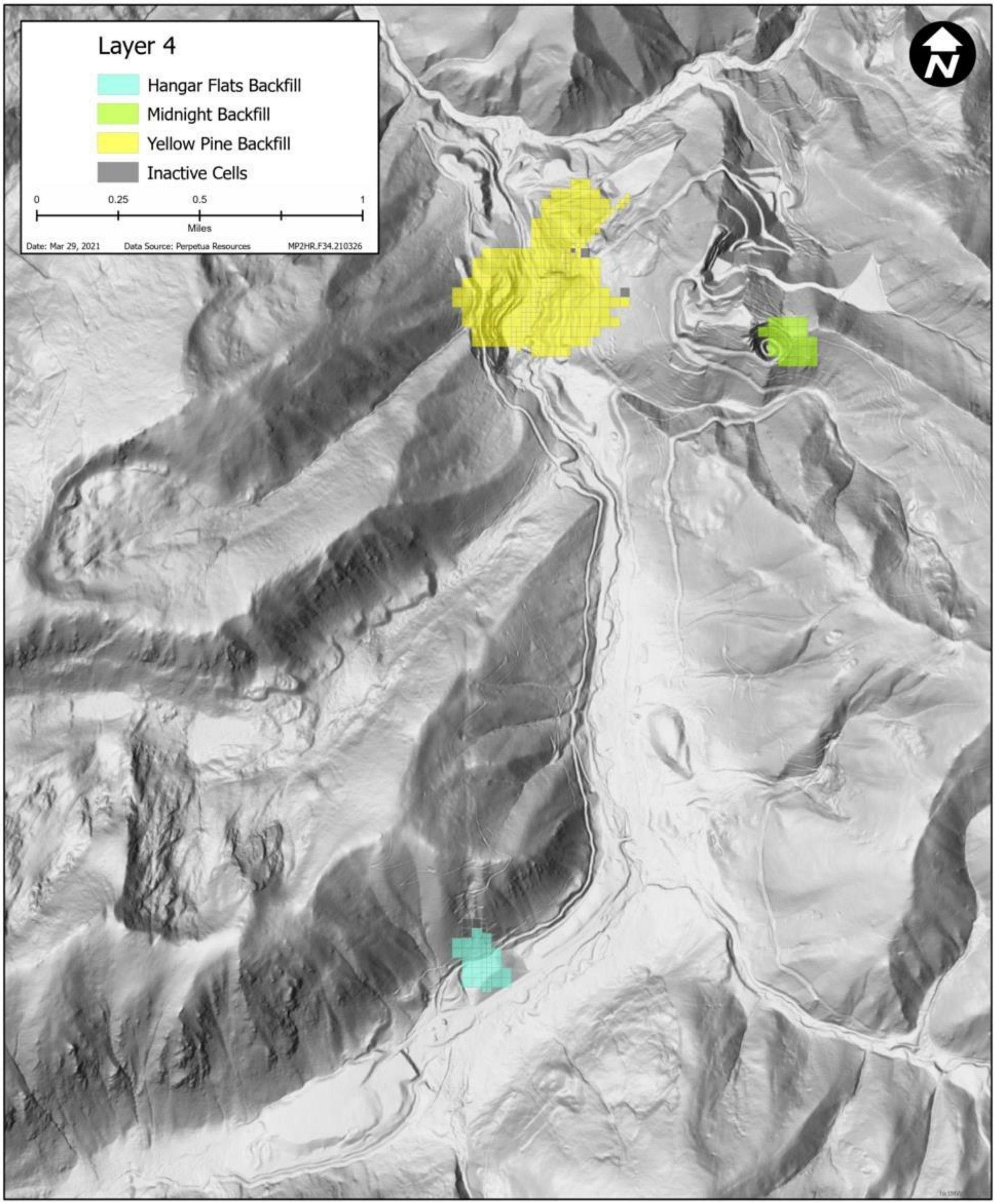


Figure 3-4. Late Mining SHSM and Post-Mining SHSM Simulations Layer 4 Inactive and Backfill Model Cells

3.1.4 Recharge

Recharge for most of the study area in the Mining SHSM is estimated from the meteoric water balance (MWB; Appendix A). Certain mine activities will result in changes to surface conditions that will likely affect recharge to groundwater in some areas. Changes in recharge during mine operations consist of the following:

- Open pit operations and removal of water collected in sumps within the pits will isolate the underlying groundwater from surface recharge. Recharge over the open pits is set to zero during mining, prior to backfill activities. Once pit backfill begins, recharge from the MWB is applied to the backfill areas.
- Lined mine facilities (TSF, contact water ponds [2.1.7]) will isolate the underlying groundwater from surface recharge. Recharge over these areas is set to zero while they are active.
- Development of the TSF Buttress and ore stockpiles will result in disturbed surfaces. A separate mine feature specific water balance was developed for these areas as part of the Site Wide Water Balance (SWWB; Perpetua Resources 2021b). Recharge from the mine feature water balance is applied to these areas accordingly.
- Construction of surface water diversions and restored streams on liners will isolate certain streams from interacting (either gaining or losing) with the adjacent pre-mining alluvial aquifers. The stream conductance for diversions and these restored streams is set to zero so that these reaches neither lose water to nor gain water from the subsurface.

3.1.5 Streamflow Routing

Surface water management during mine operations will include several stream diversions and restoration activities. The nature and timing of planned surface water diversions are shown on Figure 2-1 through Figure 2-14 for each mine year. In the Mining SHSM the routing of flows to diversions and restored streams occurs in September of the mine year in which they are planned.

The MODFLOW 6 Streamflow Routing (SFR) package from the EC SHSM is modified to explicitly include all the planned diversions and stream restorations (in addition to the original streams). Diversions and restored streams are connected to the original stream network and the timing of routing is added to the SFR package. When a diversion or restored stream becomes active the SFR package routes all upstream flows from the original stream to the appropriate diversion or restored stream. Surface runoff contributions to diversions and restored streams is recalculated based on the updated area of the contributing sub-catchment and applied accordingly.

The EFSFSR tunnel is the only diversion for which the location is not explicitly modeled in the SFR package. Streamflow in the EFSFSR at the inlet of the tunnel is directly routed downstream to the location of the tunnel outlet on the EFSFSR in the SFR package. The EFSFSR tunnel is in bedrock that has a low permeability, and many sections will be pre-grouted and heavily reinforced with shotcrete and lagging and/or steel sets, thus is not anticipated to have a significant impact on groundwater flow (McMillen Jacobs Associates 2018).

3.1.6 TSF Underdrains

The TSF design includes a system of permeable underdrains beneath the liner to capture and convey any groundwater discharge to the toe of the facility without interacting with the facility. Flow from the TSF underdrains will be allowed to freely discharge into Meadow Creek downstream of the TSF.

The original section of Meadow Creek in the SFR package that will be covered by the TSF is used to simulate the underdrain flows in the Mining SHSM. When Meadow Creek and the associated tributaries are routed to the lined diversions around the TSF, the original streams are left active in the model to simulate groundwater–drain exchanges. These baseflows are modeled to flow freely under the TSF into Meadow Creek and serve as an estimate of flows from the planned drains under the TSF. It is noted that all surface water flow from the upper Meadow Creek tributaries is diverted to lined diversions that do not interact with groundwater and the only water that flows into the original SFR reaches of Meadow Creek representing underdrains is from groundwater.

3.1.7 Water Supply

As discussed in Section 2.1.5, the ModPRO2 Alternative includes a groundwater well supply and a surface water supply to satisfy ore processing makeup needs, for use on an on-demand basis. The groundwater well supply consists of up to 11 alluvial wells that are shown on Figure 2-1. In the Mining SHSM the groundwater wells are modeled using the MODFLOW 6 Multi-aquifer well (MAW) package. The MAW package partitions the total pumping rate for a pumping well among the various nodes connected to the multi-aquifer pumping well based on the head difference between the well and connected aquifers and well conductance. In the Mining SHSM the groundwater supply wells are set up to pump water from the top three layers of the model based on the saturated thickness of each layer. The total pumping rate for the mill demand is divided equally among all pumping wells. The maximum pumping rate for the water supply well system is limited 0.5 cfs in the Mining SHSM simulation[4]. When the mill demand exceeds 0.5 cfs, additional water is obtained from the surface water supply intake. In the Mining SHSM the surface water supply is diverted from the EFSFSR at the upstream (south) end of the EFSFSR tunnel.

The simulated unmet mill demand in the Mining SHSM is the result of iterative simulations with the SWWB model (Perpetua Resources 2021b). Initial dewatering rates are supplied to the SWWB from the Mining SHSM, then unmet mill demand is supplied back to the Mining SHSM to update the groundwater well supply and/or surface water supply rates based on the updated mill demand. Iterations were repeated until differences in dewatering rates and mill demand were sufficiently small. Mill demand is shown on Figure 3-5 along with the simulated flow rates for the supply wells and the surface water supply. The data in Figure 3-5 is also provided in Table B-1 (Appendix B). The variations in mill demand and supply water are due to the availability of tailings reclaim water, contact stormwater, and dewatering water –unmet mill demand is high when there is limited water supply from tailings reclaim, contact stormwater, or dewatering water, and unmet mill demand is low or zero when there is dewatering water available for mill demand.

[4] The site-wide water balance and the SHSM estimations for water demand by source form the best current estimate. Adaptive management may require adjustments to the diversion rate by source during operations.

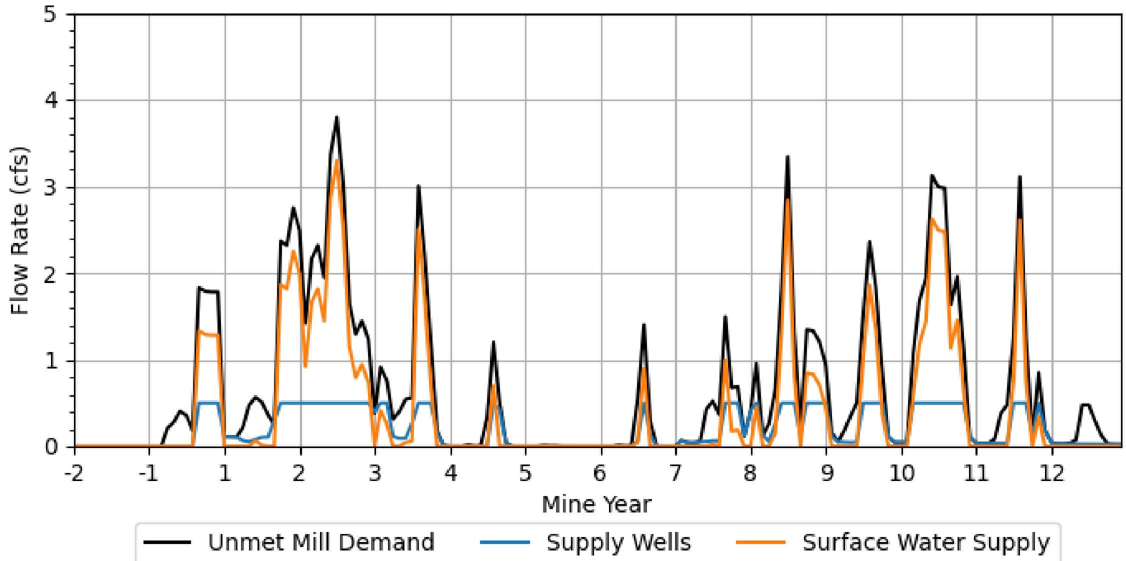


Figure 3-5. Mining SHSM Water Supply by Source for Unmet Mill Demand

3.1.8 Water Treatment

In the Mining SHSM, treated water is modeled to be discharged into Meadow Creek at the beginning of the restored section upstream of Blowout Creek (Figure 2-1, Table B-1) as a mitigation measure for potential stream impacts due to Hangar Flats dewatering. In the MODFLOW 6 SFR package, treatment outfall flows are added to Meadow Creek as a reach inflow. The Mining SHSM treatment outfall routed to Meadow Creek is shown on Figure 3-6. Treated water discharge into Meadow Creek occurs when dewatering water is more than what can be used in the mill and corresponds to periods when unmet mill demand is zero in Figure 3-5. Treated water discharge is highest during the height of dewatering activities when the greatest amount of excess water is available beyond what is needed to meet mill demand.

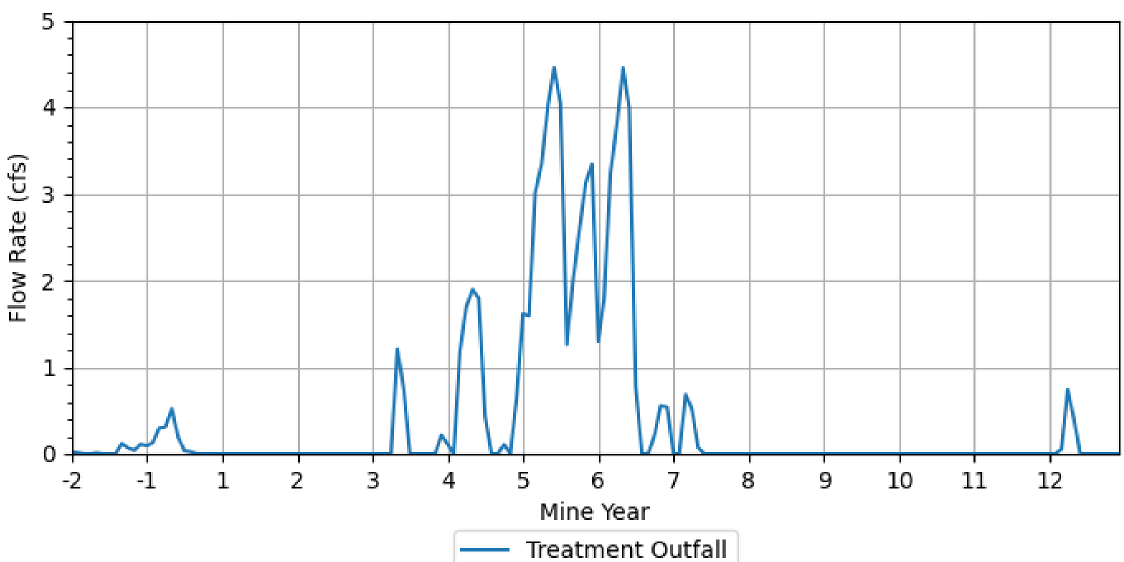


Figure 3-6. Mining SHSM Water Treatment Discharge

3.2 Post-Mining Model

The Post-Mining SHSM is a modified version of the Mining SHSM that simulates potential hydrologic conditions from mine year 13 to mine year 112. Modifications to the Post-Mining SHSM include West End pit lake development, long-term changes in surface recharge, and streamflow routing associated with stream restoration. The Post-Mining SHSM uses monthly stress periods and estimates of surface runoff and recharge to groundwater from the sub-basin MWBs (Appendix A). The 100-year Post-Mining SHSM climate scenario is based on historical data from 1918 through 2017 as previously used (BC 2018b). Simulated groundwater elevation (head) conditions at the end of the Mining SHSM serve as initial head conditions for the Post-Mining SHSM.

3.2.1 West End Pit Lake Development

The MODFLOW 6 Lake (LAK) package is used to simulate the effects of seepage between the West End pit lake and the surrounding groundwater system, interactions between West End Creek and the pit lake, and overall West End pit lake water budget during and after filling of the pit lake. In the LAK package, a lake is represented as a volume of void space within a model grid which consists of inactive cells extending downward from the upper surface of the grid. Active model grid cells bordering this space exchange water with the lake at rates determined by the simulated hydraulic gradient and conductance based on aquifer parameters. The hydraulic gradient is based on the difference between head in the aquifer and the stage (water surface elevation) of the lake. Upper portions of the lake may be dry as the lake fills from below, and streams can be connected to the lake to provide both inflows to and outflows from the lake. Variations in simulated lake stages are influenced both by simulated groundwater interactions and by an independent water budget accounting for direct precipitation onto, surface runoff into, and evaporation from the lake surface (Hughes et al 2017).

The LAK package requires input of lake stage, surface area, and volume relationships. Stage-surface area and stage-volume curves are developed using GIS methods and are shown on Figure 3-7 and Figure 3-8, respectively. The LAK package also requires a water balance that includes direct precipitation onto the lake surface, surface water runoff into the lake from the drainage area above the lake surface, and evaporation from the lake surface. Precipitation and evaporation are applied as rates, and the model calculates the water volume added or removed during any model stress period based on the currently simulated surface area (from the stage-surface area relationship). Surface water runoff reporting to the lake is entered as a volume and must be estimated separately outside of MODFLOW based on the assumed rate of runoff and the change in drainage area due to the change in stage. A series of iterative simulations are performed to develop accurate estimates of surface runoff to the lake since changes to lake stage over time are not known a priori and are dependent upon groundwater seepage into or out of the lake.

Monthly precipitation, evaporation, and runoff estimates used in the LAK package are taken from the MWB for the Sugar Creek bedrock dominated area (BDA). A description of the Sugar Creek BDA and other elements of the MWB applied to the SHSM is included in Appendix A. Monthly precipitation estimates are applied directly in the LAK package. Evapotranspiration estimates from the MWB are based on analytical estimates of potential evapotranspiration using the Thornthwaite (1948) method, which have been shown to sufficiently represent free water evaporation (Linsley et al. 1982). Therefore, the MWB potential evapotranspiration estimates are directly applied as evaporation in the LAK package. Monthly volumes of surface runoff into the pit lakes are estimated by multiplying the highwall drainage area above the lake stage by the monthly runoff estimate from the MWB. A summary of the monthly values used in the model is listed in Table B-2 (Appendix B).

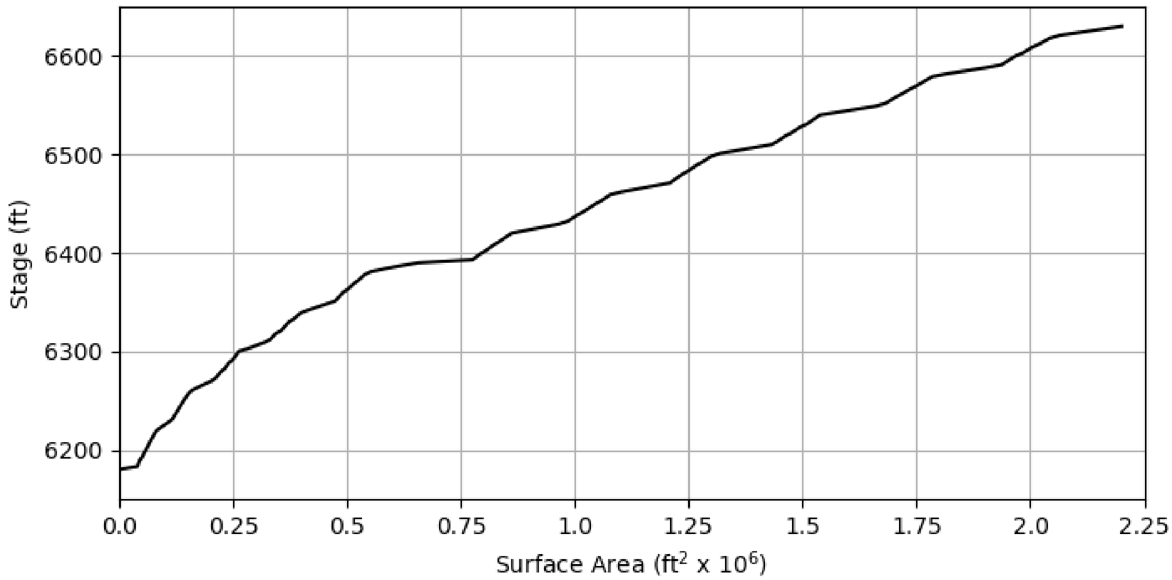


Figure 3-7. Stage-Surface Area relationship for the West End pit lake

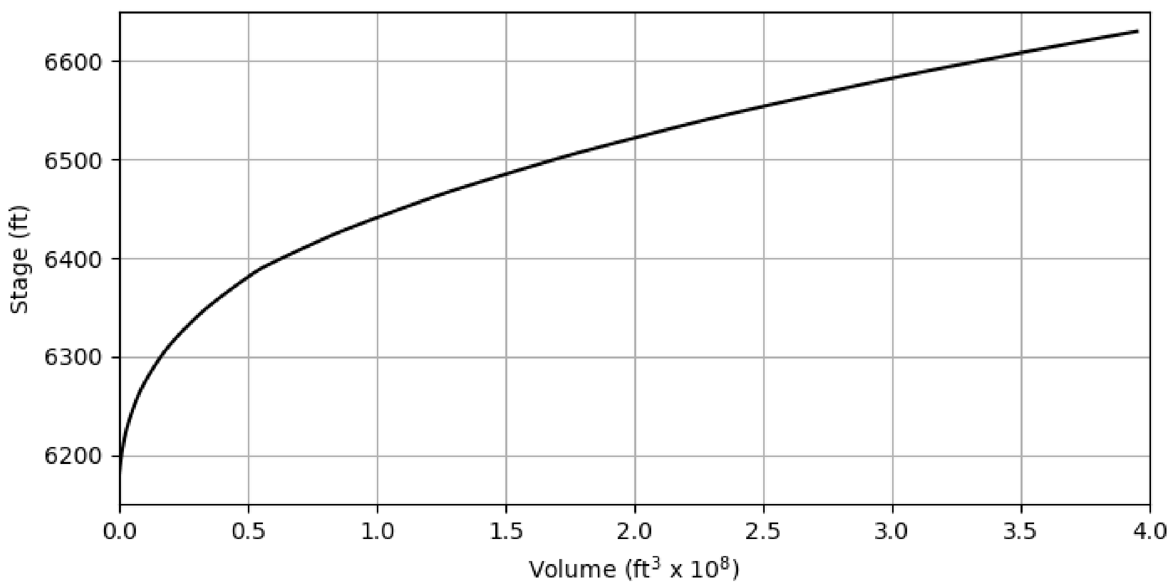


Figure 3-8. Stage-Volume relationship for the West End pit lake

3.2.2 Recharge

In the post-mining period, most of the mine activities are completed and mine facilities are either reclaimed to natural background conditions or in progress to reclamation. Recharge from the appropriate MWB is applied to areas associated with the Yellow Pine, Hangar Flats and West End pits in the Post-Mining SHSM. Recharge from the appropriate MWB is applied to reclaimed mine facilities including the contact water ponds and ore stockpiles.

The TSF and the TSF Buttress remain altered in the post-mining period. The TSF is lined and remains isolated from the underlying groundwater. Thus, recharge over the TSF is assumed to be zero in the Post-Mining SHSM.

A low-permeability cover is planned to be installed during TSF Buttress reclamation and is modeled as being completed in mine year 18. The cover is assumed to be 95 percent efficient at preventing incident precipitation from recharging underlying layers as was done previously (BC 2019b, and discussed in the response to Request for Additional Information 111 (Midas Gold 2019). A modified recharge rate calculated in the mine feature specific MWB (Perpetua Resources 2021b) is applied to the TSF Buttress in the Post-Mining SHSM.

3.2.3 Streamflow Routing

The SFR package from the Mining SHSM is modified for the Post-Mining SHSM to account for the removal of original stream segments that would no longer exist, the addition of stream restoration on top of the TSF, and the presence of the West End pit lake.

All original stream segments that are restored in the post-mining period with the original channel no longer active are removed from the Post-Mining SHSM, except those in Meadow Creek that exist under the lined TSF. These Meadow Creek stream segments do not receive runoff and are left in the model to estimate groundwater baseflows that are associated with the planned drains under the lined TSF.

The restored streams on top of the TSF become active in mine year 23 and flows previously diverted are rerouted into the restored streams accordingly in the Post-Mining SHSM. Runoff area associated with the TSF and TSF Buttress is also accounted for and routed accordingly.

SFR package stream reaches are removed from West End Creek within the planned West End pit footprint. The MODFLOW 6 Mover package is used to route flows from the upstream segment of West End Creek into West End pit lake and flows (if any) out of West End pit lake into the downstream segment of West End Creek.

3.2.4 TSF Underdrains

In the Post-Mining SHSM the TSF underdrains are modeled the same way as they are in the Mining SHSM. The original Meadow Creek streams under the TSF in the SFR package remain active to simulate groundwater – drain exchanges. These baseflows flow freely under the TSF into Meadow Creek and estimate the flows that would occur in the TSF underdrains.

3.2.5 Water Supply

In the Post-Mining SHSM ore processing continues for the first 2.25 years of the simulation. The additional water demand required for mill operation is shown on Figure 3-9 and is simulated to be sourced from the groundwater supply wells and surface water (Table B-3).

3.2.6 Water Treatment

TSF consolidation water is treated in the post-mining period through mine year 40, after which there is no water treatment proposed at the site (Perpetua Resources 2021b; BC 2021c). In the Post-Mining SHSM the treatment outfall is modeled to discharge to EFSFSR near the Garnet Creek confluence outfall location up to mine year 23[5]. In mine year 23, the water treatment plant would be relocated to private land on the TSF buttress, and the outfall location is modeled at the proposed IPDES outfall on Meadow Creek below Blowout Creek. The projected treatment outflow from the SWWB that is simulated in the Post-Mining SHSM is shown on Figure 3-10 Table B-3. The change in the treatment outfall pattern in mine year 23 corresponds to the completion of the TSF cover

[5] IPDES outfall locations are preliminary and draft. The final locations will be determined through the IPDES application process with the IDEQ. The locations discussed here, and outfall phasing, are based on an initial evaluation to support mine planning and are subject to change.

placement and routing of streamflow into the restored streams on top of the TSF. At this time, forced evaporation is no longer feasible on the TSF, and only consolidation water reports to treatment (Perpetua Resources 2021b).

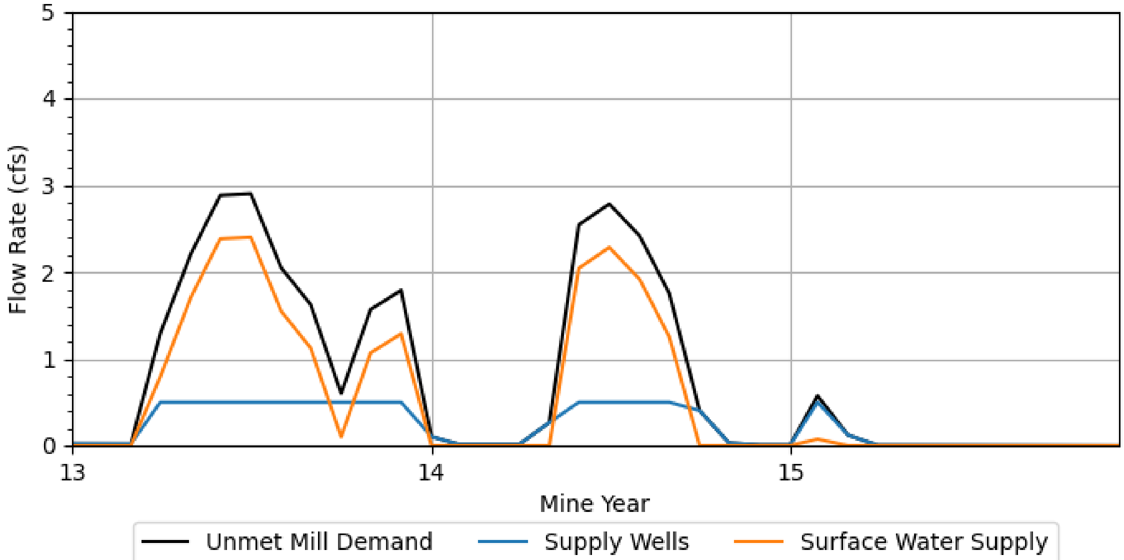


Figure 3-9. Post-Mining SHSM Water Supply by Source for Unmet Mill Demand

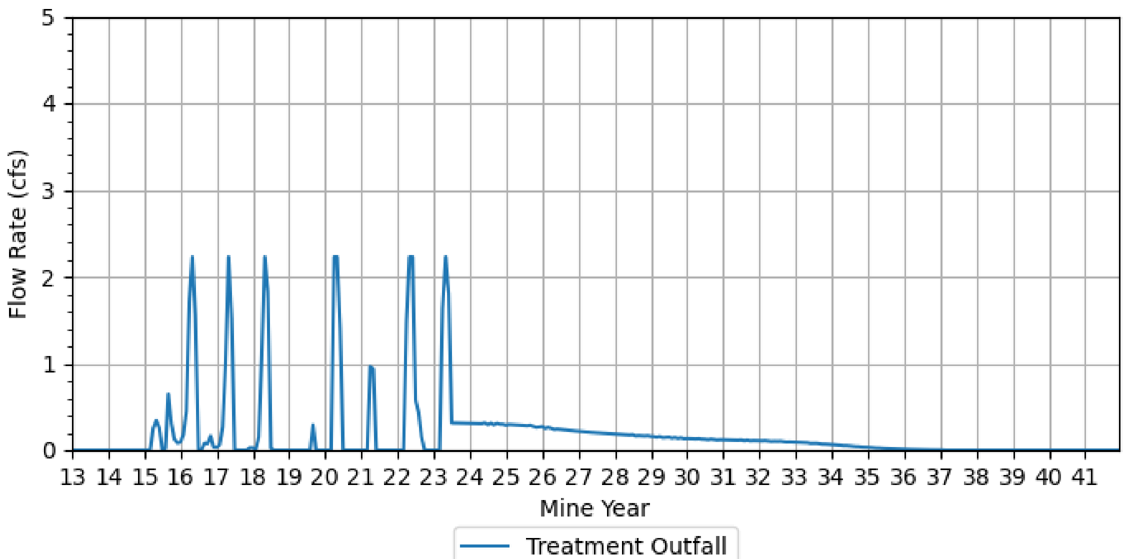


Figure 3-10. Post-Mining SHSM Treatment Effluent Discharge Rate

Section 4

Mining SHSM Results

The primary objectives of the Mining SHSM are to assess dewatering rates required to develop the open pits, assess the local effects of dewatering on groundwater elevation and stream flows, and estimate ranges of surface water and groundwater flows at various locations and for mine facilities. Results of the Mining SHSM simulation are discussed in the following sections.

4.1 Simulated Dewatering Rates

As described in Section 3.1.4, the MODFLOW 6 Drain package was used to simulate the volumes of water to be removed to maintain the water table below the pit floors as mining progresses. Dewatering was initiated at each pit as follows:

- Yellow Pine pit: during mine year -1
- Hangar Flats pit: during mine year 3
- West End pit: during mine year 11

In the Mining SHSM water is removed the year that pit topography is mined below the water table and extends through the period for which the planned topography remains below the water table. During backfilling, the drain reference elevations are either moved up in elevation or removed from the model to allow for water to wet the backfill material.

The water removed by the MODFLOW 6 Drain package from each pit in the Mining SHSM is tracked using the MODFLOW 6 Observation package. The Observation package is configured to account for dewatering rates associated with alluvium and bedrock layers in the model.

Yellow Pine pit. Simulated dewatering rates for the Yellow Pine pit are shown on Figure 4-1and the data in Table B-4 (Appendix B). A small amount of dewatering is simulated in mine year -1 in the initial stages of pit excavation. The simulated total dewatering rate increases in mine year 1 when excavation of the pit bottom drops significantly below the simulated water table. The simulated total dewatering rate peaks at approximately 1.4 cfs in mine year 5 and decreases to approximately 0.3 cfs at the start of mine year 6 when most of the mining activities in the pit end and backfilling (begun in year 5) accelerates. The simulated total dewatering rate fluctuates around 0.2 cfs in mine year 6 through mine year 9 during backfilling activities. The Mining SHSM simulates most of the dewatering flows to come from bedrock. The dewatering flows from the alluvium peak at approximately 0.5 cfs at the beginning of mine year 2 and then decrease quickly to less than 0.2 cfs for the remainder of the simulated dewatering and backfilling period.

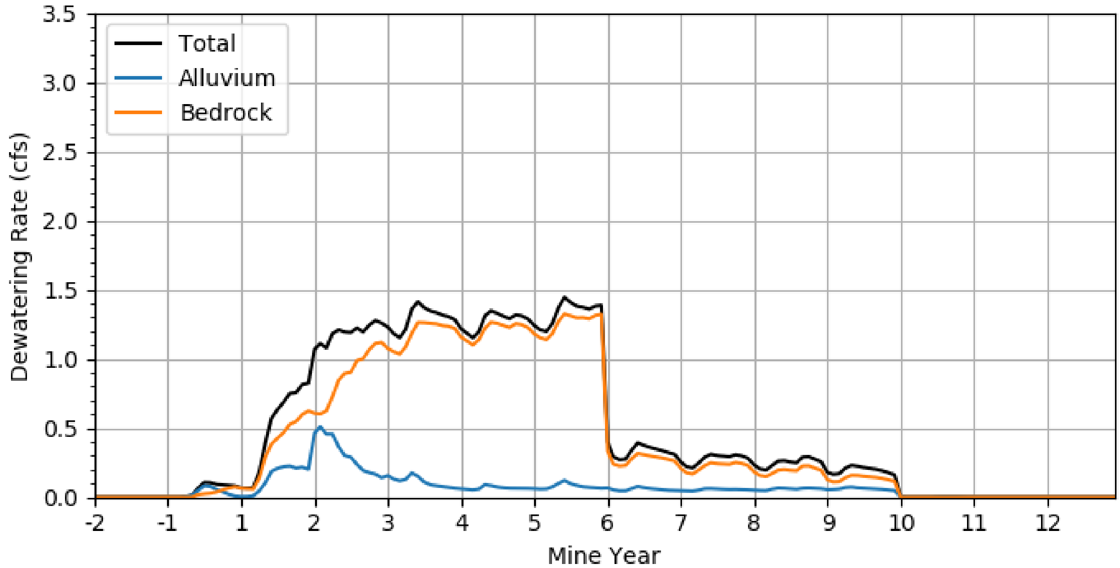


Figure 4-1. Yellow Pine Pit Mining SHSM Simulated Dewatering Rates

Hangar Flats pit. Simulated dewatering rates for the Hangar Flats pit are shown on Figure 4-2 and with data in Table B-5 (Appendix B). Dewatering of Hangar Flats pit begins in mine year 3. The simulated total dewatering rate quickly increases to greater than 1.5 cfs by the end of mine year 3 and then peaks at approximately 3.3 cfs early in mine year 5. Backfilling activities begin in mine year 6 and the simulated total dewatering rate decreases to reflect that activity. Backfilling is complete in mine year 7 and dewatering is turned off in the Mining SHSM. Most of the simulated dewatering flows for the Hangar Flats pit come from the thick alluvium in the Meadow Creek valley. Simulated dewatering flows from bedrock start in the middle of mine year 4 and peak at approximately 0.6 cfs at the end of mine year 5, then the simulated bedrock dewatering flows decrease to approximately 0.2 cfs in mine year 6 and are negligible to the end of mine year 7 when mining activities stop and dewatering ends.

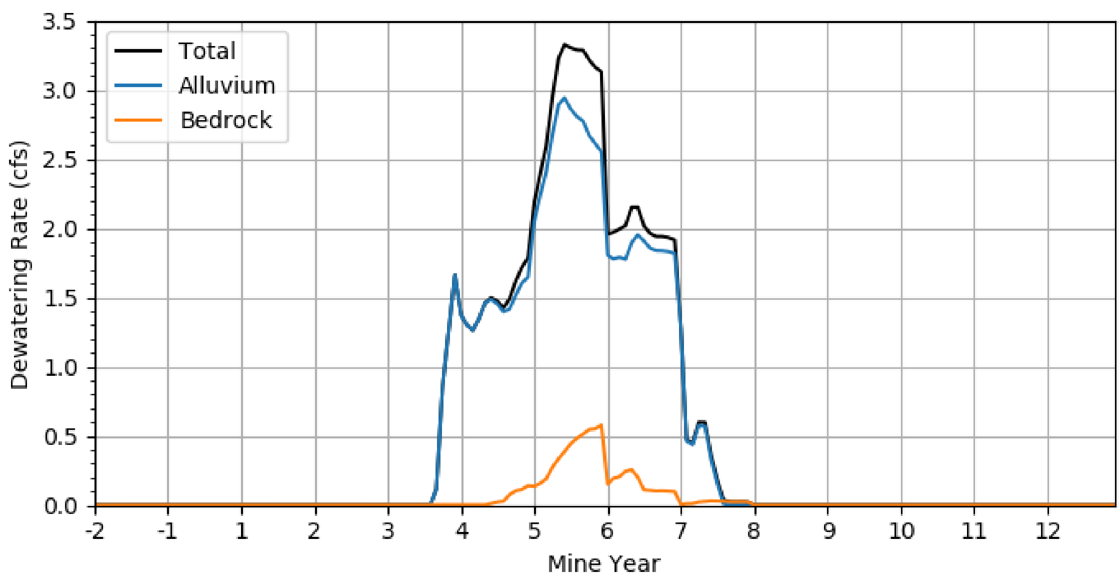


Figure 4-2. Hangar Flats Pit Mining SHSM Simulated Dewatering Rates

West End pit. Simulated dewatering rates for the West End pit are shown on Figure 4-3 with data in Table B-6 (Appendix B). Dewatering is simulated to begin in mine year 11 when the proposed pit topography extends below the simulated water table in the West End Creek drainage. The simulated dewatering rate peaks at approximately 0.8 cfs in mine year 12. The Mining SHSM simulates all the dewatering flows to come from the bedrock.

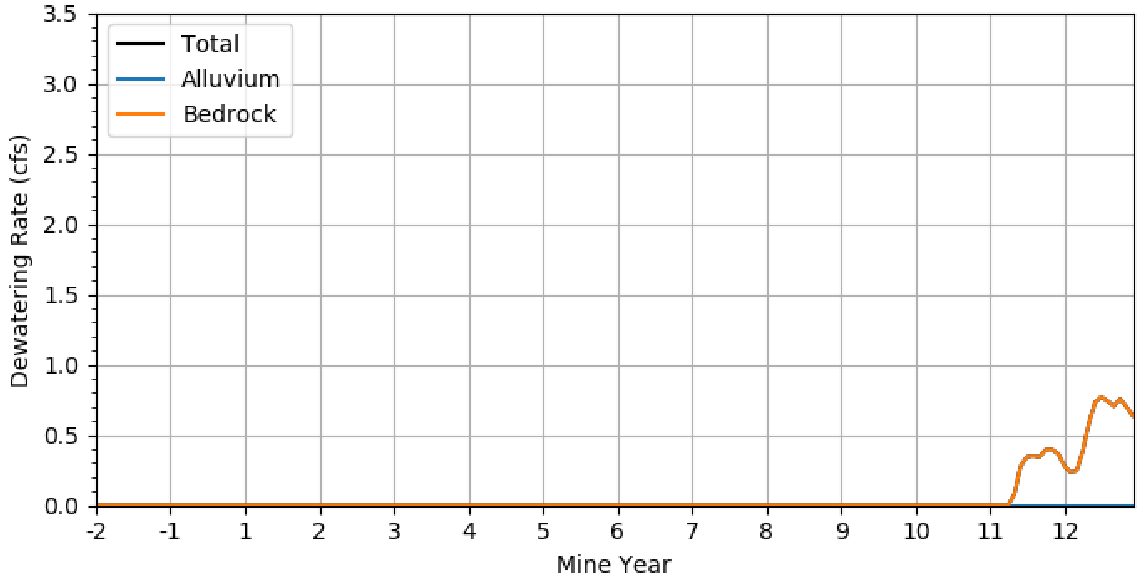


Figure 4-3. West End Pit Mining SHSM Simulated Dewatering Rates

- The Meadow Creek Fault Zone (MCFZ) is an important geologic feature included in the SHSM that exists in both the Hangar Flats and Yellow Pine pits. The MCFZ is modeled as an aquitard in the SHSM that is a barrier to horizontal flow in the bedrock layers. This conceptualization is based on observations of surface water expressions above the MCFZ gouge outcrops and artesian conditions encountered during drilling in the area between the proposed Yellow Pine Pit and the West End area, commonly referred to as artesian alley. A test simulation was conducted without the MCFZ (i.e., MCFZ model cells are assigned the same hydrogeologic parameters as the surrounding bedrock model cells) to quantify the impacts on dewatering volume. The comparison of simulated dewatering volume between the simulation with and without the MCFZ showed minimal differences indicating that the inclusion of the MCFZ improves site representation but is not likely an influential factor on the environmental impact analysis or dewatering infrastructure sizing. The small differences in simulated dewatering volumes can be explained as follows: In the Hangar Flats pit dewatering primarily occurs in the alluvium and thus the influence of the MCFZ in the bedrock is minimal.
- In the Yellow Pine pit where dewatering primarily occurs in the bedrock, the MCFZ acts as barrier to flow with higher groundwater elevation on the upgradient (southeast) side of the fault than on the downgradient side and a steep hydraulic gradient across the MCFZ. Without the MCFZ in the SHSM the hydraulic gradient is continuous and the groundwater elevation in Yellow Pine pit is between the upgradient and downgradient groundwater elevations in the MCFZ simulation. Thus, the average groundwater elevations around the pit are similar in both simulations resulting in similar dewatering volume.

4.2 Simulated Groundwater Drawdown

The Mining SHSM is developed to simulate the depression of the water table in response to dewatering of the three proposed open pits. Depression of groundwater elevation leads to drawdown around the pits. Drawdown contours are calculated by subtracting the No Action SHSM water table elevation from the Mining SHSM water table elevation at a specified time. A negative value indicates that the groundwater elevation simulated in the Mining SHSM is lower than that simulated in the No Action SHSM. Simulated drawdown contour maps are provided for the end of mine years 5 and 12, corresponding to times when significant changes in dewatering occur at one or more of the open pits. The drawdown contour maps show the extent of simulated drawdowns greater than 10 ft. Simulated drawdowns less than 10 ft are highly uncertain since the model represents measured heads within absolute mean error of approximately 9 ft (Table B-4 and Table B-5; Appendix A).

Mine Year 5. Mine year 5 corresponds to the end of peak dewatering in both Hangar Flats and Yellow Pine pits prior to any planned significant backfilling. The simulated drawdown contours for mine year 5 are shown on Figure 4-4. Within the valley floor, the simulated drawdown associated with Hangar Flats pit is generally constrained upstream and downstream of the pit due to the presence of the unlined portions of Meadow Creek. The presence of the Meadow Creek fault zone (MCFZ) through the middle of Hangar Flats pit in the bedrock model layers causes a discontinuity in the cone of depression; simulated drawdown extends outward to the northwest approximately 1,800 ft and to the southeast approximately 2,200 ft from the pit footprint. In the valley floor the Hangar flats pit backfill rewets by mine year 8 as shown on Figure 4-5.

The MCFZ is also present near the center of the cone of depression in the Yellow Pine pit. In this case, the MCFZ has a more controlling effect on the drawdown extents since dewatering primarily takes place in the bedrock at Yellow Pine pit. Dewatering of the Yellow Pine pit also lowers water elevation in the area of the West End pit, with the drawdown contours extending most notably to the northeast and southeast of the West End pit footprint approximately 2,700 ft and 3,500 ft, respectively.

Mine Year 12. Mine year 12 corresponds to the end of West End pit dewatering and the drawdown contours are shown on Figure 4-6. Dewatering associated with West End pit causes the drawdown contours associated with Yellow Pine pit and West End pit to extend further to the east and southeast. To the north and west of Yellow Pine pit the groundwater elevation has recovered considerably since dewatering at Yellow Pine pit ended in mine year 8. In the Yellow Pine pit there are still significant drawdowns on each side of the MCFZ. This is largely due to removal of the MCFZ in the bedrock layers in the Mining SHSM, which acted as a barrier to flow in the No Action SHSM and raised ground water elevation. For the late operations period of the Mining SHSM, the backfill areas in the bedrock layers, including the MCFZ, are replaced by material assigned a hydraulic conductivity of 20 ft/day and water is simulated to flow without any resistance imposed by the MCFZ.

Dewatering in Hangar Flats pit ends in mine year 6 and groundwater elevation recover everywhere except for the northern portion of the pit. This area within the pit corresponds to former bedrock that has been removed and replaced by backfill at a lower (approximate valley bottom) elevation. The MCFZ acts as a barrier to flow in the bedrock in the No Action SHSM and then the MCFZ is replaced with backfill that has a modeled hydraulic conductivity of 20 ft/day in the Mining SHSM during the rewetting of the backfill areas. Groundwater in this area is not constrained by the barrier in the Mining SHSM and thus, does not rise to the same elevation as simulated in the No Action SHSM. Backfill in this area forms a new, wider, post-mining valley bottom with groundwater elevation relatively near surface.

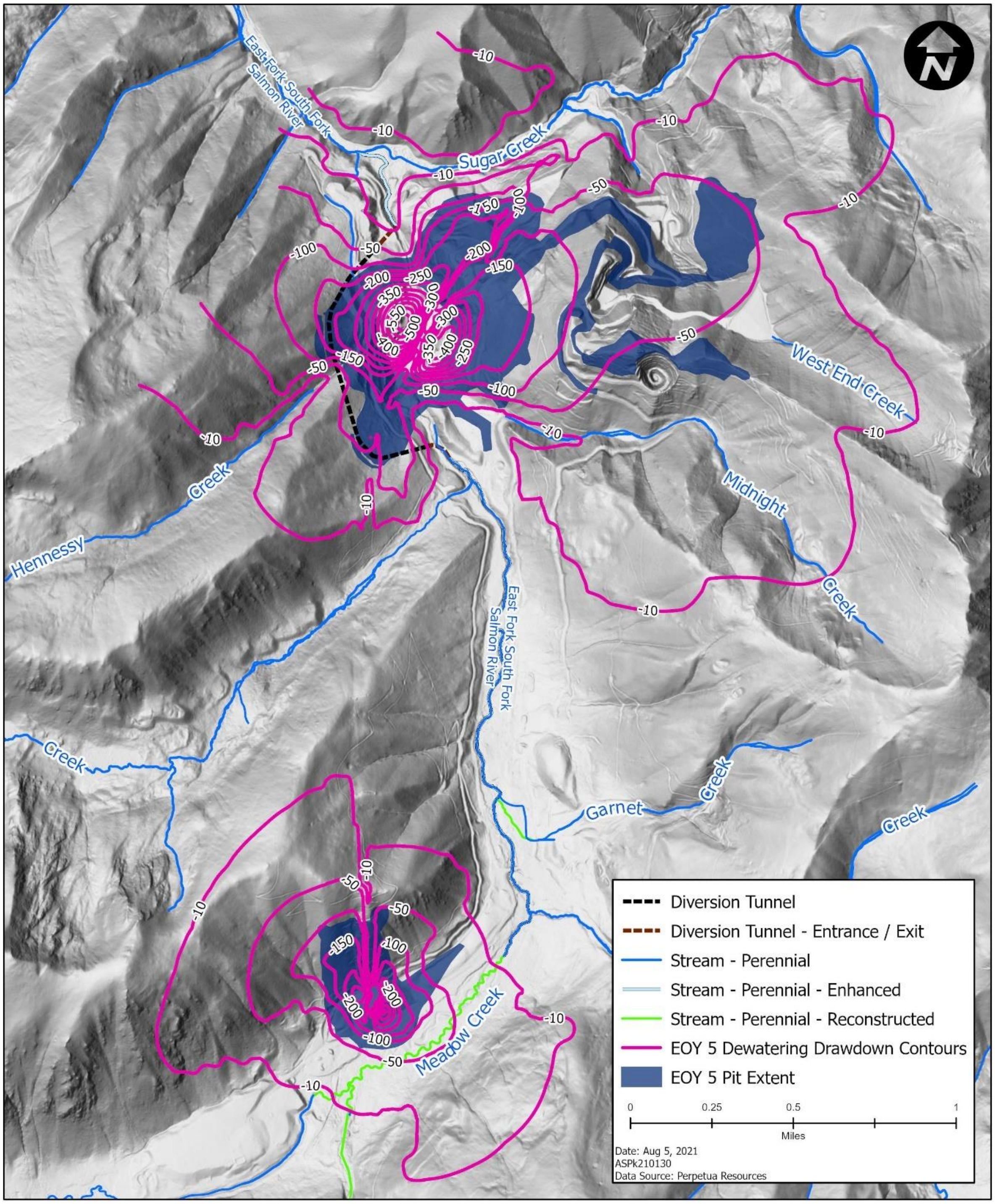


Figure 4-4. Mine Year 5 Simulated Drawdown Contours

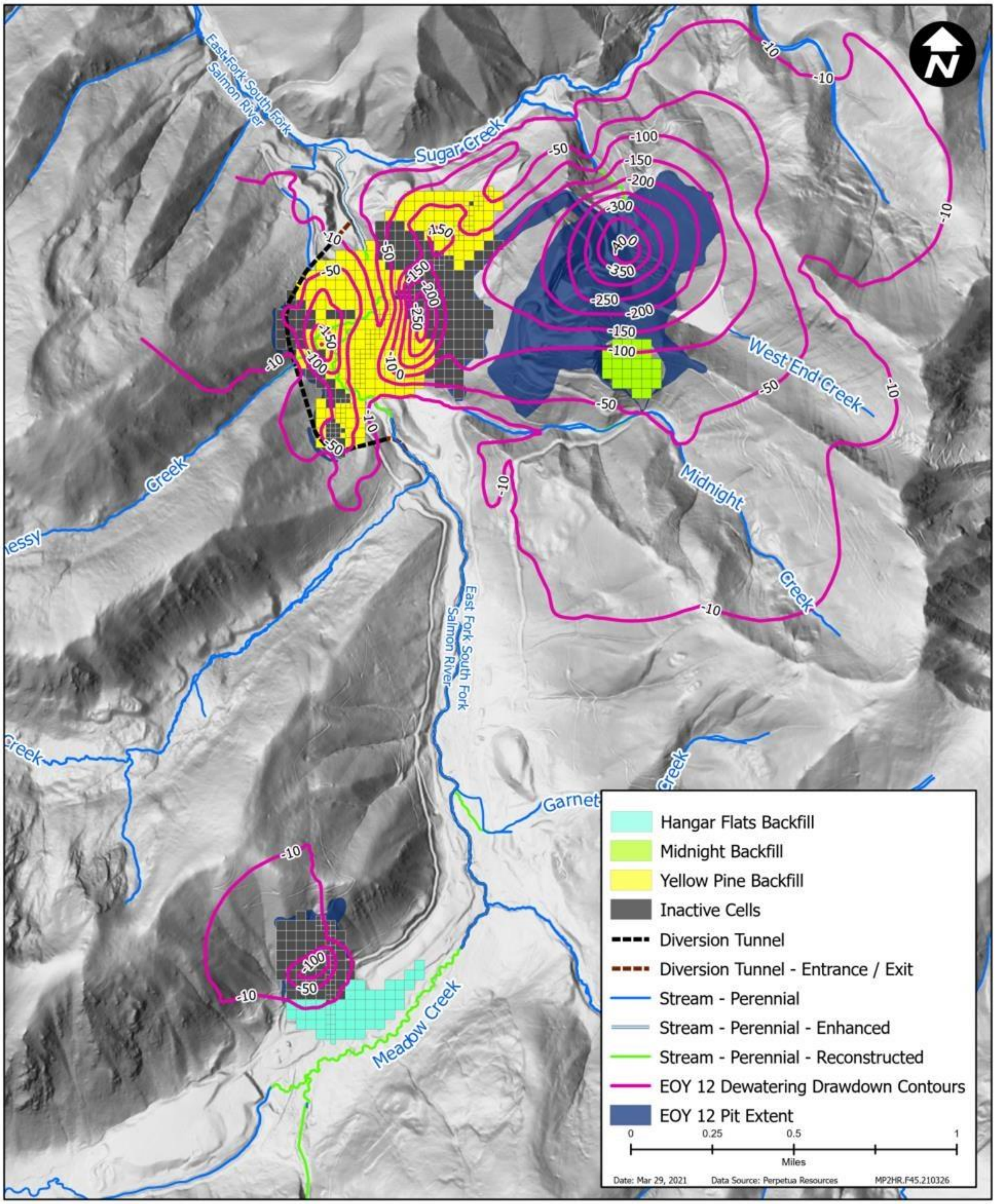


Figure 4-5. Mine Year 12 Simulated Drawdown Contours

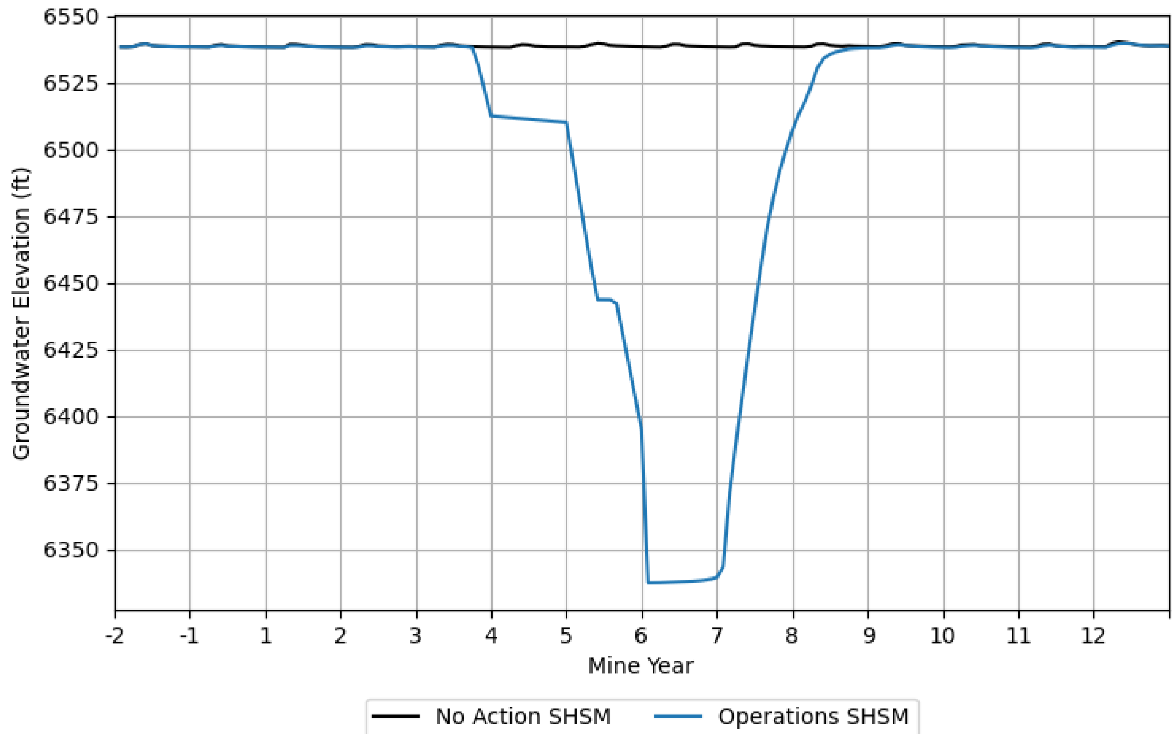


Figure 4-6. Hangar Flats Pit and Backfill Simulated Groundwater Elevations

4.3 Simulated Streamflow

The Mining SHSM is designed to quantify potential changes to surface streamflow due to mine activities. Streamflow comparisons at Project locations (Figure 4-7) between the Mining SHSM and No Action simulations are shown on Figure 4-8 through Figure 4-14. Simulated streamflow from the No Action and Mining SHSM are compared at the USGS gaging stations 13310800, 13311000, 13311250, and 13311450. Streamflow at two other modeling locations on Meadow Creek are compared instead of USGS gaging station 13310850 because the Meadow Creek USGS gaging station 13310850 location lies underneath the proposed TSF. The first location is above the restored lined section of Meadow Creek that is just downstream of the TSF and TSF buttress. The other location is just below the restored (lined) section of Meadow Creek and upstream of the confluence with the EFSFSR. In addition, streamflow is compared at a modeling location (not gaged by USGS) on the EFSFSR downstream of the confluence of Sugar Creek to quantify the overall impacts at the outlet of the EFSFSR and Sugar Creek basins. Only baseflow conditions are discussed in the following sections, as peak flows are generally unaffected.

Simulated streamflow for Meadow Creek above the restored (lined) section is shown on Figure 4-8 with data in Table B-7. Although small differences in baseflows are simulated, the addition of a treated water outfall to Meadow Creek in the Mining SHSM mitigates baseflow depletions during the peak dewatering period (mine years 4 through 6). Simulated impacts to baseflows are small after dewatering activities are complete.

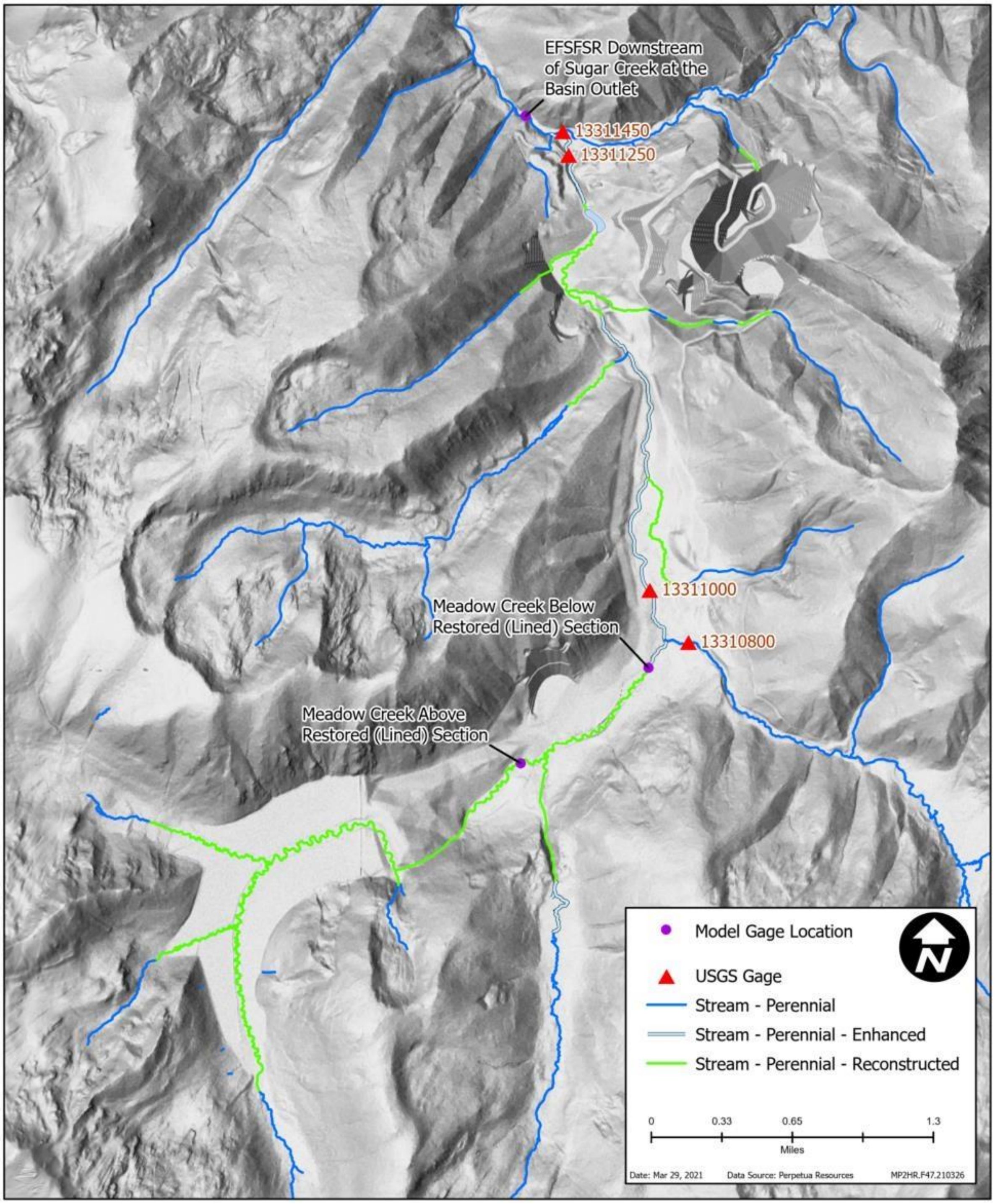


Figure 4-7. Streamflow Comparison Locations

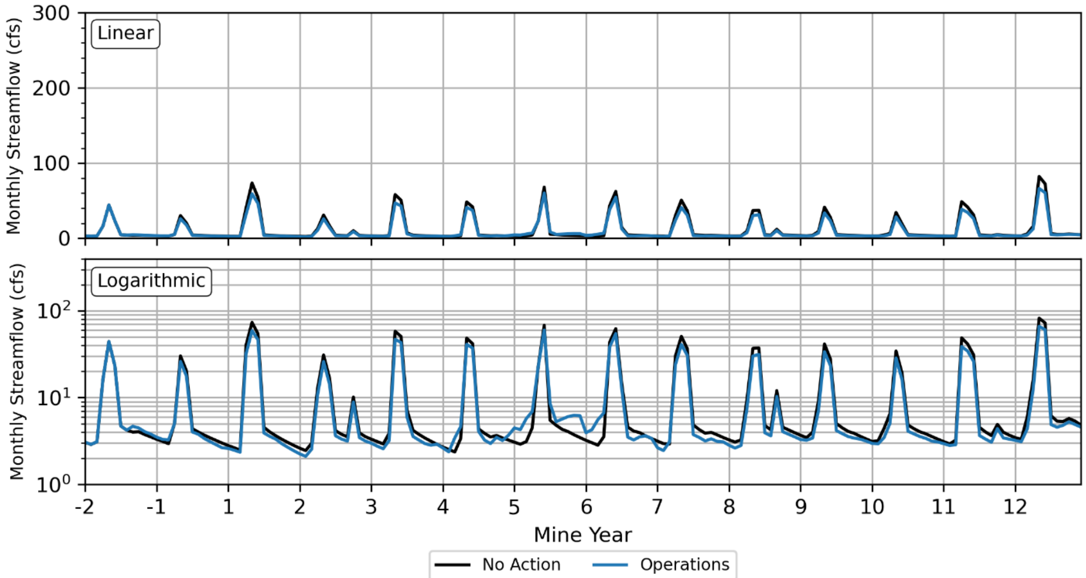


Figure 4-8. No Action and Mining SHSM Streamflow Comparison on Meadow Creek Above Lined Section

Simulated streamflow for Meadow Creek below the restored (lined) section is shown on Figure 4-9 with data in Table B-8. Impacts to simulated monthly average seasonal low flows are observed in response to dewatering of the Hangar Flats pit in mine years 3 through 8. The Mining SHSM simulates a minimum baseflow of 2.9 cfs in mine year 7, whereas the No Action SHSM simulates a baseflow of 4.9 cfs for the same period. In mine year 9 through mine year 12 the simulated Mining SHSM baseflows recover to within approximately 0.5 cfs of those simulated in the No Action SHSM.

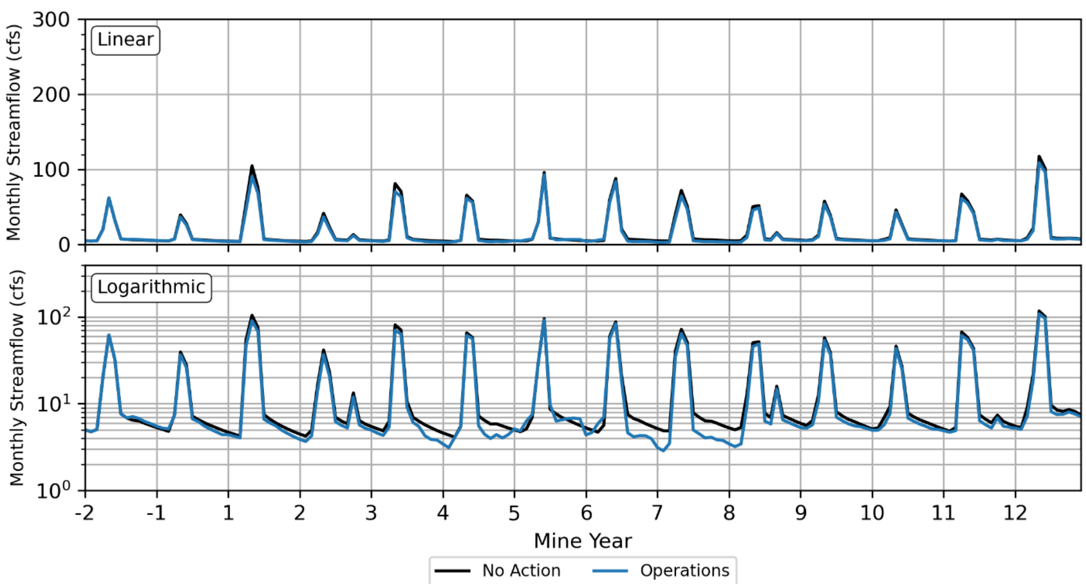


Figure 4-9. No Action and Mining SHSM Streamflow Comparison on Meadow Creek Below Lined Section

Simulated streamflow at the USGS gage 13310800 on the EFSFSR above the Meadow Creek confluence are shown on Figure 4-10 with data in Table B-9. As expected, the Mining SHSM does not show impacts from mining activities at this location since it is upstream of all proposed mine facilities.

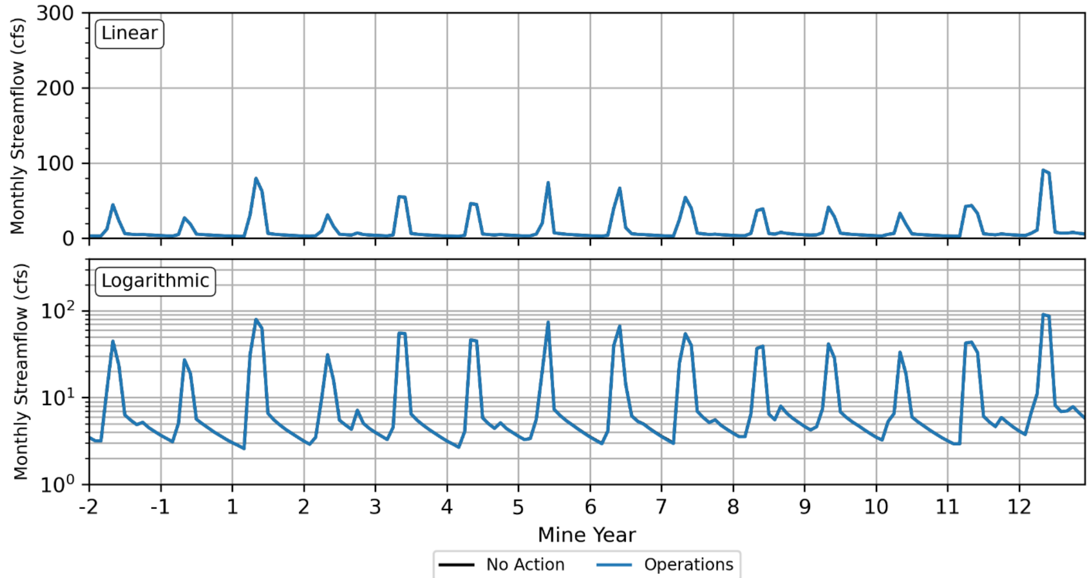


Figure 4-10. No Action and Mining SHSM Streamflow Comparison at USGS Gage 13310800

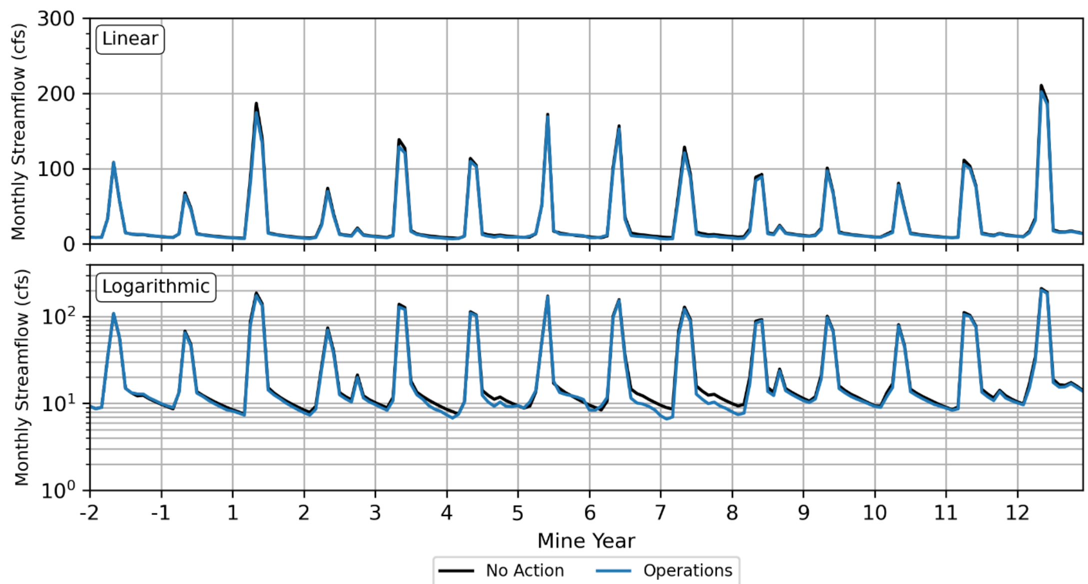


Figure 4-11. No Action and Mining SHSM Streamflow Comparison at USGS Gage 13311000

Simulated streamflow at USGS gage 13311000 on the EFSFSR at the existing box culvert is shown on Figure 4-11 with data in Table B-10. The simulated impacts to baseflows are notable in mine year 6 and mine year 7. The Mining SHSM simulates a minimum baseflow of 6.6 cfs as compared 8.9 cfs simulated in the No Action SHSM in mine year 7. The simulated impacts observed on the EFSFSR at USGS Gage 13311000 are the impacts of dewatering on Meadow Creek that have propagated downstream. Dewatering of Hangar Flats pit does not decrease groundwater elevations near EFSFSR and does not directly impact the EFSFSR streamflow as shown in the simulated drawdown contours in Figure 4-4 and simulated streamflow in Figure 4-10.

Simulated streamflow at USGS gage 13311250 on the EFSFSR above the Sugar Creek confluence is shown on Figure 4-12 and data in Table B-11. The Mining SHSM simulates impacts to baseflows during dewatering of Yellow Pine pit and continuing through mine year 11. The simulated impacts at this location are caused by a combination of mining activities. First, streamflow is diverted upstream on the EFSFSR at the inlet of the tunnel to satisfy mill demand (Figure 3-9). Second, the Mining SHSM simulates either lower gains from or increased losses to groundwater due to dewatering of the Yellow Pine pit in the section of the EFSFSR between the outlet of the EFSFSR tunnel and USGS gage 13311250. The Mining SHSM simulates a minimum baseflow of 7.9 cfs in mine year 3 as compared to 11.3 cfs simulated in the No Action SHSM.

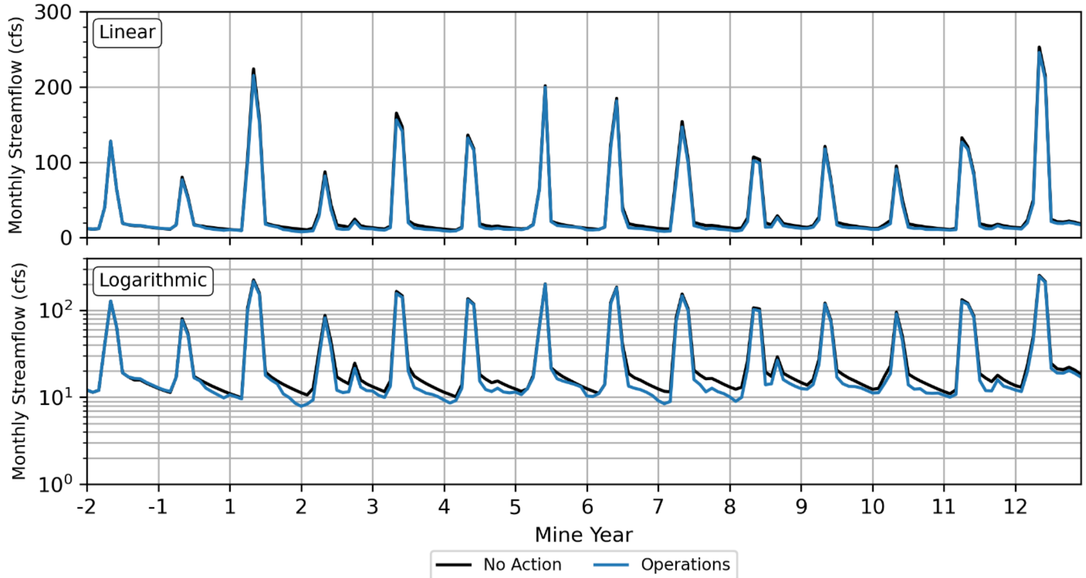


Figure 4-12. No Action and Mining SHSM Streamflow Comparison at USGS Gage 13311250

Simulated streamflow at USGS gage 13311450 on Sugar Creek upstream of the EFSFSR confluence are shown on Figure 4-13 and data in Table B-12. The No Action and Mining SHSM simulate negligible differences in baseflows at this location.

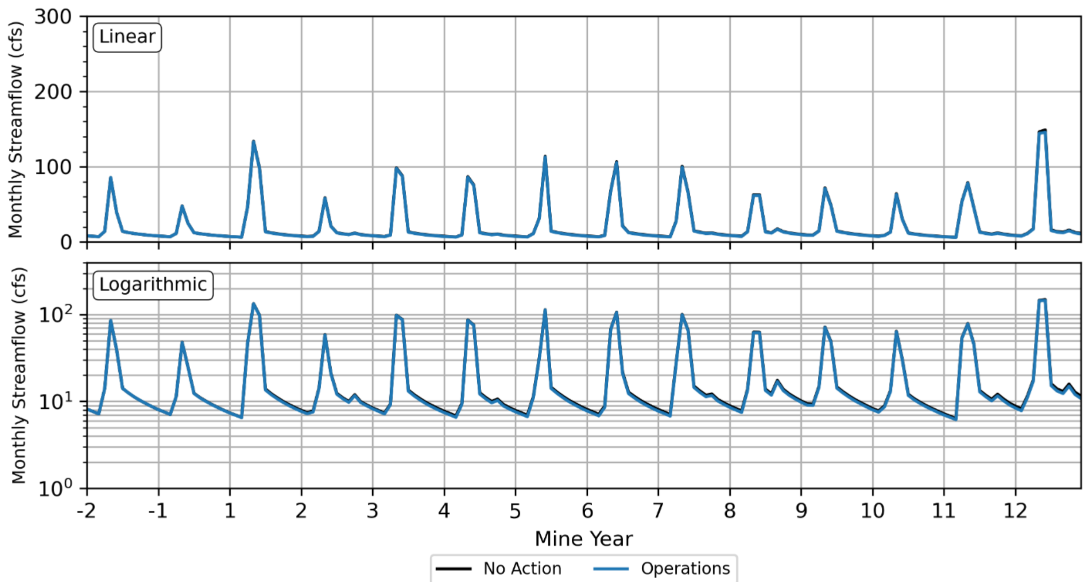


Figure 4-13. No Action and Mining SHSM Streamflow Comparison at USGS Gage 13311450

Simulated streamflow on the EFSFSR downstream of the Sugar Creek confluence at the basin outlet are shown on Figure 4-14 and data in Table B-13. This comparison shows the aggregated impacts to streamflow upstream that propagate downstream to the outlet of the basin. The Mining SHSM simulates baseflows that are generally lower than those simulated with the No Action SHSM. The Mining SHSM simulates an average baseflow of 20.1 cfs as compared to the 22.1 cfs simulated in the No Action SHSM, an average decrease in baseflow of 2.0 cfs. The Mining SHSM simulates a minimum baseflow of 15.7 cfs in mine year 4, which is lower than the baseflow simulated in the No Action SHSM by 2.5 cfs. At the end of mining, at the end of mine year 12, the baseflows are simulated to recover to the No Action baseflows.

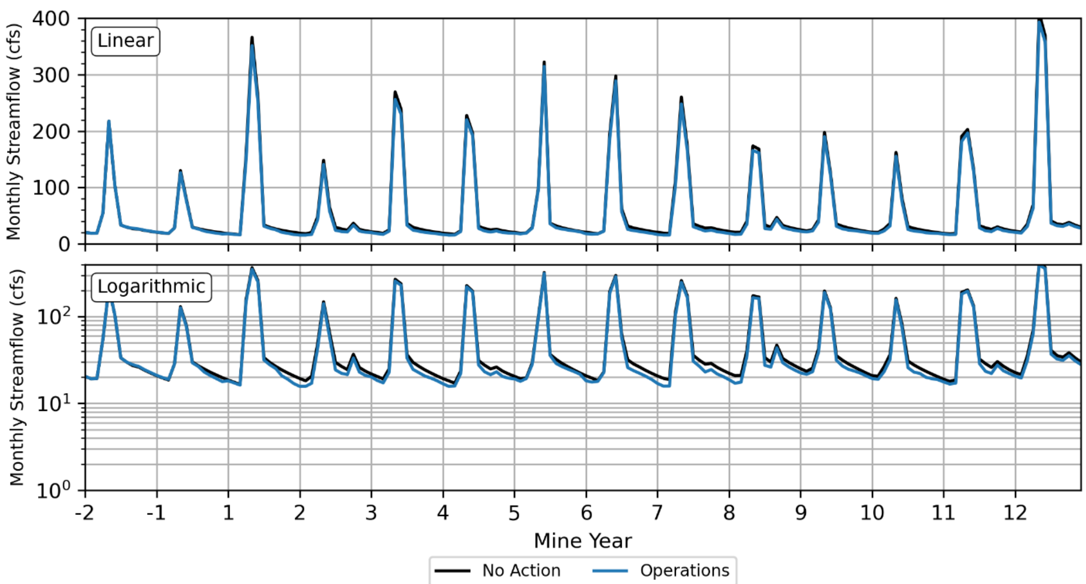


Figure 4-14. No Action and Mining SHSM Streamflow Comparison at EFSFSR Downstream of Sugar Creek

Section 5

Post-Mining SHSM Results

The Post-Mining SHSM simulates flow conditions within the study area for a 100-year period starting in mine year 13, when active mining is complete. The principal objectives of the Post-Mining SHSM are to simulate the redevelopment of long-term surface and groundwater flows into stable seasonal patterns and the filling of West End pit lake.

5.1 Simulated West End Pit Lake

The Post-Mining SHSM simulated West End pit lake filling curve is shown on Figure 5-1. The West End pit lake is situated primarily in bedrock and thus the Post-Mining SHSM simulates a relatively small amount of gain from and loss to groundwater. The primary sources of water for filling the lake are direct precipitation and surface water runoff. The Post-Mining SHSM simulates the lake filling, with a seasonal pattern of increased lake stage from spring runoff followed by seasonal declines as water evaporates and flows from the lake back into local bedrock groundwater. The Post-Mining SHSM simulates a maximum stage of 6,627 ft in mine year 70 and then fluctuates around 6,590 ft for the last 15 years of the simulation. The pit lake does not spill to surface water in the Post-Mining SHSM simulation.

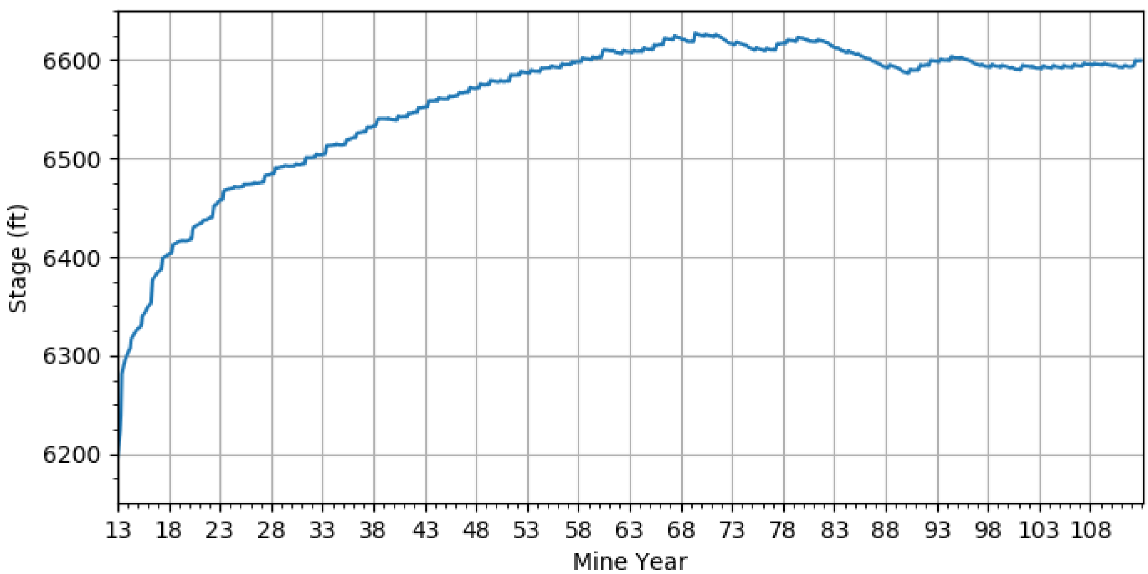


Figure 5-1. Simulated Filling of West End Pit Lake.

5.2 Simulated Streamflow

The Post-Mining SHSM is designed to quantify long-term trends in surface streamflow. Simulated streamflow from the No Action SHSM and Post-Mining SHSM are compared at the same locations as the Mining SHSM (Figure 4-7). For this comparison, the first 20 years (mine year 13 through mine year 32) of the post-closure period are shown in the following figures since streamflow patterns do not change significantly later in the simulation. As with the Mining SHSM simulation results discussion, only baseflow conditions are discussed in the following sections, as peak flows are generally unaffected

Comparisons of simulated streamflow for the seven locations shown in Figure 4-7 are provided on Figure 5-2 through Figure 5-8 with data in Tables B-14 through B-20. At all locations the Post-Mining SHSM simulates little to no negative impacts to baseflows as compared to the No Action SHSM for most of the 20-year period shown. Notable negative impacts to baseflows only occur at USGS gage 13311250 (Figure 5-7) for the first two years of the Post-Mining SHSM simulation period when the Yellow Pine pit backfill is in the final stages of saturating. Overall, the Post-Mining SHSM simulates that streamflow recovers from mining activities by mine year 15 – approximately at the conclusion of stockpiled ore processing.

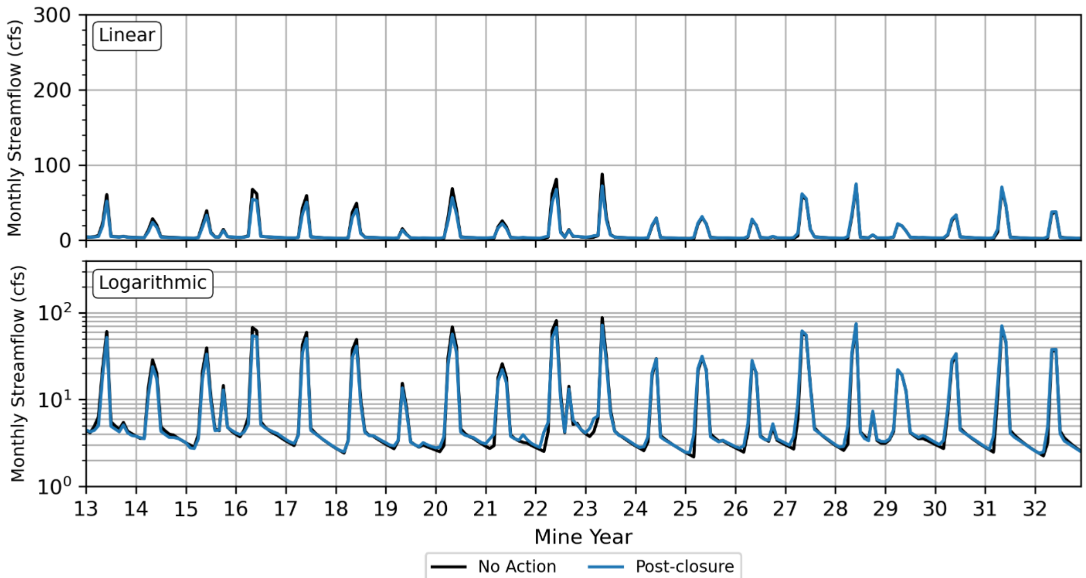


Figure 5-2. No Action and Post-Mining SHSM Streamflow Comparison on Meadow Creek Above Lined Section

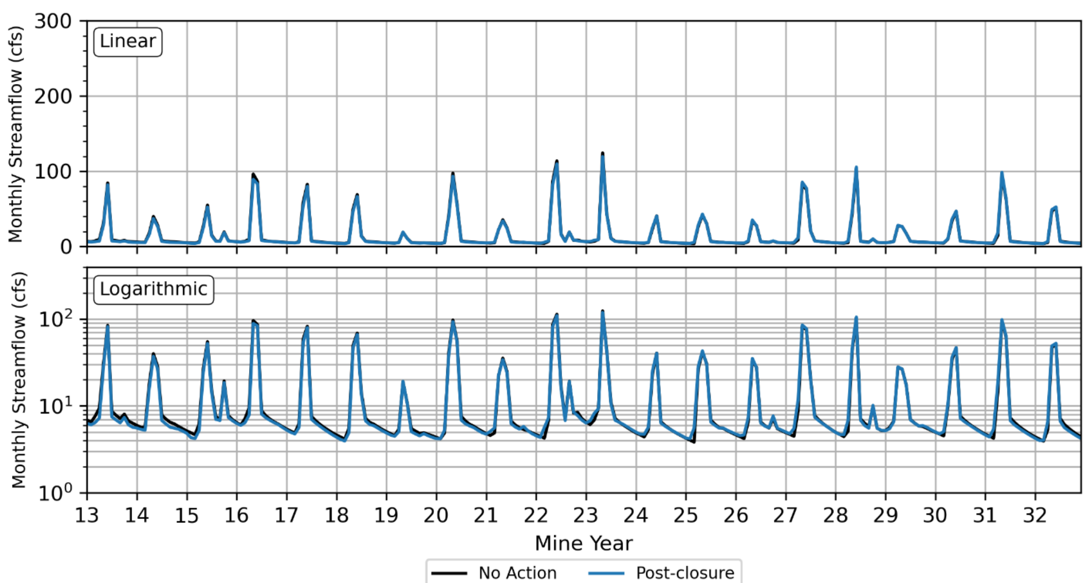


Figure 5-3. No Action and Post-Mining SHSM Streamflow Comparison on Meadow Creek Below Lined Section.

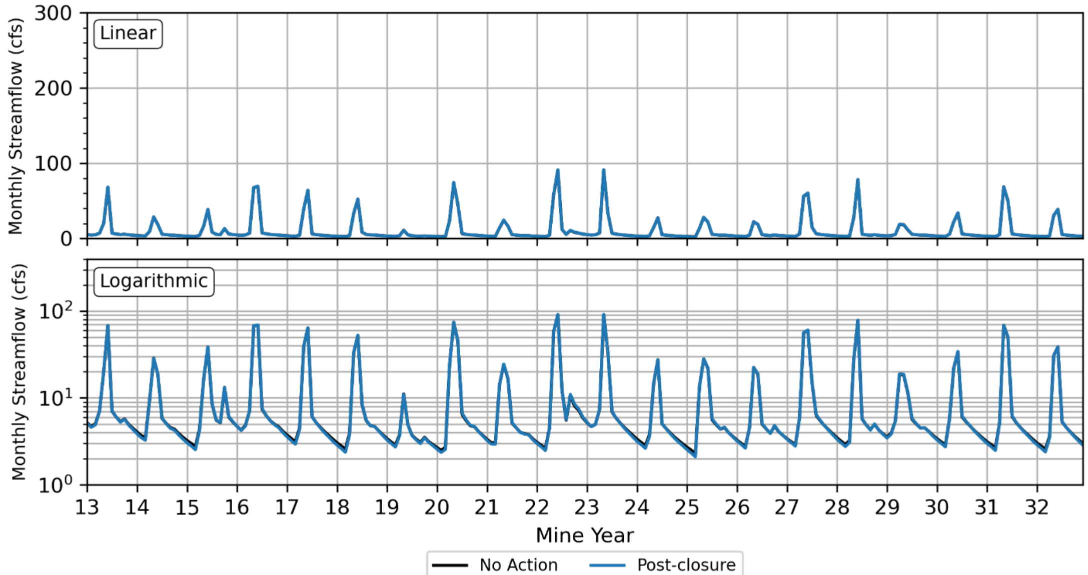


Figure 5-4. No Action and Post-Mining SHSM Streamflow Comparison at USGS Gage 13310800

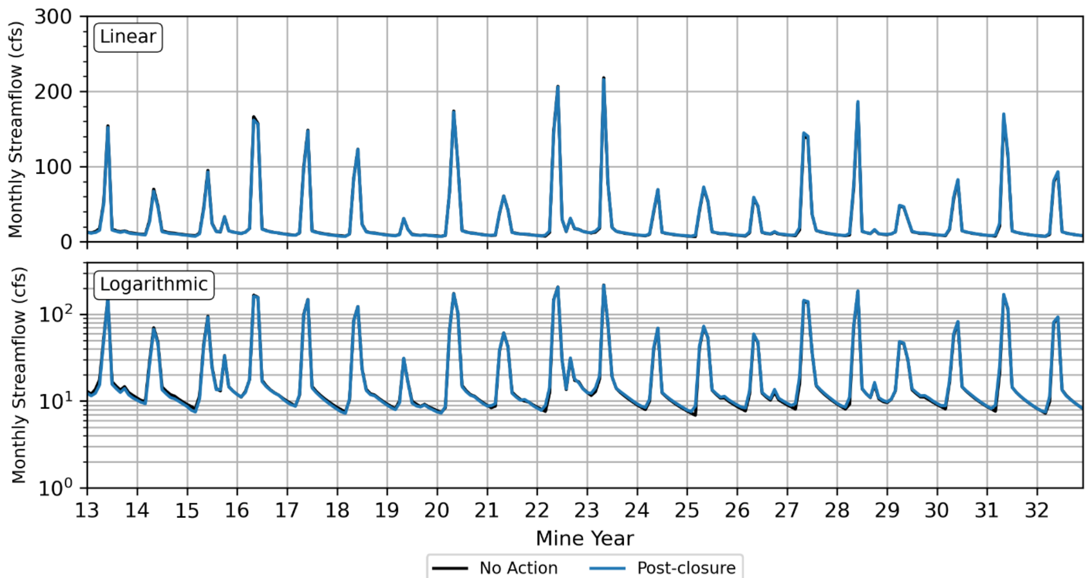


Figure 5-5. No Action and Post-Mining SHSM Streamflow Comparison at USGS Gage 13311000

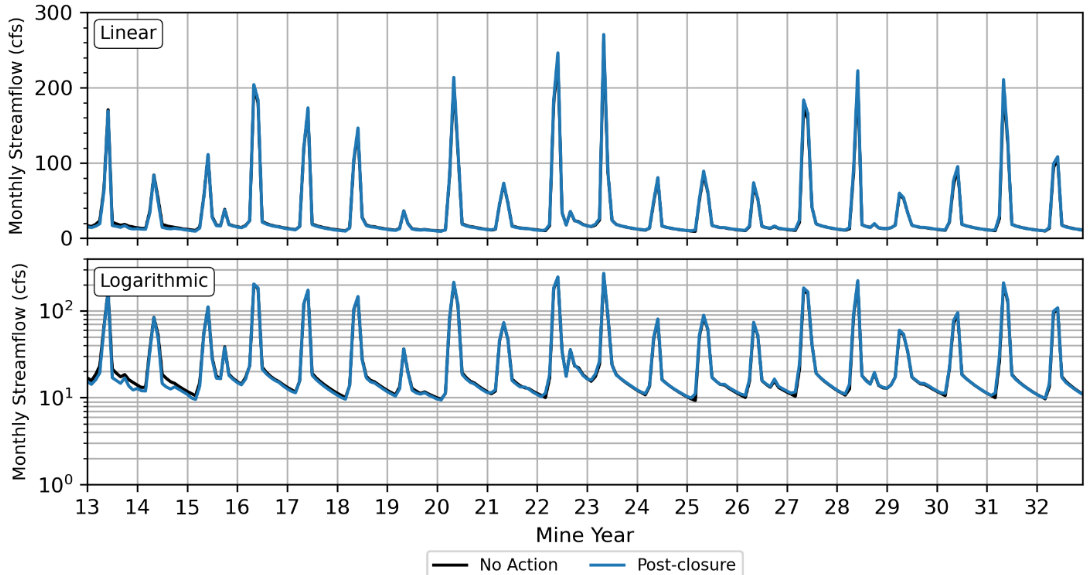


Figure 5-6. No Action and Post-Mining SHSM Streamflow Comparison at USGS Gage 13311250

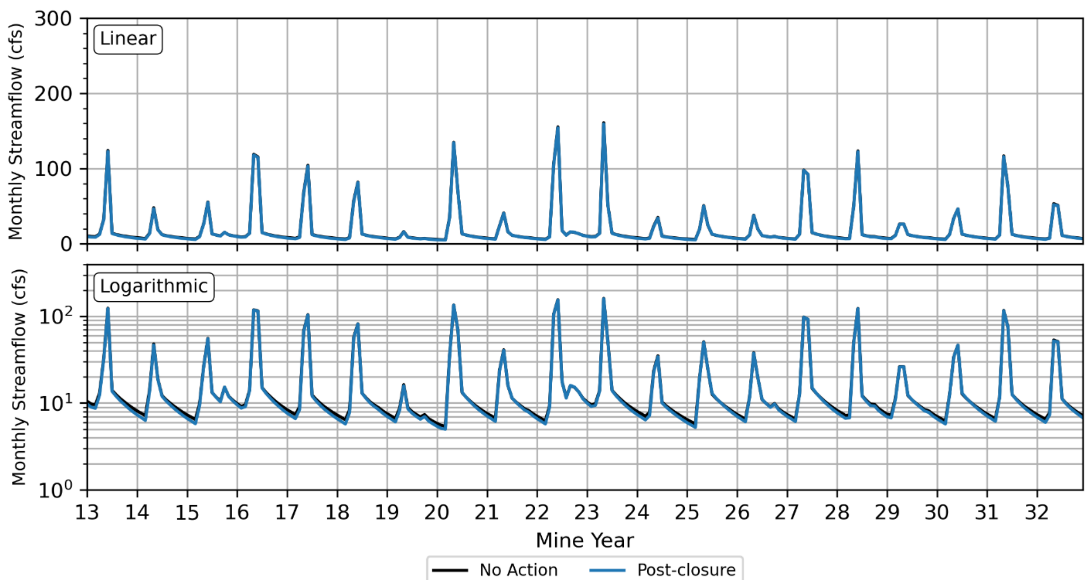


Figure 5-7. No Action and Post-Mining SHSM Streamflow Comparison at USGS Gage 13311450

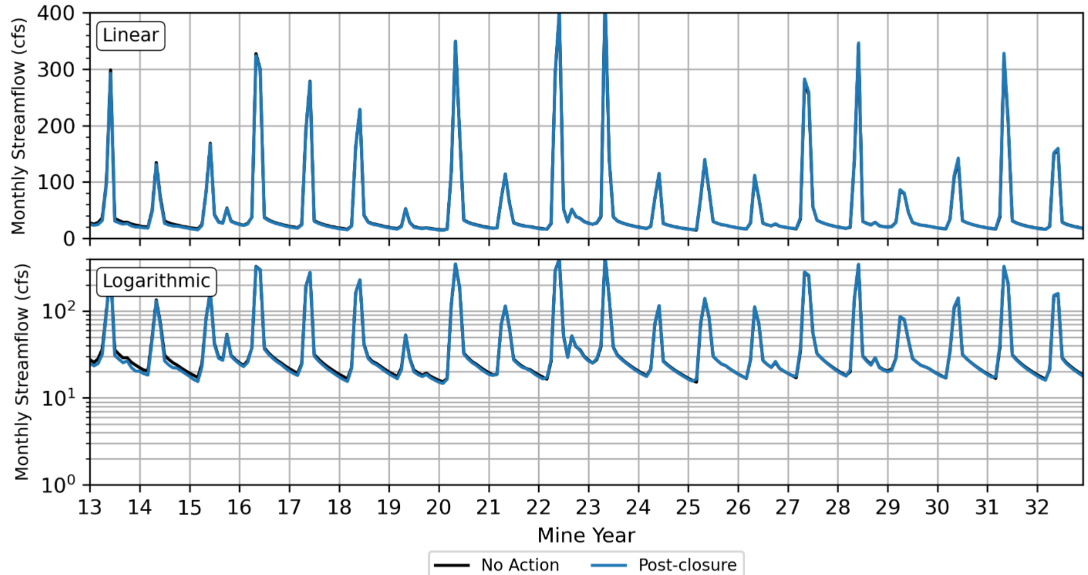


Figure 5-8. No Action and Post-Mining SHSM Streamflow Comparison at EFSFSR Downstream of Sugar Creek

5.3 Simulated Groundwater Elevation

The Post-Mining SHSM simulates long-term groundwater elevation after mining operations have ceased. Figure 5-9 and Figure 5-10 show the difference between No Action SHSM and Post-Mining SHSM groundwater elevation for mine year 70 and mine year 112, respectively. Mine year 70 corresponds to the time at which the Post-Mining SHSM simulates the West End pit lake to reach a maximum stage of approximately 6,627 ft, whereas mine year 112 represents the end of the simulated Post-Mining SHSM. The Post-Mining SHSM simulates an area of reduced groundwater elevation that extends to the east of West End pit lake; the extent of the -10 ft contour is dependent on the simulated stage of the West End pit lake, which varies between approximately 6,590 and 6,600 ft in the period following mine year 70.

The Post-Mining SHSM simulates an area of reduced groundwater elevation within Yellow Pine pit that is essentially the same in mine years 70 and 112, because the simulated groundwater elevation has reached steady state. The localized reduced groundwater elevation that exceeds 100 ft occurs in model cells that represent former (in model)/present-day steep mountain slopes where bedrock will be excavated, and the pit backfilled to an elevation lower than existed prior to mining. In the valley, near the center of Yellow Pine pit, the Post-Mining SHSM simulates groundwater elevation that are higher than those simulated in the No Action SHSM. This is attributed to a combination of effects that include the existence of restored, lined stream corridors that do not allow for groundwater within the backfill to release into the streams as baseflow, the removal of the MCFZ, and the placement of higher permeability backfill material in the pit.

The Post-Mining SHSM simulates a small footprint of reduced groundwater elevation only in the northern portion of the Hangar Flats pit. These simulated reduced groundwater elevations are associated with model cells that represent steep mountainous terrain in the No Action SHSM that will be excavated during mining operations. Thus, in the Post-Mining SHSM these cells are either inactive, or the elevation has been updated to reflect the lower elevation of planned backfill and the hydraulic parameters have been updated to reflect backfill material with higher hydraulic conductivity than the mined materials causing lower groundwater elevation.

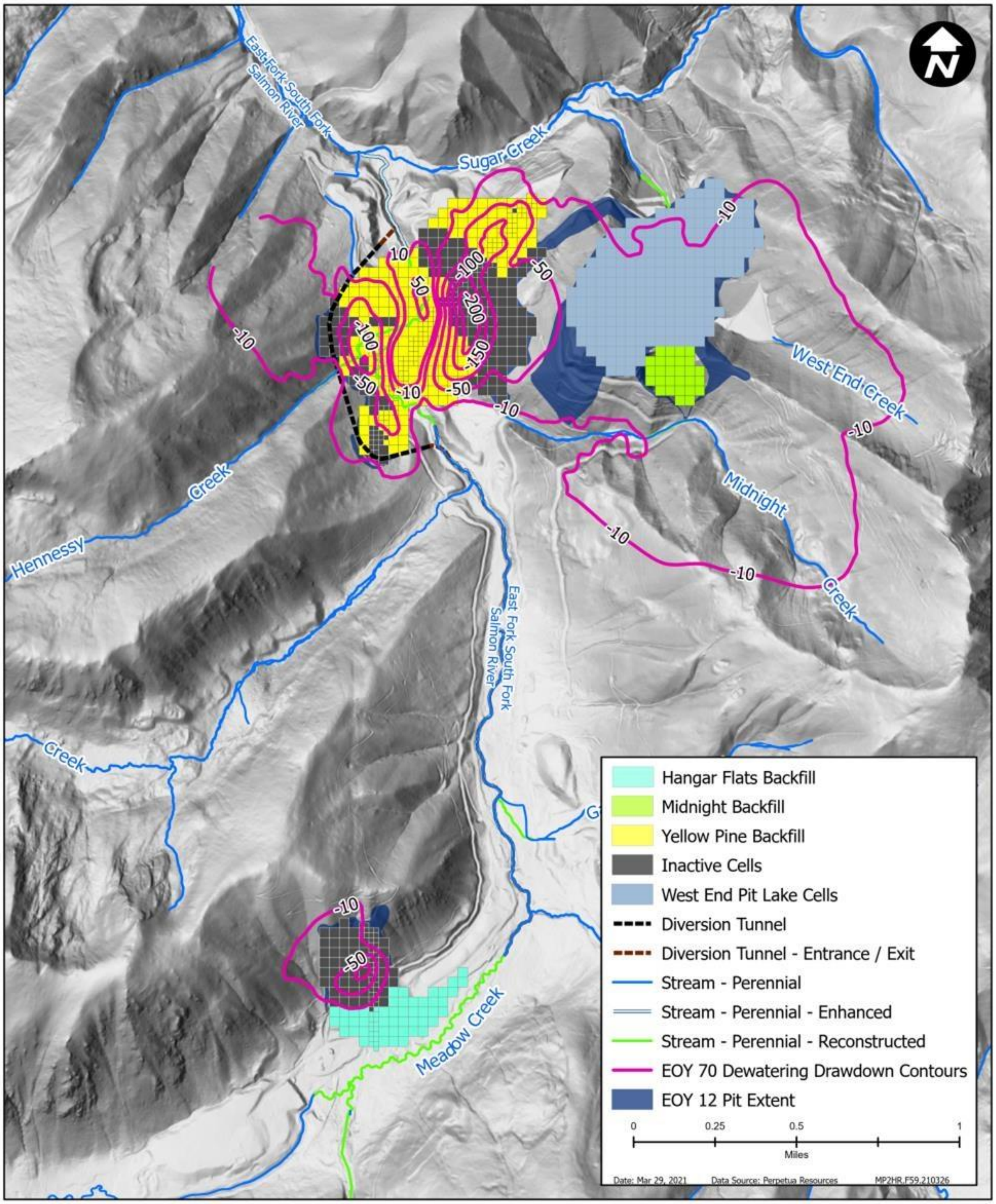


Figure 5-9. Mine Year 70 Simulated Groundwater Elevation Change

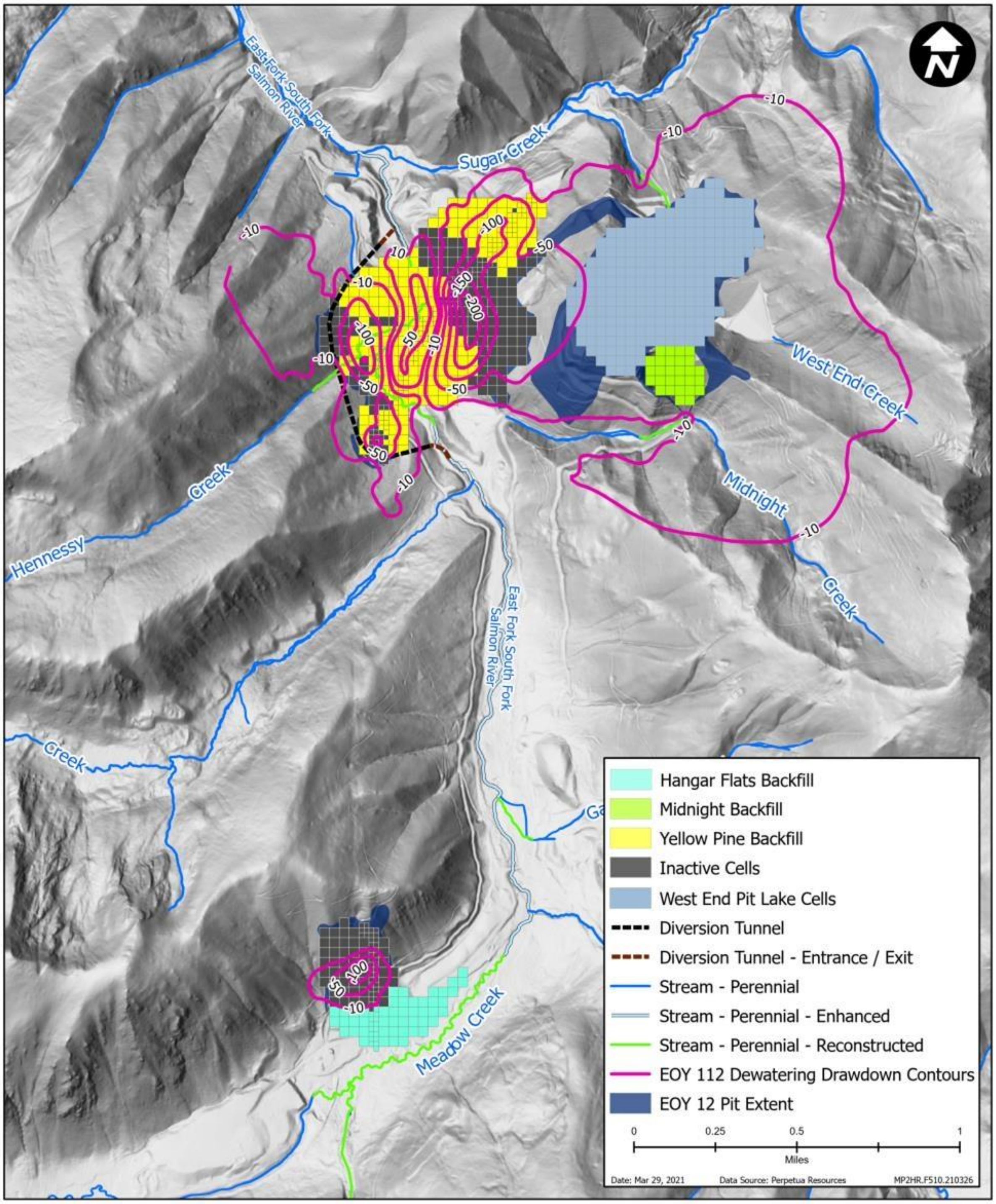


Figure 5-10. Mine Year 112 Simulated Groundwater Elevation Change

Figure 5-11 shows the simulated groundwater elevation difference between the No Action SHSM and Post-Mining SHSM for the Study Area in Mine Year 112 as a heatmap. This figure portrays the same drawdown data as in Figure 5-10 in a format that fills in the information between the contours and extends the estimates over the whole study area. Thus, the simulated groundwater elevation differences shown in Figure 5-11 at the Yellow Pine pit backfill, Hangar Flats pit backfill, and West End pit lake areas are the same as in Figure 5-10 and are explained in the previous paragraph. Additional simulated groundwater elevation differences are observed in the area around the TSF. The decreased groundwater elevations in the Post-Mining SHSM around the edges of the TSF are due to the simulated liner which prevents recharge in the area and decreases the groundwater elevations. In all areas away from the mine features there are little to no groundwater elevation differences.

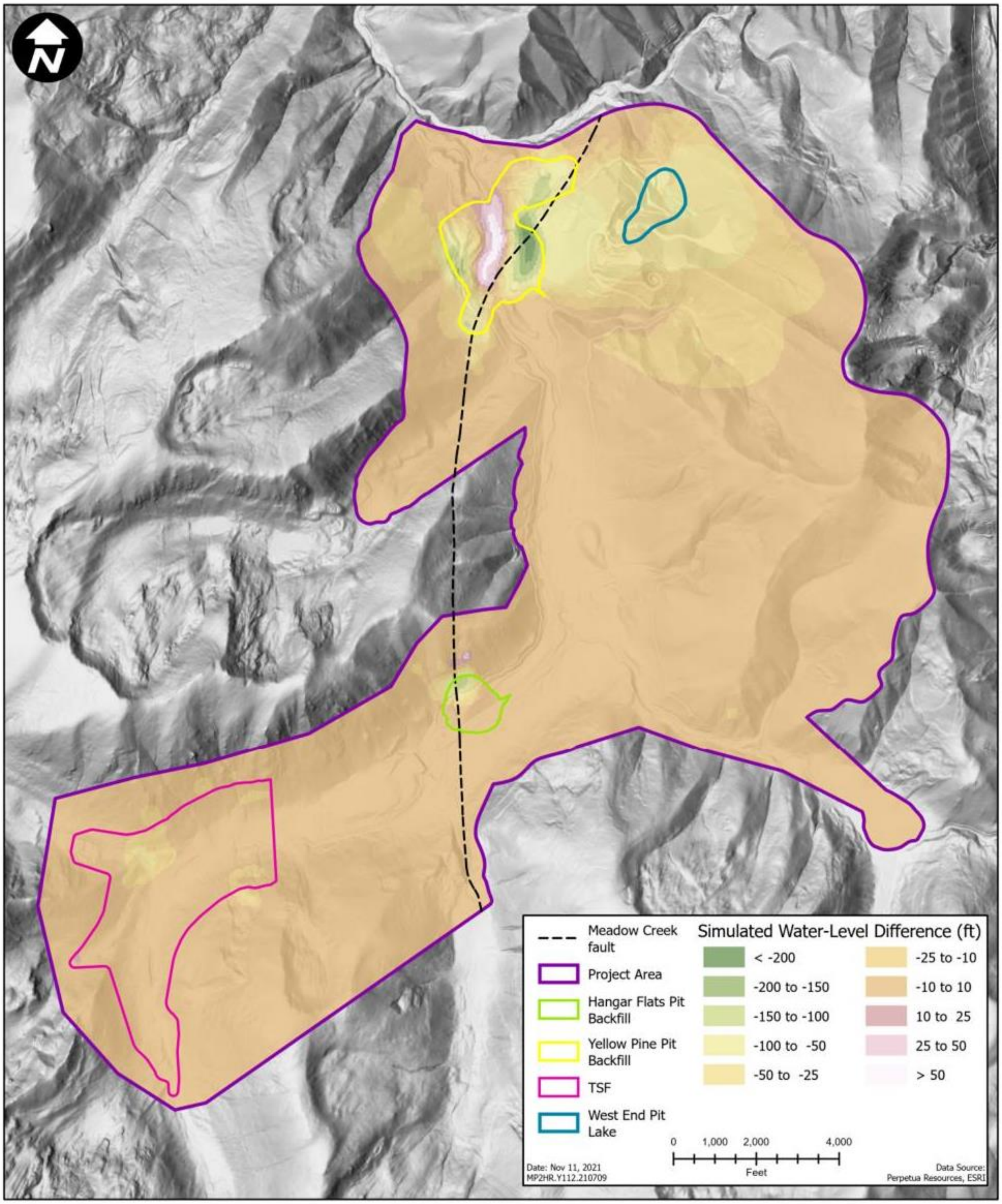


Figure 5-11. Mine Year 112 Simulated Groundwater Elevations Difference in the Project Area

Section 6

Summary

The ModPRO2 Alternative has been simulated using the Mining SHSM and the Post-Mining SHSM. The Mining SHSM includes a split between mine year 5 and mine year 6 to accommodate simulation of pit backfilling. Development of the Post-Mining SHSM was necessary to incorporate the simulation of the West End pit lake. These models were developed based on the calibrated EC SHSM (Appendix A). The EC SHSM was modified to simulate mine related impacts associated with the ModPRO2 Alternative (Perpetua Resources 2021a).

The Mining SHSM simulation used the average climate period (2004 – 2017 of the historical record) that was used in previous alternative model simulations (BC 2018b, BC 2019a, BC 2019b) and results were compared to simulations with the No Action SHSM using the same climate data. Results from the Mining SHSM simulation are summarized as follows:

- The simulated dewatering rates at the Yellow Pine pit fluctuate around 1.3 cfs from mine year 2 through mine year 5 with a peak of approximately 1.4 cfs in mine year 5. In mine year 6 dewatering decreases to approximately 0.3 cfs and then fluctuates around 0.2 cfs until mine year 10 when all Yellow Pine dewatering ends.
- The simulated dewatering at the Hangar Flats pit starts in mine year 3, quickly increases to greater than 1.5 cfs, and peaks at approximately 3.3 cfs in mine year 5. Dewatering activities in Hangar Flats pit end in mine year 7.
- The simulated dewatering rates begin at the West End pit in mine year 11 and peak at approximately 0.8 cfs in mine year 12. West End pit dewatering ceases at the end of mine year 12.
- Streamflow impacts are simulated to occur along Meadow Creek below the restored (lined) section during dewatering of Hangar Flats pit. The minimum baseflow simulated by the Mining SHSM at this location is 2.9 cfs in mine year 7 compared with 4.9 cfs in the NA simulation.
- The Mining SHSM simulates small streamflow impacts on the EFSFSR downstream of the Sugar Creek confluence at the basin outlet. The Mining SHSM simulates an average baseflow of 20.1 cfs as compared to the 22.1 cfs simulated in the No Action SHSM.
- The Mining SHSM simulates a depression of the water table at Hangar Flats pit that extends into the bedrock to the northwest and southeast and then recovers to seasonally fluctuating elevation by the end of mine year 8 in the valley floor alluvium.
- The Mining SHSM simulates a depression of the water table at the Yellow Pine pit that extends to the east and south of the West End pit footprint prior to dewatering of the West End pit. The simulated groundwater elevation to the west and north of Yellow Pine pit recover significantly by mine year 12. The simulated groundwater elevation to the east of Yellow pine pit is affected by the dewatering of the West End pit in mine years 11 and mine year 12.
- Simulated dewatering at West End pit is influenced by decreased groundwater elevation that already exist in the model due simulated dewatering at Yellow Pine pit to the west. The Mining SHSM simulates decreased groundwater elevation that extend further to the east and south of West End pit in mine year 12.

The Post-Mining SHSM simulates mine years 13 through 112 using the historical climate record from 1918 through 2017 and results are compared to simulations with the No Action SHSM using the same climate data. Results from the Post-Mining SHSM simulation are summarized as follows:

- Surface water streamflow at all locations shown on Figure 4-7 are simulated to return to long-term, stable regional patterns by mine year 16 when all mining activities cease.
- At the Hangar Flats pit backfill, the Post-Mining SHSM simulates groundwater elevation to return to pre-mining condition in the valley floor. Long term reductions in groundwater elevation are simulated only where bedrock is planned to be excavated and the pit backfill will be at a lower elevation than the existing land surface.
- At the Yellow Pine pit, the Post-Mining SHSM simulates groundwater level to recover from mining activities in the valley. The Yellow Pine pit is primarily mined in the bedrock, and thus the removal of the MCFZ in the model has a significant impact on simulated groundwater elevation, resulting in lower simulated groundwater elevation in the eastern portion of the pit where the MCFZ had previously caused higher elevation on its upgradient side.
- The Post-Mining SHSM simulates the West End pit lake to reach a maximum stage in mine year 70, without spill-over into West End Creek, and a long-term stage that fluctuates seasonally around elevation 6,600 ft. The presence of the West End pit and pit lake influences the long-term groundwater elevation and the Post-Mining SHSM simulates decreased groundwater elevation that extend east and west of the pit lake.

Section 7

Limitations

This document was prepared solely for Perpetua Resources in accordance with professional standards at the time the services were performed and in accordance with the contract between Perpetua Resources and Brown and Caldwell dated January 1, 2021. This document is governed by the specific scope of work authorized by Perpetua Resources; it is not intended to be relied upon by any other party except for regulatory authorities contemplated by the scope of work. We have relied on information or instructions provided by Perpetua Resources and other parties and, unless otherwise expressly indicated, have made no independent investigation as to the validity, completeness, or accuracy of such information.

Further, Brown and Caldwell makes no warranties, express or implied, with respect to this document, except for those, if any, contained in the agreement pursuant to which the document was prepared. All data, drawings, documents, or information contained this report have been prepared exclusively for the person or entity to whom it was addressed and may not be relied upon by any other person or entity without the prior written consent of Brown and Caldwell unless otherwise provided by the Agreement pursuant to which these services were provided.

Section 8

References

Brown and Caldwell (BC), 2018a. *Stibnite Gold Project Final Hydrologic Model Existing Conditions Report*, Prepared for Midas Gold, October.

BC, 2018b. *Stibnite Gold Project Final Hydrologic Model Proposed Action Report*, Prepared for Midas Gold, October.

BC, 2019a. *Final Stibnite Gold Project East Fork South Fork Salmon River Alternative TSF/DRSF Modeling Report*, Prepared for Midas Gold, August.

BC, 2019b. *Final Stibnite Gold Project Modified PRO Alternative Modeling Report*, Prepared for Midas Gold, September.

BC, 2021a. *Perpetua Resources 2019 Stibnite Gold Project Aquifer Test Report*, Prepared for Perpetua Resources Idaho, Inc. September.

BC, 2021b. *Request for Additional Information 117*. Prepared for Perpetua Resources, April.

BC, 2021c. *Stibnite Gold Project Water Management Plan*. Prepared for Perpetua Resources Idaho, Inc. December.

Hughes, J.D., Langevin, C.D., and Banta, E.R., 2017. *Documentation for the MODFLOW 6 framework: U.S. Geological Survey Techniques and Methods*, book 6, chap. A57, 42 p., https://doi.org/10.3133/tm6A57

Linsley, R.K., Kohler, M.A., Paulhus, J.L.H., 1982. *Hydrology for Engineers*, Third Edition, McGraw-Hill Book Company, New York.

McMillen Jacobs Associates, 2018. *East Fork South Fork Salmon River (EFSFSR) Tunnel Design Documentation Report.* Prepared for Midas Gold, November.

Midas Gold Idaho, Inc. (Midas Gold), 2016. *Stibnite Gold Project Plan of Restoration and Operations*, September.

Midas Gold, 2019. *Response to Request for Additional Information (RFAI)-111: Geosynthetic Covers for Development Rock Storage Facilities (DRSFs*), June.

Perpetua Resources, 2021a. *Stibnite Gold Project Refined Proposed Action - ModPRO2*, October.

Perpetua Resources, 2021b. *Stibnite Gold Project Site Wide Water Balance Model Refined Modified Proposed Action (ModPRO2) Report*, September.

Thornthwaite, C. W., 1948. *An approach toward a rational classification of climate*, Geographical Review, Vol. 38, No. 1, pp. 55–94

United States Forest Service, 2020. *Stibnite Gold Project Draft Environmental Impact Statement*, August.

Appendix A: SGP SHSM Existing Conditions and No Action Alternative Report

Stibnite Gold Project
Stibnite Hydrologic Site Model
Existing Conditions and No Action Report

Prepared for

Perpetua Resources Idaho, Inc.

Valley County, Idaho

August 2021

Brown AND Caldwell

1290 W Myrtle St., Suite 340

Boise, ID 83702

Table of Contents

List of Figures

List of Tables

List of Abbreviations

°C	degrees Celsius
°F	degrees Fahrenheit
%	percent
BC	Brown and Caldwell
CDF	corehole dynamic flowmeter
cfs	cubic foot per second
cfs²	cubic foot per second squared
DEM	digital elevation model
EC	Existing Condition
EFSFSR	East Fork of the South Fork of the Salmon River
ET	evapotranspiration
ft	foot/feet
ft/d	foot/feet per day
ft amsl	foot/feet above mean sea level
gpm	gallon per minute
in	inch
in/yr	inch per year
MCFZ	Meadow Creek Fault Zone
Midas Gold	Midas Gold Idaho, Inc.
MWB	meteoric water balance
MWH	MWH Americas, Inc.
PET	potential evapotranspiration
Perpetua Resources	Perpetua Resources Idaho, Inc.
PRISM	Parameter-Elevation Regressions on Independent Slopes Model
RMSE	root mean squared error
RQD	rock quality designation
SFR	surface flow routing
SGP	Stibnite Gold Project
SHSM	Stibnite Hydrologic Site Model
SRK	SRK Consulting, Inc.
USFS	United States Forest Service
USGS	United States Geological Survey
WRSR	Water Resources Summary Report

Section 1

Background

Brown and Caldwell (BC) prepared this appendix to the Stibnite Hydrologic Site Model (SHSM) ModPRO2 Report summarizing development of an updated calibrated hydrologic model for the Perpetua Resources Idaho, Inc. (Perpetua Resources), formerly Midas Gold Idaho, Inc (Midas Gold), Stibnite Gold Project (SGP) study area. The Hydrologic Model Existing Conditions Report (BC 2018a) and Stibnite Gold Project Hydrologic Model Proposed Action Report (BC 2018b) were provided in April 2018 and October 2018, respectively. Subsequently, the Stibnite Gold Project Modified PRO Alternative Modeling Report was provided in September 2019 (BC 2019b). These reports describe the development of a hydrological model for use in assessing the potential changes in the groundwater and surface water systems in the vicinity of the SGP from proposed mining activities. Comments on previous reports and model development were received from participating regulatory agencies (agencies), including the United States Forest Service (USFS), the Idaho Department of Environmental Quality, and the United States Environmental Protection Agency, as well as AECOM. The comments provided by the various parties led to refinements to the hydrologic conceptual site model (HCSM), the meteoric water balance (MWB) portion of the model, and the development of an updated groundwater flow model capable of representing important geologic features that were not included in the previous model. The newly developed SHSM is calibrated to measured groundwater and surface water data from 2011 to 2019 and aquifer test data collected at the site. This report presents details related to the refined HCSM and SHSM.

1.1 Hydrologic Conceptual Site Model

An HCSM is a conceptualization of the physical setting including topography and geologic elements that influence the distribution and movement of surface water and groundwater. An HCSM is based upon an understanding of the nature of the geologic materials which contain the groundwater along with the position and distribution of surface water features which both contribute water to and receive water from the groundwater system. The HCSM for any mine site guides the collection of data which define both the dimensions and the characteristics of the hydrogeologic model domain. In addition, a groundwater flow model framework is based on the HCSM, and model layer design elements are intended to reflect the conceptual distribution of hydrogeologic parameters that are tied to geologic conditions included in the HCSM.

The geologic setting of the Stibnite mine site area is primarily influenced by the Idaho Batholith in combination of the meta-sedimentary rock of the Stibnite roof pendant associated with the eastern edge of the batholith (Stewart, D.E. et al, 2016; M3, 2014). The Hangar Flats area and the Yellow Pine area are within the Idaho Batholith and the bedrock here is comprised of granodiorite which has been fractured by the Meadow Creek Fault Zone (MCFZ) and associated faults. The roof pendant meta-sedimentary rocks are present in the eastern portion of the Stibnite mine area surrounding the location of the West End mine pit and the West End Fault (M3, 2014). These formations are also well fractured and folded. The resulting natural variability in resistance to erosion inherent in both the fractured igneous and metamorphic rocks of this area means that rainfall and snowmelt runoff has created a network of streams that are incised into the bedrock. This geologic process naturally focuses streams into areas and alignments where weaker, fractured, or weathered areas of bedrock allow faster erosion by the flowing water. In the Stibnite Gold Project area these incised streams include Meadow Creek, Sugar Creek, and the East Fork of the South Fork of the Salmon River (EFSFSR) and the lesser tributaries. In areas where major faulting and associated fracturing has occurred, stream alignments may follow the alignment of the major fault and associated fracturing. While the fault itself is present through significant depth in the affected bedrock, the nature of the fault surface and the surrounding damage zone also changes with depth. Near the surface the interaction with groundwater and chemical reactions within the rock matrix result in further softening of the rock and secondary fracturing occurs. This process is the beginning of the natural development of surface soil and creates a zone at the top of the bedrock that is essentially a transition between competent bedrock and an unconsolidated saprolite layer. Viewed as a hydrologic feature, this transition zone is more permeable than the underlying bedrock. While it represents a relatively thin layer in contrast with bedrock thickness it provides a pathway for groundwater movement that is more important than the underlying, more competent bedrock. The underlying rock becomes less able to hold and transmit water with increasing depth as the fault surface and fractures are more consistently clay filled and become smaller in aperture and less frequent. This general decrease in secondary porosity in the bedrock results in less groundwater flow in the deeper bedrock. Continuous layers of sediments or lithologic units that would act as aquicludes or aquitards forming sharp boundaries between water bearing units have not been identified. Rather, there is a continuum of decreasing water bearing abilities with depth.

In the stream valleys, the igneous and metamorphic rocks are overlain with a combination of fluvial deposits derived from the surrounding bedrock and glacial deposits including outwash and till (Stewart, D.E. et al, 2016). The action of downcutting the tributary streams transports sediment from the flanks of the massive, more resistant bedrock on either side of a stream channel and deposits the sediment load in the receiving channel. This erosion and deposition action also acts upon remnants of glacial deposits surrounding the ancestral glacier valleys including both till (unsorted) and outwash (well sorted) sediments. These mixed unconsolidated sediments directly overly the transition zone described above and vary in thickness based on the natural variability of transporting tributary streams, the relative vulnerability of the surrounding bedrock, and damming effects of glacial moraines and landslides. From the viewpoint of the HCSM, the unconsolidated valley fill sediments act together with the bedrock transition zone to form the primary groundwater flow feature in a mountain hydrogeologic setting such as that at the Stibnite Mine.

Groundwater occurrence in this combination of igneous and metamorphic bedrock and overlying unconsolidated material is most abundant where either intergranular pore space or secondary fracturing of rock provides capacity for water to move. Understanding distribution and connections between the water bearing characteristics of the unconsolidated sediments and the underlying bedrock forms the basis for an HCSM. While it is difficult to explicitly evaluate this connection, it is important to note that the pumping tests performed at the site introduced pumping stress in the alluvial sediments and drawdown was clearly observed in the bedrock monitoring wells surrounding the pumping well. These data demonstrate the connection between the alluvium and bedrock and validate the HCSM. The HCSM is then critical in developing the discretization and parameterization of a numerical hydrologic model.

Figure 1-1 shows a map of cross section line A–A’–A’’. The A–A’–A’’ cross section in Figure 1-2 conceptualizes the hydrostratigraphy at the Stibnite Mine site and its relationship with well screen intervals and the SHSM layers. This concept is used to update the SHSM grid and layer design as compared to the previous version of the hydrologic model (BC 2018a), referred to in this report as the Existing Condition (EC) Original Model. The important differences are primarily in the representation of the bedrock in the SHSM. The EC Original Model included 3 layers and the bedrock layer (layer 2) was used to represent a higher degree of fracturing in stream valleys using higher hydraulic conductivities in those areas and thereby attempting to mimic the more transmissive bedrock zones. Because of the large thickness associated with this single bedrock layer in the EC Original Model this approach created unrealistically high transmissivities in the bedrock and resulted in the EC Original Model predicting an amount of groundwater present in the Stibnite Mine area that is not typically present in this hydrogeologic setting. The refinements to the grid and layer design in the SHSM include representing the bedrock transition zone as a thin layer distributed across the entire model domain. The thickness of Layer 3 is estimated to average 20 feet (ft) based on Rock Quality Designation (RQD) data from rock cores. This approach serves to focus the more transmissive bedrock zone to a more realistic depth and reduces the amount of groundwater present in the SHSM simulations as compared to the EC Original Model. The total depth of simulated bedrock in the SHSM is 1,000 ft, consistent with that simulated in the EC Original Model, however in the SHSM the bedrock is simulated using 3 layers. The transition zone is the shallowest bedrock layer with the highest hydraulic conductivity, and below the transition zone there are 2 deeper layers having successively lower hydraulic conductivity values. The sections below provide more detail regarding the SHSM discretization, and the assumptions made when selecting layer dimensions and parameters to represent the HCSM.

These cross sections also illustrate the groundwater flow interaction between the bedrock and alluvium and how vertical gradients change in different parts of the hydrogeologic setting. As is typically true in mountainous settings the recharge at the SGP site occurs on topographic highs and discharge to surface water is predominantly in the valleys.

Comparison of the head values observed at MWH-A13 and MWH-B13 on cross Section A'- A" (Figure 1-2) indicates the head in the shallow well (MWH-A13) is higher than the head in the deeper well (MWH-B13.) This head difference demonstrates a downward gradient indicative of recharge at this point well above the valley floor. Recharge in this area is moving vertically to the extent permitted by hydraulic conductivity of the bedrock which is dominated by the bedrock transition zone.

By contrast the same comparison of the heads at wells MWH-A14 and MWH-B14 shows a head difference in the upward direction. This location is closer to the valley floor along EFSFSR and illustrates the shift to a discharge condition in the basin. In this area the groundwater that was recharged farther up the valley is moving upward out the bedrock transition zone and into the alluvium and then eventually to surface water.

These vertical gradients are variable in both direction (upward vs downward) and magnitude depending upon local differences in hydrogeologic conditions such as horizontal and vertical hydraulic conductivity and position with respect to recharge and discharge features. Localized topographic variations can create local reversals of gradients and the resulting interplay of recharge and discharge can be spatially complex. These vertical head relationships illustrate the potential for vertical movement of groundwater and highlight that discharge from bedrock transition zone groundwater is expected to reach the alluvium and contribute to stream flow.

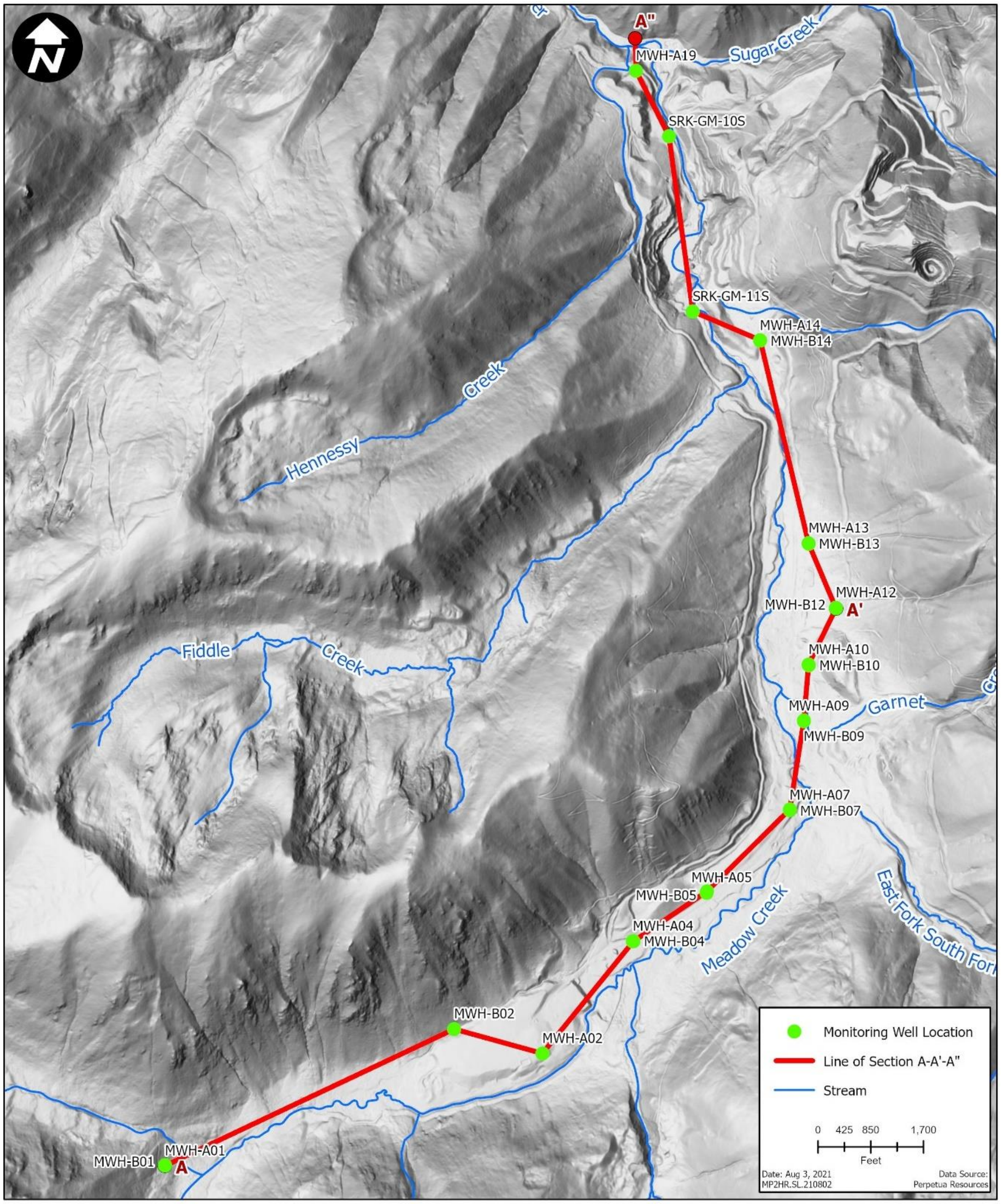


Figure 1-1. Map of Cross Section Line A–A'–A''.

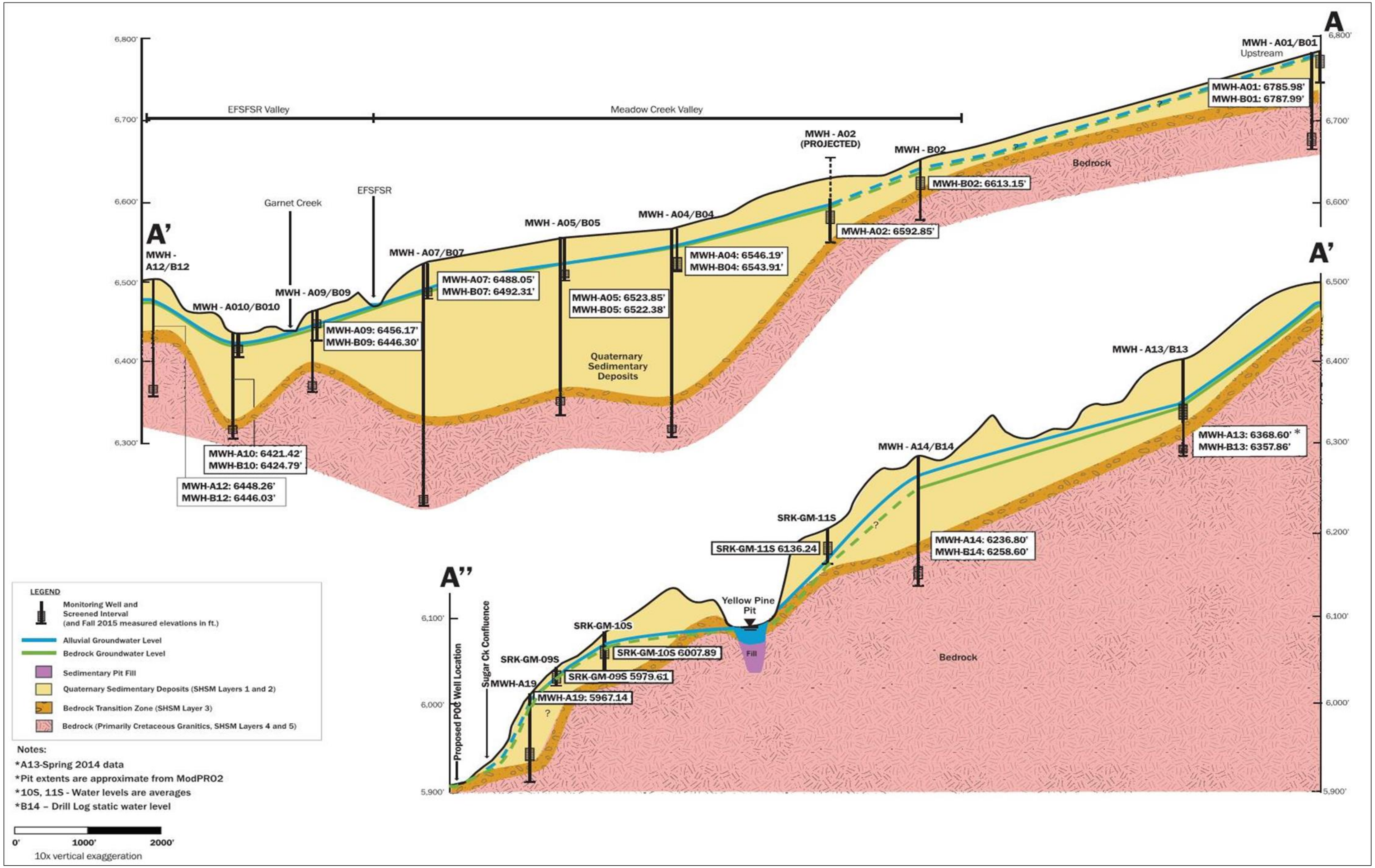


Figure 1-2. Cross Section of SGP Hydrostratigraphy, Well Screen Intervals, and SHSM Layers.

1.2 SHSM Purpose and Scope

The SHSM is an updated version EC Original Model, that was previously used to simulate effects to groundwater and surface water quantity for Alternatives 1 through 3 as described in the SGP Draft Environmental Impact Statement (DEIS) (USFS 2020). The SHSM updates are in response to agency comments received during review of the modeling reports for Alternatives 1 through 3 (BC 2018b, BC 2019a, BC 2019b). The SHSM is based on the refined HCSM, which incorporates increased hydrogeologic knowledge and conceptual understanding of the site gained from borehole data analysis, additional site visits, and the 2019 Stibnite Gold Project Aquifer Test (BC 2021). Agency comments and adequacy review are formalized in the Response to Comment tables associated with the final version of each hydrologic modeling report prepared in support of the alternatives analyses and the SGP Water Quality Management Plan (BC 2018c; BC2020a; BC 2020b; BC 2020c). Agency reviewers identified improvements that could be made to the EC Original Model, and it was suggested a model revision may be necessary based on the aquifer test (BC 2020a).

SHSM procedures are consistent with the previous work plan (John Shomaker & Associates 2017). The refinements contained within the SHSM are data-driven and result in an overall improved representation of site conditions. Therefore, while the model simulations produce values that vary to some degree from the EC Original Model, validity of these results is supported by the available data.

Agency comments addressed in the updated SHSM are the conversion to an unstructured grid to allow for the inclusion of the MCFZ and incorporation of the 2019 aquifer test (BC 2021) into the calibration process. Modeling of the 2013 aquifer test (BC 2017; BC 2018a) has improved from the previous EC Original Model with additional alluvial model layers and explicit calibration to the measured (2013) aquifer drawdown. Additional analysis of existing borehole data indicates a fractured and oxidized zone in the uppermost shallow bedrock. As described in Section 1.1, this has been incorporated into the SHSM as a 20 ft. thick layer under the alluvium that spans the whole model domain.

The SHSM described herein is comprised of a long-term MWB tracking precipitation, snow accumulation and melt, and the revised numerical groundwater flow model. In the SHSM, the MWB is spatially distributed to four sub-basins within the model domain to better represent elevation and climatic variations at the site. Moreover, the MWB for each sub-basin is calibrated to a United States Geological Survey (USGS) gage within the sub-basin resulting in a data-driven distribution of precipitation within the study area. The groundwater flow model has been converted from MODFLOW NWT (Niswonger et al., 2011) to MODFLOW 6 (Langevin et al., 2020), the latest MODFLOW release from the USGS. MODFLOW 6 represents a new framework that synthesizes many of the previous MODFLOW variants and supports unstructured numerical grids and local grid refinement. An unstructured numerical grid is defined as a grid with cells that are not necessarily rectangular and connectivity that is not restricted to rows, columns, or layers. Unstructured grids provide flexibility in conforming grids to model domains with irregular geometry and complex geology. This conversion was required to incorporate the MCFZ, an important geologic feature, that requires a relatively fine grid to accurately represent its thin, irregular shape. In the SHSM, the MCFZ is modeled as an aquitard that is a barrier to horizontal flow in the bedrock layers. This conceptualization is based on observations of surface water expressions east of the MCFZ gouge outcrops, on the upgradient side of the fault zone and artesian conditions encountered during exploration drilling in the area between the proposed Yellow Pine Pit and the West End area, commonly referred to as artesian alley.

The SHSM is calibrated to groundwater elevation and surface water baseflow collected at the site, which represent EC. The model described herein is thus referred to as the EC SHSM.

General objectives for the EC SHSM include:

- Develop a MWB for four sub-basins at the site that tracks monthly precipitation, snow accumulation, sublimation/evaporation, and melt to estimate runoff and recharge inputs to the surface water and groundwater flow model.
- Develop a numerical model of surface water and groundwater flow in the study area.
- Calibrate the EC SHSM (i.e., both the MWB and numerical groundwater model) to sufficiently represent measured surface water flow rates, groundwater elevation, and aquifer test results.

The calibration of the MWB and groundwater flow model components of the EC SHSM are discussed in this report. A comparison of the calibrated EC SHSM to the EC Original Model is also presented in this report. The calibrated EC SHSM described here will subsequently be used to estimate the potential impacts of the Project on the hydrology in the Study Area.

Section 2

Meteoric Water Balance Update

The Study Area is a mountain watershed, with hydrologic conditions dominated by the seasonal patterns of snow accumulation and melt. Snow accumulates throughout the winter and melts in spring and early summer. A part of the melt water is consumed by vegetation in the watershed, while the larger part becomes flow in the EFSFSR. Regional climate, soil moisture, and evapotranspiration (ET) are modeled in the spreadsheet based MWB that is input into the numerical groundwater flow model. Updates to the MWB include dividing the Study Area into sub-basins, distinguishing bedrock dominated area (BDA) and unconsolidated deposit area (UDA) within the sub-basins, temperature and precipitation bias correction, adding a vadose zone storage component, and adding near-surface evaporation. Further details regarding the hydrologic and hydrogeologic systems are presented in the Water Resources Summary Report (WRSR; BC 2017) and the original MWB is described in the Hydrologic Model Existing Conditions Report (BC 2018a).

The principal raw climate data used to develop the MWB are precipitation and temperature from the Parameter-Elevation Regressions on Independent Slopes Model (PRISM; www.prism.oregonestate.edu). The PRISM method interpolates a database of climate records onto a spatial grid covering the United States (Daly et al. 2008). The WRSR (BC 2017) includes an analysis of long-term regional climate parameters by PRISM.

The MWB uses PRISM temperature and precipitation data to compute surface water runoff (i.e., stream inflows) and groundwater recharge. The runoff and recharge are subsequently used as input to the groundwater model. The MWB tracks precipitation as rain and/or snow, subject to sublimation, snowmelt, and ET.

The distribution of meteoric water that becomes surface water and groundwater is highly variable in the Study Area because (1) precipitation increases with elevation, (2) the spatial distribution of snowfall is highly uneven, and (3) processes of sublimation and redistribution of snow by wind occur within the watershed. In order to better represent climate variations within the Study Area in the SHSM, separate MWBs were developed for four sub-basins: Meadow Creek, Upper EFSFSR, Lower EFSFSR, and Sugar Creek (Figure 2-1).

Each sub-basin was further divided into UDA and BDA based on the geologic map shown in Figure 2-2. The UDA includes regions mapped as alluvium, alluvial fans, glacial deposits and made ground (mine dumps, tailings, and disturbance areas). The BDA includes regions mapped as bedrock (primarily Idaho batholith and metasediments), and generally consisting of bare rock, talus, and thin soils overlying rock. The BDA is assumed to have a greater percentage of surface runoff and less recharge since they include generally lower permeability surface material (thin overburden and exposed bedrock) and steeper surface slopes. The UDA is assumed to have greater recharge and less surface runoff given that it is composed of more permeable surface materials (alluvial and glacial sediments, along with manmade fill material) and it is generally flatter. The UDA and BDA comprise 16 percent and 84 percent, respectively, of the total Study Area.

Routing of fallen precipitation at the ground surface and in the upper subsurface is influenced by soil moisture storage processes. The soil moisture storage processes included in the MWB are near-surface ET, rejected infiltration to overland surface water runoff, infiltration to the vadose zone, ET from the plant root zone, and deep percolation from the vadose zone to the underlying saturated groundwater (i.e., groundwater recharge). The inclusion of these soil moisture processes in the MWB is intended to provide a more robust accounting of water in the system and the timing of the release of surface water runoff to streams and deep percolation to groundwater recharge. Surface water runoff and deep percolation are inputs to the groundwater model. ET from the plant root zone is limited according to the soil wilting point and the potential ET (PET). Groundwater recharge is limited by the soil field capacity and maximum deep percolation rate. The vadose zone is assumed to have a given thickness and porosity, which are then used to calculate a total soil moisture storage capacity. The development of parameters for the soil moisture storage processes is described below.

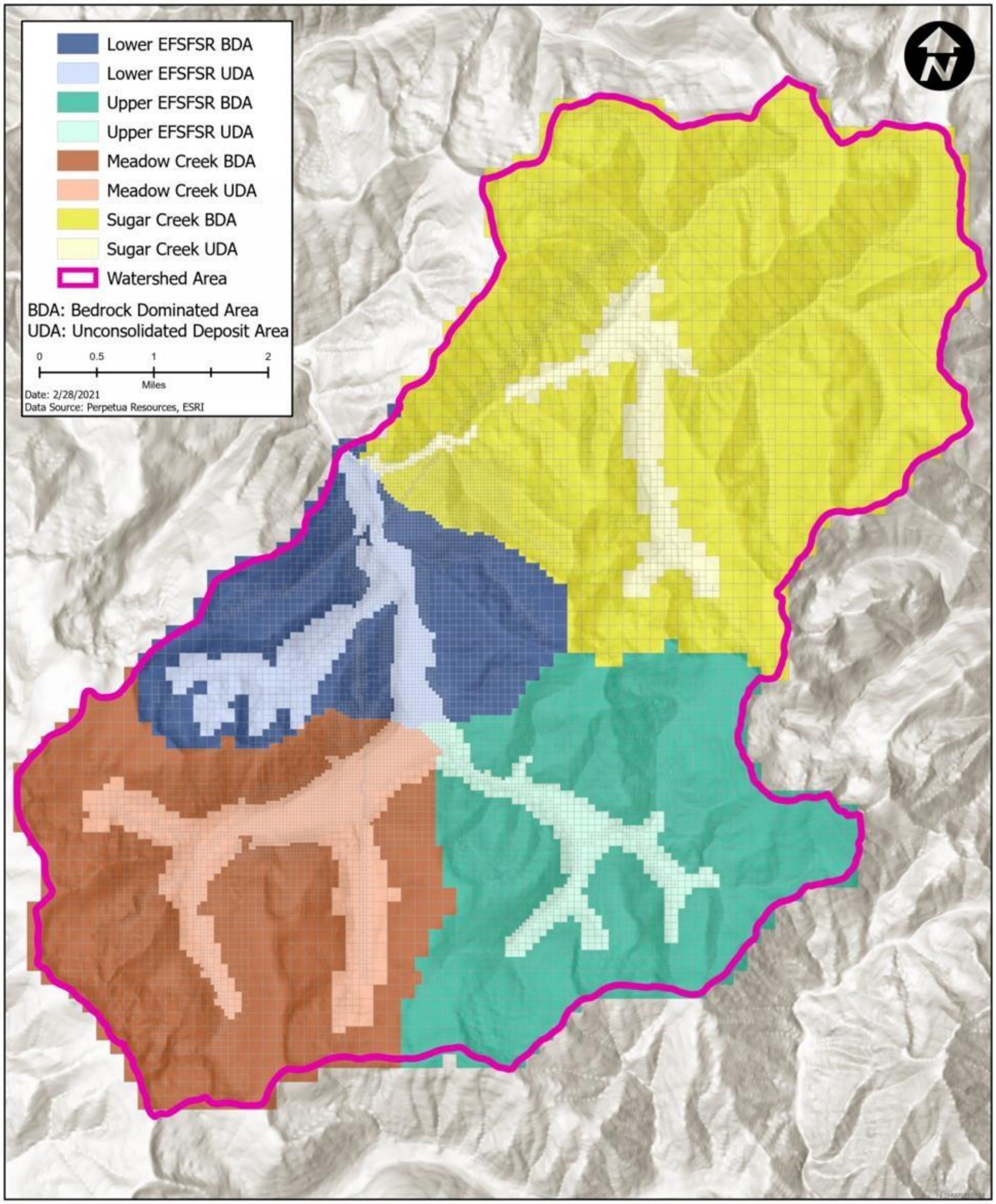


Figure 2-1. Meteoric Water Balance Sub-Basin Model Zones

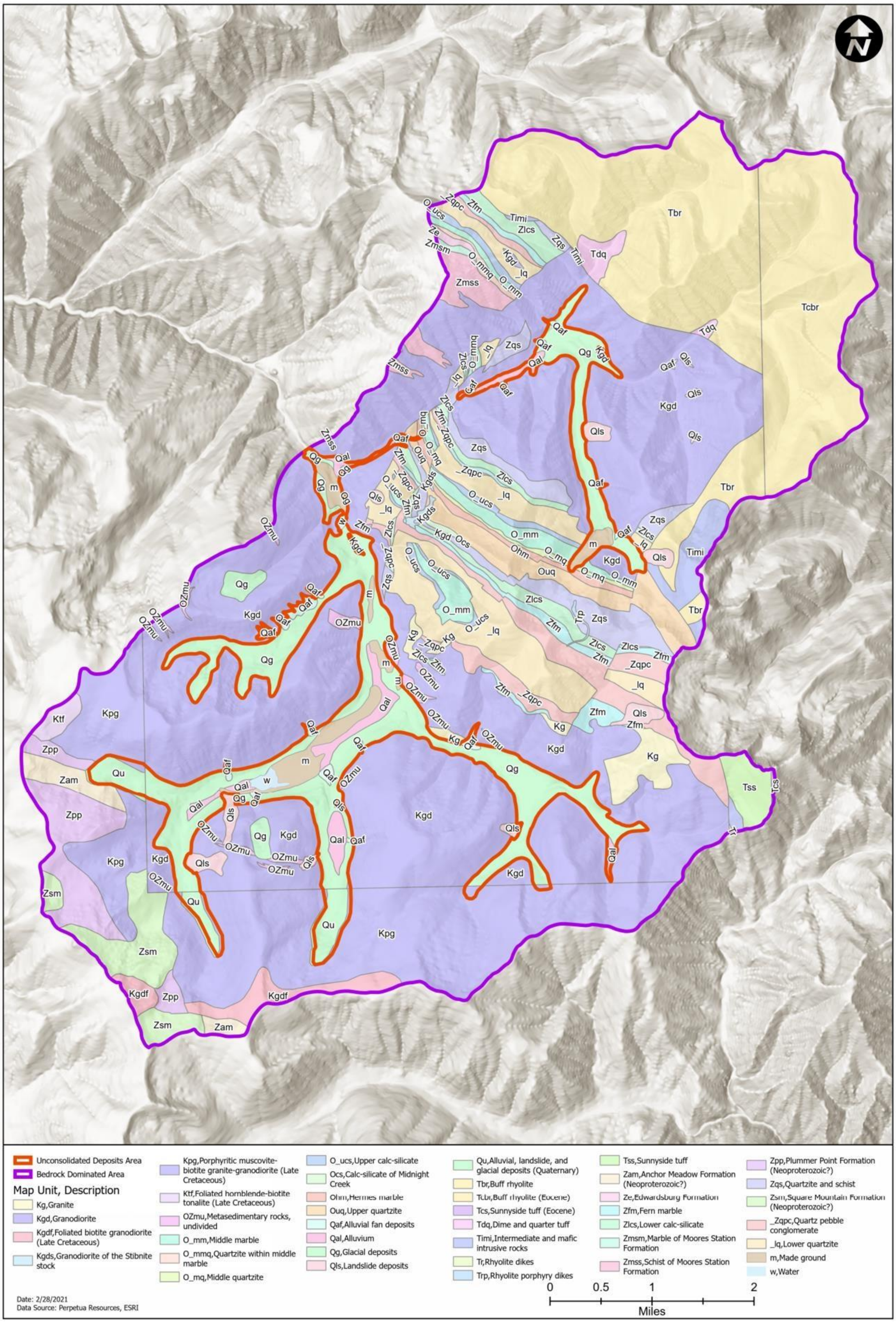


Figure 2-2. Geologic UDA and BDA Map

The basic MWB is described by the following equation:

$$M_k = P_k + (S_{k-1} - S_k) - E_k \qquad (3\text{-}1)$$

where:

P_k = precipitation for month k,

S_k = snowpack; $(S_{k-1} - S_k)$ is snowmelt for month k,

E_k = sublimation + ET,

M_k = snowmelt + rainfall = total available water.

The sequence of developing an MWB is as follows:

- Monthly temperature and precipitation derived from the PRISM datasets are entered for the period 1896 through 2019.
- Precipitation falling in November through March is assumed to be snow. Precipitation falling in May through September is assumed to be rainfall. Precipitation falling in April is proportioned as 50% snow and 50% rain, whereas precipitation falling in October is proportioned as 30% snow and 70% rain.
- Snowpack is accrued monthly and is subject to sublimation and melt.
  - Sublimation is subtracted from the snowpack. The maximum sublimation rate was initially assumed to be 0.04 inches per day (Jones 2006) and calibrated to 0.0315 in/d in the previous model. The monthly sublimation in the SHSM model is 0.0315 in/d, the same as the previous model.
  - The fraction of snowpack that melts is estimated as a function of monthly average temperature from the PRISM dataset. The melt fraction is estimated as a function of temperature using the following equation (John Shomaker and Associates, Inc. 2017):

$$\min(1, \max(0, [t-t_f] / [t_m-t_f])) \qquad (3.2)$$

where

t = monthly average temperature,

t_m = “melting temperature,” the threshold temperature for complete melting,

t_f = “freezing temperature,” the threshold temperature for melt to stop.

When $t > t_m$, all available snow melts. When $t < t_f$, no snowmelt occurs. When t is between t_m and t_f, a fraction of the snowmelts in proportion to t. The melting, 12 degrees Celsius (°C), and freezing, -2.5° C, temperatures are adjusted to match the observed timing of annual high flows.

- Any rain falling in the month is added to snowmelt to calculate total available water. The total available water is then subject to a series of soil moisture-related processes in the following order:
  - <u>Near-surface Evaporation</u>: Evaporation from the near-surface soil prior to infiltration to the root zone, subject to the PET as described below.
  - <u>Surface Water Runoff</u>: Rejected infiltration calculated as the excess remaining available water greater than the amount of available (i.e., unfilled) vadose zone storage. These values are applied as surface runoff inputs to the groundwater flow model.

- <u>Vadose Zone Infiltration</u>: The remaining water that infiltrates to the vadose zone after near-surface ET and surface runoff.
- <u>Vadose Zone ET</u>: ET occurs from the vadose zone when the soil water content is above the wilting point, with a maximum rate limited by the PET as described below.
- <u>Deep Percolation</u>: Percolation of the remaining water from the vadose zone to underlying groundwater limited by the soil field capacity and maximum deep percolation rate. These values are applied as recharge inputs to the groundwater flow model.

ET from the near-surface and the vadose zone are estimated as a linear function of total available water (snowmelt plus rainfall) and on PET as a function of elevation. The computation of ET is as follows:

$$ET = \min(Q, \min(1, a*Q + b)*PET)$$

where

Q = snowmelt + rainfall,

a and b = empirical coefficients,

PET = potential ET.

The empirical coefficients a and b are based on the total available water for ET and the surplus water ET factor, respectively. PET is computed based on the Thornthwaite Equation (Thornthwaite, 1948):

$$PET = 16 * \left(\frac{L}{12}\right) * \left(\frac{N}{3}\right) * (10 * \frac{T_a}{I})^{\alpha}$$

where

PET = estimated potential ET (millimeters/month),

T_a = average daily temperature (degrees Celsius) of the month being calculated, with temperature varying according to the elevation of the UDA or BDA portion of each sub-basin,

N = number of days in the month being calculated,

L = average day length (hours) of the month being calculated,

$\alpha = (6.75x10^{-7})*I^3 - (7.71x10^{-5})*I^2 + (1.792x10^{-2})*I + 0.49239$,

$I = \sum_{i=1}^{12}(\frac{T_{ai}}{5})^{1.514}$ = heat index that depends on the 12 monthly mean temperatures T_{ai}.

Two PRISM datasets are used in the four sub-basin MWBs – one that includes the upper portion of Meadow Creek and is applied in the Meadow Creek, Upper EFSFSR and Lower EFSFSR sub-basins, and one that covers the lower portion of Sugar Creek and is applied in the Sugar Creek sub-basin. PRISM data is composed of the total monthly precipitation and the minimum, mean, and maximum monthly temperatures. The summary statistics for each PRISM dataset are provided in **Error! Reference source not found.** Overall, the two datasets are similar with Sugar Creek slightly drier and slightly warmer on average with a wider temperature range. The PRISM precipitation and temperature datasets are bias corrected in each sub-basin MWB to reflect differences in location and the mean elevation as described below.

The MWB is coupled to the numerical groundwater flow model. A subset of parameters -- BDA precipitation, BDA deep percolation rate, BDA porosity, and UDA precipitation, are determined in the calibration process so that the recharge and runoff values input into the numerical groundwater model produce streamflow and groundwater head elevation consistent with field observation. Further details regarding the coupling and calibration procedure are discussed in Section 4.

Table 2-1. PRISM Summary Statistics

Statistic	Location:	Latitude	Longitude	Elevation (ft)
		44.8804	-115.3764	7762
	Precipitation (in)	Minimum Temperature (C°)	Mean Temperature (C°)	Maximum Temperature (C°)
Meadow Creek PRISM				
Minimum Monthly	0.0	-23.4	-16.7	-9.9
Maximum Monthly	13.4	9.1	18.2	27.4
Median Monthly	2.4	-5.3	1.3	7.5
Water Year Mean (1896-2019)	33.0	-5.0	1.8	8.5
Water Year Mean (2012-2019)	33.0	-3.5	2.8	9.1
Statistic	Location:	Latitude	Longitude	Elevation (ft)
		44.9559	-115.2779	7221
	Precipitation (in)	Minimum Temperature (C°)	Mean Temperature (C°)	Maximum Temperature (C°)
Sugar Creek PRISM				
Minimum Monthly	0.0	-24.2	-16.2	-9.0
Maximum Monthly	14.5	8.5	18.6	28.6
Median Monthly	2.3	-5.4	1.8	8.6
Water Year Mean (1896-2019)	32.8	-5.2	2.2	9.6
Water Year Mean (2012-2019)	32.8	-4.3	3.0	10.3

Abbreviations:

C° = degree Celsius

ft = foot/feet

in = inches

PRISM = Parameter-Elevation Regressions on Independent Slopes Model

Table 2-2 provides a summary of soil moisture storage property values used for each sub-basin MWB. Soil profile thickness is assumed to be 3 ft in depth from the land surface for both BDA and

UDA in each sub-basin. Total porosity is a calibration parameter for the BDA in each sub-basin, whereas total porosity for the UDA is assumed to be the same value in each sub-basin. Total soil moisture capacities are calculated as the product of the soil thickness and the total porosity. Thus, the porosity is used to spatially vary the BDA soil moisture capacity between the sub-basins; varying thickness at a constant porosity, or varying both, would provide an equivalent calibration. Both are interpreted as “effective” values, averaging the effects of the range of soil thickness and gradation within a sub-basin. Field capacity is assumed to be 0.5 times the total soil moisture capacity and the wilting point is assumed to be 0.25 times the total soil moisture capacity (Sumner, 1999). The maximum deep percolation rates are calibration parameters for the UDA and BDA in each sub-basin.

Table 2-3 provides a summary of climate bias corrections applied to each sub-basin MWB. Temperature is bias corrected based on the adiabatic temperature change (lapse rate) of 5 degrees Fahrenheit (2.778°C) per 1000 ft of elevation change between the average elevation of the PRISM data and the average elevation of each sub basin (https://glossary.ametsoc.org/wiki/Moist-adiabatic_lapse_rate). The resulting temperature is added to or subtracted from the PRISM temperature and applied to the sub-basin. The precipitation bias correction factors are multiplicative and are determined in the calibration procedure described in detail in Section 4. The calibrated precipitation bias correction factors applied in each sub-basin result in an overall area-averaged precipitation bias correction factor of 1.19.

Table 2-2. Soil Moisture Storage Processes Input Values

MWB Sub-Basin	BDA Soil Storage						UDA Soil Storage					
	Soil Thickness (ft)	Porosity	Total Soil Moisture Capacity (in)	Field Capacity (in)	Wilting Point (in)	Maximum Deep Percolation Rate (in/d)	Soil Thickness (ft)	Porosity	Total Soil Moisture Capacity (in)	Field Capacity (in)	Wilting Point (in)	Maximum Deep Percolation Rate (in/d)
Lower EFSFSR	3.0	0.21	7.6	3.8	1.9	0.05	3.0	0.30	10.8	5.4	2.7	0.77
Meadow Creek	3.0	0.18	6.4	3.2	1.6	0.11	3.0	0.30	10.8	5.4	2.7	0.77
Upper EFSFSR	3.0	0.21	7.5	3.7	1.9	0.11	3.0	0.30	10.8	5.4	2.7	0.99
Sugar Creek	3.0	0.23	8.3	4.1	2.1	0.11	3.0	0.30	10.8	5.4	2.7	0.31

Abbreviations:

BDA = Bedrock Deposit Areas

EFSFSR = East Fork of the South Fork of the Salmon River

MWB = meteoric water balance

ft = foot or feet

ft/d – foot or feet per day

UDA = Unconsolidated Deposit Areas

Table 2-3. Climate Scaling Input Values

MWB Sub-Basin	PRISM Reference Elevation (ft amsl)	BDA			UDA		
		Precipitation Bias Correction Factor (dimensionless)	Representative Elevation (ft amsl)	Temperature Bias Correction (°C)	Precipitation Bias Correction Factor (dimensionless)	Representative Elevation (ft amsl)	Temperature Bias Correction (°C)
Lower EFSFSR	7,762	1.16	7,500	0.73	1.00	6,906	2.38
Meadow Creek	7,662	1.39	7,869	-0.30	0.97	6,986	2.16
Upper EFSFSR	7,662	1.28	7,942	-0.50	0.95	7,096	1.85
Sugar Creek	7,221	1.15	7,661	-1.22	0.91	6,777	1.23

Abbreviations:

°C = degree Celsius

BDA = Bedrock Dominated Areas

EFSFSR = East Fork of the South Fork of the Salmon River

ft amsl = feet above mean sea level

MWB = meteoric water balance

PRISM = Parameter-Elevation Regressions on Independent Slopes Model

UDA = Unconsolidated Deposit Areas

The monthly MWB estimates of recharge and runoff are reported in Table A-1 through A-4 in Attachment A. The annual total recharge and runoff MWB estimates are reported in Table A-5 of Attachment A. Over the 124-year period of record, the MWB estimates the total recharge and runoff for the whole model domain (i.e., both the EFSFSR and Sugar Creek basins) ranging from 3.7 inches to 37.7 inches, with an average of 18.3 inches and a median of 17.9 inches. The average annual UDA recharge and runoff for the whole model domain are 8.1 inches and 3.4 inches, respectively. The average annual BDA recharge and runoff for the whole model domain are 6.2 inches and 13.5 inches, respectively.

Section 3

Numerical Model Setup

The numerical groundwater model was developed in MODFLOW 6 (Hughes et al. 2017). MODFLOW 6 represents a new framework that synthesizes many of the previous MODFLOW variants. MODFLOW 6 was chosen for the updated model since it supports unstructured numerical grids and local grid refinement. The use of an unstructured grid in this model has allowed for the representation of the MCFZ with model cells that reflect the approximate horizontal thickness of this geologic feature.

MODFLOW 6 includes a Newton-Raphson solution formulation for simulation of unconfined groundwater flow, intended for solving problems involving drying and rewetting of model cells. A component of the groundwater system at the SGP includes seasonal flows in overburden occurring in upland areas during spring snowmelt, with a pattern of wetting during the spring followed by drying in the fall and winter. While these flows are only one component of the groundwater system, use of MODFLOW 6 and the Newton-Raphson solution formulation facilitates simulation of this seasonality in the system.

3.1 Simulation Period

The groundwater flow model is set up to simulate monthly stress periods. Monthly stress periods are considered adequate to capture changes in groundwater flow conditions and stream baseflow in response to seasonal fluctuations and trends in recharge and surface runoff. The EC SHSM simulation period simulates conditions between 1985 and 2019. A seasonal pseudo steady-state solution was developed by running the long-term transient simulation iteratively. Final conditions (ending groundwater elevation) from one simulation were used as the starting water elevation for the next, until the net cumulative flow from storage was near zero. Measured groundwater elevation and streamflow spanning from 2011 to 2019 were used to calibrate the EC SHSM.

3.2 Model Discretization

The SHSM model grid and discretization follows the HCSM described in Section 1.1. The unstructured model grid is comprised of 5 vertical layers containing 11,547 model grid cells per layer. All model cells in all layers are designated as convertible, meaning they are simulated as unconfined or confined flow depending upon the groundwater elevation. If the groundwater elevation in a cell is above the cell top it is simulated as confined. If the water elevation is below the top of a cell at any time step during a simulation, then the cell is simulated as unconfined. The five model layers are conceptualized as follows:

- Layers 1 and 2 represent the alluvial aquifer and overburden. The top elevation of Layer 1 was estimated using high resolution LiDAR land surface elevation data for the proposed mining areas and surface elevations from a USGS National Elevation Dataset 1-arc-second (approximately 30 meters) digital elevation model (DEM) for all other areas. Within the mining area, the bottom elevation of the overburden (Layer 2) was computed by subtracting overburden thickness from the surface elevation. The thickness of the soil, colluvial, and alluvial overburden was estimated by Perpetua Resources based on geologic logging and surface geophysical data. Areas outside of the mapped overburden thickness area are considered to have limited near surface flow contributions since these locations are generally at higher elevations and outside of the primary alluvial flow zones. Therefore, the overburden thickness outside of the mapped thickness area was assumed to be 15 ft. Layers 1 and 2 are each half of the total estimated or assumed alluvial aquifer and overburden thickness. The alluvial aquifer and overburden were split into two layers to allow for additional heterogeneity when simulating the aquifer tests.

- Layer 3 represents a transitional layer from overburden to weathered and fractured bedrock. The thickness of Layer 3 is assumed to be 20 ft based on RQD data from rock cores. Groundwater flow and storage likely occurs primarily in the upper part of the bedrock, as fracturing, and thus groundwater flow decreases with depth.
- Layer 4 represents a competent, shallow bedrock layer that is 120 ft thick that allows hydraulic conductivity to decrease with depth in the model. Layer 4 has a relatively low hydraulic conductivity and specific yield.
- Layer 5 represents a deep bedrock layer that is 860 ft thick. Groundwater flow in Layer 5 is limited by low hydraulic conductivities. The total thickness simulated by Layers 4 and 5 is 980 ft. This is designed to allow for simulation of groundwater flow into the Hangar Flats pit from both permeable and nearly impermeable bedrock zones.

A quad-tree grid structure is used to refine the grid horizontally around streams, fault zones and mine features. In a quad-tree grid each model cell within a specified region is refined by splitting the initial model cells into four equal quadrants. A portion of the numerical model grid is shown in Figure 3-1. The largest model cell size in the SHSM has a horizontal grid spacing of 640 ft. These model cells are primarily located in the Sugar Creek drainage and at higher elevations in the remaining drainages. Secondary and primary streams are refined to a horizontal spacing of 320 ft and 160 ft, respectively. The MCFZ is refined to a horizontal spacing of 80 ft to represent its approximate width in the model.

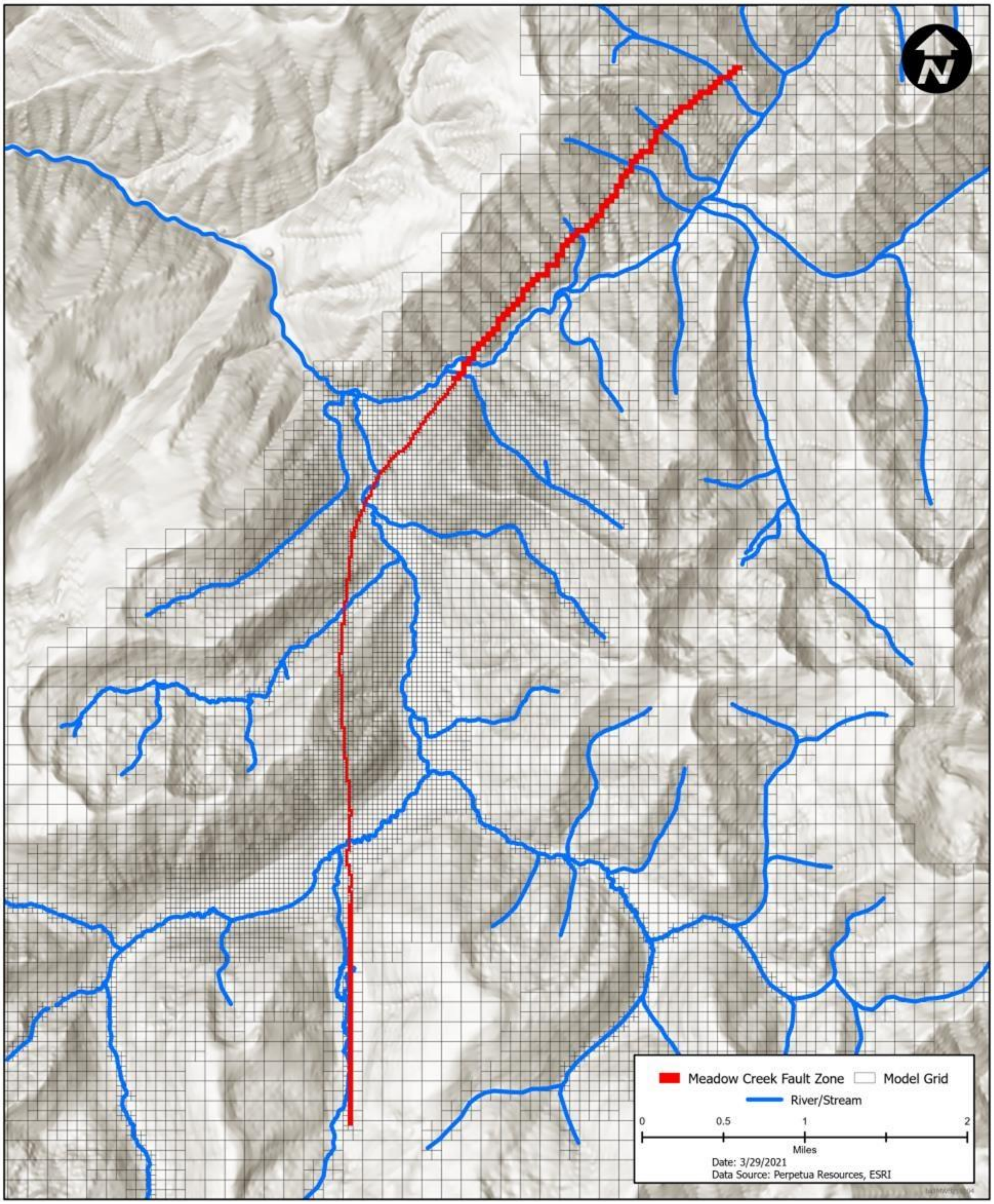


Figure 3-1. Quad-Tree Model Grid Highlighting the MCFZ

3.3 Model Boundary Conditions

For the EC SHSM described here, water enters the model domain primarily through surface recharge, with minor flows from stream losses. Water discharges from the model domain as flow to surface streams. Anthropogenic boundary conditions including pumping from wells and open-pit dewatering will be included in subsequent models to simulate proposed mining activities.

Water consumed by ET is accounted for in the MWB (See Section 2) and is not directly simulated in the numerical groundwater model.

3.3.1 Recharge

Monthly recharge rates from the MWB are added to the model using the MODFLOW 6 Recharge Package. Separate monthly recharge values were added to the hillslope and valley areas for four different sub-basins for a total of 8 spatially distributed recharge zones (See Figure 2-1). Calibration of the recharge estimates to measured groundwater elevations and stream baseflow is described in Section 4.

3.3.2 Stream Flow

Flows in surface streams and creeks were simulated using the MODFLOW 6 Surface Flow Routing (SFR) package. All stream reaches are assigned to layer 1 in the model and all model cells containing streams are assigned a stream reach within the stream network. Each reach is assigned the length of the stream that intersects that model cell. Each reach is also assigned its upstream and downstream reach connections. Simulated stream reaches and their corresponding connections were developed using SFRmaker - a Python programming package for automating the construction of stream flow routing networks from hydrography data (https://github.com/aleaf/SFRmaker).

Stream reach parameters include stream bed elevation, stream stage elevation (height of water above the stream bed), and stream bed conductance. Stream bed conductance is a lumped parameter that is a function of stream length and width, stream bed thickness, and streambed hydraulic conductivity. The streambed hydraulic conductivity is assumed to be 15 ft/d for all reaches to allow for gains and losses. Flow between stream reaches and the corresponding aquifer model cell is computed based on stream cell conductance and the hydraulic gradient between the stream stage and the aquifer head. When aquifer heads are higher than the stream stage, flow from the aquifer to the stream is predicted. When aquifer heads are lower than the stream stage, flow from the stream to the aquifer is predicted. Losses from the stream to the aquifer are further limited by the amount of simulated flow available in the stream.

Stream bed elevations for each reach are assigned in SFRmaker in two steps. In the first step, each model cell containing an SFR reach is intersected with the surface elevation DEM and the minimum within that subset of elevations is assigned as the stream bed elevation for that reach. In the second step, a smoothing algorithm is applied to the stream bed elevations to correct for any instances where a downstream reach connection does not decrease in elevation. Stream stage elevations are assumed to be 2 ft higher than the stream bed elevation (i.e., 2 ft depth of water is assumed for all streams) and are fixed for all reaches throughout the model simulations.

Surface runoff is added to the numerical groundwater model at each of the SFR reaches. The runoff rate computed in the MWB is first multiplied by the weighted average of the UDA and BDA of the watershed that contributes to the reach, then that volumetric runoff is scaled by the reach length divided by the total stream segment length within the watershed. For each reach, infiltration to groundwater or discharge from groundwater is computed in the SFR package, limiting infiltration to available stream flow. The computed infiltration or discharge is added to or subtracted from the simulated stream flow, and the resulting total flow, if any, is passed to the next cell downstream.

Accumulated surface flow is then output at the locations of the USGS gages where data are available for comparison during calibration.

3.4 Aquifer Hydraulic Parameters

Aquifer hydraulic parameters were updated in the EC SHSM to accommodate changes in layering, the updated MWB, and to incorporate the data collected during aquifer testing conducted in the Hangar Flats area in late 2019. This section provides the calibrated hydraulic parameters. The calibration process is described in Section 4.

3.4.1 2019 Stibnite Aquifer Test

The 2019 Stibnite Gold Project Aquifer Test (BC 2021) was designed to further characterize the hydrogeology of the Hangar Flats area. A new pumping well, MGI-19-HFPW, was installed approximately 300 feet southwest of the existing Gestrin well and four new observation wells were installed for monitoring water elevation (Figure 3-2). MGI-19-HFPW was constructed with a seal between the alluvial and bedrock aquifers to allow separate aquifer tests of each aquifer. The new alluvial water elevation observation wells, MGI-19-OW1A and MGI-19-OW2A, were paired with the new bedrock water elevation observation wells (MGI-19-OW1B and MGI-19-OW2B, respectively). The alluvial observation wells included well screens over the entire saturated thickness of the alluvial aquifer, like the alluvial section of MGI-19-HFPW. The bedrock observation wells were screened over the same depth intervals as the bedrock screened section of MGI-19-HFPW.

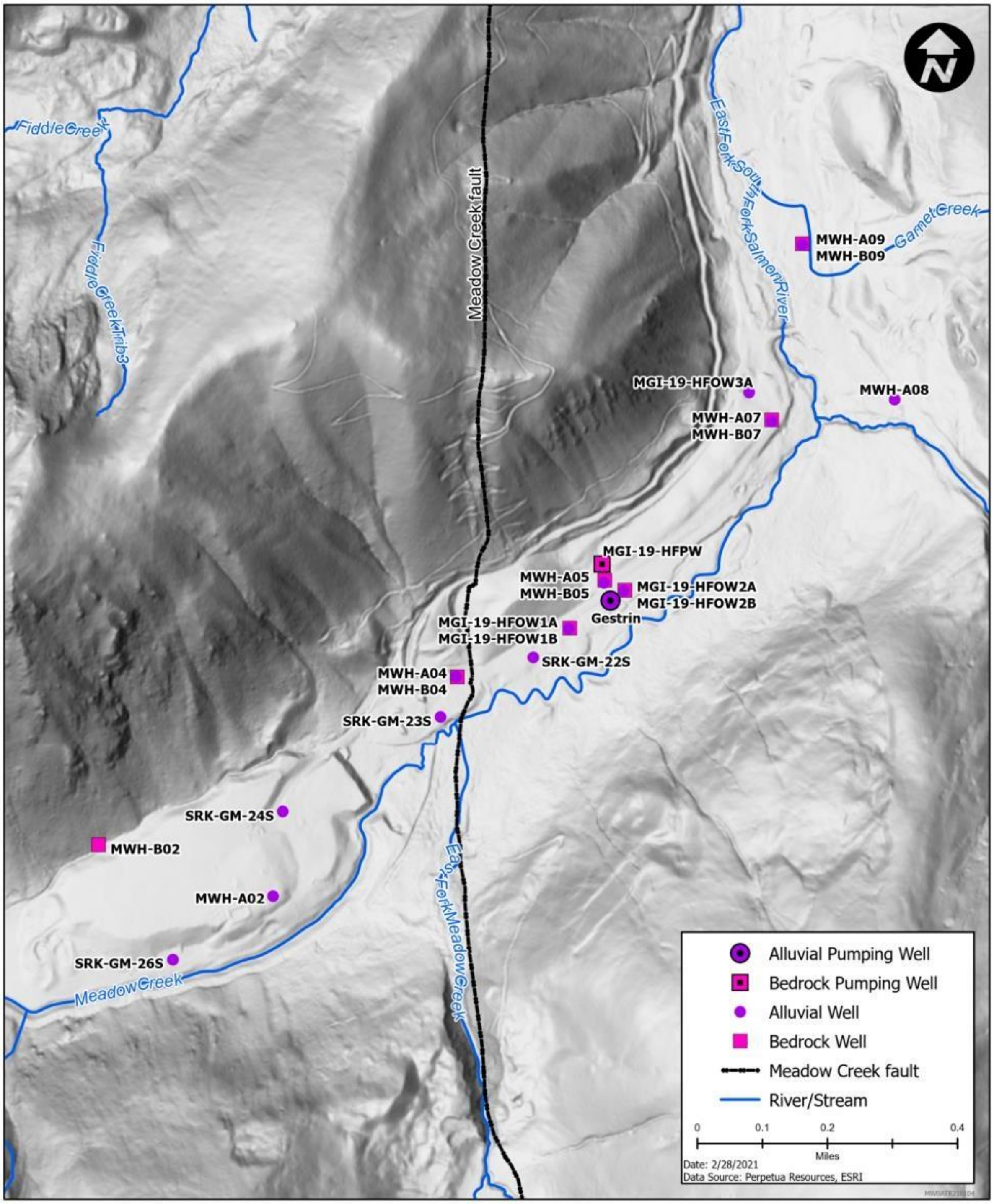


Figure 3-2. Fall 2019 Aquifer Test Pumping and Monitoring Wells

Flowmeter testing of MGI-19-HFPW prior to aquifer pumping testing revealed very low hydraulic conductivity of much of the alluvial aquifer and all the bedrock aquifer at this location. The achievable pumping rate in the bedrock aquifer ranged from 0.05 to 0.34 gallons per minute (gpm) and hydraulic conductivity measurements ranged from 0.1 to 0.005 feet per day. The planned bedrock aquifer test was cancelled based on these results. An aquifer test was conducted in the alluvium at MGI-19-HFPW at a low pumping rate of about 22 gpm, but this was only maintained for about 12 hours before drawdown became excessive, and the aquifer test was stopped.

Aquifer test efforts were then focused on a new test of the Gestrin well. A pumping rate of approximately 100 gpm was maintained for 31 days for the 2013 aquifer test, but for the 2019 aquifer test a pumping rate of only about 60 gpm was achievable and the test was halted after three days. Changed conditions in the Gestrin well since 2013 causing very low well efficiencies are suspected as the cause for the decreased water production rate.

Analysis of data from the 2019 Gestrin well aquifer test yielded estimates of hydraulic conductivity that are similar to results from the 2013 Gestrin well aquifer test, as shown in Table 3-1. Although the 2019 test was conducted at a lower rate and for a shorter duration, there was an increase in the number of wells used to observe drawdown behavior, and the information gained from testing of MGI-19-HFPW provided more information on the boundaries of a linear higher permeability zone parallel to Meadow Creek first identified through analysis of the 2013 Gestrin well aquifer test (BC 2017; BC 2018a), and informally referred to as the Gestrin feature.

It is important to interpret these bedrock hydraulic conductivity estimates resulting from pumping the alluvial aquifer in the context of the hydrogeologic environment at the SGP (Section 1.1). In a system where units with differing properties are separated by interfaces that allow unrestricted crossflow, the system's response to pumping are analogous to that of a single-layered aquifer whose transmissivity and storativity are equal to the sum of the transmissivity and storativity of the individual layers (Kruseman and de Ridder 2000). Because of the unrestricted connectivity with overlying transition zone and alluvial units, results of this analysis reflect characteristics of an equivalent aquifer system (Kruseman and de Ridder 2000). Therefore, the influence of higher hydraulic conductivity in the well-connected overlying units when combined with the lower hydraulic conductivities of the competent bedrock result in an observed equivalent hydraulic conductivity value. The estimated bedrock hydraulic conductivity values do not represent any single hydrostratigraphic unit and the reported values are considered an overestimation of bedrock hydraulic conductivity. Whereas pumping tests in units with unrestricted flow produce aggregated hydraulic conductivity estimates, slug testing and hydraulic packer testing are direct measures of hydraulic conductivity at the target depth and in the hydrogeologic unit immediately surrounding the test well.

Table 3-1. Aquifer Test Hydraulic Conductivity

Test	Alluvium (ft/d)	Bedrock (ft/d)
2013 Gestrin Well Aquifer Test[1]	10.2	4.5
2019 Gestrin Well Aquifer Test[2]	21.6	3.7

Notes:

[1]Aquifer test solutions estimated for MWH-A05 (alluvial) and MWH-B05 (bedrock).

[2]Averaged aquifer test solutions for five alluvial wells and four bedrock wells.

Abbreviations:

ft/d = feet per day

3.4.2 Bedrock Hydraulic Conductivity

The hydraulic conductivity of the bedrock has been evaluated through multiple investigations, and the findings of these investigations are consistent with each other and with the bedrock parameterization in the calibrated SHSM discussed in the next section. Investigations of the bedrock hydraulic conductivity include aquifer pumping tests conducted in 2013 (BC 2017) and 2019 (BC 2021) and borehole flowmeter testing (BC 2021) in the Hangar Flats area, and extensive hydraulic packer testing conducted in diamond-core drillholes (SRK Consulting, Inc. [SRK] 2013). The aquifer pumping and recovery tests were conducted by pumping in the overlying alluvial aquifer and measuring the response to the induced stresses in bedrock monitoring wells. A large diameter well (MGI-19-HFPW) designed to allow separate tests of the alluvial and bedrock aquifers was installed for the 2019 aquifer test in a location where permeability of the Wonacott fault could be evaluated along with monitoring wells specifically designed for the bedrock analysis. Prior to conducting pumping tests in MGI-19-HFPW, a high sensitivity corehole dynamic flowmeter (CDF) survey was conducted in the well to identify permeable bedrock intervals that provide groundwater flow to the well. The CDF survey showed that less than 1 gpm of groundwater was produced over the entire 260 feet of screened bedrock aquifer, and that interval-specific hydraulic conductivity ranged from 0.05 to 0.34 feet per day (ft/d).

The very low hydraulic conductivity and consequent water production rate (<1 gpm) suggested that stresses to the bedrock aquifer applied by a long-term pumping test would be too small to yield useful information, and the pumping test was cancelled. Due to the excessively low pumping rates necessary to yield effective results, it is generally accepted that pumping tests should not be used to characterize rock formations with low permeability (Neuzil 1986; Renard 2005; Mejia et al. 2009). Efforts in addition to the CDF survey to specifically test the bedrock aquifer were then focused on airlift recovery testing of the two monitoring wells installed specifically for the analysis of the bedrock aquifer. The airlift tests included airlifting the monitoring wells for measured period and then monitoring the water level recovery with pressure transducers. Analysis of the airlift recovery data yielded hydraulic conductivity estimates of 0.20 and 0.002 ft/d (BC 2021), both of which are consistent with data from the CDF survey analysis.

Hydraulic testing using packer regimes is effective in estimating hydraulic parameters in zones of either high or low conductivity (Bliss and Rushton 1984) and has been shown to be more effective in zones of low hydraulic conductivity than aquifer pumping tests (Palmer and El-Idrysy 2015; Butler, 2019). Hydraulic packer tests were conducted in diamond core drillholes in 2011 and 2012 to evaluate the hydraulic conductivity of fractured bedrock in the Yellow Pine, Hangar Flats, and West End pit areas as part of a geotechnical and hydrogeologic site investigation (SRK 2013). A total of 48 successful tests were conducted in 13 drillholes at depths ranging from approximately 50 to over 1,300 feet in depth. Extracted core from the drillholes was evaluated to target highly fractured zones for the packer testing (Zinsser, pers communication, 2021). Utilizing the geometric mean of discrete permeability measurements to characterize a regional scale heterogeneous system approaches a representative, effective permeability for the system (Warren and Price 1961; King 1987; Selvadurai and Selvadurai 2014). Analysis of the packer test data yielded hydraulic conductivity estimates ranging from approximately 0.6 ft/d to approximately 0.0003 ft/d for the Yellow Pine and Hangar Flats pit areas, with similar trends of decreasing hydraulic conductivity with depth for both pit areas.

Table 3-2 contains the 74 bedrock hydraulic conductivity values measured at the SGP site. The data includes: 1. slug and packer tests (HydroGeo Consultants 1996); 2. packer tests (SRK 2013); 3. slug and pumping test (MWH 2013); and 4. Flow meter, airlift recovery, and pumping tests (BC, 2019).

Table 3-2. Table of the 74 measured bedrock hydraulic conductivity values at the SGP site

Name	Location	Test	Company	Depth (ft bgs)	Hydraulic Conductivity (ft/d)
MGI-11-123	Hangar Flats pit	Packer	SRK 2013	265.4	1.7E-01
MGI-11-123	Hangar Flats pit	Packer	SRK 2013	363.1	5.7E-03
MGI-11-123	Hangar Flats pit	Packer	SRK 2013	435.8	2.8E-03
MGI-11-123	Hangar Flats pit	Packer	SRK 2013	521.2	5.7E-02
MGI-11-123	Hangar Flats pit	Packer	SRK 2013	598.4	2.0E-03
MGI-11-123	Hangar Flats pit	Packer	SRK 2013	748.3	2.8E-04
MGI-11-123	Hangar Flats pit	Packer	SRK 2013	811.8	2.8E-04
MGI-11-123	Hangar Flats pit	Packer	SRK 2013	1047.7	2.8E-04
MGI-11-123	Hangar Flats pit	Packer	SRK 2013	1235.7	2.8E-04
MGI-11-143	Hangar Flats pit	Packer	SRK 2013	125.6	2.8E-03
MGI-11-143	Hangar Flats pit	Packer	SRK 2013	331.8	2.3E-02
MGI-11-143	Hangar Flats pit	Packer	SRK 2013	832.2	8.5E-02
MGI-11-99	Hangar Flats pit	Packer	SRK 2013	787.2	2.0E-03
MGI-11-99	Hangar Flats pit	Packer	SRK 2013	1391.4	5.7E-03
MWH-B02	Hangar Flats pit	Slug	MWH 2013	53.0	8.0E-01
MWH-B04	Hangar Flats pit	Slug	MWH 2013	248.2	2.0E-01
MWH-B05	Hangar Flats pit	Slug	MWH 2013	213.0	3.0E-02
MWH-B09	Hangar Flats pit	Slug	MWH 2013	92.5	9.0E-01
MWH-B10	Hangar Flats pit	Slug	MWH 2013	83.0	4.0E-01
MWH-B05	Hangar Flats pit	Pumping	MWH 2013	213.0	4.5E+00
MGI-19-OW1B	Hangar Flats pit	Airlift	BC 2019	325.0	2.0E-01
MGI-19-OW2B	Hangar Flats pit	Airlift	BC 2019	327.5	2.0E-03
MGI-19--OW1B	Hangar Flats pit	Flow Meter	BC 2019	309.6	1.0E-02
MGI-19--OW1B	Hangar Flats pit	Flow Meter	BC 2019	335.1	1.3E-01
MGI-19--OW1B	Hangar Flats pit	Flow Meter	BC 2019	345.1	6.7E-02
MGI-19--OW1B	Hangar Flats pit	Flow Meter	BC 2019	370.3	5.0E-03
MGI-19-OW1B	Hangar Flats pit	Pumping	BC 2019	325.0	3.3E+00
MG-19-OW2B	Hangar Flats pit	Pumping	BC 2019	327.5	2.4E+00
MWH-B05	Hangar Flats pit	Pumping	BC 2019	213.0	2.7E+00
MWH-B04	Hangar Flats pit	Pumping	BC 2019	248.2	6.3E+00
MW96-3	West End pit	Slug	HydroGeo 1996	83.0	1.5E-01
MGI-11-120	West End pit	Packer	SRK 2013	135.7	2.8E-01
MGI-11-120	West End pit	Packer	SRK 2013	267.9	2.8E-02
MGI-11-120	West End pit	Packer	SRK 2013	356.5	1.7E-01
MGI-11-120	West End pit	Packer	SRK 2013	400.7	2.0E-02
MGI-11-120	West End pit	Packer	SRK 2013	482.6	2.3E-01
MGI-11-120	West End pit	Packer	SRK 2013	552.1	1.1E-01
MGI-11-120	West End pit	Packer	SRK 2013	580.9	5.7E-02
MGI-11-120	West End pit	Packer	SRK 2013	638.9	1.4E-01

Name	Location	Test	Company	Depth (ft bgs)	Hydraulic Conductivity (ft/d)
MGI-12-271	West End pit	Packer	SRK 2013	232.5	2.3E-02
MGI-12-271	West End pit	Packer	SRK 2013	322.5	2.6E-02
MW96-4	Yellow Pine pit	Slug	HydroGeo 1996	43.5	7.4E-01
MGI-11-110	Yellow Pine pit	Packer	SRK 2013	595.9	1.1E-03
MGI-11-110	Yellow Pine pit	Packer	SRK 2013	896.1	1.4E-03
MGI-11-131	Yellow Pine pit	Packer	SRK 2013	273.9	5.7E-02
MGI-11-131	Yellow Pine pit	Packer	SRK 2013	492.2	2.8E-04
MGI-11-131	Yellow Pine pit	Packer	SRK 2013	597.0	5.7E-04
MGI-11-131	Yellow Pine pit	Packer	SRK 2013	901.5	2.8E-04
MGI-12-250	Yellow Pine pit	Packer	SRK 2013	276.9	5.7E-01
MGI-12-250	Yellow Pine pit	Packer	SRK 2013	530.2	1.4E-01
MGI-12-250	Yellow Pine pit	Packer	SRK 2013	612.7	2.8E-03
MGI-12-250	Yellow Pine pit	Packer	SRK 2013	702.8	5.7E-02
MGI-12-250	Yellow Pine pit	Packer	SRK 2013	882.6	2.8E-02
MGI-12-250	Yellow Pine pit	Packer	SRK 2013	1060.0	2.8E-02
MGI-12-250	Yellow Pine pit	Packer	SRK 2013	1198.0	5.7E-02
MGI-12-250	Yellow Pine pit	Packer	SRK 2013	1262.4	2.8E-02
MGI-12-307	Yellow Pine pit	Packer	SRK 2013	439.2	1.4E-03
MGI-12-307	Yellow Pine pit	Packer	SRK 2013	528.6	5.7E-01
MGI-12-307	Yellow Pine pit	Packer	SRK 2013	604.6	1.1E-01
MGI-12-307	Yellow Pine pit	Packer	SRK 2013	750.3	2.3E-03
MGI-12-319	Yellow Pine pit	Packer	SRK 2013	420.8	5.7E-03
MGI-12-319	Yellow Pine pit	Packer	SRK 2013	537.9	2.8E-03
MGI-12-319	Yellow Pine pit	Packer	SRK 2013	693.4	2.0E-03
MW96-1	Midnight Basin	Slug	HydroGeo 1996	192.4	1.2E-01
MW96-5	Midnight Basin	Slug	HydroGeo 1996	75.1	2.1E-01
MW96-6	Midnight Basin	Slug	HydroGeo 1996	37.8	7.4E-01
MW96-8	Midnight Basin	Slug	HydroGeo 1996	111.2	5.1E-01
MW96-10	Midnight Basin	Slug	HydroGeo 1996	305.3	4.3E+00
MW96-7	Midnight Basin	Packer	HydroGeo 1996	115.0	2.2E+00
MW96-7	Midnight Basin	Packer	HydroGeo 1996	165.0	2.8E+00
MW96-7	Midnight Basin	Packer	HydroGeo 1996	205.0	2.3E+00
MW96-7	Midnight Basin	Packer	HydroGeo 1996	225.0	5.9E+00
MW96-10	Midnight Basin	Packer	HydroGeo 1996	283.5	1.1E+00
MW96-10	Midnight Basin	Packer	HydroGeo 1996	311.0	2.7E+00

Abbreviations:

BC = Brown and Caldwell

Ft/d = feet per day

HydroGeo = HydroGeo Consultants

MWH = MWH Americas, Inc.

SGP = Stibnite Gold Project

SRK = SRK Consulting, Inc.

Figure 3-3 shows the locations of the wells and boreholes in Table 3-2 where bedrock hydraulic conductivity has been measured at the SGP site. The dashed black lines indicate that the test borehole was drilled at an angle. It these wells, bedrock hydraulic conductivity was measured at multiple depths and locations. It is important to note that the West End and Midnight basin wells are drilled in the metasedimentary geologic unit.

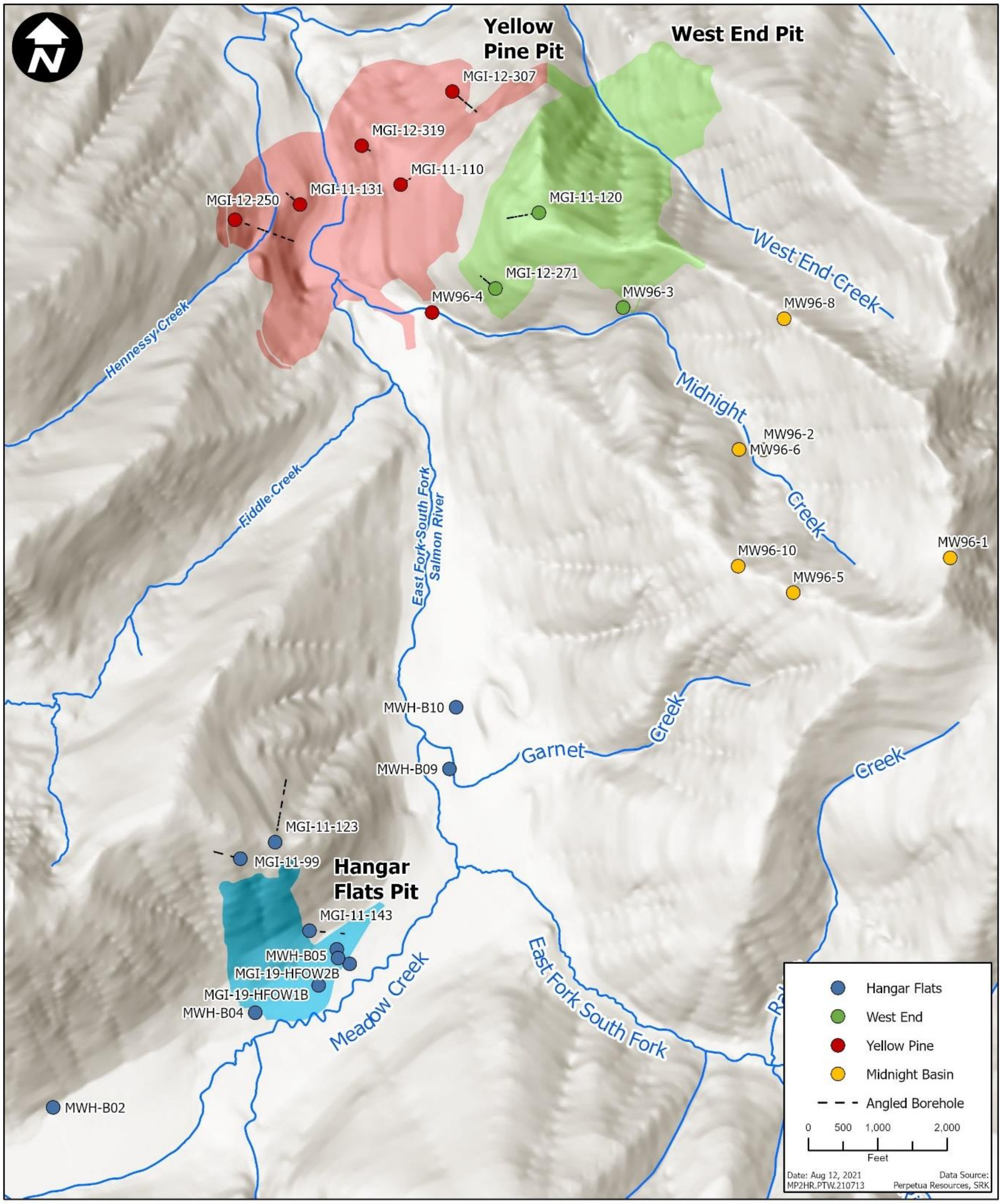


Figure 3-3. SGP Well and Borehole Locations of Hydraulic Conductivity Measurements

Figure 3-4 shows a plot of bedrock hydraulic conductivity versus depth for the data presented in Table 3-2. The geometric mean of the bedrock hydraulic conductivity, 0.05 ft/d, is represented by the pink vertical line. The three horizontal lines represent the total depth of each of the pits.

The data shown in Figure 3-4 demonstrate that:

- There are several bedrock hydraulic conductivity measurements at or below the depth of each pit.
- The deeper measurement locations have generally lower estimated hydraulic conductivity.
- The bedrock hydraulic conductivity measured in Hangar Flats and Yellow Pine wells span a similar range of values with a minimum of approximately 0.0003 ft/d.
- The bedrock hydraulic conductivity values measured in West End wells are greater than 0.01 ft/d and generally fall in the middle of the range of all measured values.
- The bedrock hydraulic conductivity values measured in the Midnight basin are greater than 0.1 ft/d and span the upper range of all measured values.
- The generally higher bedrock hydraulic conductivity measured in the metasedimentary unit (i.e, West End and Midnight basin wells in Figure 3-3 is consistent with the vertical bedding and fracturing observed in that area.
- The bedrock hydraulic conductivity values estimated from pumping tests performed in alluvium (i.e., Gestrin well and MGI-19-HFPW upper screen) are in the higher range of results which is consistent with influence from more transmissive zones such as alluvium facies and the bedrock transition zone.

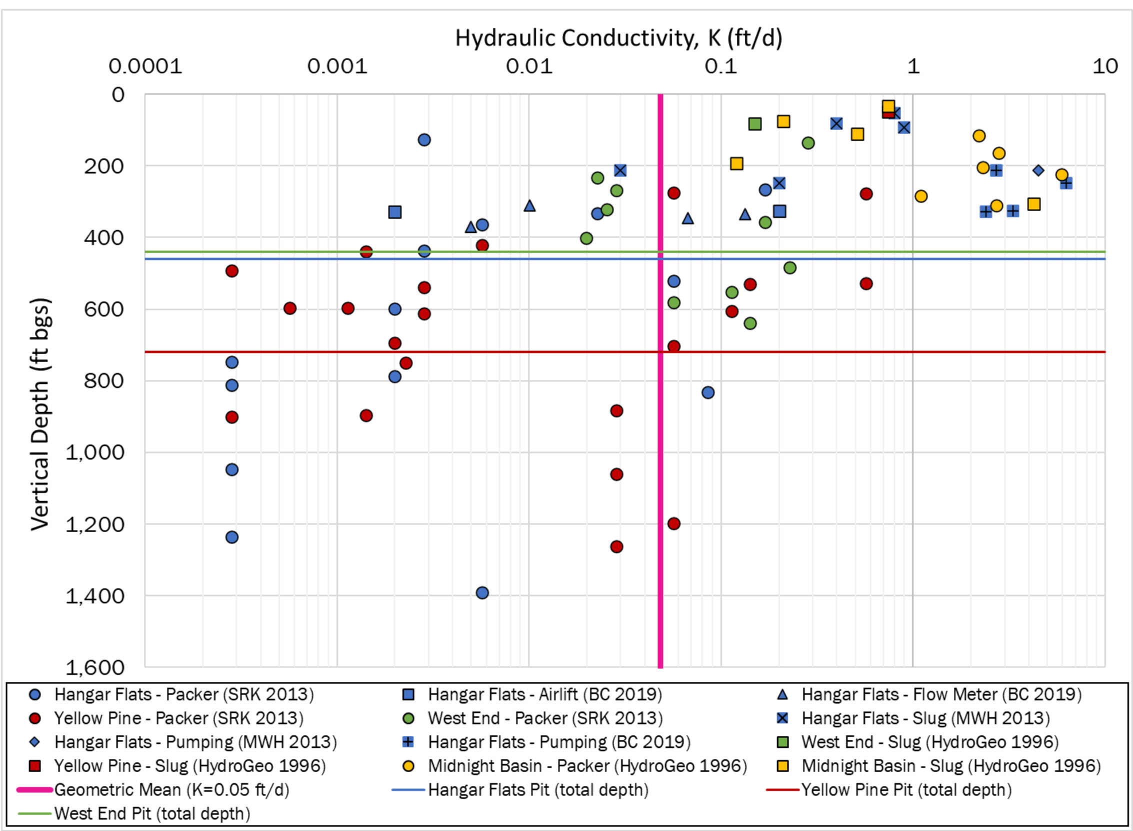


Figure 3-4. SGP Measured Bedrock Hydraulic Conductivity Values versus Depth

3.4.3 Model Parameterization

Hydraulic conductivity estimates for the SHSM represent general, regional-scale aquifer conditions and are largely modeled using effective parameters in each layer that represent the heterogeneity on average. This is a generally accepted approach as described in Warren and Price, 1961. The alluvial aquifer and overburden (Layers 1 and 2) and bedrock transition zone (Layer 3) were assigned a single hydraulic conductivity and specific yield over most of the model domain. Local-scale heterogeneity is included in Layers 1 – 3 in the vicinity of the Gestrin well to represent the Gestrin feature. The shallow, competent bedrock (Layer 4) and deep bedrock (Layer 5) layers include hydraulic conductivity and storage zones that represent the MCFZ and a zone that is representative of the vertical bedding and fracturing observed in the metasedimentary rocks of the West End area.

The presence of silts and clays in the alluvium contribute to potential restriction in vertical groundwater flow. Ratios of 10:1 (horizontal to vertical hydraulic conductivity) were assumed throughout Layer 1 and 2, except in the Gestrin feature in which ratios up to 100:1 were applied based on manual calibration to the aquifer tests.

All model cells in all layers are designated as convertible, meaning they are simulated as unconfined or confined flow depending upon the groundwater elevation. If the groundwater elevation in a cell is above the cell top it is simulated as confined, and only specific storage contributes to the groundwater flow equation. If the water elevation is below the top of a cell during a time step, then the cell is under a water table condition for which specific yield and specific storage contribute to the groundwater flow equation. For most of the model domain, the specific storage was assumed to be 1e-7 ft^{-1} (the default MODFLOW 6 value). The specific storage of the MCFZ zones in Layers 4 and 5 were assigned a value 1e-4 ft^{-1} since the MCFZ is primarily composed of gouge, which has specific storage properties in the range of plastic to medium hard clays (http://www.aqtesolv.com/aquifer-tests/aquifer_properties.htm). The Gestrin feature zones in Layer 3 were manually calibrated to the 2013 and 2019 Gestrin well aquifer tests. The specific yield values were selected in the calibration process described in Section 4, except in the Gestrin feature zones where they were manually calibrated. Table 3-3 provides a summary of aquifer parameters in the EC SHSM.

Table 3-3. Model Aquifer Parameters

Hydrogeologic Unit	Hydraulic Conductivity (ft/d)	Vertical Anisotropy Ratio[1]	Specific Yield	Specific Storage (ft) [1]
Layer 1				
Alluvium/Overburden	12.0	10:1	0.20	1.0E-07
Gestrin Feature 1.1[2]	12.0	10:1	0.05	1.0E-07
Gestrin Feature 1.2	8.0	20:1	0.01	1.0E-07
Layer 2				
Alluvium/Overburden	12.0	10:1	0.20	1.0E-07
Gestrin Feature 2.1	100.0	100:1	0.05	1.0E-07
Gestrin Feature 2.2	8.0	10:1	0.05	1.0E-07
Gestrin Feature 2.3	0.2	1:1	0.05	1.0E-07
Layer 3				
Transition Zone	0.2	1:1	0.04	1.0E-07
Gestrin Feature 3.1	3.0	1:1	0.04	1.0E-05
Layer 4				
Shallow Bedrock	0.1	1:1	0.006	1.0E-07
Metaseds	0.5	1:1	0.006	1.0E-07

Hydrogeologic Unit	Hydraulic Conductivity (ft/d)	Vertical Anisotropy Ratio[1]	Specific Yield	Specific Storage (ft) [1]
MCFZ	1.0E-04	1:1	0.025	1.0E-04
Layer 5				
Deep Bedrock	0.03	1:1	0.002	1.0E-07
Metaseds	0.15	1:1	0.002	1.0E-07
MCFZ	1.0E-04	1:1	0.025	1.0E-04

Notes:

[1]horizontal conductivity:vertical conductivity

[2]Label suffixes are included to identify refined hydraulic conductivity or specific yield parameter zones associated with the Gestrin feature in each layer.

Abbreviations:

ft = foot/feet

ft/d = feet per day

MCFZ = Meadow Creek Fault Zone

Figure 3-5 through Figure 3-9 show the spatial distribution of horizontal hydraulic conductivities in each of the model layers. The alluvium, Layers 1 and 2, are homogeneous except in the Gestrin feature where local heterogeneity was added to calibrate the model to the Gestrin well aquifer tests. The alluvium transition to bedrock, Layer 3, is also homogeneous except for a small region in the Gestrin feature where heterogeneity was added to better represent the aquifer test drawdown measurements. The shallow and deep bedrock, Layers 4 and 5, contain a metasedimentary zone and the MCFZ. The metasedimentary zone is conceptualized to contain more vertical fracturing represented by higher horizontal and vertical hydraulic conductivities than the surrounding bedrock as suggested by the data shown in Figure 3-4. The MCFZ acts a barrier to flow with a lower hydraulic conductivity than the surrounding bedrock.

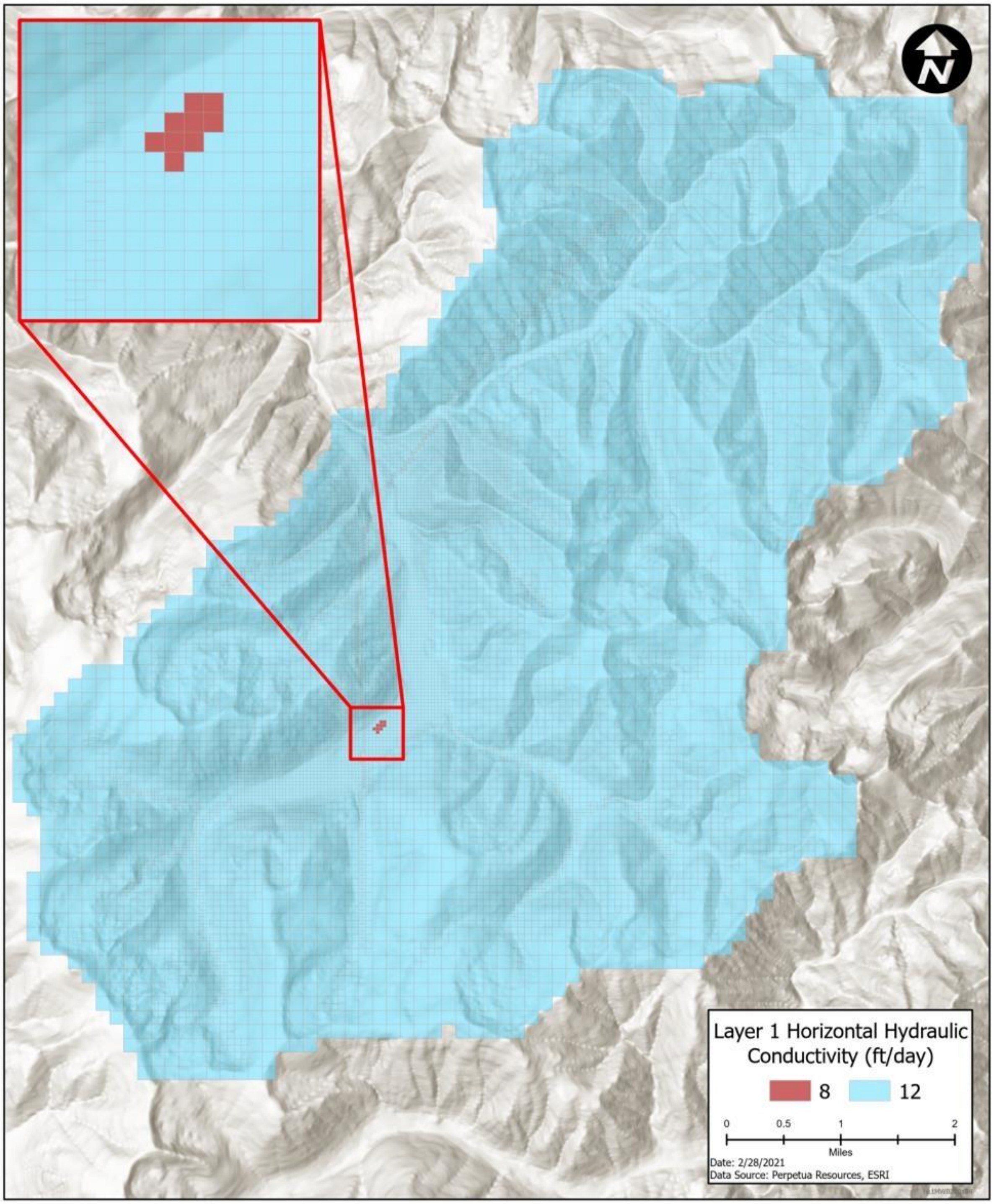


Figure 3-5. Model Layer 1 Horizontal Hydraulic Conductivity Field

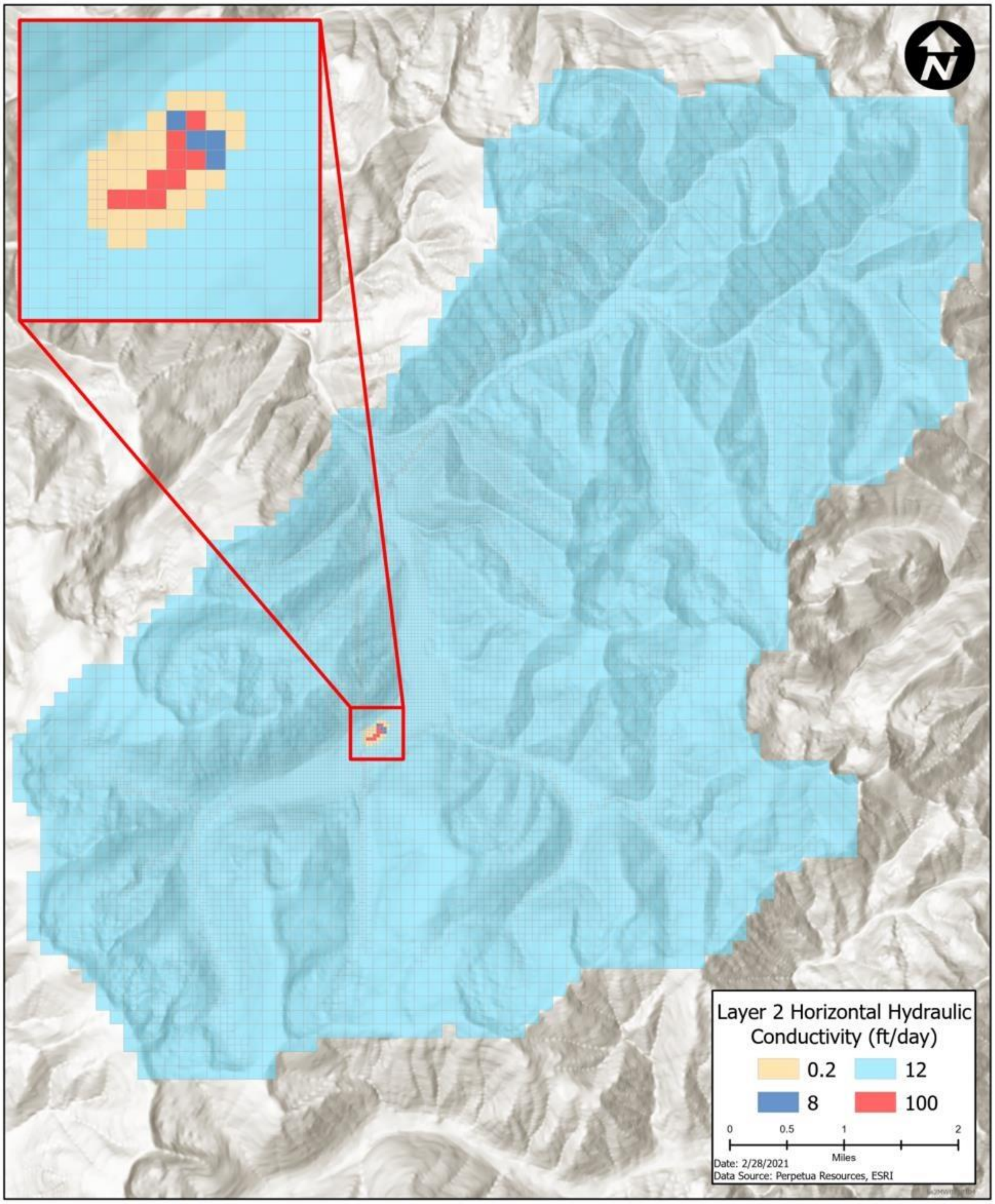


Figure 3-6. Model Layer 2 Horizontal Hydraulic Conductivity Field

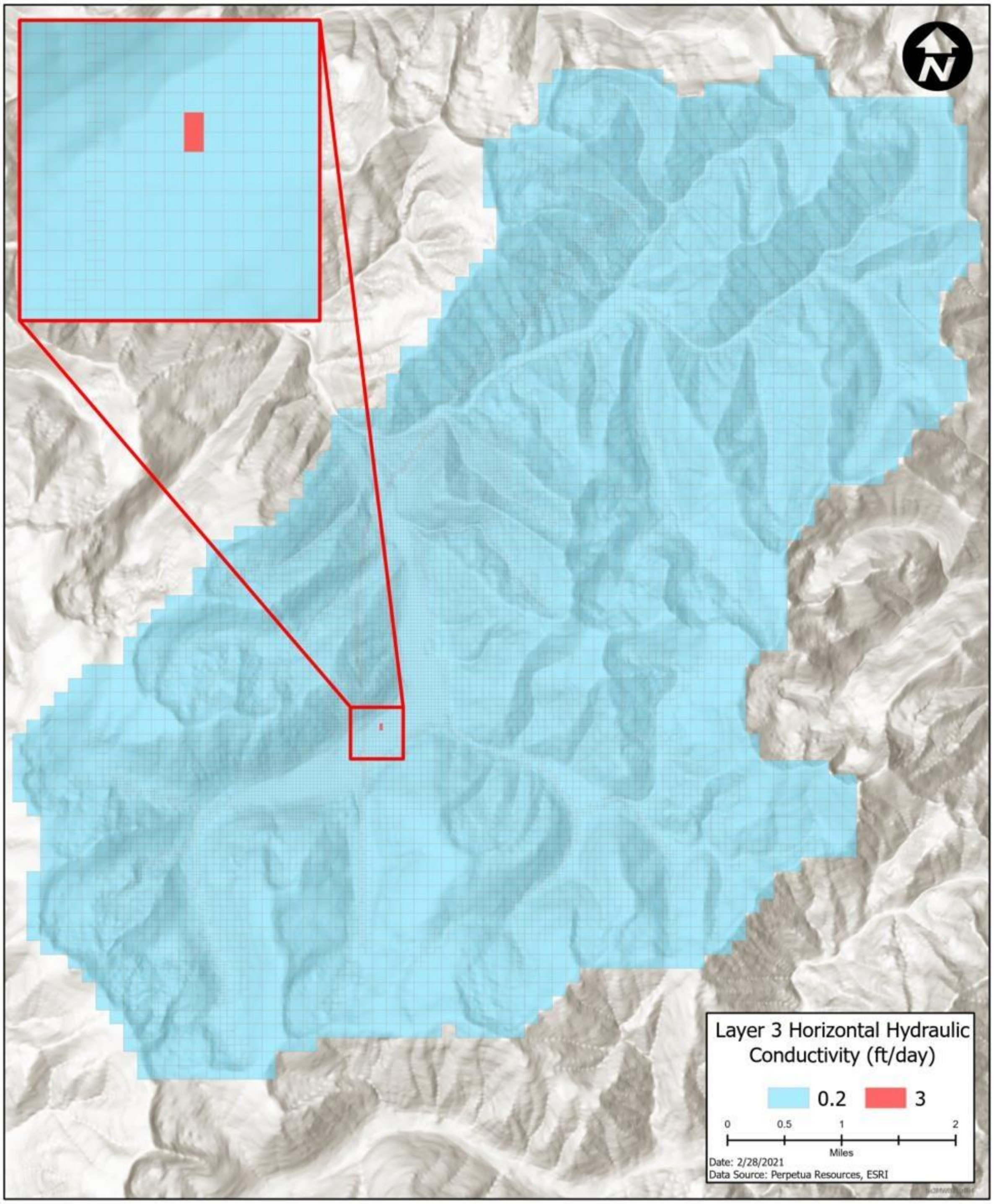


Figure 3-7. Model Layer 3 Horizontal Hydraulic Conductivity Field

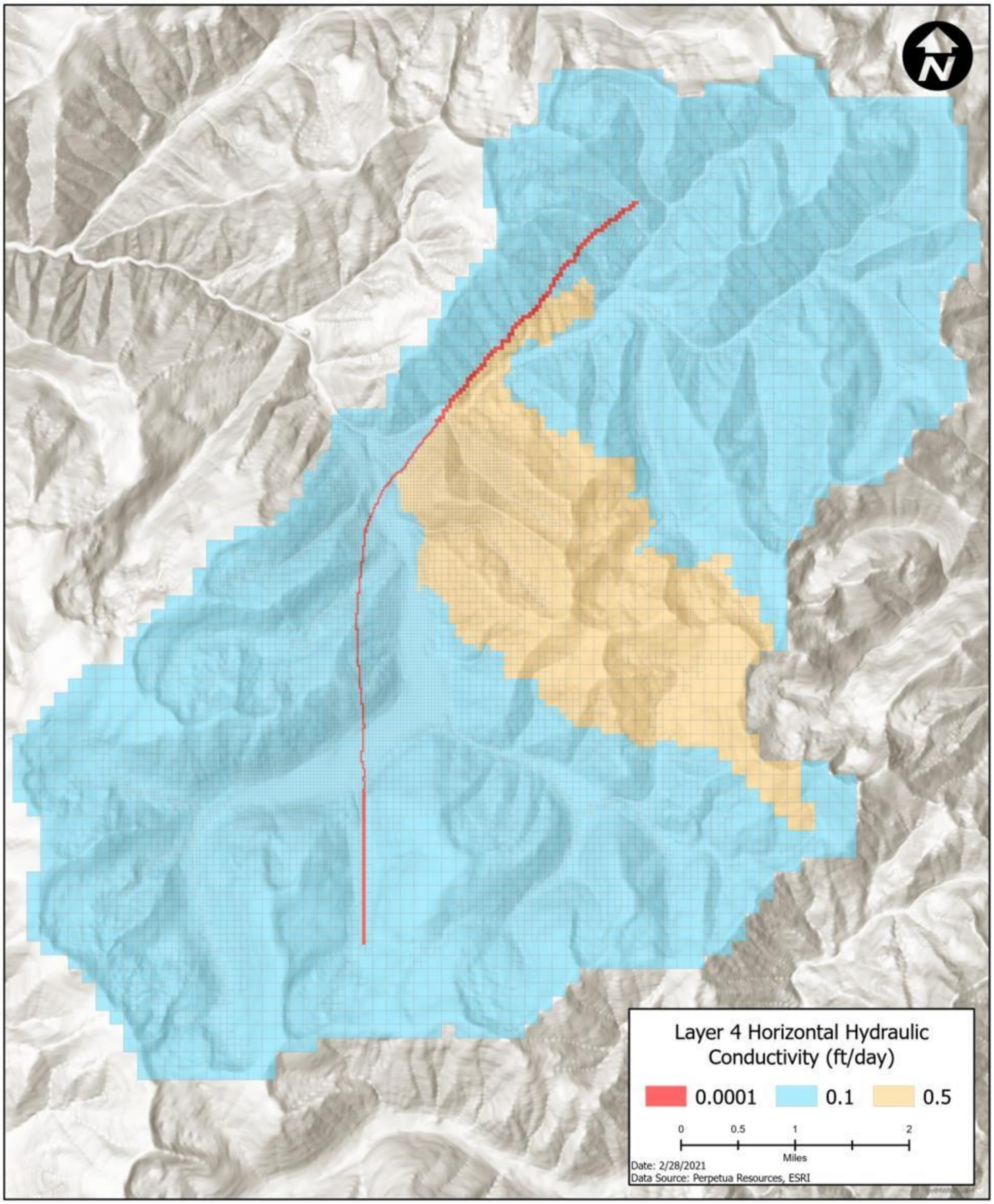


Figure 3-8. Model Layer 4 Horizontal Hydraulic Conductivity Field

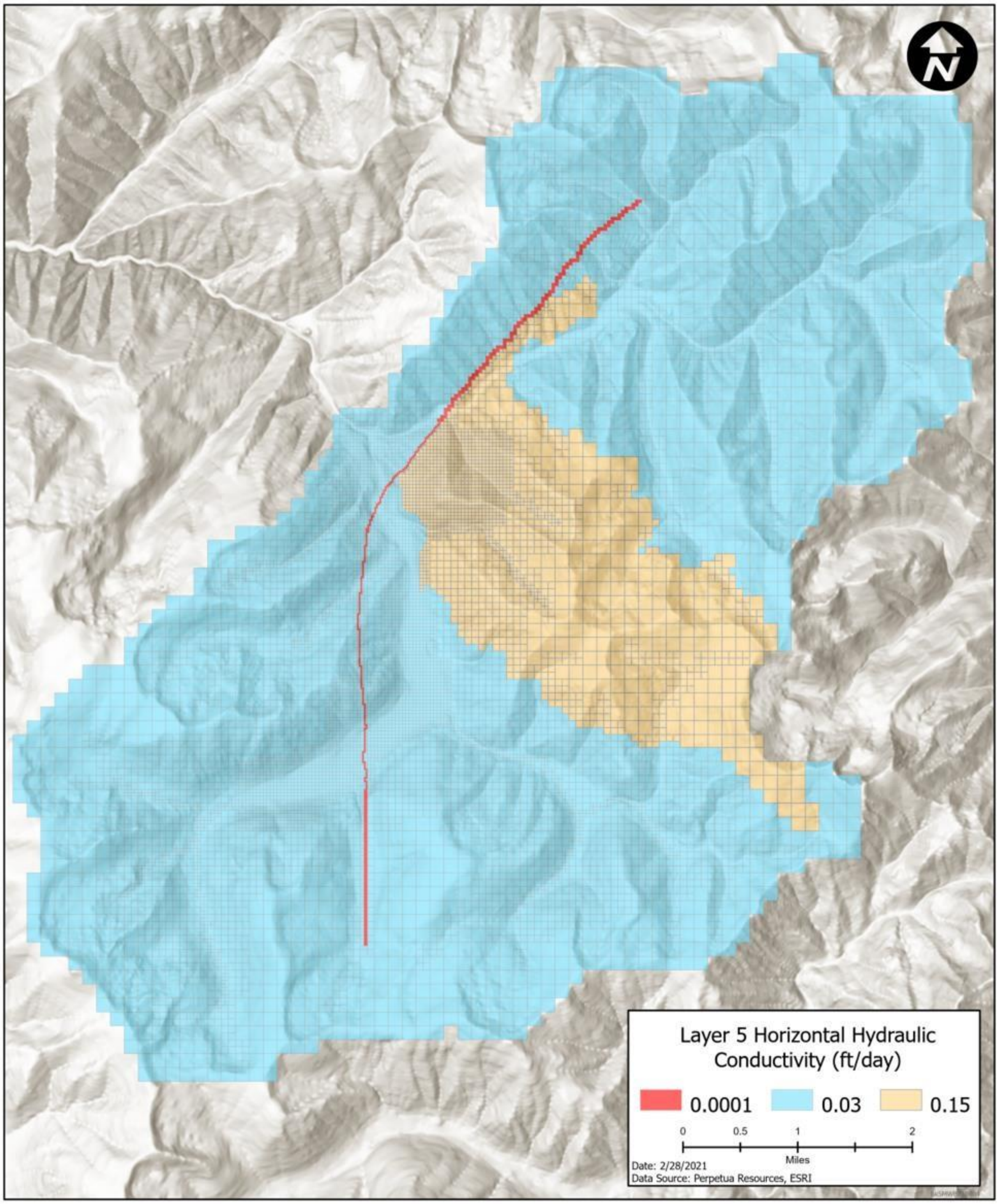


Figure 3-9. Model Layer 5 Horizontal Hydraulic Conductivity Field

Figure 3-10 through Figure 3-14 show the spatial distribution of specific yield in each of the model layers. As with the horizontal hydraulic conductivity, the specific yield is mostly homogeneous in all five model layers. In Layers 1 and 2 the specific yield was manually calibrated to the aquifer test drawdown data. Layer 3 is completely homogeneous. Layers 4 and 5 contain a specific yield zone that represents higher storage in the MCFZ due to the presence of clay-rich fault gouge.

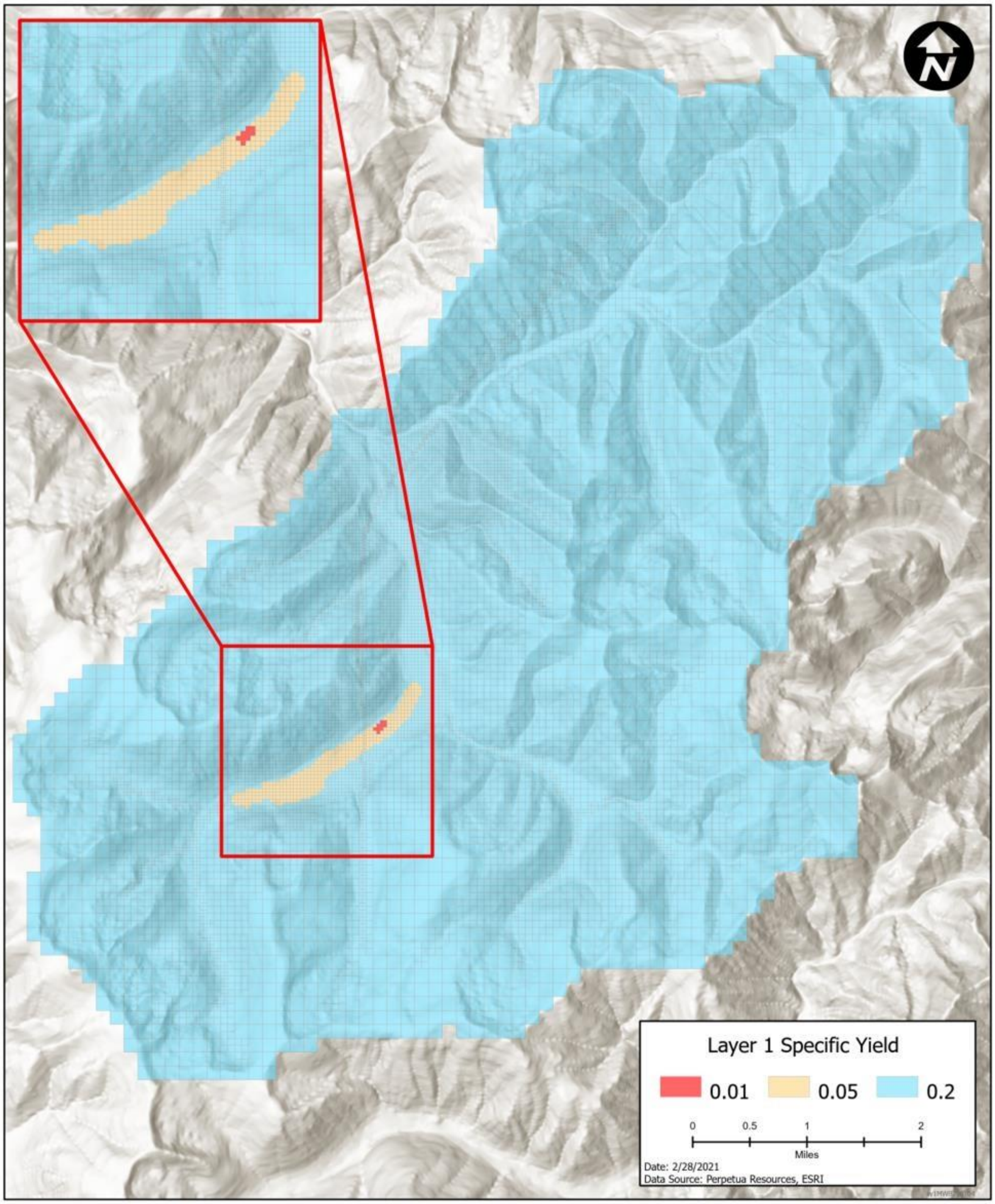


Figure 3-10. Model Layer 1 Specific Yield

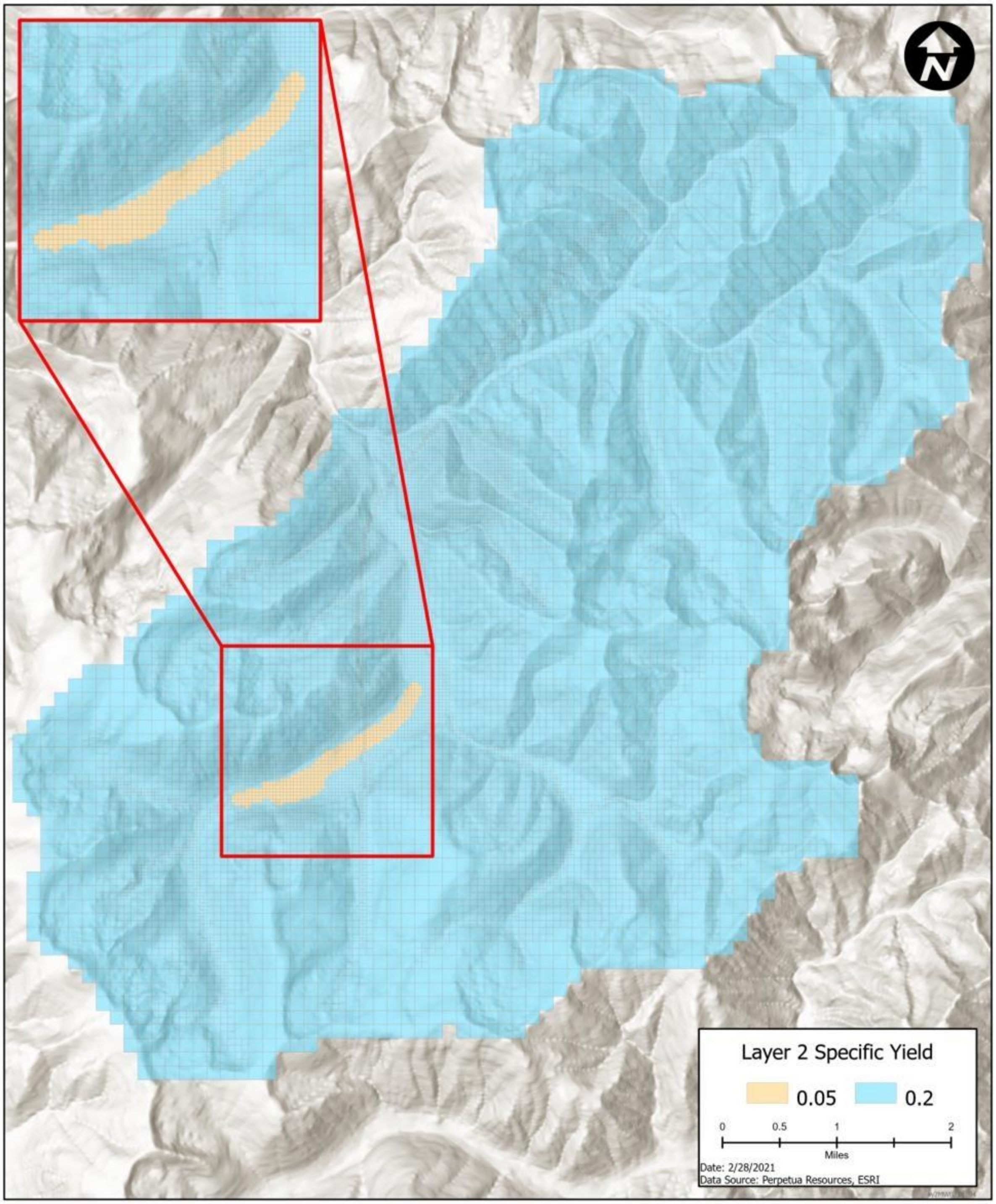


Figure 3-11. Model Layer 2 Specific Yield

Figure 3-12. Model Layer 3 Specific Yield

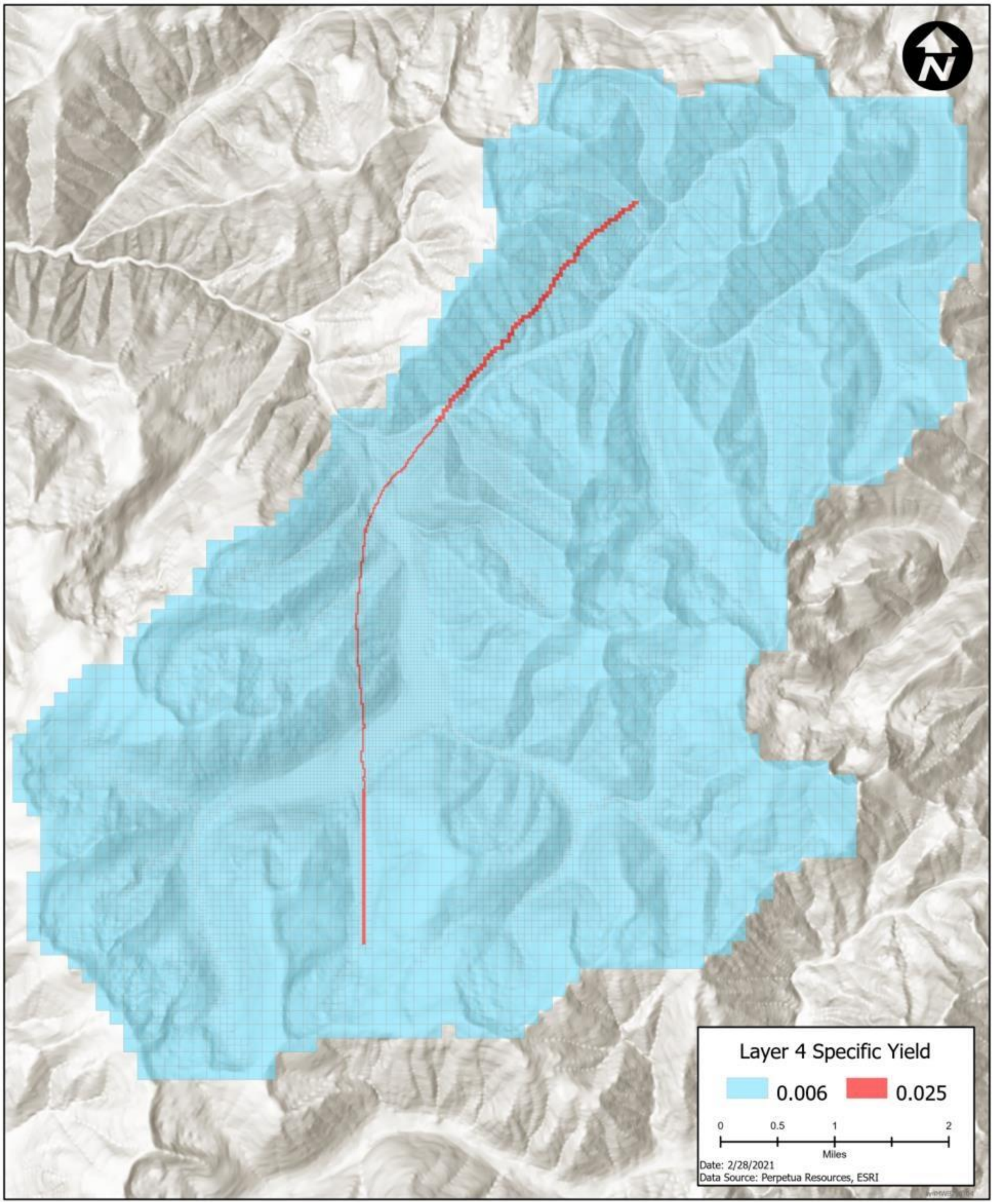


Figure 3-13. Model Layer 4 Specific Yield

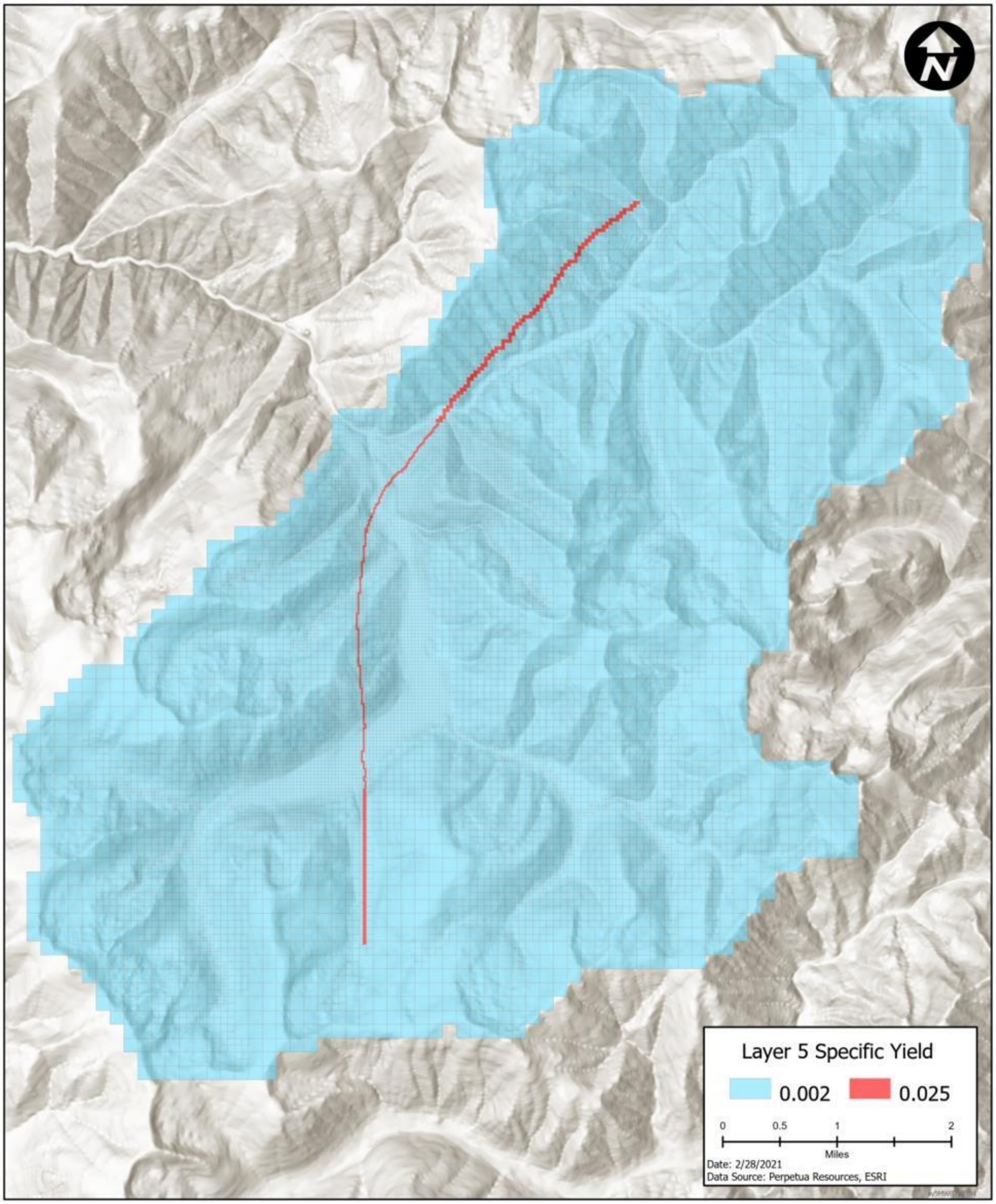


Figure 3-14. Model Layer 5 Specific Yield

Section 4

Model Calibration

The EC SHSM calibration focused on three objectives:

1. Simulation of late-season stream baseflow at five USGS gages.
2. Simulation of measured groundwater elevation at 55 monitoring wells.
3. Simulation of the 2013 and 2019 Gestrin well aquifer tests.

The five USGS gages and 55 monitoring wells are shown in Figure 4-1 and Figure 4-2. For the five USGS gages the EC SHSM is calibrated to the baseflow in the months of November, December, January, and February from 2011 to 2019. Thus, the calibration data contains two additional years of baseflow as compared to the calibration data for the EC Original Model. For the 55 monitoring wells, the same set of groundwater elevation targets are used for calibration of the EC SHSM as used for the EC Original Model. The calibration targets represent groundwater elevations measured during fall months. For the calculation of residual statistics, the December 2016 simulated groundwater elevations are chosen since the simulated groundwater elevations do not vary significantly year to year or from September to December. The 55 monitoring wells represent all the wells with groundwater elevation data available.

EC SHSM calibration was achieved in two steps. In the first step, an automated Monte Carlo simulation procedure was developed to evaluate the differences between simulated and measured stream baseflow and groundwater elevation. Based on the Monte Carlo simulations, a set of parameters were selected for the four sub-basins of the MWB and the groundwater model. In the second step, the groundwater model parameters for the Gestrin feature were manually calibrated to aquifer tests. Note, the manual calibration of the Gestrin feature is localized to the area where aquifer drawdown responses were measured in the 2013 and 2019 aquifer tests (Figure 3-2). Comparison of the simulated and measured aquifer drawdown responses is provided in Section 4.4 below.

The automated calibration procedure is a form of Monte Carlo simulation in which Latin hypercube sampling is used to generate a pseudo-random set of parameter values for all calibration parameters (McKay et al. 1979). A total of 20 parameters from the four sub-basins of the MWB and 9 parameters from the groundwater flow model are varied in the calibration process. The calibration parameters and the allowed ranges for each in the Monte Carlo analysis are provided in Table 4-1 through Table .

The upper bounds for all the valley precipitation bias correction factors are set to 1 since the average elevation for these areas are lower than the reference elevation from the PRISM. Thus, only downscaling (reducing) the PRISM precipitation data is allowed in the valleys. For the hillslope precipitation bias correction factors, the ranges are set to only allow upscaling (increasing) the PRISM precipitation data, except in Lower EFSFSR where downscaling and upscaling are allowed. Additionally, the upper bounds of the hillslope precipitation bias correction factors were set to prevent overestimation of total available water in each sub-basin by comparing the annual average basin yields from the 5 USGS gages (Figure 4-1) to those of each of the sub-basins of the MWB. Valley deep percolation ranges from 0.01 to 0.1 ft/d for all sub-basins, whereas the range hillslope deep percolation is set lower at 1e-3 to 0.01 ft/d. Valley porosity is assumed to be 0.30 based on literature values for sandy loam and is not varied in the calibration. Hillslope porosity ranges from

0.15 and 0.25 during calibration due, in part, to uncertainty associated with exposed bedrock, which on a regional scale reduces the basin-average soil porosity.

The horizontal hydraulic conductivity ranges for each layer are set based on available data collected from slug tests, packer tests, and the 2013 and 2019 Gestrin well aquifer tests. A summary of these values is provided in Table 4-4, Table 4-5, and Table 3-1, respectively (for additional details on slug tests and packer test see BC 2017). The specific yield for the alluvium is assigned a range for calibration that is consistent with literature values (http://www.aqtesolv.com/aquifer-tests/aquifer_properties.htm). The transition layer specific yield ranges are set to values that represent a mixture of alluvium and fractured bedrock. The shallow and deep bedrock layers are assigned specific yield ranges that allow for the storage of water in the bedrock to decrease with depth.

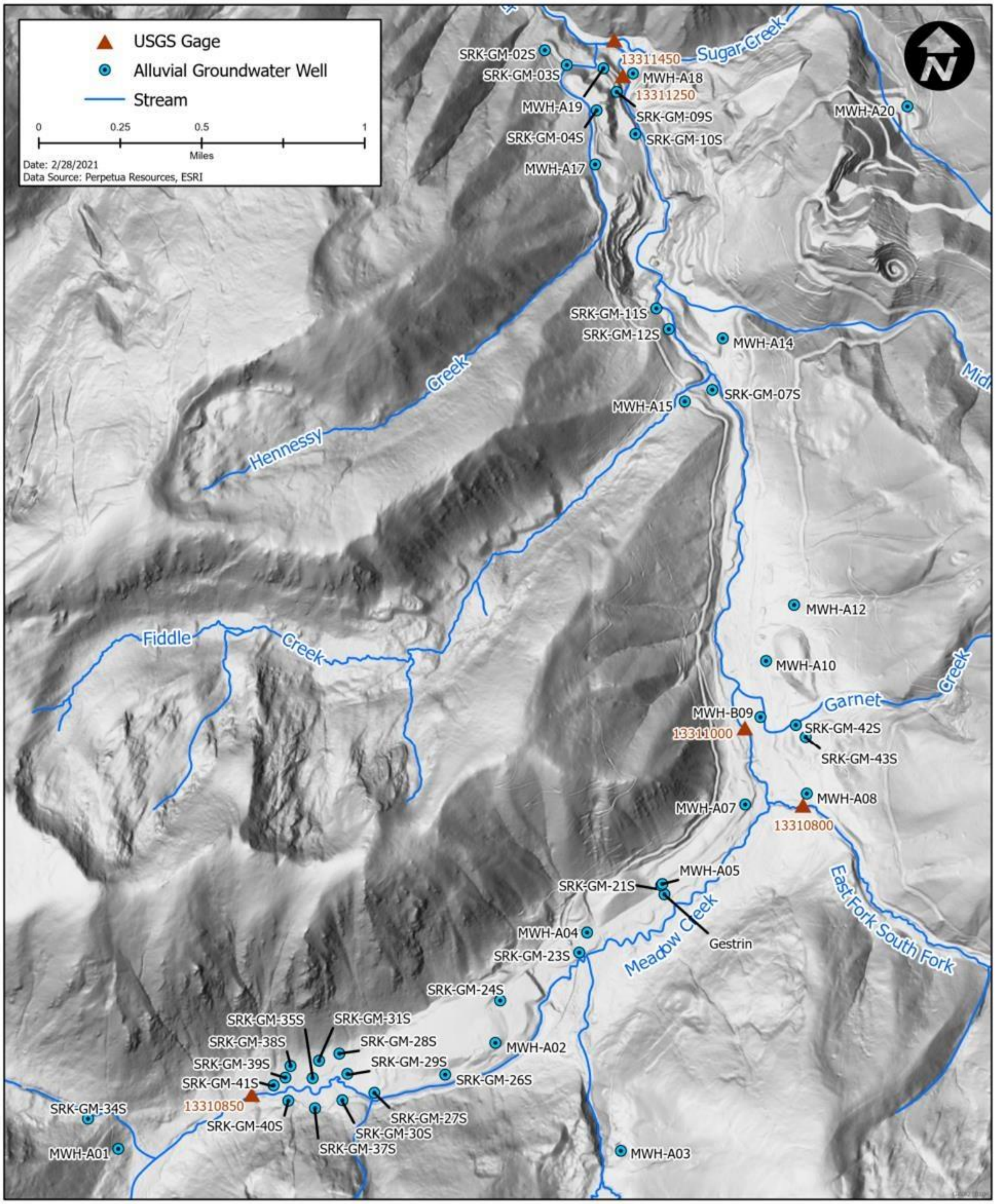


Figure 4-1. USGS Gages and Alluvium Monitoring Wells

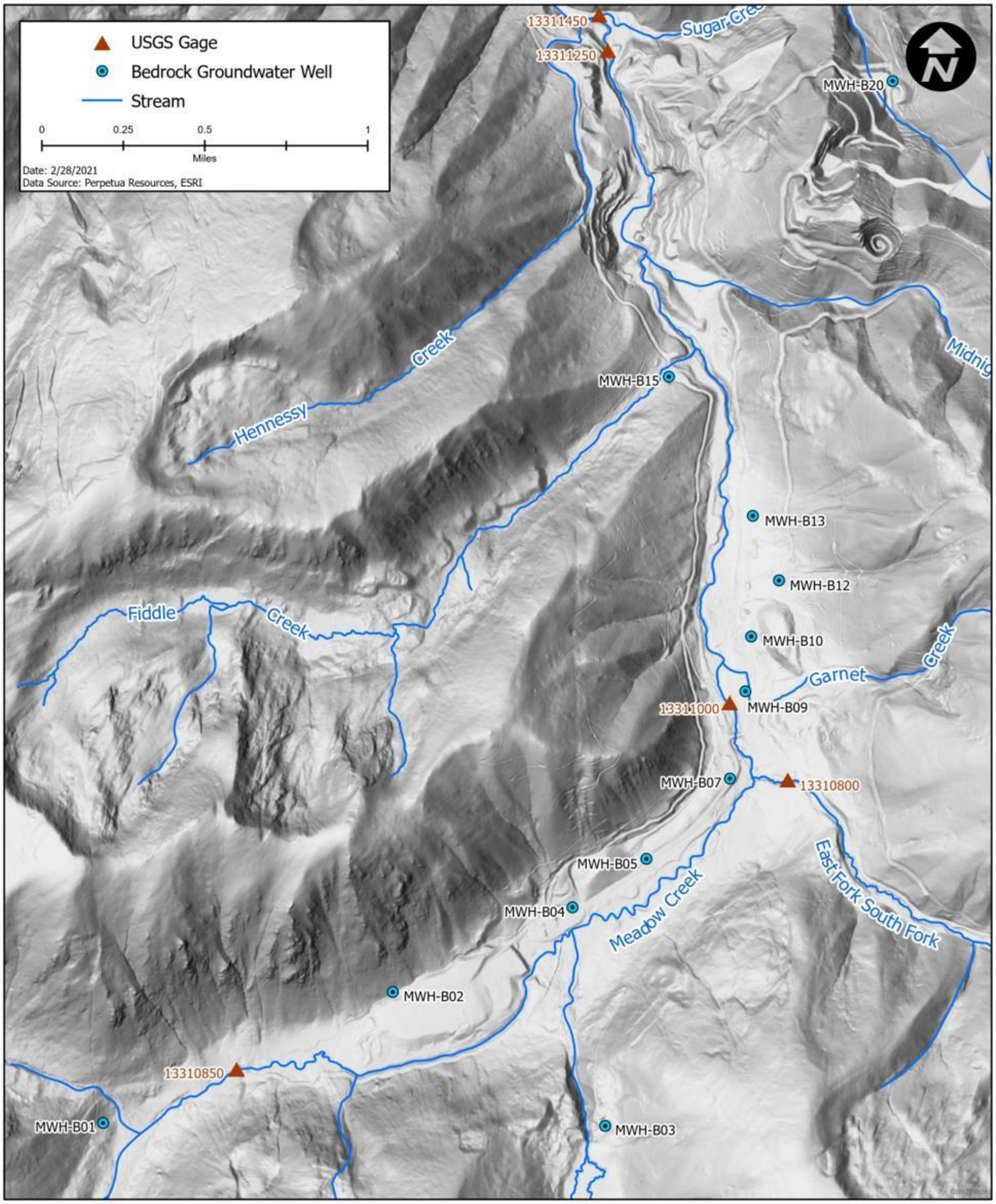


Figure 4-2. USGS Gages and Bedrock Monitoring Wells

Table 4-1. BDA Calibration Parameter Ranges

Sub-basin	Precipitation Bias Correction Factor		Deep Percolation Rate (ft/d)		Porosity	
	Minimum	Maximum	Minimum	Maximum	Minimum	Maximum
Lower EFSFSR	0.90	1.20	0.001	0.01	0.15	0.25
Upper EFSFSR	1.00	1.30	0.001	0.01	0.15	0.30
Meadow Creek	1.00	1.40	0.001	0.01	0.15	0.30
Sugar Creek	1.00	1.30	0.001	0.01	0.15	0.30

Abbreviations:

BDA = bedrock dominated area

EFSFSR = East Fork of the South Fork of the Salmon River

ft/d = foot/feet per day

Table 4-2. UDA Calibration Parameter Ranges

Sub-basin	Precipitation Bias Correction Factor		Deep Percolation Rate (ft/d)	
	Minimum	Maximum	Minimum	Maximum
Lower EFSFSR	0.75	1.00	0.01	0.10
Upper EFSFSR	0.75	1.00	0.01	0.10
Meadow Creek	0.75	1.00	0.01	0.10
Sugar Creek	0.75	1.00	0.01	0.10

Abbreviations:

EFSFSR = East Fork of the South Fork of the Salmon River

ft/d = foot/feet per day

UDA = Unconsolidated Deposit Area

Table 4-3. MODFLOW Calibration Parameter Ranges

Geologic Unit	Horizontal Hydraulic Conductivity (ft/d)		Specific Yield	
	Minimum	Maximum	Minimum	Maximum
Alluvium	5.0	20.0	0.10	0.25
Transition Zone	0.05	2.0	1.0E-03	0.05
Shallow Bedrock	1.0E-03	0.50	5.0E-04	0.01
Deep Bedrock	5.0E-04	0.05	1.0E-03	0.01
MCFZ	1.0E-05	1.0E-03	-	-

Abbreviations:

ft/d = foot/feet per day

MCFZ = Meadow Creek Fault Zone

Table 4-4. Slug Test Hydraulic Conductivity

Investigator	Alluvium (ft/d)			Bedrock (ft/d)		
	Minimum	Maximum	Average	Minimum	Maximum	Average
HydroGeo Consultants	0.8	9.1	4.9	0.20	4.3	1.0
MWH Americas, Inc.	2.8	28.0	11.3	0.04	0.9	0.4
SRK Consulting, Inc.	0.3	139.0	21.2	0.03	4.9	0.7

Abbreviations:

ft/d = foot/feet per day

Table 4-5. Packer Test Hydraulic Conductivity

Investigator	Bedrock (ft/d)		
	Minimum	Maximum	Average
HydroGeo Consultants	1.1	5.9	2.8
SRK Consulting, Inc.	3.0E-04	0.6	0.08

Abbreviations:

ft/d = foot/feet per day

In the EC SHSM, the MWB is explicitly coupled to the MODFLOW groundwater model using Python, and 200 simulations with unique parameter combinations were run in parallel and saved in separate directories for subsequent analysis. The steps in the procedure are:

1. Parameter ranges from Table 4-1 through Table 4-3 are input into a Python script that generates parameter sets for all simulations using a Latin hypercube sampling routine.
2. For each parameter set, the Excel-based MWBs are updated with the calibration parameters and areal recharge and runoff rates are calculated.
3. The areal recharge and runoff rates are input into the groundwater model.
4. The hydraulic conductivity and specific yield from the parameter set are input into the groundwater model.
5. The groundwater model is run.
6. Groundwater elevations and stream baseflow are extracted from the model at locations corresponding to monitoring wells and USGS stream gages.

The calibration objective is to sufficiently represent late-season stream baseflow at five USGS gages and groundwater elevation at 55 monitoring wells. Mathematically, this is a multi-objective (or multi-criteria) optimization problem in which the goal is to simultaneously minimize the difference between simulated and measured stream baseflow and groundwater elevation. Multi-objective optimization often leads to managing trade-offs between optimizing each criterion. For example, certain parameter modifications may improve the model's ability to simulate groundwater elevation while degrading the model's correspondence to observed baseflow. In order to address these possible trade-offs, three objective functions are evaluated with the 200 Monte Carlo simulations. The objective functions are:

1. The sum of squared errors for stream baseflow
2. The sum of squared errors for groundwater elevation
3. The sum of squared error of the weighted (scalarized) groundwater elevation and stream baseflow where the weights are taken as one over the measurement variance

A subset of the 200 Monte Carlo simulations is identified based on selecting the smallest sum of squared error values for each objective function. It is noted that no single Monte Carlo simulation in this sample achieved the smallest sum of squared error for all three objective functions. Thus, a set of optimal parameters from the subset of simulations have been combined and the calibration statistics indicate that the calibrated model sufficiently represents the groundwater elevation and stream baseflow. Following the Monte Carlo calibration, additional manual calibration was performed in the Gestrin feature area to better represent the observed aquifer test data.

Calibrated parameters for the four sub-basins of the MWB are provided in Table 2-2 and Table 2-3, and the calibrated groundwater model parameters are provided in Table 3-3. A comparative analysis between SHSM and measured hydraulic conductivity values, simulated and measured field data, including calibration statistics, is provided in the following sections.

4.1 Bedrock Hydraulic Conductivity

The calibrated bedrock hydraulic conductivity values for layers 3, 4, and 5 in the EC SHSM are 0.2 ft/d, 0.1 ft/d, and 0.03 ft/d, respectively. A comparison of the calibrated EC SHSM and measured bedrock hydraulic conductivity values at the SGP site is shown in Figure 4-3. This figure shows that the calibrated EC SHSM bedrock hydraulic conductivity values are within the range of measured values. Moreover, the geometric mean of the hydraulic conductivity values shown in Figure 4-3 is 0.04 ft/d. The hydraulic conductivities in Layers 3 and 4 represent the higher end of the measured values, whereas Layer 5 represents the lower end of the measured values. The Metaseds zones in Layers 4 and 5 of the EC SHSM are 0.5 ft/d and 0.15 ft/d, respectively, which is consistent with the measured values in West End and Midnight basin wells in Figure 4-3, Overall, this demonstrates that the calibrated EC SHSM bedrock hydraulic conductivities are in agreement with all site data. Layers 4 and 5 straddle the mean with layers 4 and 3 above the mean, as would be expected given the trend of decreasing K with depth. Modeled hydraulic conductivity does not prioritize the low or high ends of the range.

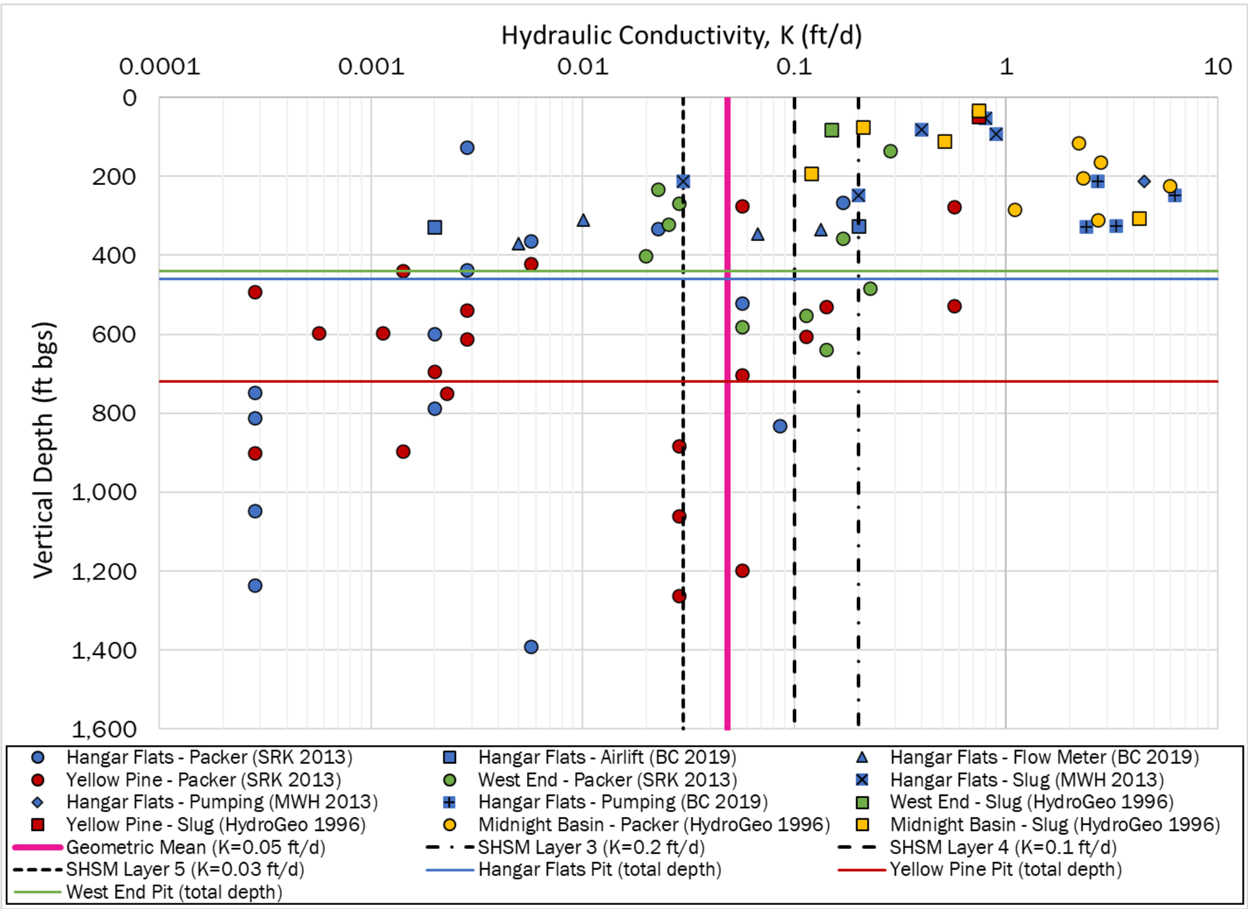


Figure 4-3. Measured and Calibrated EC SHSM Bedrock Hydraulic Conductivity Values Comparison

4.2 Surface Water Flow

Simulated streamflow is compared to measured flows in cubic feet per second (cfs) at five USGS gages within the Study Area (Figure 4-1). Analysis of how well the model simulates observed baseflow is based on model residuals, also known as errors. The residual is defined as the difference between observed and simulated baseflow (i.e., measured minus simulated baseflow). Standard calibration statistics include the mean residual, absolute mean residual, sum of squared errors, root mean squared error (RMSE, which gives greater weight to larger residuals), maximum residual and minimum residual. Calibration statistics for the baseflow at each gage are provided in Table . Note, there is no industry defined statistical range that identifies a well calibrated model, and the acceptability of a calibration is directly dependent on the modeling objective (Anderson et al. 2015). Overall, the calibration statistics indicate that there is good correspondence between measured and simulated baseflow at each USGS gage.

Table 4-6. Baseflow Calibration Statistics at the USGS Gages

Statistic	November	December	January	February
Meadow Creek (USGS Gage13310850)				
Mean Residual (cfs)[1]	0.84	0.02	-0.32	0.12
Absolute Mean Residual (cfs)	1.23	0.65	0.40	0.64
Sum of Squared Errors (cfs^2)	20.58	3.55	2.02	5.86
Root Mean Squared Error (cfs)	1.60	0.67	0.50	0.86
Maximum Residual (cfs)[1]	3.69	0.77	0.32	1.63
Minimum Residual (cfs)[1]	-0.90	-0.78	-0.89	-0.66
EFSFSR above Meadow Creek (USGS Gage13310800)				
Mean Residual (cfs)[1]	0.39	-0.14	-0.12	0.22
Absolute Mean Residual (cfs)	0.82	0.64	0.49	0.59
Sum of Squared Errors (cfs^2)	7.03	5.96	3.01	3.45
Root Mean Squared Error (cfs)	0.94	0.86	0.61	0.66
Maximum Residual (cfs)[1]	1.10	0.93	0.50	0.95
Minimum Residual (cfs)[1]	-1.72	-1.88	-1.37	-1.10
EFSFSR at Box Culvert (USGS Gage13311000)				
Mean Residual (cfs)[1]	1.07	-0.05	-0.97	0.09
Absolute Mean Residual (cfs)	1.84	1.72	1.07	1.03
Sum of Squared Errors (cfs^2)	44.91	35.25	13.48	13.18
Root Mean Squared Error (cfs)	2.37	2.10	1.30	1.28
Maximum Residual (cfs)[1]	4.55	3.82	0.42	2.10
Minimum Residual (cfs)[1]	-1.51	-3.12	-2.13	-1.63
EFSFSR above Sugar Creek (USGS Gage13311250)				
Mean Residual (cfs)[1]	-0.54	-1.26	-2.48	-0.72
Absolute Mean Residual (cfs)	2.04	2.47	2.48	2.47
Sum of Squared Errors (cfs^2)	41.77	69.26	64.79	62.11
Root Mean Squared Error (cfs)	2.28	2.94	2.85	2.79
Maximum Residual (cfs)[1]	2.52	3.87	-0.22	3.90
Minimum Residual (cfs)[1]	-3.23	-4.96	-4.31	-3.74

Statistic	November	December	January	February
Sugar Creek (USGS Gage13311450)				
Mean Residual (cfs)[1]	-0.59	-1.25	-1.47	0.14
Absolute Mean Residual (cfs)	2.07	1.94	1.73	2.07
Sum of Squared Errors (cfs^2)	64.07	42.70	28.97	56.85
Root Mean Squared Error (cfs)	2.83	2.31	1.90	2.67
Maximum Residual (cfs)[1]	5.64	2.21	1.02	6.21
Minimum Residual (cfs)[1]	-4.84	-4.79	-3.39	-2.62

Notes:

[1]A positive residual indicates the measured flow is greater than the simulated flow and a negative residual indicates the measured flow is less than the simulated flow.

Abbreviations:

cfs = cubic foot per second

cfs^2 = cubic foot per second squared

EFSFSR = East Fork of the South Fork of the Salmon River

USGS = United States Geological Survey

Measured and simulated flow at the USGS gages is directly compared on both linear (highlighting peak flows) and logarithmic (highlighting baseflow) scales in Figure 4-4 through Figure 4-8. The streamflow data is also provided in Tables A-6 through A-10 in the Attachment A. The EC SHSM sufficiently reproduces the timing and magnitude of the measured hydrographs at all gage locations.

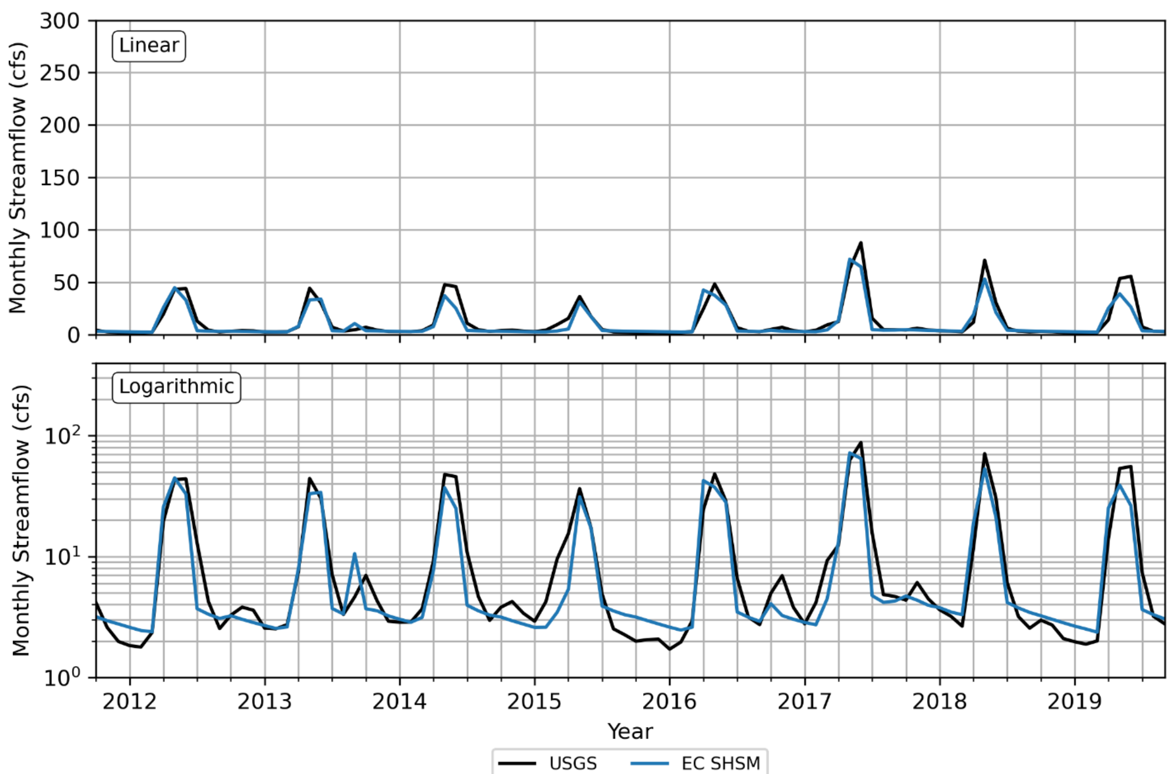


Figure 4-4. Measured vs Simulated Flow at USGS Gage 13310850

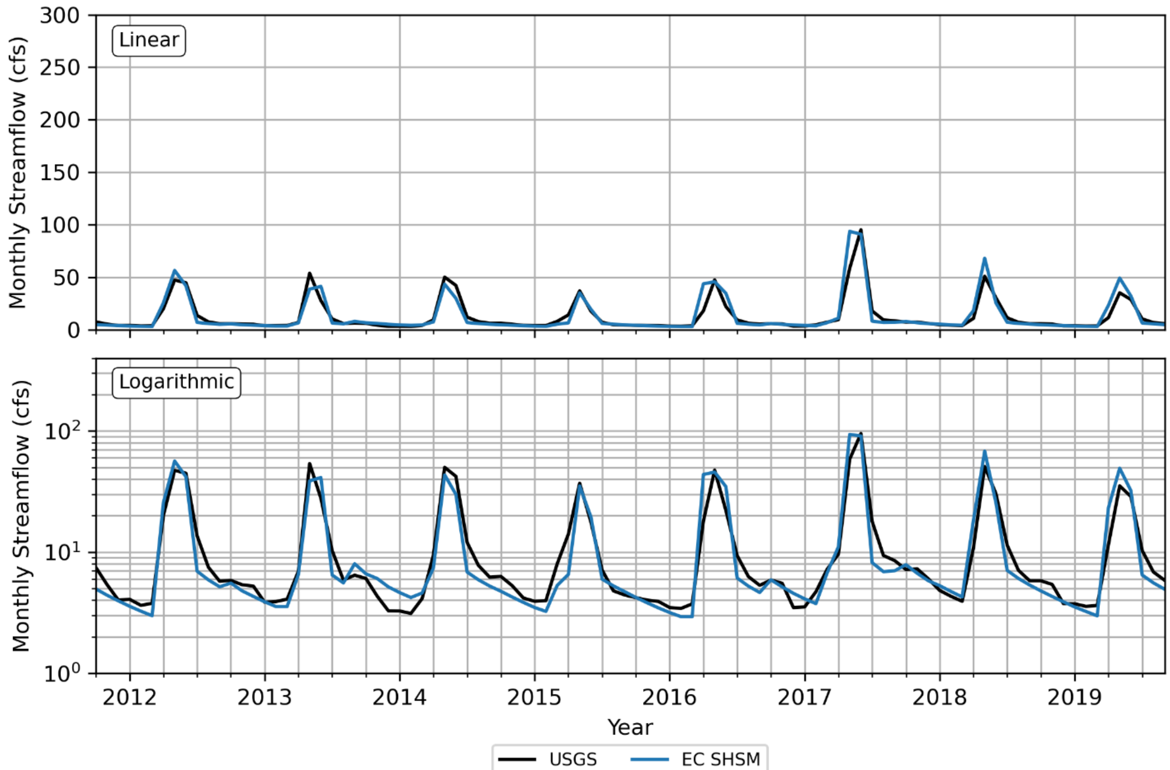


Figure 4-5. Measured vs Simulated Flow at USGS Gage 13310800

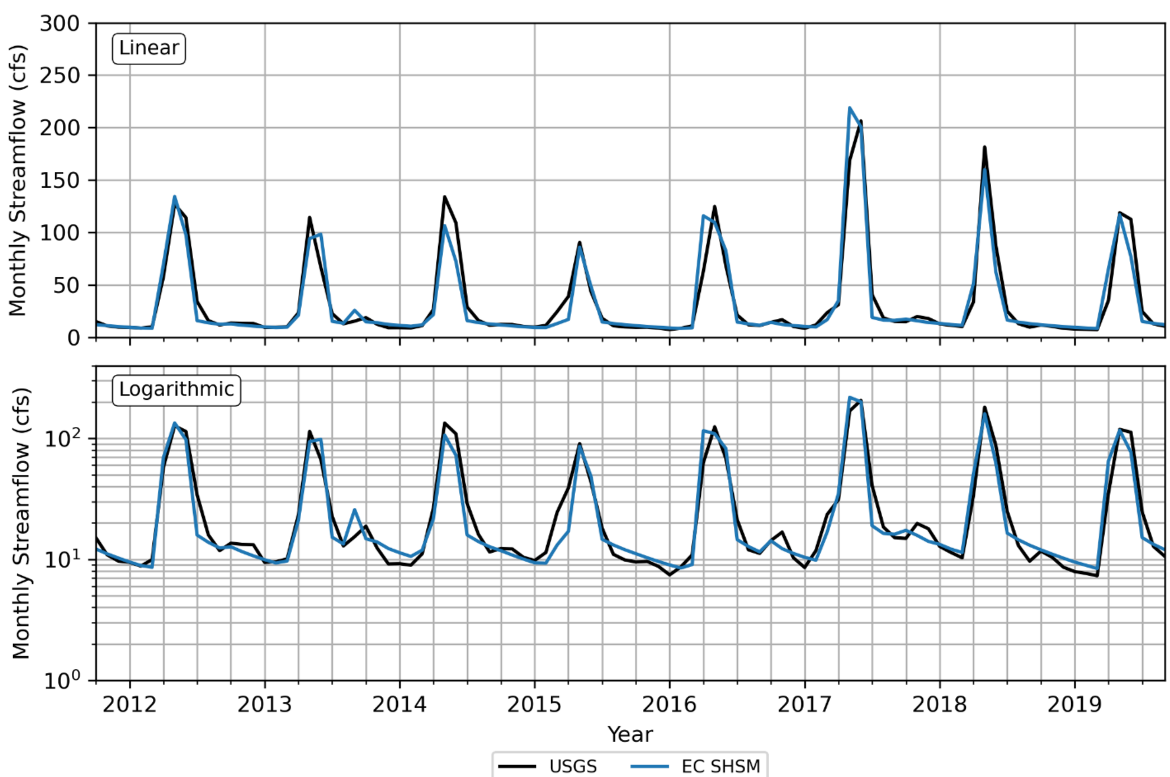


Figure 4-6. Measured vs Simulated Flow at USGS Gage 13311000

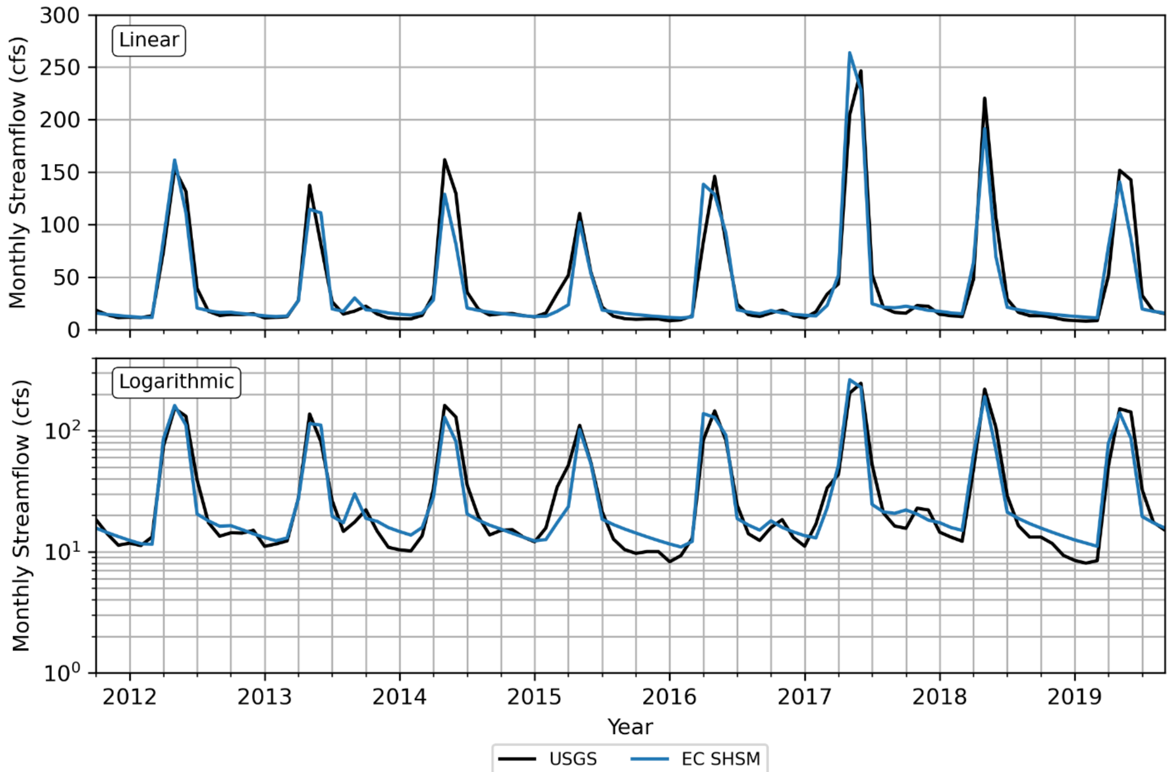


Figure 4-7. Measured vs Simulated Flow at USGS Gage 13311250

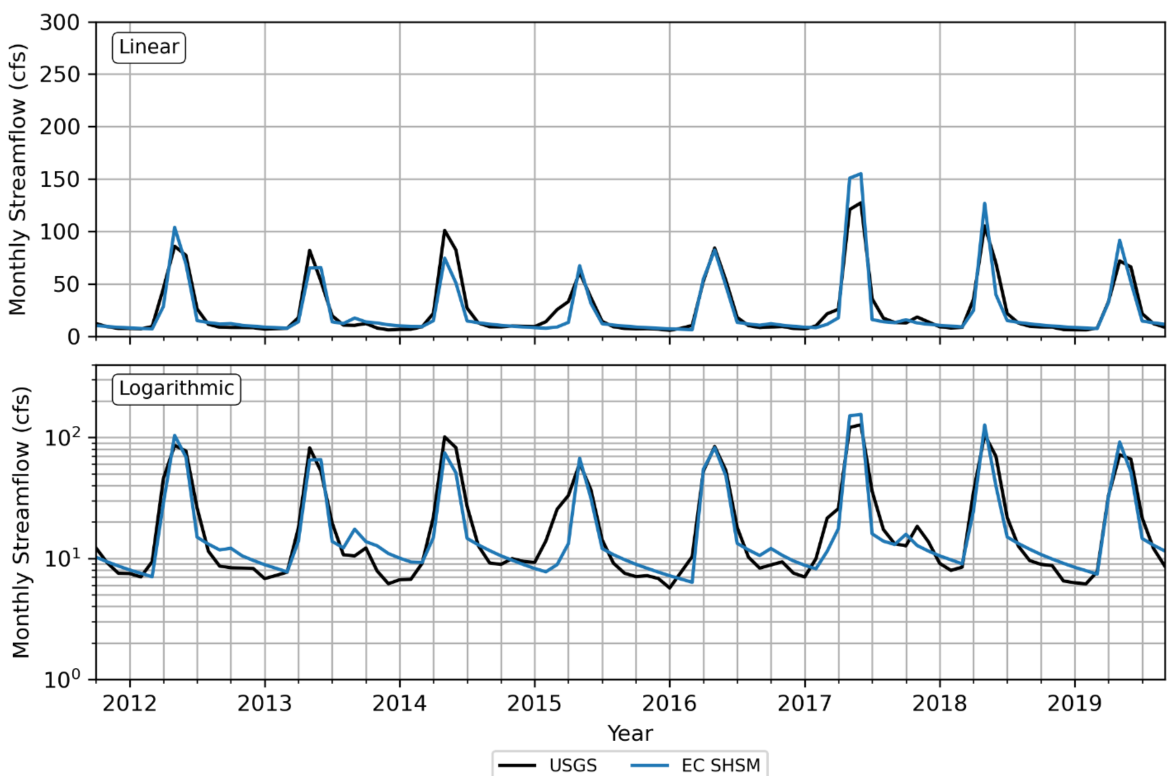


Figure 4-8. Measured vs Simulated Flows at USGS Gage 13311450

Basin yield is the total annual surface flow at a gage divided by the basin (drainage) area and a comparison of simulated and measured basin yield can provide a measure of model performance. A comparison of the measured and EC SHSM simulated basin yield at the USGS gages at the Project site is shown in Figure 4-9 through Figure 4-13. Overall, the EC SHSM sufficiently represents the measured annual variations in basin yield at each gage and supports the sub-basin MWB and groundwater flow model assumptions. The EC SHSM simulated basin yield at each gage is provided in Table A-11 of Attachment A. Table 4-7 compares the measured and simulated median basin yield at each of the USGS gages in the Study Area. At USGS Gage 13311250, near the outlet of the EFSFSR basin, the measured median basin yield over the calibration period is 22.3 inches per year (in/yr) compared to 21.7 in/yr simulated in the EC SHSM. For the Sugar Creek basin, USGS Gage 13311450, the measured and simulated median basin yields over the calibration period are 18.1 in/yr and 16.8 in/yr, respectively. The basin yield for the model domain, encompassing the EFSFSR and Sugar Creek drainage basins, is approximated by the basin area average of the basin yields at the 13311250 and 13311450 gages. The measured and simulated median basin yields for the whole model domain over the calibration period are 20.3 in/yr and 19.6 in/yr, respectively. This basin yield comparison validates that the EC SHSM simulations are unbiased and very similar to measured streamflow, thereby demonstrating the EC SHSM represents hydrogeologic processes at the Project site.

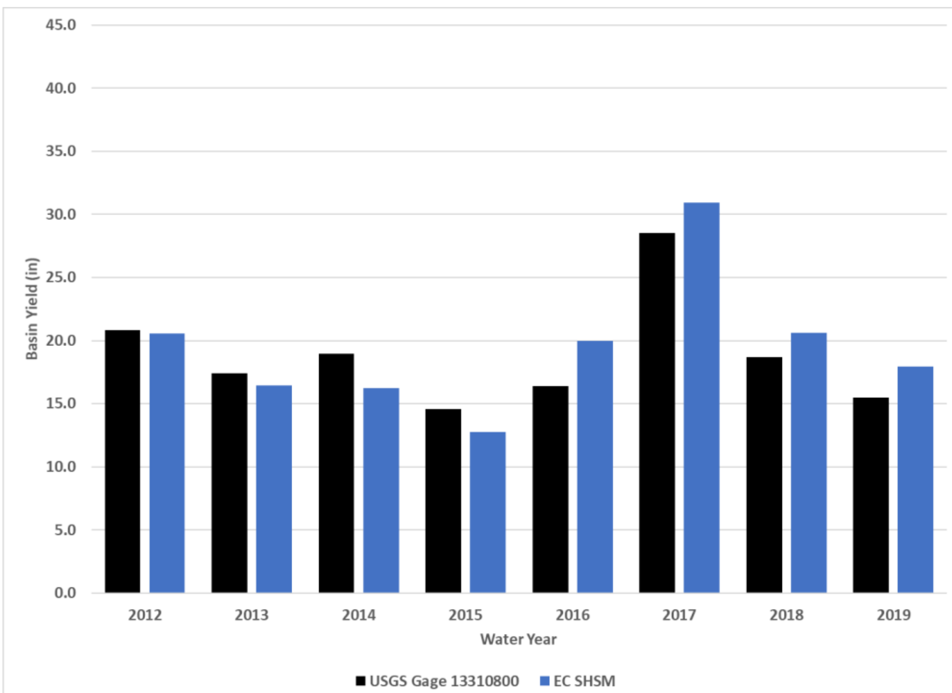


Figure 4-9. Measured vs Simulated Basin Yield at USGS Gage 133110800

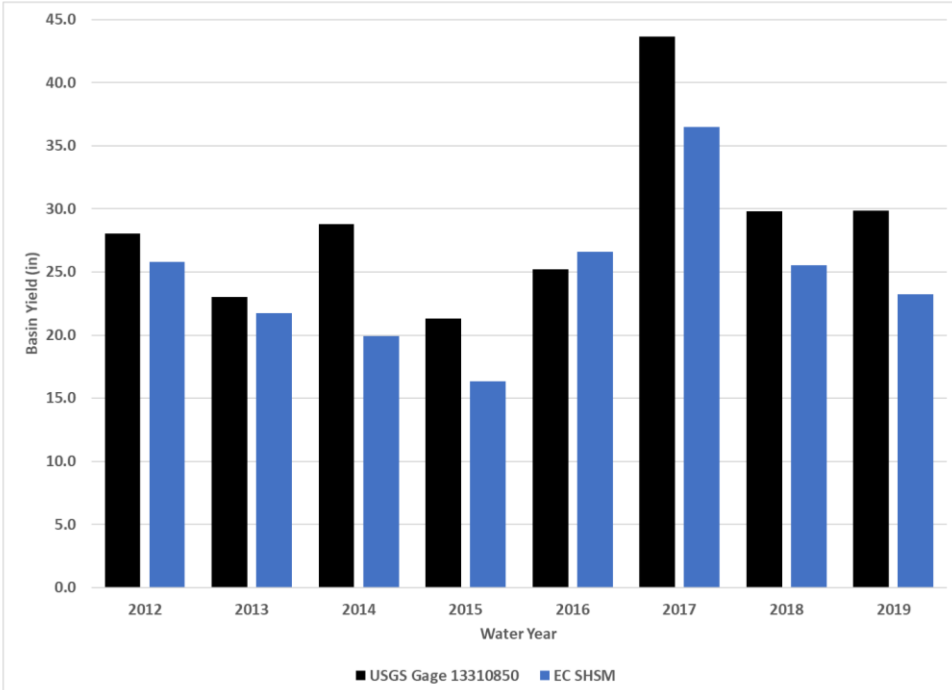


Figure 4-10. Measured vs Simulated Basin Yield at USGS Gage 133110850

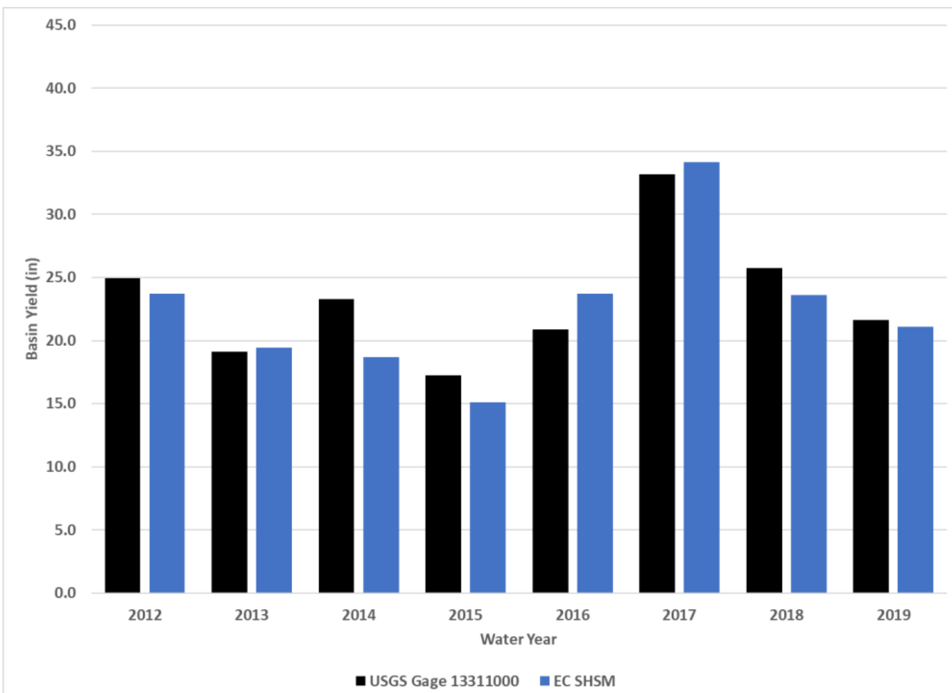


Figure 4-11. Measured vs Simulated Basin Yield at USGS Gage 13311100

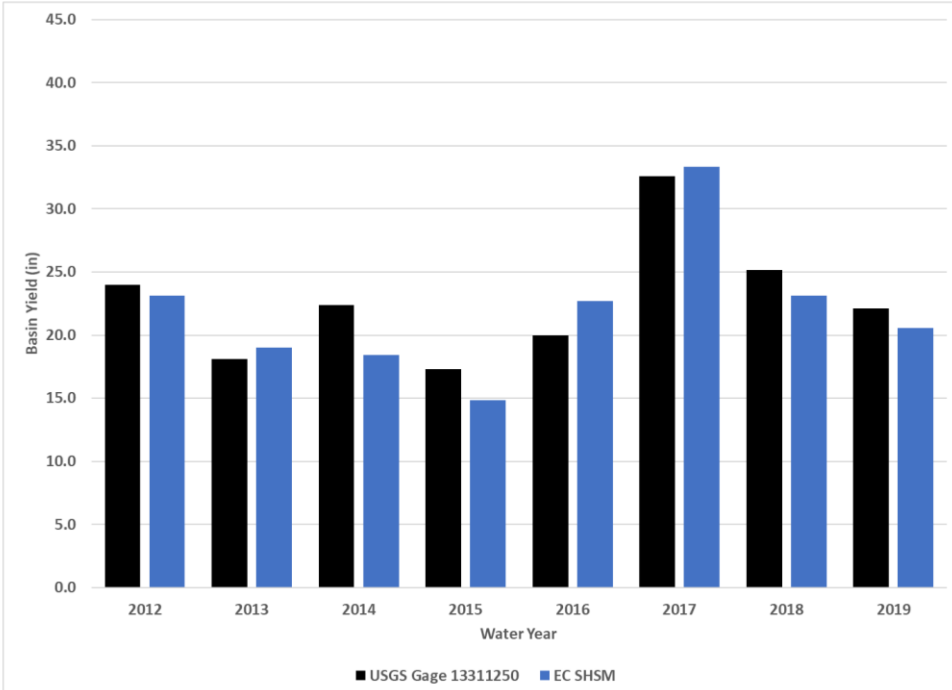


Figure 4-12. Measured vs Simulated Basin Yield at USGS Gage 13311250

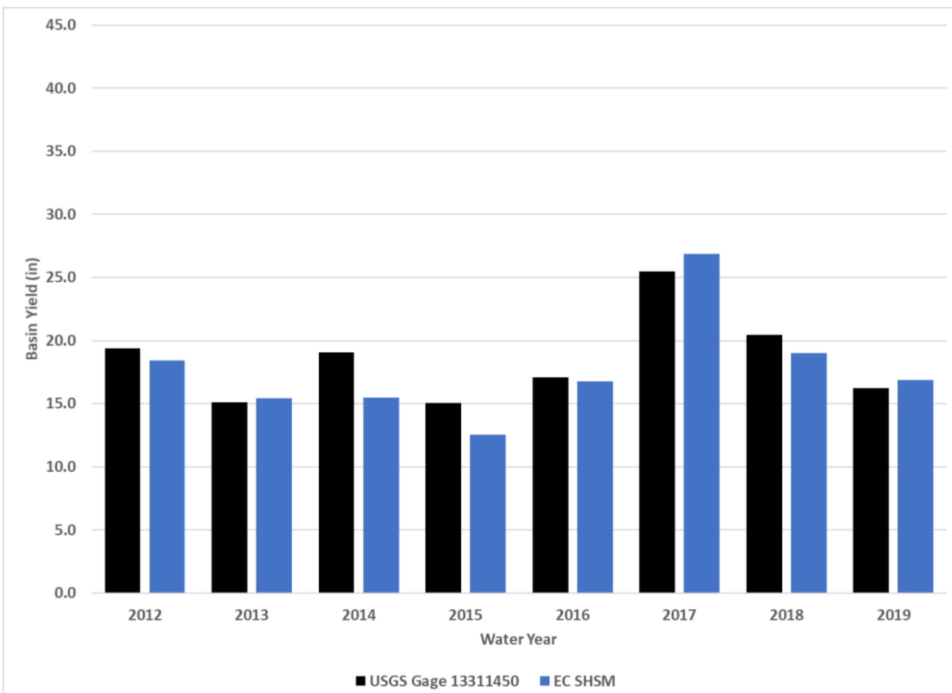


Figure 4-13. Measured vs Simulated Basin Yield at USGS Gage 13311450

Table 4-7. Measured and Simulated Median Basin Yield Comparison

Gage	Gage Location	Basin Area (mi²)	USGS Median Basin Yield (in)	EC SHSM Median Basin Yield (in)
13310800	13310800: EFSFSR Upstream of Meadow Creek	9.1	18.1	19.0
13310850	13310850: Meadow Creek	5.7	28.4	24.4
13311000	13311000: EFSFSR at the Box Culvert	19.3	22.5	22.4
13311250	1331250: EFSFSR Upstream of Sugar Creek	24.1	22.3	21.7
13311450	13311450: Sugar Creek Upstream of EFSFSR	18.0	18.1	16.8

Abbreviations:

EC = existing conditions

EFSFSR = East Fork of the South Fork of the Salmon River

In = inch

M2 = square mile

SHSM = Stibnite Hydrologic Site Model

USGS = Unites States Geological Survey

4.3 Groundwater Elevation

As with the baseflow, the analysis of how well the EC SHSM simulates groundwater elevation is based on model residuals, defined as the difference between the measured and simulated groundwater elevation (i.e., measured minus simulated groundwater elevation). An additional calibration statistic is the scaled RMSE, defined as the RMSE divided by the total difference in measured head, measures how well the model simulates groundwater flow gradients. Table provides a summary of the calibration statistics for the EC SHSM. As noted above, there is no industry defined statistical range that identifies a well calibrated model, and the acceptability of a calibration is directly dependent on the modeling objective (Anderson et al. 2015). The mean residual of 3.6 ft in the alluvium indicates that on average the measured groundwater elevation is higher than that simulated by the model in the alluvium. In other words, the model on average slightly underestimates the groundwater elevation in the alluvium. In contrast, the mean residual of -2.6 ft in the bedrock indicates that the model simulates slightly higher groundwater elevation on average than measured in the bedrock. Overall, the groundwater elevation is simulated within 9 ft of the measured values, as indicated by the absolute mean residual. The scaled RMSE of 1.3 percent indicates good representation of the regional hydraulic gradient.

Table 4-8. Groundwater Elevation Calibration Statistics

Statistic	Alluvium	Bedrock	All
Mean Residual (ft)[1]	3.63	-2.57	2.39
Absolute Mean Residual (ft)	8.65	8.62	8.65
Sum of Squared Errors (ft²)	7689.25	1438.15	9127.39
Root Mean Squared Error (ft)	13.22	11.43	12.88
Maximum Residual (ft)[1]	41.32	13.92	41.32
Minimum Residual (ft)[1]	-32.35	-28.13	-32.35
Scaled Root Mean Squared Error (%)	1.36	1.85	1.33

Notes:

[1]A positive residual indicates the measured water elevation is greater than the simulated water elevation and a negative residual indicates the measured water elevation is less than the simulated water elevation.

Abbreviations:

% = percent

ft = foot/feet

ft² – square foot

Figure 4-14. Simulated vs Measured Groundwater Elevation (left) and Simulated Residuals (right)

Figure 4-15 and Figure 4-16 show residual bubble plots for the alluvium and bedrock monitoring wells, respectively. The size of the bubbles represents the magnitude of the residual. These figures show that there is no spatial bias in the residuals and that the positive (EC SHSM underestimates the measured data) and negative (EC SHSM overestimates the measured data) values are generally spread evenly throughout the model domain.

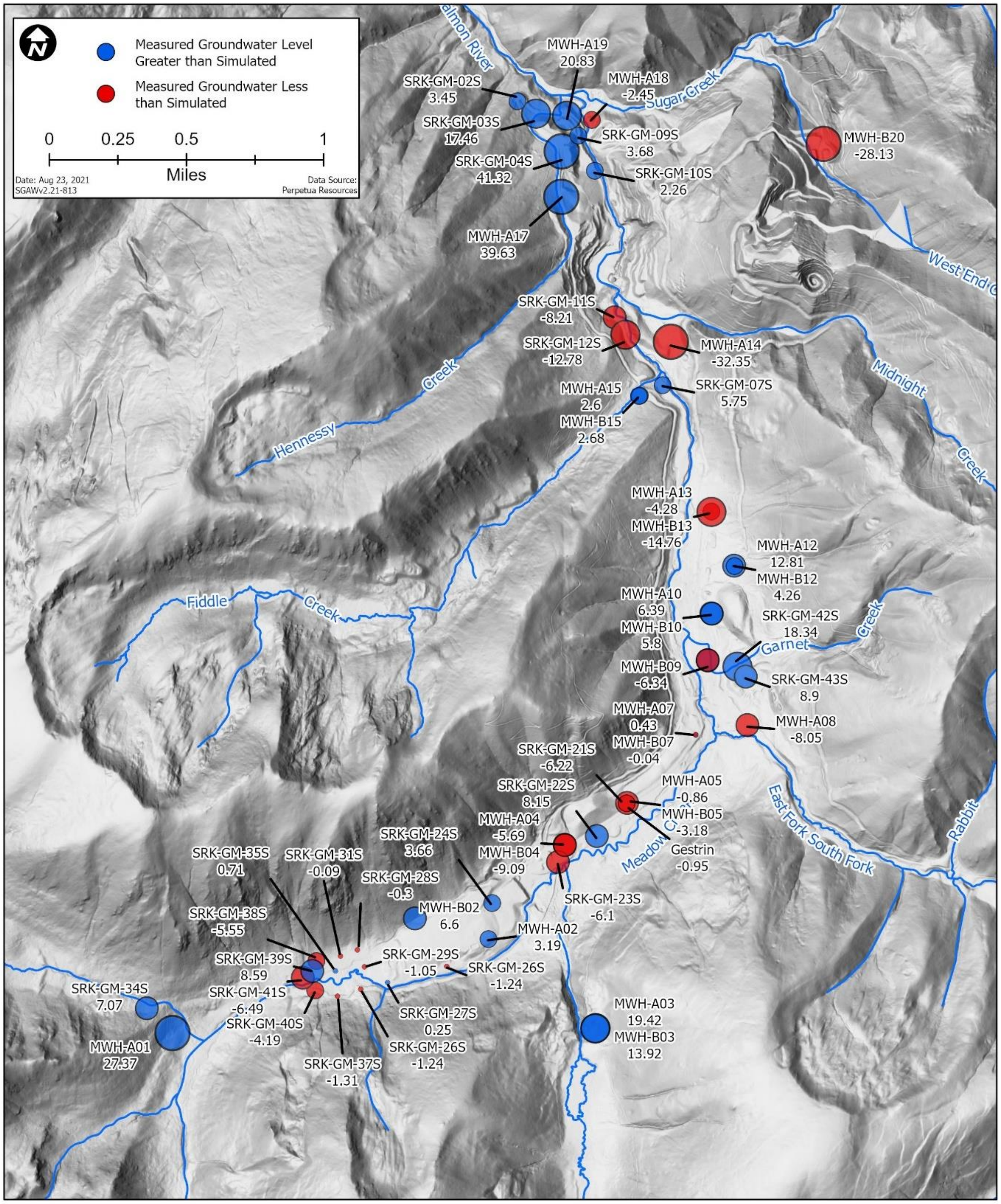


Figure 4-15. Simulated Groundwater Elevation Residuals at the 55 Monitoring Wells

Figure 4-14 compares the simulated and measured groundwater elevation (left) and the simulated residuals (right) for each of the 55 monitoring wells. The simulated groundwater elevation falls along the 1:1 line of the measured groundwater elevation, indicating that the simulation represents the measured data sufficiently well in both the alluvium and bedrock. The spread of the positive and negative residuals (right) indicates the model is not biased in either the alluvium or the bedrock.

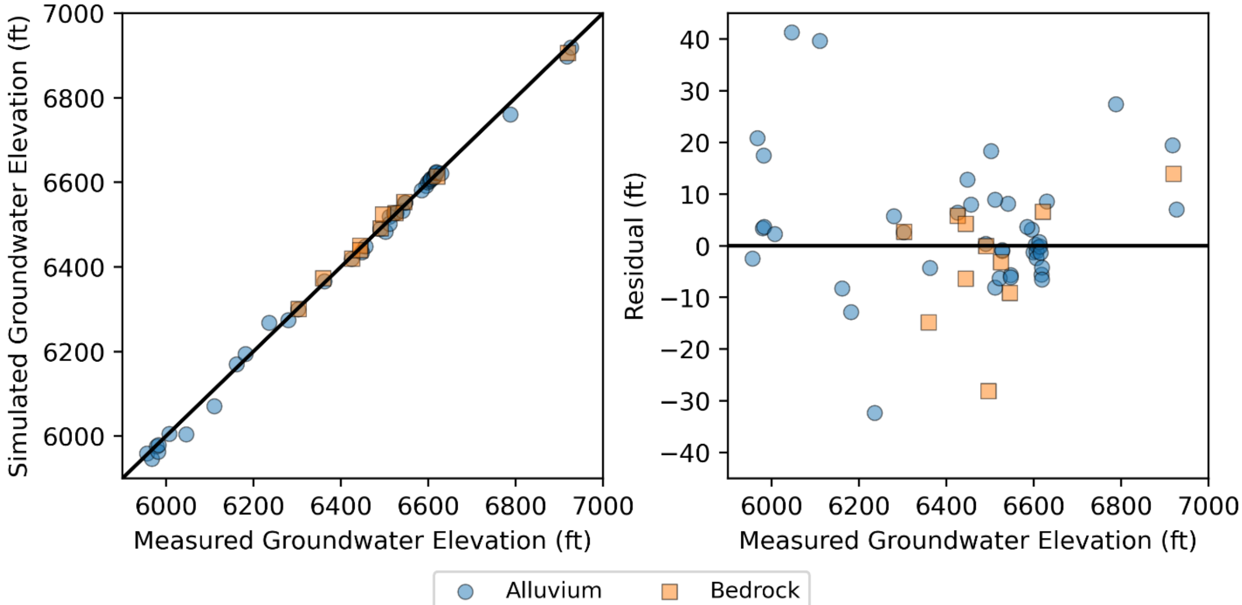


Figure 4-14. Simulated vs Measured Groundwater Elevation (left) and Simulated Residuals (right)

Figure 4-15 and Figure 4-16 show residual bubble plots for the alluvium and bedrock monitoring wells, respectively. The size of the bubbles represents the magnitude of the residual. These figures show that there is no spatial bias in the residuals and that the positive (EC SHSM underestimates the measured data) and negative (EC SHSM overestimates the measured data) values are generally spread evenly throughout the model domain.

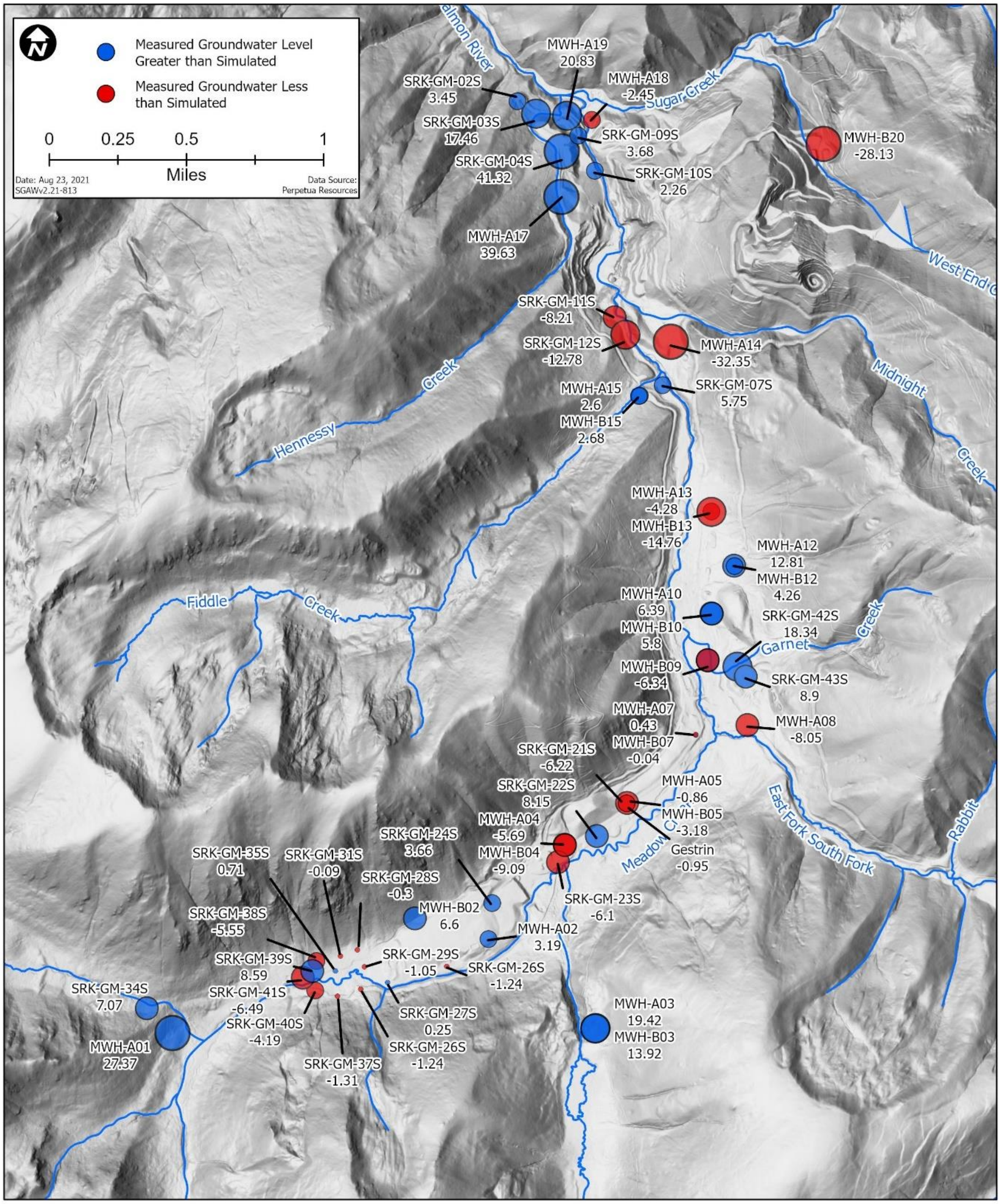


Figure 4-15. Simulated Groundwater Elevation Residuals at the 55 Monitoring Wells

Figure 4-16 through Figure 4-21 compare the measured and simulated groundwater elevation at monitoring wells where transient data is available. Monitoring wells used for calibration are presented on Figure 4-1 and Figure 4-2. The light blue band represents the uncertainty in the simulated values, defined as the simulated value plus or minus the absolute mean residual of 8.7 ft. These wells were selected to show comparisons spanning the Meadow Creek drainage down to the EFSFSR just upstream of the Sugar Creek confluence. Overall, Figure 4-16 through Figure 4-21 indicate that the simulated groundwater elevation represents the measured groundwater elevation sufficiently well without overfitting.

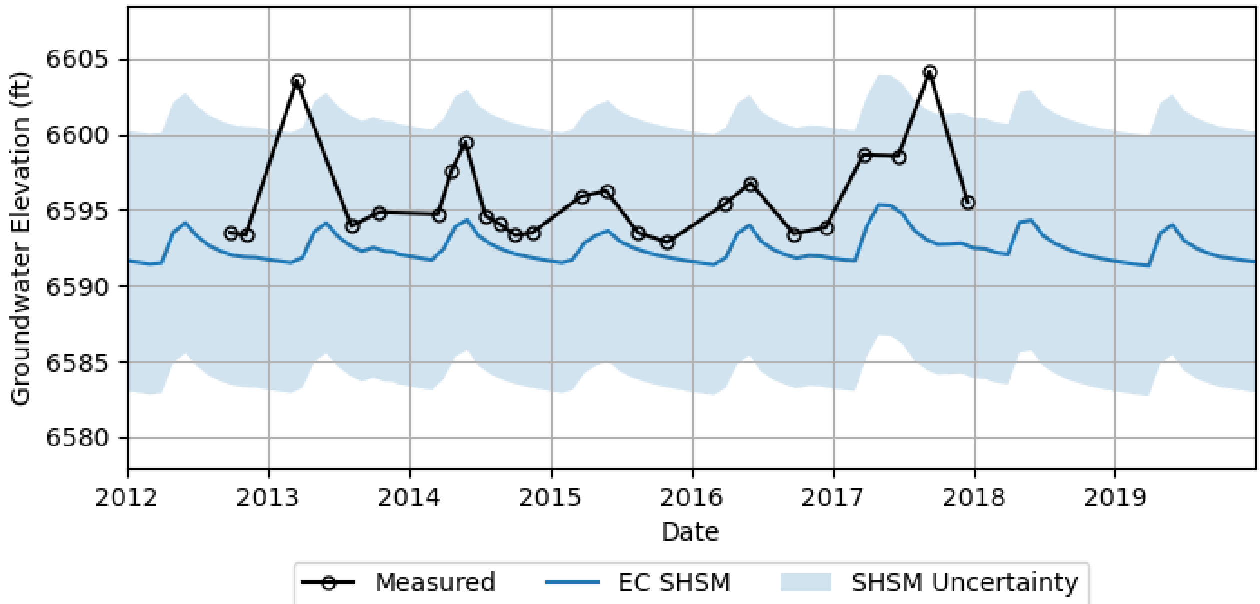


Figure 4-16. Measured vs Simulated Groundwater Elevation at the MWH-A02 Alluvial Monitoring Well

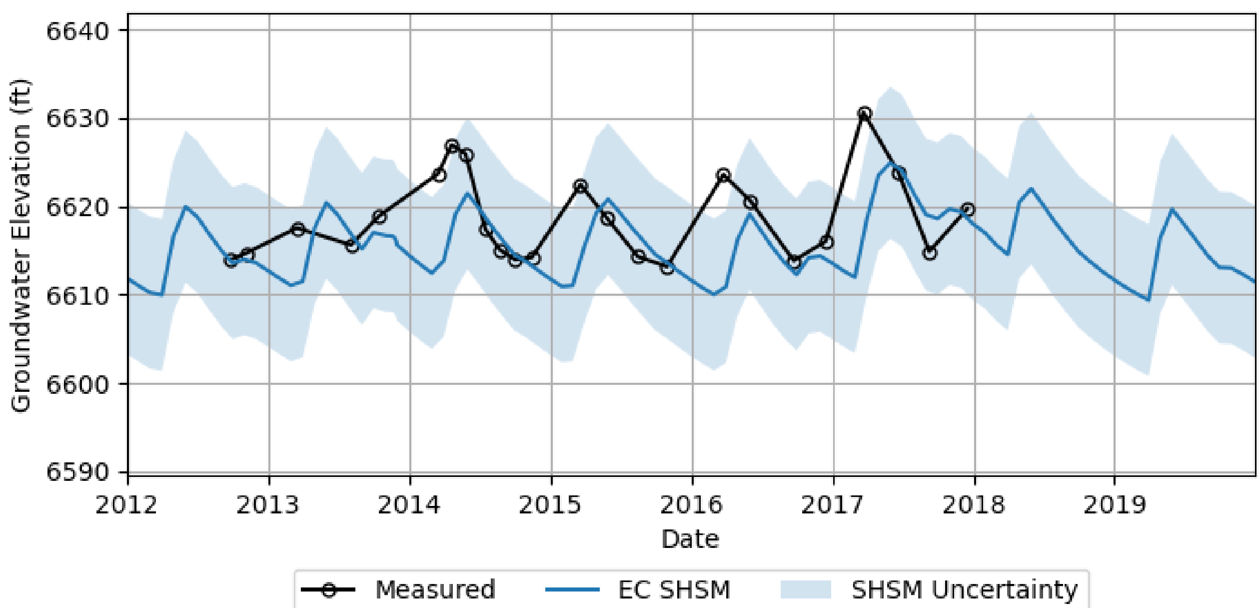


Figure 4-17. Measured vs Simulated Groundwater Elevation at the MWH-B02 Bedrock Monitoring Well

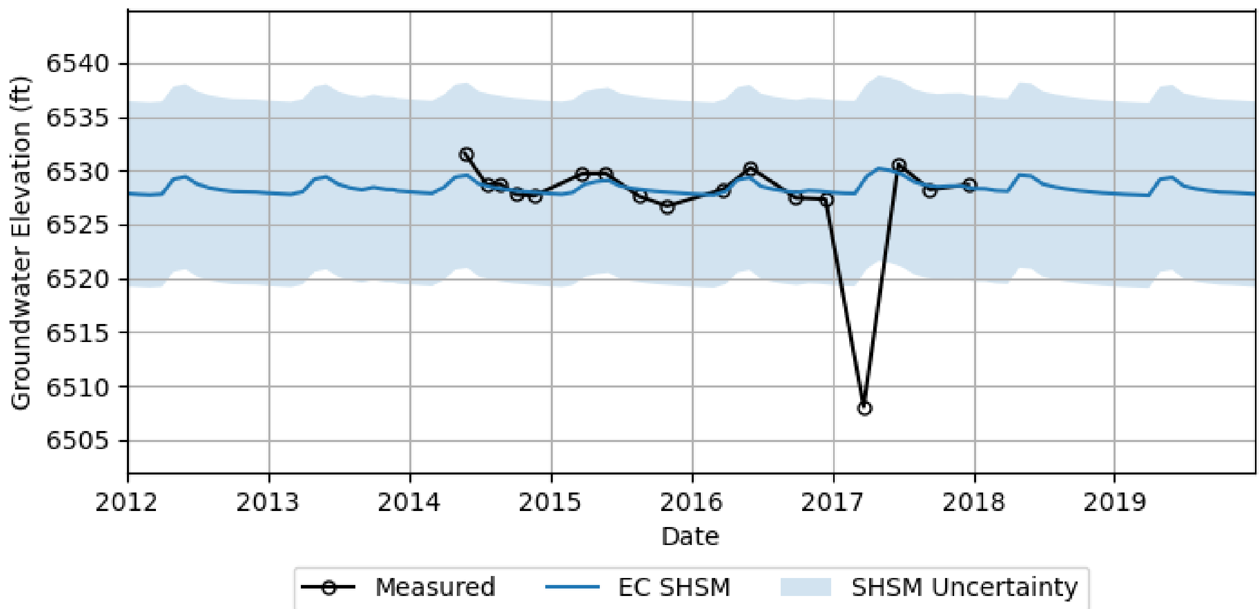


Figure 4-18. Measured vs Simulated Groundwater Elevation at the Gestrin Alluvial Monitoring Well

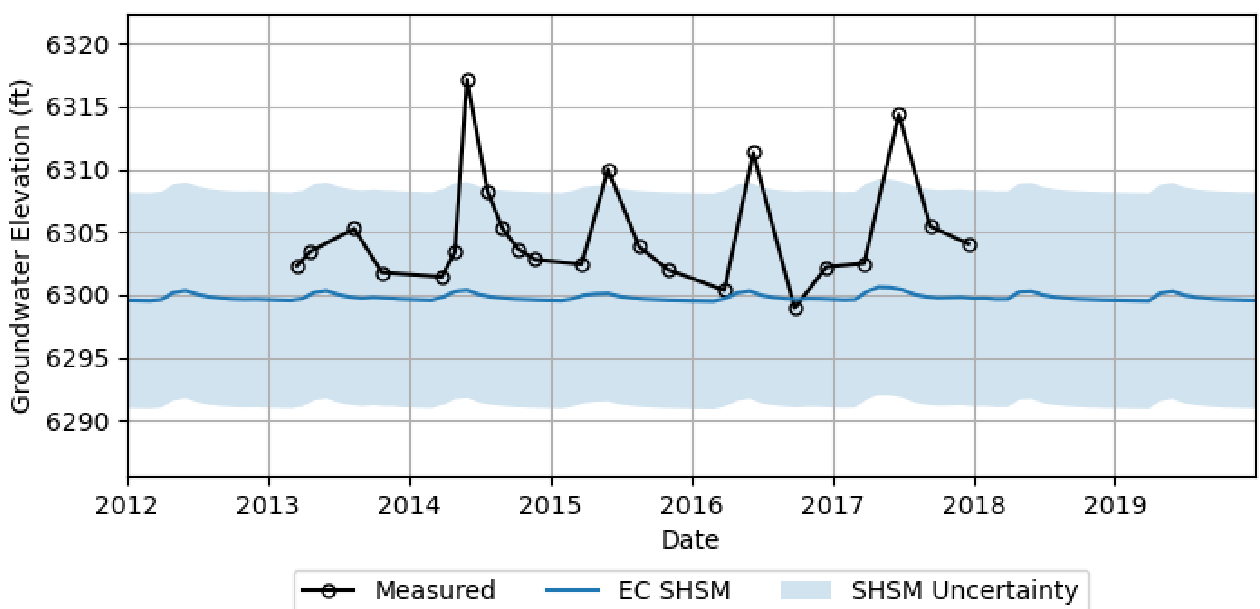


Figure 4-19. Measured vs Simulated Groundwater Elevation at the MWH-A15 Alluvial Monitoring Well

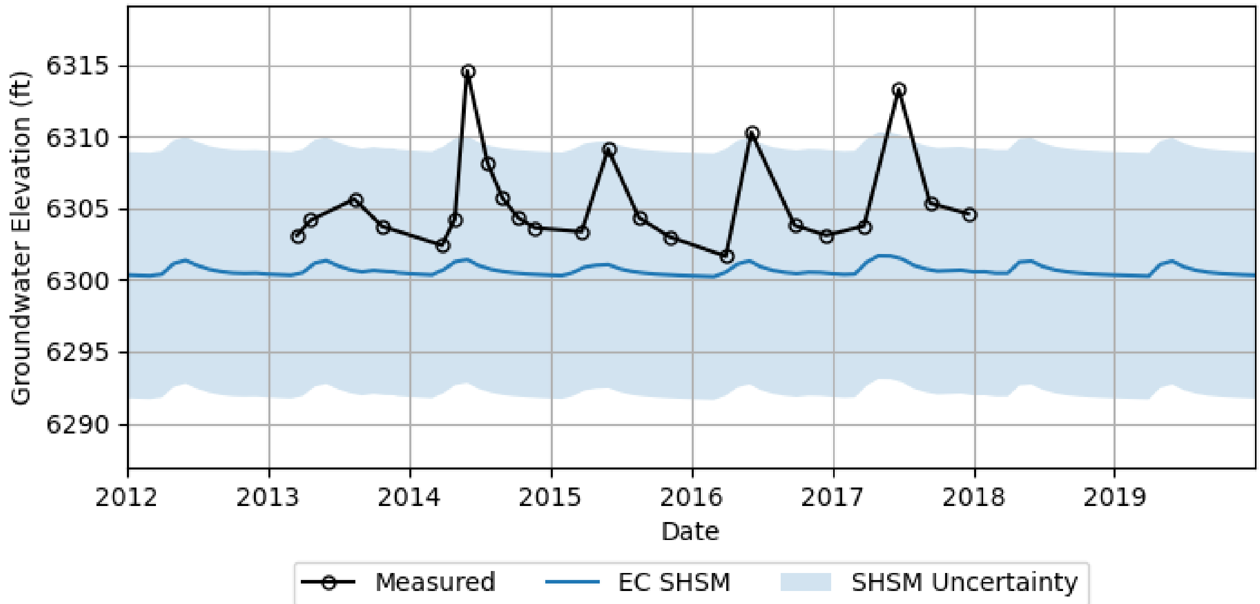


Figure 4-20. Measured vs Simulated Groundwater Elevation at the MWH-B15 Bedrock Monitoring Well

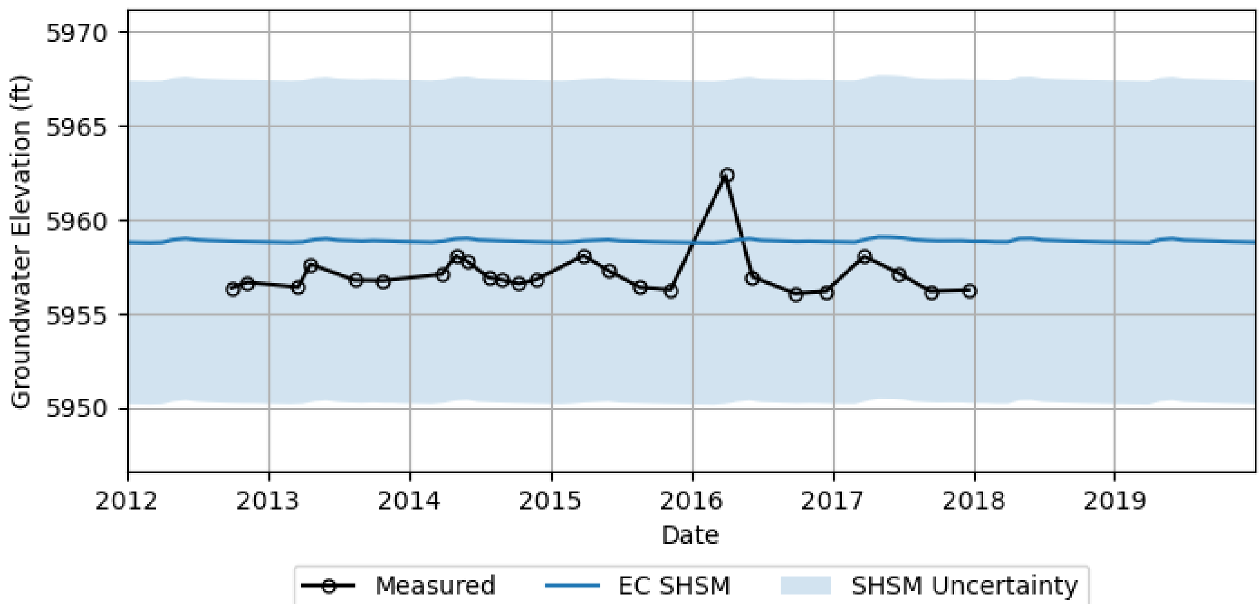


Figure 4-21. Measured vs Simulated Groundwater Elevation at the MWH-A18 Alluvial Monitoring Well

4.4 Aquifer Test Drawdown

In Sections 4.1 and 4.2 it was demonstrated that the EC SHSM sufficiently simulates observed stream baseflow and groundwater elevation throughout the Study Area. Additional local scale calibration was conducted in the vicinity of the Gestrin feature to simulate observed aquifer drawdown from the 2013 and 2019 Gestrin well aquifer tests. Both aquifer tests show that local scale aquifer heterogeneity influences the aquifer's response to pumping in the Gestrin well. The results are indicative of a linear higher permeability zone parallel to Meadow Creek which influences the drawdowns in a region extending approximately 1,400 ft downgradient and 2,000 ft upgradient of the Gestrin well, respectively (BC 2017). The extent of observed drawdown along the alignment of Meadow Creek during the 2019 aquifer test was similar to that of the 2013 aquifer test. Figure 4-22 through Figure 4-25 show the comparison between the simulated and measured drawdown for the 2013 aquifer test at four different wells in the Gestrin feature. Figure 4-26 - Figure 4-29 show the comparison between the simulated and measured drawdown for the 2019 aquifer test at four different wells in the Gestrin feature. Overall, the EC SHSM shows very good correspondence between both the 2013 and 2019 aquifer test drawdown time series at each of the wells. There is clearly a significant difference between the two aquifer tests. The 2013 aquifer test stressed the aquifer with a pumping rate of approximately 100 gpm for 31 days whereas the 2019 aquifer test pumping rate was approximately 55 gpm for 3 days. Between the two aquifer tests the maximum difference between the observed and simulated drawdown at the end of pumping is approximately 2 ft occurring in the bedrock at Well MWH-B05. All other wells show a difference of 1 ft or less in drawdown at the end of pumping.

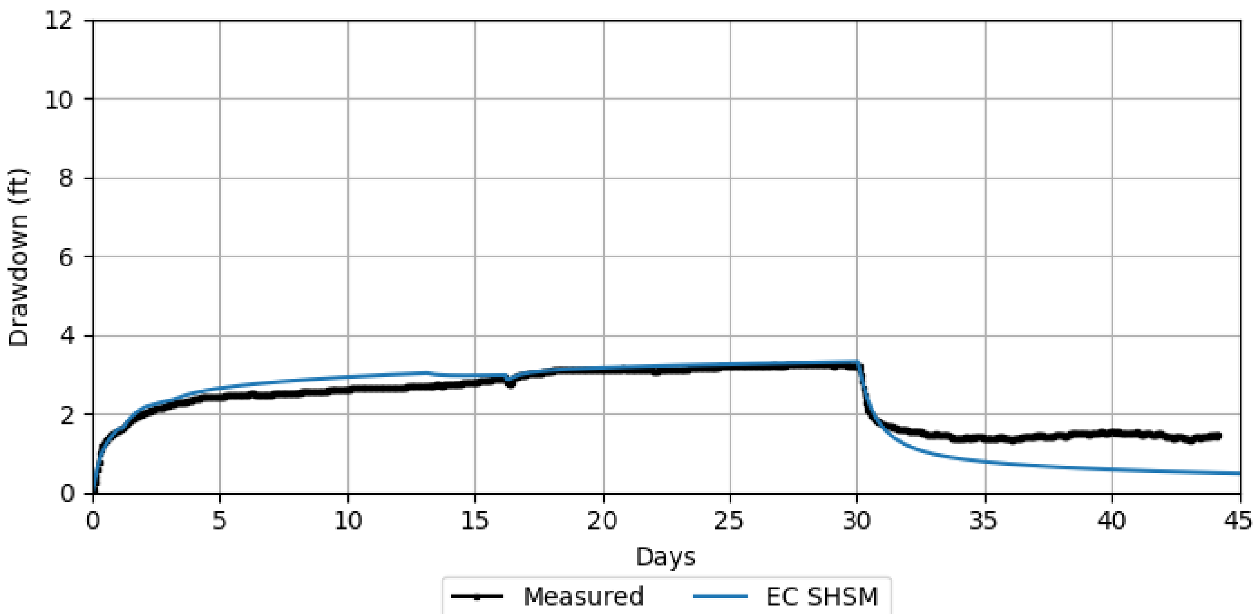


Figure 4-22. Measured vs Simulated Groundwater Elevation Drawdown at Alluvial Well MWH-A05 for the 2013 Aquifer Test

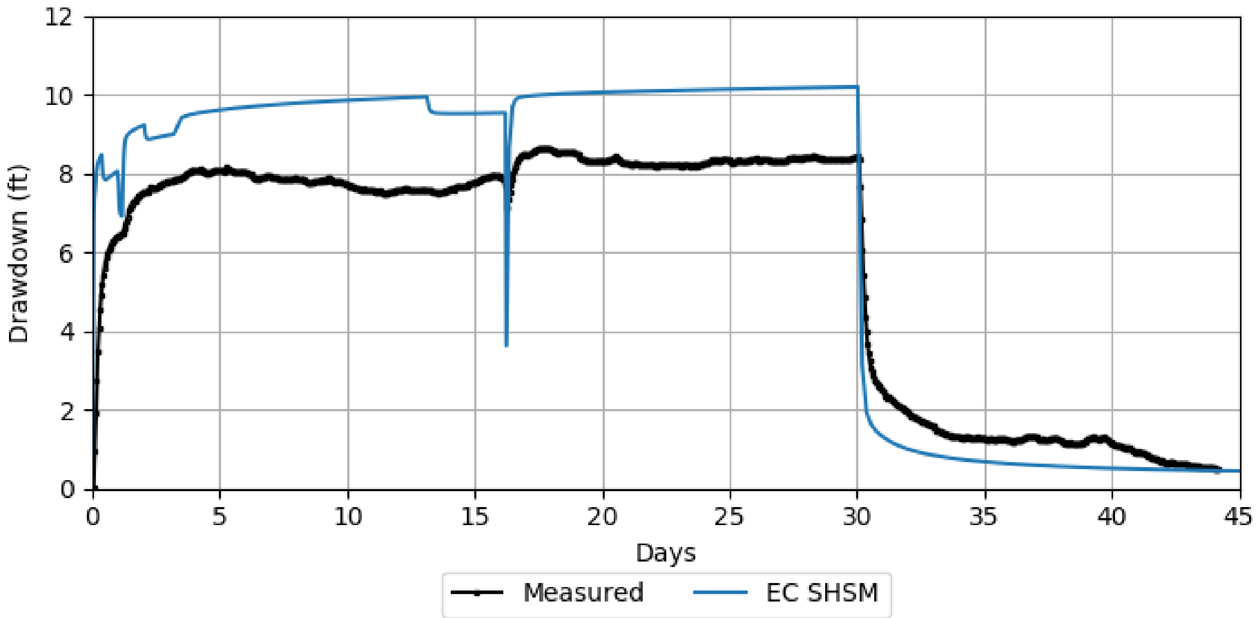


Figure 4-23. Measured vs Simulated Groundwater Elevation Drawdown at Bedrock Well MWH-B05 for the 2013 Aquifer Test

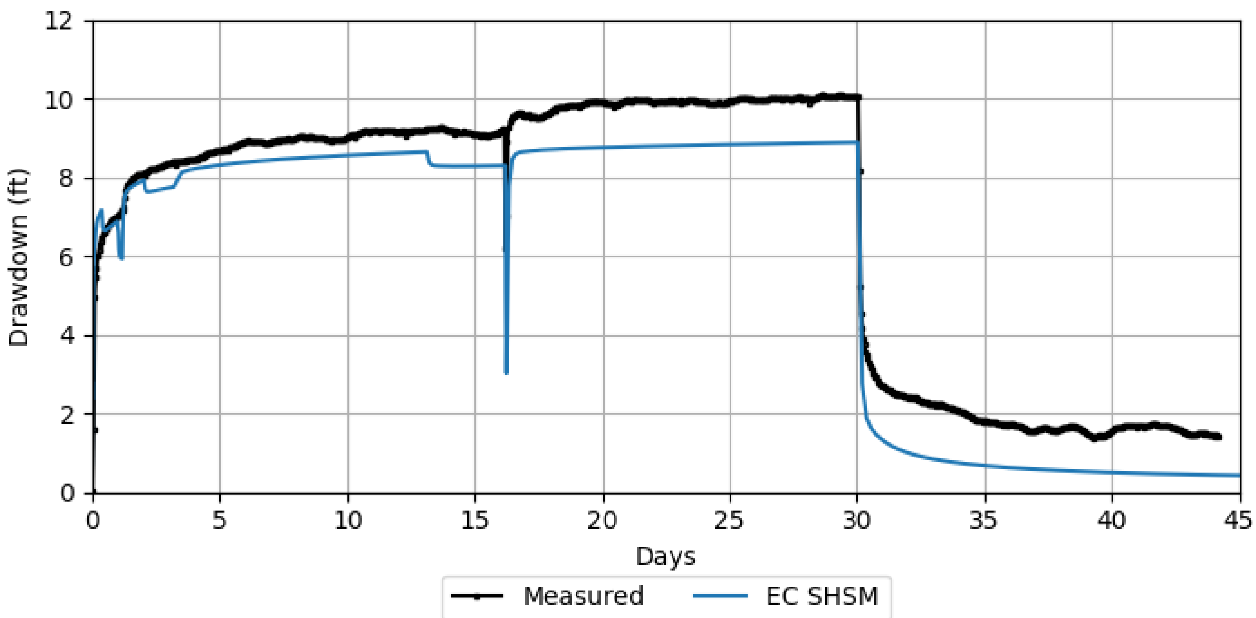


Figure 4-24. Measured vs Simulated Groundwater Elevation Drawdown at Alluvial Well SRK-GM-21S for the 2013 Aquifer Test

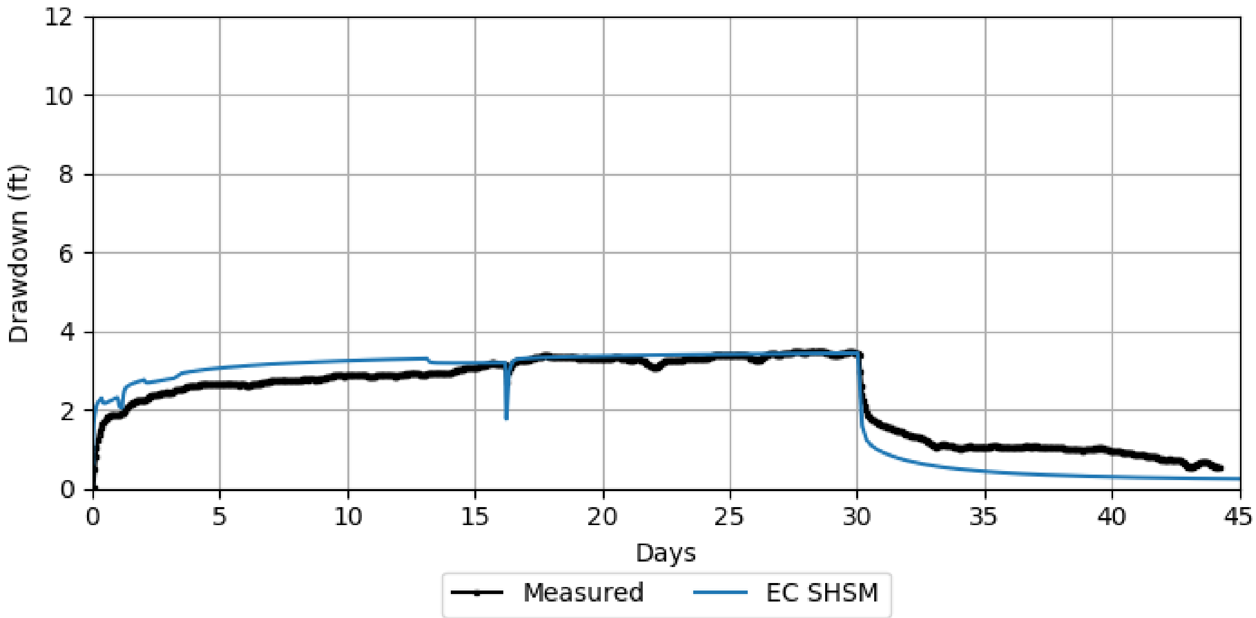


Figure 4-25. Measured vs Simulated Groundwater Elevation Drawdown at Alluvial Well SRK-GM-22S for the 2013 Aquifer Test

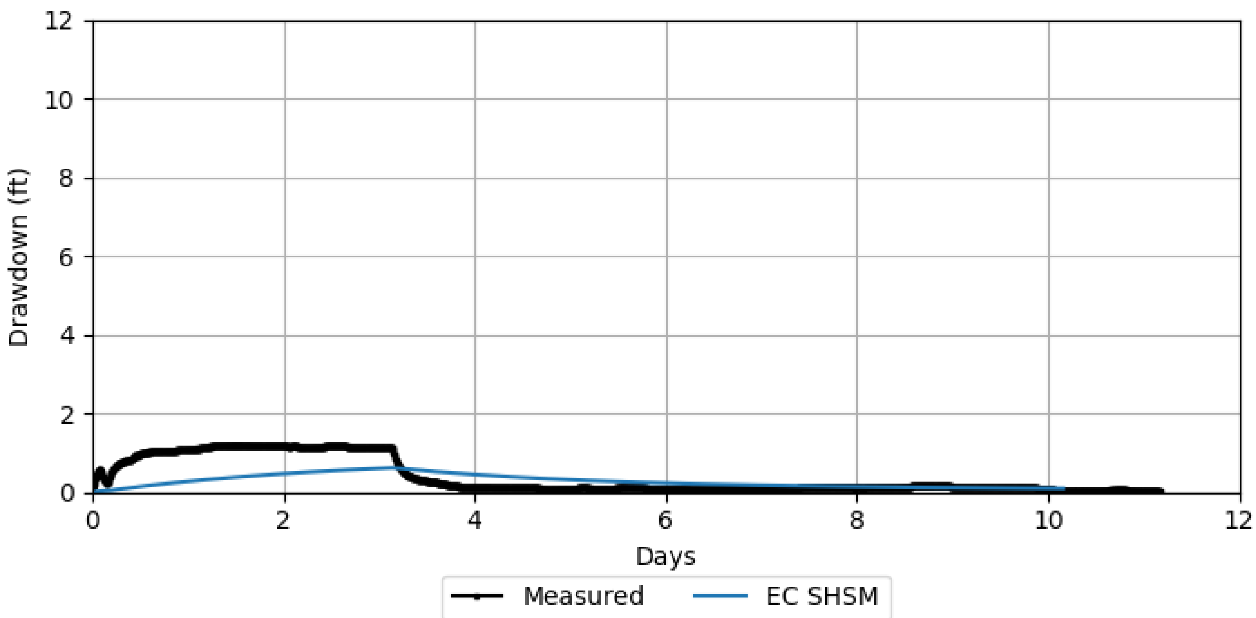


Figure 4-26. Measured vs Simulated Groundwater Elevation Drawdown at Alluvial Well MGI-10-HFOW1A for the 2019 Aquifer Test

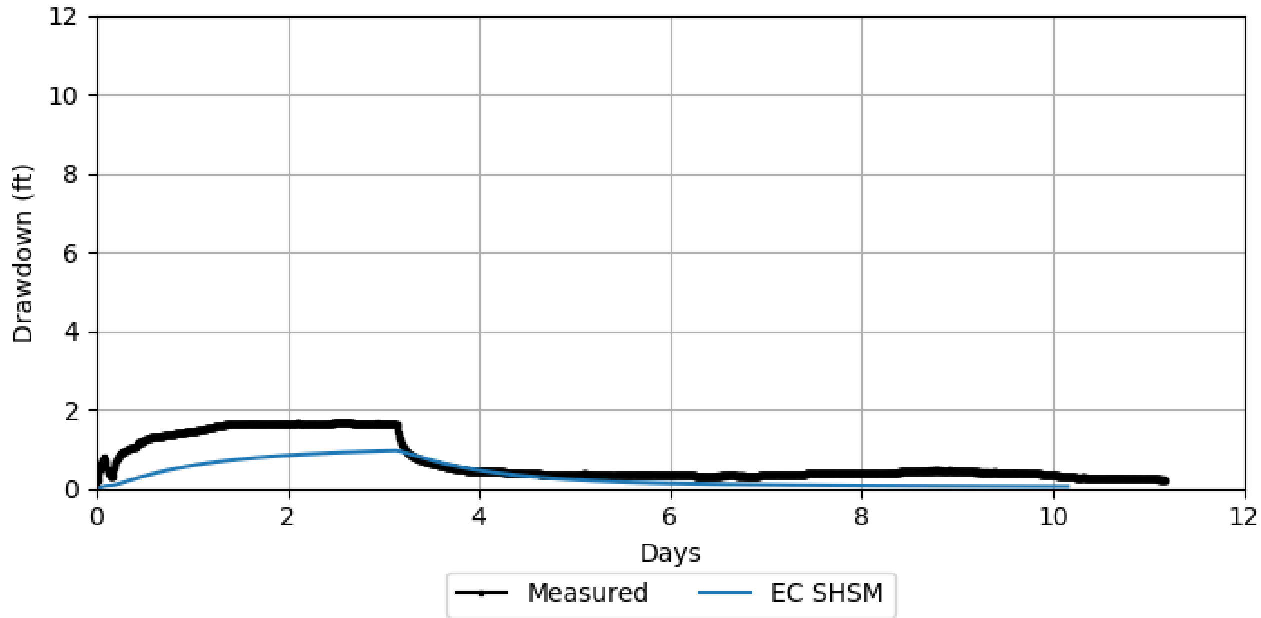


Figure 4-27. Measured vs Simulated Groundwater Elevation Drawdown at Alluvial Well MGI-19-HFOW2A for the 2019 Aquifer Test

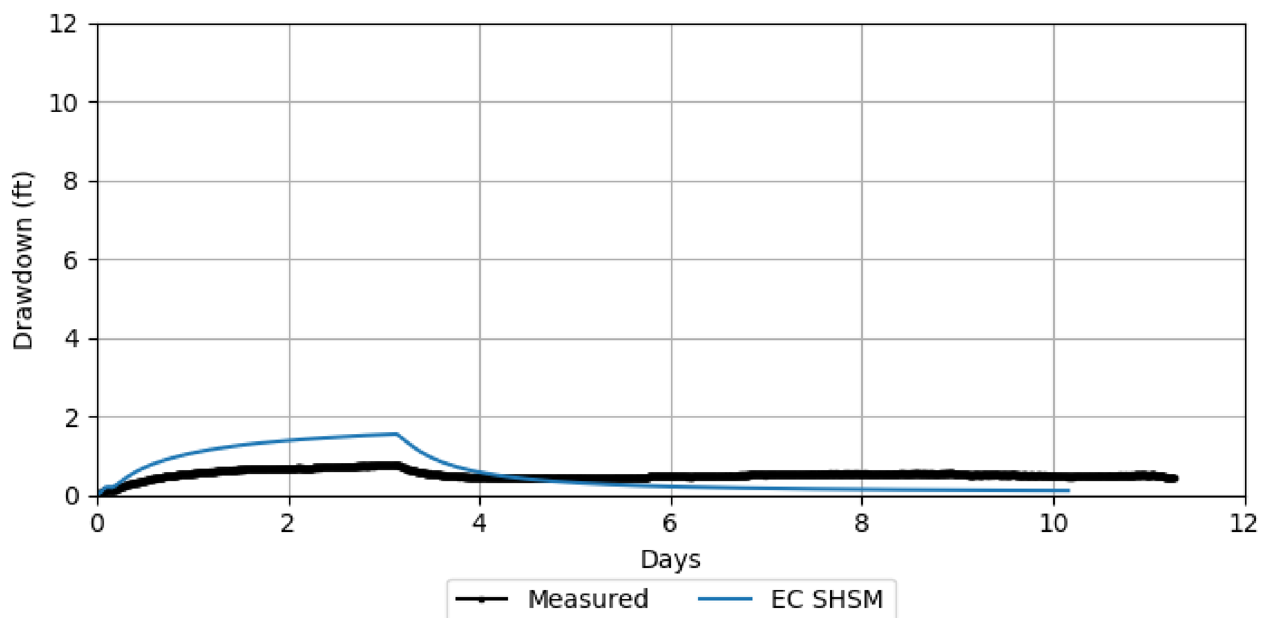


Figure 4-28. Measured vs Simulated Groundwater Elevation Drawdown at Alluvial Well MWH-A05 for the 2019 Aquifer Test

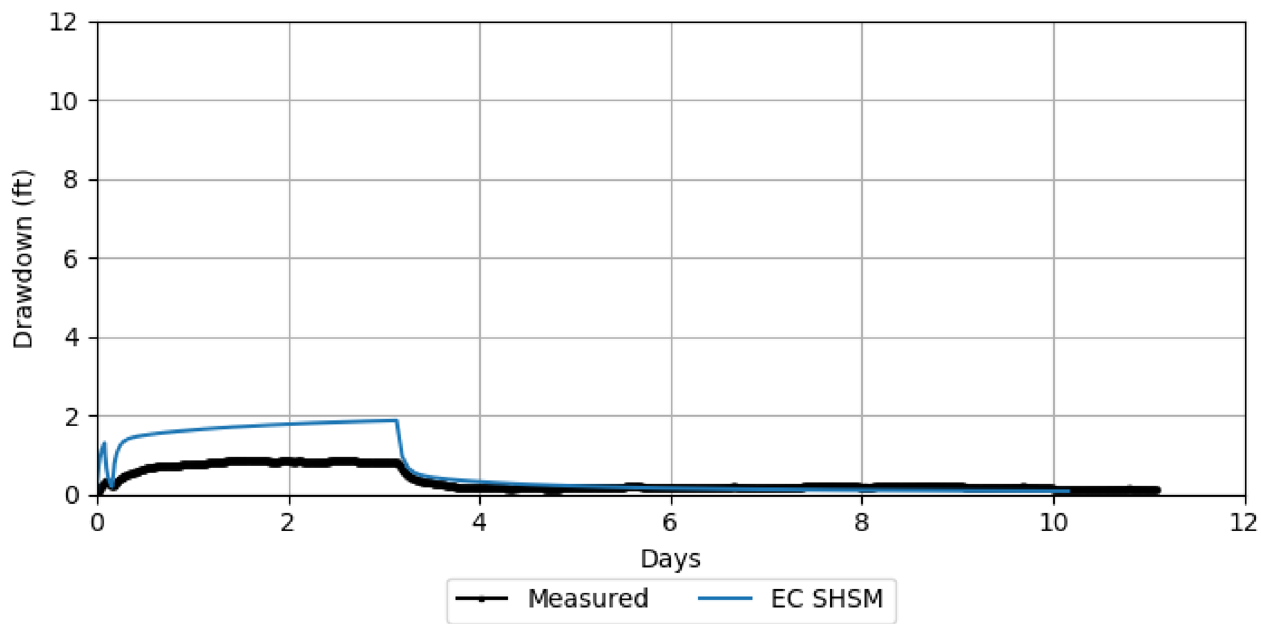


Figure 4-29. Measured vs Simulated Groundwater Elevation Drawdown at Alluvial Well SRK-GM-22S for the 2019 Aquifer Test

4.5 Original Existing Condition Model Comparison

This section focuses on a comparison of the EC SHSM to the EC Original Model. Table 4-9 compares the aggregate calibration statistics between the two models for flows in the months of October, November, December, January, and February for the years 2011 to 2017 (the time frame when all gages have data available). Streamflow in the other months of the year have been excluded here since the higher magnitude flows in those months skew the statistics. At all 5 gages the absolute residual mean has improved in the EC SHSM model as compared to the EC Original Model, indicating that the uncertainty in EC SHSM simulated baseflow has been reduced. In addition, the root mean squared errors are considerably smaller at all five gages in the EC SHSM, indicating that overall, the EC SHSM reduces the magnitude of overestimation and underestimation of the measured baseflow.

Table 4-9. Comparison Calibration Statistics at the USGS Gages

Calibration Statistics		
Meadow Creek (USGS Gage13310850)		
Statistic	EC Original Model	EC SHSM
Mean Residual (cfs)[1]	2.40	1.57
Absolute Mean Residual (cfs)	5.03	3.08
Sum of Squared Errors (cfs^2)	6749.07	2450.80
Root Mean Squared Error (cfs)	9.49	5.72
Maximum Residual (cfs)[1]	43.15	22.99
Minimum Residual (cfs)[1]	-18.75	-18.01
EFSFSR above Meadow Creek (USGS Gage13310800)		
Statistic	EC Original Model	EC SHSM
Mean Residual (cfs)[1]	-1.54	-0.03
Absolute Mean Residual (cfs)	5.60	3.09
Sum of Squared Errors (cfs^2)	8454.80	3135.14
Root Mean Squared Error (cfs)	10.62	6.47

Calibration Statistics		
Maximum Residual (cfs)[1]	27.52	15.11
Minimum Residual (cfs)[1]	-44.63	-35.28
EFSFSR at Box Culvert (USGS Gage13311000)		
Statistic	**EC Original Model**	**EC SHSM**
Mean Residual (cfs)[1]	1.56	0.91
Absolute Mean Residual (cfs)	12.59	6.69
Sum of Squared Errors (cfs^2)	34590.89	11835.27
Root Mean Squared Error (cfs)	21.48	12.56
Maximum Residual (cfs)[1]	67.48	36.66
Minimum Residual (cfs)[1]	-75.59	-52.75
EFSFSR above Sugar Creek (USGS Gage13311250)		
Statistic	**EC Original Model**	**EC SHSM**
Mean Residual (cfs)[1]	-0.95	0.76
Absolute Mean Residual (cfs)	13.86	8.16
Sum of Squared Errors (cfs^2)	44243.52	15914.37
Root Mean Squared Error (cfs)	24.29	14.57
Maximum Residual (cfs)[1]	76.40	48.20
Minimum Residual (cfs)[1]	-82.46	-59.23
Sugar Creek (USGS Gage13311450)		
Statistic	**EC Original Model**	**EC SHSM**
Mean Residual (cfs)[1]	-4.77	1.28
Absolute Mean Residual (cfs)	9.89	5.78
Sum of Squared Errors (cfs^2)	22112.34	6565.67
Root Mean Squared Error (cfs)	17.17	9.36
Maximum Residual (cfs)[1]	42.80	31.42
Minimum Residual (cfs)[1]	-61.37	-29.92

Notes:

[1]A positive residual indicates the measured flow is greater than the simulated flow and a negative residual indicates the measured flow is less than the simulated flow.

Abbreviations:

cfs = cubic foot per second

cfs^2 = cubic foot per second squared

EC = existing conditions

EFSFSR = East Fork of the South Fork of the Salmon River

SHSM – Stibnite Hydrologic Site Model

USGS = United States Geological Survey

Figure 4-30 through Figure 4-34 compare the EC Original Model and EC SHSM to the monthly streamflow at the five USGS gage stations. The EC Original Model simulates an increase in streamflow during September and October at all five locations. The EC SHSM only simulates this increase in a few years at USGS gage 13310850, which better replicates the USGS gage data wherein significant September and October streamflow increases only occur at USGS gage 13310850. This clearly shows that the data-driven refinements in the EC SHSM, particularly in the spatial distribution of the MWB's to sub-basins, results in a distribution of precipitation that is in better agreement with the available data.

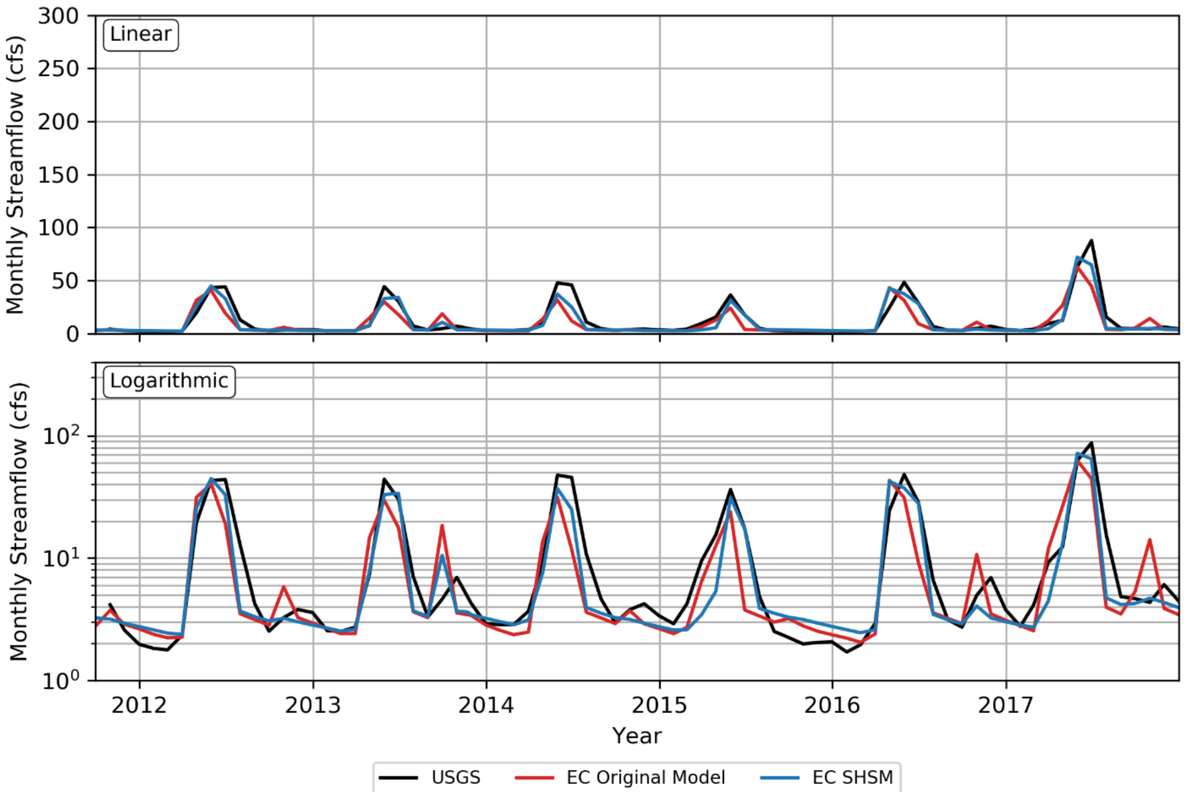


Figure 4-30. Comparison of EC Original Model and EC SHSM to Measured Flow at USGS Gage 13310850

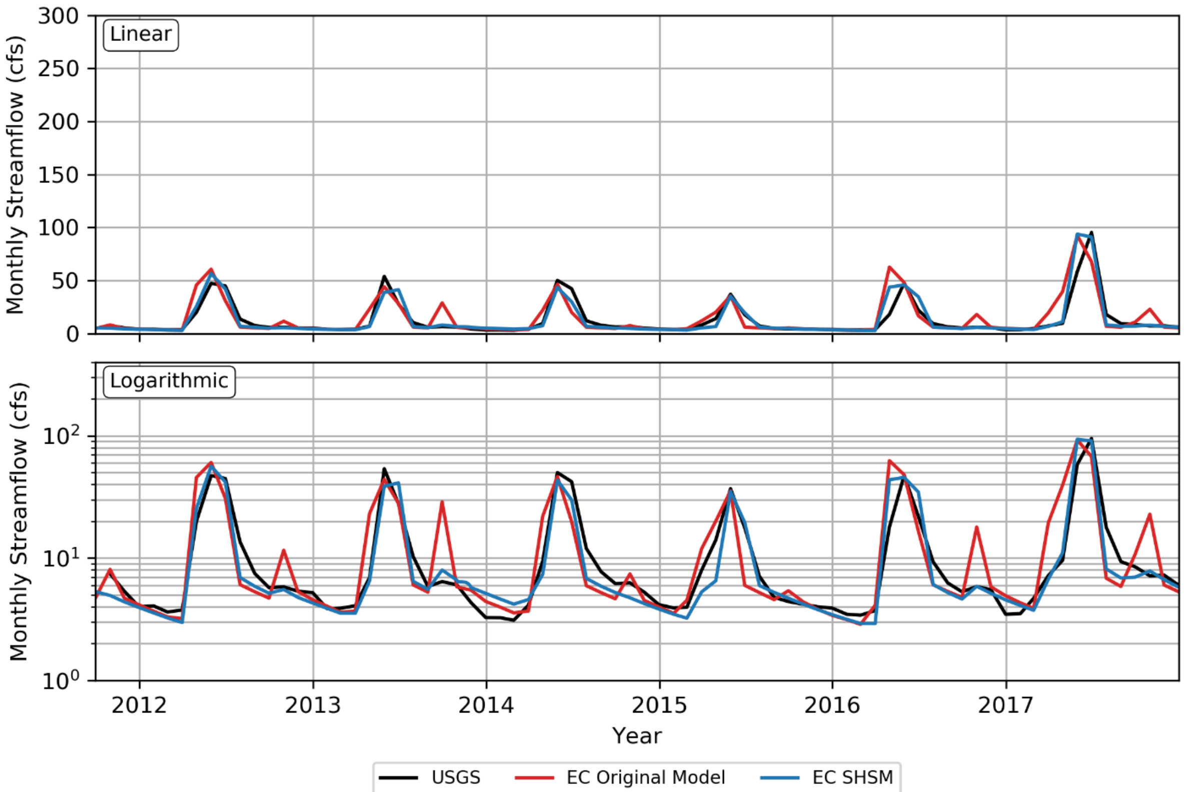


Figure 4-31. Comparison of EC Original Model and EC SHSM to Measured Flow at USGS Gage 13310800

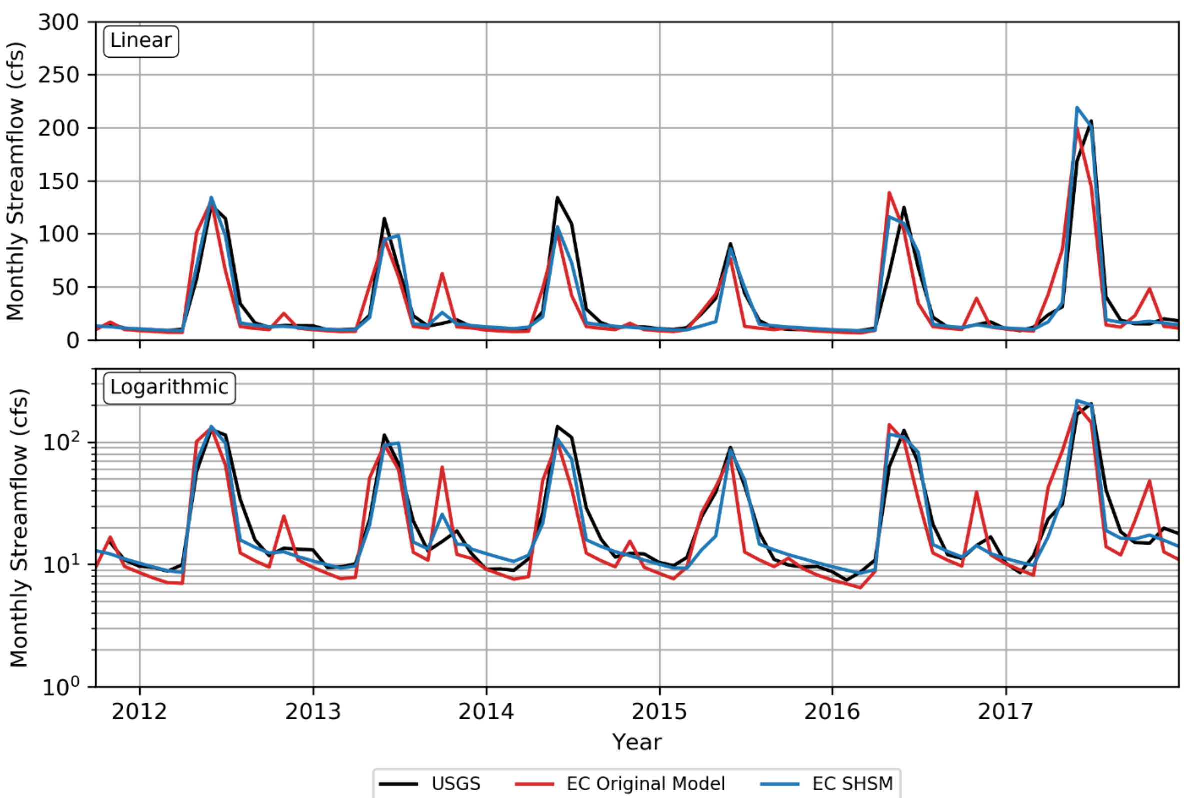


Figure 4-32. Comparison of EC Original Model and EC SHSM to Measured Flow at USGS Gage 13311000

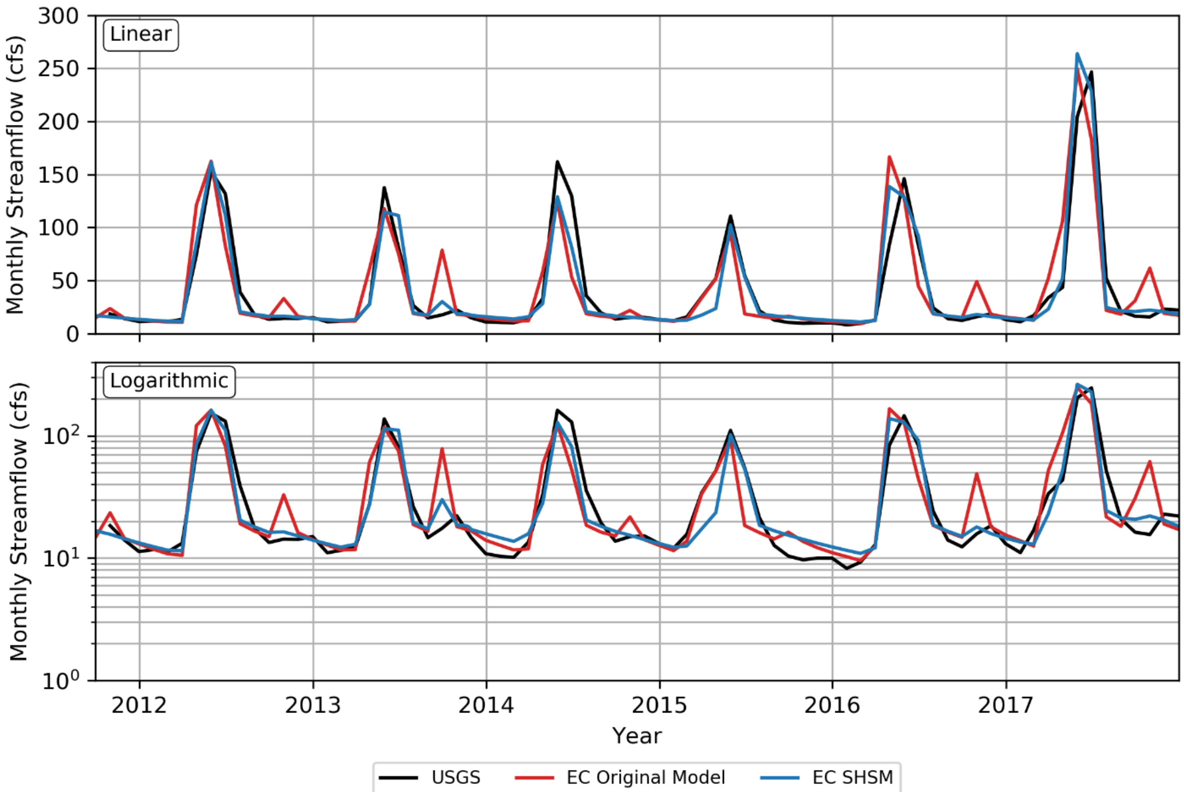


Figure 4-33. Comparison of EC Original Model and EC SHSM to Measured Flow at USGS Gage 13311250

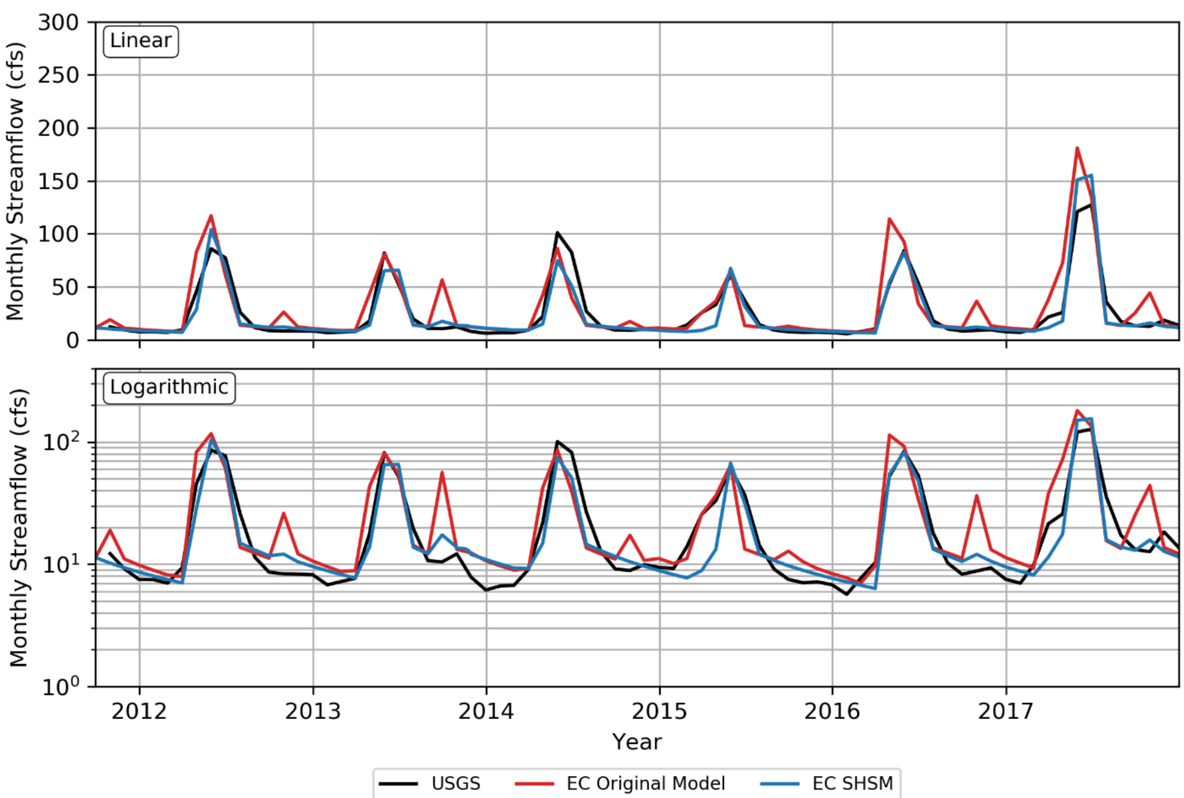


Figure 4-34. Comparison of EC Original Model and EC SHSM to Measured Flow at USGS Gage 13311450

Figure 4-35 through Figure 4-39 show the simulated versus measured streamflow and simulated residuals for both models at the five USGS Gage stations. Note that all months are included in these figures to show how well each model represents peak flow, as well as the baseflow. These figures indicate that as whole the EC SHSM represents the measured streamflow more accurately over the whole range of streamflow within the Study Area than the EC Original Model. In the streamflow ranging from approximately 5 to 20 cfs at the 13310850 and 13310800 gages and the streamflow ranging from approximately 10 to 50 cfs at the other three gages, the residual plots show that the EC Original Model systematically overestimates several of the streamflow measurements, which is not the case in the EC SHSM model.

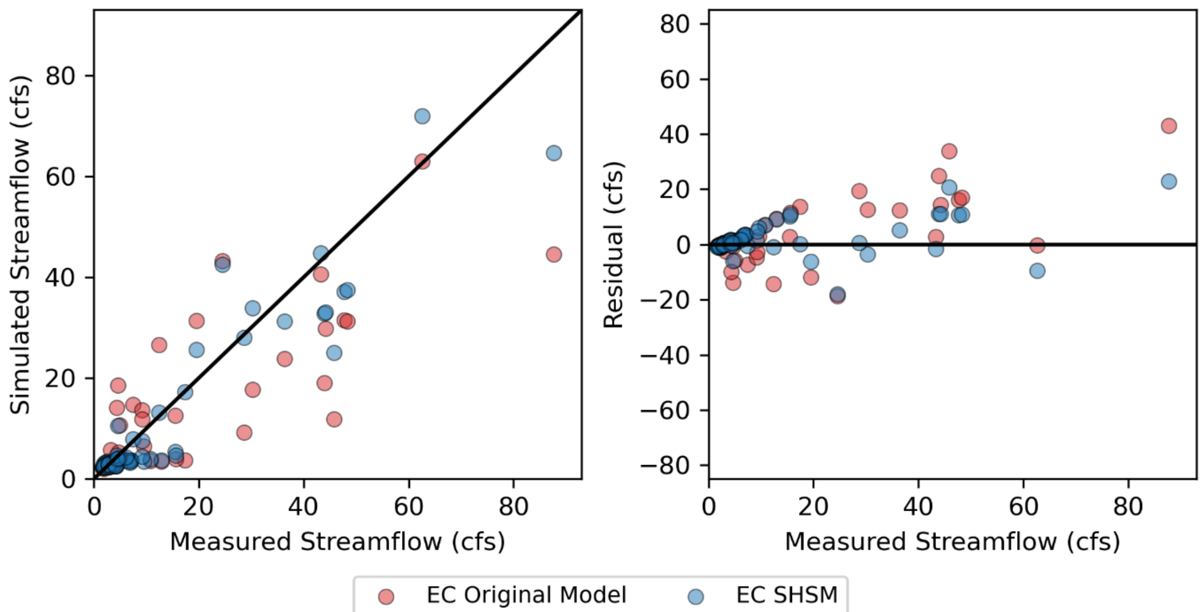


Figure 4-35. Simulated vs Measured Streamflow (left) and Simulated Streamflow Residuals (right) at USGS Gage 13310850 for the EC Original Model and the EC SHSM

Figure 4-40 compares the simulated versus measured groundwater heads and simulated residuals between both models at the 55 monitoring well locations in the Study Area. Overall, the two models simulate groundwater heads that are representative of the measured values. However, as with the streamflow, the EC SHSM on average reduces the magnitude of residuals when compared to the EC Original Model. The absolute residual mean for the EC SHSM is 8.6 ft compared to 9.9 ft in the EC Original Model. This is also reflected in the root mean squared error that is 12.9 ft in the EC SHSM and 14.6 ft in the EC Original Model. The residual mean for the EC Original Model and EC SHSM is -1.9 ft and 2.4 ft, respectively. This indicate that on average the EC Original Model slightly overestimates the measured groundwater elevation, whereas the EC SHSM slightly underestimates the measured groundwater elevation.

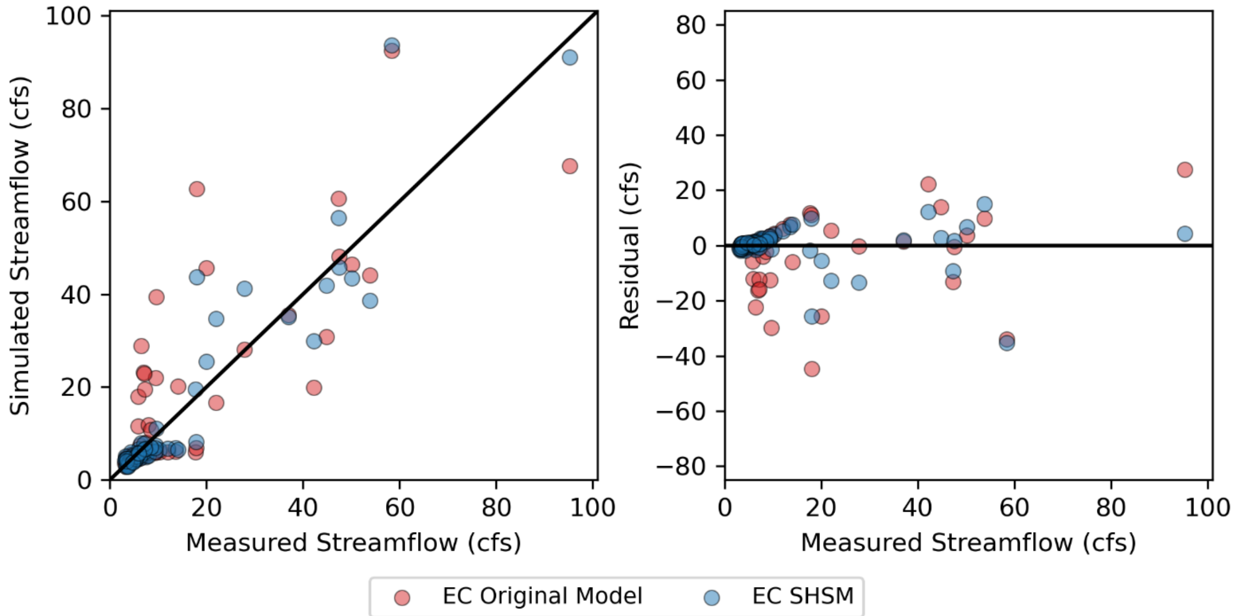


Figure 4-36. Simulated vs Measured Streamflow (left) and Simulated Streamflow Residuals (right) at USGS Gage 13310800 for the EC Original Model and the EC SHSM

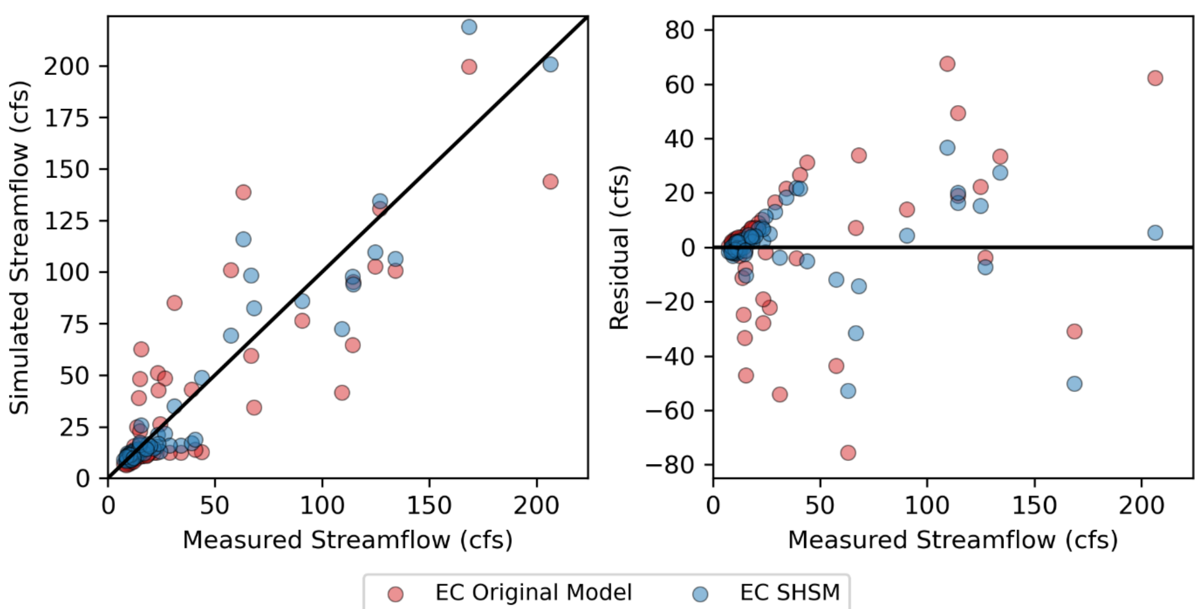


Figure 4-37. Simulated vs Measured Streamflow (left) and Simulated Streamflow Residuals (right) at USGS Gage 13311000 for the EC Original Model and the EC SHSM

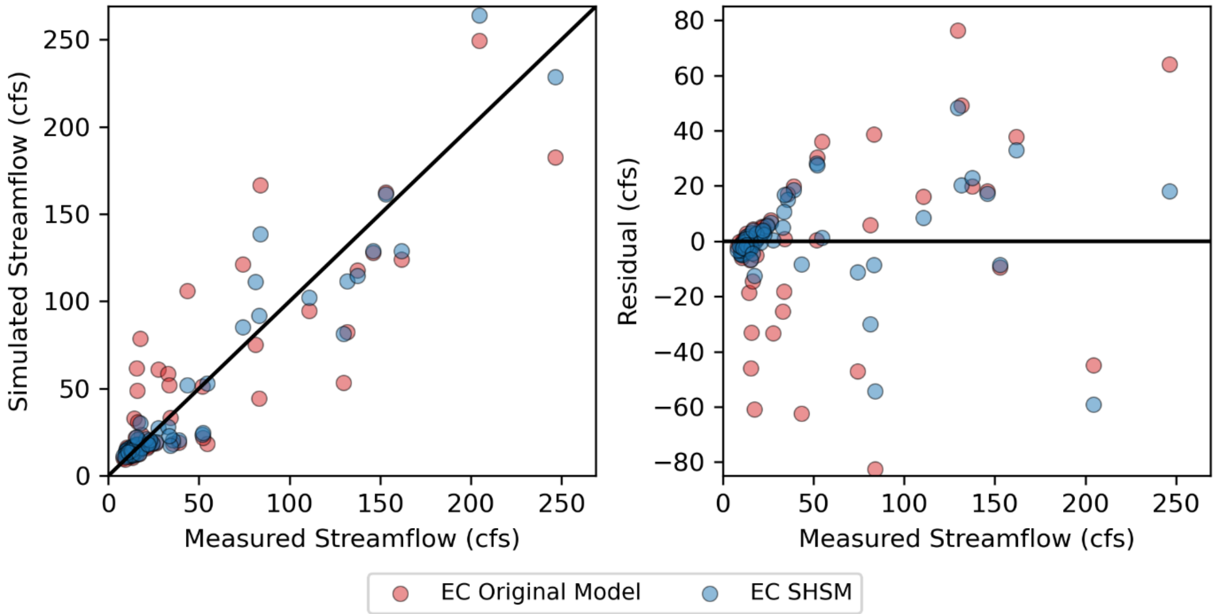


Figure 4-38. Simulated vs Measured Streamflow (left) and Simulated Streamflow Residuals (right) at USGS Gage 13311250 for the EC Original Model and the EC SHSM

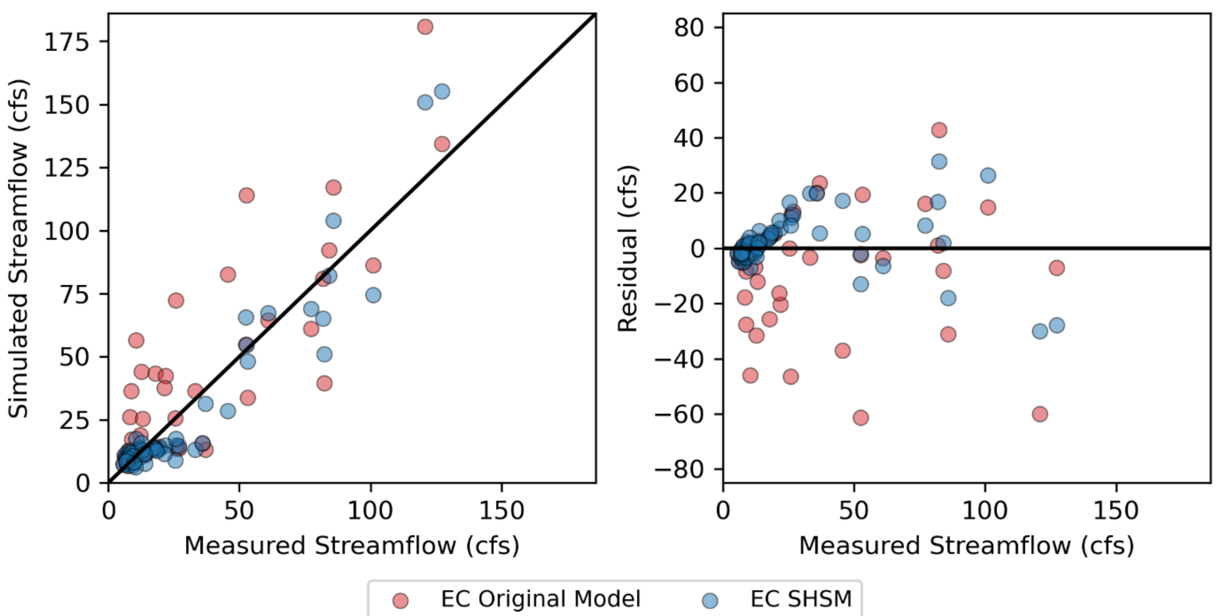


Figure 4-39. Simulated vs Measured Streamflow (left) and Simulated Streamflow Residuals (right) at USGS Gage 13311450 for the EC Original Model and the EC SHSM

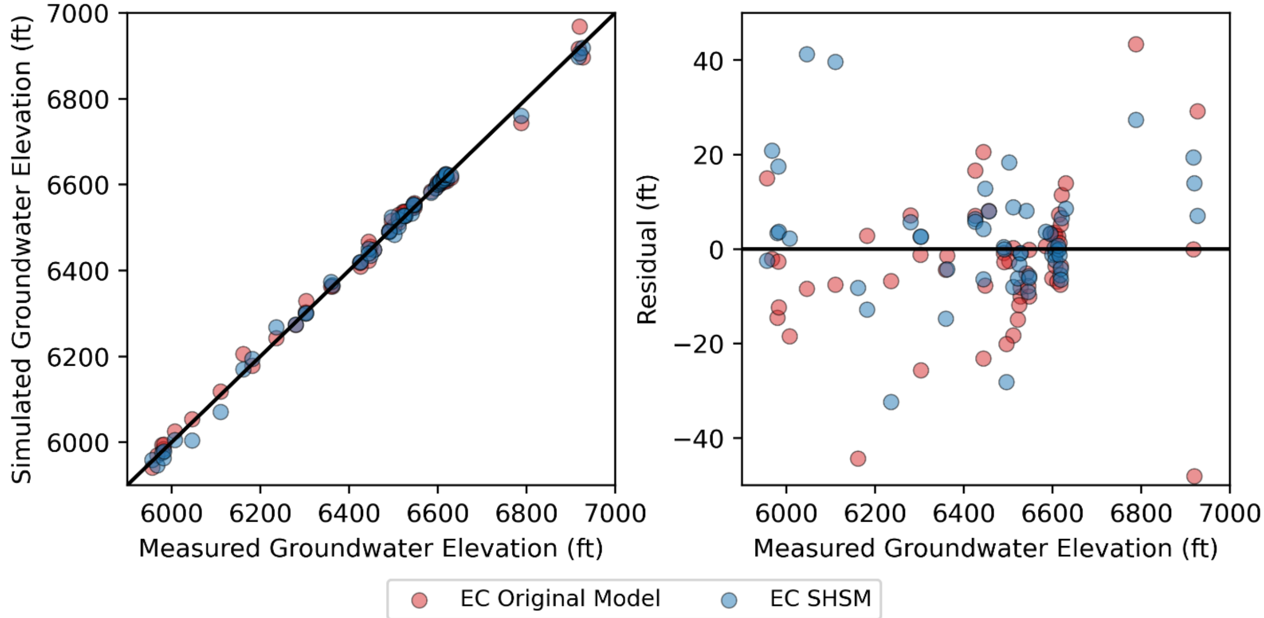


Figure 4-40. Simulated vs Measured Groundwater Elevation (left) and Simulated Residuals (right) for the EC Original Model and the EC SHSM

Section 5

Summary

The updated EC SHSM is a significantly refined and improved model compared to EC Original Model that was used to simulate the effects to groundwater and surface water quantity for Alternatives 1 through 3 described in the SGP DEIS (USFS 2020). The EC SHSM was updated in response to agency comments received during the agency review of the modeling reports for Alternatives 1 through 3 and incorporates increased hydrogeologic knowledge and conceptual understanding of the site gained from borehole data analysis, additional site visits, and the 2019 aquifer test (BC 2021).

The SHSM model was upgraded to MODFLOW 6 (Hughes et al. 2017), the newest version of MODFLOW released by the USGS. This upgrade allowed us for the use of unstructured grids and thus the model grid resolution was refined at all streams within the Study Area and all areas where mining is proposed. The use of an unstructured grid also allowed for explicit inclusion of the MCFZ in the model. In the previous model the MCFZ was not included due to grid resolution limitations.

The MWB was also upgraded in the EC SHSM model to better represent climate variations within the Study Area. The Study Area was divided into four sub-basins and separate MWBs were developed for each. In addition, each sub-basin was further divided into UDA and BDA to better represent soil, rock, and hydrologic properties within each sub-basin. The UDA includes regions mapped as alluvium, alluvial fans, glacial deposits and made ground (mine dumps, tailings, and disturbance areas). The BDA includes regions mapped as bedrock (primarily Idaho batholith and metasediments), and generally consisting of bare rock, talus, and thin soils overlying rock. The BDA is assumed to have a greater percentage of surface runoff and less recharge since they include generally lower permeability surface material (thin overburden and exposed bedrock) and steeper surface slopes. The UDA is assumed to have greater recharge and less surface runoff given that it is composed of more permeable surface materials (alluvial and glacial sediments, along with manmade fill material) and it is generally flatter.

The EC SHSM is calibrated to both USGS gage streamflow data and measured groundwater elevation. The EC SHSM streamflow calibration data includes two additional years of data, 2018 and 2019, as compared to the EC Original Model calibration data, whereas the same set of groundwater targets were used for calibration of the EC SHSM and the EC Original Model. The MWB was coupled to the groundwater model and Monte Carlo simulations were conducted to produce a model that represents the stream baseflow at the five USGS gages and the groundwater elevation at 55 monitoring well locations within the Study Area. Additional manual calibration was performed to represent drawdown observed during the 2013 and 2019 Gestrin well aquifer tests.

The updates to the EC SHSM model result in an improved model that represents the best available data and science. As such it is an appropriate tool to assess potential impacts due to proposed mining within the Study Area.

Section 6

Limitations

This document was prepared solely for Perpetua Resources in accordance with professional standards at the time the services were performed and in accordance with the contract between Perpetua Resources and BC dated January 1, 2021. This document is governed by the specific scope of work authorized by Perpetua Resources; it is not intended to be relied upon by any other party except for regulatory authorities contemplated by the scope of work. We have relied on information or instructions provided by Perpetua Resources and other parties and, unless otherwise expressly indicated, have made no independent investigation as to the validity, completeness, or accuracy of such information.

Further, BC makes no warranties, express or implied, with respect to this document, except for those, if any, contained in the agreement pursuant to which the document was prepared. All data, drawings, documents, or information contained this report have been prepared exclusively for the person or entity to whom it was addressed and may not be relied upon by any other person or entity without the prior written consent of BC unless otherwise provided by the Agreement pursuant to which these services were provided.

Section 7

References

Brown and Caldwell [BC], 2017. *Stibnite Gold Project Water Resource Summary Report*, Prepared for Midas Gold, June.

BC, 2018a. *Stibnite Gold Project Final Hydrologic Model Existing Conditions Report*, Prepared for Midas Gold, April.

BC, 2018b. *Stibnite Gold Project Final Hydrologic Model Proposed Action Report*, Prepared for Midas Gold, October.

BC, 2018c. *Stibnite Gold Project Hydrologic Model Proposed Action Report Final Response to Comment*, Prepared for Midas Gold, October.

BC, 2019a. *Stibnite Gold Project Final East Fork South Fork Salmon River TSF/DRSF Modeling Report*. Prepared for Midas Gold, August.

BC, 2019b. *Stibnite Gold Project Final Modified PRO Alternative Modeling Report*, Prepared for Midas Gold, September.

BC, 2020a. *Stibnite Gold Project Water Quality Management Plan Response to Comment Final Adequacy Review*, Prepared for Midas Gold, March.

BC, 2020b. *East Fork South Fork Salmon River TSF/DRSF Alternative Modeling Report Response to Comment Final Adequacy Review*, Prepared for Midas Gold, April.

BC, 2020c. *Modified PRO Alternative Modeling Report Response to Comment Final Adequacy Review*, Prepared for Midas Gold, April.

BC, 2021. *Perpetua Resources 2019 Stibnite Gold Project Aquifer Test Report*, Prepared for Perpetua Resources Idaho, Inc. September.

Bliss, Jane C. and Rushton, K.R., 1984, The reliability of packer tests for estimating the hydraulic conductivity of aquifers, *Quarterly Journal of Engineering Geology and Hydrogeology 17(1)*: 81-91, https://doi.org/10.1144/GSL.QJEG.1984.017.01.10

Butler, James Johnson, 2019. *The design, performance, and analysis of slug tests*, 2nd Edition, Taylor & Francis Group, CRC Press, Boca Raton, 266 pp.

Daly, C., Halbleib, M., Smith, J.I., Gibson, W.P., Doggett, M.K., Taylor, G.H., Curtis, J., and Pasteris, P.A., 2008. *Physiographically-sensitive mapping of temperature and precipitation across the conterminous United States*: International Journal of Climatology, DOI: 10.1002/joc.1688.

Hughes, J.D., Langevin, C.D., and Banta, E.R., 2017. *Documentation for the MODFLOW 6 framework: U.S. Geological Survey Techniques and Methods*, book 6, chap. A57, 40 p. Accessed at :https://doi.org/10.3133/tm6A57.

HydroGeo [HydroGeo Consultants, Inc.] 1996. Draft Hydrology Technical Report, Stibnite Mine – Proposed Expansion. Submitted to Stibnite Mine, Inc., and USFS

Jones, M.A., 2006. *Modelo Hidrológico de la Cuenca del Río Estrecho*, consultant's report prepared by Michael A. Jones for Proyecto Pascua-Lama Compañía Minera Nevada, January 2006.

John Shomaker & Associates, Inc., 2017. *Final Work Plan: Hydrologic Model of the Upper Watershed of the East Fork of the South Fork of the Salmon River, Stibnite, Idaho*, prepared for Midas Gold, October 2017.

King, P.R., 1987, The use of field theoretic methods for the study of flow in a heterogeneous porous medium, *Journal of Physics A: Mathematical and General 20(12)*: 3935-3947, https://doi.org/10.1088/0305-4470/20/12/038

Kruseman, G.P., and de Ridder, N.A. 2000. Analysis and Evaluation of Pumping Test Data. Second edition. International Institute for Land Reclamation and Improvement

Langevin, C.D., Hughes, J.D., Banta, E.R., Provost, A.M., Niswonger, R.G., and Panday, Sorab, 2020. *MODFLOW 6 Modular Hydrologic Model version 6.2.0: U.S. Geological Survey Software Release*, 22 October 2020. Accessed at: https://doi.org/10.5066/F76Q1VQV

Mejías, M., Renard, P., and Glenz, D., 2009, Hydraulic testing of low-permeability formations; a case study in the granite of Cadalso de los Vidrios, Spain, *Engineering Geology*, 107(3-4): 88–97, https://doi.org/10.1016/j.enggeo.2009.05.010

Neuzil, C.E., 2005, Groundwater flow in low-permeability environments, *Water Resources Research* 22(8): 1163-1195, https://doi.org/10.1029/WR022i008p01163

Niswonger, R.G., S. Panday, and M. Ibaraki, 2011. *MODFLOW-NWT, A Newton Formulation for MODFLOW-2005, United States Geological Survey Techniques and Methods 6-A37*, Chapter 37 of Section A, Groundwater Book 6, Modeling Techniques.

M3, 2014. Stibnite Gold Project Prefeasibility Study Technical Report, M3 Inc.

McKay, M.D.; Beckman, R.J.; Conover, W.J. (May 1979). *A Comparison of Three Methods for Selecting Values of Input Variables in the Analysis of Output from a Computer Code*. Technometrics. American Statistical Association. **21** (2): 239–245.

MWH America's Inc., 2013. *Draft Groundwater Resources Interim Baseline Study Report for Golden Meadows Project*. Prepared for Midas Gold Idaho Inc., February.

Palmer, Michael and El-Idrysy, Houcyne, 2015, Comparison of borehole testing techniques and their suitability in the hydrogeological investigation of mine sites, In *Agreeing on solutions for more sustainable mine water management-Proceedings of the 10th ICARD and IMWA Annual Conference*, Santiago, Chile, 1-12, https://imwa.info/docs/imwa_2015/IMWA2015_Palmer_278.pdf

Renard, P., 2005, The future of hydraulic tests. *Hydrogeology Journal* 13(1): 259–262, https://doi.org/10.1007/s10040-004-0406-5

Selvadurai, P.A. and Selvadurai, A.P.S., 2014, On the effective permeability of a heterogeneous porous medium: the role of the geometric mean, *Philosophical Magazine* 94(20): 2318-2338, https://doi.org/10.1080/14786435.2014.913111

Stewart, David E., Eric D. Stewart, Reed S. Lewis, Kerrie N. Weppner, and Vincent H. Isakson, 2016. GEOLOGIC MAP OF THE STIBNITE QUADRANGLE, VALLEY COUNTY, IDAHO, IDAHO GEOLOGICAL SURVEY, 2016

Sumner, M.E., 1999. *Handbook of Soil Science, 1st Ed*. CRC Press, Boca Raton, FL. variously paged.

United States Forest Service, 2020. *Stibnite Gold Project Draft Environmental Impact Statement*, August.

Warren, J.E., and Price, H.S., 1961, Flow in heterogeneous porous media, *Society of Petroleum Engineers Journal 1 (03)*: 153-169, https://doi.org/10.2118/1579-G

Zinsser, Austin, 2021. Personal Communication. June 11, 2021.

Attachment A: EC Appendix Tables

Table A-1. Monthly total available water estimated in the MWB for Meadow Creek

	EC SHSM Basin Yield (in)				
Water Year	Gage 13310800	Gage 13310850	Gage 13311000	Gage 13311250	Gage 13311450
1986	23.8	28.2	26.5	25.9	21.7
1987	10.9	14.8	13.5	13.3	10.9
1988	11.9	17.0	14.8	14.3	11.5
1989	14.8	19.9	17.8	17.3	14.5
1990	11.2	15.1	13.6	13.4	10.4
1991	8.4	11.3	10.4	10.3	9.3
1992	7.7	11.5	10.1	9.7	7.8
1993	18.0	24.0	21.4	20.5	16.7
1994	5.8	8.0	7.6	7.6	6.6
1995	21.3	28.6	25.2	24.1	18.8
1996	24.9	30.5	28.3	27.5	23.8
1997	25.5	31.5	29.0	28.2	24.5
1998	17.2	21.7	20.0	19.6	16.7
1999	24.3	30.7	28.0	27.0	22.1
2000	13.9	18.5	16.8	16.5	13.1
2001	8.2	11.1	10.2	10.2	8.3
2002	13.5	18.0	16.2	15.8	12.3
2003	18.9	24.1	22.0	21.4	17.4
2004	14.7	19.0	17.4	17.0	14.1
2005	11.3	14.7	13.5	13.2	10.6
2006	26.8	33.8	30.7	29.5	23.3
2007	11.8	15.2	14.1	13.9	11.4
2008	20.3	26.6	23.9	23.1	18.4
2009	16.8	21.1	19.5	19.1	16.4
2010	18.2	22.0	20.7	20.4	15.8
2011	20.3	26.2	23.8	23.1	18.0
2012	20.6	25.8	23.7	23.2	18.4
2013	16.5	21.7	19.5	19.0	15.4
2014	16.2	19.9	18.7	18.4	15.5
2015	12.7	16.4	15.1	14.8	12.5
2016	20.0	26.6	23.7	22.7	16.7
2017	30.9	36.5	34.1	33.4	26.9
2018	20.6	25.5	23.6	23.1	19.0
2019	18.0	23.3	21.1	20.6	16.9

Abbreviations:

EC = existing conditions

in = inch

Table A-2. Monthly total available water estimated in the MWB for Upper EFSFSR

Upper EFSFSR				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
10/1/1895	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1895	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1895	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1896	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1896	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1896	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1896	0.00E+00	7.06E-07	0.00E+00	0.00E+00
5/1/1896	1.13E-02	8.73E-03	5.46E-03	1.29E-02
6/1/1896	5.74E-03	2.06E-03	3.22E-03	2.25E-02
7/1/1896	0.00E+00	0.00E+00	0.00E+00	2.14E-04
8/1/1896	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1896	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1896	0.00E+00	2.03E-04	0.00E+00	0.00E+00
11/1/1896	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1896	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1897	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1897	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1897	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1897	1.21E-02	8.78E-03	2.15E-04	7.47E-03
5/1/1897	6.31E-03	2.59E-03	9.17E-03	2.81E-02
6/1/1897	6.43E-04	2.27E-03	0.00E+00	1.10E-02
7/1/1897	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1897	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1897	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1897	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1897	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1897	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1898	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1898	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1898	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1898	8.44E-03	8.53E-03	0.00E+00	6.68E-03
5/1/1898	8.78E-03	5.34E-03	4.89E-03	1.77E-02
6/1/1898	0.00E+00	8.48E-04	0.00E+00	1.29E-02
7/1/1898	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1898	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1898	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1898	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1898	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Upper EFSFSR				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
12/1/1898	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1899	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1899	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1899	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1899	6.16E-03	5.70E-03	0.00E+00	0.00E+00
5/1/1899	1.11E-02	8.41E-03	4.20E-03	1.15E-02
6/1/1899	6.63E-03	2.86E-03	3.24E-03	2.34E-02
7/1/1899	0.00E+00	0.00E+00	0.00E+00	5.02E-03
8/1/1899	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1899	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1899	0.00E+00	4.83E-03	0.00E+00	0.00E+00
11/1/1899	4.50E-04	1.37E-03	0.00E+00	0.00E+00
12/1/1899	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1900	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1900	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1900	6.82E-03	4.80E-03	0.00E+00	0.00E+00
4/1/1900	9.96E-03	8.78E-03	0.00E+00	3.15E-03
5/1/1900	7.66E-03	4.04E-03	2.68E-03	2.05E-02
6/1/1900	0.00E+00	2.52E-05	0.00E+00	8.44E-03
7/1/1900	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1900	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1900	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1900	0.00E+00	8.34E-03	0.00E+00	1.90E-04
11/1/1900	4.78E-04	0.00E+00	0.00E+00	0.00E+00
12/1/1900	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1901	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1901	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1901	9.67E-04	0.00E+00	0.00E+00	0.00E+00
4/1/1901	9.54E-03	7.50E-03	0.00E+00	0.00E+00
5/1/1901	6.46E-03	2.75E-03	8.98E-03	2.60E-02
6/1/1901	0.00E+00	3.18E-03	0.00E+00	6.60E-03
7/1/1901	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1901	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1901	0.00E+00	1.98E-04	0.00E+00	0.00E+00
10/1/1901	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1901	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1901	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1902	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1902	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Upper EFSFSR				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
3/1/1902	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1902	2.09E-03	6.16E-03	0.00E+00	0.00E+00
5/1/1902	8.66E-03	5.25E-03	3.70E-03	1.62E-02
6/1/1902	0.00E+00	2.18E-03	0.00E+00	7.53E-03
7/1/1902	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1902	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1902	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1902	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1902	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1902	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1903	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1903	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1903	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1903	2.36E-03	1.10E-04	0.00E+00	0.00E+00
5/1/1903	9.08E-03	5.79E-03	2.77E-03	1.35E-02
6/1/1903	2.24E-03	3.11E-05	0.00E+00	2.02E-02
7/1/1903	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1903	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1903	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1903	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1903	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1903	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1904	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1904	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1904	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1904	1.00E-02	8.78E-03	0.00E+00	4.50E-03
5/1/1904	8.48E-03	5.00E-03	4.68E-03	1.83E-02
6/1/1904	2.59E-03	1.44E-03	0.00E+00	1.63E-02
7/1/1904	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1904	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1904	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1904	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1904	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1904	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1905	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1905	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1905	0.00E+00	3.10E-05	0.00E+00	0.00E+00
4/1/1905	1.83E-03	8.38E-03	0.00E+00	0.00E+00
5/1/1905	5.05E-03	7.13E-03	0.00E+00	4.28E-03

Upper EFSFSR				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
6/1/1905	3.70E-04	2.96E-03	0.00E+00	6.91E-03
7/1/1905	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1905	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1905	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1905	0.00E+00	1.77E-03	0.00E+00	0.00E+00
11/1/1905	0.00E+00	3.50E-04	0.00E+00	0.00E+00
12/1/1905	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1906	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1906	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1906	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1906	6.20E-03	8.78E-03	0.00E+00	1.38E-03
5/1/1906	9.41E-03	6.17E-03	1.81E-03	1.33E-02
6/1/1906	1.23E-03	3.32E-03	0.00E+00	7.91E-03
7/1/1906	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1906	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1906	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1906	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1906	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1906	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1907	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1907	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1907	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1907	1.07E-02	5.49E-03	0.00E+00	0.00E+00
5/1/1907	9.20E-03	5.90E-03	4.90E-03	1.85E-02
6/1/1907	7.44E-03	3.70E-03	2.53E-03	2.35E-02
7/1/1907	0.00E+00	0.00E+00	0.00E+00	7.12E-03
8/1/1907	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1907	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1907	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1907	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1907	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1908	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1908	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1908	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1908	2.84E-03	5.69E-03	0.00E+00	0.00E+00
5/1/1908	1.01E-02	7.49E-03	0.00E+00	9.05E-03
6/1/1908	4.84E-03	2.80E-03	0.00E+00	1.38E-02
7/1/1908	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1908	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Upper EFSFSR				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
9/1/1908	0.00E+00	1.45E-03	0.00E+00	0.00E+00
10/1/1908	1.22E-03	8.78E-03	0.00E+00	6.79E-04
11/1/1908	1.74E-04	2.40E-04	0.00E+00	0.00E+00
12/1/1908	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1909	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1909	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1909	3.33E-03	0.00E+00	0.00E+00	0.00E+00
4/1/1909	6.84E-03	2.99E-03	0.00E+00	0.00E+00
5/1/1909	9.74E-03	6.69E-03	4.42E-03	1.48E-02
6/1/1909	4.93E-03	1.03E-03	1.42E-03	2.45E-02
7/1/1909	0.00E+00	0.00E+00	0.00E+00	2.19E-03
8/1/1909	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1909	0.00E+00	4.62E-03	0.00E+00	0.00E+00
10/1/1909	0.00E+00	2.23E-03	0.00E+00	0.00E+00
11/1/1909	3.28E-04	0.00E+00	0.00E+00	0.00E+00
12/1/1909	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1910	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1910	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1910	1.19E-02	8.78E-03	0.00E+00	1.03E-04
4/1/1910	1.09E-02	7.29E-03	4.43E-03	1.60E-02
5/1/1910	7.90E-03	4.43E-03	0.00E+00	1.58E-02
6/1/1910	0.00E+00	1.28E-03	0.00E+00	4.26E-03
7/1/1910	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1910	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1910	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1910	0.00E+00	2.05E-03	0.00E+00	0.00E+00
11/1/1910	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1910	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1911	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1911	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1911	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1911	7.27E-03	3.79E-03	0.00E+00	0.00E+00
5/1/1911	1.04E-02	7.44E-03	4.05E-03	1.54E-02
6/1/1911	5.26E-03	1.38E-03	6.91E-03	3.18E-02
7/1/1911	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1911	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1911	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1911	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1911	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Upper EFSFSR				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
12/1/1911	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1912	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1912	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1912	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1912	7.35E-03	8.78E-03	0.00E+00	1.13E-03
5/1/1912	8.83E-03	5.52E-03	6.79E-03	1.99E-02
6/1/1912	3.39E-03	7.27E-04	0.00E+00	1.80E-02
7/1/1912	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1912	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1912	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1912	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1912	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1912	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1913	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1913	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1913	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1913	4.91E-03	8.78E-03	0.00E+00	0.00E+00
5/1/1913	7.73E-03	4.17E-03	4.65E-03	1.78E-02
6/1/1913	4.81E-03	6.47E-04	3.19E-03	2.32E-02
7/1/1913	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1913	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1913	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1913	0.00E+00	2.76E-03	0.00E+00	0.00E+00
11/1/1913	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1913	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1914	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1914	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1914	4.11E-03	7.06E-04	0.00E+00	0.00E+00
4/1/1914	1.14E-02	8.78E-03	0.00E+00	5.38E-03
5/1/1914	7.02E-03	3.34E-03	5.91E-05	1.74E-02
6/1/1914	2.58E-04	2.18E-03	0.00E+00	9.87E-03
7/1/1914	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1914	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1914	0.00E+00	4.43E-03	0.00E+00	0.00E+00
10/1/1914	7.99E-04	5.99E-03	0.00E+00	0.00E+00
11/1/1914	1.19E-04	1.87E-04	0.00E+00	0.00E+00
12/1/1914	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1915	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1915	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Upper EFSFSR				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
3/1/1915	3.53E-03	3.38E-03	0.00E+00	0.00E+00
4/1/1915	5.44E-03	7.15E-03	0.00E+00	2.48E-03
5/1/1915	9.79E-03	6.52E-03	1.35E-03	1.35E-02
6/1/1915	0.00E+00	3.12E-03	0.00E+00	5.16E-04
7/1/1915	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1915	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1915	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1915	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1915	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1915	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1916	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1916	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1916	3.14E-04	0.00E+00	0.00E+00	0.00E+00
4/1/1916	1.31E-02	8.78E-03	3.76E-03	1.10E-03
5/1/1916	1.08E-02	8.16E-03	4.40E-03	1.53E-02
6/1/1916	7.05E-03	3.23E-03	5.48E-03	2.99E-02
7/1/1916	0.00E+00	0.00E+00	0.00E+00	1.44E-02
8/1/1916	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1916	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1916	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1916	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1916	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1917	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1917	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1917	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1917	1.80E-03	4.41E-03	0.00E+00	0.00E+00
5/1/1917	8.80E-03	5.56E-03	5.67E-03	1.55E-02
6/1/1917	2.79E-03	1.61E-03	0.00E+00	1.37E-02
7/1/1917	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1917	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1917	0.00E+00	3.52E-03	0.00E+00	0.00E+00
10/1/1917	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1917	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1917	0.00E+00	1.10E-04	0.00E+00	0.00E+00
1/1/1918	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1918	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1918	3.99E-03	0.00E+00	0.00E+00	0.00E+00
4/1/1918	8.32E-03	6.67E-03	0.00E+00	0.00E+00
5/1/1918	6.91E-03	7.75E-03	0.00E+00	6.45E-03

Upper EFSFSR				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
6/1/1918	0.00E+00	0.00E+00	0.00E+00	2.89E-02
7/1/1918	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1918	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1918	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1918	0.00E+00	4.01E-03	0.00E+00	0.00E+00
11/1/1918	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1918	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1919	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1919	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1919	4.51E-04	0.00E+00	0.00E+00	0.00E+00
4/1/1919	1.09E-02	8.78E-03	0.00E+00	1.65E-03
5/1/1919	6.96E-03	5.17E-03	0.00E+00	1.14E-02
6/1/1919	0.00E+00	6.56E-04	0.00E+00	6.10E-03
7/1/1919	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1919	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1919	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1919	0.00E+00	1.37E-03	0.00E+00	0.00E+00
11/1/1919	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1919	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1920	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1920	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1920	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1920	5.16E-03	6.62E-03	0.00E+00	0.00E+00
5/1/1920	1.02E-02	7.83E-03	0.00E+00	6.10E-03
6/1/1920	6.60E-03	3.09E-03	0.00E+00	1.58E-02
7/1/1920	0.00E+00	0.00E+00	0.00E+00	1.21E-03
8/1/1920	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1920	0.00E+00	1.32E-03	0.00E+00	0.00E+00
10/1/1920	2.69E-03	8.61E-03	0.00E+00	3.15E-03
11/1/1920	7.78E-04	0.00E+00	0.00E+00	0.00E+00
12/1/1920	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1921	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1921	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1921	4.98E-03	0.00E+00	0.00E+00	0.00E+00
4/1/1921	1.04E-02	6.44E-03	0.00E+00	0.00E+00
5/1/1921	9.08E-03	5.83E-03	1.25E-02	2.71E-02
6/1/1921	5.21E-03	1.32E-03	1.58E-03	2.67E-02
7/1/1921	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1921	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Upper EFSFSR				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
9/1/1921	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1921	0.00E+00	6.40E-04	0.00E+00	0.00E+00
11/1/1921	0.00E+00	9.74E-04	0.00E+00	0.00E+00
12/1/1921	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1922	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1922	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1922	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1922	4.44E-03	5.07E-03	0.00E+00	0.00E+00
5/1/1922	9.54E-03	6.39E-03	6.71E-03	1.64E-02
6/1/1922	3.86E-03	0.00E+00	1.84E-03	2.66E-02
7/1/1922	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1922	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1922	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1922	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1922	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1922	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1923	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1923	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1923	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1923	4.63E-03	5.53E-03	0.00E+00	0.00E+00
5/1/1923	9.66E-03	6.39E-03	4.16E-03	1.49E-02
6/1/1923	7.26E-03	3.50E-03	3.09E-03	2.08E-02
7/1/1923	0.00E+00	0.00E+00	0.00E+00	1.11E-03
8/1/1923	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1923	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1923	0.00E+00	2.06E-03	0.00E+00	0.00E+00
11/1/1923	0.00E+00	3.35E-04	0.00E+00	0.00E+00
12/1/1923	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1924	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1924	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1924	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1924	3.08E-03	4.14E-03	0.00E+00	0.00E+00
5/1/1924	1.16E-03	3.77E-03	0.00E+00	4.69E-03
6/1/1924	0.00E+00	2.27E-03	0.00E+00	4.88E-04
7/1/1924	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1924	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1924	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1924	0.00E+00	4.47E-03	0.00E+00	0.00E+00
11/1/1924	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Upper EFSFSR				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
12/1/1924	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1925	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1925	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1925	2.30E-03	0.00E+00	0.00E+00	0.00E+00
4/1/1925	1.26E-02	8.78E-03	6.95E-03	9.91E-03
5/1/1925	7.55E-03	3.92E-03	1.14E-02	3.03E-02
6/1/1925	3.38E-03	2.06E-03	0.00E+00	1.71E-02
7/1/1925	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1925	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1925	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1925	0.00E+00	1.76E-03	0.00E+00	0.00E+00
11/1/1925	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1925	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1926	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1926	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1926	9.14E-04	5.00E-04	0.00E+00	0.00E+00
4/1/1926	8.36E-03	7.48E-03	0.00E+00	5.60E-03
5/1/1926	5.18E-03	4.90E-03	0.00E+00	9.60E-03
6/1/1926	0.00E+00	6.13E-04	0.00E+00	5.70E-03
7/1/1926	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1926	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1926	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1926	0.00E+00	1.33E-03	0.00E+00	0.00E+00
11/1/1926	0.00E+00	1.75E-03	0.00E+00	0.00E+00
12/1/1926	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1927	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1927	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1927	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1927	9.78E-03	3.03E-03	0.00E+00	0.00E+00
5/1/1927	9.79E-03	6.70E-03	1.37E-02	2.54E-02
6/1/1927	5.38E-03	1.42E-03	8.62E-03	3.62E-02
7/1/1927	0.00E+00	0.00E+00	0.00E+00	2.84E-03
8/1/1927	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1927	2.92E-03	8.78E-03	0.00E+00	1.57E-03
10/1/1927	2.04E-03	6.04E-03	0.00E+00	0.00E+00
11/1/1927	3.81E-03	0.00E+00	0.00E+00	0.00E+00
12/1/1927	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1928	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1928	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Upper EFSFSR				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
3/1/1928	4.03E-03	0.00E+00	0.00E+00	0.00E+00
4/1/1928	1.09E-02	5.89E-03	0.00E+00	0.00E+00
5/1/1928	6.65E-03	2.99E-03	1.56E-02	3.75E-02
6/1/1928	8.48E-05	2.89E-03	0.00E+00	1.18E-02
7/1/1928	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1928	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1928	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1928	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1928	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1928	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1929	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1929	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1929	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1929	2.48E-03	5.13E-03	0.00E+00	0.00E+00
5/1/1929	6.11E-03	5.60E-03	0.00E+00	6.05E-03
6/1/1929	2.33E-03	2.06E-03	0.00E+00	1.17E-02
7/1/1929	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1929	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1929	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1929	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1929	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1929	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1930	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1930	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1930	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1930	1.15E-02	8.14E-03	8.18E-04	5.55E-03
5/1/1930	8.92E-03	6.05E-03	0.00E+00	1.15E-02
6/1/1930	0.00E+00	2.80E-03	0.00E+00	7.80E-03
7/1/1930	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1930	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1930	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1930	0.00E+00	3.11E-03	0.00E+00	0.00E+00
11/1/1930	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1930	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1931	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1931	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1931	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1931	4.98E-03	7.90E-03	0.00E+00	0.00E+00
5/1/1931	6.74E-03	4.37E-03	0.00E+00	9.94E-03

Upper EFSFSR				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
6/1/1931	0.00E+00	1.33E-03	0.00E+00	7.01E-03
7/1/1931	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1931	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1931	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1931	0.00E+00	6.07E-03	0.00E+00	0.00E+00
11/1/1931	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1931	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1932	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1932	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1932	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1932	1.16E-02	7.79E-03	0.00E+00	0.00E+00
5/1/1932	9.77E-03	6.63E-03	1.21E-02	2.32E-02
6/1/1932	6.08E-03	2.25E-03	2.07E-03	2.32E-02
7/1/1932	0.00E+00	0.00E+00	0.00E+00	3.74E-03
8/1/1932	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1932	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1932	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1932	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1932	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1933	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1933	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1933	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1933	2.22E-03	1.16E-03	0.00E+00	0.00E+00
5/1/1933	1.06E-02	8.14E-03	4.27E-03	1.18E-02
6/1/1933	4.26E-03	2.26E-04	7.90E-03	3.27E-02
7/1/1933	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1933	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1933	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1933	0.00E+00	5.25E-03	0.00E+00	0.00E+00
11/1/1933	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1933	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1934	2.66E-04	0.00E+00	0.00E+00	0.00E+00
2/1/1934	3.75E-03	2.83E-04	0.00E+00	0.00E+00
3/1/1934	5.53E-03	7.12E-03	0.00E+00	0.00E+00
4/1/1934	6.87E-03	7.04E-03	0.00E+00	6.96E-03
5/1/1934	0.00E+00	3.01E-03	0.00E+00	6.21E-03
6/1/1934	0.00E+00	2.09E-03	0.00E+00	2.54E-03
7/1/1934	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1934	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Upper EFSFSR				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
9/1/1934	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1934	0.00E+00	2.46E-03	0.00E+00	0.00E+00
11/1/1934	0.00E+00	5.82E-04	0.00E+00	0.00E+00
12/1/1934	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1935	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1935	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1935	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1935	1.02E-02	8.78E-03	0.00E+00	0.00E+00
5/1/1935	8.83E-03	6.25E-03	0.00E+00	8.82E-03
6/1/1935	1.75E-03	1.79E-03	0.00E+00	1.36E-02
7/1/1935	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1935	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1935	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1935	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1935	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1935	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1936	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1936	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1936	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1936	8.25E-03	8.78E-03	0.00E+00	0.00E+00
5/1/1936	7.13E-03	3.47E-03	1.29E-02	2.99E-02
6/1/1936	4.18E-03	9.42E-04	0.00E+00	1.99E-02
7/1/1936	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1936	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1936	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1936	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1936	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1936	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1937	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1937	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1937	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1937	4.54E-03	3.37E-03	0.00E+00	0.00E+00
5/1/1937	8.46E-03	5.02E-03	3.57E-03	1.43E-02
6/1/1937	5.61E-03	2.67E-03	0.00E+00	1.59E-02
7/1/1937	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1937	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1937	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1937	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1937	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Upper EFSFSR				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
12/1/1937	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1938	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1938	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1938	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1938	9.34E-03	3.11E-03	0.00E+00	0.00E+00
5/1/1938	9.83E-03	6.76E-03	1.42E-02	2.49E-02
6/1/1938	5.06E-03	1.13E-03	1.37E-02	4.48E-02
7/1/1938	0.00E+00	0.00E+00	0.00E+00	5.47E-03
8/1/1938	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1938	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1938	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1938	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1938	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1939	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1939	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1939	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1939	5.55E-03	8.78E-03	0.00E+00	1.36E-04
5/1/1939	7.66E-03	4.36E-03	0.00E+00	1.30E-02
6/1/1939	0.00E+00	3.22E-03	0.00E+00	5.77E-03
7/1/1939	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1939	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1939	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1939	0.00E+00	2.71E-03	0.00E+00	0.00E+00
11/1/1939	0.00E+00	2.29E-05	0.00E+00	0.00E+00
12/1/1939	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1940	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1940	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1940	6.65E-03	2.03E-03	0.00E+00	0.00E+00
4/1/1940	1.28E-02	8.78E-03	4.42E-03	8.58E-03
5/1/1940	7.38E-03	3.75E-03	6.20E-03	2.69E-02
6/1/1940	0.00E+00	5.93E-04	0.00E+00	1.61E-02
7/1/1940	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1940	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1940	2.54E-03	8.78E-03	0.00E+00	1.30E-03
10/1/1940	3.95E-03	6.84E-03	0.00E+00	1.58E-03
11/1/1940	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1940	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1941	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1941	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Upper EFSFSR				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
3/1/1941	4.78E-03	6.26E-04	0.00E+00	0.00E+00
4/1/1941	8.58E-03	8.78E-03	0.00E+00	0.00E+00
5/1/1941	8.82E-03	5.39E-03	5.75E-03	2.22E-02
6/1/1941	4.30E-03	2.32E-03	0.00E+00	1.57E-02
7/1/1941	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1941	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1941	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1941	0.00E+00	3.47E-03	0.00E+00	0.00E+00
11/1/1941	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1941	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1942	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1942	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1942	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1942	1.23E-02	8.78E-03	0.00E+00	6.05E-03
5/1/1942	9.93E-03	6.96E-03	6.61E-03	1.95E-02
6/1/1942	5.16E-03	2.90E-03	0.00E+00	1.49E-02
7/1/1942	0.00E+00	0.00E+00	0.00E+00	7.07E-04
8/1/1942	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1942	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1942	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1942	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1942	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1943	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1943	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1943	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1943	1.17E-02	8.57E-03	9.18E-03	1.55E-02
5/1/1943	1.00E-02	6.97E-03	6.47E-03	1.60E-02
6/1/1943	7.19E-03	3.33E-03	4.81E-03	2.58E-02
7/1/1943	0.00E+00	0.00E+00	0.00E+00	9.50E-03
8/1/1943	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1943	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1943	0.00E+00	1.65E-03	0.00E+00	0.00E+00
11/1/1943	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1943	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1944	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1944	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1944	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1944	3.65E-03	7.60E-03	0.00E+00	0.00E+00
5/1/1944	2.88E-03	4.99E-03	0.00E+00	3.93E-03

Upper EFSFSR				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
6/1/1944	3.16E-03	2.42E-03	0.00E+00	1.08E-02
7/1/1944	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1944	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1944	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1944	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1944	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1944	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1945	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1945	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1945	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1945	0.00E+00	8.41E-04	0.00E+00	0.00E+00
5/1/1945	9.05E-03	5.73E-03	1.52E-02	2.76E-02
6/1/1945	7.11E-03	3.29E-03	3.68E-03	2.14E-02
7/1/1945	0.00E+00	0.00E+00	0.00E+00	2.12E-03
8/1/1945	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1945	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1945	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1945	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1945	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1946	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1946	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1946	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1946	1.24E-02	8.78E-03	8.87E-04	6.12E-03
5/1/1946	8.36E-03	4.87E-03	7.92E-03	2.34E-02
6/1/1946	2.90E-03	1.98E-03	0.00E+00	1.62E-02
7/1/1946	0.00E+00	0.00E+00	0.00E+00	2.10E-03
8/1/1946	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1946	0.00E+00	2.46E-03	0.00E+00	0.00E+00
10/1/1946	3.52E-03	8.78E-03	0.00E+00	1.08E-03
11/1/1946	0.00E+00	1.28E-03	0.00E+00	0.00E+00
12/1/1946	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1947	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1947	3.48E-04	0.00E+00	0.00E+00	0.00E+00
3/1/1947	8.12E-03	2.02E-03	0.00E+00	0.00E+00
4/1/1947	1.09E-02	8.78E-03	0.00E+00	1.58E-03
5/1/1947	6.59E-03	2.92E-03	7.23E-03	2.95E-02
6/1/1947	4.54E-03	3.70E-03	0.00E+00	1.37E-02
7/1/1947	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1947	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Upper EFSFSR				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
9/1/1947	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1947	8.46E-04	6.20E-03	0.00E+00	4.05E-03
11/1/1947	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1947	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1948	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1948	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1948	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1948	1.38E-02	8.78E-03	0.00E+00	5.48E-05
5/1/1948	8.69E-03	5.34E-03	1.23E-02	2.62E-02
6/1/1948	4.51E-03	5.38E-04	5.47E-03	2.88E-02
7/1/1948	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1948	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1948	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1948	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1948	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1948	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1949	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1949	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1949	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1949	1.15E-02	8.18E-03	3.11E-04	6.41E-03
5/1/1949	7.56E-03	3.90E-03	7.20E-03	2.34E-02
6/1/1949	0.00E+00	1.97E-03	0.00E+00	6.50E-03
7/1/1949	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1949	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1949	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1949	0.00E+00	6.86E-04	0.00E+00	0.00E+00
11/1/1949	0.00E+00	2.20E-03	0.00E+00	0.00E+00
12/1/1949	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1950	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1950	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1950	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1950	1.11E-02	8.78E-03	0.00E+00	2.01E-04
5/1/1950	1.04E-02	7.45E-03	1.24E-03	1.12E-02
6/1/1950	6.03E-03	2.10E-03	4.64E-03	2.76E-02
7/1/1950	0.00E+00	0.00E+00	0.00E+00	1.70E-04
8/1/1950	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1950	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1950	2.23E-03	6.26E-03	0.00E+00	5.67E-03
11/1/1950	1.24E-03	0.00E+00	0.00E+00	0.00E+00

Upper EFSFSR				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
12/1/1950	1.21E-03	0.00E+00	0.00E+00	0.00E+00
1/1/1951	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1951	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1951	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1951	1.17E-02	8.51E-03	5.09E-03	9.28E-03
5/1/1951	8.05E-03	4.47E-03	4.73E-03	1.94E-02
6/1/1951	1.41E-03	3.07E-03	0.00E+00	1.06E-02
7/1/1951	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1951	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1951	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1951	3.01E-03	8.78E-03	0.00E+00	0.00E+00
11/1/1951	0.00E+00	1.18E-03	0.00E+00	0.00E+00
12/1/1951	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1952	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1952	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1952	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1952	1.17E-02	8.38E-03	4.45E-03	8.15E-03
5/1/1952	8.22E-03	4.69E-03	7.77E-03	2.24E-02
6/1/1952	5.74E-03	1.81E-03	2.48E-03	2.25E-02
7/1/1952	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1952	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1952	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1952	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1952	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1952	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1953	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1953	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1953	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1953	1.13E-02	3.13E-03	0.00E+00	0.00E+00
5/1/1953	1.12E-02	8.59E-03	6.85E-03	1.66E-02
6/1/1953	6.86E-03	3.08E-03	4.36E-03	2.85E-02
7/1/1953	0.00E+00	0.00E+00	0.00E+00	6.16E-03
8/1/1953	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1953	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1953	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1953	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1953	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1954	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1954	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Upper EFSFSR				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
3/1/1954	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1954	1.13E-02	8.78E-03	0.00E+00	0.00E+00
5/1/1954	8.56E-03	5.09E-03	7.68E-03	2.27E-02
6/1/1954	7.60E-03	3.84E-03	3.55E-03	2.32E-02
7/1/1954	0.00E+00	0.00E+00	0.00E+00	2.98E-03
8/1/1954	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1954	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1954	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1954	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1954	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1955	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1955	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1955	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1955	2.55E-03	6.58E-03	0.00E+00	0.00E+00
5/1/1955	9.79E-03	6.68E-03	3.03E-03	1.13E-02
6/1/1955	3.96E-03	1.60E-03	0.00E+00	1.49E-02
7/1/1955	0.00E+00	0.00E+00	0.00E+00	1.23E-03
8/1/1955	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1955	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1955	0.00E+00	2.77E-03	0.00E+00	0.00E+00
11/1/1955	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1955	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1956	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1956	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1956	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1956	1.28E-02	8.78E-03	3.66E-03	7.18E-03
5/1/1956	7.93E-03	4.36E-03	2.04E-02	3.94E-02
6/1/1956	5.59E-03	1.68E-03	1.50E-03	2.47E-02
7/1/1956	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1956	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1956	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1956	2.01E-03	8.63E-03	0.00E+00	0.00E+00
11/1/1956	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1956	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1957	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1957	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1957	1.13E-03	0.00E+00	0.00E+00	0.00E+00
4/1/1957	1.16E-02	8.78E-03	0.00E+00	0.00E+00
5/1/1957	7.99E-03	4.47E-03	1.27E-02	3.06E-02

Upper EFSFSR				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
6/1/1957	8.12E-04	1.49E-03	0.00E+00	1.37E-02
7/1/1957	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1957	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1957	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1957	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1957	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1957	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1958	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1958	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1958	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1958	6.67E-03	8.15E-03	0.00E+00	0.00E+00
5/1/1958	6.28E-03	2.60E-03	9.68E-03	2.58E-02
6/1/1958	2.36E-03	1.37E-03	0.00E+00	1.45E-02
7/1/1958	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1958	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1958	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1958	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1958	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1958	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1959	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1959	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1959	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1959	1.03E-02	8.78E-03	0.00E+00	2.27E-03
5/1/1959	1.09E-02	8.13E-03	6.93E-03	1.79E-02
6/1/1959	4.95E-03	1.07E-03	5.71E-03	3.16E-02
7/1/1959	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1959	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1959	1.97E-03	8.78E-03	0.00E+00	1.92E-04
10/1/1959	5.95E-03	7.14E-03	0.00E+00	3.88E-03
11/1/1959	3.15E-04	0.00E+00	0.00E+00	0.00E+00
12/1/1959	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1960	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1960	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1960	1.76E-03	0.00E+00	0.00E+00	0.00E+00
4/1/1960	1.17E-02	8.78E-03	0.00E+00	1.41E-03
5/1/1960	9.67E-03	6.51E-03	4.75E-03	1.80E-02
6/1/1960	0.00E+00	9.40E-04	0.00E+00	1.27E-02
7/1/1960	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1960	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Upper EFSFSR				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
9/1/1960	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1960	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1960	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1960	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1961	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1961	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1961	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1961	9.64E-03	7.31E-03	0.00E+00	0.00E+00
5/1/1961	8.86E-03	5.48E-03	1.11E-02	2.56E-02
6/1/1961	1.95E-03	0.00E+00	0.00E+00	2.56E-02
7/1/1961	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1961	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1961	0.00E+00	2.14E-03	0.00E+00	0.00E+00
10/1/1961	2.39E-03	8.41E-03	0.00E+00	1.48E-03
11/1/1961	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1961	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1962	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1962	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1962	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1962	1.24E-02	8.78E-03	3.36E-03	6.83E-03
5/1/1962	9.88E-03	6.68E-03	5.45E-03	1.75E-02
6/1/1962	2.37E-03	1.85E-03	0.00E+00	1.45E-02
7/1/1962	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1962	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1962	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1962	7.37E-03	8.78E-03	0.00E+00	5.59E-03
11/1/1962	1.76E-03	1.28E-03	0.00E+00	0.00E+00
12/1/1962	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1963	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1963	4.69E-03	1.77E-04	0.00E+00	0.00E+00
3/1/1963	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1963	1.07E-02	7.99E-03	0.00E+00	0.00E+00
5/1/1963	8.23E-03	4.75E-03	6.35E-03	2.28E-02
6/1/1963	6.27E-03	2.37E-03	2.55E-03	2.43E-02
7/1/1963	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1963	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1963	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1963	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1963	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Upper EFSFSR				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
12/1/1963	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1964	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1964	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1964	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1964	3.63E-03	2.44E-03	0.00E+00	0.00E+00
5/1/1964	9.90E-03	6.80E-03	5.26E-03	1.45E-02
6/1/1964	6.71E-03	2.90E-03	9.21E-03	3.10E-02
7/1/1964	0.00E+00	0.00E+00	0.00E+00	4.77E-03
8/1/1964	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1964	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1964	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1964	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1964	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1965	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1965	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1965	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1965	1.35E-02	8.78E-03	4.72E-03	7.77E-03
5/1/1965	1.04E-02	7.65E-03	1.08E-02	2.00E-02
6/1/1965	6.14E-03	2.22E-03	1.26E-02	3.96E-02
7/1/1965	0.00E+00	0.00E+00	0.00E+00	1.20E-02
8/1/1965	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1965	0.00E+00	1.95E-03	0.00E+00	0.00E+00
10/1/1965	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1965	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1965	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1966	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1966	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1966	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1966	2.39E-03	5.20E-03	0.00E+00	0.00E+00
5/1/1966	7.31E-03	3.67E-03	2.40E-03	1.51E-02
6/1/1966	3.26E-04	1.96E-03	0.00E+00	1.01E-02
7/1/1966	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1966	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1966	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1966	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1966	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1966	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1967	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1967	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Upper EFSFSR				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
3/1/1967	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1967	2.23E-03	5.62E-03	0.00E+00	0.00E+00
5/1/1967	9.72E-03	6.58E-03	1.25E-02	1.96E-02
6/1/1967	6.01E-03	2.17E-03	1.05E-02	3.22E-02
7/1/1967	0.00E+00	0.00E+00	0.00E+00	2.68E-03
8/1/1967	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1967	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1967	1.96E-03	8.61E-03	0.00E+00	0.00E+00
11/1/1967	6.15E-04	0.00E+00	0.00E+00	0.00E+00
12/1/1967	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1968	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1968	2.93E-04	0.00E+00	0.00E+00	0.00E+00
3/1/1968	5.30E-03	0.00E+00	0.00E+00	0.00E+00
4/1/1968	6.58E-03	4.01E-03	0.00E+00	0.00E+00
5/1/1968	9.99E-03	6.85E-03	2.39E-03	1.44E-02
6/1/1968	4.16E-03	2.10E-03	0.00E+00	2.02E-02
7/1/1968	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1968	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1968	0.00E+00	3.57E-03	0.00E+00	0.00E+00
10/1/1968	5.62E-04	7.04E-03	0.00E+00	0.00E+00
11/1/1968	1.41E-05	0.00E+00	0.00E+00	0.00E+00
12/1/1968	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1969	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1969	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1969	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1969	1.24E-02	8.78E-03	6.95E-03	8.19E-03
5/1/1969	7.30E-03	3.65E-03	1.24E-02	2.93E-02
6/1/1969	3.79E-03	1.54E-03	0.00E+00	1.80E-02
7/1/1969	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1969	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1969	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1969	0.00E+00	2.99E-03	0.00E+00	0.00E+00
11/1/1969	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1969	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1970	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1970	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1970	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1970	6.50E-04	5.66E-03	0.00E+00	0.00E+00
5/1/1970	9.24E-03	6.04E-03	1.81E-02	2.48E-02

Upper EFSFSR				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
6/1/1970	4.58E-03	7.03E-04	1.66E-02	4.14E-02
7/1/1970	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1970	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1970	2.84E-03	8.78E-03	0.00E+00	1.32E-03
10/1/1970	3.70E-03	8.24E-03	0.00E+00	0.00E+00
11/1/1970	8.23E-04	0.00E+00	0.00E+00	0.00E+00
12/1/1970	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1971	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1971	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1971	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1971	1.46E-02	6.96E-03	1.32E-03	0.00E+00
5/1/1971	8.56E-03	5.18E-03	2.18E-02	3.68E-02
6/1/1971	6.38E-03	2.55E-03	1.04E-02	3.61E-02
7/1/1971	0.00E+00	0.00E+00	0.00E+00	6.73E-03
8/1/1971	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1971	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1971	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1971	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1971	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1972	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1972	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1972	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1972	1.19E-02	6.24E-03	0.00E+00	0.00E+00
5/1/1972	8.44E-03	5.05E-03	1.36E-02	2.83E-02
6/1/1972	4.99E-03	1.10E-03	3.44E-03	3.00E-02
7/1/1972	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1972	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1972	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1972	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1972	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1972	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1973	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1973	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1973	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1973	1.40E-03	4.60E-03	0.00E+00	0.00E+00
5/1/1973	7.86E-03	4.62E-03	0.00E+00	1.14E-02
6/1/1973	0.00E+00	1.44E-03	0.00E+00	1.01E-02
7/1/1973	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1973	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Upper EFSFSR				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
9/1/1973	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1973	0.00E+00	1.87E-03	0.00E+00	0.00E+00
11/1/1973	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1973	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1974	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1974	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1974	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1974	1.33E-02	8.78E-03	1.18E-02	1.10E-02
5/1/1974	9.89E-03	6.78E-03	1.51E-02	2.82E-02
6/1/1974	3.55E-03	0.00E+00	1.50E-02	5.98E-02
7/1/1974	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1974	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1974	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1974	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1974	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1974	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1975	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1975	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1975	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1975	0.00E+00	0.00E+00	0.00E+00	0.00E+00
5/1/1975	1.05E-02	7.46E-03	4.50E-03	1.17E-02
6/1/1975	5.84E-03	1.97E-03	6.49E-03	2.59E-02
7/1/1975	0.00E+00	0.00E+00	0.00E+00	3.26E-03
8/1/1975	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1975	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1975	3.32E-03	8.78E-03	0.00E+00	3.67E-04
11/1/1975	0.00E+00	1.28E-03	0.00E+00	0.00E+00
12/1/1975	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1976	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1976	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1976	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1976	1.19E-02	8.78E-03	0.00E+00	0.00E+00
5/1/1976	8.38E-03	4.92E-03	7.67E-03	2.13E-02
6/1/1976	4.60E-03	3.25E-03	0.00E+00	1.45E-02
7/1/1976	0.00E+00	0.00E+00	0.00E+00	2.81E-03
8/1/1976	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1976	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1976	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1976	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Upper EFSFSR				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
12/1/1976	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1977	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1977	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1977	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1977	0.00E+00	0.00E+00	0.00E+00	0.00E+00
5/1/1977	0.00E+00	7.49E-03	0.00E+00	1.70E-03
6/1/1977	0.00E+00	0.00E+00	0.00E+00	9.04E-04
7/1/1977	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1977	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1977	6.24E-04	8.78E-03	0.00E+00	0.00E+00
10/1/1977	1.07E-03	3.25E-03	0.00E+00	0.00E+00
11/1/1977	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1977	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1978	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1978	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1978	8.51E-03	2.48E-03	0.00E+00	0.00E+00
4/1/1978	1.29E-02	8.78E-03	0.00E+00	1.44E-03
5/1/1978	1.04E-02	7.54E-03	3.17E-03	1.58E-02
6/1/1978	4.47E-03	2.09E-03	0.00E+00	2.09E-02
7/1/1978	0.00E+00	0.00E+00	0.00E+00	6.41E-03
8/1/1978	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1978	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1978	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1978	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1978	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1979	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1979	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1979	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1979	1.87E-03	5.32E-04	0.00E+00	0.00E+00
5/1/1979	6.74E-03	5.15E-03	0.00E+00	9.08E-03
6/1/1979	0.00E+00	1.55E-03	0.00E+00	7.72E-03
7/1/1979	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1979	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1979	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1979	0.00E+00	2.41E-03	0.00E+00	0.00E+00
11/1/1979	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1979	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1980	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1980	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Upper EFSFSR				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
3/1/1980	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1980	1.23E-02	8.78E-03	0.00E+00	5.30E-03
5/1/1980	8.73E-03	5.27E-03	7.47E-03	2.22E-02
6/1/1980	3.99E-03	2.66E-03	0.00E+00	1.41E-02
7/1/1980	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1980	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1980	0.00E+00	7.84E-04	0.00E+00	0.00E+00
10/1/1980	0.00E+00	9.66E-05	0.00E+00	0.00E+00
11/1/1980	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1980	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1981	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1981	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1981	1.13E-03	0.00E+00	0.00E+00	0.00E+00
4/1/1981	1.19E-02	8.78E-03	0.00E+00	3.21E-03
5/1/1981	8.93E-03	5.59E-03	4.00E-03	2.01E-02
6/1/1981	6.26E-03	2.31E-03	8.85E-04	2.15E-02
7/1/1981	0.00E+00	0.00E+00	0.00E+00	9.35E-04
8/1/1981	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1981	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1981	0.00E+00	2.36E-04	0.00E+00	0.00E+00
11/1/1981	0.00E+00	9.23E-05	0.00E+00	0.00E+00
12/1/1981	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1982	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1982	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1982	5.36E-04	0.00E+00	0.00E+00	0.00E+00
4/1/1982	1.17E-02	8.78E-03	0.00E+00	0.00E+00
5/1/1982	9.77E-03	6.70E-03	1.69E-02	2.76E-02
6/1/1982	5.48E-03	1.59E-03	1.70E-02	4.64E-02
7/1/1982	0.00E+00	0.00E+00	0.00E+00	7.82E-03
8/1/1982	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1982	0.00E+00	1.09E-03	0.00E+00	0.00E+00
10/1/1982	7.08E-03	8.07E-03	0.00E+00	9.26E-03
11/1/1982	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1982	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1983	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1983	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1983	6.06E-03	0.00E+00	0.00E+00	0.00E+00
4/1/1983	9.48E-03	4.95E-03	0.00E+00	0.00E+00
5/1/1983	9.22E-03	6.00E-03	8.91E-03	2.16E-02

Upper EFSFSR				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
6/1/1983	6.08E-03	2.19E-03	4.27E-03	2.89E-02
7/1/1983	0.00E+00	0.00E+00	0.00E+00	1.13E-02
8/1/1983	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1983	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1983	0.00E+00	2.79E-03	0.00E+00	0.00E+00
11/1/1983	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1983	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1984	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1984	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1984	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1984	7.02E-03	6.00E-03	0.00E+00	0.00E+00
5/1/1984	1.03E-02	7.42E-03	1.19E-02	2.26E-02
6/1/1984	6.69E-03	2.86E-03	8.41E-03	3.08E-02
7/1/1984	0.00E+00	0.00E+00	0.00E+00	1.01E-02
8/1/1984	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1984	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1984	0.00E+00	5.93E-03	0.00E+00	0.00E+00
11/1/1984	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1984	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1985	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1985	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1985	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1985	6.91E-03	8.78E-03	0.00E+00	4.74E-04
5/1/1985	7.91E-03	4.40E-03	3.38E-04	1.27E-02
6/1/1985	0.00E+00	1.15E-03	0.00E+00	4.45E-03
7/1/1985	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1985	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1985	6.21E-03	8.78E-03	0.00E+00	5.72E-03
10/1/1985	3.29E-03	7.70E-03	0.00E+00	0.00E+00
11/1/1985	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1985	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1986	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1986	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1986	1.20E-02	8.78E-03	0.00E+00	0.00E+00
4/1/1986	1.03E-02	8.78E-03	0.00E+00	1.10E-03
5/1/1986	8.33E-03	4.85E-03	2.94E-03	1.95E-02
6/1/1986	0.00E+00	0.00E+00	0.00E+00	1.96E-02
7/1/1986	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1986	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Upper EFSFSR				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
9/1/1986	5.83E-04	8.40E-03	0.00E+00	0.00E+00
10/1/1986	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1986	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1986	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1987	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1987	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1987	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1987	6.11E-03	7.52E-03	0.00E+00	1.90E-03
5/1/1987	3.57E-03	3.64E-03	0.00E+00	8.01E-03
6/1/1987	0.00E+00	7.84E-04	0.00E+00	1.84E-04
7/1/1987	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1987	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1987	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1987	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1987	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1987	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1988	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1988	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1988	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1988	4.86E-03	8.76E-03	0.00E+00	0.00E+00
5/1/1988	8.96E-03	5.53E-03	8.10E-04	1.20E-02
6/1/1988	0.00E+00	0.00E+00	0.00E+00	1.12E-02
7/1/1988	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1988	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1988	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1988	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1988	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1988	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1989	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1989	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1989	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1989	9.24E-03	8.78E-03	0.00E+00	1.27E-04
5/1/1989	9.87E-03	6.61E-03	2.85E-03	1.46E-02
6/1/1989	3.15E-03	1.78E-03	0.00E+00	1.70E-02
7/1/1989	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1989	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1989	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1989	0.00E+00	2.03E-03	0.00E+00	0.00E+00
11/1/1989	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Upper EFSFSR				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
12/1/1989	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1990	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1990	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1990	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1990	7.73E-03	7.60E-03	0.00E+00	7.11E-03
5/1/1990	8.24E-03	6.37E-03	0.00E+00	9.23E-03
6/1/1990	0.00E+00	1.95E-03	0.00E+00	1.77E-03
7/1/1990	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1990	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1990	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1990	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1990	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1990	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1991	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1991	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1991	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1991	3.88E-03	6.63E-03	0.00E+00	0.00E+00
5/1/1991	6.65E-03	7.30E-03	0.00E+00	5.34E-03
6/1/1991	0.00E+00	3.24E-03	0.00E+00	6.09E-03
7/1/1991	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1991	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1991	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1991	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1991	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1991	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1992	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1992	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1992	0.00E+00	1.86E-03	0.00E+00	0.00E+00
4/1/1992	6.34E-03	8.34E-03	0.00E+00	3.89E-03
5/1/1992	0.00E+00	3.01E-03	0.00E+00	3.64E-03
6/1/1992	0.00E+00	6.83E-04	0.00E+00	3.63E-03
7/1/1992	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1992	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1992	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1992	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1992	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1992	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1993	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1993	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Upper EFSFSR				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
3/1/1993	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1993	1.28E-02	8.78E-03	0.00E+00	1.35E-03
5/1/1993	7.43E-03	3.80E-03	5.62E-03	2.41E-02
6/1/1993	6.51E-03	2.57E-03	5.59E-04	1.92E-02
7/1/1993	0.00E+00	3.20E-04	0.00E+00	0.00E+00
8/1/1993	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1993	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1993	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1993	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1993	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1994	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1994	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1994	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1994	0.00E+00	2.28E-03	0.00E+00	0.00E+00
5/1/1994	1.20E-03	3.63E-03	0.00E+00	6.05E-03
6/1/1994	0.00E+00	0.00E+00	0.00E+00	0.00E+00
7/1/1994	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1994	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1994	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1994	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1994	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1994	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1995	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1995	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1995	4.98E-04	0.00E+00	0.00E+00	0.00E+00
4/1/1995	1.38E-02	8.78E-03	6.04E-04	1.80E-03
5/1/1995	8.96E-03	5.63E-03	8.51E-03	2.48E-02
6/1/1995	6.37E-03	2.54E-03	3.88E-03	2.66E-02
7/1/1995	0.00E+00	0.00E+00	0.00E+00	4.92E-03
8/1/1995	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1995	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1995	0.00E+00	9.91E-04	0.00E+00	0.00E+00
11/1/1995	0.00E+00	2.84E-04	0.00E+00	0.00E+00
12/1/1995	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1996	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1996	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1996	4.28E-03	0.00E+00	0.00E+00	0.00E+00
4/1/1996	1.21E-02	8.78E-03	8.90E-03	1.50E-02
5/1/1996	9.52E-03	6.38E-03	8.65E-03	2.38E-02

Upper EFSFSR				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
6/1/1996	3.13E-03	1.41E-03	0.00E+00	2.13E-02
7/1/1996	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1996	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1996	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1996	0.00E+00	1.50E-04	0.00E+00	0.00E+00
11/1/1996	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1996	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1997	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1997	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1997	1.11E-03	0.00E+00	0.00E+00	0.00E+00
4/1/1997	1.35E-02	8.78E-03	3.25E-03	3.18E-03
5/1/1997	7.57E-03	3.99E-03	1.34E-02	3.33E-02
6/1/1997	5.24E-03	1.46E-03	0.00E+00	2.38E-02
7/1/1997	0.00E+00	0.00E+00	0.00E+00	2.52E-03
8/1/1997	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1997	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1997	0.00E+00	2.10E-03	0.00E+00	0.00E+00
11/1/1997	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1997	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1998	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1998	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1998	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1998	6.16E-03	6.97E-03	0.00E+00	0.00E+00
5/1/1998	8.87E-03	5.54E-03	6.52E-03	1.91E-02
6/1/1998	6.14E-03	3.17E-03	0.00E+00	1.54E-02
7/1/1998	0.00E+00	0.00E+00	0.00E+00	2.10E-03
8/1/1998	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1998	0.00E+00	9.93E-04	0.00E+00	0.00E+00
10/1/1998	0.00E+00	2.34E-04	0.00E+00	0.00E+00
11/1/1998	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1998	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1999	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1999	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1999	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1999	3.40E-03	3.13E-03	0.00E+00	0.00E+00
5/1/1999	1.03E-02	7.29E-03	1.15E-02	1.95E-02
6/1/1999	6.90E-03	3.16E-03	1.09E-02	3.40E-02
7/1/1999	0.00E+00	0.00E+00	0.00E+00	6.79E-03
8/1/1999	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Upper EFSFSR				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
9/1/1999	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1999	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1999	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1999	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/2000	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/2000	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/2000	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/2000	7.92E-03	8.78E-03	0.00E+00	3.51E-03
5/1/2000	8.62E-03	5.13E-03	1.80E-03	1.40E-02
6/1/2000	0.00E+00	1.39E-03	0.00E+00	1.02E-02
7/1/2000	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/2000	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/2000	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/2000	0.00E+00	7.68E-03	0.00E+00	6.10E-05
11/1/2000	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/2000	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/2001	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/2001	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/2001	9.67E-04	0.00E+00	0.00E+00	0.00E+00
4/1/2001	6.02E-03	6.13E-03	0.00E+00	0.00E+00
5/1/2001	1.75E-03	4.10E-03	0.00E+00	5.67E-03
6/1/2001	0.00E+00	1.95E-03	0.00E+00	1.40E-03
7/1/2001	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/2001	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/2001	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/2001	0.00E+00	2.19E-03	0.00E+00	0.00E+00
11/1/2001	0.00E+00	4.17E-04	0.00E+00	0.00E+00
12/1/2001	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/2002	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/2002	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/2002	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/2002	1.15E-02	8.78E-03	0.00E+00	1.85E-03
5/1/2002	8.71E-03	6.23E-03	0.00E+00	1.05E-02
6/1/2002	1.57E-03	1.40E-03	0.00E+00	1.59E-02
7/1/2002	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/2002	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/2002	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/2002	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/2002	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Upper EFSFSR				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
12/1/2002	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/2003	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/2003	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/2003	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/2003	1.33E-02	8.00E-03	0.00E+00	0.00E+00
5/1/2003	9.22E-03	5.91E-03	7.79E-03	2.24E-02
6/1/2003	2.24E-03	9.68E-04	0.00E+00	2.16E-02
7/1/2003	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/2003	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/2003	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/2003	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/2003	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/2003	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/2004	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/2004	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/2004	8.42E-04	5.54E-04	0.00E+00	0.00E+00
4/1/2004	9.30E-03	8.76E-03	0.00E+00	4.04E-03
5/1/2004	9.73E-03	6.34E-03	3.64E-03	1.80E-02
6/1/2004	0.00E+00	1.68E-03	0.00E+00	8.01E-03
7/1/2004	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/2004	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/2004	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/2004	0.00E+00	3.78E-03	0.00E+00	0.00E+00
11/1/2004	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/2004	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/2005	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/2005	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/2005	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/2005	5.00E-03	8.16E-03	0.00E+00	0.00E+00
5/1/2005	7.48E-03	4.96E-03	0.00E+00	1.17E-02
6/1/2005	0.00E+00	2.75E-03	0.00E+00	6.38E-03
7/1/2005	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/2005	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/2005	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/2005	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/2005	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/2005	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/2006	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/2006	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Upper EFSFSR				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
3/1/2006	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/2006	1.25E-02	8.78E-03	7.25E-03	1.32E-02
5/1/2006	7.78E-03	4.19E-03	1.40E-02	3.13E-02
6/1/2006	4.12E-03	5.28E-04	0.00E+00	2.47E-02
7/1/2006	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/2006	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/2006	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/2006	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/2006	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/2006	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/2007	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/2007	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/2007	1.88E-03	3.13E-03	0.00E+00	0.00E+00
4/1/2007	9.13E-03	8.78E-03	0.00E+00	2.37E-03
5/1/2007	5.60E-03	4.32E-03	0.00E+00	1.32E-02
6/1/2007	0.00E+00	7.72E-04	0.00E+00	4.97E-03
7/1/2007	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/2007	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/2007	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/2007	1.17E-04	8.02E-03	0.00E+00	9.37E-04
11/1/2007	1.16E-03	0.00E+00	0.00E+00	0.00E+00
12/1/2007	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/2008	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/2008	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/2008	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/2008	5.75E-03	3.04E-03	0.00E+00	0.00E+00
5/1/2008	9.37E-03	6.05E-03	1.24E-02	2.31E-02
6/1/2008	6.18E-03	2.43E-03	1.71E-03	2.14E-02
7/1/2008	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/2008	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/2008	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/2008	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/2008	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/2008	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/2009	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/2009	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/2009	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/2009	4.73E-03	5.48E-03	0.00E+00	0.00E+00
5/1/2009	8.71E-03	5.27E-03	7.01E-03	2.06E-02

Upper EFSFSR				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
6/1/2009	4.96E-03	1.89E-03	0.00E+00	1.81E-02
7/1/2009	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/2009	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/2009	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/2009	0.00E+00	5.48E-03	0.00E+00	0.00E+00
11/1/2009	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/2009	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/2010	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/2010	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/2010	2.08E-03	0.00E+00	0.00E+00	0.00E+00
4/1/2010	8.49E-03	7.40E-03	0.00E+00	0.00E+00
5/1/2010	1.05E-02	8.78E-03	0.00E+00	7.26E-03
6/1/2010	6.35E-03	2.64E-03	7.23E-03	3.00E-02
7/1/2010	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/2010	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/2010	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/2010	0.00E+00	1.77E-04	0.00E+00	0.00E+00
11/1/2010	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/2010	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/2011	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/2011	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/2011	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/2011	1.90E-03	6.96E-03	0.00E+00	0.00E+00
5/1/2011	1.03E-02	7.27E-03	9.34E-03	1.62E-02
6/1/2011	6.74E-03	2.93E-03	7.73E-03	2.58E-02
7/1/2011	0.00E+00	0.00E+00	0.00E+00	3.50E-03
8/1/2011	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/2011	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/2011	0.00E+00	1.06E-03	0.00E+00	0.00E+00
11/1/2011	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/2011	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/2012	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/2012	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/2012	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/2012	1.26E-02	8.78E-03	4.97E-03	9.70E-03
5/1/2012	9.26E-03	5.89E-03	6.31E-03	2.10E-02
6/1/2012	1.75E-03	2.31E-03	0.00E+00	1.48E-02
7/1/2012	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/2012	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Upper EFSFSR				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
9/1/2012	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/2012	0.00E+00	4.10E-03	0.00E+00	0.00E+00
11/1/2012	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/2012	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/2013	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/2013	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/2013	1.77E-03	0.00E+00	0.00E+00	0.00E+00
4/1/2013	1.06E-02	8.78E-03	0.00E+00	0.00E+00
5/1/2013	8.74E-03	5.31E-03	1.15E-03	1.55E-02
6/1/2013	1.46E-03	1.51E-03	0.00E+00	1.54E-02
7/1/2013	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/2013	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/2013	1.68E-03	8.78E-03	0.00E+00	2.90E-04
10/1/2013	0.00E+00	2.56E-03	0.00E+00	0.00E+00
11/1/2013	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/2013	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/2014	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/2014	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/2014	4.10E-03	0.00E+00	0.00E+00	0.00E+00
4/1/2014	1.04E-02	8.78E-03	0.00E+00	0.00E+00
5/1/2014	8.55E-03	5.10E-03	1.98E-03	1.68E-02
6/1/2014	0.00E+00	2.50E-03	0.00E+00	1.01E-02
7/1/2014	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/2014	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/2014	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/2014	0.00E+00	2.39E-04	0.00E+00	0.00E+00
11/1/2014	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/2014	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/2015	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/2015	9.08E-05	0.00E+00	0.00E+00	0.00E+00
3/1/2015	6.82E-03	6.39E-03	0.00E+00	0.00E+00
4/1/2015	5.86E-03	8.29E-03	0.00E+00	0.00E+00
5/1/2015	5.65E-03	4.50E-03	0.00E+00	1.39E-02
6/1/2015	0.00E+00	0.00E+00	0.00E+00	6.07E-03
7/1/2015	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/2015	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/2015	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/2015	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/2015	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Upper EFSFSR				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
12/1/2015	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/2016	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/2016	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/2016	1.28E-03	0.00E+00	0.00E+00	0.00E+00
4/1/2016	1.12E-02	7.60E-03	8.86E-03	1.85E-02
5/1/2016	8.83E-03	5.31E-03	7.40E-04	1.67E-02
6/1/2016	0.00E+00	8.06E-04	0.00E+00	1.24E-02
7/1/2016	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/2016	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/2016	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/2016	8.38E-04	7.12E-03	0.00E+00	0.00E+00
11/1/2016	5.10E-04	8.10E-04	0.00E+00	0.00E+00
12/1/2016	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/2017	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/2017	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/2017	1.26E-02	4.73E-03	0.00E+00	0.00E+00
4/1/2017	1.45E-02	8.78E-03	1.21E-03	9.35E-04
5/1/2017	8.40E-03	4.91E-03	1.38E-02	3.61E-02
6/1/2017	4.85E-03	9.42E-04	2.75E-03	3.29E-02
7/1/2017	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/2017	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/2017	0.00E+00	3.72E-03	0.00E+00	0.00E+00
10/1/2017	6.38E-04	6.49E-03	0.00E+00	0.00E+00
11/1/2017	1.24E-03	0.00E+00	0.00E+00	0.00E+00
12/1/2017	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/2018	4.58E-04	0.00E+00	0.00E+00	0.00E+00
2/1/2018	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/2018	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/2018	1.33E-02	8.78E-03	1.59E-03	5.00E-03
5/1/2018	7.14E-03	3.56E-03	7.73E-03	2.59E-02
6/1/2018	0.00E+00	2.00E-03	0.00E+00	7.70E-03
7/1/2018	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/2018	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/2018	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/2018	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/2018	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/2018	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/2019	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/2019	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Upper EFSFSR				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
3/1/2019	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/2019	1.29E-02	8.78E-03	7.25E-04	9.04E-03
5/1/2019	8.79E-03	5.35E-03	4.81E-03	1.83E-02
6/1/2019	0.00E+00	1.87E-03	0.00E+00	1.10E-02
7/1/2019	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/2019	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/2019	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/2019	0.00E+00	1.89E-03	0.00E+00	0.00E+00
11/1/2019	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/2019	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Abbreviations:

BDA = bedrock dominated area

EFSFSR = East Fork of the South Fork of the Salmon River

ft/d = foot per day

UDA = unconsolidated deposit area

Table A-3. Monthly total available water estimated in the MWB for Lower EFSFSR

Lower EFSFSR				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
10/1/1895	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1895	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1895	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1896	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1896	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1896	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1896	1.91E-03	1.84E-04	0.00E+00	0.00E+00
5/1/1896	1.08E-02	4.06E-03	7.66E-03	1.38E-02
6/1/1896	5.36E-03	1.32E-03	3.50E-03	2.08E-02
7/1/1896	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1896	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1896	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1896	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1896	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1896	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1897	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1897	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1897	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1897	1.18E-02	4.06E-03	4.35E-03	9.03E-03
5/1/1897	6.13E-03	2.36E-03	9.99E-03	2.69E-02

Lower EFSFSR				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
6/1/1897	9.18E-05	2.07E-03	0.00E+00	5.11E-03
7/1/1897	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1897	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1897	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1897	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1897	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1897	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1898	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1898	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1898	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1898	1.16E-02	4.06E-03	7.15E-05	6.91E-03
5/1/1898	8.58E-03	4.06E-03	6.03E-03	1.89E-02
6/1/1898	0.00E+00	6.96E-04	0.00E+00	7.52E-03
7/1/1898	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1898	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1898	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1898	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1898	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1898	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1899	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1899	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1899	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1899	8.46E-03	4.06E-03	0.00E+00	0.00E+00
5/1/1899	1.08E-02	4.06E-03	6.13E-03	1.66E-02
6/1/1899	6.44E-03	2.58E-03	3.52E-03	2.02E-02
7/1/1899	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1899	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1899	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1899	0.00E+00	3.03E-03	0.00E+00	0.00E+00
11/1/1899	1.16E-03	2.31E-03	0.00E+00	0.00E+00
12/1/1899	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1900	1.36E-04	0.00E+00	0.00E+00	0.00E+00
2/1/1900	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1900	8.21E-03	4.06E-03	0.00E+00	0.00E+00
4/1/1900	1.10E-02	4.06E-03	0.00E+00	7.37E-03
5/1/1900	7.50E-03	3.71E-03	3.19E-03	1.87E-02
6/1/1900	0.00E+00	0.00E+00	0.00E+00	9.73E-04
7/1/1900	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1900	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Lower EFSFSR				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
9/1/1900	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1900	5.95E-04	4.06E-03	0.00E+00	0.00E+00
11/1/1900	8.90E-04	1.91E-03	0.00E+00	0.00E+00
12/1/1900	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1901	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1901	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1901	2.37E-03	0.00E+00	0.00E+00	0.00E+00
4/1/1901	1.08E-02	4.06E-03	0.00E+00	1.26E-04
5/1/1901	6.29E-03	2.51E-03	9.79E-03	2.81E-02
6/1/1901	0.00E+00	2.94E-03	0.00E+00	2.33E-03
7/1/1901	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1901	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1901	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1901	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1901	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1901	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1902	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1902	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1902	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1902	4.56E-03	4.06E-03	0.00E+00	0.00E+00
5/1/1902	8.46E-03	4.06E-03	4.64E-03	1.71E-02
6/1/1902	0.00E+00	1.95E-03	0.00E+00	3.28E-03
7/1/1902	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1902	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1902	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1902	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1902	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1902	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1903	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1903	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1903	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1903	5.42E-03	3.43E-03	0.00E+00	0.00E+00
5/1/1903	8.86E-03	4.06E-03	3.55E-03	1.23E-02
6/1/1903	1.16E-03	0.00E+00	0.00E+00	1.38E-02
7/1/1903	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1903	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1903	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1903	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1903	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Lower EFSFSR				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
12/1/1903	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1904	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1904	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1904	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1904	1.24E-02	4.06E-03	1.13E-03	6.37E-03
5/1/1904	8.28E-03	4.06E-03	5.97E-03	1.96E-02
6/1/1904	2.08E-03	1.31E-03	0.00E+00	9.98E-03
7/1/1904	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1904	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1904	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1904	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1904	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1904	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1905	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1905	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1905	0.00E+00	3.92E-04	0.00E+00	0.00E+00
4/1/1905	3.36E-03	4.06E-03	0.00E+00	0.00E+00
5/1/1905	5.35E-03	4.06E-03	0.00E+00	5.72E-03
6/1/1905	4.66E-04	2.74E-03	0.00E+00	5.24E-03
7/1/1905	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1905	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1905	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1905	0.00E+00	1.77E-04	0.00E+00	0.00E+00
11/1/1905	0.00E+00	7.83E-04	0.00E+00	0.00E+00
12/1/1905	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1906	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1906	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1906	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1906	8.82E-03	4.06E-03	0.00E+00	2.95E-03
5/1/1906	9.19E-03	4.06E-03	2.63E-03	1.50E-02
6/1/1906	9.80E-04	3.04E-03	0.00E+00	5.34E-03
7/1/1906	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1906	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1906	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1906	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1906	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1906	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1907	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1907	1.05E-03	0.00E+00	0.00E+00	0.00E+00

Lower EFSFSR				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
3/1/1907	2.95E-03	0.00E+00	0.00E+00	0.00E+00
4/1/1907	1.26E-02	4.06E-03	0.00E+00	0.00E+00
5/1/1907	8.98E-03	4.06E-03	4.75E-03	2.26E-02
6/1/1907	7.24E-03	3.39E-03	1.83E-03	1.81E-02
7/1/1907	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1907	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1907	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1907	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1907	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1907	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1908	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1908	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1908	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1908	4.92E-03	4.06E-03	0.00E+00	0.00E+00
5/1/1908	1.01E-02	4.06E-03	8.60E-04	1.03E-02
6/1/1908	5.00E-03	2.61E-03	0.00E+00	1.17E-02
7/1/1908	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1908	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1908	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1908	1.97E-03	4.06E-03	0.00E+00	0.00E+00
11/1/1908	6.20E-05	4.06E-03	0.00E+00	0.00E+00
12/1/1908	0.00E+00	2.85E-04	0.00E+00	0.00E+00
1/1/1909	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1909	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1909	5.08E-03	4.04E-04	0.00E+00	0.00E+00
4/1/1909	8.47E-03	4.06E-03	0.00E+00	0.00E+00
5/1/1909	9.49E-03	4.06E-03	5.56E-03	1.56E-02
6/1/1909	4.75E-03	8.30E-04	8.82E-04	1.90E-02
7/1/1909	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1909	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1909	0.00E+00	2.66E-03	0.00E+00	0.00E+00
10/1/1909	0.00E+00	1.48E-03	0.00E+00	0.00E+00
11/1/1909	1.83E-03	1.18E-03	0.00E+00	0.00E+00
12/1/1909	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1910	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1910	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1910	1.23E-02	4.06E-03	1.70E-03	3.53E-03
4/1/1910	1.07E-02	4.06E-03	5.86E-03	1.88E-02
5/1/1910	7.80E-03	4.06E-03	0.00E+00	1.36E-02

Lower EFSFSR				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
6/1/1910	0.00E+00	0.00E+00	0.00E+00	0.00E+00
7/1/1910	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1910	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1910	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1910	0.00E+00	1.57E-04	0.00E+00	0.00E+00
11/1/1910	0.00E+00	1.79E-04	0.00E+00	0.00E+00
12/1/1910	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1911	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1911	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1911	2.12E-03	5.12E-04	0.00E+00	0.00E+00
4/1/1911	8.48E-03	4.06E-03	0.00E+00	0.00E+00
5/1/1911	1.01E-02	4.06E-03	5.04E-03	1.73E-02
6/1/1911	5.08E-03	1.17E-03	6.87E-03	2.62E-02
7/1/1911	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1911	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1911	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1911	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1911	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1911	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1912	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1912	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1912	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1912	9.55E-03	4.06E-03	0.00E+00	1.98E-03
5/1/1912	8.62E-03	4.06E-03	8.56E-03	2.29E-02
6/1/1912	3.23E-03	5.89E-04	0.00E+00	1.21E-02
7/1/1912	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1912	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1912	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1912	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1912	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1912	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1913	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1913	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1913	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1913	6.96E-03	4.06E-03	0.00E+00	2.69E-04
5/1/1913	7.55E-03	3.81E-03	6.09E-03	2.03E-02
6/1/1913	4.68E-03	5.94E-04	3.49E-03	1.62E-02
7/1/1913	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1913	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Lower EFSFSR				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
9/1/1913	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1913	0.00E+00	1.21E-03	0.00E+00	0.00E+00
11/1/1913	0.00E+00	1.15E-03	0.00E+00	0.00E+00
12/1/1913	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1914	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1914	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1914	5.63E-03	3.96E-03	0.00E+00	0.00E+00
4/1/1914	1.21E-02	4.06E-03	5.45E-04	5.96E-03
5/1/1914	6.85E-03	3.07E-03	3.87E-04	1.57E-02
6/1/1914	1.40E-05	2.00E-03	0.00E+00	4.20E-03
7/1/1914	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1914	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1914	0.00E+00	2.54E-03	0.00E+00	0.00E+00
10/1/1914	1.61E-03	4.06E-03	0.00E+00	0.00E+00
11/1/1914	1.48E-05	1.37E-03	0.00E+00	0.00E+00
12/1/1914	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1915	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1915	3.31E-04	0.00E+00	0.00E+00	0.00E+00
3/1/1915	4.21E-03	4.06E-03	0.00E+00	0.00E+00
4/1/1915	6.01E-03	4.06E-03	0.00E+00	1.53E-03
5/1/1915	9.58E-03	4.06E-03	2.09E-03	1.30E-02
6/1/1915	0.00E+00	2.21E-03	0.00E+00	0.00E+00
7/1/1915	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1915	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1915	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1915	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1915	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1915	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1916	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1916	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1916	3.31E-03	0.00E+00	0.00E+00	0.00E+00
4/1/1916	1.27E-02	4.06E-03	6.35E-03	7.59E-03
5/1/1916	1.05E-02	4.06E-03	5.49E-03	1.89E-02
6/1/1916	6.87E-03	2.96E-03	5.01E-03	2.44E-02
7/1/1916	0.00E+00	0.00E+00	0.00E+00	3.71E-03
8/1/1916	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1916	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1916	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1916	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Lower EFSFSR				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
12/1/1916	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1917	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1917	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1917	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1917	3.82E-03	4.06E-03	0.00E+00	0.00E+00
5/1/1917	8.57E-03	4.06E-03	7.56E-03	1.51E-02
6/1/1917	2.73E-03	1.48E-03	0.00E+00	9.67E-03
7/1/1917	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1917	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1917	0.00E+00	1.63E-03	0.00E+00	0.00E+00
10/1/1917	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1917	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1917	0.00E+00	1.77E-03	0.00E+00	0.00E+00
1/1/1918	5.74E-04	0.00E+00	0.00E+00	0.00E+00
2/1/1918	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1918	6.67E-03	3.74E-03	0.00E+00	0.00E+00
4/1/1918	9.04E-03	4.06E-03	0.00E+00	0.00E+00
5/1/1918	6.84E-03	4.06E-03	0.00E+00	1.00E-02
6/1/1918	0.00E+00	0.00E+00	0.00E+00	1.60E-02
7/1/1918	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1918	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1918	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1918	0.00E+00	1.85E-03	0.00E+00	0.00E+00
11/1/1918	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1918	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1919	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1919	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1919	2.39E-03	6.52E-04	0.00E+00	0.00E+00
4/1/1919	1.23E-02	4.06E-03	0.00E+00	3.78E-03
5/1/1919	7.31E-03	4.06E-03	0.00E+00	1.32E-02
6/1/1919	0.00E+00	5.28E-04	0.00E+00	1.19E-03
7/1/1919	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1919	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1919	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1919	0.00E+00	8.63E-04	0.00E+00	0.00E+00
11/1/1919	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1919	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1920	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1920	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Lower EFSFSR				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
3/1/1920	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1920	7.39E-03	4.06E-03	0.00E+00	0.00E+00
5/1/1920	1.03E-02	4.06E-03	1.11E-03	1.01E-02
6/1/1920	6.59E-03	2.76E-03	1.21E-04	1.47E-02
7/1/1920	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1920	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1920	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1920	3.62E-03	4.06E-03	0.00E+00	1.77E-03
11/1/1920	1.33E-03	4.06E-03	0.00E+00	0.00E+00
12/1/1920	0.00E+00	1.30E-05	0.00E+00	0.00E+00
1/1/1921	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1921	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1921	7.04E-03	1.86E-03	0.00E+00	0.00E+00
4/1/1921	1.25E-02	4.06E-03	0.00E+00	0.00E+00
5/1/1921	8.84E-03	4.06E-03	1.39E-02	3.03E-02
6/1/1921	5.02E-03	1.12E-03	6.92E-04	1.93E-02
7/1/1921	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1921	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1921	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1921	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1921	0.00E+00	1.24E-03	0.00E+00	0.00E+00
12/1/1921	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1922	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1922	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1922	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1922	7.29E-03	4.06E-03	0.00E+00	0.00E+00
5/1/1922	9.30E-03	4.06E-03	8.52E-03	1.81E-02
6/1/1922	3.68E-03	0.00E+00	1.11E-03	2.03E-02
7/1/1922	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1922	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1922	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1922	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1922	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1922	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1923	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1923	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1923	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1923	6.59E-03	4.06E-03	0.00E+00	0.00E+00
5/1/1923	9.43E-03	4.06E-03	5.75E-03	1.73E-02

Lower EFSFSR				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
6/1/1923	7.07E-03	3.20E-03	3.64E-03	1.70E-02
7/1/1923	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1923	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1923	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1923	0.00E+00	7.29E-04	0.00E+00	0.00E+00
11/1/1923	0.00E+00	9.11E-04	0.00E+00	0.00E+00
12/1/1923	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1924	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1924	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1924	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1924	4.74E-03	4.06E-03	0.00E+00	0.00E+00
5/1/1924	1.39E-03	3.46E-03	0.00E+00	4.42E-03
6/1/1924	0.00E+00	0.00E+00	0.00E+00	0.00E+00
7/1/1924	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1924	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1924	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1924	0.00E+00	3.08E-03	0.00E+00	0.00E+00
11/1/1924	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1924	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1925	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1925	9.02E-04	0.00E+00	0.00E+00	0.00E+00
3/1/1925	5.43E-03	0.00E+00	0.00E+00	0.00E+00
4/1/1925	1.24E-02	4.06E-03	9.23E-03	1.35E-02
5/1/1925	7.37E-03	3.63E-03	1.17E-02	2.99E-02
6/1/1925	2.39E-03	1.88E-03	0.00E+00	1.02E-02
7/1/1925	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1925	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1925	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1925	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1925	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1925	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1926	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1926	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1926	3.40E-03	3.46E-03	0.00E+00	0.00E+00
4/1/1926	8.92E-03	4.06E-03	0.00E+00	5.36E-03
5/1/1926	5.06E-03	4.06E-03	0.00E+00	9.18E-03
6/1/1926	0.00E+00	4.88E-04	0.00E+00	5.28E-04
7/1/1926	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1926	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Lower EFSFSR				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
9/1/1926	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1926	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1926	2.28E-04	3.37E-03	0.00E+00	0.00E+00
12/1/1926	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1927	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1927	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1927	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1927	1.33E-02	4.06E-03	0.00E+00	0.00E+00
5/1/1927	9.54E-03	4.06E-03	1.60E-02	2.85E-02
6/1/1927	5.21E-03	1.26E-03	8.34E-03	2.78E-02
7/1/1927	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1927	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1927	3.76E-03	4.06E-03	0.00E+00	0.00E+00
10/1/1927	2.30E-03	4.06E-03	0.00E+00	1.85E-03
11/1/1927	5.12E-03	4.06E-03	0.00E+00	0.00E+00
12/1/1927	0.00E+00	7.31E-04	0.00E+00	0.00E+00
1/1/1928	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1928	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1928	6.11E-03	2.76E-04	0.00E+00	0.00E+00
4/1/1928	1.30E-02	4.06E-03	0.00E+00	0.00E+00
5/1/1928	6.46E-03	2.73E-03	1.60E-02	3.85E-02
6/1/1928	0.00E+00	2.65E-03	0.00E+00	5.49E-03
7/1/1928	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1928	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1928	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1928	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1928	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1928	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1929	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1929	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1929	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1929	5.03E-03	4.06E-03	0.00E+00	0.00E+00
5/1/1929	6.67E-03	4.06E-03	0.00E+00	6.52E-03
6/1/1929	2.18E-03	1.85E-03	0.00E+00	8.44E-03
7/1/1929	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1929	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1929	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1929	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1929	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Lower EFSFSR				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
12/1/1929	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1930	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1930	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1930	1.09E-03	0.00E+00	0.00E+00	0.00E+00
4/1/1930	1.13E-02	4.06E-03	4.02E-03	7.20E-03
5/1/1930	8.85E-03	4.06E-03	0.00E+00	1.28E-02
6/1/1930	0.00E+00	2.59E-03	0.00E+00	4.54E-03
7/1/1930	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1930	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1930	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1930	0.00E+00	7.49E-04	0.00E+00	0.00E+00
11/1/1930	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1930	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1931	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1931	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1931	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1931	7.66E-03	4.06E-03	0.00E+00	0.00E+00
5/1/1931	7.15E-03	4.00E-03	0.00E+00	1.37E-02
6/1/1931	0.00E+00	1.12E-03	0.00E+00	1.96E-03
7/1/1931	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1931	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1931	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1931	0.00E+00	3.62E-03	0.00E+00	0.00E+00
11/1/1931	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1931	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1932	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1932	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1932	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1932	1.44E-02	4.06E-03	1.58E-04	1.94E-03
5/1/1932	9.52E-03	4.06E-03	1.44E-02	2.84E-02
6/1/1932	5.90E-03	2.01E-03	2.03E-03	1.78E-02
7/1/1932	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1932	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1932	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1932	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1932	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1932	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1933	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1933	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Lower EFSFSR				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
3/1/1933	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1933	5.31E-03	3.19E-03	0.00E+00	0.00E+00
5/1/1933	1.03E-02	4.06E-03	5.90E-03	1.23E-02
6/1/1933	4.09E-03	1.13E-04	7.47E-03	2.74E-02
7/1/1933	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1933	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1933	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1933	0.00E+00	2.93E-03	0.00E+00	0.00E+00
11/1/1933	0.00E+00	1.86E-04	0.00E+00	0.00E+00
12/1/1933	5.76E-04	3.68E-04	0.00E+00	0.00E+00
1/1/1934	1.88E-03	0.00E+00	0.00E+00	0.00E+00
2/1/1934	4.14E-03	2.96E-03	0.00E+00	0.00E+00
3/1/1934	6.08E-03	4.06E-03	0.00E+00	0.00E+00
4/1/1934	7.01E-03	4.06E-03	0.00E+00	8.55E-03
5/1/1934	0.00E+00	2.81E-03	0.00E+00	3.89E-03
6/1/1934	0.00E+00	3.59E-04	0.00E+00	0.00E+00
7/1/1934	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1934	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1934	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1934	0.00E+00	1.26E-03	0.00E+00	0.00E+00
11/1/1934	0.00E+00	1.69E-03	0.00E+00	0.00E+00
12/1/1934	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1935	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1935	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1935	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1935	1.24E-02	4.06E-03	0.00E+00	1.02E-03
5/1/1935	9.19E-03	4.06E-03	6.56E-04	1.40E-02
6/1/1935	1.57E-03	1.61E-03	0.00E+00	9.22E-03
7/1/1935	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1935	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1935	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1935	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1935	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1935	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1936	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1936	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1936	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1936	1.12E-02	4.06E-03	0.00E+00	2.69E-03
5/1/1936	6.95E-03	3.19E-03	1.48E-02	3.06E-02

Lower EFSFSR				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
6/1/1936	3.64E-03	7.83E-04	0.00E+00	1.22E-02
7/1/1936	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1936	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1936	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1936	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1936	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1936	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1937	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1937	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1937	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1937	7.65E-03	4.06E-03	0.00E+00	0.00E+00
5/1/1937	8.25E-03	4.06E-03	4.55E-03	1.43E-02
6/1/1937	5.31E-03	2.43E-03	0.00E+00	1.15E-02
7/1/1937	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1937	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1937	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1937	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1937	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1937	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1938	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1938	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1938	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1938	1.29E-02	4.06E-03	0.00E+00	0.00E+00
5/1/1938	9.58E-03	4.06E-03	1.67E-02	2.99E-02
6/1/1938	4.88E-03	9.55E-04	1.35E-02	3.49E-02
7/1/1938	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1938	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1938	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1938	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1938	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1938	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1939	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1939	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1939	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1939	8.65E-03	4.06E-03	0.00E+00	1.23E-03
5/1/1939	7.74E-03	4.03E-03	2.52E-04	1.41E-02
6/1/1939	0.00E+00	2.98E-03	0.00E+00	1.74E-03
7/1/1939	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1939	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Lower EFSFSR				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
9/1/1939	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1939	0.00E+00	6.82E-04	0.00E+00	0.00E+00
11/1/1939	0.00E+00	8.62E-05	0.00E+00	0.00E+00
12/1/1939	0.00E+00	6.20E-04	0.00E+00	0.00E+00
1/1/1940	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1940	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1940	9.37E-03	4.06E-03	0.00E+00	0.00E+00
4/1/1940	1.25E-02	4.06E-03	6.64E-03	1.45E-02
5/1/1940	7.21E-03	3.45E-03	6.43E-03	2.43E-02
6/1/1940	0.00E+00	4.14E-04	0.00E+00	6.23E-03
7/1/1940	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1940	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1940	3.41E-03	4.06E-03	0.00E+00	0.00E+00
10/1/1940	4.37E-03	4.06E-03	0.00E+00	4.00E-03
11/1/1940	0.00E+00	2.63E-03	0.00E+00	0.00E+00
12/1/1940	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1941	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1941	7.07E-04	0.00E+00	0.00E+00	0.00E+00
3/1/1941	5.66E-03	3.60E-03	0.00E+00	0.00E+00
4/1/1941	9.47E-03	4.06E-03	0.00E+00	9.11E-04
5/1/1941	8.61E-03	4.06E-03	6.57E-03	2.24E-02
6/1/1941	4.18E-03	2.10E-03	0.00E+00	1.04E-02
7/1/1941	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1941	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1941	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1941	0.00E+00	1.33E-03	0.00E+00	0.00E+00
11/1/1941	0.00E+00	7.79E-04	0.00E+00	0.00E+00
12/1/1941	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1942	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1942	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1942	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1942	1.22E-02	4.06E-03	3.19E-03	8.17E-03
5/1/1942	9.68E-03	4.06E-03	8.17E-03	2.08E-02
6/1/1942	5.17E-03	2.69E-03	0.00E+00	1.18E-02
7/1/1942	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1942	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1942	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1942	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1942	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Lower EFSFSR				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
12/1/1942	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1943	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1943	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1943	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1943	1.15E-02	4.06E-03	1.45E-02	1.87E-02
5/1/1943	9.78E-03	4.06E-03	7.91E-03	1.91E-02
6/1/1943	7.01E-03	3.10E-03	4.68E-03	2.09E-02
7/1/1943	0.00E+00	0.00E+00	0.00E+00	1.10E-03
8/1/1943	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1943	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1943	0.00E+00	4.71E-04	0.00E+00	0.00E+00
11/1/1943	0.00E+00	3.01E-04	0.00E+00	0.00E+00
12/1/1943	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1944	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1944	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1944	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1944	5.05E-03	4.06E-03	0.00E+00	0.00E+00
5/1/1944	3.53E-03	4.06E-03	0.00E+00	6.85E-03
6/1/1944	3.55E-03	2.24E-03	0.00E+00	7.23E-03
7/1/1944	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1944	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1944	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1944	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1944	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1944	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1945	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1945	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1945	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1945	4.09E-03	0.00E+00	0.00E+00	0.00E+00
5/1/1945	8.83E-03	4.06E-03	1.67E-02	2.65E-02
6/1/1945	6.92E-03	3.04E-03	3.43E-03	1.77E-02
7/1/1945	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1945	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1945	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1945	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1945	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1945	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1946	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1946	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Lower EFSFSR				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
3/1/1946	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1946	1.22E-02	4.06E-03	6.23E-03	8.06E-03
5/1/1946	8.17E-03	4.06E-03	8.69E-03	2.43E-02
6/1/1946	2.02E-03	1.84E-03	0.00E+00	1.02E-02
7/1/1946	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1946	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1946	0.00E+00	7.80E-04	0.00E+00	0.00E+00
10/1/1946	4.28E-03	4.06E-03	0.00E+00	2.06E-04
11/1/1946	6.78E-04	4.06E-03	0.00E+00	0.00E+00
12/1/1946	0.00E+00	1.79E-03	0.00E+00	0.00E+00
1/1/1947	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1947	1.88E-03	0.00E+00	0.00E+00	0.00E+00
3/1/1947	9.52E-03	4.06E-03	0.00E+00	0.00E+00
4/1/1947	1.18E-02	4.06E-03	0.00E+00	6.51E-03
5/1/1947	6.42E-03	2.64E-03	6.97E-03	2.63E-02
6/1/1947	4.17E-03	3.38E-03	0.00E+00	7.83E-03
7/1/1947	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1947	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1947	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1947	1.85E-03	4.06E-03	0.00E+00	1.52E-03
11/1/1947	0.00E+00	2.01E-03	0.00E+00	0.00E+00
12/1/1947	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1948	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1948	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1948	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1948	1.47E-02	4.06E-03	1.33E-03	2.64E-03
5/1/1948	8.47E-03	4.06E-03	1.45E-02	2.93E-02
6/1/1948	4.33E-03	3.92E-04	5.28E-03	2.12E-02
7/1/1948	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1948	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1948	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1948	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1948	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1948	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1949	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1949	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1949	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1949	1.13E-02	4.06E-03	4.59E-03	8.06E-03
5/1/1949	7.38E-03	3.63E-03	7.78E-03	2.31E-02

Lower EFSFSR				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
6/1/1949	0.00E+00	1.82E-03	0.00E+00	1.35E-03
7/1/1949	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1949	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1949	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1949	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1949	0.00E+00	1.05E-03	0.00E+00	0.00E+00
12/1/1949	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1950	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1950	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1950	1.28E-03	0.00E+00	0.00E+00	0.00E+00
4/1/1950	1.35E-02	4.06E-03	1.35E-03	3.90E-03
5/1/1950	1.02E-02	4.06E-03	1.74E-03	1.57E-02
6/1/1950	5.86E-03	1.91E-03	3.84E-03	2.22E-02
7/1/1950	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1950	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1950	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1950	3.23E-03	4.06E-03	0.00E+00	3.03E-03
11/1/1950	1.50E-03	2.79E-03	0.00E+00	0.00E+00
12/1/1950	1.80E-03	1.51E-04	0.00E+00	0.00E+00
1/1/1951	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1951	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1951	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1951	1.15E-02	4.06E-03	7.93E-03	1.16E-02
5/1/1951	7.86E-03	4.06E-03	5.61E-03	1.96E-02
6/1/1951	9.58E-04	2.85E-03	0.00E+00	5.13E-03
7/1/1951	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1951	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1951	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1951	3.77E-03	4.06E-03	0.00E+00	0.00E+00
11/1/1951	2.02E-04	4.06E-03	0.00E+00	0.00E+00
12/1/1951	0.00E+00	1.38E-04	0.00E+00	0.00E+00
1/1/1952	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1952	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1952	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1952	1.14E-02	4.06E-03	7.51E-03	1.06E-02
5/1/1952	8.02E-03	4.06E-03	9.10E-03	2.26E-02
6/1/1952	5.56E-03	1.63E-03	2.65E-03	1.56E-02
7/1/1952	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1952	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Lower EFSFSR				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
9/1/1952	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1952	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1952	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1952	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1953	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1953	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1953	1.55E-03	0.00E+00	0.00E+00	0.00E+00
4/1/1953	1.42E-02	4.06E-03	3.79E-04	0.00E+00
5/1/1953	1.10E-02	4.06E-03	8.00E-03	2.15E-02
6/1/1953	6.67E-03	2.81E-03	3.63E-03	2.42E-02
7/1/1953	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1953	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1953	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1953	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1953	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1953	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1954	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1954	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1954	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1954	1.32E-02	4.06E-03	2.19E-03	3.80E-03
5/1/1954	8.37E-03	4.06E-03	8.54E-03	2.50E-02
6/1/1954	7.42E-03	3.54E-03	3.48E-03	1.73E-02
7/1/1954	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1954	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1954	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1954	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1954	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1954	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1955	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1955	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1955	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1955	4.31E-03	4.06E-03	0.00E+00	0.00E+00
5/1/1955	9.55E-03	4.06E-03	4.74E-03	1.22E-02
6/1/1955	4.02E-03	1.42E-03	0.00E+00	1.26E-02
7/1/1955	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1955	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1955	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1955	0.00E+00	7.26E-04	0.00E+00	0.00E+00
11/1/1955	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Lower EFSFSR				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
12/1/1955	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1956	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1956	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1956	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1956	1.25E-02	4.06E-03	8.20E-03	1.24E-02
5/1/1956	7.73E-03	4.03E-03	2.27E-02	3.89E-02
6/1/1956	5.41E-03	1.49E-03	9.16E-04	1.57E-02
7/1/1956	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1956	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1956	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1956	2.71E-03	4.06E-03	0.00E+00	0.00E+00
11/1/1956	6.71E-05	2.98E-03	0.00E+00	0.00E+00
12/1/1956	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1957	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1957	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1957	2.60E-03	0.00E+00	0.00E+00	0.00E+00
4/1/1957	1.31E-02	4.06E-03	0.00E+00	2.63E-03
5/1/1957	7.79E-03	4.06E-03	1.39E-02	3.16E-02
6/1/1957	1.52E-04	1.27E-03	0.00E+00	7.27E-03
7/1/1957	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1957	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1957	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1957	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1957	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1957	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1958	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1958	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1958	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1958	9.84E-03	4.06E-03	0.00E+00	0.00E+00
5/1/1958	6.08E-03	2.35E-03	1.09E-02	2.74E-02
6/1/1958	1.92E-03	1.16E-03	0.00E+00	8.65E-03
7/1/1958	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1958	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1958	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1958	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1958	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1958	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1959	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1959	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Lower EFSFSR				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
3/1/1959	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1959	1.31E-02	4.06E-03	1.21E-03	4.43E-03
5/1/1959	1.07E-02	4.06E-03	8.43E-03	2.16E-02
6/1/1959	4.77E-03	8.57E-04	4.99E-03	2.55E-02
7/1/1959	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1959	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1959	2.74E-03	4.06E-03	0.00E+00	0.00E+00
10/1/1959	6.49E-03	4.06E-03	0.00E+00	5.26E-03
11/1/1959	5.16E-04	2.86E-03	0.00E+00	0.00E+00
12/1/1959	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1960	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1960	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1960	3.14E-03	0.00E+00	0.00E+00	0.00E+00
4/1/1960	1.30E-02	4.06E-03	2.13E-04	3.86E-03
5/1/1960	9.43E-03	4.06E-03	5.82E-03	2.05E-02
6/1/1960	0.00E+00	7.73E-04	0.00E+00	8.29E-03
7/1/1960	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1960	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1960	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1960	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1960	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1960	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1961	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1961	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1961	5.04E-04	0.00E+00	0.00E+00	0.00E+00
4/1/1961	1.41E-02	4.06E-03	1.67E-04	0.00E+00
5/1/1961	8.64E-03	4.06E-03	1.16E-02	2.97E-02
6/1/1961	9.79E-05	0.00E+00	0.00E+00	1.57E-02
7/1/1961	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1961	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1961	0.00E+00	5.05E-04	0.00E+00	0.00E+00
10/1/1961	3.16E-03	4.06E-03	0.00E+00	5.55E-04
11/1/1961	0.00E+00	4.02E-03	0.00E+00	0.00E+00
12/1/1961	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1962	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1962	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1962	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1962	1.22E-02	4.06E-03	6.27E-03	9.06E-03
5/1/1962	9.64E-03	4.06E-03	6.94E-03	1.93E-02

Lower EFSFSR				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
6/1/1962	2.12E-03	1.65E-03	0.00E+00	1.03E-02
7/1/1962	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1962	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1962	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1962	8.57E-03	4.06E-03	0.00E+00	3.33E-03
11/1/1962	2.30E-03	4.06E-03	0.00E+00	0.00E+00
12/1/1962	4.40E-04	3.20E-03	0.00E+00	0.00E+00
1/1/1963	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1963	5.55E-03	3.45E-03	0.00E+00	0.00E+00
3/1/1963	8.73E-04	0.00E+00	0.00E+00	0.00E+00
4/1/1963	1.20E-02	4.06E-03	0.00E+00	7.87E-06
5/1/1963	8.03E-03	4.06E-03	6.76E-03	2.49E-02
6/1/1963	6.09E-03	2.17E-03	2.31E-03	1.65E-02
7/1/1963	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1963	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1963	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1963	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1963	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1963	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1964	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1964	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1964	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1964	6.52E-03	4.06E-03	0.00E+00	0.00E+00
5/1/1964	9.65E-03	4.06E-03	7.01E-03	1.50E-02
6/1/1964	6.52E-03	2.64E-03	9.75E-03	2.63E-02
7/1/1964	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1964	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1964	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1964	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1964	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1964	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1965	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1965	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1965	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1965	1.32E-02	4.06E-03	9.50E-03	1.12E-02
5/1/1965	1.02E-02	4.06E-03	1.31E-02	2.54E-02
6/1/1965	5.97E-03	2.02E-03	1.26E-02	3.25E-02
7/1/1965	0.00E+00	0.00E+00	0.00E+00	1.36E-03
8/1/1965	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Lower EFSFSR				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
9/1/1965	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1965	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1965	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1965	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1966	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1966	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1966	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1966	5.14E-03	4.06E-03	0.00E+00	0.00E+00
5/1/1966	7.13E-03	3.38E-03	3.15E-03	1.66E-02
6/1/1966	0.00E+00	1.79E-03	0.00E+00	4.81E-03
7/1/1966	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1966	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1966	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1966	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1966	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1966	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1967	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1967	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1967	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1967	5.32E-03	4.06E-03	0.00E+00	0.00E+00
5/1/1967	9.47E-03	4.06E-03	1.50E-02	2.16E-02
6/1/1967	5.82E-03	1.94E-03	1.07E-02	2.80E-02
7/1/1967	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1967	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1967	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1967	2.69E-03	4.06E-03	0.00E+00	0.00E+00
11/1/1967	8.69E-04	3.21E-03	0.00E+00	0.00E+00
12/1/1967	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1968	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1968	1.60E-03	0.00E+00	0.00E+00	0.00E+00
3/1/1968	6.48E-03	3.52E-03	0.00E+00	0.00E+00
4/1/1968	7.82E-03	4.06E-03	0.00E+00	0.00E+00
5/1/1968	9.74E-03	4.06E-03	2.91E-03	1.40E-02
6/1/1968	3.22E-03	1.85E-03	0.00E+00	1.45E-02
7/1/1968	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1968	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1968	0.00E+00	1.30E-03	0.00E+00	0.00E+00
10/1/1968	1.30E-03	4.06E-03	0.00E+00	0.00E+00
11/1/1968	4.86E-04	1.84E-03	0.00E+00	0.00E+00

Lower EFSFSR				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
12/1/1968	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1969	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1969	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1969	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1969	1.21E-02	4.06E-03	1.04E-02	1.20E-02
5/1/1969	7.12E-03	3.37E-03	1.39E-02	2.91E-02
6/1/1969	3.16E-03	1.37E-03	0.00E+00	1.07E-02
7/1/1969	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1969	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1969	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1969	0.00E+00	5.70E-04	0.00E+00	0.00E+00
11/1/1969	0.00E+00	2.55E-04	0.00E+00	0.00E+00
12/1/1969	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1970	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1970	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1970	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1970	4.61E-03	4.06E-03	0.00E+00	0.00E+00
5/1/1970	9.00E-03	4.06E-03	2.04E-02	2.75E-02
6/1/1970	4.40E-03	4.94E-04	1.55E-02	3.48E-02
7/1/1970	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1970	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1970	3.61E-03	4.06E-03	0.00E+00	0.00E+00
10/1/1970	3.93E-03	4.06E-03	0.00E+00	2.03E-03
11/1/1970	1.49E-03	4.06E-03	0.00E+00	0.00E+00
12/1/1970	0.00E+00	2.57E-04	0.00E+00	0.00E+00
1/1/1971	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1971	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1971	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1971	1.41E-02	4.06E-03	4.98E-03	3.31E-03
5/1/1971	8.34E-03	4.06E-03	2.44E-02	4.10E-02
6/1/1971	6.20E-03	2.31E-03	1.02E-02	2.74E-02
7/1/1971	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1971	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1971	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1971	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1971	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1971	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1972	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1972	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Lower EFSFSR				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
3/1/1972	5.89E-04	0.00E+00	0.00E+00	0.00E+00
4/1/1972	1.49E-02	4.06E-03	1.68E-03	0.00E+00
5/1/1972	8.22E-03	4.06E-03	1.48E-02	3.24E-02
6/1/1972	4.81E-03	9.02E-04	2.32E-03	2.11E-02
7/1/1972	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1972	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1972	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1972	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1972	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1972	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1973	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1973	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1973	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1973	3.85E-03	4.06E-03	0.00E+00	0.00E+00
5/1/1973	7.93E-03	4.06E-03	3.33E-04	1.06E-02
6/1/1973	0.00E+00	1.26E-03	0.00E+00	5.16E-03
7/1/1973	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1973	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1973	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1973	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1973	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1973	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1974	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1974	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1974	2.20E-03	0.00E+00	0.00E+00	0.00E+00
4/1/1974	1.30E-02	4.06E-03	1.76E-02	1.78E-02
5/1/1974	9.65E-03	4.06E-03	1.65E-02	3.21E-02
6/1/1974	3.36E-03	0.00E+00	1.24E-02	4.32E-02
7/1/1974	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1974	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1974	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1974	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1974	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1974	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1975	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1975	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1975	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1975	7.14E-04	0.00E+00	0.00E+00	0.00E+00
5/1/1975	1.02E-02	4.06E-03	8.16E-03	1.32E-02

Lower EFSFSR				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
6/1/1975	5.65E-03	1.75E-03	6.74E-03	2.33E-02
7/1/1975	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1975	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1975	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1975	4.16E-03	4.06E-03	0.00E+00	0.00E+00
11/1/1975	0.00E+00	4.06E-03	0.00E+00	0.00E+00
12/1/1975	0.00E+00	6.13E-04	0.00E+00	0.00E+00
1/1/1976	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1976	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1976	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1976	1.37E-02	4.06E-03	3.05E-04	1.91E-03
5/1/1976	8.17E-03	4.06E-03	9.47E-03	2.47E-02
6/1/1976	4.44E-03	2.97E-03	0.00E+00	9.32E-03
7/1/1976	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1976	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1976	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1976	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1976	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1976	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1977	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1977	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1977	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1977	0.00E+00	0.00E+00	0.00E+00	0.00E+00
5/1/1977	1.41E-04	4.06E-03	0.00E+00	0.00E+00
6/1/1977	0.00E+00	0.00E+00	0.00E+00	0.00E+00
7/1/1977	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1977	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1977	1.34E-03	4.06E-03	0.00E+00	0.00E+00
10/1/1977	1.23E-03	4.06E-03	0.00E+00	0.00E+00
11/1/1977	0.00E+00	5.85E-04	0.00E+00	0.00E+00
12/1/1977	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1978	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1978	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1978	1.05E-02	4.06E-03	0.00E+00	0.00E+00
4/1/1978	1.34E-02	4.06E-03	1.16E-03	7.42E-03
5/1/1978	1.02E-02	4.06E-03	4.19E-03	1.88E-02
6/1/1978	3.79E-03	1.89E-03	0.00E+00	1.49E-02
7/1/1978	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1978	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Lower EFSFSR				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
9/1/1978	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1978	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1978	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1978	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1979	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1979	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1979	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1979	3.82E-03	3.05E-03	0.00E+00	0.00E+00
5/1/1979	7.28E-03	4.06E-03	0.00E+00	7.52E-03
6/1/1979	0.00E+00	1.40E-03	0.00E+00	3.60E-03
7/1/1979	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1979	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1979	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1979	0.00E+00	1.18E-03	0.00E+00	0.00E+00
11/1/1979	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1979	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1980	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1980	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1980	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1980	1.23E-02	4.06E-03	3.69E-03	7.61E-03
5/1/1980	8.52E-03	4.06E-03	8.60E-03	2.30E-02
6/1/1980	3.71E-03	2.45E-03	0.00E+00	9.55E-03
7/1/1980	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1980	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1980	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1980	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1980	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1980	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1981	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1981	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1981	4.40E-03	3.03E-03	0.00E+00	0.00E+00
4/1/1981	1.28E-02	4.06E-03	0.00E+00	4.93E-03
5/1/1981	8.72E-03	4.06E-03	4.36E-03	2.07E-02
6/1/1981	6.10E-03	2.13E-03	6.27E-04	1.51E-02
7/1/1981	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1981	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1981	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1981	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1981	0.00E+00	9.21E-04	0.00E+00	0.00E+00

Lower EFSFSR				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
12/1/1981	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1982	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1982	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1982	3.66E-03	0.00E+00	0.00E+00	0.00E+00
4/1/1982	1.46E-02	4.06E-03	0.00E+00	0.00E+00
5/1/1982	9.52E-03	4.06E-03	1.86E-02	3.33E-02
6/1/1982	5.29E-03	1.39E-03	1.60E-02	3.97E-02
7/1/1982	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1982	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1982	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1982	8.35E-03	4.06E-03	0.00E+00	7.33E-03
11/1/1982	0.00E+00	3.65E-03	0.00E+00	0.00E+00
12/1/1982	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1983	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1983	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1983	8.50E-03	2.61E-03	0.00E+00	0.00E+00
4/1/1983	1.17E-02	4.06E-03	0.00E+00	0.00E+00
5/1/1983	8.98E-03	4.06E-03	1.02E-02	2.41E-02
6/1/1983	5.90E-03	1.98E-03	3.69E-03	2.21E-02
7/1/1983	0.00E+00	0.00E+00	0.00E+00	3.53E-03
8/1/1983	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1983	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1983	0.00E+00	9.45E-05	0.00E+00	0.00E+00
11/1/1983	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1983	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1984	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1984	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1984	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1984	1.16E-02	4.06E-03	0.00E+00	0.00E+00
5/1/1984	1.00E-02	4.06E-03	1.34E-02	2.81E-02
6/1/1984	6.51E-03	2.62E-03	8.14E-03	2.64E-02
7/1/1984	0.00E+00	0.00E+00	0.00E+00	1.46E-03
8/1/1984	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1984	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1984	0.00E+00	3.29E-03	0.00E+00	0.00E+00
11/1/1984	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1984	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1985	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1985	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Lower EFSFSR				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
3/1/1985	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1985	9.17E-03	4.06E-03	0.00E+00	2.38E-03
5/1/1985	7.72E-03	4.03E-03	1.47E-03	1.38E-02
6/1/1985	0.00E+00	7.27E-04	0.00E+00	0.00E+00
7/1/1985	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1985	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1985	7.15E-03	4.06E-03	0.00E+00	2.57E-03
10/1/1985	3.52E-03	4.06E-03	0.00E+00	3.08E-03
11/1/1985	0.00E+00	4.06E-03	0.00E+00	0.00E+00
12/1/1985	0.00E+00	1.18E-04	0.00E+00	0.00E+00
1/1/1986	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1986	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1986	1.23E-02	4.06E-03	2.09E-03	3.22E-03
4/1/1986	1.15E-02	4.06E-03	0.00E+00	7.30E-03
5/1/1986	8.14E-03	4.06E-03	3.53E-03	1.97E-02
6/1/1986	0.00E+00	0.00E+00	0.00E+00	9.79E-03
7/1/1986	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1986	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1986	1.21E-03	4.06E-03	0.00E+00	0.00E+00
10/1/1986	0.00E+00	1.19E-03	0.00E+00	0.00E+00
11/1/1986	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1986	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1987	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1987	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1987	3.60E-04	0.00E+00	0.00E+00	0.00E+00
4/1/1987	7.82E-03	4.06E-03	0.00E+00	2.58E-03
5/1/1987	3.75E-03	3.38E-03	0.00E+00	8.27E-03
6/1/1987	0.00E+00	0.00E+00	0.00E+00	0.00E+00
7/1/1987	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1987	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1987	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1987	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1987	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1987	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1988	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1988	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1988	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1988	7.16E-03	4.06E-03	0.00E+00	3.30E-04
5/1/1988	8.75E-03	4.06E-03	1.79E-03	1.45E-02

Lower EFSFSR				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
6/1/1988	0.00E+00	0.00E+00	0.00E+00	6.29E-03
7/1/1988	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1988	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1988	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1988	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1988	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1988	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1989	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1989	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1989	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1989	1.25E-02	4.06E-03	6.44E-04	3.01E-03
5/1/1989	9.64E-03	4.06E-03	3.65E-03	1.69E-02
6/1/1989	2.37E-03	1.58E-03	0.00E+00	1.23E-02
7/1/1989	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1989	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1989	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1989	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1989	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1989	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1990	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1990	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1990	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1990	1.03E-02	4.06E-03	0.00E+00	7.44E-03
5/1/1990	8.66E-03	4.06E-03	0.00E+00	1.03E-02
6/1/1990	0.00E+00	1.82E-03	0.00E+00	6.01E-05
7/1/1990	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1990	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1990	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1990	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1990	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1990	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1991	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1991	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1991	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1991	5.33E-03	4.06E-03	0.00E+00	0.00E+00
5/1/1991	7.27E-03	4.06E-03	0.00E+00	7.75E-03
6/1/1991	0.00E+00	2.95E-03	0.00E+00	4.72E-03
7/1/1991	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1991	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Lower EFSFSR				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
9/1/1991	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1991	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1991	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1991	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1992	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1992	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1992	5.97E-04	2.04E-03	0.00E+00	0.00E+00
4/1/1992	8.06E-03	4.06E-03	0.00E+00	3.32E-03
5/1/1992	0.00E+00	2.80E-03	0.00E+00	3.61E-03
6/1/1992	0.00E+00	0.00E+00	0.00E+00	0.00E+00
7/1/1992	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1992	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1992	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1992	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1992	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1992	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1993	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1993	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1993	1.55E-03	2.07E-03	0.00E+00	0.00E+00
4/1/1993	1.37E-02	4.06E-03	6.60E-04	4.25E-03
5/1/1993	7.25E-03	3.50E-03	6.43E-03	2.40E-02
6/1/1993	6.36E-03	2.38E-03	6.60E-04	1.25E-02
7/1/1993	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1993	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1993	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1993	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1993	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1993	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1994	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1994	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1994	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1994	0.00E+00	2.84E-03	0.00E+00	0.00E+00
5/1/1994	2.28E-03	3.42E-03	0.00E+00	3.32E-03
6/1/1994	0.00E+00	0.00E+00	0.00E+00	0.00E+00
7/1/1994	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1994	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1994	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1994	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1994	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Lower EFSFSR				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
12/1/1994	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1995	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1995	1.05E-03	1.15E-03	0.00E+00	0.00E+00
3/1/1995	2.76E-03	0.00E+00	0.00E+00	0.00E+00
4/1/1995	1.35E-02	4.06E-03	2.58E-03	5.68E-03
5/1/1995	8.74E-03	4.06E-03	9.18E-03	2.67E-02
6/1/1995	6.19E-03	2.29E-03	3.44E-03	1.95E-02
7/1/1995	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1995	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1995	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1995	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1995	0.00E+00	1.21E-03	0.00E+00	0.00E+00
12/1/1995	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1996	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1996	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1996	6.96E-03	3.34E-03	0.00E+00	0.00E+00
4/1/1996	1.18E-02	4.06E-03	1.14E-02	1.68E-02
5/1/1996	9.29E-03	4.06E-03	9.66E-03	2.43E-02
6/1/1996	2.15E-03	1.28E-03	0.00E+00	1.37E-02
7/1/1996	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1996	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1996	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1996	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1996	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1996	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1997	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1997	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1997	4.45E-03	0.00E+00	0.00E+00	0.00E+00
4/1/1997	1.31E-02	4.06E-03	5.86E-03	7.51E-03
5/1/1997	7.38E-03	3.66E-03	1.40E-02	3.47E-02
6/1/1997	4.06E-03	1.28E-03	0.00E+00	1.51E-02
7/1/1997	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1997	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1997	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1997	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1997	0.00E+00	4.21E-05	0.00E+00	0.00E+00
12/1/1997	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1998	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1998	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Lower EFSFSR				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
3/1/1998	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1998	9.19E-03	4.06E-03	0.00E+00	0.00E+00
5/1/1998	8.65E-03	4.06E-03	7.63E-03	2.26E-02
6/1/1998	6.02E-03	2.92E-03	0.00E+00	1.14E-02
7/1/1998	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1998	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1998	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1998	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1998	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1998	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1999	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1999	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1999	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1999	9.12E-03	4.06E-03	0.00E+00	0.00E+00
5/1/1999	1.00E-02	4.06E-03	1.29E-02	2.13E-02
6/1/1999	6.69E-03	2.86E-03	1.03E-02	2.99E-02
7/1/1999	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1999	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1999	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1999	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1999	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1999	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/2000	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/2000	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/2000	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/2000	1.17E-02	4.06E-03	2.08E-04	5.32E-03
5/1/2000	8.43E-03	4.06E-03	2.01E-03	1.54E-02
6/1/2000	0.00E+00	1.23E-03	0.00E+00	4.99E-03
7/1/2000	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/2000	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/2000	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/2000	0.00E+00	4.06E-03	0.00E+00	0.00E+00
11/1/2000	0.00E+00	1.14E-03	0.00E+00	0.00E+00
12/1/2000	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/2001	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/2001	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/2001	1.90E-03	1.27E-03	0.00E+00	0.00E+00
4/1/2001	6.28E-03	4.06E-03	0.00E+00	0.00E+00
5/1/2001	2.22E-03	3.77E-03	0.00E+00	5.60E-03

Lower EFSFSR				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
6/1/2001	0.00E+00	0.00E+00	0.00E+00	0.00E+00
7/1/2001	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/2001	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/2001	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/2001	0.00E+00	9.65E-04	0.00E+00	0.00E+00
11/1/2001	0.00E+00	1.42E-03	0.00E+00	0.00E+00
12/1/2001	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/2002	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/2002	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/2002	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/2002	1.31E-02	4.06E-03	1.09E-03	4.46E-03
5/1/2002	9.30E-03	4.06E-03	2.90E-04	1.32E-02
6/1/2002	1.09E-03	1.16E-03	0.00E+00	1.04E-02
7/1/2002	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/2002	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/2002	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/2002	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/2002	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/2002	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/2003	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/2003	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/2003	1.87E-03	0.00E+00	0.00E+00	0.00E+00
4/1/2003	1.34E-02	4.06E-03	2.80E-03	1.57E-03
5/1/2003	9.00E-03	4.06E-03	8.42E-03	2.68E-02
6/1/2003	6.11E-04	7.47E-04	0.00E+00	1.45E-02
7/1/2003	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/2003	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/2003	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/2003	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/2003	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/2003	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/2004	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/2004	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/2004	2.52E-03	3.07E-03	0.00E+00	0.00E+00
4/1/2004	1.04E-02	4.06E-03	0.00E+00	4.15E-03
5/1/2004	9.52E-03	4.06E-03	4.42E-03	1.82E-02
6/1/2004	0.00E+00	1.44E-03	0.00E+00	3.70E-03
7/1/2004	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/2004	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Lower EFSFSR				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
9/1/2004	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/2004	0.00E+00	1.63E-03	0.00E+00	0.00E+00
11/1/2004	0.00E+00	2.64E-05	0.00E+00	0.00E+00
12/1/2004	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/2005	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/2005	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/2005	4.85E-04	1.48E-03	0.00E+00	0.00E+00
4/1/2005	6.72E-03	4.06E-03	0.00E+00	0.00E+00
5/1/2005	8.01E-03	4.06E-03	0.00E+00	1.26E-02
6/1/2005	0.00E+00	2.51E-03	0.00E+00	2.82E-03
7/1/2005	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/2005	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/2005	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/2005	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/2005	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/2005	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/2006	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/2006	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/2006	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/2006	1.23E-02	4.06E-03	1.23E-02	1.62E-02
5/1/2006	7.59E-03	3.88E-03	1.55E-02	3.13E-02
6/1/2006	2.87E-03	3.25E-04	0.00E+00	1.49E-02
7/1/2006	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/2006	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/2006	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/2006	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/2006	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/2006	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/2007	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/2007	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/2007	4.38E-03	4.06E-03	0.00E+00	0.00E+00
4/1/2007	9.86E-03	4.06E-03	0.00E+00	3.62E-03
5/1/2007	5.35E-03	4.00E-03	0.00E+00	1.27E-02
6/1/2007	0.00E+00	0.00E+00	0.00E+00	0.00E+00
7/1/2007	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/2007	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/2007	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/2007	8.52E-04	4.06E-03	0.00E+00	0.00E+00
11/1/2007	1.65E-03	2.66E-03	0.00E+00	0.00E+00

Lower EFSFSR				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
12/1/2007	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/2008	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/2008	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/2008	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/2008	7.85E-03	2.78E-03	0.00E+00	0.00E+00
5/1/2008	9.14E-03	4.06E-03	1.47E-02	2.36E-02
6/1/2008	5.98E-03	2.15E-03	1.51E-03	1.73E-02
7/1/2008	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/2008	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/2008	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/2008	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/2008	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/2008	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/2009	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/2009	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/2009	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/2009	6.83E-03	4.06E-03	0.00E+00	0.00E+00
5/1/2009	8.51E-03	4.06E-03	8.53E-03	2.19E-02
6/1/2009	4.84E-03	1.66E-03	0.00E+00	1.22E-02
7/1/2009	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/2009	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/2009	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/2009	9.24E-06	4.06E-03	0.00E+00	0.00E+00
11/1/2009	4.29E-04	3.91E-06	0.00E+00	0.00E+00
12/1/2009	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/2010	3.57E-04	0.00E+00	0.00E+00	0.00E+00
2/1/2010	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/2010	3.19E-03	6.99E-04	0.00E+00	0.00E+00
4/1/2010	9.25E-03	4.06E-03	0.00E+00	0.00E+00
5/1/2010	1.10E-02	4.06E-03	0.00E+00	1.18E-02
6/1/2010	6.15E-03	2.32E-03	7.75E-03	2.63E-02
7/1/2010	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/2010	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/2010	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/2010	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/2010	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/2010	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/2011	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/2011	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Lower EFSFSR				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
3/1/2011	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/2011	5.36E-03	4.06E-03	0.00E+00	0.00E+00
5/1/2011	9.99E-03	4.06E-03	1.13E-02	1.88E-02
6/1/2011	6.55E-03	2.68E-03	7.90E-03	2.38E-02
7/1/2011	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/2011	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/2011	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/2011	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/2011	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/2011	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/2012	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/2012	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/2012	2.05E-03	5.65E-04	0.00E+00	0.00E+00
4/1/2012	1.23E-02	4.06E-03	7.59E-03	1.22E-02
5/1/2012	9.04E-03	4.06E-03	7.21E-03	2.22E-02
6/1/2012	9.85E-04	2.07E-03	0.00E+00	9.55E-03
7/1/2012	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/2012	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/2012	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/2012	0.00E+00	2.76E-03	0.00E+00	0.00E+00
11/1/2012	7.51E-04	7.49E-04	0.00E+00	0.00E+00
12/1/2012	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/2013	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/2013	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/2013	3.23E-03	0.00E+00	0.00E+00	0.00E+00
4/1/2013	1.18E-02	4.06E-03	0.00E+00	2.05E-03
5/1/2013	8.53E-03	4.06E-03	1.74E-03	1.80E-02
6/1/2013	7.68E-04	1.23E-03	0.00E+00	9.48E-03
7/1/2013	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/2013	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/2013	2.49E-03	4.06E-03	0.00E+00	0.00E+00
10/1/2013	0.00E+00	4.06E-03	0.00E+00	0.00E+00
11/1/2013	1.39E-04	3.18E-05	0.00E+00	0.00E+00
12/1/2013	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/2014	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/2014	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/2014	5.83E-03	1.94E-03	0.00E+00	0.00E+00
4/1/2014	1.17E-02	4.06E-03	0.00E+00	1.53E-03
5/1/2014	8.34E-03	4.06E-03	2.57E-03	1.95E-02

Lower EFSFSR				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
6/1/2014	0.00E+00	2.21E-03	0.00E+00	4.63E-03
7/1/2014	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/2014	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/2014	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/2014	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/2014	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/2014	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/2015	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/2015	3.36E-03	1.51E-03	0.00E+00	0.00E+00
3/1/2015	7.53E-03	4.06E-03	0.00E+00	0.00E+00
4/1/2015	6.03E-03	4.06E-03	0.00E+00	2.82E-03
5/1/2015	5.13E-03	4.06E-03	0.00E+00	1.42E-02
6/1/2015	0.00E+00	0.00E+00	0.00E+00	0.00E+00
7/1/2015	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/2015	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/2015	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/2015	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/2015	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/2015	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/2016	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/2016	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/2016	5.16E-03	5.94E-04	0.00E+00	0.00E+00
4/1/2016	1.11E-02	4.06E-03	1.05E-02	1.97E-02
5/1/2016	8.63E-03	4.06E-03	6.17E-04	1.57E-02
6/1/2016	0.00E+00	6.02E-04	0.00E+00	5.61E-03
7/1/2016	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/2016	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/2016	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/2016	1.52E-03	4.06E-03	0.00E+00	0.00E+00
11/1/2016	5.87E-04	2.48E-03	0.00E+00	0.00E+00
12/1/2016	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/2017	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/2017	1.10E-03	0.00E+00	0.00E+00	0.00E+00
3/1/2017	1.36E-02	4.06E-03	1.66E-03	5.73E-04
4/1/2017	1.41E-02	4.06E-03	3.50E-03	1.19E-02
5/1/2017	8.21E-03	4.06E-03	1.43E-02	3.46E-02
6/1/2017	4.68E-03	7.42E-04	1.21E-03	2.00E-02
7/1/2017	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/2017	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Lower EFSFSR				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
9/1/2017	0.00E+00	1.81E-03	0.00E+00	0.00E+00
10/1/2017	1.35E-03	4.06E-03	0.00E+00	0.00E+00
11/1/2017	1.85E-03	1.54E-03	0.00E+00	0.00E+00
12/1/2017	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/2018	1.34E-03	0.00E+00	0.00E+00	0.00E+00
2/1/2018	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/2018	1.05E-03	0.00E+00	0.00E+00	0.00E+00
4/1/2018	1.30E-02	4.06E-03	3.37E-03	7.43E-03
5/1/2018	6.95E-03	3.25E-03	7.94E-03	2.57E-02
6/1/2018	0.00E+00	1.73E-03	0.00E+00	2.21E-03
7/1/2018	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/2018	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/2018	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/2018	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/2018	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/2018	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/2019	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/2019	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/2019	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/2019	1.26E-02	4.06E-03	5.12E-03	1.03E-02
5/1/2019	8.58E-03	4.06E-03	5.59E-03	1.97E-02
6/1/2019	0.00E+00	1.65E-03	0.00E+00	5.93E-03
7/1/2019	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/2019	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/2019	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/2019	0.00E+00	4.18E-04	0.00E+00	0.00E+00
11/1/2019	0.00E+00	1.23E-04	0.00E+00	0.00E+00
12/1/2019	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Abbreviations:

BDA = bedrock dominated area

EFSFSR = East Fork of the South Fork of the Salmon River

ft/d = foot per day

MWB = mine water balance

UDA = unconsolidated deposit area

Table A-4. Monthly total available water estimated in the MWB for Sugar Creek

Sugar Creek				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
10/1/1895	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1895	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1895	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1896	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1896	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1896	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1896	1.77E-05	0.00E+00	0.00E+00	0.00E+00
5/1/1896	1.11E-02	9.01E-03	5.67E-03	8.93E-03
6/1/1896	5.34E-03	2.85E-03	2.57E-03	1.89E-02
7/1/1896	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1896	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1896	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1896	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1896	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1896	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1897	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1897	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1897	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1897	1.06E-02	9.01E-03	0.00E+00	1.37E-03
5/1/1897	6.17E-03	3.57E-03	9.48E-03	2.54E-02
6/1/1897	0.00E+00	3.27E-03	0.00E+00	6.19E-03
7/1/1897	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1897	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1897	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1897	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1897	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1897	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1898	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1898	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1898	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1898	7.40E-03	9.01E-03	0.00E+00	0.00E+00
5/1/1898	8.84E-03	6.55E-03	4.55E-03	1.46E-02
6/1/1898	0.00E+00	2.05E-03	0.00E+00	8.51E-03
7/1/1898	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1898	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1898	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1898	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1898	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Sugar Creek				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
12/1/1898	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1899	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1899	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1899	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1899	5.19E-03	3.20E-03	0.00E+00	0.00E+00
5/1/1899	1.06E-02	9.01E-03	4.51E-03	9.39E-03
6/1/1899	6.44E-03	3.81E-03	1.35E-03	1.70E-02
7/1/1899	0.00E+00	0.00E+00	0.00E+00	9.68E-04
8/1/1899	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1899	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1899	0.00E+00	2.16E-03	0.00E+00	0.00E+00
11/1/1899	0.00E+00	1.42E-03	0.00E+00	0.00E+00
12/1/1899	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1900	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1900	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1900	5.63E-03	3.52E-03	0.00E+00	0.00E+00
4/1/1900	9.60E-03	9.01E-03	0.00E+00	6.08E-04
5/1/1900	7.30E-03	4.73E-03	2.79E-03	1.83E-02
6/1/1900	0.00E+00	1.09E-03	0.00E+00	3.39E-03
7/1/1900	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1900	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1900	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1900	0.00E+00	4.13E-03	0.00E+00	0.00E+00
11/1/1900	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1900	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1901	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1901	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1901	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1901	7.75E-03	4.93E-03	0.00E+00	0.00E+00
5/1/1901	6.57E-03	4.00E-03	9.62E-03	2.15E-02
6/1/1901	0.00E+00	4.49E-03	0.00E+00	2.86E-03
7/1/1901	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1901	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1901	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1901	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1901	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1901	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1902	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1902	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Sugar Creek				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
3/1/1902	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1902	9.20E-04	2.67E-03	0.00E+00	0.00E+00
5/1/1902	8.42E-03	6.11E-03	3.62E-03	1.28E-02
6/1/1902	0.00E+00	3.19E-03	0.00E+00	3.24E-03
7/1/1902	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1902	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1902	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1902	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1902	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1902	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1903	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1903	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1903	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1903	9.13E-04	0.00E+00	0.00E+00	0.00E+00
5/1/1903	8.92E-03	6.75E-03	2.62E-03	7.84E-03
6/1/1903	8.12E-04	9.05E-04	0.00E+00	1.46E-02
7/1/1903	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1903	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1903	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1903	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1903	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1903	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1904	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1904	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1904	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1904	7.12E-03	8.28E-03	0.00E+00	0.00E+00
5/1/1904	8.57E-03	6.26E-03	2.37E-03	1.04E-02
6/1/1904	1.01E-03	2.53E-03	0.00E+00	1.03E-02
7/1/1904	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1904	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1904	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1904	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1904	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1904	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1905	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1905	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1905	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1905	0.00E+00	3.92E-03	0.00E+00	0.00E+00
5/1/1905	4.54E-03	7.89E-03	0.00E+00	2.01E-03

Sugar Creek				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
6/1/1905	0.00E+00	3.97E-03	0.00E+00	2.66E-03
7/1/1905	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1905	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1905	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1905	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1905	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1905	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1906	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1906	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1906	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1906	4.14E-03	8.04E-03	0.00E+00	0.00E+00
5/1/1906	9.63E-03	7.66E-03	6.27E-04	8.26E-03
6/1/1906	5.59E-04	4.71E-03	0.00E+00	3.76E-03
7/1/1906	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1906	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1906	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1906	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1906	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1906	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1907	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1907	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1907	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1907	7.60E-03	2.30E-04	0.00E+00	0.00E+00
5/1/1907	9.68E-03	7.67E-03	3.82E-03	1.17E-02
6/1/1907	7.35E-03	4.78E-03	2.40E-03	1.91E-02
7/1/1907	0.00E+00	0.00E+00	0.00E+00	5.16E-03
8/1/1907	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1907	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1907	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1907	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1907	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1908	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1908	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1908	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1908	2.30E-03	3.38E-03	0.00E+00	0.00E+00
5/1/1908	1.04E-02	8.78E-03	1.96E-05	6.54E-03
6/1/1908	3.55E-03	3.73E-03	0.00E+00	9.29E-03
7/1/1908	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1908	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Sugar Creek				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
9/1/1908	0.00E+00	9.49E-05	0.00E+00	0.00E+00
10/1/1908	0.00E+00	7.03E-03	0.00E+00	0.00E+00
11/1/1908	0.00E+00	1.95E-04	0.00E+00	0.00E+00
12/1/1908	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1909	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1909	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1909	2.45E-03	0.00E+00	0.00E+00	0.00E+00
4/1/1909	7.31E-03	2.74E-03	0.00E+00	0.00E+00
5/1/1909	9.64E-03	7.71E-03	5.49E-03	1.21E-02
6/1/1909	4.96E-03	2.22E-03	1.02E-03	1.91E-02
7/1/1909	0.00E+00	0.00E+00	0.00E+00	5.12E-04
8/1/1909	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1909	0.00E+00	1.48E-03	0.00E+00	0.00E+00
10/1/1909	0.00E+00	1.43E-03	0.00E+00	0.00E+00
11/1/1909	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1909	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1910	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1910	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1910	1.00E-02	7.54E-03	0.00E+00	0.00E+00
4/1/1910	1.10E-02	8.65E-03	3.62E-03	1.01E-02
5/1/1910	8.04E-03	5.55E-03	1.03E-04	1.29E-02
6/1/1910	0.00E+00	2.44E-03	0.00E+00	2.25E-03
7/1/1910	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1910	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1910	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1910	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1910	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1910	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1911	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1911	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1911	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1911	4.60E-03	1.81E-03	0.00E+00	0.00E+00
5/1/1911	1.01E-02	8.19E-03	4.76E-03	1.26E-02
6/1/1911	5.18E-03	2.43E-03	4.03E-03	2.24E-02
7/1/1911	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1911	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1911	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1911	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1911	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Sugar Creek				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
12/1/1911	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1912	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1912	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1912	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1912	5.90E-03	7.01E-03	0.00E+00	0.00E+00
5/1/1912	8.72E-03	6.55E-03	6.79E-03	1.47E-02
6/1/1912	2.48E-03	1.71E-03	0.00E+00	1.33E-02
7/1/1912	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1912	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1912	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1912	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1912	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1912	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1913	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1913	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1913	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1913	3.76E-03	6.09E-03	0.00E+00	0.00E+00
5/1/1913	7.62E-03	5.18E-03	3.95E-03	1.28E-02
6/1/1913	4.82E-03	1.77E-03	9.91E-04	1.61E-02
7/1/1913	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1913	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1913	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1913	0.00E+00	4.57E-04	0.00E+00	0.00E+00
11/1/1913	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1913	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1914	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1914	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1914	2.27E-03	0.00E+00	0.00E+00	0.00E+00
4/1/1914	1.09E-02	9.01E-03	0.00E+00	1.91E-03
5/1/1914	7.02E-03	4.46E-03	1.18E-04	1.48E-02
6/1/1914	0.00E+00	3.41E-03	0.00E+00	5.68E-03
7/1/1914	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1914	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1914	0.00E+00	1.12E-03	0.00E+00	0.00E+00
10/1/1914	0.00E+00	4.11E-03	0.00E+00	0.00E+00
11/1/1914	0.00E+00	1.01E-04	0.00E+00	0.00E+00
12/1/1914	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1915	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1915	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Sugar Creek				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
3/1/1915	1.94E-03	1.56E-03	0.00E+00	0.00E+00
4/1/1915	5.29E-03	8.17E-03	0.00E+00	0.00E+00
5/1/1915	9.58E-03	7.45E-03	1.56E-03	1.08E-02
6/1/1915	0.00E+00	1.90E-03	0.00E+00	0.00E+00
7/1/1915	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1915	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1915	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1915	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1915	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1915	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1916	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1916	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1916	1.45E-05	0.00E+00	0.00E+00	0.00E+00
4/1/1916	1.30E-02	7.09E-03	2.92E-03	0.00E+00
5/1/1916	1.07E-02	9.01E-03	3.94E-03	1.00E-02
6/1/1916	6.97E-03	4.27E-03	3.97E-03	2.36E-02
7/1/1916	0.00E+00	0.00E+00	0.00E+00	1.12E-02
8/1/1916	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1916	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1916	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1916	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1916	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1917	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1917	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1917	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1917	1.30E-03	1.78E-03	0.00E+00	0.00E+00
5/1/1917	8.77E-03	6.68E-03	5.44E-03	1.17E-02
6/1/1917	1.72E-03	2.91E-03	0.00E+00	8.37E-03
7/1/1917	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1917	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1917	0.00E+00	4.14E-04	0.00E+00	0.00E+00
10/1/1917	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1917	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1917	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1918	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1918	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1918	2.09E-03	0.00E+00	0.00E+00	0.00E+00
4/1/1918	7.92E-03	3.95E-03	0.00E+00	0.00E+00
5/1/1918	7.11E-03	8.88E-03	0.00E+00	3.80E-03

Sugar Creek				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
6/1/1918	0.00E+00	4.34E-04	0.00E+00	2.44E-02
7/1/1918	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1918	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1918	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1918	0.00E+00	1.07E-04	0.00E+00	0.00E+00
11/1/1918	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1918	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1919	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1919	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1919	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1919	8.64E-03	9.01E-03	0.00E+00	0.00E+00
5/1/1919	6.53E-03	5.89E-03	0.00E+00	8.26E-03
6/1/1919	0.00E+00	1.85E-03	0.00E+00	1.17E-03
7/1/1919	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1919	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1919	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1919	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1919	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1919	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1920	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1920	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1920	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1920	3.63E-03	5.39E-03	0.00E+00	0.00E+00
5/1/1920	9.76E-03	8.71E-03	0.00E+00	3.21E-03
6/1/1920	4.94E-03	4.21E-03	0.00E+00	9.83E-03
7/1/1920	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1920	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1920	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1920	3.49E-04	7.77E-03	0.00E+00	0.00E+00
11/1/1920	5.67E-04	0.00E+00	0.00E+00	0.00E+00
12/1/1920	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1921	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1921	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1921	4.51E-03	0.00E+00	0.00E+00	0.00E+00
4/1/1921	1.02E-02	5.45E-03	0.00E+00	0.00E+00
5/1/1921	8.86E-03	6.73E-03	1.22E-02	2.22E-02
6/1/1921	5.14E-03	2.40E-03	4.64E-04	2.02E-02
7/1/1921	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1921	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Sugar Creek				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
9/1/1921	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1921	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1921	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1921	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1922	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1922	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1922	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1922	2.45E-03	2.82E-03	0.00E+00	0.00E+00
5/1/1922	9.33E-03	7.29E-03	6.31E-03	1.28E-02
6/1/1922	3.73E-03	8.93E-04	2.05E-04	1.99E-02
7/1/1922	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1922	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1922	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1922	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1922	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1922	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1923	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1923	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1923	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1923	3.70E-03	2.82E-03	0.00E+00	0.00E+00
5/1/1923	9.60E-03	7.48E-03	3.60E-03	1.10E-02
6/1/1923	7.12E-03	4.50E-03	1.21E-03	1.47E-02
7/1/1923	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1923	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1923	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1923	0.00E+00	2.26E-04	0.00E+00	0.00E+00
11/1/1923	0.00E+00	2.28E-04	0.00E+00	0.00E+00
12/1/1923	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1924	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1924	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1924	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1924	2.32E-03	3.59E-03	0.00E+00	0.00E+00
5/1/1924	8.45E-04	4.87E-03	0.00E+00	1.77E-03
6/1/1924	0.00E+00	6.66E-04	0.00E+00	0.00E+00
7/1/1924	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1924	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1924	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1924	0.00E+00	1.65E-03	0.00E+00	0.00E+00
11/1/1924	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Sugar Creek				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
12/1/1924	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1925	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1925	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1925	7.32E-04	0.00E+00	0.00E+00	0.00E+00
4/1/1925	1.25E-02	9.01E-03	6.02E-03	5.81E-03
5/1/1925	7.35E-03	4.82E-03	1.11E-02	2.62E-02
6/1/1925	1.96E-03	3.19E-03	0.00E+00	1.15E-02
7/1/1925	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1925	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1925	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1925	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1925	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1925	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1926	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1926	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1926	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1926	8.02E-03	8.28E-03	0.00E+00	3.12E-03
5/1/1926	4.80E-03	5.70E-03	0.00E+00	6.67E-03
6/1/1926	0.00E+00	1.92E-03	0.00E+00	6.63E-04
7/1/1926	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1926	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1926	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1926	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1926	0.00E+00	3.58E-04	0.00E+00	0.00E+00
12/1/1926	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1927	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1927	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1927	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1927	9.08E-03	2.50E-03	0.00E+00	0.00E+00
5/1/1927	9.67E-03	7.76E-03	1.34E-02	2.12E-02
6/1/1927	5.38E-03	2.54E-03	6.60E-03	2.85E-02
7/1/1927	0.00E+00	0.00E+00	0.00E+00	1.10E-03
8/1/1927	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1927	7.75E-04	7.05E-03	0.00E+00	0.00E+00
10/1/1927	1.43E-03	3.34E-03	0.00E+00	0.00E+00
11/1/1927	4.04E-03	0.00E+00	0.00E+00	0.00E+00
12/1/1927	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1928	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1928	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Sugar Creek				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
3/1/1928	4.25E-03	0.00E+00	0.00E+00	0.00E+00
4/1/1928	9.96E-03	4.72E-03	0.00E+00	0.00E+00
5/1/1928	6.50E-03	3.95E-03	1.44E-02	3.11E-02
6/1/1928	0.00E+00	3.99E-03	0.00E+00	7.31E-03
7/1/1928	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1928	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1928	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1928	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1928	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1928	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1929	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1929	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1929	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1929	1.30E-03	1.64E-03	0.00E+00	0.00E+00
5/1/1929	5.15E-03	6.42E-03	0.00E+00	3.29E-03
6/1/1929	0.00E+00	2.95E-03	0.00E+00	6.07E-03
7/1/1929	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1929	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1929	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1929	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1929	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1929	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1930	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1930	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1930	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1930	1.13E-02	8.98E-03	1.61E-03	1.80E-03
5/1/1930	7.93E-03	6.71E-03	0.00E+00	9.15E-03
6/1/1930	0.00E+00	3.98E-03	0.00E+00	2.26E-03
7/1/1930	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1930	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1930	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1930	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1930	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1930	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1931	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1931	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1931	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1931	4.93E-03	8.00E-03	0.00E+00	0.00E+00
5/1/1931	5.34E-03	5.17E-03	0.00E+00	6.60E-03

Sugar Creek				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
6/1/1931	0.00E+00	2.12E-03	0.00E+00	1.78E-03
7/1/1931	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1931	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1931	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1931	0.00E+00	2.35E-03	0.00E+00	0.00E+00
11/1/1931	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1931	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1932	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1932	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1932	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1932	9.71E-03	7.79E-03	0.00E+00	0.00E+00
5/1/1932	9.69E-03	7.63E-03	1.08E-02	1.85E-02
6/1/1932	5.60E-03	3.42E-03	0.00E+00	1.58E-02
7/1/1932	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1932	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1932	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1932	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1932	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1932	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1933	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1933	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1933	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1933	2.27E-03	0.00E+00	0.00E+00	0.00E+00
5/1/1933	1.02E-02	8.68E-03	4.40E-03	8.94E-03
6/1/1933	4.25E-03	1.38E-03	4.46E-03	2.40E-02
7/1/1933	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1933	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1933	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1933	0.00E+00	1.11E-03	0.00E+00	0.00E+00
11/1/1933	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1933	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1934	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1934	1.09E-03	0.00E+00	0.00E+00	0.00E+00
3/1/1934	4.81E-03	6.07E-03	0.00E+00	0.00E+00
4/1/1934	5.45E-03	7.98E-03	0.00E+00	3.10E-03
5/1/1934	0.00E+00	3.27E-03	0.00E+00	3.22E-03
6/1/1934	0.00E+00	3.57E-04	0.00E+00	0.00E+00
7/1/1934	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1934	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Sugar Creek				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
9/1/1934	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1934	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1934	0.00E+00	5.23E-04	0.00E+00	0.00E+00
12/1/1934	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1935	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1935	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1935	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1935	8.71E-03	8.51E-03	0.00E+00	0.00E+00
5/1/1935	7.81E-03	7.30E-03	0.00E+00	5.12E-03
6/1/1935	0.00E+00	2.88E-03	0.00E+00	7.94E-03
7/1/1935	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1935	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1935	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1935	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1935	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1935	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1936	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1936	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1936	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1936	6.88E-03	6.84E-03	0.00E+00	0.00E+00
5/1/1936	6.94E-03	4.37E-03	1.19E-02	2.34E-02
6/1/1936	1.95E-03	2.02E-03	0.00E+00	1.33E-02
7/1/1936	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1936	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1936	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1936	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1936	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1936	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1937	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1937	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1937	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1937	3.91E-03	1.37E-03	0.00E+00	0.00E+00
5/1/1937	8.23E-03	5.88E-03	2.77E-03	1.06E-02
6/1/1937	2.78E-03	3.76E-03	0.00E+00	8.97E-03
7/1/1937	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1937	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1937	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1937	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1937	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Sugar Creek				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
12/1/1937	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1938	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1938	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1938	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1938	8.43E-03	1.26E-03	0.00E+00	0.00E+00
5/1/1938	9.59E-03	7.60E-03	1.21E-02	1.90E-02
6/1/1938	4.97E-03	2.18E-03	9.47E-03	3.29E-02
7/1/1938	0.00E+00	0.00E+00	0.00E+00	1.13E-03
8/1/1938	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1938	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1938	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1938	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1938	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1939	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1939	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1939	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1939	3.42E-03	5.11E-03	0.00E+00	0.00E+00
5/1/1939	6.08E-03	5.25E-03	0.00E+00	7.69E-03
6/1/1939	0.00E+00	4.28E-03	0.00E+00	8.75E-04
7/1/1939	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1939	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1939	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1939	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1939	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1939	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1940	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1940	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1940	3.33E-03	0.00E+00	0.00E+00	0.00E+00
4/1/1940	1.29E-02	9.01E-03	2.64E-03	2.90E-03
5/1/1940	7.16E-03	4.63E-03	5.07E-03	2.19E-02
6/1/1940	0.00E+00	1.58E-03	0.00E+00	9.77E-03
7/1/1940	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1940	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1940	2.75E-03	9.01E-03	0.00E+00	0.00E+00
10/1/1940	2.75E-03	5.41E-03	0.00E+00	0.00E+00
11/1/1940	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1940	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1941	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1941	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Sugar Creek				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
3/1/1941	3.45E-03	0.00E+00	0.00E+00	0.00E+00
4/1/1941	7.56E-03	7.93E-03	0.00E+00	0.00E+00
5/1/1941	8.88E-03	6.60E-03	4.84E-03	1.56E-02
6/1/1941	2.71E-03	3.22E-03	0.00E+00	1.02E-02
7/1/1941	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1941	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1941	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1941	0.00E+00	9.53E-04	0.00E+00	0.00E+00
11/1/1941	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1941	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1942	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1942	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1942	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1942	9.91E-03	9.01E-03	0.00E+00	1.92E-03
5/1/1942	9.81E-03	7.98E-03	5.87E-03	1.61E-02
6/1/1942	3.79E-03	3.82E-03	0.00E+00	1.01E-02
7/1/1942	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1942	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1942	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1942	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1942	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1942	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1943	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1943	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1943	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1943	1.16E-02	9.01E-03	8.05E-03	9.23E-03
5/1/1943	9.85E-03	7.90E-03	6.46E-03	1.36E-02
6/1/1943	7.09E-03	4.37E-03	2.94E-03	1.93E-02
7/1/1943	0.00E+00	0.00E+00	0.00E+00	5.42E-03
8/1/1943	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1943	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1943	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1943	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1943	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1944	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1944	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1944	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1944	1.53E-03	5.12E-03	0.00E+00	0.00E+00
5/1/1944	2.14E-03	5.92E-03	0.00E+00	7.43E-04

Sugar Creek				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
6/1/1944	1.40E-03	3.41E-03	0.00E+00	5.52E-03
7/1/1944	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1944	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1944	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1944	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1944	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1944	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1945	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1945	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1945	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1945	0.00E+00	0.00E+00	0.00E+00	0.00E+00
5/1/1945	8.77E-03	6.56E-03	1.17E-02	1.83E-02
6/1/1945	7.10E-03	4.42E-03	7.95E-04	1.31E-02
7/1/1945	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1945	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1945	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1945	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1945	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1945	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1946	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1946	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1946	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1946	9.23E-03	9.01E-03	0.00E+00	0.00E+00
5/1/1946	8.41E-03	6.10E-03	6.78E-03	1.60E-02
6/1/1946	2.30E-03	3.05E-03	0.00E+00	1.16E-02
7/1/1946	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1946	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1946	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1946	1.49E-03	8.21E-03	0.00E+00	0.00E+00
11/1/1946	1.62E-05	0.00E+00	0.00E+00	0.00E+00
12/1/1946	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1947	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1947	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1947	6.68E-03	0.00E+00	0.00E+00	0.00E+00
4/1/1947	1.08E-02	9.01E-03	0.00E+00	0.00E+00
5/1/1947	6.69E-03	4.18E-03	7.55E-03	2.33E-02
6/1/1947	3.47E-03	4.99E-03	0.00E+00	8.95E-03
7/1/1947	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1947	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Sugar Creek				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
9/1/1947	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1947	0.00E+00	6.50E-03	0.00E+00	0.00E+00
11/1/1947	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1947	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1948	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1948	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1948	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1948	1.35E-02	8.64E-03	0.00E+00	0.00E+00
5/1/1948	8.72E-03	6.54E-03	1.24E-02	2.09E-02
6/1/1948	4.53E-03	1.67E-03	3.82E-03	2.23E-02
7/1/1948	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1948	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1948	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1948	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1948	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1948	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1949	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1949	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1949	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1949	9.21E-03	8.01E-03	0.00E+00	0.00E+00
5/1/1949	7.40E-03	4.85E-03	8.89E-03	2.10E-02
6/1/1949	0.00E+00	3.08E-03	0.00E+00	4.23E-03
7/1/1949	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1949	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1949	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1949	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1949	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1949	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1950	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1950	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1950	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1950	9.75E-03	7.86E-03	0.00E+00	0.00E+00
5/1/1950	1.01E-02	8.24E-03	7.71E-04	6.98E-03
6/1/1950	6.08E-03	3.31E-03	2.02E-03	1.99E-02
7/1/1950	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1950	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1950	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1950	1.90E-04	6.07E-03	0.00E+00	0.00E+00
11/1/1950	1.19E-03	0.00E+00	0.00E+00	0.00E+00

Sugar Creek				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
12/1/1950	7.38E-04	0.00E+00	0.00E+00	0.00E+00
1/1/1951	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1951	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1951	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1951	1.17E-02	9.01E-03	4.65E-03	5.44E-03
5/1/1951	7.91E-03	5.43E-03	4.38E-03	1.56E-02
6/1/1951	2.84E-04	4.24E-03	0.00E+00	5.77E-03
7/1/1951	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1951	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1951	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1951	1.27E-03	6.17E-03	0.00E+00	0.00E+00
11/1/1951	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1951	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1952	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1952	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1952	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1952	1.17E-02	9.01E-03	3.63E-03	3.92E-03
5/1/1952	8.14E-03	5.73E-03	8.05E-03	1.93E-02
6/1/1952	5.71E-03	2.99E-03	0.00E+00	1.52E-02
7/1/1952	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1952	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1952	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1952	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1952	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1952	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1953	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1953	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1953	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1953	9.63E-03	1.32E-03	0.00E+00	0.00E+00
5/1/1953	1.09E-02	9.01E-03	6.99E-03	1.34E-02
6/1/1953	6.69E-03	4.04E-03	3.44E-03	2.26E-02
7/1/1953	0.00E+00	0.00E+00	0.00E+00	2.64E-03
8/1/1953	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1953	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1953	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1953	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1953	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1954	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1954	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Sugar Creek				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
3/1/1954	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1954	1.04E-02	7.29E-03	0.00E+00	0.00E+00
5/1/1954	8.55E-03	6.21E-03	8.90E-03	1.84E-02
6/1/1954	7.57E-03	4.97E-03	2.28E-03	1.76E-02
7/1/1954	0.00E+00	0.00E+00	0.00E+00	1.70E-03
8/1/1954	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1954	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1954	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1954	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1954	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1955	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1955	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1955	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1955	1.85E-03	3.91E-03	0.00E+00	0.00E+00
5/1/1955	9.62E-03	7.63E-03	2.00E-03	7.54E-03
6/1/1955	2.13E-03	2.67E-03	0.00E+00	9.15E-03
7/1/1955	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1955	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1955	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1955	0.00E+00	1.17E-03	0.00E+00	0.00E+00
11/1/1955	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1955	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1956	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1956	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1956	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1956	1.26E-02	9.01E-03	3.62E-03	4.51E-03
5/1/1956	7.75E-03	5.29E-03	1.94E-02	3.42E-02
6/1/1956	5.03E-03	2.73E-03	0.00E+00	1.81E-02
7/1/1956	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1956	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1956	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1956	2.04E-04	4.85E-03	0.00E+00	0.00E+00
11/1/1956	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1956	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1957	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1957	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1957	1.09E-03	0.00E+00	0.00E+00	0.00E+00
4/1/1957	1.17E-02	9.01E-03	0.00E+00	0.00E+00
5/1/1957	7.88E-03	5.47E-03	1.22E-02	2.46E-02

Sugar Creek				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
6/1/1957	0.00E+00	2.59E-03	0.00E+00	8.23E-03
7/1/1957	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1957	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1957	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1957	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1957	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1957	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1958	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1958	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1958	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1958	5.75E-03	6.08E-03	0.00E+00	0.00E+00
5/1/1958	6.32E-03	3.75E-03	1.07E-02	2.15E-02
6/1/1958	1.50E-03	2.26E-03	0.00E+00	1.07E-02
7/1/1958	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1958	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1958	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1958	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1958	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1958	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1959	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1959	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1959	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1959	1.01E-02	7.51E-03	0.00E+00	0.00E+00
5/1/1959	1.06E-02	8.91E-03	7.96E-03	1.47E-02
6/1/1959	5.04E-03	2.28E-03	3.91E-03	2.45E-02
7/1/1959	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1959	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1959	0.00E+00	5.14E-03	0.00E+00	0.00E+00
10/1/1959	4.06E-03	7.22E-03	0.00E+00	0.00E+00
11/1/1959	3.00E-04	0.00E+00	0.00E+00	0.00E+00
12/1/1959	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1960	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1960	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1960	1.40E-03	0.00E+00	0.00E+00	0.00E+00
4/1/1960	1.08E-02	9.01E-03	0.00E+00	0.00E+00
5/1/1960	9.40E-03	7.35E-03	4.63E-03	1.37E-02
6/1/1960	0.00E+00	2.36E-03	0.00E+00	6.30E-03
7/1/1960	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1960	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Sugar Creek				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
9/1/1960	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1960	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1960	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1960	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1961	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1961	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1961	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1961	1.06E-02	4.30E-03	0.00E+00	0.00E+00
5/1/1961	8.47E-03	6.18E-03	1.10E-02	2.29E-02
6/1/1961	4.52E-04	1.05E-03	0.00E+00	1.89E-02
7/1/1961	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1961	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1961	0.00E+00	9.21E-04	0.00E+00	0.00E+00
10/1/1961	1.14E-03	7.46E-03	0.00E+00	0.00E+00
11/1/1961	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1961	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1962	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1962	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1962	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1962	1.27E-02	9.01E-03	1.57E-03	1.55E-03
5/1/1962	9.39E-03	7.27E-03	6.64E-03	1.73E-02
6/1/1962	1.73E-03	2.99E-03	0.00E+00	1.00E-02
7/1/1962	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1962	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1962	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1962	6.39E-03	9.01E-03	0.00E+00	1.06E-03
11/1/1962	1.89E-03	2.17E-03	0.00E+00	0.00E+00
12/1/1962	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1963	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1963	4.54E-03	0.00E+00	0.00E+00	0.00E+00
3/1/1963	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1963	1.04E-02	6.86E-03	0.00E+00	0.00E+00
5/1/1963	8.01E-03	5.63E-03	6.07E-03	1.86E-02
6/1/1963	5.94E-03	3.14E-03	1.40E-03	1.91E-02
7/1/1963	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1963	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1963	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1963	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1963	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Sugar Creek				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
12/1/1963	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1964	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1964	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1964	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1964	2.13E-03	0.00E+00	0.00E+00	0.00E+00
5/1/1964	9.66E-03	7.67E-03	4.12E-03	9.90E-03
6/1/1964	6.43E-03	3.72E-03	6.05E-03	2.23E-02
7/1/1964	0.00E+00	0.00E+00	0.00E+00	6.62E-04
8/1/1964	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1964	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1964	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1964	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1964	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1965	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1965	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1965	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1965	1.36E-02	9.01E-03	5.23E-03	4.23E-03
5/1/1965	1.01E-02	8.36E-03	1.35E-02	2.04E-02
6/1/1965	5.86E-03	3.04E-03	1.33E-02	3.62E-02
7/1/1965	0.00E+00	0.00E+00	0.00E+00	9.80E-03
8/1/1965	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1965	0.00E+00	1.91E-03	0.00E+00	0.00E+00
10/1/1965	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1965	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1965	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1966	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1966	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1966	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1966	2.26E-03	3.19E-03	0.00E+00	0.00E+00
5/1/1966	7.56E-03	5.09E-03	1.40E-03	9.86E-03
6/1/1966	8.14E-05	3.20E-03	0.00E+00	6.41E-03
7/1/1966	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1966	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1966	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1966	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1966	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1966	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1967	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1967	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Sugar Creek				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
3/1/1967	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1967	1.39E-03	3.11E-03	0.00E+00	0.00E+00
5/1/1967	9.64E-03	7.67E-03	1.10E-02	1.42E-02
6/1/1967	5.82E-03	3.11E-03	9.33E-03	2.60E-02
7/1/1967	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1967	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1967	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1967	1.32E-03	6.20E-03	0.00E+00	0.00E+00
11/1/1967	6.47E-04	0.00E+00	0.00E+00	0.00E+00
12/1/1967	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1968	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1968	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1968	4.99E-03	0.00E+00	0.00E+00	0.00E+00
4/1/1968	6.06E-03	3.52E-03	0.00E+00	0.00E+00
5/1/1968	9.95E-03	8.00E-03	2.54E-03	1.05E-02
6/1/1968	3.56E-03	3.06E-03	0.00E+00	1.52E-02
7/1/1968	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1968	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1968	0.00E+00	5.51E-04	0.00E+00	0.00E+00
10/1/1968	0.00E+00	5.27E-03	0.00E+00	0.00E+00
11/1/1968	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1968	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1969	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1969	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1969	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1969	1.25E-02	9.01E-03	4.63E-03	3.55E-03
5/1/1969	7.40E-03	4.89E-03	1.17E-02	2.51E-02
6/1/1969	3.63E-03	2.50E-03	0.00E+00	1.47E-02
7/1/1969	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1969	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1969	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1969	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1969	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1969	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1970	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1970	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1970	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1970	0.00E+00	4.43E-03	0.00E+00	0.00E+00
5/1/1970	9.19E-03	7.16E-03	1.64E-02	1.91E-02

Sugar Creek				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
6/1/1970	4.73E-03	1.98E-03	1.44E-02	3.26E-02
7/1/1970	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1970	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1970	9.90E-04	7.26E-03	0.00E+00	0.00E+00
10/1/1970	3.13E-03	5.78E-03	0.00E+00	0.00E+00
11/1/1970	1.18E-03	0.00E+00	0.00E+00	0.00E+00
12/1/1970	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1971	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1971	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1971	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1971	1.47E-02	4.96E-03	3.05E-04	0.00E+00
5/1/1971	8.54E-03	6.32E-03	2.05E-02	3.02E-02
6/1/1971	6.40E-03	3.71E-03	8.61E-03	2.88E-02
7/1/1971	0.00E+00	0.00E+00	0.00E+00	5.34E-03
8/1/1971	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1971	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1971	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1971	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1971	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1972	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1972	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1972	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1972	1.16E-02	3.45E-03	0.00E+00	0.00E+00
5/1/1972	8.42E-03	6.18E-03	1.29E-02	2.28E-02
6/1/1972	5.04E-03	2.26E-03	3.26E-03	2.51E-02
7/1/1972	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1972	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1972	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1972	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1972	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1972	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1973	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1973	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1973	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1973	1.26E-03	9.92E-04	0.00E+00	0.00E+00
5/1/1973	8.17E-03	5.83E-03	6.09E-04	8.93E-03
6/1/1973	0.00E+00	2.60E-03	0.00E+00	7.11E-03
7/1/1973	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1973	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Sugar Creek				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
9/1/1973	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1973	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1973	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1973	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1974	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1974	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1974	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1974	1.34E-02	9.01E-03	9.77E-03	5.45E-03
5/1/1974	9.90E-03	8.01E-03	1.59E-02	2.47E-02
6/1/1974	3.86E-03	1.06E-03	1.66E-02	5.29E-02
7/1/1974	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1974	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1974	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1974	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1974	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1974	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1975	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1975	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1975	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1975	0.00E+00	0.00E+00	0.00E+00	0.00E+00
5/1/1975	1.04E-02	8.62E-03	5.71E-03	8.55E-03
6/1/1975	6.10E-03	3.36E-03	7.13E-03	2.16E-02
7/1/1975	0.00E+00	0.00E+00	0.00E+00	3.80E-03
8/1/1975	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1975	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1975	1.82E-03	6.84E-03	0.00E+00	0.00E+00
11/1/1975	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1975	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1976	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1976	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1976	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1976	1.18E-02	7.02E-03	0.00E+00	0.00E+00
5/1/1976	8.43E-03	6.15E-03	8.51E-03	1.75E-02
6/1/1976	4.74E-03	4.34E-03	0.00E+00	1.16E-02
7/1/1976	0.00E+00	0.00E+00	0.00E+00	1.86E-03
8/1/1976	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1976	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1976	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1976	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Sugar Creek				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
12/1/1976	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1977	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1977	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1977	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1977	0.00E+00	0.00E+00	0.00E+00	0.00E+00
5/1/1977	0.00E+00	7.39E-03	0.00E+00	0.00E+00
6/1/1977	0.00E+00	0.00E+00	0.00E+00	0.00E+00
7/1/1977	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1977	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1977	0.00E+00	4.77E-03	0.00E+00	0.00E+00
10/1/1977	0.00E+00	2.35E-03	0.00E+00	0.00E+00
11/1/1977	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1977	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1978	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1978	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1978	8.22E-03	9.54E-04	0.00E+00	0.00E+00
4/1/1978	1.36E-02	9.01E-03	6.98E-04	4.61E-04
5/1/1978	1.01E-02	8.35E-03	4.61E-03	1.55E-02
6/1/1978	4.45E-03	3.29E-03	0.00E+00	1.72E-02
7/1/1978	0.00E+00	0.00E+00	0.00E+00	5.57E-03
8/1/1978	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1978	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1978	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1978	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1978	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1979	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1979	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1979	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1979	1.84E-03	0.00E+00	0.00E+00	0.00E+00
5/1/1979	7.77E-03	6.29E-03	0.00E+00	6.17E-03
6/1/1979	0.00E+00	2.99E-03	0.00E+00	4.49E-03
7/1/1979	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1979	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1979	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1979	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1979	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1979	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1980	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1980	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Sugar Creek				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
3/1/1980	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1980	9.57E-03	9.01E-03	0.00E+00	7.62E-04
5/1/1980	8.36E-03	6.00E-03	7.66E-03	1.99E-02
6/1/1980	2.61E-03	3.74E-03	0.00E+00	8.87E-03
7/1/1980	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1980	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1980	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1980	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1980	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1980	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1981	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1981	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1981	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1981	9.39E-03	8.25E-03	0.00E+00	0.00E+00
5/1/1981	8.71E-03	6.48E-03	4.53E-03	1.51E-02
6/1/1981	4.92E-03	3.36E-03	0.00E+00	1.43E-02
7/1/1981	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1981	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1981	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1981	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1981	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1981	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1982	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1982	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1982	3.23E-04	0.00E+00	0.00E+00	0.00E+00
4/1/1982	9.66E-03	7.39E-03	0.00E+00	0.00E+00
5/1/1982	9.74E-03	7.88E-03	1.54E-02	1.97E-02
6/1/1982	5.63E-03	2.87E-03	1.49E-02	3.66E-02
7/1/1982	0.00E+00	0.00E+00	0.00E+00	6.64E-03
8/1/1982	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1982	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1982	3.52E-03	9.01E-03	0.00E+00	2.30E-03
11/1/1982	0.00E+00	1.05E-04	0.00E+00	0.00E+00
12/1/1982	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1983	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1983	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1983	6.28E-03	0.00E+00	0.00E+00	0.00E+00
4/1/1983	8.74E-03	4.21E-03	0.00E+00	0.00E+00
5/1/1983	8.99E-03	6.88E-03	8.47E-03	1.73E-02

Sugar Creek				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
6/1/1983	6.01E-03	3.25E-03	1.83E-03	2.07E-02
7/1/1983	0.00E+00	0.00E+00	0.00E+00	7.36E-03
8/1/1983	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1983	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1983	0.00E+00	1.10E-04	0.00E+00	0.00E+00
11/1/1983	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1983	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1984	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1984	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1984	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1984	6.46E-03	5.15E-03	0.00E+00	0.00E+00
5/1/1984	1.00E-02	8.29E-03	1.16E-02	1.88E-02
6/1/1984	6.61E-03	3.91E-03	5.98E-03	2.32E-02
7/1/1984	0.00E+00	0.00E+00	0.00E+00	6.11E-03
8/1/1984	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1984	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1984	0.00E+00	2.56E-03	0.00E+00	0.00E+00
11/1/1984	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1984	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1985	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1985	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1985	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1985	4.23E-03	7.73E-03	0.00E+00	0.00E+00
5/1/1985	8.04E-03	5.71E-03	5.67E-04	8.61E-03
6/1/1985	0.00E+00	2.39E-03	0.00E+00	1.52E-03
7/1/1985	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1985	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1985	4.70E-03	9.01E-03	0.00E+00	3.70E-04
10/1/1985	2.64E-03	7.38E-03	0.00E+00	0.00E+00
11/1/1985	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1985	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1986	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1986	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1986	1.12E-02	8.38E-03	0.00E+00	0.00E+00
4/1/1986	9.56E-03	9.01E-03	0.00E+00	0.00E+00
5/1/1986	8.32E-03	5.98E-03	1.76E-03	1.31E-02
6/1/1986	0.00E+00	9.68E-04	0.00E+00	1.27E-02
7/1/1986	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1986	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Sugar Creek				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
9/1/1986	8.51E-04	6.94E-03	0.00E+00	0.00E+00
10/1/1986	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1986	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1986	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1987	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1987	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1987	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1987	5.57E-03	7.07E-03	0.00E+00	0.00E+00
5/1/1987	2.76E-03	4.69E-03	0.00E+00	4.46E-03
6/1/1987	0.00E+00	0.00E+00	0.00E+00	0.00E+00
7/1/1987	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1987	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1987	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1987	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1987	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1987	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1988	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1988	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1988	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1988	4.02E-03	6.40E-03	0.00E+00	0.00E+00
5/1/1988	8.79E-03	6.50E-03	8.67E-04	8.89E-03
6/1/1988	0.00E+00	1.09E-03	0.00E+00	6.76E-03
7/1/1988	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1988	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1988	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1988	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1988	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1988	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1989	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1989	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1989	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1989	6.73E-03	6.23E-03	0.00E+00	0.00E+00
5/1/1989	9.82E-03	7.74E-03	3.98E-03	1.10E-02
6/1/1989	3.73E-03	2.96E-03	0.00E+00	1.34E-02
7/1/1989	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1989	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1989	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1989	0.00E+00	4.95E-04	0.00E+00	0.00E+00
11/1/1989	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Sugar Creek				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
12/1/1989	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1990	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1990	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1990	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1990	5.90E-03	9.01E-03	0.00E+00	3.02E-03
5/1/1990	8.23E-03	7.60E-03	0.00E+00	6.10E-03
6/1/1990	0.00E+00	2.19E-03	0.00E+00	0.00E+00
7/1/1990	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1990	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1990	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1990	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1990	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1990	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1991	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1991	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1991	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1991	3.68E-03	4.44E-03	0.00E+00	0.00E+00
5/1/1991	7.85E-03	8.46E-03	0.00E+00	4.14E-03
6/1/1991	0.00E+00	4.45E-03	0.00E+00	3.44E-03
7/1/1991	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1991	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1991	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1991	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1991	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1991	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1992	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1992	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1992	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1992	5.77E-03	9.01E-03	0.00E+00	1.31E-04
5/1/1992	0.00E+00	4.13E-03	0.00E+00	3.28E-03
6/1/1992	0.00E+00	1.92E-03	0.00E+00	5.36E-04
7/1/1992	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1992	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1992	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1992	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1992	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1992	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1993	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1993	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Sugar Creek				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
3/1/1993	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1993	1.18E-02	6.77E-03	0.00E+00	0.00E+00
5/1/1993	7.42E-03	4.93E-03	5.70E-03	1.87E-02
6/1/1993	6.04E-03	3.93E-03	0.00E+00	1.41E-02
7/1/1993	0.00E+00	2.86E-04	0.00E+00	0.00E+00
8/1/1993	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1993	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1993	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1993	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1993	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1994	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1994	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1994	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1994	0.00E+00	8.53E-04	0.00E+00	0.00E+00
5/1/1994	1.51E-03	4.44E-03	0.00E+00	3.90E-03
6/1/1994	0.00E+00	0.00E+00	0.00E+00	0.00E+00
7/1/1994	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1994	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1994	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1994	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1994	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1994	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1995	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1995	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1995	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1995	1.21E-02	7.48E-03	0.00E+00	0.00E+00
5/1/1995	9.01E-03	6.88E-03	8.35E-03	1.81E-02
6/1/1995	6.69E-03	4.05E-03	2.61E-03	1.98E-02
7/1/1995	0.00E+00	0.00E+00	0.00E+00	3.78E-03
8/1/1995	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1995	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1995	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1995	0.00E+00	3.71E-05	0.00E+00	0.00E+00
12/1/1995	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1996	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1996	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1996	2.17E-03	0.00E+00	0.00E+00	0.00E+00
4/1/1996	1.27E-02	9.01E-03	6.23E-03	6.64E-03
5/1/1996	9.58E-03	7.72E-03	1.09E-02	2.32E-02

Sugar Creek				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
6/1/1996	4.45E-03	2.69E-03	0.00E+00	1.85E-02
7/1/1996	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/1996	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1996	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1996	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1996	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1996	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1997	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1997	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1997	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1997	1.36E-02	6.92E-03	0.00E+00	0.00E+00
5/1/1997	7.60E-03	5.18E-03	1.61E-02	2.83E-02
6/1/1997	5.54E-03	2.77E-03	8.49E-04	2.06E-02
7/1/1997	0.00E+00	0.00E+00	0.00E+00	2.23E-03
8/1/1997	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1997	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1997	0.00E+00	2.98E-04	0.00E+00	0.00E+00
11/1/1997	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1997	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1998	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1998	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1998	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1998	4.91E-03	5.99E-03	0.00E+00	0.00E+00
5/1/1998	8.59E-03	6.36E-03	7.57E-03	1.67E-02
6/1/1998	5.15E-03	4.29E-03	0.00E+00	1.05E-02
7/1/1998	0.00E+00	0.00E+00	0.00E+00	1.42E-03
8/1/1998	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/1998	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1998	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1998	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1998	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/1999	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/1999	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/1999	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/1999	3.86E-03	2.41E-03	0.00E+00	0.00E+00
5/1/1999	1.03E-02	8.47E-03	1.06E-02	1.51E-02
6/1/1999	6.94E-03	4.36E-03	8.77E-03	2.64E-02
7/1/1999	0.00E+00	0.00E+00	0.00E+00	4.33E-03
8/1/1999	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Sugar Creek				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
9/1/1999	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/1999	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/1999	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/1999	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/2000	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/2000	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/2000	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/2000	7.00E-03	8.75E-03	0.00E+00	0.00E+00
5/1/2000	8.39E-03	6.00E-03	2.84E-03	1.19E-02
6/1/2000	0.00E+00	2.56E-03	0.00E+00	5.57E-03
7/1/2000	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/2000	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/2000	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/2000	0.00E+00	5.52E-03	0.00E+00	0.00E+00
11/1/2000	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/2000	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/2001	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/2001	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/2001	4.62E-04	0.00E+00	0.00E+00	0.00E+00
4/1/2001	5.35E-03	4.56E-03	0.00E+00	0.00E+00
5/1/2001	1.77E-03	5.08E-03	0.00E+00	2.81E-03
6/1/2001	0.00E+00	5.04E-04	0.00E+00	0.00E+00
7/1/2001	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/2001	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/2001	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/2001	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/2001	0.00E+00	1.42E-04	0.00E+00	0.00E+00
12/1/2001	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/2002	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/2002	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/2002	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/2002	9.13E-03	9.01E-03	0.00E+00	0.00E+00
5/1/2002	9.23E-03	7.20E-03	0.00E+00	7.46E-03
6/1/2002	9.45E-04	2.52E-03	0.00E+00	1.14E-02
7/1/2002	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/2002	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/2002	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/2002	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/2002	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Sugar Creek				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
12/1/2002	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/2003	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/2003	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/2003	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/2003	1.04E-02	5.15E-03	0.00E+00	0.00E+00
5/1/2003	9.02E-03	6.84E-03	8.02E-03	1.78E-02
6/1/2003	1.70E-03	2.17E-03	0.00E+00	1.53E-02
7/1/2003	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/2003	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/2003	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/2003	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/2003	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/2003	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/2004	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/2004	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/2004	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/2004	9.01E-03	8.85E-03	0.00E+00	0.00E+00
5/1/2004	9.38E-03	7.10E-03	4.54E-03	1.59E-02
6/1/2004	0.00E+00	2.73E-03	0.00E+00	5.10E-03
7/1/2004	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/2004	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/2004	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/2004	0.00E+00	4.29E-05	0.00E+00	0.00E+00
11/1/2004	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/2004	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/2005	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/2005	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/2005	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/2005	2.74E-03	7.00E-03	0.00E+00	0.00E+00
5/1/2005	7.37E-03	5.94E-03	0.00E+00	8.60E-03
6/1/2005	0.00E+00	3.82E-03	0.00E+00	2.45E-03
7/1/2005	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/2005	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/2005	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/2005	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/2005	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/2005	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/2006	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/2006	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Sugar Creek				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
3/1/2006	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/2006	1.23E-02	9.01E-03	5.78E-03	7.91E-03
5/1/2006	7.70E-03	5.22E-03	1.17E-02	2.46E-02
6/1/2006	2.45E-03	1.76E-03	0.00E+00	1.71E-02
7/1/2006	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/2006	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/2006	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/2006	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/2006	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/2006	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/2007	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/2007	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/2007	1.57E-03	7.36E-04	0.00E+00	0.00E+00
4/1/2007	8.67E-03	9.01E-03	0.00E+00	0.00E+00
5/1/2007	5.53E-03	5.29E-03	0.00E+00	1.09E-02
6/1/2007	0.00E+00	1.90E-03	0.00E+00	1.66E-03
7/1/2007	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/2007	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/2007	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/2007	0.00E+00	4.06E-03	0.00E+00	0.00E+00
11/1/2007	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/2007	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/2008	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/2008	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/2008	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/2008	3.90E-03	2.68E-03	0.00E+00	0.00E+00
5/1/2008	9.19E-03	6.99E-03	1.27E-02	1.89E-02
6/1/2008	6.09E-03	3.48E-03	3.51E-04	1.53E-02
7/1/2008	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/2008	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/2008	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/2008	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/2008	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/2008	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/2009	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/2009	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/2009	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/2009	4.60E-03	3.73E-03	0.00E+00	0.00E+00
5/1/2009	8.57E-03	6.24E-03	7.24E-03	1.72E-02

Sugar Creek				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
6/1/2009	3.76E-03	2.92E-03	0.00E+00	1.33E-02
7/1/2009	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/2009	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/2009	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/2009	0.00E+00	2.19E-03	0.00E+00	0.00E+00
11/1/2009	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/2009	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/2010	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/2010	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/2010	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/2010	7.56E-03	5.46E-03	0.00E+00	0.00E+00
5/1/2010	1.01E-02	9.01E-03	0.00E+00	4.03E-03
6/1/2010	6.33E-03	3.79E-03	4.28E-03	2.15E-02
7/1/2010	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/2010	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/2010	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/2010	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/2010	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/2010	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/2011	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/2011	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/2011	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/2011	1.08E-04	3.91E-03	0.00E+00	0.00E+00
5/1/2011	1.02E-02	8.36E-03	9.06E-03	1.22E-02
6/1/2011	6.86E-03	4.20E-03	6.03E-03	1.88E-02
7/1/2011	0.00E+00	0.00E+00	0.00E+00	1.68E-03
8/1/2011	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/2011	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/2011	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/2011	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/2011	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/2012	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/2012	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/2012	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/2012	1.27E-02	9.01E-03	1.29E-03	3.35E-03
5/1/2012	9.14E-03	6.93E-03	6.63E-03	1.83E-02
6/1/2012	1.69E-03	3.55E-03	0.00E+00	1.03E-02
7/1/2012	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/2012	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Sugar Creek				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
9/1/2012	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/2012	0.00E+00	2.07E-03	0.00E+00	0.00E+00
11/1/2012	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/2012	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/2013	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/2013	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/2013	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/2013	9.45E-03	7.14E-03	0.00E+00	0.00E+00
5/1/2013	8.56E-03	6.28E-03	2.29E-03	1.12E-02
6/1/2013	8.48E-04	2.68E-03	0.00E+00	1.05E-02
7/1/2013	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/2013	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/2013	1.38E-03	8.07E-03	0.00E+00	0.00E+00
10/1/2013	0.00E+00	6.94E-04	0.00E+00	0.00E+00
11/1/2013	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/2013	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/2014	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/2014	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/2014	2.53E-03	0.00E+00	0.00E+00	0.00E+00
4/1/2014	9.72E-03	6.66E-03	0.00E+00	0.00E+00
5/1/2014	8.50E-03	6.20E-03	2.82E-03	1.28E-02
6/1/2014	0.00E+00	3.59E-03	0.00E+00	7.10E-03
7/1/2014	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/2014	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/2014	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/2014	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/2014	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/2014	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/2015	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/2015	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/2015	4.09E-03	1.10E-03	0.00E+00	0.00E+00
4/1/2015	6.35E-03	7.18E-03	0.00E+00	0.00E+00
5/1/2015	6.57E-03	5.34E-03	0.00E+00	1.21E-02
6/1/2015	0.00E+00	3.71E-04	0.00E+00	4.07E-03
7/1/2015	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/2015	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/2015	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/2015	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/2015	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Sugar Creek				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
12/1/2015	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/2016	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/2016	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/2016	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/2016	1.13E-02	8.82E-03	7.41E-03	9.67E-03
5/1/2016	8.58E-03	6.17E-03	1.71E-03	1.38E-02
6/1/2016	0.00E+00	1.94E-03	0.00E+00	6.85E-03
7/1/2016	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/2016	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/2016	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/2016	0.00E+00	3.47E-03	0.00E+00	0.00E+00
11/1/2016	0.00E+00	7.32E-04	0.00E+00	0.00E+00
12/1/2016	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/2017	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/2017	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/2017	1.05E-02	2.01E-03	0.00E+00	0.00E+00
4/1/2017	1.44E-02	8.85E-03	0.00E+00	0.00E+00
5/1/2017	8.36E-03	6.00E-03	1.22E-02	2.74E-02
6/1/2017	4.95E-03	2.16E-03	1.68E-03	2.60E-02
7/1/2017	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/2017	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/2017	0.00E+00	7.97E-04	0.00E+00	0.00E+00
10/1/2017	0.00E+00	5.54E-03	0.00E+00	0.00E+00
11/1/2017	1.60E-04	0.00E+00	0.00E+00	0.00E+00
12/1/2017	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/2018	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/2018	0.00E+00	0.00E+00	0.00E+00	0.00E+00
3/1/2018	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/2018	1.32E-02	9.01E-03	1.21E-03	1.61E-03
5/1/2018	7.02E-03	4.56E-03	8.17E-03	2.26E-02
6/1/2018	0.00E+00	2.93E-03	0.00E+00	4.49E-03
7/1/2018	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/2018	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/2018	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/2018	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/2018	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/2018	0.00E+00	0.00E+00	0.00E+00	0.00E+00
1/1/2019	0.00E+00	0.00E+00	0.00E+00	0.00E+00
2/1/2019	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Sugar Creek				
Date	UDA Recharge (ft/d)	BDA Recharge (ft/d)	UDA Runoff (ft/d)	BDA Runoff (ft/d)
3/1/2019	0.00E+00	0.00E+00	0.00E+00	0.00E+00
4/1/2019	1.28E-02	9.01E-03	0.00E+00	4.12E-03
5/1/2019	8.69E-03	6.39E-03	4.75E-03	1.57E-02
6/1/2019	0.00E+00	3.06E-03	0.00E+00	7.08E-03
7/1/2019	0.00E+00	0.00E+00	0.00E+00	0.00E+00
8/1/2019	0.00E+00	0.00E+00	0.00E+00	0.00E+00
9/1/2019	0.00E+00	0.00E+00	0.00E+00	0.00E+00
10/1/2019	0.00E+00	0.00E+00	0.00E+00	0.00E+00
11/1/2019	0.00E+00	0.00E+00	0.00E+00	0.00E+00
12/1/2019	0.00E+00	0.00E+00	0.00E+00	0.00E+00

Abbreviations:

BDA = bedrock dominated area

EFSFSR = East Fork of the South Fork of the Salmon River

ft/d = foot per day

MWB = mine water balance

UDA = unconsolidated deposit area

Table A-5. Annual total available water estimated in the MWB for Meadow Creek

Year	Meadow Creek			Upper EFSFSR			Lower EFSFSR			Sugar Creek		
	Recharge (in)	Runoff (in)	Total (in)	Recharge (in)	Runoff (in)	Total (in)	Recharge (in)	Runoff (in)	Total (in)	Recharge (in)	Runoff (in)	Total (in)
1896	4.5	13.9	18.4	4.4	11.6	16.0	3.4	10.1	13.5	4.5	9.5	14.0
1897	4.5	17.4	21.8	5.2	15.2	20.4	4.1	12.3	16.4	5.8	11.4	17.2
1898	4.7	14.2	18.9	5.5	12.0	17.5	4.4	9.3	13.8	6.4	7.9	14.3
1899	9.1	14.7	23.8	8.6	12.9	21.5	7.0	10.6	17.6	7.3	9.3	16.6
1900	9.1	12.7	21.8	9.5	10.4	19.9	7.7	7.4	15.1	8.2	7.6	15.9
1901	5.4	12.3	17.7	5.1	10.8	16.0	4.5	9.1	13.6	4.9	8.6	13.5
1902	4.5	9.0	13.5	4.8	7.7	12.5	4.0	5.8	9.8	4.3	5.5	9.8
1903	3.5	11.9	15.4	2.6	10.8	13.3	3.6	7.1	10.7	2.9	7.6	10.5
1904	5.4	14.7	20.1	5.8	12.6	18.4	4.9	10.1	15.0	6.2	7.0	13.2
1905	6.3	5.2	11.5	6.9	3.5	10.4	4.1	2.8	7.0	5.4	1.6	7.0
1906	5.4	9.2	14.6	6.6	7.2	13.8	4.9	6.4	11.3	7.3	4.1	11.3
1907	6.9	17.4	24.3	6.1	15.9	22.0	6.4	11.3	17.8	5.0	12.2	17.3
1908	8.9	9.3	18.3	9.3	7.4	16.8	7.3	5.8	13.1	8.3	5.3	13.6
1909	7.4	15.1	22.6	6.8	13.4	20.2	6.9	9.7	16.6	6.0	10.8	16.8
1910	8.7	14.0	22.7	9.1	11.6	20.7	6.6	10.1	16.7	9.0	8.6	17.6
1911	5.5	16.6	22.1	5.1	15.4	20.5	5.3	12.5	17.8	4.8	11.9	16.7
1912	5.7	14.5	20.1	5.7	12.7	18.4	4.5	10.6	15.1	5.6	9.6	15.3
1913	6.0	15.3	21.3	6.0	13.3	19.3	4.8	10.6	15.4	5.0	9.8	14.8
1914	8.8	12.1	21.0	9.2	10.3	19.6	8.3	6.8	15.1	8.0	7.6	15.6
1915	6.3	7.3	13.6	7.3	5.3	12.6	5.9	4.1	10.0	6.9	3.7	10.7
1916	7.6	22.6	30.2	7.9	19.9	27.8	6.4	15.9	22.3	7.8	15.3	23.1
1917	6.0	11.1	17.0	5.5	9.5	14.9	5.0	7.3	12.3	4.3	6.9	11.2
1918	7.6	11.7	19.3	6.8	11.1	17.9	6.1	6.7	12.8	5.0	9.3	14.4
1919	6.0	7.7	13.7	6.0	6.1	12.0	5.0	4.7	9.7	6.1	3.2	9.3
1920	9.4	10.9	20.3	10.0	8.3	18.2	8.0	7.0	15.0	9.4	4.3	13.7
1921	7.1	19.2	26.3	6.3	17.7	24.0	6.7	14.5	21.2	5.8	14.6	20.4

	Meadow Creek			Upper EFSFSR			Lower EFSFSR			Sugar Creek		
Year	Recharge (in)	Runoff (in)	Total (in)	Recharge (in)	Runoff (in)	Total (in)	Recharge (in)	Runoff (in)	Total (in)	Recharge (in)	Runoff (in)	Total (in)
1922	4.6	15.3	19.9	4.5	13.9	18.5	4.3	11.0	15.2	4.2	11.1	15.3
1923	7.2	13.8	21.1	6.7	12.0	18.7	5.8	9.9	15.7	5.7	8.7	14.5
1924	4.4	3.1	7.5	4.8	1.7	6.5	3.4	1.2	4.6	3.7	0.6	4.3
1925	6.6	21.0	27.6	6.5	19.0	25.5	5.5	16.2	21.6	6.4	15.2	21.5
1926	5.9	8.4	14.3	5.9	6.6	12.5	5.9	3.9	9.8	5.8	3.5	9.3
1927	9.6	25.0	34.6	9.9	21.9	31.8	9.9	17.7	27.6	8.7	17.6	26.3
1928	5.0	18.6	23.6	4.8	16.5	21.3	5.2	13.3	18.5	4.9	13.5	18.3
1929	4.1	7.0	11.1	4.6	5.6	10.2	4.1	3.9	7.9	3.9	3.1	7.0
1930	6.6	10.4	17.0	7.4	7.9	15.2	5.2	6.8	12.0	7.1	4.5	11.7
1931	6.4	7.1	13.5	6.8	5.4	12.2	4.9	4.1	9.0	6.2	2.8	9.1
1932	6.6	18.7	25.3	6.6	16.6	23.2	5.8	14.3	20.1	7.1	11.9	18.9
1933	5.6	16.9	22.5	5.6	14.5	20.1	5.0	11.7	16.7	4.3	11.2	15.5
1934	7.5	6.7	14.2	7.9	4.9	12.9	6.4	3.2	9.6	6.4	2.1	8.6
1935	5.8	8.6	14.4	6.3	7.1	13.4	5.0	6.4	11.4	6.8	4.4	11.1
1936	4.8	18.5	23.4	5.1	16.4	21.5	4.4	13.5	17.9	4.9	12.7	17.6
1937	4.4	11.2	15.6	4.4	9.7	14.1	5.0	7.2	12.2	4.2	6.6	10.8
1938	5.9	26.8	32.8	4.7	25.1	29.8	5.3	20.0	25.3	4.4	18.4	22.8
1939	6.2	7.7	13.9	6.7	6.0	12.7	5.0	4.5	9.5	5.2	2.9	8.1
1940	11.1	20.2	31.3	11.4	17.7	29.1	9.8	14.1	24.0	10.8	11.9	22.7
1941	8.1	13.7	21.7	7.8	12.3	20.1	7.2	9.5	16.7	6.9	8.9	15.8
1942	6.6	15.6	22.2	7.2	13.3	20.5	5.7	11.8	17.5	7.7	9.6	17.3
1943	7.4	25.5	32.8	7.9	22.0	29.9	6.1	18.3	24.4	8.0	16.4	24.4
1944	4.6	5.9	10.5	5.2	4.6	9.8	4.0	3.7	7.6	5.0	2.1	7.1
1945	4.5	19.5	24.0	3.9	17.1	21.1	4.0	13.7	17.6	4.2	10.9	15.1
1946	9.4	19.1	28.5	10.3	15.9	26.2	8.3	12.7	21.0	9.5	9.5	19.0
1947	8.8	18.1	26.8	9.0	15.9	24.9	9.0	11.7	20.8	9.1	11.1	20.2
1948	6.0	20.1	26.2	6.0	18.3	24.2	5.1	16.1	21.2	6.4	15.0	21.4

Year	Meadow Creek			Upper EFSFSR			Lower EFSFSR			Sugar Creek		
	Recharge (in)	Runoff (in)	Total (in)	Recharge (in)	Runoff (in)	Total (in)	Recharge (in)	Runoff (in)	Total (in)	Recharge (in)	Runoff (in)	Total (in)
1949	5.7	14.6	20.3	6.3	11.9	18.1	4.7	9.8	14.5	5.8	8.8	14.6
1950	8.8	17.5	26.2	9.4	14.4	23.8	8.4	12.4	20.7	9.4	9.0	18.4
1951	7.7	16.2	23.9	9.4	12.9	22.3	7.6	10.9	18.4	9.0	9.3	18.3
1952	5.1	19.8	24.9	6.0	17.5	23.4	5.2	14.7	19.9	6.7	13.3	19.9
1953	6.8	18.3	25.2	6.2	16.7	22.9	6.4	13.1	19.5	5.7	13.2	18.9
1954	6.7	18.5	25.2	6.9	16.0	22.9	6.1	13.5	19.6	7.0	13.0	20.0
1955	6.5	10.9	17.4	6.4	8.8	15.2	4.6	6.9	11.5	5.6	5.6	11.2
1956	8.2	26.7	34.9	8.8	23.8	32.6	7.3	20.9	28.2	8.1	19.8	27.9
1957	5.3	16.5	21.8	5.7	14.7	20.4	4.9	12.4	17.3	6.3	11.5	17.8
1958	4.3	15.1	19.4	4.6	13.3	17.8	3.8	10.6	14.5	4.4	11.2	15.6
1959	11.6	21.6	33.1	12.4	18.2	30.6	9.2	16.3	25.5	11.3	13.5	24.8
1960	6.0	12.1	18.1	6.3	10.4	16.7	5.0	9.2	14.2	6.9	6.9	13.8
1961	8.7	19.3	28.0	8.5	17.2	25.7	7.1	13.3	20.4	7.4	14.4	21.7
1962	8.1	18.8	26.9	10.4	14.5	24.8	9.2	12.3	21.6	11.2	10.3	21.5
1963	6.6	16.5	23.0	6.3	15.3	21.6	6.9	11.8	18.6	6.1	12.8	18.9
1964	4.9	18.7	23.6	4.9	16.5	21.4	5.2	12.5	17.6	4.4	11.3	15.7
1965	7.7	29.3	36.9	8.0	26.4	34.4	5.7	22.0	27.7	8.4	24.6	32.9
1966	3.6	9.3	12.9	3.9	8.1	12.0	3.7	5.9	9.6	4.1	5.5	9.7
1967	8.0	21.4	29.4	8.3	18.3	26.6	7.1	15.6	22.7	7.4	14.0	21.4
1968	7.9	13.8	21.7	8.8	11.0	19.8	8.6	7.7	16.4	7.6	8.7	16.3
1969	6.3	20.7	27.0	6.5	18.5	25.0	4.9	16.1	20.9	6.2	15.1	21.3
1970	9.6	26.3	35.9	10.4	23.0	33.3	8.3	20.5	28.8	9.5	18.2	27.7
1971	6.3	29.2	35.5	6.1	26.9	33.0	5.7	22.9	28.6	5.9	22.5	28.4
1972	5.8	20.8	26.6	5.2	19.3	24.4	5.4	16.0	21.3	4.8	16.5	21.3
1973	4.9	8.0	12.9	4.4	6.8	11.2	3.7	4.2	7.9	3.5	5.4	8.9
1974	6.3	35.5	41.8	6.2	33.1	39.4	5.1	29.0	34.1	6.9	29.0	35.8
1975	6.2	16.9	23.2	7.2	13.5	20.7	6.0	11.0	17.0	6.9	11.7	18.7

	Meadow Creek			Upper EFSFSR			Lower EFSFSR			Sugar Creek		
Year	Recharge (in)	Runoff (in)	Total (in)	Recharge (in)	Runoff (in)	Total (in)	Recharge (in)	Runoff (in)	Total (in)	Recharge (in)	Runoff (in)	Total (in)
1976	6.2	14.9	21.1	6.6	12.6	19.2	5.6	10.5	16.1	6.6	10.7	17.3
1977	5.5	3.0	8.4	6.3	0.8	7.1	3.6	0.0	3.6	4.9	0.0	4.9
1978	8.7	15.9	24.6	8.4	14.2	22.6	7.7	11.2	18.9	8.3	13.2	21.5
1979	3.7	6.6	10.3	3.5	5.3	8.8	3.7	2.9	6.6	3.4	3.6	7.0
1980	6.6	15.9	22.5	6.8	13.5	20.3	5.3	11.8	17.1	6.9	10.2	17.1
1981	7.4	16.4	23.8	6.8	14.7	21.4	7.1	11.1	18.2	6.7	10.0	16.8
1982	10.0	33.4	43.4	10.0	30.4	40.5	8.9	24.6	33.4	10.1	22.7	32.8
1983	6.7	22.3	29.1	6.6	20.2	26.8	7.1	14.4	21.5	5.8	15.6	21.3
1984	8.5	23.1	31.6	8.2	21.1	29.3	6.6	16.8	23.5	7.4	16.7	24.1
1985	9.6	10.2	19.8	10.9	7.4	18.3	8.4	5.9	14.3	11.4	3.6	14.9
1986	11.1	15.0	26.2	11.3	12.8	24.1	8.1	11.0	19.1	11.4	8.7	20.1
1987	3.2	5.4	8.6	4.2	3.2	7.4	3.2	2.8	6.0	4.2	1.5	5.7
1988	4.6	9.5	14.1	5.2	7.4	12.6	3.8	5.7	9.5	5.1	5.3	10.4
1989	6.9	12.2	19.2	7.2	10.2	17.3	5.1	8.8	13.9	6.5	8.3	14.8
1990	4.9	7.8	12.7	5.8	5.7	11.5	4.6	4.6	9.2	6.7	3.1	9.8
1991	5.3	5.0	10.3	5.9	3.6	9.5	4.2	3.3	7.5	6.2	2.5	8.7
1992	4.0	5.5	9.5	4.7	3.5	8.2	3.2	1.8	5.0	5.2	1.3	6.5
1993	6.6	16.3	22.9	6.2	14.4	20.6	6.2	11.4	17.6	6.1	11.2	17.3
1994	2.2	2.9	5.0	1.9	1.9	3.9	1.9	0.9	2.7	1.8	1.3	3.2
1995	7.4	21.3	28.7	7.2	19.0	26.2	6.7	15.1	21.8	7.0	14.3	21.3
1996	6.5	22.1	28.6	6.7	19.8	26.5	6.5	16.5	23.0	7.4	16.7	24.1
1997	6.8	23.0	29.8	6.5	20.7	27.2	5.4	17.1	22.5	5.9	17.7	23.6
1998	6.8	13.7	20.5	6.4	11.9	18.3	5.4	9.7	15.1	6.1	9.9	16.0
1999	5.1	22.4	27.5	5.3	20.1	25.5	5.6	15.7	21.3	5.8	15.9	21.7
2000	6.5	12.2	18.7	8.1	8.9	17.0	5.9	6.9	12.8	8.1	6.0	14.1
2001	4.9	3.7	8.6	5.1	2.3	7.3	4.1	1.5	5.6	3.7	1.0	4.6
2002	5.9	10.3	16.2	6.3	8.9	15.1	4.9	7.4	12.3	6.8	6.3	13.2

Year	Meadow Creek			Upper EFSFSR			Lower EFSFSR			Sugar Creek		
	Recharge (in)	Runoff (in)	Total (in)	Recharge (in)	Runoff (in)	Total (in)	Recharge (in)	Runoff (in)	Total (in)	Recharge (in)	Runoff (in)	Total (in)
2003	5.9	16.1	22.0	5.9	14.3	20.2	4.9	12.4	17.3	5.4	11.4	16.8
2004	7.8	11.5	19.3	7.7	9.7	17.4	6.1	7.3	13.4	6.8	7.3	14.1
2005	5.0	7.1	12.1	5.6	5.7	11.3	4.8	4.1	8.8	5.9	3.7	9.6
2006	5.1	25.4	30.5	5.5	22.9	28.3	4.5	19.2	23.7	6.0	17.2	23.2
2007	8.4	9.2	17.6	8.8	6.8	15.6	7.3	4.3	11.5	7.5	4.3	11.8
2008	4.4	17.0	21.4	4.7	14.8	19.5	4.8	12.4	17.2	5.0	11.9	16.9
2009	7.2	13.7	20.9	6.7	12.6	19.2	5.8	9.8	15.6	5.6	10.5	16.1
2010	7.9	13.0	21.0	7.4	12.0	19.4	6.1	10.7	16.7	6.9	8.6	15.5
2011	6.6	17.6	24.2	6.7	15.2	21.9	5.1	13.1	18.2	6.1	11.4	17.4
2012	7.4	16.9	24.3	7.8	14.9	22.7	6.4	13.0	19.4	7.9	11.0	18.9
2013	8.6	12.5	21.1	9.7	9.9	19.6	7.4	7.9	15.3	8.9	7.4	16.3
2014	6.4	10.2	16.6	6.4	8.6	15.0	5.9	7.0	12.9	6.1	6.8	12.9
2015	7.6	7.5	15.1	7.0	6.4	13.4	5.9	4.5	10.3	5.2	5.5	10.7
2016	7.7	17.8	25.4	8.0	15.4	23.4	7.0	11.8	18.8	7.7	10.4	18.1
2017	12.7	24.3	37.0	11.5	23.0	34.5	10.1	19.6	29.7	9.7	18.3	28.0
2018	5.2	14.5	19.7	5.5	12.7	18.3	4.7	10.5	15.2	6.1	10.0	16.1
2019	6.4	14.4	20.9	6.7	12.4	19.1	4.9	10.5	15.4	6.8	9.2	16.0

Abbreviations:

BDA = bedrock dominated area

EFSFSR = East Fork of the South Fork of the Salmon River

ft/d = foot per day

MWB = mine water balance

UDA = unconsolidated deposit area

Table A-6. Streamflow at USGS Gage 13310800

Date	USGS (cfs)	EC SHSM (cfs)
10/31/2011	4.2	3.2
11/30/2011	2.6	2.9
12/31/2011	2.0	2.8
1/31/2012	1.8	2.6
2/29/2012	1.8	2.4
3/31/2012	2.4	2.4
4/30/2012	19.5	25.7
5/31/2012	43.3	44.8
6/30/2012	43.9	32.9
7/31/2012	12.9	3.7
8/31/2012	4.2	3.3
9/30/2012	2.5	3.1
10/31/2012	3.3	3.2
11/30/2012	3.8	3.0
12/31/2012	3.6	2.8
1/31/2013	2.6	2.7
2/28/2013	2.5	2.5
3/31/2013	2.7	2.6
4/30/2013	7.5	7.9
5/31/2013	44.2	33.1
6/30/2013	30.3	33.9
7/31/2013	7.1	3.7
8/31/2013	3.3	3.3
9/30/2013	4.6	10.6
10/31/2013	7.0	3.7
11/30/2013	4.3	3.6
12/31/2013	2.9	3.2
1/31/2014	2.9	3.0
2/28/2014	2.9	2.9
3/31/2014	3.7	3.1
4/30/2014	9.2	7.6
5/31/2014	47.7	37.1
6/30/2014	45.8	25.0
7/31/2014	10.8	3.9
8/31/2014	4.7	3.6
9/30/2014	3.0	3.3
10/31/2014	3.8	3.2
11/30/2014	4.2	2.9
12/31/2014	3.4	2.8
1/31/2015	2.9	2.6

Date	USGS (cfs)	EC SHSM (cfs)
2/28/2015	4.2	2.6
3/31/2015	9.5	3.5
4/30/2015	15.5	5.4
5/31/2015	36.4	31.2
6/30/2015	17.4	17.3
7/31/2015	4.9	3.9
8/31/2015	2.5	3.5
9/30/2015	2.3	3.3
10/31/2015	2.0	3.2
11/30/2015	2.1	2.9
12/31/2015	2.1	2.8
1/31/2016	1.7	2.6
2/29/2016	2.0	2.5
3/31/2016	2.9	2.6
4/30/2016	24.5	42.5
5/31/2016	48.3	37.5
6/30/2016	28.7	28.1
7/31/2016	6.6	3.5
8/31/2016	3.2	3.1
9/30/2016	2.7	2.9
10/31/2016	5.0	4.1
11/30/2016	6.9	3.2
12/31/2016	3.8	3.0
1/31/2017	2.8	2.8
2/28/2017	4.2	2.7
3/31/2017	9.3	4.5
4/30/2017	12.4	13.2
5/31/2017	62.6	72.0
6/30/2017	87.7	64.7
7/31/2017	15.6	4.7
8/31/2017	4.8	4.2
9/30/2017	4.7	4.3
10/31/2017	4.4	4.7
11/30/2017	6.1	4.3
12/31/2017	4.5	3.9
1/31/2018	3.6	3.8
2/28/2018	3.2	3.5
3/31/2018	2.7	3.3
4/30/2018	11.7	18.9
5/31/2018	71.0	53.1
6/30/2018	30.5	21.2

Date	USGS (cfs)	EC SHSM (cfs)
7/31/2018	6.1	4.2
8/31/2018	3.2	3.8
9/30/2018	2.6	3.4
10/31/2018	3.0	3.2
11/30/2018	2.7	3.0
12/31/2018	2.1	2.8
1/31/2019	2.0	2.7
2/28/2019	1.9	2.5
3/31/2019	2.0	2.4
4/30/2019	14.1	25.2
5/31/2019	53.5	39.0
6/30/2019	55.6	26.3
7/31/2019	7.3	3.6
8/31/2019	3.2	3.3
9/30/2019	2.8	3.0

Abbreviations:

cfs = cubic feet per second

EC = Existing Conditions

SHSM = Stibnite Hydrologic Site Model

USGS = United States Geological Survey

Table A-7. Streamflow at USGS Gage 13310800

Date	USGS (cfs)	EC SHSM (cfs)
10/31/2011	7.5	5.0
11/30/2011	5.4	4.4
12/31/2011	4.0	3.9
1/31/2012	4.1	3.6
2/29/2012	3.6	3.2
3/31/2012	3.8	3.0
4/30/2012	20.0	25.5
5/31/2012	47.3	56.5
6/30/2012	44.8	41.9
7/31/2012	13.6	6.9
8/31/2012	7.5	5.9
9/30/2012	5.7	5.2
10/31/2012	5.8	5.5
11/30/2012	5.4	4.8
12/31/2012	5.2	4.3
1/31/2013	3.9	3.9
2/28/2013	3.9	3.5
3/31/2013	4.1	3.5

Date	USGS (cfs)	EC SHSM (cfs)
4/30/2013	6.9	6.5
5/31/2013	53.8	38.7
6/30/2013	27.8	41.3
7/31/2013	10.3	6.5
8/31/2013	5.9	5.6
9/30/2013	6.4	8.0
10/31/2013	6.1	6.6
11/30/2013	4.3	6.0
12/31/2013	3.3	5.2
1/31/2014	3.3	4.6
2/28/2014	3.1	4.2
3/31/2014	4.1	4.6
4/30/2014	9.4	7.4
5/31/2014	50.1	43.4
6/30/2014	42.2	29.9
7/31/2014	12.0	6.8
8/31/2014	7.8	5.9
9/30/2014	6.2	5.2
10/31/2014	6.3	4.7
11/30/2014	5.3	4.3
12/31/2014	4.2	3.8
1/31/2015	3.9	3.5
2/28/2015	4.0	3.2
3/31/2015	8.0	5.3
4/30/2015	14.1	6.5
5/31/2015	37.0	35.1
6/30/2015	17.7	19.5
7/31/2015	7.1	6.0
8/31/2015	4.8	5.3
9/30/2015	4.4	4.7
10/31/2015	4.2	4.2
11/30/2015	4.0	3.8
12/31/2015	3.9	3.5
1/31/2016	3.5	3.2
2/29/2016	3.4	2.9
3/31/2016	3.7	2.9
4/30/2016	18.0	43.7
5/31/2016	47.5	45.8
6/30/2016	22.0	34.7
7/31/2016	9.4	6.1
8/31/2016	6.3	5.2

Date	USGS (cfs)	EC SHSM (cfs)
9/30/2016	5.3	4.6
10/31/2016	5.9	5.9
11/30/2016	5.5	5.2
12/31/2016	3.5	4.6
1/31/2017	3.5	4.1
2/28/2017	4.7	3.8
3/31/2017	7.2	6.7
4/30/2017	9.6	11.1
5/31/2017	58.4	93.7
6/30/2017	95.2	91.0
7/31/2017	17.9	8.2
8/31/2017	9.4	6.9
9/30/2017	8.5	7.0
10/31/2017	7.2	7.9
11/30/2017	7.3	6.7
12/31/2017	6.0	5.8
1/31/2018	4.8	5.3
2/28/2018	4.3	4.7
3/31/2018	3.9	4.3
4/30/2018	10.8	18.2
5/31/2018	50.9	68.1
6/30/2018	30.4	25.5
7/31/2018	11.4	7.1
8/31/2018	7.1	6.1
9/30/2018	5.8	5.3
10/31/2018	5.8	4.8
11/30/2018	5.4	4.3
12/31/2018	3.8	3.9
1/31/2019	3.7	3.5
2/28/2019	3.6	3.2
3/31/2019	3.6	3.0
4/30/2019	11.5	23.2
5/31/2019	35.2	49.2
6/30/2019	28.7	32.1
7/31/2019	10.3	6.5
8/31/2019	6.8	5.6
9/30/2019	5.8	4.9

Abbreviations:

cfs = cubic feet per second

EC = Existing Conditions

SHSM = Stibnite Hydrologic Site Model

USGS = Unites States Geological Survey

Table A-8. Streamflow at USGS Gage 13311000

Date	USGS (cfs)	EC SHSM (cfs)
10/31/2011	15.1	12.2
11/30/2011	10.9	11.1
12/31/2011	9.7	10.3
1/31/2012	9.4	9.5
2/29/2012	8.8	8.9
3/31/2012	10.0	8.6
4/30/2012	57.4	69.2
5/31/2012	127.0	134.3
6/30/2012	114.2	97.9
7/31/2012	34.1	15.9
8/31/2012	15.9	13.8
9/30/2012	11.8	12.4
10/31/2012	13.6	12.7
11/30/2012	13.3	11.6
12/31/2012	13.2	10.7
1/31/2013	9.4	9.9
2/28/2013	9.5	9.3
3/31/2013	10.1	9.7
4/30/2013	23.3	21.0
5/31/2013	114.3	94.2
6/30/2013	66.7	98.3
7/31/2013	22.7	15.2
8/31/2013	12.9	13.4
9/30/2013	15.4	25.7
10/31/2013	18.8	14.8
11/30/2013	12.4	13.9
12/31/2013	9.2	12.3
1/31/2014	9.2	11.3
2/28/2014	9.0	10.6
3/31/2014	11.1	11.9
4/30/2014	26.5	21.6
5/31/2014	134.0	106.5
6/30/2014	109.2	72.5
7/31/2014	28.9	15.9
8/31/2014	16.1	14.0
9/30/2014	11.5	12.7
10/31/2014	12.3	11.8
11/30/2014	12.2	10.9
12/31/2014	10.4	10.1
1/31/2015	9.8	9.4
2/28/2015	11.4	9.3

Date	USGS (cfs)	EC SHSM (cfs)
3/31/2015	24.5	13.1
4/30/2015	39.0	17.1
5/31/2015	90.5	86.1
6/30/2015	43.8	48.9
7/31/2015	18.1	14.6
8/31/2015	11.0	13.1
9/30/2015	9.9	12.0
10/31/2015	9.5	11.1
11/30/2015	9.6	10.3
12/31/2015	8.8	9.6
1/31/2016	7.4	9.0
2/29/2016	8.7	8.5
3/31/2016	10.9	9.1
4/30/2016	63.1	115.8
5/31/2016	124.8	109.6
6/30/2016	68.1	82.4
7/31/2016	21.3	14.6
8/31/2016	12.0	12.8
9/30/2016	11.2	11.5
10/31/2016	14.3	14.3
11/30/2016	16.8	12.3
12/31/2016	10.3	11.2
1/31/2017	8.6	10.4
2/28/2017	11.8	9.8
3/31/2017	23.5	16.8
4/30/2017	31.1	35.0
5/31/2017	168.6	218.8
6/30/2017	206.3	200.8
7/31/2017	40.6	19.0
8/31/2017	18.5	16.4
9/30/2017	15.1	16.1
10/31/2017	14.9	17.4
11/30/2017	19.8	15.8
12/31/2017	17.9	14.1
1/31/2018	12.8	13.3
2/28/2018	11.4	12.2
3/31/2018	10.3	11.4
4/30/2018	33.6	51.0
5/31/2018	181.5	159.9
6/30/2018	87.2	62.1
7/31/2018	25.0	16.5

Date	USGS (cfs)	EC SHSM (cfs)
8/31/2018	13.0	14.5
9/30/2018	9.7	13.1
10/31/2018	11.7	12.0
11/30/2018	10.4	11.0
12/31/2018	8.6	10.2
1/31/2019	7.9	9.5
2/28/2019	7.7	8.9
3/31/2019	7.3	8.4
4/30/2019	35.1	65.0
5/31/2019	118.8	117.0
6/30/2019	112.5	76.9
7/31/2019	24.7	15.1
8/31/2019	12.8	13.3
9/30/2019	10.6	12.0

Abbreviations:

cfs = cubic feet per second

EC = Existing Conditions

SHSM = Stibnite Hydrologic Site Model

USGS = Unites States Geological Survey

Table A-9. Streamflow at USGS Gage 13311250

Date	USGS (cfs)	EC SHSM (cfs)
10/31/2011	18.5	15.7
11/30/2011	14.1	14.4
12/31/2011	11.3	13.3
1/31/2012	11.8	12.4
2/29/2012	11.2	11.6
3/31/2012	13.3	11.5
4/30/2012	74.2	85.4
5/31/2012	153.0	161.6
6/30/2012	131.7	111.4
7/31/2012	39.1	20.5
8/31/2012	17.4	18.0
9/30/2012	13.4	16.2
10/31/2012	14.3	16.4
11/30/2012	14.2	15.2
12/31/2012	15.0	14.0
1/31/2013	11.1	13.1
2/28/2013	11.6	12.3
3/31/2013	12.3	13.0
4/30/2013	27.7	27.4

Date	USGS (cfs)	EC SHSM (cfs)
5/31/2013	137.5	114.5
6/30/2013	81.2	111.2
7/31/2013	26.5	19.6
8/31/2013	14.7	17.4
9/30/2013	17.6	30.1
10/31/2013	22.2	18.9
11/30/2013	14.8	17.8
12/31/2013	10.9	15.8
1/31/2014	10.4	14.7
2/28/2014	10.1	13.7
3/31/2014	13.5	15.9
4/30/2014	33.0	28.1
5/31/2014	161.8	128.9
6/30/2014	129.7	81.5
7/31/2014	35.6	20.5
8/31/2014	19.5	18.2
9/30/2014	13.8	16.6
10/31/2014	15.0	15.4
11/30/2014	15.2	14.2
12/31/2014	13.2	13.2
1/31/2015	12.1	12.3
2/28/2015	15.7	12.6
3/31/2015	34.2	17.3
4/30/2015	51.8	23.6
5/31/2015	110.7	102.3
6/30/2015	54.6	53.2
7/31/2015	21.4	18.6
8/31/2015	12.7	16.8
9/30/2015	10.4	15.4
10/31/2015	9.7	14.3
11/30/2015	10.0	13.3
12/31/2015	10.0	12.4
1/31/2016	8.3	11.6
2/29/2016	9.3	10.9
3/31/2016	12.9	12.1
4/30/2016	84.0	138.4
5/31/2016	145.9	128.8
6/30/2016	83.2	91.7
7/31/2016	24.3	18.8
8/31/2016	14.1	16.6
9/30/2016	12.4	15.1

Date	USGS (cfs)	EC SHSM (cfs)
10/31/2016	15.8	18.0
11/30/2016	18.4	15.9
12/31/2016	13.1	14.6
1/31/2017	11.1	13.6
2/28/2017	16.9	13.0
3/31/2017	33.7	23.0
4/30/2017	43.5	51.9
5/31/2017	204.5	263.7
6/30/2017	246.5	228.4
7/31/2017	52.1	24.5
8/31/2017	20.9	21.3
9/30/2017	16.3	20.7
10/31/2017	15.6	22.1
11/30/2017	22.9	20.5
12/31/2017	22.1	18.2
1/31/2018	14.5	17.4
2/28/2018	13.2	15.8
3/31/2018	12.2	15.0
4/30/2018	47.7	63.6
5/31/2018	220.5	191.4
6/30/2018	106.4	69.3
7/31/2018	29.1	21.2
8/31/2018	16.4	18.8
9/30/2018	13.2	17.1
10/31/2018	13.2	15.7
11/30/2018	11.7	14.5
12/31/2018	9.3	13.4
1/31/2019	8.5	12.5
2/28/2019	8.0	11.8
3/31/2019	8.4	11.1
4/30/2019	51.3	78.9
5/31/2019	151.7	140.7
6/30/2019	142.6	86.7
7/31/2019	32.5	19.5
8/31/2019	17.5	17.3
9/30/2019	15.1	15.7

Abbreviations:

cfs = cubic feet per second

EC = Existing Conditions

SHSM = Stibnite Hydrologic Site Model

USGS = Unites States Geological Survey

Table A-10. Streamflow at USGS Gage 13311450

Date	USGS (cfs)	EC SHSM (cfs)
10/31/2011	12.2	15.7
11/30/2011	9.2	14.4
12/31/2011	7.5	13.3
1/31/2012	7.5	12.4
2/29/2012	7.0	11.6
3/31/2012	9.4	11.5
4/30/2012	45.7	85.4
5/31/2012	85.9	161.6
6/30/2012	77.3	111.4
7/31/2012	26.1	20.5
8/31/2012	11.5	18.0
9/30/2012	8.6	16.2
10/31/2012	8.4	16.4
11/30/2012	8.3	15.2
12/31/2012	8.2	14.0
1/31/2013	6.8	13.1
2/28/2013	7.2	12.3
3/31/2013	7.7	13.0
4/30/2013	17.8	27.4
5/31/2013	82.0	114.5
6/30/2013	52.6	111.2
7/31/2013	19.6	19.6
8/31/2013	10.7	17.4
9/30/2013	10.5	30.1
10/31/2013	12.2	18.9
11/30/2013	7.9	17.8
12/31/2013	6.2	15.8
1/31/2014	6.7	14.7
2/28/2014	6.7	13.7
3/31/2014	9.1	15.9
4/30/2014	21.9	28.1
5/31/2014	101.0	128.9
6/30/2014	82.4	81.5
7/31/2014	26.8	20.5
8/31/2014	12.7	18.2
9/30/2014	9.2	16.6
10/31/2014	8.9	15.4
11/30/2014	9.9	14.2
12/31/2014	9.4	13.2
1/31/2015	9.3	12.3

Date	USGS (cfs)	EC SHSM (cfs)
2/28/2015	13.9	12.6
3/31/2015	25.5	17.3
4/30/2015	33.1	23.6
5/31/2015	61.0	102.3
6/30/2015	37.0	53.2
7/31/2015	14.2	18.6
8/31/2015	9.1	16.8
9/30/2015	7.5	15.4
10/31/2015	7.1	14.3
11/30/2015	7.2	13.3
12/31/2015	6.8	12.4
1/31/2016	5.7	11.6
2/29/2016	7.7	10.9
3/31/2016	10.3	12.1
4/30/2016	52.7	138.4
5/31/2016	84.2	128.8
6/30/2016	53.2	91.7
7/31/2016	18.1	18.8
8/31/2016	10.2	16.6
9/30/2016	8.3	15.1
10/31/2016	8.8	18.0
11/30/2016	9.4	15.9
12/31/2016	7.6	14.6
1/31/2017	7.0	13.6
2/28/2017	9.9	13.0
3/31/2017	21.5	23.0
4/30/2017	25.8	51.9
5/31/2017	120.9	263.7
6/30/2017	127.3	228.4
7/31/2017	35.8	24.5
8/31/2017	17.3	21.3
9/30/2017	13.2	20.7
10/31/2017	12.7	22.1
11/30/2017	18.4	20.5
12/31/2017	13.7	18.2
1/31/2018	9.1	17.4
2/28/2018	8.0	15.8
3/31/2018	8.5	15.0
4/30/2018	35.2	63.6
5/31/2018	105.3	191.4
6/30/2018	69.8	69.3

Date	USGS (cfs)	EC SHSM (cfs)
7/31/2018	21.8	21.2
8/31/2018	12.6	18.8
9/30/2018	9.6	17.1
10/31/2018	8.9	15.7
11/30/2018	8.7	14.5
12/31/2018	6.5	13.4
1/31/2019	6.3	12.5
2/28/2019	6.2	11.8
3/31/2019	7.8	11.1
4/30/2019	32.9	78.9
5/31/2019	71.9	140.7
6/30/2019	66.1	86.7
7/31/2019	21.6	19.5
8/31/2019	12.1	17.3
9/30/2019	8.7	15.7

Abbreviations:

cfs = cubic feet per second

EC = Existing Conditions

SHSM = Stibnite Hydrologic Site Model

USGS = Unites States Geological Survey

Table A-11. EC SHSM Simulated Basin Yield at each of the five USGS gages

	EC SHSM Basin Yield (in)				
Water Year	Gage 13310800	Gage 13310850	Gage 13311000	Gage 13311250	Gage 13311450
1986	23.8	28.2	26.5	25.9	21.7
1987	10.9	14.8	13.5	13.3	10.9
1988	11.9	17.0	14.8	14.3	11.5
1989	14.8	19.9	17.8	17.3	14.5
1990	11.2	15.1	13.6	13.4	10.4
1991	8.4	11.3	10.4	10.3	9.3
1992	7.7	11.5	10.1	9.7	7.8
1993	18.0	24.0	21.4	20.5	16.7
1994	5.8	8.0	7.6	7.6	6.6
1995	21.3	28.6	25.2	24.1	18.8
1996	24.9	30.5	28.3	27.5	23.8
1997	25.5	31.5	29.0	28.2	24.5
1998	17.2	21.7	20.0	19.6	16.7
1999	24.3	30.7	28.0	27.0	22.1
2000	13.9	18.5	16.8	16.5	13.1
2001	8.2	11.1	10.2	10.2	8.3

EC SHSM Basin Yield (in)					
Water Year	Gage 13310800	Gage 13310850	Gage 13311000	Gage 13311250	Gage 13311450
2002	13.5	18.0	16.2	15.8	12.3
2003	18.9	24.1	22.0	21.4	17.4
2004	14.7	19.0	17.4	17.0	14.1
2005	11.3	14.7	13.5	13.2	10.6
2006	26.8	33.8	30.7	29.5	23.3
2007	11.8	15.2	14.1	13.9	11.4
2008	20.3	26.6	23.9	23.1	18.4
2009	16.8	21.1	19.5	19.1	16.4
2010	18.2	22.0	20.7	20.4	15.8
2011	20.3	26.2	23.8	23.1	18.0
2012	20.6	25.8	23.7	23.2	18.4
2013	16.5	21.7	19.5	19.0	15.4
2014	16.2	19.9	18.7	18.4	15.5
2015	12.7	16.4	15.1	14.8	12.5
2016	20.0	26.6	23.7	22.7	16.7
2017	30.9	36.5	34.1	33.4	26.9
2018	20.6	25.5	23.6	23.1	19.0
2019	18.0	23.3	21.1	20.6	16.9

Abbreviations:

EC = existing conditions

in = inch

SHSM = Stibnite Hydrologic Site Model

Appendix B: Stibnite Hydrologic Site Model ModPRO2 Alternative Data Tables

Appendix B: Stibnite Hydrologic Site Model ModPRO2 Alternative Data Tables

Table B-1. Average Yearly SWWB Inputs for the Mining SHSM

Mine Year	Unmet Mill Demand (cfs)	Supply Wells (cfs)	EFSFSR Diversion (cfs)	Treatment Outfall (cfs)
-2	0.0	0.0	0.0	0.0
-1	0.7	0.2	0.4	0.1
1	0.9	0.2	0.5	0.0
2	2.2	0.5	1.7	0.0
3	0.9	0.3	0.5	0.2
4	0.2	0.1	0.1	0.7
5	0.0	0.0	0.0	2.9
6	0.2	0.1	0.1	1.7
7	0.4	0.2	0.1	0.1
8	1.1	0.4	0.7	0.0
9	0.7	0.2	0.4	0.0
10	1.6	0.4	1.2	0.0
11	0.7	0.2	0.4	0.0
12	0.1	0.0	0.0	0.1

Abbreviations:

cfs = cubic feet per second

EFSFSR = East Fork South Fork Salmon River

SHSM = Stibnite Hydrologic Site Model

Table B-2. West End Pit Lake Water Balance Input

Mine Year	Precipitation Rate (in/yr)	Evaporation Rate (in/yr)	Runoff Rate (in/yr)
13	27.91	23.47	10.20
14	32.72	25.08	3.49
15	39.77	23.75	4.73
16	38.14	24.36	15.53
17	33.41	25.64	11.89
18	34.94	23.95	9.37
19	27.94	25.36	0.66
20	41.65	24.68	15.98
21	39.32	25.34	3.84
22	52.90	24.70	18.54
23	28.96	25.44	14.20
24	26.87	24.51	3.41
25	31.27	25.34	4.86
26	34.38	25.83	3.10
27	37.33	23.60	12.60
28	36.61	24.67	11.96

Mine Year	Precipitation Rate (in/yr)	Evaporation Rate (in/yr)	Runoff Rate (in/yr)
29	29.65	26.27	2.31
30	23.73	24.39	4.76
31	36.04	24.76	13.48
32	39.79	24.96	7.16
33	39.95	24.99	19.33
34	28.69	24.23	3.17
35	46.22	26.29	12.73
36	43.11	23.66	9.50
37	42.94	24.53	10.30
38	33.03	24.92	17.35
39	29.85	25.09	2.26
40	44.07	23.73	11.51
41	44.84	24.41	10.13
42	34.85	25.53	11.90
43	48.86	25.09	15.81
44	31.97	26.15	9.33
45	44.27	25.05	9.76
46	46.38	25.59	9.85
47	28.61	26.16	14.07
48	41.02	23.88	14.09
49	38.72	23.89	13.85
50	50.03	24.94	6.10
51	37.77	25.71	20.87
52	39.05	25.05	12.12
53	40.39	26.03	11.85
54	41.79	24.10	14.30
55	39.26	24.96	7.35
56	43.35	25.06	15.34
57	44.71	25.06	11.01
58	37.71	25.73	13.77
59	53.90	23.41	11.96
60	41.73	23.50	25.78
61	33.58	25.51	5.97
62	42.71	25.50	14.63
63	43.90	23.67	9.36
64	37.08	24.80	15.92
65	58.61	24.03	18.82
66	45.09	23.85	23.57

Mine Year	Precipitation Rate (in/yr)	Evaporation Rate (in/yr)	Runoff Rate (in/yr)
67	42.30	24.58	17.52
68	40.41	24.97	5.88
69	42.94	24.67	30.20
70	46.26	24.46	12.35
71	32.03	23.63	11.41
72	40.05	23.55	0.00
73	33.25	23.36	14.18
74	28.80	25.51	3.91
75	45.29	24.16	10.88
76	41.95	24.63	10.79
77	54.45	24.50	23.81
78	49.05	25.04	16.64
79	44.17	22.98	17.60
80	30.05	24.19	3.88
81	41.13	24.79	9.46
82	24.50	25.62	1.66
83	32.07	25.05	5.74
84	31.10	23.47	8.92
85	32.01	25.17	3.35
86	30.01	23.54	2.78
87	27.26	24.89	1.46
88	35.98	24.42	12.01
89	27.85	25.92	1.45
90	47.33	23.61	15.25
91	51.28	23.96	17.68
92	35.99	25.25	18.77
93	46.87	24.79	10.54
94	36.05	23.69	16.73
95	32.52	25.79	6.45
96	30.73	25.48	1.05
97	29.82	23.87	6.88
98	37.05	25.92	12.14
99	35.97	24.84	7.76
100	34.85	25.28	4.08
101	41.32	26.04	18.18
102	32.76	26.25	4.67
103	34.26	24.63	12.54
104	34.31	25.22	11.19

Mine Year	Precipitation Rate (in/yr)	Evaporation Rate (in/yr)	Runoff Rate (in/yr)
105	38.53	23.48	9.24
106	34.38	24.68	11.91
107	45.98	25.42	11.72
108	28.84	24.96	7.96
109	39.34	25.62	7.32
110	33.28	25.32	5.98
111	34.82	26.15	11.08
112	50.74	25.61	19.55

Abbreviations:

in/yr = inches per year

Table B-3. Average Yearly SWWB Inputs for the Post Mining SHSM

Mine Year	Unmet Mill Demand (cfs)	Supply Wells (cfs)	EFSFSR Diversion (cfs)	Treatment Outfall (cfs)
13	1.4	0.4	1.0	0.0
14	0.9	0.2	0.6	0.0
15	0.1	0.1	0.0	0.2
16	0.0	0.0	0.0	0.5
17	0.0	0.0	0.0	0.4
18	0.0	0.0	0.0	0.4
19	0.0	0.0	0.0	0.0
20	0.0	0.0	0.0	0.5
21	0.0	0.0	0.0	0.2
22	0.0	0.0	0.0	0.6
23	0.0	0.0	0.0	0.6
24	0.0	0.0	0.0	0.3
25	0.0	0.0	0.0	0.3
26	0.0	0.0	0.0	0.2
27	0.0	0.0	0.0	0.2
28	0.0	0.0	0.0	0.2
29	0.0	0.0	0.0	0.1
30	0.0	0.0	0.0	0.1
31	0.0	0.0	0.0	0.1
32	0.0	0.0	0.0	0.1
33	0.0	0.0	0.0	0.1
34	0.0	0.0	0.0	0.1
35	0.0	0.0	0.0	0.0
36	0.0	0.0	0.0	0.0

Mine Year	Unmet Mill Demand (cfs)	Supply Wells (cfs)	EFSFSR Diversion (cfs)	Treatment Outfall (cfs)
37	0.0	0.0	0.0	0.0
38	0.0	0.0	0.0	0.0
39	0.0	0.0	0.0	0.0
40	0.0	0.0	0.0	0.0
41	0.0	0.0	0.0	0.0
42	0.0	0.0	0.0	0.0
43	0.0	0.0	0.0	0.0
44	0.0	0.0	0.0	0.0
45	0.0	0.0	0.0	0.0
46	0.0	0.0	0.0	0.0
47	0.0	0.0	0.0	0.0
48	0.0	0.0	0.0	0.0
49	0.0	0.0	0.0	0.0
50	0.0	0.0	0.0	0.0
51	0.0	0.0	0.0	0.0
52	0.0	0.0	0.0	0.0
53	0.0	0.0	0.0	0.0
54	0.0	0.0	0.0	0.0
55	0.0	0.0	0.0	0.0
56	0.0	0.0	0.0	0.0
57	0.0	0.0	0.0	0.0
58	0.0	0.0	0.0	0.0
59	0.0	0.0	0.0	0.0
60	0.0	0.0	0.0	0.0
61	0.0	0.0	0.0	0.0
62	0.0	0.0	0.0	0.0
63	0.0	0.0	0.0	0.0
64	0.0	0.0	0.0	0.0
65	0.0	0.0	0.0	0.0
66	0.0	0.0	0.0	0.0
67	0.0	0.0	0.0	0.0
68	0.0	0.0	0.0	0.0
69	0.0	0.0	0.0	0.0
70	0.0	0.0	0.0	0.0
71	0.0	0.0	0.0	0.0
72	0.0	0.0	0.0	0.0
73	0.0	0.0	0.0	0.0
74	0.0	0.0	0.0	0.0

Mine Year	Unmet Mill Demand (cfs)	Supply Wells (cfs)	EFSFSR Diversion (cfs)	Treatment Outfall (cfs)
75	0.0	0.0	0.0	0.0
76	0.0	0.0	0.0	0.0
77	0.0	0.0	0.0	0.0
78	0.0	0.0	0.0	0.0
79	0.0	0.0	0.0	0.0
80	0.0	0.0	0.0	0.0
81	0.0	0.0	0.0	0.0
82	0.0	0.0	0.0	0.0
83	0.0	0.0	0.0	0.0
84	0.0	0.0	0.0	0.0
85	0.0	0.0	0.0	0.0
86	0.0	0.0	0.0	0.0
87	0.0	0.0	0.0	0.0
88	0.0	0.0	0.0	0.0
89	0.0	0.0	0.0	0.0
90	0.0	0.0	0.0	0.0
91	0.0	0.0	0.0	0.0
92	0.0	0.0	0.0	0.0
93	0.0	0.0	0.0	0.0
94	0.0	0.0	0.0	0.0
95	0.0	0.0	0.0	0.0
96	0.0	0.0	0.0	0.0
97	0.0	0.0	0.0	0.0
98	0.0	0.0	0.0	0.0
99	0.0	0.0	0.0	0.0
100	0.0	0.0	0.0	0.0
101	0.0	0.0	0.0	0.0
102	0.0	0.0	0.0	0.0
103	0.0	0.0	0.0	0.0
104	0.0	0.0	0.0	0.0
105	0.0	0.0	0.0	0.0
106	0.0	0.0	0.0	0.0
107	0.0	0.0	0.0	0.0
108	0.0	0.0	0.0	0.0
109	0.0	0.0	0.0	0.0
110	0.0	0.0	0.0	0.0
111	0.0	0.0	0.0	0.0
112	0.0	0.0	0.0	0.0

Abbreviations:

Cfs = cubic feet per second

EFSFSR = East Fork of the South Fork of the Salmon River

SHSM = Stibnite Hydrologic Site Model

SWWB = Site-wide Water Balance

Table B-4. Average Yearly Yellow Pine Pit Dewatering Rates Simulated by the Mining SHSM

Mine Year	Alluvium (cfs)	Bedrock (cfs)	Total (cfs)
-2	0.0	0.0	0.0
-1	0.0	0.0	0.1
1	0.1	0.4	0.5
2	0.3	0.9	1.2
3	0.1	1.2	1.3
4	0.1	1.2	1.3
5	0.1	1.3	1.3
6	0.1	0.3	0.3
7	0.1	0.2	0.3
8	0.1	0.2	0.2
9	0.1	0.1	0.2
10	0.0	0.0	0.0
11	0.0	0.0	0.0
12	0.0	0.0	0.0

Abbreviations:

cfs= cubic feet per second

SHSM = Stibnite Hydrologic Site Model

Table B-5. Average Yearly Hangar Flats Pit Dewatering Rates Simulated by the Mining SHSM

Mine Year	Alluvium (cfs)	Bedrock (cfs)	Total (cfs)
-2	0.0	0.0	0.0
-1	0.0	0.0	0.0
1	0.0	0.0	0.0
2	0.0	0.0	0.0
3	0.3	0.0	0.3
4	1.4	0.0	1.5
5	2.6	0.4	3.0
6	1.8	0.2	2.0
7	0.3	0.0	0.3
8	0.0	0.0	0.0
9	0.0	0.0	0.0
10	0.0	0.0	0.0
11	0.0	0.0	0.0
12	0.0	0.0	0.0

Abbreviations:

cfs= cubic feet per second

SHSM = Stibnite Hydrologic Site Model

Table B-6. Average Yearly West End Pit Dewatering Rates Simulated by the Mining SHSM

Mine Year	Alluvium (cfs)	Bedrock (cfs)	Total (cfs)
-2	0.0	0.0	0.0
-1	0.0	0.0	0.0
1	0.0	0.0	0.0
2	0.0	0.0	0.0
3	0.0	0.0	0.0
4	0.0	0.0	0.0
5	0.0	0.0	0.0
6	0.0	0.0	0.0
7	0.0	0.0	0.0
8	0.0	0.0	0.0
9	0.0	0.0	0.0
10	0.0	0.0	0.0
11	0.0	0.2	0.2
12	0.0	0.6	0.6

Abbreviations:

cfs= cubic feet per second

SHSM = Stibnite Hydrologic Site Model

Table B- 7. Simulated Streamflow at Meadow Creek Above Lined Section

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
-2	1	3.0	3.1
-2	2	2.9	2.9
-2	3	3.1	3.1
-2	4	16.2	16.2
-2	5	44.3	44.3
-2	6	23.3	23.3
-2	7	4.7	4.7
-2	8	4.2	4.2
-2	9	4.0	4.7
-2	10	4.0	4.5
-2	11	3.7	4.0
-2	12	3.5	3.8
-1	13	3.3	3.5
-1	14	3.1	3.3

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
-1	15	2.9	3.2
-1	16	5.0	5.0
-1	17	30.2	26.1
-1	18	20.3	17.7
-1	19	4.4	4.0
-1	20	4.0	3.8
-1	21	3.7	3.4
-1	22	3.4	3.1
-1	23	3.2	2.9
-1	24	3.0	2.6
1	25	2.8	2.6
1	26	2.6	2.5
1	27	2.5	2.3
1	28	40.2	31.9
1	29	73.6	59.2
1	30	54.4	46.3
1	31	4.5	3.9
1	32	4.0	3.6
1	33	3.6	3.3
1	34	3.3	2.9
1	35	3.0	2.7
1	36	2.8	2.4
2	37	2.6	2.2
2	38	2.4	2.1
2	39	3.0	2.5
2	40	12.8	10.8
2	41	30.9	26.0
2	42	16.7	14.2
2	43	4.2	3.6
2	44	3.8	3.3
2	45	3.5	3.1
2	46	10.1	8.9
2	47	3.9	3.5
2	48	3.5	3.2
3	49	3.3	3.0
3	50	3.1	2.8
3	51	2.9	2.6
3	52	3.9	3.2

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
3	53	58.1	47.0
3	54	50.6	43.0
3	55	7.2	5.9
3	56	4.2	3.6
3	57	3.8	3.2
3	58	3.4	2.9
3	59	3.1	2.8
3	60	2.9	2.9
4	61	2.7	2.6
4	62	2.5	2.4
4	63	2.4	3.4
4	64	3.4	4.6
4	65	48.4	41.1
4	66	41.7	37.2
4	67	4.3	4.1
4	68	3.9	3.2
4	69	3.5	3.0
4	70	3.7	3.5
4	71	3.4	3.2
4	72	3.2	3.7
5	73	3.1	4.5
5	74	2.9	4.3
5	75	3.1	5.7
5	76	4.5	6.9
5	77	23.1	22.9
5	78	68.0	60.2
5	79	5.5	8.4
5	80	4.8	5.3
5	81	4.3	5.6
5	82	4.1	6.0
5	83	3.7	6.2
5	84	3.5	6.2
6	85	3.2	3.9
6	86	3.0	4.3
6	87	2.8	5.6
6	88	3.5	6.7
6	89	43.9	38.7
6	90	62.4	54.7

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
6	91	14.5	12.6
6	92	4.6	3.5
6	93	4.1	3.2
6	94	3.9	3.5
6	95	3.6	3.6
6	96	3.4	3.4
7	97	3.1	2.6
7	98	2.9	2.5
7	99	2.9	3.1
7	100	30.1	23.9
7	101	50.8	41.0
7	102	36.5	30.6
7	103	4.8	3.7
7	104	4.3	3.5
7	105	3.9	3.2
7	106	4.0	3.3
7	107	3.7	3.1
7	108	3.5	3.1
8	109	3.3	2.8
8	110	3.1	2.6
8	111	3.3	2.8
8	112	9.5	7.5
8	113	36.9	30.2
8	114	37.2	31.4
8	115	4.8	3.9
8	116	4.2	3.6
8	117	12.0	10.3
8	118	4.6	4.0
8	119	4.2	3.8
8	120	3.9	3.5
9	121	3.7	3.3
9	122	3.5	3.2
9	123	4.0	3.4
9	124	9.2	7.1
9	125	41.4	33.8
9	126	27.7	23.3
9	127	5.0	4.2
9	128	4.5	3.8

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
9	129	4.1	3.5
9	130	3.9	3.4
9	131	3.6	3.3
9	132	3.3	3.1
10	133	3.1	3.0
10	134	3.2	2.9
10	135	4.4	3.5
10	136	6.6	5.1
10	137	34.4	28.6
10	138	19.2	16.2
10	139	4.8	4.1
10	140	4.4	3.8
10	141	4.0	3.6
10	142	3.8	3.4
10	143	3.6	3.1
10	144	3.3	3.1
11	145	3.1	2.9
11	146	2.9	2.8
11	147	3.2	2.9
11	148	48.8	38.7
11	149	41.5	34.4
11	150	31.1	26.2
11	151	4.5	3.6
11	152	4.0	3.3
11	153	3.6	3.1
11	154	4.9	4.4
11	155	4.0	3.4
11	156	3.7	3.3
12	157	3.4	3.2
12	158	3.3	3.1
12	159	6.0	4.4
12	160	16.2	12.6
12	161	82.2	66.3
12	162	72.5	60.6
12	163	6.2	4.9
12	164	5.3	4.5
12	165	5.3	4.8
12	166	5.7	5.3

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
12	167	5.4	4.9
12	168	4.8	4.6

Abbreviations:

cfs= cubic feet per second

SHSM = Stibnite Hydrologic Site Model

Table B-8. Simulated Streamflow at Meadow Creek Below Lined Section

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
-2	1	5.0	5.0
-2	2	4.7	4.8
-2	3	5.0	5.0
-2	4	20.4	20.4
-2	5	62.1	62.1
-2	6	32.5	32.5
-2	7	7.7	7.7
-2	8	6.9	6.9
-2	9	6.4	7.1
-2	10	6.3	6.8
-2	11	5.9	6.2
-2	12	5.6	5.9
-1	13	5.3	5.5
-1	14	5.1	5.2
-1	15	4.8	5.1
-1	16	7.4	7.4
-1	17	39.5	36.8
-1	18	28.0	26.1
-1	19	7.2	6.7
-1	20	6.6	6.2
-1	21	6.0	5.5
-1	22	5.6	5.1
-1	23	5.3	4.7
-1	24	5.0	4.4
1	25	4.7	4.4
1	26	4.5	4.2
1	27	4.2	4.0
1	28	54.7	46.6
1	29	104.8	91.0

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
1	30	75.5	68.1
1	31	7.5	6.6
1	32	6.6	6.0
1	33	6.0	5.6
1	34	5.5	4.9
1	35	5.1	4.5
1	36	4.8	4.2
2	37	4.5	3.9
2	38	4.2	3.7
2	39	4.9	4.3
2	40	16.4	14.3
2	41	41.6	37.0
2	42	23.1	20.6
2	43	7.0	6.2
2	44	6.3	5.6
2	45	5.9	5.3
2	46	13.3	12.0
2	47	6.4	5.7
2	48	5.8	5.2
3	49	5.5	5.0
3	50	5.2	4.6
3	51	4.9	4.3
3	52	6.3	5.4
3	53	81.2	70.5
3	54	70.6	63.6
3	55	10.6	9.1
3	56	7.0	6.1
3	57	6.3	5.4
3	58	5.7	4.3
3	59	5.3	3.9
3	60	4.9	3.8
4	61	4.6	3.4
4	62	4.4	3.1
4	63	4.1	4.1
4	64	5.5	5.4
4	65	65.7	61.7
4	66	57.8	56.1
4	67	7.2	5.6

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
4	68	6.4	4.4
4	69	5.8	4.0
4	70	5.9	4.4
4	71	5.5	4.0
4	72	5.2	4.4
5	73	5.0	5.1
5	74	4.8	4.8
5	75	5.1	6.3
5	76	7.0	7.5
5	77	29.7	29.4
5	78	96.0	92.7
5	79	8.6	9.7
5	80	7.6	6.3
5	81	6.9	6.5
5	82	6.5	6.8
5	83	6.0	6.8
5	84	5.6	6.7
6	85	5.3	4.4
6	86	5.0	4.6
6	87	4.7	5.9
6	88	5.7	7.0
6	89	60.3	56.9
6	90	88.0	84.2
6	91	20.4	17.7
6	92	7.5	4.6
6	93	6.7	4.1
6	94	6.4	4.3
6	95	5.9	4.3
6	96	5.5	3.9
7	97	5.2	3.1
7	98	4.9	2.9
7	99	4.8	3.5
7	100	40.6	34.8
7	101	72.2	64.9
7	102	50.9	46.7
7	103	7.9	5.0
7	104	7.0	4.5
7	105	6.3	4.0

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
7	106	6.3	4.1
7	107	5.9	3.8
7	108	5.6	3.8
8	109	5.3	3.4
8	110	5.0	3.2
8	111	5.3	3.4
8	112	12.8	9.5
8	113	50.5	45.9
8	114	51.8	48.9
8	115	7.8	6.3
8	116	6.9	5.8
8	117	15.9	14.8
8	118	7.3	6.5
8	119	6.8	6.1
8	120	6.3	5.7
9	121	5.9	5.3
9	122	5.6	5.2
9	123	6.4	5.7
9	124	12.7	10.8
9	125	57.8	54.0
9	126	38.7	36.8
9	127	8.1	7.0
9	128	7.2	6.4
9	129	6.6	5.9
9	130	6.2	5.6
9	131	5.8	5.4
9	132	5.4	5.2
10	133	5.1	4.9
10	134	5.3	4.9
10	135	6.9	5.7
10	136	9.3	7.7
10	137	46.1	43.5
10	138	26.7	25.1
10	139	7.8	6.8
10	140	7.0	6.3
10	141	6.5	5.8
10	142	6.1	5.5
10	143	5.7	5.1

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
10	144	5.4	5.1
11	145	5.1	4.9
11	146	4.8	4.7
11	147	5.3	4.9
11	148	67.3	61.6
11	149	58.1	54.8
11	150	43.4	41.4
11	151	7.5	6.4
11	152	6.6	5.7
11	153	6.0	5.2
11	154	7.4	6.9
11	155	6.3	5.5
11	156	5.8	5.4
12	157	5.5	5.2
12	158	5.3	5.1
12	159	9.0	7.2
12	160	21.9	18.9
12	161	117.5	109.0
12	162	101.3	96.5
12	163	9.6	8.1
12	164	8.4	7.5
12	165	8.2	7.6
12	166	8.6	8.0
12	167	8.1	7.6
12	168	7.4	7.1

Abbreviations:

cfs= cubic feet per second

SHSM = Stibnite Hydrologic Site Model

Table B- 9. Simulated Streamflow at USGS Gage 13310800

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
-2	1	3.5	3.5
-2	2	3.2	3.2
-2	3	3.2	3.2
-2	4	12.3	12.3
-2	5	44.7	44.7
-2	6	23.6	23.6

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
-2	7	6.3	6.3
-2	8	5.5	5.5
-2	9	4.9	4.9
-2	10	5.2	5.2
-2	11	4.5	4.5
-2	12	4.1	4.1
-1	13	3.7	3.7
-1	14	3.4	3.4
-1	15	3.1	3.1
-1	16	5.1	5.1
-1	17	27.2	27.2
-1	18	18.9	18.9
-1	19	5.6	5.6
-1	20	5.0	5.0
-1	21	4.5	4.5
-1	22	4.0	4.0
-1	23	3.6	3.6
-1	24	3.3	3.3
1	25	3.0	3.0
1	26	2.8	2.8
1	27	2.6	2.6
1	28	31.1	31.1
1	29	79.7	79.7
1	30	62.7	62.7
1	31	6.6	6.6
1	32	5.5	5.5
1	33	4.8	4.8
1	34	4.3	4.3
1	35	3.9	3.9
1	36	3.5	3.5
2	37	3.2	3.2
2	38	2.9	2.9
2	39	3.5	3.5
2	40	9.7	9.7
2	41	31.2	31.2
2	42	15.9	15.9
2	43	5.5	5.5
2	44	4.8	4.8

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
2	45	4.3	4.3
2	46	7.1	7.1
2	47	5.0	5.0
2	48	4.4	4.4
3	49	4.0	4.0
3	50	3.6	3.6
3	51	3.3	3.3
3	52	4.6	4.6
3	53	55.4	55.4
3	54	54.6	54.6
3	55	6.5	6.5
3	56	5.5	5.5
3	57	4.8	4.8
3	58	4.3	4.3
3	59	3.9	3.9
3	60	3.5	3.5
4	61	3.2	3.2
4	62	2.9	2.9
4	63	2.7	2.7
4	64	4.1	4.1
4	65	46.3	46.3
4	66	45.0	45.0
4	67	5.8	5.8
4	68	5.0	5.0
4	69	4.4	4.4
4	70	5.1	5.1
4	71	4.4	4.4
4	72	4.0	4.0
5	73	3.6	3.6
5	74	3.3	3.3
5	75	3.4	3.4
5	76	5.6	5.6
5	77	20.2	20.2
5	78	74.1	74.1
5	79	7.3	7.3
5	80	6.2	6.2
5	81	5.4	5.4
5	82	4.9	4.8

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
5	83	4.3	4.3
5	84	3.9	3.9
6	85	3.5	3.5
6	86	3.2	3.2
6	87	3.0	2.9
6	88	4.1	4.1
6	89	40.1	40.1
6	90	66.8	66.8
6	91	14.1	14.1
6	92	6.2	6.1
6	93	5.3	5.3
6	94	5.0	4.9
6	95	4.4	4.4
6	96	4.0	3.9
7	97	3.6	3.5
7	98	3.3	3.2
7	99	3.0	3.0
7	100	24.9	24.9
7	101	54.5	54.4
7	102	40.0	39.9
7	103	6.9	6.9
7	104	5.9	5.9
7	105	5.2	5.1
7	106	5.5	5.5
7	107	4.8	4.8
7	108	4.3	4.3
8	109	3.9	3.9
8	110	3.6	3.5
8	111	3.5	3.5
8	112	6.5	6.5
8	113	36.8	36.8
8	114	39.2	39.2
8	115	6.5	6.5
8	116	5.6	5.5
8	117	8.0	8.0
8	118	6.6	6.6
8	119	5.8	5.8
8	120	5.2	5.2

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
9	121	4.6	4.6
9	122	4.2	4.2
9	123	4.6	4.6
9	124	7.4	7.4
9	125	41.5	41.5
9	126	28.6	28.6
9	127	6.8	6.8
9	128	5.9	5.9
9	129	5.2	5.2
9	130	4.7	4.7
9	131	4.3	4.3
9	132	3.8	3.8
10	133	3.5	3.5
10	134	3.2	3.2
10	135	5.3	5.3
10	136	6.5	6.5
10	137	33.3	33.3
10	138	18.7	18.7
10	139	6.0	6.0
10	140	5.2	5.2
10	141	4.7	4.7
10	142	4.2	4.2
10	143	3.8	3.8
10	144	3.5	3.5
11	145	3.2	3.2
11	146	2.9	2.9
11	147	2.9	2.9
11	148	42.4	42.4
11	149	43.6	43.6
11	150	33.0	33.0
11	151	6.1	6.1
11	152	5.2	5.2
11	153	4.6	4.6
11	154	5.9	5.9
11	155	5.2	5.2
11	156	4.6	4.6
12	157	4.1	4.1
12	158	3.8	3.7

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
12	159	6.7	6.7
12	160	11.1	11.1
12	161	90.6	90.6
12	162	86.8	86.8
12	163	8.2	8.2
12	164	6.9	6.9
12	165	7.0	7.0
12	166	7.9	7.9
12	167	6.7	6.7
12	168	5.8	5.8

Abbreviations:

cfs= cubic feet per second

SHSM = Stibnite Hydrologic Site Model

USGS = United States Geological Survey

Table B-10. Simulated Streamflow at USGS Gage 13311000

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
-2	1	9.3	9.3
-2	2	8.7	8.7
-2	3	9.0	9.0
-2	4	33.8	33.8
-2	5	108.4	108.4
-2	6	57.2	57.2
-2	7	14.9	14.9
-2	8	13.2	13.2
-2	9	12.2	12.9
-2	10	12.4	12.8
-2	11	11.3	11.6
-2	12	10.5	10.8
-1	13	9.8	10.0
-1	14	9.2	9.4
-1	15	8.7	9.0
-1	16	13.4	13.3
-1	17	68.0	65.3
-1	18	47.9	46.0
-1	19	13.7	13.1
-1	20	12.4	12.0
-1	21	11.3	10.8

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
-1	22	10.4	9.9
-1	23	9.7	9.1
-1	24	9.0	8.5
1	25	8.5	8.2
1	26	8.0	7.8
1	27	7.5	7.3
1	28	87.4	80.2
1	29	187.0	174.7
1	30	139.9	133.2
1	31	15.2	14.3
1	32	13.1	12.5
1	33	11.8	11.3
1	34	10.7	10.1
1	35	9.8	9.2
1	36	9.1	8.5
2	37	8.4	7.8
2	38	7.9	7.3
2	39	9.3	8.6
2	40	27.2	25.2
2	41	74.1	70.0
2	42	40.0	37.5
2	43	13.3	12.6
2	44	12.0	11.3
2	45	11.0	10.4
2	46	21.3	19.9
2	47	12.3	11.6
2	48	11.0	10.4
3	49	10.2	9.7
3	50	9.5	9.0
3	51	8.9	8.3
3	52	11.8	10.9
3	53	138.7	129.2
3	54	127.0	120.8
3	55	18.1	16.7
3	56	13.5	12.6
3	57	12.0	11.2
3	58	10.9	9.4
3	59	10.0	8.6

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
3	60	9.2	8.1
4	61	8.5	7.4
4	62	8.0	6.8
4	63	7.5	7.5
4	64	10.5	10.3
4	65	113.7	109.9
4	66	104.4	102.7
4	67	14.1	12.4
4	68	12.4	10.4
4	69	11.2	9.3
4	70	11.9	10.4
4	71	10.8	9.2
4	72	10.0	9.2
5	73	9.4	9.5
5	74	8.8	8.9
5	75	9.3	10.4
5	76	13.6	14.1
5	77	51.2	50.9
5	78	172.3	169.1
5	79	17.0	18.0
5	80	14.9	13.3
5	81	13.3	12.7
5	82	12.2	12.3
5	83	11.2	11.8
5	84	10.3	11.1
6	85	9.6	8.4
6	86	9.0	8.4
6	87	8.4	9.3
6	88	10.6	11.7
6	89	102.2	98.6
6	90	156.9	153.0
6	91	35.6	32.7
6	92	14.7	11.5
6	93	13.0	10.1
6	94	12.2	9.8
6	95	11.1	9.2
6	96	10.3	8.4
7	97	9.5	7.2

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
7	98	8.9	6.6
7	99	8.6	7.0
7	100	67.0	61.1
7	101	128.7	121.3
7	102	92.4	88.0
7	103	15.9	12.8
7	104	13.9	11.2
7	105	12.4	9.9
7	106	12.7	10.4
7	107	11.6	9.3
7	108	10.7	8.8
8	109	10.0	8.0
8	110	9.3	7.4
8	111	9.7	7.7
8	112	20.4	17.1
8	113	88.9	84.3
8	114	92.4	89.5
8	115	15.2	13.7
8	116	13.4	12.3
8	117	24.9	23.7
8	118	14.9	14.0
8	119	13.5	12.7
8	120	12.3	11.7
9	121	11.4	10.8
9	122	10.6	10.3
9	123	12.0	11.2
9	124	21.2	19.3
9	125	101.0	97.2
9	126	68.6	66.6
9	127	15.9	14.8
9	128	14.1	13.2
9	129	12.8	12.0
9	130	11.8	11.2
9	131	10.9	10.5
9	132	10.1	9.9
10	133	9.4	9.2
10	134	9.3	9.0
10	135	13.2	11.9

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
10	136	16.9	15.3
10	137	80.8	78.3
10	138	46.4	44.8
10	139	14.6	13.7
10	140	13.2	12.4
10	141	12.0	11.4
10	142	11.2	10.5
10	143	10.3	9.7
10	144	9.6	9.3
11	145	9.0	8.8
11	146	8.5	8.4
11	147	9.1	8.6
11	148	111.5	105.9
11	149	103.5	100.3
11	150	77.7	75.7
11	151	14.6	13.5
11	152	12.8	11.9
11	153	11.6	10.8
11	154	14.2	13.7
11	155	12.3	11.5
11	156	11.2	10.7
12	157	10.4	10.1
12	158	9.9	9.6
12	159	16.9	15.1
12	160	34.5	31.6
12	161	210.8	202.4
12	162	190.1	185.4
12	163	19.0	17.4
12	164	16.4	15.4
12	165	16.2	15.5
12	166	17.4	16.8
12	167	15.8	15.2
12	168	14.1	13.8

Abbreviations:

cfs= cubic feet per second

SHSM = Stibnite Hydrologic Site Model

USGS = United States Geological Survey

Table B-11. Simulated Streamflow at USGS Gage 13311250

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
-2	1	12.1	12.1
-2	2	11.4	11.4
-2	3	12.0	12.0
-2	4	40.5	40.4
-2	5	128.1	128.0
-2	6	64.3	64.2
-2	7	19.1	19.1
-2	8	17.1	17.1
-2	9	15.8	16.5
-2	10	15.8	16.3
-2	11	14.5	14.8
-2	12	13.5	13.8
-1	13	12.6	12.8
-1	14	11.9	12.1
-1	15	11.4	11.7
-1	16	17.0	16.9
-1	17	80.3	77.0
-1	18	53.7	51.6
-1	19	17.4	16.8
-1	20	15.8	15.4
-1	21	14.6	12.7
-1	22	13.5	11.6
-1	23	12.6	10.7
-1	24	11.7	9.8
1	25	11.0	10.7
1	26	10.4	10.1
1	27	9.8	9.6
1	28	106.5	100.3
1	29	224.1	215.5
1	30	156.9	151.7
1	31	19.5	17.9
1	32	17.1	15.7
1	33	15.4	14.2
1	34	14.1	10.9
1	35	13.0	9.9
1	36	12.1	8.5
2	37	11.3	7.9

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
2	38	10.6	8.3
2	39	12.6	9.3
2	40	33.7	28.6
2	41	87.4	82.0
2	42	44.1	37.7
2	43	17.1	12.0
2	44	15.5	11.3
2	45	14.3	11.6
2	46	24.7	21.5
2	47	15.8	13.1
2	48	14.2	11.9
3	49	13.2	11.8
3	50	12.4	10.5
3	51	11.6	10.0
3	52	15.5	13.5
3	53	165.4	156.5
3	54	146.7	141.2
3	55	22.6	19.9
3	56	17.5	12.9
3	57	15.8	12.1
3	58	14.4	11.1
3	59	13.3	10.8
3	60	12.3	10.2
4	61	11.4	9.3
4	62	10.8	8.6
4	63	10.1	9.2
4	64	14.0	12.8
4	65	136.3	132.5
4	66	118.1	116.1
4	67	18.3	15.3
4	68	16.2	12.3
4	69	14.7	11.6
4	70	15.4	12.7
4	71	14.2	11.5
4	72	13.2	11.2
5	73	12.4	11.5
5	74	11.7	10.7
5	75	12.5	12.5

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
5	76	17.9	17.0
5	77	64.2	62.8
5	78	201.7	199.6
5	79	21.8	21.4
5	80	19.1	16.3
5	81	17.2	15.4
5	82	15.9	14.7
5	83	14.6	14.0
5	84	13.5	13.2
6	85	12.5	10.3
6	86	11.8	10.2
6	87	11.1	11.0
6	88	14.0	14.0
6	89	123.9	119.5
6	90	185.0	181.5
6	91	40.2	35.9
6	92	18.7	13.4
6	93	16.8	12.7
6	94	15.7	12.2
6	95	14.4	11.4
6	96	13.4	10.5
7	97	12.4	9.1
7	98	11.7	8.4
7	99	11.6	8.9
7	100	82.5	75.0
7	101	154.3	147.1
7	102	104.6	99.6
7	103	20.5	15.9
7	104	18.0	14.0
7	105	16.3	11.5
7	106	16.5	12.7
7	107	15.3	11.6
7	108	14.1	11.0
8	109	13.1	10.1
8	110	12.4	9.0
8	111	13.0	10.0
8	112	26.5	21.6
8	113	107.2	102.4

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
8	114	103.9	99.0
8	115	19.6	14.0
8	116	17.4	14.3
8	117	29.2	26.7
8	118	18.9	16.0
8	119	17.3	14.5
8	120	15.9	13.4
9	121	14.8	12.6
9	122	13.8	12.4
9	123	15.9	14.0
9	124	27.5	24.0
9	125	121.2	117.8
9	126	76.8	73.7
9	127	20.5	17.1
9	128	18.3	14.3
9	129	16.6	13.4
9	130	15.5	13.3
9	131	14.3	12.8
9	132	13.2	12.0
10	133	12.4	11.2
10	134	12.7	11.3
10	135	17.4	14.4
10	136	23.0	18.8
10	137	95.2	91.2
10	138	50.6	45.2
10	139	18.5	13.9
10	140	16.8	12.4
10	141	15.4	12.5
10	142	14.3	11.2
10	143	13.3	11.1
10	144	12.4	11.2
11	145	11.6	10.6
11	146	11.0	10.0
11	147	12.2	10.8
11	148	132.8	126.9
11	149	120.7	117.5
11	150	86.2	83.1
11	151	18.7	15.6

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
11	152	16.6	11.9
11	153	15.1	11.8
11	154	17.9	15.9
11	155	15.9	13.4
11	156	14.6	12.8
12	157	13.6	12.1
12	158	13.1	11.6
12	159	23.2	19.6
12	160	50.3	45.9
12	161	253.1	246.0
12	162	215.0	210.8
12	163	24.5	21.5
12	164	21.3	19.0
12	165	20.8	18.9
12	166	22.2	20.3
12	167	20.5	18.8
12	168	18.3	17.0

Abbreviations:

cfs= cubic feet per second

SHSM = Stibnite Hydrologic Site Model

USGS = United States Geological Survey

Table B -12. Simulated Streamflow at USGS Gage 13311450

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
-2	1	8.2	8.2
-2	2	7.7	7.7
-2	3	7.2	7.2
-2	4	14.1	14.1
-2	5	85.6	85.6
-2	6	39.2	39.2
-2	7	14.1	14.1
-2	8	12.5	12.5
-2	9	11.2	11.2
-2	10	10.2	10.2
-2	11	9.4	9.4
-2	12	8.7	8.7
-1	13	8.0	8.0

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
-1	14	7.6	7.6
-1	15	7.1	7.1
-1	16	11.3	11.3
-1	17	48.0	47.6
-1	18	24.8	24.6
-1	19	12.4	12.3
-1	20	11.1	11.0
-1	21	10.1	10.0
-1	22	9.2	9.2
-1	23	8.5	8.5
-1	24	7.9	7.9
1	25	7.4	7.3
1	26	7.0	6.9
1	27	6.5	6.5
1	28	46.8	46.5
1	29	133.9	133.3
1	30	98.5	97.4
1	31	13.9	13.5
1	32	12.2	11.9
1	33	11.0	10.7
1	34	10.0	9.7
1	35	9.2	8.9
1	36	8.5	8.2
2	37	7.9	7.7
2	38	7.4	7.2
2	39	7.8	7.5
2	40	14.3	14.0
2	41	58.7	58.1
2	42	21.1	20.7
2	43	12.4	12.1
2	44	11.0	10.7
2	45	10.0	9.8
2	46	11.9	11.7
2	47	9.9	9.7
2	48	9.1	8.9
3	49	8.4	8.2
3	50	7.9	7.7
3	51	7.4	7.2

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
3	52	9.3	9.2
3	53	98.5	97.8
3	54	87.9	87.2
3	55	13.5	13.1
3	56	11.9	11.5
3	57	10.7	10.4
3	58	9.7	9.4
3	59	8.9	8.6
3	60	8.3	8.0
4	61	7.7	7.4
4	62	7.3	7.0
4	63	6.8	6.6
4	64	9.5	9.2
4	65	86.9	86.1
4	66	75.7	75.0
4	67	12.6	12.2
4	68	11.1	10.7
4	69	10.0	9.6
4	70	10.6	10.3
4	71	9.2	8.9
4	72	8.5	8.2
5	73	7.9	7.6
5	74	7.4	7.1
5	75	6.9	6.7
5	76	11.3	11.1
5	77	31.6	31.1
5	78	113.8	112.9
5	79	14.5	14.1
5	80	12.8	12.4
5	81	11.4	11.0
5	82	10.3	9.9
5	83	9.5	9.1
5	84	8.7	8.4
6	85	8.1	7.8
6	86	7.6	7.3
6	87	7.1	6.8
6	88	8.8	8.6
6	89	68.1	67.2

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
6	90	106.7	105.5
6	91	21.6	21.0
6	92	12.8	12.3
6	93	11.4	11.0
6	94	10.3	9.9
6	95	9.4	9.0
6	96	8.7	8.3
7	97	8.1	7.7
7	98	7.6	7.3
7	99	7.1	6.8
7	100	28.0	27.4
7	101	100.6	99.4
7	102	66.3	65.4
7	103	15.0	14.5
7	104	13.2	12.7
7	105	11.8	11.3
7	106	12.2	11.7
7	107	10.5	10.1
7	108	9.6	9.3
8	109	8.9	8.5
8	110	8.3	8.0
8	111	7.8	7.5
8	112	13.9	13.5
8	113	62.9	61.9
8	114	62.7	61.8
8	115	13.8	13.4
8	116	12.2	11.8
8	117	17.5	16.9
8	118	13.8	13.3
8	119	12.2	11.8
8	120	11.1	10.7
9	121	10.1	9.8
9	122	9.4	9.1
9	123	9.3	9.0
9	124	14.9	14.6
9	125	72.0	71.0
9	126	49.1	48.3
9	127	14.7	14.2

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
9	128	13.0	12.5
9	129	11.6	11.2
9	130	10.5	10.2
9	131	9.7	9.4
9	132	8.9	8.6
10	133	8.3	8.0
10	134	7.8	7.5
10	135	8.9	8.7
10	136	13.3	13.0
10	137	64.2	63.3
10	138	30.4	29.8
10	139	12.1	11.7
10	140	10.7	10.4
10	141	9.8	9.5
10	142	8.9	8.7
10	143	8.3	8.0
10	144	7.7	7.5
11	145	7.2	7.0
11	146	6.8	6.6
11	147	6.3	6.2
11	148	53.9	53.2
11	149	78.9	78.1
11	150	46.2	45.5
11	151	13.3	12.9
11	152	11.8	11.3
11	153	10.6	10.2
11	154	12.1	11.6
11	155	10.6	10.2
11	156	9.6	9.1
12	157	8.8	8.4
12	158	8.2	7.8
12	159	11.5	11.1
12	160	17.7	17.1
12	161	146.4	144.5
12	162	148.9	145.8
12	163	16.0	15.2
12	164	13.9	13.2
12	165	13.0	12.3

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
12	166	15.8	15.0
12	167	12.8	12.0
12	168	11.5	10.8

Abbreviations:

cfs= cubic feet per second

SHSM = Stibnite Hydrologic Site Model

USGS = United States Geological Survey

Table B -13. Simulated Streamflow at EFSFSR Downstream of Sugar Creek

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
-2	1	20.5	20.5
-2	2	19.2	19.3
-2	3	19.4	19.4
-2	4	55.0	54.9
-2	5	217.7	217.6
-2	6	103.9	103.9
-2	7	33.5	33.5
-2	8	29.8	29.9
-2	9	27.2	27.9
-2	10	26.2	26.7
-2	11	24.1	24.4
-2	12	22.4	22.7
-1	13	20.9	21.1
-1	14	19.7	19.9
-1	15	18.6	18.9
-1	16	28.6	28.4
-1	17	130.1	126.3
-1	18	78.8	76.5
-1	19	30.0	29.3
-1	20	27.1	26.6
-1	21	24.9	23.0
-1	22	22.9	21.0
-1	23	21.3	19.3
-1	24	19.8	17.9
1	25	18.6	18.2
1	26	17.6	17.2
1	27	16.5	16.2

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
1	28	156.2	148.5
1	29	366.2	351.5
1	30	258.7	250.3
1	31	33.7	31.6
1	32	29.6	27.8
1	33	26.7	25.1
1	34	24.3	20.8
1	35	22.4	19.0
1	36	20.8	16.9
2	37	19.4	15.7
2	38	18.2	15.7
2	39	20.6	17.1
2	40	48.3	43.1
2	41	148.3	141.1
2	42	65.5	58.6
2	43	29.7	24.3
2	44	26.7	22.2
2	45	24.5	21.5
2	46	36.8	33.4
2	47	25.9	23.0
2	48	23.6	21.0
3	49	21.8	20.2
3	50	20.4	18.4
3	51	19.1	17.3
3	52	25.1	22.9
3	53	269.4	256.3
3	54	238.5	229.7
3	55	36.5	33.2
3	56	29.7	24.7
3	57	26.7	22.6
3	58	24.3	20.7
3	59	22.4	19.6
3	60	20.8	18.3
4	61	19.3	16.9
4	62	18.2	15.7
4	63	17.1	15.9
4	64	23.7	22.2
4	65	227.8	220.3

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
4	66	196.0	192.0
4	67	31.2	27.7
4	68	27.6	23.1
4	69	25.0	21.4
4	70	26.2	23.1
4	71	23.6	20.5
4	72	21.9	19.5
5	73	20.5	19.2
5	74	19.3	18.0
5	75	19.6	19.3
5	76	29.5	28.3
5	77	97.4	94.8
5	78	322.2	314.5
5	79	36.7	35.6
5	80	32.2	28.8
5	81	28.9	26.5
5	82	26.4	24.8
5	83	24.3	23.3
5	84	22.4	21.7
6	85	20.8	18.2
6	86	19.6	17.6
6	87	18.3	18.0
6	88	23.1	22.7
6	89	195.7	188.3
6	90	297.6	288.9
6	91	62.1	57.0
6	92	31.8	25.9
6	93	28.4	23.8
6	94	26.2	22.2
6	95	24.1	20.6
6	96	22.3	18.9
7	97	20.7	17.0
7	98	19.4	15.8
7	99	18.8	15.8
7	100	112.1	103.5
7	101	260.3	248.1
7	102	172.8	165.7
7	103	35.8	30.6

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
7	104	31.5	26.8
7	105	28.4	23.0
7	106	28.9	24.6
7	107	26.0	21.9
7	108	24.0	20.4
8	109	22.2	18.8
8	110	20.9	17.1
8	111	21.0	17.6
8	112	40.7	35.4
8	113	173.7	165.6
8	114	168.2	161.6
8	115	33.7	27.5
8	116	29.9	26.2
8	117	47.0	43.8
8	118	33.0	29.4
8	119	29.7	26.4
8	120	27.2	24.2
9	121	25.1	22.5
9	122	23.4	21.6
9	123	25.5	23.2
9	124	42.8	38.9
9	125	197.6	190.2
9	126	126.4	122.5
9	127	35.5	31.5
9	128	31.5	27.0
9	129	28.5	24.8
9	130	26.2	23.6
9	131	24.2	22.3
9	132	22.4	20.8
10	133	20.8	19.3
10	134	20.6	19.0
10	135	26.6	23.2
10	136	36.6	32.2
10	137	162.2	155.6
10	138	81.3	75.2
10	139	30.8	25.8
10	140	27.7	23.0
10	141	25.4	22.1

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
10	142	23.5	20.0
10	143	21.8	19.3
10	144	20.3	18.8
11	145	19.0	17.7
11	146	17.9	16.7
11	147	18.7	17.1
11	148	190.6	181.7
11	149	202.9	196.7
11	150	133.0	129.1
11	151	32.4	28.7
11	152	28.7	23.4
11	153	26.0	22.1
11	154	30.3	27.7
11	155	26.8	23.8
11	156	24.4	22.1
12	157	22.6	20.6
12	158	21.5	19.6
12	159	35.0	31.0
12	160	70.0	64.1
12	161	409.1	393.2
12	162	369.2	358.1
12	163	40.9	37.0
12	164	35.6	32.4
12	165	34.1	31.4
12	166	38.3	35.5
12	167	33.6	31.0
12	168	30.0	28.0

Abbreviations:

cfs= cubic feet per second

EFSFSR = East Fork South Fork Salmon River

SHSM = Stibnite Hydrologic Site Model

USGS = United States Geological Survey

Table B -14. Simulated Streamflow at Meadow Creek Above Lined Section

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
13	1	4.4	4.5
13	2	4.1	4.2
13	3	4.9	4.4

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
13	4	6.3	5.0
13	5	22.7	18.8
13	6	60.8	52.1
13	7	5.6	4.9
13	8	5.0	4.6
13	9	4.5	4.2
13	10	5.5	5.1
13	11	4.3	4.1
13	12	4.0	3.9
14	13	3.8	3.8
14	14	3.6	3.6
14	15	3.6	3.5
14	16	13.8	11.4
14	17	28.7	24.0
14	18	20.3	17.3
14	19	4.9	4.3
14	20	4.4	4.0
14	21	4.0	3.7
14	22	3.9	3.7
14	23	3.6	3.6
14	24	3.4	3.4
15	25	3.2	3.2
15	26	3.0	2.8
15	27	2.8	2.7
15	28	4.0	3.5
15	29	21.3	17.7
15	30	39.4	33.4
15	31	10.8	9.5
15	32	4.6	4.4
15	33	4.4	4.5
15	34	14.5	12.9
15	35	4.8	4.8
15	36	4.3	4.4
16	37	4.0	4.1
16	38	3.7	3.9
16	39	4.5	4.2
16	40	6.2	5.2
16	41	67.8	54.6

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
16	42	62.0	52.9
16	43	5.6	5.2
16	44	4.8	4.7
16	45	4.4	4.5
16	46	4.1	4.2
16	47	3.9	4.1
16	48	3.6	3.7
17	49	3.3	3.5
17	50	3.1	3.2
17	51	3.0	3.1
17	52	4.0	3.8
17	53	42.9	34.7
17	54	59.5	50.8
17	55	4.7	4.4
17	56	4.1	4.1
17	57	3.8	3.7
17	58	3.4	3.5
17	59	3.2	3.2
17	60	2.9	3.0
18	61	2.7	2.8
18	62	2.6	2.6
18	63	2.4	2.5
18	64	3.4	3.3
18	65	37.5	30.7
18	66	49.2	41.3
18	67	10.1	8.9
18	68	4.3	4.2
18	69	3.9	3.8
18	70	3.8	3.8
18	71	3.5	3.6
18	72	3.3	3.4
19	73	3.1	3.2
19	74	2.9	3.0
19	75	2.7	2.9
19	76	3.3	3.4
19	77	15.4	13.6
19	78	8.1	7.4
19	79	3.3	3.2

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
19	80	3.0	3.0
19	81	2.8	2.9
19	82	3.0	3.2
19	83	2.8	3.0
19	84	2.7	2.9
20	85	2.6	2.8
20	86	2.5	2.8
20	87	3.0	3.8
20	88	31.1	25.7
20	89	68.7	56.8
20	90	40.7	34.9
20	91	4.6	4.2
20	92	4.1	3.9
20	93	3.8	3.8
20	94	3.6	3.7
20	95	3.3	3.4
20	96	3.1	3.2
21	97	2.9	3.1
21	98	2.7	3.5
21	99	2.9	4.0
21	100	18.1	16.4
21	101	25.8	22.2
21	102	17.9	15.6
21	103	3.9	3.8
21	104	3.5	3.5
21	105	3.3	3.4
21	106	3.2	3.9
21	107	3.1	3.4
21	108	3.0	3.1
22	109	2.8	2.9
22	110	2.7	2.8
22	111	2.5	4.2
22	112	4.2	5.4
22	113	62.4	50.9
22	114	81.2	67.7
22	115	11.9	10.3
22	116	4.2	4.2
22	117	14.2	13.2

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
22	118	5.2	5.8
22	119	5.3	5.1
22	120	4.5	4.5
23	121	4.0	4.1
23	122	3.8	4.7
23	123	4.3	6.0
23	124	6.1	6.5
23	125	87.9	72.4
23	126	31.1	27.0
23	127	7.6	6.9
23	128	4.3	4.3
23	129	3.9	3.9
23	130	3.7	3.7
23	131	3.4	3.4
23	132	3.1	3.2
24	133	2.9	3.0
24	134	2.7	2.8
24	135	2.6	2.9
24	136	3.2	3.7
24	137	19.0	20.5
24	138	29.6	29.4
24	139	3.9	3.7
24	140	3.5	3.4
24	141	3.2	3.2
24	142	3.0	3.0
24	143	2.8	2.8
24	144	2.6	2.6
25	145	2.5	2.5
25	146	2.3	2.4
25	147	2.2	3.9
25	148	21.3	22.9
25	149	30.0	31.6
25	150	22.1	21.4
25	151	4.0	3.7
25	152	3.6	3.5
25	153	3.3	3.2
25	154	3.3	3.4
25	155	3.1	3.2

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
25	156	2.9	3.0
26	157	2.8	2.9
26	158	2.6	2.8
26	159	2.5	2.9
26	160	4.2	5.2
26	161	26.1	28.2
26	162	20.4	20.0
26	163	3.8	3.7
26	164	3.5	3.5
26	165	3.3	3.4
26	166	4.8	5.3
26	167	3.4	3.5
26	168	3.2	3.3
27	169	3.0	3.1
27	170	2.9	3.0
27	171	2.7	3.8
27	172	5.9	9.3
27	173	58.6	61.8
27	174	54.4	55.6
27	175	14.8	14.3
27	176	4.7	4.5
27	177	4.2	4.2
27	178	3.8	3.8
27	179	3.5	3.5
27	180	3.2	3.3
28	181	3.0	3.0
28	182	2.8	2.8
28	183	2.6	2.9
28	184	3.1	5.0
28	185	32.3	35.3
28	186	73.7	75.0
28	187	4.3	4.2
28	188	3.8	3.6
28	189	3.4	3.4
28	190	7.1	7.3
28	191	3.4	3.5
28	192	3.1	3.3
29	193	3.1	3.3

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
29	194	3.4	3.5
29	195	4.3	4.5
29	196	21.5	22.1
29	197	19.3	19.3
29	198	12.5	12.3
29	199	4.2	4.2
29	200	3.8	3.9
29	201	3.5	3.7
29	202	3.6	3.8
29	203	3.4	3.7
29	204	3.2	3.4
30	205	3.0	3.2
30	206	2.9	3.0
30	207	2.7	3.4
30	208	6.8	7.8
30	209	25.8	28.4
30	210	33.7	33.6
30	211	4.7	4.5
30	212	4.2	4.1
30	213	3.8	3.8
30	214	3.5	3.6
30	215	3.3	3.3
30	216	3.0	3.1
31	217	2.8	2.9
31	218	2.6	2.7
31	219	2.5	3.8
31	220	10.9	14.8
31	221	67.7	70.8
31	222	45.4	46.1
31	223	4.4	4.1
31	224	3.9	3.7
31	225	3.5	3.4
31	226	3.2	3.2
31	227	3.0	2.9
31	228	2.7	2.7
32	229	2.6	2.6
32	230	2.4	2.4
32	231	2.2	2.5

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
32	232	3.2	4.8
32	233	35.4	37.8
32	234	37.6	38.0
32	235	4.4	4.0
32	236	3.6	3.3
32	237	3.3	3.1
32	238	3.0	2.9
32	239	2.7	2.7
32	240	2.5	2.5
33	241	2.4	2.3
33	242	2.2	2.2
33	243	2.1	3.3
33	244	3.7	7.3
33	245	60.5	65.9
33	246	98.7	100.3
33	247	15.7	15.2
33	248	4.0	3.7
33	249	3.6	3.4
33	250	3.3	3.2
33	251	3.0	3.0
33	252	2.8	2.8
34	253	2.6	2.6
34	254	2.4	2.5
34	255	2.3	2.9
34	256	8.0	9.6
34	257	29.3	31.5
34	258	18.2	17.8
34	259	3.8	3.6
34	260	3.5	3.4
34	261	3.2	3.2
34	262	3.2	3.3
34	263	3.0	3.2
34	264	2.8	3.0
35	265	2.7	2.8
35	266	2.6	3.0
35	267	3.7	5.6
35	268	27.9	31.1
35	269	59.2	61.7

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
35	270	37.3	36.8
35	271	4.7	4.5
35	272	4.2	5.3
35	273	13.8	13.9
35	274	9.6	9.4
35	275	4.9	5.0
35	276	4.4	4.6
36	277	4.1	4.3
36	278	3.9	4.2
36	279	4.5	5.0
36	280	10.3	12.2
36	281	51.9	54.9
36	282	39.5	39.9
36	283	5.7	5.4
36	284	5.0	4.9
36	285	4.5	4.6
36	286	4.5	4.8
36	287	4.2	4.4
36	288	3.9	4.1
37	289	3.6	3.8
37	290	3.4	3.6
37	291	3.2	4.9
37	292	22.0	25.1
37	293	47.5	50.0
37	294	38.5	38.5
37	295	10.1	9.6
37	296	5.0	4.8
37	297	4.5	4.5
37	298	4.0	4.1
37	299	3.7	3.8
37	300	3.4	3.5
38	301	3.2	3.2
38	302	3.0	3.0
38	303	2.8	6.8
38	304	46.0	48.9
38	305	44.2	47.6
38	306	60.9	61.9
38	307	25.4	24.6

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
38	308	4.8	4.5
38	309	4.3	4.2
38	310	4.1	4.1
38	311	3.8	3.8
38	312	3.5	3.6
39	313	3.2	3.3
39	314	3.0	3.1
39	315	2.9	3.1
39	316	3.8	4.0
39	317	15.1	16.9
39	318	27.9	27.8
39	319	4.1	4.1
39	320	3.8	3.8
39	321	3.5	3.5
39	322	3.3	3.3
39	323	3.0	3.1
39	324	2.8	2.9
40	325	2.7	2.7
40	326	2.5	2.5
40	327	2.4	2.6
40	328	2.7	6.5
40	329	65.2	68.1
40	330	51.0	51.8
40	331	11.5	11.1
40	332	3.9	3.6
40	333	3.5	3.3
40	334	3.2	3.2
40	335	3.0	2.9
40	336	2.8	2.7
41	337	2.6	2.6
41	338	2.4	2.5
41	339	2.3	4.3
41	340	22.1	25.2
41	341	53.4	56.2
41	342	38.5	38.8
41	343	11.0	10.5
41	344	4.0	3.8
41	345	3.9	4.1

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
41	346	10.4	10.3
41	347	4.3	4.4
41	348	4.0	4.1
42	349	3.7	3.9
42	350	3.6	4.0
42	351	4.9	5.9
42	352	14.6	17.4
42	353	64.8	68.2
42	354	35.6	34.8
42	355	5.6	5.2
42	356	4.9	4.8
42	357	4.4	4.9
42	358	17.6	17.6
42	359	4.3	4.6
42	360	4.0	4.2
43	361	3.7	3.9
43	362	3.5	3.6
43	363	3.2	4.3
43	364	9.9	13.0
43	365	63.1	66.8
43	366	67.7	68.7
43	367	5.4	5.2
43	368	4.7	4.5
43	369	4.2	4.2
43	370	3.8	3.9
43	371	3.5	3.6
43	372	3.3	3.3
44	373	3.0	3.0
44	374	2.8	2.9
44	375	2.6	4.6
44	376	24.3	27.2
44	377	55.7	57.3
44	378	19.9	19.5
44	379	4.2	3.9
44	380	3.8	3.6
44	381	3.4	3.3
44	382	3.3	3.3
44	383	3.2	3.3

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
44	384	3.0	3.1
45	385	2.8	2.9
45	386	2.7	2.9
45	387	2.5	3.8
45	388	10.3	12.1
45	389	28.7	32.6
45	390	62.5	63.4
45	391	8.3	7.8
45	392	4.6	4.4
45	393	4.1	4.8
45	394	20.9	20.8
45	395	4.4	4.5
45	396	4.1	4.1
46	397	3.7	3.7
46	398	3.4	3.4
46	399	3.1	5.2
46	400	30.0	32.1
46	401	48.5	50.6
46	402	28.5	27.7
46	403	4.7	4.4
46	404	4.2	4.1
46	405	3.8	4.4
46	406	10.1	10.1
46	407	4.2	4.3
46	408	3.9	4.0
47	409	3.6	3.7
47	410	3.4	3.5
47	411	3.2	5.2
47	412	27.8	30.4
47	413	55.6	59.0
47	414	53.2	53.5
47	415	5.1	4.8
47	416	4.4	4.3
47	417	4.0	3.9
47	418	3.6	3.6
47	419	3.3	3.4
47	420	3.1	3.1
48	421	2.9	2.9

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
48	422	2.7	2.8
48	423	2.5	3.5
48	424	4.6	6.5
48	425	43.3	46.6
48	426	65.0	66.4
48	427	18.7	18.0
48	428	4.7	4.3
48	429	4.1	4.0
48	430	3.7	3.7
48	431	3.4	3.4
48	432	3.1	3.1
49	433	2.9	2.9
49	434	2.7	2.7
49	435	2.5	4.1
49	436	11.1	14.0
49	437	52.9	57.0
49	438	54.8	55.0
49	439	13.3	12.6
49	440	4.6	4.3
49	441	4.1	3.9
49	442	3.7	3.6
49	443	3.4	3.4
49	444	3.1	3.1
50	445	2.9	2.9
50	446	2.7	2.7
50	447	2.5	2.6
50	448	3.2	4.9
50	449	30.8	32.8
50	450	36.5	37.8
50	451	10.0	9.7
50	452	4.0	3.8
50	453	3.6	3.6
50	454	3.6	3.7
50	455	3.4	3.4
50	456	3.2	3.3
51	457	3.0	3.1
51	458	2.8	2.9
51	459	2.6	5.3

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
51	460	25.8	31.5
51	461	90.7	93.9
51	462	55.8	56.8
51	463	5.7	5.4
51	464	4.3	4.1
51	465	3.9	4.2
51	466	7.7	7.8
51	467	4.1	4.2
51	468	3.8	3.9
52	469	3.5	3.6
52	470	3.3	3.5
52	471	3.4	4.2
52	472	10.2	13.4
52	473	70.2	72.9
52	474	34.5	34.4
52	475	4.8	4.6
52	476	4.3	4.2
52	477	3.9	3.9
52	478	3.6	3.6
52	479	3.3	3.4
52	480	3.1	3.1
53	481	2.8	2.9
53	482	2.7	2.7
53	483	2.5	3.0
53	484	5.5	8.4
53	485	60.9	64.1
53	486	34.9	35.1
53	487	4.2	3.8
53	488	3.7	3.5
53	489	3.4	3.3
53	490	3.1	3.1
53	491	2.9	2.9
53	492	2.7	2.7
54	493	2.5	2.5
54	494	2.3	2.3
54	495	2.2	3.9
54	496	15.4	18.7
54	497	43.7	47.4

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
54	498	70.7	71.9
54	499	4.8	4.4
54	500	4.2	4.9
54	501	11.6	11.7
54	502	14.0	13.8
54	503	5.1	5.1
54	504	4.6	4.6
55	505	4.2	4.3
55	506	3.9	4.1
55	507	4.0	5.0
55	508	13.9	16.2
55	509	44.1	46.1
55	510	33.5	33.4
55	511	5.4	5.2
55	512	4.7	4.7
55	513	4.3	4.4
55	514	3.9	4.0
55	515	3.6	3.7
55	516	3.3	3.5
56	517	3.1	3.2
56	518	2.9	3.1
56	519	2.7	3.8
56	520	7.1	9.7
56	521	61.8	64.9
56	522	56.3	57.5
56	523	4.7	4.5
56	524	4.2	4.0
56	525	4.1	4.3
56	526	11.1	11.0
56	527	4.3	4.4
56	528	4.0	4.2
57	529	3.7	3.9
57	530	3.5	3.7
57	531	3.3	5.2
57	532	25.2	27.4
57	533	45.2	47.3
57	534	36.8	36.8
57	535	5.3	5.0

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
57	536	4.7	4.6
57	537	4.2	5.9
57	538	28.5	27.9
57	539	5.1	5.0
57	540	4.4	4.4
58	541	4.0	4.1
58	542	4.5	4.3
58	543	3.8	4.6
58	544	6.0	7.6
58	545	55.6	59.6
58	546	57.3	57.4
58	547	5.5	5.1
58	548	4.8	4.6
58	549	4.3	4.3
58	550	3.9	3.9
58	551	3.6	3.6
58	552	3.3	3.3
59	553	3.1	3.1
59	554	2.9	2.9
59	555	2.7	3.0
59	556	3.4	5.5
59	557	38.1	41.7
59	558	71.9	72.8
59	559	16.5	16.1
59	560	4.3	4.0
59	561	3.8	3.7
59	562	3.5	3.4
59	563	3.2	3.2
59	564	2.9	2.9
60	565	2.7	2.7
60	566	2.6	2.5
60	567	2.4	5.5
60	568	28.4	31.8
60	569	50.8	55.7
60	570	90.1	91.5
60	571	29.0	28.4
60	572	4.7	4.4
60	573	4.3	4.3

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
60	574	3.9	3.9
60	575	3.6	3.7
60	576	3.3	3.4
61	577	3.1	3.1
61	578	2.9	3.0
61	579	2.7	3.0
61	580	3.4	5.0
61	581	36.4	38.9
61	582	25.8	25.4
61	583	3.8	3.7
61	584	3.5	3.4
61	585	3.2	3.2
61	586	3.0	3.0
61	587	2.8	2.8
61	588	2.6	2.6
62	589	2.4	2.4
62	590	2.3	2.3
62	591	2.1	2.4
62	592	2.9	6.4
62	593	50.2	54.0
62	594	74.4	75.2
62	595	11.9	11.6
62	596	4.0	3.7
62	597	3.6	3.9
62	598	7.3	7.5
62	599	4.0	4.0
62	600	3.6	3.7
63	601	3.4	3.5
63	602	3.3	3.6
63	603	3.9	4.0
63	604	4.6	5.8
63	605	37.4	39.3
63	606	47.0	47.8
63	607	4.8	4.6
63	608	4.2	4.2
63	609	10.3	10.4
63	610	6.9	7.1
63	611	4.1	4.3

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
63	612	3.8	3.9
64	613	3.5	3.7
64	614	3.3	3.5
64	615	3.1	5.5
64	616	29.3	32.4
64	617	69.0	71.8
64	618	42.5	42.8
64	619	4.9	4.6
64	620	4.3	4.2
64	621	3.9	3.9
64	622	3.9	4.0
64	623	3.6	3.7
64	624	3.4	3.5
65	625	3.2	3.3
65	626	3.0	3.2
65	627	2.8	3.1
65	628	3.3	7.8
65	629	63.7	68.3
65	630	95.0	96.1
65	631	5.1	5.0
65	632	4.1	5.0
65	633	13.5	13.5
65	634	5.8	5.7
65	635	5.1	5.1
65	636	4.6	4.7
66	637	4.3	4.4
66	638	4.0	4.2
66	639	3.7	5.4
66	640	8.5	13.1
66	641	90.6	95.4
66	642	83.6	84.2
66	643	20.4	19.8
66	644	5.3	5.1
66	645	4.7	4.7
66	646	4.2	4.3
66	647	3.9	4.0
66	648	3.6	3.7
67	649	3.3	3.4

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
67	650	3.1	3.2
67	651	2.9	4.1
67	652	5.4	8.4
67	653	69.4	73.1
67	654	68.0	69.1
67	655	5.1	4.8
67	656	4.4	4.2
67	657	4.0	3.9
67	658	3.6	3.6
67	659	3.3	3.3
67	660	3.1	3.0
68	661	2.8	2.8
68	662	2.7	2.7
68	663	2.5	2.7
68	664	3.1	4.1
68	665	28.2	30.0
68	666	25.8	25.4
68	667	3.7	3.5
68	668	3.4	3.3
68	669	3.2	3.2
68	670	3.1	3.2
68	671	3.0	3.0
68	672	2.8	2.8
69	673	2.6	2.7
69	674	2.5	2.7
69	675	2.4	6.3
69	676	37.1	40.8
69	677	68.3	73.9
69	678	127.6	130.2
69	679	4.9	4.7
69	680	4.3	4.1
69	681	3.9	3.8
69	682	3.5	3.5
69	683	3.2	3.2
69	684	3.0	3.0
70	685	2.8	2.8
70	686	2.6	2.6
70	687	2.4	2.5

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
70	688	2.3	4.7
70	689	32.4	35.5
70	690	59.4	60.8
70	691	12.8	12.3
70	692	3.7	3.4
70	693	3.3	3.9
70	694	10.3	10.3
70	695	3.8	3.7
70	696	3.4	3.4
71	697	3.2	3.2
71	698	3.0	3.0
71	699	2.8	3.6
71	700	7.6	10.0
71	701	52.3	55.1
71	702	36.6	37.0
71	703	13.2	12.7
71	704	4.5	4.4
71	705	4.0	4.0
71	706	3.7	3.7
71	707	3.4	3.4
71	708	3.1	3.2
72	709	2.9	2.9
72	710	2.7	2.7
72	711	2.5	2.6
72	712	2.4	2.5
72	713	8.5	9.1
72	714	8.4	8.6
72	715	2.8	2.8
72	716	2.7	3.3
72	717	6.2	6.8
72	718	3.5	3.6
72	719	3.3	3.4
72	720	3.1	3.2
73	721	3.0	3.1
73	722	2.8	3.3
73	723	4.2	5.3
73	724	14.0	16.8
73	725	39.1	41.8

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
73	726	48.6	49.8
73	727	19.9	19.2
73	728	5.2	5.0
73	729	4.6	4.6
73	730	4.1	4.3
73	731	3.8	3.9
73	732	3.5	3.6
74	733	3.2	3.4
74	734	3.0	3.1
74	735	2.8	3.1
74	736	3.2	4.0
74	737	24.0	24.9
74	738	21.4	21.0
74	739	3.5	3.4
74	740	3.2	3.1
74	741	3.0	2.9
74	742	3.0	3.1
74	743	2.8	2.9
74	744	2.7	2.7
75	745	2.5	2.7
75	746	2.4	2.5
75	747	2.3	3.7
75	748	18.8	22.0
75	749	51.6	54.2
75	750	35.2	35.6
75	751	7.3	6.9
75	752	4.1	3.9
75	753	3.9	3.8
75	754	3.6	3.6
75	755	3.3	3.4
75	756	3.1	3.2
76	757	2.9	3.0
76	758	2.7	2.9
76	759	3.0	3.9
76	760	14.9	17.2
76	761	45.4	48.9
76	762	49.9	50.8
76	763	9.9	9.5

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
76	764	4.5	4.3
76	765	4.0	3.9
76	766	3.8	3.8
76	767	3.5	3.6
76	768	3.2	3.3
77	769	3.0	3.1
77	770	2.8	3.0
77	771	2.9	3.7
77	772	8.2	11.9
77	773	67.5	73.0
77	774	105.7	107.6
77	775	22.1	21.9
77	776	4.7	4.4
77	777	4.4	5.4
77	778	26.2	26.1
77	779	4.9	5.0
77	780	4.4	4.5
78	781	4.0	4.1
78	782	3.7	4.1
78	783	4.6	5.4
78	784	5.9	8.1
78	785	55.7	58.9
78	786	67.3	69.2
78	787	29.4	29.4
78	788	6.2	6.0
78	789	4.4	4.4
78	790	4.2	4.3
78	791	3.8	3.9
78	792	3.5	3.6
79	793	3.2	3.3
79	794	3.0	3.2
79	795	2.8	3.6
79	796	4.4	7.6
79	797	57.1	61.3
79	798	72.6	74.3
79	799	26.7	26.3
79	800	4.8	4.5
79	801	4.3	4.2

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
79	802	4.5	4.6
79	803	4.1	4.3
79	804	3.8	4.0
80	805	3.6	3.8
80	806	3.4	3.5
80	807	3.2	3.9
80	808	10.5	11.9
80	809	31.5	32.8
80	810	16.8	16.5
80	811	4.4	4.3
80	812	4.0	5.4
80	813	21.8	21.5
80	814	6.0	5.8
80	815	5.1	5.1
80	816	4.7	4.8
81	817	4.3	4.5
81	818	4.0	5.2
81	819	11.9	13.1
81	820	13.6	16.0
81	821	46.8	49.3
81	822	46.3	46.7
81	823	6.3	6.1
81	824	5.6	6.1
81	825	9.0	9.2
81	826	5.5	5.7
81	827	5.0	5.3
81	828	4.7	4.9
82	829	4.3	4.6
82	830	4.0	4.3
82	831	3.8	4.3
82	832	13.7	14.2
82	833	24.0	24.4
82	834	9.2	9.0
82	835	4.3	4.3
82	836	3.9	4.0
82	837	3.7	3.7
82	838	3.4	3.5
82	839	3.2	3.2

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
82	840	3.0	3.0
83	841	2.8	2.8
83	842	2.7	2.6
83	843	2.5	3.2
83	844	8.5	9.9
83	845	31.1	32.8
83	846	28.5	28.1
83	847	4.1	3.8
83	848	3.7	3.6
83	849	3.4	3.3
83	850	3.1	3.1
83	851	2.9	2.9
83	852	2.7	2.7
84	853	2.6	2.5
84	854	2.4	2.4
84	855	2.3	3.6
84	856	11.1	13.2
84	857	35.6	37.9
84	858	39.7	40.1
84	859	4.5	4.2
84	860	4.0	3.7
84	861	3.6	3.5
84	862	3.5	3.5
84	863	3.3	3.3
84	864	3.1	3.1
85	865	2.9	2.9
85	866	2.7	2.8
85	867	2.5	3.7
85	868	20.5	22.7
85	869	26.0	26.7
85	870	11.7	11.4
85	871	4.0	3.8
85	872	3.6	3.5
85	873	3.3	3.3
85	874	3.1	3.1
85	875	2.9	2.9
85	876	2.7	2.8
86	877	2.5	2.6

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
86	878	2.4	2.4
86	879	2.3	2.5
86	880	3.1	3.5
86	881	17.1	18.3
86	882	18.9	18.7
86	883	3.8	3.7
86	884	3.5	3.5
86	885	3.2	3.3
86	886	3.0	3.1
86	887	2.8	2.9
86	888	2.7	2.7
87	889	2.5	2.6
87	890	2.4	2.5
87	891	2.4	2.9
87	892	14.1	14.3
87	893	13.7	14.0
87	894	13.4	13.4
87	895	3.4	3.4
87	896	3.1	3.1
87	897	2.9	3.0
87	898	2.7	2.8
87	899	2.6	2.6
87	900	2.4	2.5
88	901	2.3	2.3
88	902	2.1	2.2
88	903	2.2	3.3
88	904	12.1	14.7
88	905	52.1	55.9
88	906	44.7	45.6
88	907	6.9	6.5
88	908	4.2	3.9
88	909	3.7	3.6
88	910	3.4	3.3
88	911	3.1	3.1
88	912	2.8	2.9
89	913	2.6	2.7
89	914	2.5	2.5
89	915	2.3	2.4

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
89	916	2.4	2.6
89	917	15.8	16.1
89	918	4.0	4.2
89	919	2.7	2.7
89	920	2.6	2.5
89	921	2.4	2.4
89	922	2.3	2.3
89	923	2.1	2.2
89	924	2.0	2.1
90	925	1.9	2.0
90	926	1.9	2.2
90	927	2.0	3.3
90	928	12.7	16.0
90	929	55.3	59.5
90	930	60.3	61.6
90	931	16.2	15.6
90	932	4.1	3.8
90	933	3.7	3.5
90	934	3.4	3.4
90	935	3.2	3.2
90	936	2.9	3.0
91	937	2.7	2.8
91	938	2.5	2.8
91	939	3.2	5.6
91	940	40.8	43.6
91	941	57.8	60.4
91	942	48.6	49.4
91	943	5.6	5.4
91	944	4.1	4.0
91	945	3.7	3.6
91	946	3.5	3.5
91	947	3.2	3.2
91	948	2.9	3.0
92	949	2.7	2.8
92	950	2.5	2.8
92	951	2.8	4.5
92	952	17.6	20.9
92	953	74.6	78.5

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
92	954	53.1	54.9
92	955	11.9	11.6
92	956	4.2	3.9
92	957	3.7	3.6
92	958	3.6	3.6
92	959	3.3	3.4
92	960	3.1	3.2
93	961	2.9	3.0
93	962	2.7	2.8
93	963	2.5	3.0
93	964	3.8	5.9
93	965	46.1	49.4
93	966	37.8	38.6
93	967	11.8	11.4
93	968	4.3	4.1
93	969	4.1	4.1
93	970	3.7	3.8
93	971	3.5	3.6
93	972	3.2	3.3
94	973	3.0	3.1
94	974	2.8	3.0
94	975	2.6	3.1
94	976	3.5	6.6
94	977	50.4	54.2
94	978	78.8	80.0
94	979	19.7	19.3
94	980	4.3	4.0
94	981	3.8	3.7
94	982	3.5	3.4
94	983	3.2	3.2
94	984	2.9	2.9
95	985	2.7	2.7
95	986	2.5	2.6
95	987	2.4	3.7
95	988	17.0	19.4
95	989	35.3	37.1
95	990	26.4	25.9
95	991	4.0	3.8

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
95	992	3.6	3.5
95	993	3.3	3.4
95	994	8.2	8.6
95	995	3.4	3.5
95	996	3.2	3.3
96	997	3.0	3.1
96	998	2.8	3.0
96	999	2.9	3.1
96	1000	3.8	3.8
96	1001	17.6	18.0
96	1002	10.2	10.2
96	1003	3.5	3.5
96	1004	3.2	3.3
96	1005	3.0	3.1
96	1006	3.0	3.2
96	1007	2.9	3.1
96	1008	2.8	2.9
97	1009	2.6	2.7
97	1010	2.5	2.6
97	1011	2.4	3.5
97	1012	12.3	14.0
97	1013	26.1	28.5
97	1014	37.2	37.5
97	1015	4.5	4.3
97	1016	4.0	3.9
97	1017	3.7	3.6
97	1018	3.4	3.4
97	1019	3.1	3.1
97	1020	2.9	2.9
98	1021	2.7	2.7
98	1022	2.5	2.7
98	1023	2.4	3.8
98	1024	8.4	10.4
98	1025	53.9	57.0
98	1026	48.4	49.5
98	1027	4.5	4.3
98	1028	4.0	3.8
98	1029	3.6	3.6

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
98	1030	3.3	3.3
98	1031	3.0	3.1
98	1032	2.8	2.8
99	1033	2.6	2.6
99	1034	2.5	2.5
99	1035	2.7	3.3
99	1036	15.1	17.4
99	1037	43.5	44.9
99	1038	22.7	22.3
99	1039	4.3	4.1
99	1040	3.9	3.8
99	1041	3.7	3.7
99	1042	3.7	3.9
99	1043	3.4	3.6
99	1044	3.2	3.4
100	1045	3.0	3.2
100	1046	2.9	3.1
100	1047	2.7	3.1
100	1048	4.6	5.6
100	1049	29.7	31.6
100	1050	20.1	19.9
100	1051	4.2	4.1
100	1052	3.8	3.9
100	1053	3.5	3.6
100	1054	3.3	3.4
100	1055	3.1	3.2
100	1056	2.9	2.9
101	1057	2.7	2.8
101	1058	2.5	2.6
101	1059	2.4	5.8
101	1060	39.8	44.1
101	1061	73.4	76.6
101	1062	54.2	55.1
101	1063	4.5	4.2
101	1064	3.9	3.7
101	1065	3.6	3.4
101	1066	3.2	3.2
101	1067	3.0	3.0

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
101	1068	2.8	2.7
102	1069	2.6	2.6
102	1070	2.4	2.6
102	1071	2.9	3.5
102	1072	12.6	13.7
102	1073	30.8	32.0
102	1074	16.6	16.3
102	1075	4.1	4.0
102	1076	3.7	3.7
102	1077	3.5	3.6
102	1078	10.0	10.4
102	1079	3.9	4.0
102	1080	3.5	3.6
103	1081	3.3	3.4
103	1082	3.1	3.2
103	1083	2.9	3.2
103	1084	3.9	6.9
103	1085	58.1	60.1
103	1086	50.5	51.9
103	1087	7.1	6.9
103	1088	4.2	4.0
103	1089	3.7	3.7
103	1090	3.4	3.4
103	1091	3.1	3.1
103	1092	2.9	2.9
104	1093	2.7	2.7
104	1094	2.5	2.5
104	1095	2.3	2.8
104	1096	3.4	5.6
104	1097	48.4	51.3
104	1098	41.7	42.6
104	1099	4.3	4.1
104	1100	3.9	3.7
104	1101	3.5	3.4
104	1102	3.6	3.8
104	1103	3.4	3.6
104	1104	3.2	3.4
105	1105	3.1	3.2

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
105	1106	2.9	3.1
105	1107	3.1	3.4
105	1108	4.5	5.2
105	1109	23.1	27.0
105	1110	68.0	69.1
105	1111	5.5	5.3
105	1112	4.8	4.6
105	1113	4.3	4.3
105	1114	4.0	4.1
105	1115	3.7	3.8
105	1116	3.5	3.6
106	1117	3.2	3.3
106	1118	3.0	3.1
106	1119	2.8	3.2
106	1120	3.5	6.4
106	1121	43.8	47.0
106	1122	62.3	63.3
106	1123	14.5	14.2
106	1124	4.6	4.4
106	1125	4.1	4.1
106	1126	3.9	4.0
106	1127	3.6	3.7
106	1128	3.4	3.5
107	1129	3.1	3.2
107	1130	2.9	3.2
107	1131	2.9	5.0
107	1132	30.1	32.5
107	1133	50.8	53.2
107	1134	36.5	36.8
107	1135	4.8	4.6
107	1136	4.3	4.1
107	1137	3.9	3.9
107	1138	4.0	4.2
107	1139	3.7	3.9
107	1140	3.5	3.6
108	1141	3.3	3.4
108	1142	3.1	3.3
108	1143	3.3	3.8

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
108	1144	9.5	10.6
108	1145	36.9	39.6
108	1146	37.2	37.4
108	1147	4.8	4.6
108	1148	4.2	5.1
108	1149	12.0	12.1
108	1150	4.6	4.7
108	1151	4.2	4.4
108	1152	3.9	4.1
109	1153	3.7	3.9
109	1154	3.5	3.8
109	1155	4.0	4.4
109	1156	9.2	10.2
109	1157	41.4	43.7
109	1158	27.7	27.1
109	1159	5.0	4.8
109	1160	4.5	4.4
109	1161	4.1	4.1
109	1162	3.9	4.0
109	1163	3.6	3.7
109	1164	3.3	3.5
110	1165	3.1	3.4
110	1166	3.2	3.5
110	1167	4.4	4.4
110	1168	6.6	7.3
110	1169	34.4	35.6
110	1170	19.2	18.8
110	1171	4.8	4.7
110	1172	4.4	4.4
110	1173	4.0	4.1
110	1174	3.8	4.0
110	1175	3.6	3.7
110	1176	3.3	3.4
111	1177	3.1	3.2
111	1178	2.9	3.3
111	1179	3.2	5.8
111	1180	48.8	50.7
111	1181	41.6	43.6

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
111	1182	31.1	30.6
111	1183	4.5	4.2
111	1184	4.0	3.9
111	1185	3.6	3.8
111	1186	4.9	5.2
111	1187	4.0	4.0
111	1188	3.7	3.8
112	1189	3.5	3.6
112	1190	3.3	4.3
112	1191	6.0	7.2
112	1192	16.2	20.4
112	1193	82.2	86.0
112	1194	72.5	73.6
112	1195	6.2	5.9
112	1196	5.3	5.3
112	1197	5.3	5.5
112	1198	5.7	6.0
112	1199	5.4	5.5
112	1200	4.8	5.1

Abbreviations:

cfs= cubic feet per second

SHSM = Stibnite Hydrologic Site Model

Table B-15. Simulated Streamflow at Meadow Creek Below Lined Section

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
13	1	6.9	6.3
13	2	6.5	6.1
13	3	7.6	6.4
13	4	9.4	7.3
13	5	31.1	28.6
13	6	84.6	81.9
13	7	8.7	7.5
13	8	7.8	6.9
13	9	7.1	6.4
13	10	8.0	7.4
13	11	6.7	6.1
13	12	6.3	5.7

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
14	13	6.0	5.6
14	14	5.7	5.4
14	15	5.7	5.3
14	16	17.9	16.0
14	17	40.0	37.2
14	18	28.5	26.8
14	19	7.9	6.8
14	20	7.1	6.2
14	21	6.5	5.7
14	22	6.2	5.5
14	23	5.8	5.4
14	24	5.5	5.1
15	25	5.2	4.8
15	26	4.9	4.3
15	27	4.7	4.2
15	28	6.2	5.2
15	29	27.3	24.9
15	30	55.0	52.5
15	31	15.3	14.3
15	32	7.5	7.0
15	33	7.0	6.8
15	34	19.4	18.5
15	35	7.8	7.4
15	36	7.0	6.8
16	37	6.4	6.3
16	38	6.0	6.0
16	39	7.1	6.4
16	40	9.5	7.8
16	41	96.3	89.3
16	42	86.6	83.5
16	43	8.8	8.1
16	44	7.7	7.3
16	45	7.1	6.8
16	46	6.6	6.4
16	47	6.2	6.1
16	48	5.8	5.7
17	49	5.4	5.3
17	50	5.1	5.0

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
17	51	4.9	4.8
17	52	6.3	5.6
17	53	58.7	54.0
17	54	82.7	79.9
17	55	7.6	7.0
17	56	6.8	6.4
17	57	6.2	5.8
17	58	5.7	5.4
17	59	5.3	5.0
17	60	4.9	4.7
18	61	4.6	4.4
18	62	4.4	4.1
18	63	4.1	3.9
18	64	5.5	4.9
18	65	49.8	47.0
18	66	69.0	66.5
18	67	14.1	13.5
18	68	7.2	6.7
18	69	6.5	6.1
18	70	6.2	5.9
18	71	5.7	5.5
18	72	5.4	5.2
19	73	5.0	4.9
19	74	4.8	4.6
19	75	4.5	4.5
19	76	5.4	5.0
19	77	19.0	19.2
19	78	10.9	10.8
19	79	5.5	5.1
19	80	5.1	4.8
19	81	4.8	4.5
19	82	4.9	4.8
19	83	4.7	4.6
19	84	4.5	4.4
20	85	4.3	4.2
20	86	4.2	4.2
20	87	4.9	5.3
20	88	41.2	38.6

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
20	89	97.5	93.4
20	90	56.6	55.2
20	91	7.6	6.9
20	92	6.7	6.2
20	93	6.2	5.9
20	94	5.8	5.6
20	95	5.4	5.3
20	96	5.1	4.9
21	97	4.8	4.7
21	98	4.6	5.1
21	99	4.9	5.6
21	100	22.6	22.9
21	101	35.5	34.2
21	102	25.0	24.2
21	103	6.7	6.2
21	104	6.0	5.7
21	105	5.6	5.4
21	106	5.4	5.8
21	107	5.2	5.2
21	108	4.9	4.8
22	109	4.7	4.5
22	110	4.5	4.3
22	111	4.3	5.7
22	112	6.8	7.3
22	113	86.7	82.4
22	114	113.8	109.8
22	115	16.7	15.8
22	116	7.0	6.8
22	117	19.3	19.2
22	118	8.3	8.5
22	119	8.4	7.7
22	120	7.2	6.9
23	121	6.5	6.4
23	122	6.1	6.7
23	123	6.9	8.2
23	124	9.4	9.3
23	125	124.4	119.5
23	126	43.3	42.4

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
23	127	11.1	10.6
23	128	7.2	6.8
23	129	6.5	6.5
23	130	6.0	6.1
23	131	5.6	5.7
23	132	5.2	5.3
24	133	4.9	5.0
24	134	4.6	4.7
24	135	4.4	4.7
24	136	5.3	5.7
24	137	23.6	25.5
24	138	40.7	40.4
24	139	6.6	6.4
24	140	6.0	5.9
24	141	5.5	5.4
24	142	5.1	5.1
24	143	4.8	4.8
24	144	4.5	4.5
25	145	4.2	4.3
25	146	4.0	4.2
25	147	3.8	5.6
25	148	26.9	28.7
25	149	41.8	43.1
25	150	30.9	30.3
25	151	6.9	6.5
25	152	6.2	6.0
25	153	5.6	5.6
25	154	5.5	5.6
25	155	5.2	5.2
25	156	4.9	5.0
26	157	4.7	4.7
26	158	4.4	4.5
26	159	4.2	4.6
26	160	6.5	7.3
26	161	33.0	35.3
26	162	27.9	27.6
26	163	6.5	6.4
26	164	5.9	5.9

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
26	165	5.6	5.6
26	166	7.2	7.7
26	167	5.5	5.5
26	168	5.2	5.3
27	169	4.9	5.0
27	170	4.7	4.8
27	171	4.5	5.5
27	172	8.8	11.7
27	173	81.6	85.5
27	174	75.9	77.6
27	175	20.8	20.3
27	176	7.7	7.4
27	177	6.9	6.8
27	178	6.3	6.2
27	179	5.8	5.7
27	180	5.3	5.3
28	181	5.0	5.0
28	182	4.7	4.7
28	183	4.4	4.7
28	184	5.1	6.8
28	185	43.2	46.2
28	186	103.6	105.6
28	187	7.1	6.9
28	188	6.3	5.9
28	189	5.7	5.5
28	190	9.8	10.2
28	191	5.6	5.5
28	192	5.2	5.2
29	193	5.2	5.2
29	194	5.7	5.5
29	195	6.7	6.6
29	196	27.6	28.2
29	197	26.6	26.6
29	198	17.5	17.3
29	199	7.0	6.9
29	200	6.4	6.3
29	201	5.9	5.9
29	202	5.8	5.9

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
29	203	5.5	5.7
29	204	5.2	5.3
30	205	5.0	5.0
30	206	4.7	4.8
30	207	4.5	5.1
30	208	9.7	10.3
30	209	33.9	36.3
30	210	46.9	46.9
30	211	7.6	7.2
30	212	6.8	6.6
30	213	6.3	6.1
30	214	5.8	5.7
30	215	5.4	5.3
30	216	5.0	4.9
31	217	4.7	4.6
31	218	4.5	4.4
31	219	4.2	5.4
31	220	14.2	18.0
31	221	95.1	98.6
31	222	62.9	63.9
31	223	7.3	6.8
31	224	6.5	6.1
31	225	5.9	5.6
31	226	5.4	5.2
31	227	5.0	4.8
31	228	4.7	4.5
32	229	4.4	4.2
32	230	4.2	4.0
32	231	3.9	4.0
32	232	5.3	6.5
32	233	46.7	49.0
32	234	52.1	52.6
32	235	7.2	6.7
32	236	6.1	5.6
32	237	5.6	5.2
32	238	5.1	4.8
32	239	4.7	4.5
32	240	4.4	4.2

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
33	241	4.1	4.0
33	242	3.9	3.7
33	243	3.7	4.7
33	244	6.1	9.2
33	245	83.8	89.5
33	246	138.7	141.3
33	247	21.8	21.2
33	248	6.8	6.3
33	249	6.1	5.7
33	250	5.6	5.3
33	251	5.1	4.9
33	252	4.8	4.6
34	253	4.5	4.3
34	254	4.2	4.1
34	255	4.0	4.4
34	256	10.8	12.3
34	257	38.4	40.3
34	258	24.9	24.4
34	259	6.5	6.1
34	260	5.9	5.6
34	261	5.4	5.2
34	262	5.3	5.2
34	263	5.0	4.9
34	264	4.8	4.7
35	265	4.5	4.4
35	266	4.3	4.6
35	267	6.0	7.4
35	268	37.1	40.1
35	269	83.6	86.5
35	270	51.8	51.4
35	271	7.7	7.2
35	272	6.8	7.7
35	273	18.3	18.4
35	274	13.7	13.2
35	275	7.9	7.7
35	276	7.2	7.1
36	277	6.6	6.6
36	278	6.2	6.4

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
36	279	7.2	7.3
36	280	14.1	15.8
36	281	73.6	76.9
36	282	55.5	55.9
36	283	9.0	8.4
36	284	7.9	7.6
36	285	7.2	7.0
36	286	7.1	7.1
36	287	6.6	6.6
36	288	6.2	6.1
37	289	5.8	5.8
37	290	5.5	5.4
37	291	5.2	6.6
37	292	29.0	31.7
37	293	68.0	70.6
37	294	54.0	54.1
37	295	14.6	13.7
37	296	8.1	7.6
37	297	7.2	6.9
37	298	6.6	6.4
37	299	6.1	5.9
37	300	5.6	5.4
38	301	5.3	5.0
38	302	5.0	4.7
38	303	4.7	8.4
38	304	63.9	66.7
38	305	63.1	66.6
38	306	85.7	87.0
38	307	35.7	34.7
38	308	7.9	7.2
38	309	7.0	6.6
38	310	6.6	6.4
38	311	6.1	5.9
38	312	5.7	5.5
39	313	5.3	5.1
39	314	5.0	4.8
39	315	4.7	4.7
39	316	6.0	5.7

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
39	317	18.8	20.8
39	318	38.0	37.5
39	319	6.9	6.4
39	320	6.3	5.9
39	321	5.8	5.5
39	322	5.4	5.2
39	323	5.1	4.8
39	324	4.8	4.5
40	325	4.5	4.3
40	326	4.3	4.0
40	327	4.1	4.1
40	328	4.5	8.0
40	329	90.1	93.2
40	330	71.1	72.1
40	331	16.0	15.4
40	332	6.6	6.0
40	333	6.0	5.5
40	334	5.5	5.1
40	335	5.1	4.8
40	336	4.7	4.4
41	337	4.4	4.2
41	338	4.2	4.0
41	339	4.0	5.8
41	340	28.3	31.1
41	341	75.8	78.7
41	342	53.7	54.0
41	343	15.6	14.8
41	344	6.8	6.3
41	345	6.4	6.3
41	346	13.9	13.7
41	347	7.0	6.7
41	348	6.5	6.3
42	349	6.0	5.9
42	350	5.9	6.0
42	351	7.8	8.1
42	352	19.4	22.0
42	353	91.9	95.8
42	354	50.0	49.2

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
42	355	8.9	8.2
42	356	7.9	7.5
42	357	7.1	7.4
42	358	23.7	23.7
42	359	7.1	7.1
42	360	6.5	6.5
43	361	6.1	6.0
43	362	5.7	5.6
43	363	5.3	6.2
43	364	13.7	16.2
43	365	90.0	94.2
43	366	95.1	96.6
43	367	8.6	8.0
43	368	7.6	7.1
43	369	6.8	6.5
43	370	6.2	6.0
43	371	5.8	5.6
43	372	5.4	5.1
44	373	5.0	4.8
44	374	4.8	4.5
44	375	4.5	6.2
44	376	31.8	34.2
44	377	78.9	80.8
44	378	27.9	27.3
44	379	7.1	6.4
44	380	6.3	5.8
44	381	5.7	5.4
44	382	5.5	5.2
44	383	5.3	5.1
44	384	5.0	4.8
45	385	4.7	4.5
45	386	4.5	4.4
45	387	4.3	5.2
45	388	13.8	15.1
45	389	38.7	42.2
45	390	87.9	89.1
45	391	12.0	11.2
45	392	7.6	7.0

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
45	393	6.8	7.2
45	394	28.4	28.1
45	395	7.3	7.0
45	396	6.8	6.5
46	397	6.1	5.8
46	398	5.6	5.4
46	399	5.2	7.1
46	400	41.5	43.5
46	401	68.8	71.2
46	402	39.9	39.0
46	403	7.7	7.1
46	404	6.9	6.5
46	405	6.3	6.6
46	406	13.5	13.4
46	407	6.8	6.6
46	408	6.3	6.1
47	409	5.9	5.7
47	410	5.6	5.4
47	411	5.2	6.9
47	412	38.1	40.4
47	413	79.4	83.0
47	414	74.7	75.3
47	415	8.3	7.6
47	416	7.3	6.8
47	417	6.6	6.2
47	418	6.0	5.7
47	419	5.6	5.3
47	420	5.2	4.9
48	421	4.8	4.6
48	422	4.6	4.5
48	423	4.4	5.0
48	424	7.4	8.5
48	425	59.6	62.9
48	426	91.1	92.8
48	427	26.3	25.4
48	428	7.7	7.0
48	429	6.8	6.4
48	430	6.2	5.8

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
48	431	5.7	5.4
48	432	5.3	5.0
49	433	4.9	4.6
49	434	4.6	4.4
49	435	4.3	5.7
49	436	14.7	17.3
49	437	74.1	78.2
49	438	77.1	77.4
49	439	18.8	17.9
49	440	7.6	7.0
49	441	6.7	6.3
49	442	6.1	5.8
49	443	5.6	5.4
49	444	5.2	5.0
50	445	4.8	4.6
50	446	4.6	4.3
50	447	4.3	4.2
50	448	5.2	6.6
50	449	40.7	42.4
50	450	50.7	52.1
50	451	14.0	13.5
50	452	6.8	6.3
50	453	6.1	5.8
50	454	5.9	5.7
50	455	5.5	5.3
50	456	5.2	5.0
51	457	4.9	4.7
51	458	4.7	4.5
51	459	4.4	6.8
51	460	34.2	39.6
51	461	129.8	134.0
51	462	77.8	79.1
51	463	9.0	8.3
51	464	7.1	6.5
51	465	6.4	6.4
51	466	10.7	10.6
51	467	6.5	6.3
51	468	6.1	5.9

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
52	469	5.7	5.5
52	470	5.4	5.3
52	471	5.5	6.0
52	472	13.8	16.6
52	473	99.4	102.6
52	474	48.0	47.9
52	475	7.8	7.3
52	476	7.0	6.6
52	477	6.4	6.1
52	478	5.9	5.6
52	479	5.5	5.3
52	480	5.1	4.9
53	481	4.8	4.6
53	482	4.5	4.3
53	483	4.3	4.6
53	484	8.2	10.6
53	485	84.0	87.4
53	486	48.2	48.4
53	487	6.9	6.3
53	488	6.2	5.7
53	489	5.6	5.3
53	490	5.2	4.9
53	491	4.8	4.6
53	492	4.5	4.3
54	493	4.3	4.0
54	494	4.0	3.8
54	495	3.8	5.3
54	496	19.5	22.6
54	497	61.3	64.7
54	498	99.2	100.8
54	499	7.9	7.1
54	500	6.9	7.3
54	501	15.4	15.4
54	502	19.8	19.1
54	503	8.2	7.8
54	504	7.4	7.1
55	505	6.8	6.6
55	506	6.3	6.3

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
55	507	6.5	7.1
55	508	18.6	20.8
55	509	63.2	65.3
55	510	47.0	47.0
55	511	8.5	8.0
55	512	7.6	7.3
55	513	6.9	6.7
55	514	6.3	6.2
55	515	5.9	5.8
55	516	5.5	5.4
56	517	5.2	5.0
56	518	4.9	4.8
56	519	4.6	5.4
56	520	10.1	12.2
56	521	86.5	89.9
56	522	77.8	79.4
56	523	7.6	7.1
56	524	6.8	6.4
56	525	6.5	6.4
56	526	14.6	14.4
56	527	6.9	6.7
56	528	6.4	6.3
57	529	6.0	5.9
57	530	5.7	5.6
57	531	5.4	7.0
57	532	34.3	36.1
57	533	64.6	66.8
57	534	51.6	51.7
57	535	8.4	7.8
57	536	7.5	7.1
57	537	6.8	8.2
57	538	39.2	38.4
57	539	8.3	7.7
57	540	7.2	6.8
58	541	6.5	6.3
58	542	7.3	6.6
58	543	6.2	6.7
58	544	9.3	10.3

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
58	545	78.1	82.5
58	546	80.4	80.7
58	547	8.8	8.0
58	548	7.7	7.2
58	549	7.0	6.6
58	550	6.4	6.1
58	551	5.9	5.7
58	552	5.5	5.2
59	553	5.1	4.9
59	554	4.8	4.6
59	555	4.6	4.6
59	556	5.7	7.2
59	557	51.7	55.1
59	558	101.5	102.9
59	559	23.1	22.4
59	560	7.1	6.5
59	561	6.4	5.9
59	562	5.8	5.4
59	563	5.4	5.0
59	564	5.0	4.7
60	565	4.7	4.4
60	566	4.4	4.1
60	567	4.2	7.0
60	568	38.0	40.9
60	569	73.2	78.2
60	570	127.4	129.6
60	571	40.6	39.9
60	572	7.7	7.1
60	573	7.0	6.7
60	574	6.4	6.1
60	575	5.9	5.7
60	576	5.5	5.3
61	577	5.1	4.9
61	578	4.8	4.6
61	579	4.5	4.6
61	580	5.5	6.6
61	581	48.3	50.8
61	582	35.4	35.0

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
61	583	6.5	6.0
61	584	5.9	5.5
61	585	5.4	5.1
61	586	5.0	4.8
61	587	4.7	4.5
61	588	4.4	4.2
62	589	4.2	3.9
62	590	4.0	3.7
62	591	3.8	3.8
62	592	4.8	7.8
62	593	68.5	72.5
62	594	104.6	106.1
62	595	16.6	15.9
62	596	6.8	6.2
62	597	6.1	6.1
62	598	10.3	10.3
62	599	6.4	6.1
62	600	5.9	5.7
63	601	5.5	5.3
63	602	5.4	5.4
63	603	6.3	5.9
63	604	7.2	8.0
63	605	51.1	53.1
63	606	65.5	66.5
63	607	7.9	7.3
63	608	7.0	6.6
63	609	13.8	14.0
63	610	10.0	10.0
63	611	6.7	6.5
63	612	6.2	6.1
64	613	5.8	5.7
64	614	5.5	5.3
64	615	5.1	7.3
64	616	40.7	43.5
64	617	98.6	102.0
64	618	59.3	59.8
64	619	8.0	7.3
64	620	7.0	6.6

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
64	621	6.4	6.1
64	622	6.2	6.0
64	623	5.8	5.6
64	624	5.5	5.3
65	625	5.2	5.1
65	626	4.9	4.8
65	627	4.6	4.7
65	628	5.4	9.5
65	629	89.3	94.2
65	630	134.0	136.1
65	631	8.0	7.6
65	632	6.7	7.2
65	633	17.8	17.7
65	634	9.0	8.4
65	635	8.0	7.6
65	636	7.3	7.1
66	637	6.7	6.6
66	638	6.3	6.2
66	639	5.9	7.3
66	640	12.5	16.6
66	641	129.9	135.7
66	642	118.0	119.3
66	643	28.8	28.0
66	644	8.4	7.9
66	645	7.5	7.2
66	646	6.8	6.6
66	647	6.3	6.1
66	648	5.8	5.7
67	649	5.4	5.2
67	650	5.1	5.0
67	651	4.8	5.8
67	652	8.5	10.6
67	653	97.5	101.7
67	654	94.8	96.3
67	655	8.2	7.5
67	656	7.2	6.6
67	657	6.5	6.1
67	658	5.9	5.6

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
67	659	5.5	5.2
67	660	5.1	4.8
68	661	4.8	4.5
68	662	4.5	4.2
68	663	4.3	4.2
68	664	5.0	5.7
68	665	36.0	37.5
68	666	35.4	34.9
68	667	6.4	5.9
68	668	5.8	5.4
68	669	5.4	5.1
68	670	5.2	5.0
68	671	4.9	4.7
68	672	4.7	4.5
69	673	4.4	4.2
69	674	4.2	4.2
69	675	4.1	7.7
69	676	51.1	54.5
69	677	97.8	103.9
69	678	178.5	182.5
69	679	7.9	7.4
69	680	7.0	6.5
69	681	6.3	6.0
69	682	5.8	5.5
69	683	5.4	5.1
69	684	5.0	4.7
70	685	4.7	4.4
70	686	4.4	4.2
70	687	4.2	4.0
70	688	4.0	6.1
70	689	42.9	45.8
70	690	83.6	85.3
70	691	17.8	17.1
70	692	6.5	5.8
70	693	5.8	6.0
70	694	13.8	13.7
70	695	6.2	5.9
70	696	5.7	5.4

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
71	697	5.3	5.1
71	698	5.0	4.8
71	699	4.7	5.3
71	700	10.8	12.7
71	701	73.0	76.0
71	702	51.0	51.4
71	703	18.7	18.0
71	704	7.5	7.0
71	705	6.7	6.4
71	706	6.1	5.8
71	707	5.6	5.4
71	708	5.2	5.0
72	709	4.9	4.7
72	710	4.6	4.4
72	711	4.3	4.1
72	712	4.1	4.0
72	713	11.1	11.8
72	714	11.0	11.2
72	715	4.7	4.3
72	716	4.5	4.8
72	717	8.5	9.0
72	718	5.5	5.2
72	719	5.2	4.9
72	720	4.9	4.8
73	721	4.7	4.6
73	722	4.6	4.7
73	723	6.7	7.1
73	724	18.0	20.6
73	725	54.4	56.8
73	726	67.9	69.2
73	727	28.1	27.2
73	728	8.4	7.8
73	729	7.4	7.2
73	730	6.7	6.6
73	731	6.2	6.1
73	732	5.7	5.6
74	733	5.3	5.2
74	734	5.0	4.9

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
74	735	4.7	4.7
74	736	5.2	5.7
74	737	30.9	31.6
74	738	29.5	28.9
74	739	6.2	5.7
74	740	5.6	5.2
74	741	5.2	4.8
74	742	5.1	4.8
74	743	4.8	4.6
74	744	4.5	4.3
75	745	4.3	4.2
75	746	4.1	4.0
75	747	3.9	5.1
75	748	23.5	26.8
75	749	72.8	75.2
75	750	49.1	49.4
75	751	10.7	10.0
75	752	6.9	6.4
75	753	6.4	6.0
75	754	5.9	5.6
75	755	5.5	5.3
75	756	5.1	5.0
76	757	4.8	4.6
76	758	4.5	4.5
76	759	5.0	5.5
76	760	19.1	21.2
76	761	63.6	66.9
76	762	69.8	70.8
76	763	14.2	13.5
76	764	7.5	7.0
76	765	6.7	6.3
76	766	6.2	6.0
76	767	5.7	5.6
76	768	5.3	5.2
77	769	5.0	4.8
77	770	4.7	4.7
77	771	5.0	5.3
77	772	11.5	14.6

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
77	773	95.8	101.7
77	774	149.3	152.2
77	775	31.0	30.6
77	776	7.7	7.1
77	777	7.1	7.8
77	778	36.0	35.7
77	779	7.9	7.7
77	780	7.1	6.9
78	781	6.5	6.3
78	782	6.0	6.1
78	783	7.4	7.7
78	784	9.2	10.9
78	785	79.0	82.6
78	786	94.5	96.9
78	787	41.3	41.2
78	788	9.5	9.0
78	789	7.2	6.9
78	790	6.7	6.6
78	791	6.2	6.0
78	792	5.7	5.6
79	793	5.4	5.2
79	794	5.0	5.0
79	795	4.8	5.2
79	796	7.0	9.5
79	797	79.8	84.3
79	798	102.2	104.4
79	799	37.3	36.8
79	800	7.8	7.2
79	801	7.0	6.6
79	802	7.0	6.8
79	803	6.5	6.3
79	804	6.1	6.0
80	805	5.7	5.6
80	806	5.4	5.3
80	807	5.1	5.6
80	808	13.8	14.9
80	809	43.1	44.1
80	810	23.4	22.9

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
80	811	7.3	6.8
80	812	6.6	7.7
80	813	29.7	29.1
80	814	9.3	8.6
80	815	8.0	7.7
80	816	7.4	7.2
81	817	6.8	6.7
81	818	6.4	7.3
81	819	16.3	17.2
81	820	19.7	21.7
81	821	66.8	69.4
81	822	64.8	65.4
81	823	9.7	9.2
81	824	8.7	8.9
81	825	12.5	12.5
81	826	8.4	8.4
81	827	7.8	7.8
81	828	7.3	7.3
82	829	6.8	6.8
82	830	6.4	6.4
82	831	6.0	6.3
82	832	17.9	18.2
82	833	33.5	33.7
82	834	13.1	12.7
82	835	7.2	6.8
82	836	6.5	6.2
82	837	6.0	5.8
82	838	5.6	5.4
82	839	5.3	5.0
82	840	5.0	4.7
83	841	4.7	4.4
83	842	4.5	4.2
83	843	4.3	4.7
83	844	11.3	12.5
83	845	41.5	42.6
83	846	39.4	38.8
83	847	6.8	6.2
83	848	6.2	5.7

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
83	849	5.7	5.3
83	850	5.3	4.9
83	851	4.9	4.6
83	852	4.6	4.3
84	853	4.4	4.1
84	854	4.2	3.9
84	855	3.9	5.0
84	856	14.5	16.3
84	857	48.4	50.2
84	858	55.1	55.6
84	859	7.4	6.7
84	860	6.6	6.0
84	861	6.0	5.5
84	862	5.7	5.5
84	863	5.4	5.1
84	864	5.0	4.8
85	865	4.8	4.5
85	866	4.5	4.4
85	867	4.3	5.2
85	868	25.4	27.7
85	869	36.3	36.3
85	870	16.5	15.8
85	871	6.9	6.3
85	872	6.2	5.8
85	873	5.7	5.3
85	874	5.3	5.0
85	875	4.9	4.7
85	876	4.6	4.4
86	877	4.4	4.2
86	878	4.2	3.9
86	879	3.9	3.9
86	880	5.1	5.1
86	881	21.1	22.5
86	882	24.9	24.1
86	883	6.4	6.0
86	884	5.9	5.6
86	885	5.5	5.2
86	886	5.1	4.9

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
86	887	4.8	4.6
86	888	4.5	4.3
87	889	4.3	4.1
87	890	4.1	4.0
87	891	4.1	4.3
87	892	17.7	17.9
87	893	17.4	17.7
87	894	18.1	17.4
87	895	5.9	5.6
87	896	5.4	5.1
87	897	5.1	4.8
87	898	4.7	4.5
87	899	4.5	4.2
87	900	4.2	4.0
88	901	4.0	3.8
88	902	3.8	3.6
88	903	3.9	4.7
88	904	15.7	18.0
88	905	71.7	75.3
88	906	62.3	63.2
88	907	10.2	9.6
88	908	6.9	6.3
88	909	6.2	5.8
88	910	5.7	5.3
88	911	5.2	4.9
88	912	4.8	4.6
89	913	4.5	4.3
89	914	4.3	4.0
89	915	4.0	3.8
89	916	4.0	4.1
89	917	19.3	20.1
89	918	6.2	6.1
89	919	4.7	4.3
89	920	4.4	4.0
89	921	4.2	3.8
89	922	4.0	3.7
89	923	3.8	3.5
89	924	3.6	3.3

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
90	925	3.4	3.3
90	926	3.4	3.3
90	927	3.6	4.5
90	928	16.5	19.6
90	929	75.9	79.8
90	930	84.1	85.5
90	931	22.6	21.8
90	932	7.0	6.3
90	933	6.2	5.7
90	934	5.7	5.4
90	935	5.3	5.1
90	936	4.9	4.7
91	937	4.6	4.4
91	938	4.4	4.4
91	939	5.3	7.4
91	940	56.0	58.9
91	941	82.2	85.2
91	942	67.6	68.7
91	943	8.9	8.3
91	944	6.9	6.4
91	945	6.2	5.9
91	946	5.7	5.5
91	947	5.3	5.1
91	948	4.9	4.8
92	949	4.6	4.5
92	950	4.4	4.4
92	951	4.8	6.2
92	952	23.0	26.2
92	953	106.1	110.4
92	954	73.9	75.9
92	955	16.9	16.3
92	956	7.1	6.5
92	957	6.3	5.9
92	958	6.0	5.7
92	959	5.5	5.3
92	960	5.2	5.0
93	961	4.8	4.7
93	962	4.6	4.5

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
93	963	4.3	4.5
93	964	6.2	7.7
93	965	62.6	66.2
93	966	52.5	53.3
93	967	16.6	16.0
93	968	7.2	6.7
93	969	6.7	6.4
93	970	6.1	5.9
93	971	5.7	5.5
93	972	5.3	5.1
94	973	5.0	4.8
94	974	4.7	4.6
94	975	4.4	4.7
94	976	5.8	8.4
94	977	69.8	73.8
94	978	111.1	113.0
94	979	27.5	26.9
94	980	7.2	6.6
94	981	6.4	6.0
94	982	5.8	5.5
94	983	5.4	5.1
94	984	5.0	4.7
95	985	4.6	4.4
95	986	4.4	4.2
95	987	4.1	5.2
95	988	21.4	23.8
95	989	49.2	50.6
95	990	36.7	36.2
95	991	6.8	6.2
95	992	6.1	5.7
95	993	5.6	5.4
95	994	11.1	11.4
95	995	5.6	5.4
95	996	5.3	5.1
96	997	5.0	4.8
96	998	4.7	4.6
96	999	4.8	4.7
96	1000	6.1	5.6

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
96	1001	21.8	22.5
96	1002	13.7	13.6
96	1003	6.1	5.6
96	1004	5.6	5.2
96	1005	5.2	4.9
96	1006	5.1	5.0
96	1007	4.9	4.8
96	1008	4.6	4.5
97	1009	4.4	4.3
97	1010	4.2	4.1
97	1011	4.0	4.9
97	1012	15.9	17.3
97	1013	34.8	36.7
97	1014	51.7	52.1
97	1015	7.4	6.9
97	1016	6.6	6.2
97	1017	6.0	5.7
97	1018	5.6	5.3
97	1019	5.2	5.0
97	1020	4.8	4.6
98	1021	4.5	4.3
98	1022	4.3	4.2
98	1023	4.2	5.3
98	1024	11.8	13.3
98	1025	74.6	78.0
98	1026	67.0	68.3
98	1027	7.4	6.8
98	1028	6.6	6.1
98	1029	6.0	5.6
98	1030	5.5	5.2
98	1031	5.1	4.9
98	1032	4.8	4.5
99	1033	4.5	4.2
99	1034	4.2	4.1
99	1035	4.5	4.8
99	1036	19.0	21.3
99	1037	60.6	61.7
99	1038	31.6	31.0

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
99	1039	7.2	6.6
99	1040	6.5	6.1
99	1041	6.1	5.8
99	1042	5.9	5.8
99	1043	5.6	5.5
99	1044	5.3	5.2
100	1045	5.0	4.9
100	1046	4.8	4.7
100	1047	4.5	4.7
100	1048	7.0	7.5
100	1049	38.5	40.3
100	1050	27.5	27.3
100	1051	7.0	6.6
100	1052	6.3	6.1
100	1053	5.9	5.7
100	1054	5.5	5.3
100	1055	5.1	4.9
100	1056	4.8	4.6
101	1057	4.5	4.3
101	1058	4.3	4.1
101	1059	4.1	7.2
101	1060	54.1	58.2
101	1061	104.5	108.3
101	1062	75.3	76.4
101	1063	7.4	6.8
101	1064	6.6	6.0
101	1065	5.9	5.5
101	1066	5.4	5.1
101	1067	5.0	4.7
101	1068	4.7	4.4
102	1069	4.4	4.1
102	1070	4.2	4.1
102	1071	4.9	5.1
102	1072	16.2	17.2
102	1073	41.4	42.2
102	1074	23.0	22.4
102	1075	6.9	6.5
102	1076	6.3	5.9

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
102	1077	5.8	5.7
102	1078	13.2	13.6
102	1079	6.3	6.1
102	1080	5.8	5.6
103	1081	5.4	5.3
103	1082	5.1	5.0
103	1083	4.8	4.9
103	1084	6.3	8.7
103	1085	81.1	83.6
103	1086	70.5	72.1
103	1087	10.5	10.1
103	1088	6.9	6.4
103	1089	6.3	5.9
103	1090	5.7	5.4
103	1091	5.3	5.0
103	1092	4.9	4.6
104	1093	4.6	4.3
104	1094	4.3	4.1
104	1095	4.1	4.3
104	1096	5.5	7.3
104	1097	65.6	68.7
104	1098	57.8	58.7
104	1099	7.2	6.6
104	1100	6.4	5.9
104	1101	5.8	5.5
104	1102	5.8	5.7
104	1103	5.5	5.4
104	1104	5.2	5.1
105	1105	5.0	4.9
105	1106	4.7	4.7
105	1107	5.1	5.0
105	1108	7.0	7.0
105	1109	29.7	33.4
105	1110	96.0	97.6
105	1111	8.6	8.0
105	1112	7.6	7.1
105	1113	6.9	6.6
105	1114	6.5	6.3

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
105	1115	6.0	5.9
105	1116	5.6	5.5
106	1117	5.2	5.1
106	1118	5.0	4.8
106	1119	4.7	4.8
106	1120	5.6	8.1
106	1121	60.3	63.6
106	1122	88.0	89.4
106	1123	20.4	19.9
106	1124	7.5	7.0
106	1125	6.7	6.4
106	1126	6.4	6.1
106	1127	5.9	5.7
106	1128	5.5	5.3
107	1129	5.2	5.0
107	1130	4.9	4.8
107	1131	4.8	6.6
107	1132	40.6	42.8
107	1133	72.2	74.8
107	1134	50.9	51.3
107	1135	7.9	7.3
107	1136	7.0	6.5
107	1137	6.3	6.0
107	1138	6.3	6.2
107	1139	5.9	5.8
107	1140	5.6	5.4
108	1141	5.3	5.1
108	1142	5.0	4.9
108	1143	5.3	5.5
108	1144	12.8	13.5
108	1145	50.5	53.1
108	1146	51.8	52.1
108	1147	7.8	7.2
108	1148	6.9	7.5
108	1149	15.9	15.9
108	1150	7.3	7.1
108	1151	6.8	6.7
108	1152	6.3	6.2

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
109	1153	5.9	5.8
109	1154	5.6	5.7
109	1155	6.4	6.4
109	1156	12.7	13.2
109	1157	57.8	60.1
109	1158	38.7	38.1
109	1159	8.1	7.5
109	1160	7.2	6.9
109	1161	6.6	6.4
109	1162	6.2	6.1
109	1163	5.8	5.7
109	1164	5.4	5.3
110	1165	5.1	5.1
110	1166	5.3	5.3
110	1167	6.9	6.4
110	1168	9.3	9.6
110	1169	46.1	47.3
110	1170	26.7	26.1
110	1171	7.8	7.4
110	1172	7.0	6.8
110	1173	6.5	6.3
110	1174	6.1	6.0
110	1175	5.7	5.6
110	1176	5.4	5.2
111	1177	5.1	5.0
111	1178	4.8	5.0
111	1179	5.3	7.5
111	1180	67.3	69.2
111	1181	58.1	60.1
111	1182	43.4	42.8
111	1183	7.5	6.8
111	1184	6.6	6.2
111	1185	6.0	5.9
111	1186	7.4	7.3
111	1187	6.3	6.0
111	1188	5.8	5.6
112	1189	5.5	5.4
112	1190	5.3	6.0

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
112	1191	9.0	9.5
112	1192	21.9	25.7
112	1193	117.5	121.8
112	1194	101.3	102.8
112	1195	9.6	9.0
112	1196	8.4	8.1
112	1197	8.2	8.1
112	1198	8.6	8.5
112	1199	8.1	8.0
112	1200	7.4	7.4

Abbreviations:

cfs = cubic feet per second

SHSM = Stibnite Hydrologic Site Model

Table B - 16. Simulated Streamflow at USGS Gage 13310800

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
13	1	5.2	5.1
13	2	4.7	4.6
13	3	5.0	4.9
13	4	7.1	7.0
13	5	20.2	20.3
13	6	68.1	68.4
13	7	7.0	7.1
13	8	6.0	6.0
13	9	5.3	5.2
13	10	5.7	5.7
13	11	4.9	4.9
13	12	4.5	4.3
14	13	4.0	3.9
14	14	3.7	3.5
14	15	3.5	3.2
14	16	9.4	9.2
14	17	28.7	28.7
14	18	18.5	18.6
14	19	5.8	5.8
14	20	5.1	5.0
14	21	4.6	4.5

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
14	22	4.4	4.3
14	23	3.9	3.7
14	24	3.5	3.4
15	25	3.2	3.0
15	26	3.0	2.8
15	27	2.7	2.5
15	28	4.4	4.2
15	29	16.7	16.5
15	30	38.5	38.7
15	31	8.5	8.7
15	32	5.5	5.6
15	33	5.2	5.2
15	34	13.1	13.3
15	35	6.0	6.2
15	36	5.3	5.3
16	37	4.7	4.7
16	38	4.3	4.2
16	39	4.8	4.7
16	40	7.1	7.1
16	41	67.6	67.9
16	42	68.9	69.5
16	43	7.4	7.6
16	44	6.3	6.3
16	45	5.5	5.4
16	46	5.0	4.9
16	47	4.6	4.5
16	48	4.1	4.0
17	49	3.7	3.6
17	50	3.4	3.2
17	51	3.1	2.9
17	52	4.5	4.3
17	53	39.3	39.1
17	54	63.9	64.1
17	55	6.1	6.1
17	56	5.2	5.2
17	57	4.6	4.5
17	58	4.1	4.0
17	59	3.7	3.6

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
17	60	3.3	3.2
18	61	3.0	2.9
18	62	2.8	2.6
18	63	2.6	2.4
18	64	3.9	3.8
18	65	33.6	33.3
18	66	52.3	52.7
18	67	8.4	8.6
18	68	5.5	5.5
18	69	4.8	4.8
18	70	4.7	4.7
18	71	4.2	4.2
18	72	3.8	3.7
19	73	3.4	3.3
19	74	3.1	3.0
19	75	2.9	2.7
19	76	3.8	3.7
19	77	11.1	11.0
19	78	4.9	4.9
19	79	3.7	3.7
19	80	3.3	3.3
19	81	3.1	3.0
19	82	3.5	3.5
19	83	3.1	3.1
19	84	2.9	2.8
20	85	2.7	2.6
20	86	2.5	2.4
20	87	2.7	2.5
20	88	23.8	23.5
20	89	74.1	74.5
20	90	45.1	45.6
20	91	6.5	6.7
20	92	5.4	5.6
20	93	4.8	4.8
20	94	4.6	4.7
20	95	4.1	4.1
20	96	3.7	3.6
21	97	3.3	3.2

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
21	98	3.1	2.9
21	99	3.0	2.9
21	100	14.2	14.1
21	101	24.4	24.5
21	102	16.7	16.9
21	103	5.1	5.2
21	104	4.5	4.5
21	105	4.0	4.0
21	106	3.9	3.8
21	107	3.8	3.7
21	108	3.4	3.3
22	109	3.1	3.0
22	110	2.8	2.7
22	111	2.6	2.5
22	112	4.6	4.4
22	113	58.9	58.8
22	114	90.7	91.4
22	115	12.0	12.2
22	116	5.5	5.6
22	117	10.7	11.0
22	118	8.1	8.5
22	119	7.2	7.4
22	120	5.9	6.0
23	121	5.2	5.2
23	122	4.7	4.7
23	123	5.0	4.9
23	124	7.3	7.4
23	125	91.1	91.4
23	126	33.7	34.0
23	127	6.9	7.0
23	128	5.8	5.9
23	129	5.1	5.1
23	130	4.5	4.5
23	131	4.1	4.0
23	132	3.7	3.5
24	133	3.3	3.2
24	134	3.1	2.9
24	135	2.8	2.6

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
24	136	3.8	3.6
24	137	14.9	14.7
24	138	27.6	27.5
24	139	5.0	5.0
24	140	4.4	4.4
24	141	3.9	3.9
24	142	3.5	3.4
24	143	3.2	3.1
24	144	2.9	2.8
25	145	2.7	2.5
25	146	2.5	2.3
25	147	2.3	2.1
25	148	13.8	13.5
25	149	28.1	28.2
25	150	21.9	22.2
25	151	5.6	5.8
25	152	4.9	5.0
25	153	4.4	4.4
25	154	4.6	4.6
25	155	4.0	4.0
25	156	3.6	3.5
26	157	3.3	3.2
26	158	3.0	2.9
26	159	2.8	2.6
26	160	4.6	4.5
26	161	22.4	22.4
26	162	18.7	18.9
26	163	5.0	5.1
26	164	4.4	4.4
26	165	3.9	3.9
26	166	4.7	4.8
26	167	4.1	4.1
26	168	3.7	3.7
27	169	3.4	3.3
27	170	3.1	3.1
27	171	2.9	2.8
27	172	5.9	5.9
27	173	56.4	56.7

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
27	174	59.9	60.6
27	175	14.8	15.1
27	176	6.3	6.4
27	177	5.4	5.5
27	178	4.8	4.8
27	179	4.3	4.2
27	180	3.8	3.7
28	181	3.5	3.3
28	182	3.2	3.0
28	183	2.9	2.8
28	184	3.2	3.1
28	185	27.7	27.4
28	186	78.2	78.4
28	187	5.7	5.8
28	188	4.9	4.9
28	189	4.3	4.3
28	190	5.0	5.0
28	191	4.3	4.3
28	192	3.9	3.8
29	193	3.5	3.5
29	194	3.9	3.8
29	195	5.4	5.4
29	196	18.8	18.9
29	197	18.3	18.7
29	198	11.3	11.6
29	199	5.6	5.8
29	200	5.0	5.1
29	201	4.5	4.5
29	202	4.5	4.5
29	203	4.1	4.1
29	204	3.7	3.6
30	205	3.4	3.3
30	206	3.1	3.0
30	207	2.9	2.7
30	208	5.8	5.7
30	209	22.1	22.2
30	210	33.9	34.2
30	211	6.0	6.2

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
30	212	5.3	5.3
30	213	4.7	4.7
30	214	4.2	4.1
30	215	3.8	3.7
30	216	3.4	3.3
31	217	3.1	3.0
31	218	2.9	2.7
31	219	2.7	2.5
31	220	5.1	5.1
31	221	68.7	68.7
31	222	50.3	50.7
31	223	6.1	6.2
31	224	5.2	5.2
31	225	4.6	4.5
31	226	4.1	4.0
31	227	3.7	3.6
31	228	3.3	3.2
32	229	3.0	2.9
32	230	2.8	2.6
32	231	2.6	2.4
32	232	3.6	3.5
32	233	30.8	30.5
32	234	38.7	38.9
32	235	5.3	5.4
32	236	4.6	4.6
32	237	4.1	4.0
32	238	3.6	3.6
32	239	3.3	3.2
32	240	3.0	2.9
33	241	2.7	2.6
33	242	2.5	2.4
33	243	2.3	2.1
33	244	4.1	4.0
33	245	56.7	56.5
33	246	112.4	113.2
33	247	17.3	17.5
33	248	5.4	5.5
33	249	4.6	4.7

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
33	250	4.1	4.1
33	251	3.7	3.6
33	252	3.3	3.2
34	253	3.0	2.9
34	254	2.7	2.6
34	255	2.5	2.4
34	256	4.7	4.6
34	257	28.1	28.0
34	258	17.2	17.5
34	259	5.2	5.4
34	260	4.6	4.7
34	261	4.1	4.1
34	262	4.2	4.3
34	263	3.7	3.7
34	264	3.4	3.3
35	265	3.1	3.0
35	266	2.8	2.7
35	267	4.1	4.0
35	268	22.5	22.5
35	269	65.7	66.3
35	270	41.7	42.2
35	271	6.4	6.6
35	272	5.4	5.5
35	273	9.9	10.2
35	274	11.8	12.3
35	275	6.8	7.1
35	276	6.0	6.1
36	277	5.3	5.4
36	278	4.8	4.8
36	279	5.4	5.4
36	280	7.8	7.9
36	281	56.0	56.5
36	282	43.6	44.1
36	283	7.8	8.0
36	284	6.6	6.7
36	285	5.8	5.8
36	286	6.0	6.0
36	287	5.2	5.1

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
36	288	4.6	4.5
37	289	4.2	4.0
37	290	3.8	3.6
37	291	3.5	3.3
37	292	17.5	17.4
37	293	51.4	51.6
37	294	41.7	42.2
37	295	9.1	9.3
37	296	6.6	6.7
37	297	5.7	5.7
37	298	5.1	5.0
37	299	4.6	4.4
37	300	4.1	3.9
38	301	3.7	3.5
38	302	3.4	3.2
38	303	3.1	2.9
38	304	38.2	37.8
38	305	45.6	45.9
38	306	69.2	69.8
38	307	28.6	28.9
38	308	7.1	7.2
38	309	6.1	6.1
38	310	5.7	5.7
38	311	5.0	4.9
38	312	4.4	4.3
39	313	4.0	3.8
39	314	3.7	3.5
39	315	3.3	3.1
39	316	5.0	4.9
39	317	12.0	11.9
39	318	26.6	26.7
39	319	5.5	5.5
39	320	4.9	4.9
39	321	4.4	4.3
39	322	3.9	3.8
39	323	3.6	3.4
39	324	3.2	3.1
40	325	3.0	2.8

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
40	326	2.7	2.6
40	327	2.5	2.3
40	328	2.4	2.2
40	329	61.9	61.3
40	330	54.6	54.8
40	331	9.8	9.9
40	332	5.0	5.0
40	333	4.4	4.3
40	334	3.9	3.8
40	335	3.5	3.4
40	336	3.2	3.1
41	337	2.9	2.8
41	338	2.7	2.5
41	339	2.5	2.3
41	340	15.4	15.2
41	341	56.7	56.9
41	342	42.2	42.7
41	343	10.4	10.7
41	344	5.5	5.6
41	345	5.4	5.5
41	346	9.5	9.8
41	347	6.2	6.5
41	348	5.4	5.6
42	349	4.9	4.9
42	350	4.5	4.5
42	351	6.0	6.0
42	352	11.0	11.2
42	353	71.9	72.4
42	354	39.8	40.3
42	355	7.8	8.0
42	356	6.6	6.7
42	357	5.7	5.8
42	358	14.7	14.8
42	359	5.9	6.0
42	360	5.3	5.2
43	361	4.7	4.6
43	362	4.3	4.2
43	363	3.9	3.7

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
43	364	8.0	7.9
43	365	66.1	66.3
43	366	75.3	75.8
43	367	7.5	7.6
43	368	6.3	6.3
43	369	5.5	5.5
43	370	4.9	4.8
43	371	4.4	4.2
43	372	3.9	3.8
44	373	3.6	3.3
44	374	3.3	3.0
44	375	3.0	2.8
44	376	16.8	16.4
44	377	57.4	57.3
44	378	20.3	20.5
44	379	6.0	6.1
44	380	5.2	5.2
44	381	4.6	4.5
44	382	4.3	4.2
44	383	4.3	4.2
44	384	3.8	3.6
45	385	3.4	3.2
45	386	3.1	3.0
45	387	2.9	2.7
45	388	6.3	6.2
45	389	28.0	28.0
45	390	68.6	69.1
45	391	7.5	7.7
45	392	6.1	6.2
45	393	5.3	5.4
45	394	17.7	17.9
45	395	6.0	6.1
45	396	5.4	5.4
46	397	4.6	4.6
46	398	4.2	4.1
46	399	3.8	3.6
46	400	25.9	25.9
46	401	50.9	51.2

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
46	402	31.0	31.3
46	403	7.0	7.2
46	404	6.0	6.1
46	405	5.3	5.3
46	406	7.5	7.6
46	407	6.1	6.3
46	408	5.4	5.5
47	409	4.9	4.9
47	410	4.4	4.4
47	411	4.0	3.9
47	412	23.9	23.9
47	413	58.9	59.2
47	414	60.4	60.8
47	415	7.7	7.8
47	416	6.5	6.5
47	417	5.6	5.6
47	418	5.0	4.9
47	419	4.5	4.3
47	420	4.0	3.8
48	421	3.6	3.4
48	422	3.3	3.1
48	423	3.0	2.8
48	424	5.4	5.1
48	425	40.6	40.3
48	426	71.8	72.1
48	427	20.0	20.2
48	428	6.3	6.4
48	429	5.4	5.4
48	430	4.8	4.7
48	431	4.3	4.1
48	432	3.8	3.7
49	433	3.5	3.3
49	434	3.2	3.0
49	435	2.9	2.7
49	436	6.1	5.9
49	437	53.3	53.2
49	438	61.2	61.7
49	439	13.4	13.6

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
49	440	6.4	6.5
49	441	5.5	5.5
49	442	4.8	4.8
49	443	4.3	4.2
49	444	3.9	3.7
50	445	3.5	3.3
50	446	3.2	3.0
50	447	2.9	2.7
50	448	4.1	4.0
50	449	27.4	27.2
50	450	37.1	37.3
50	451	8.2	8.3
50	452	5.2	5.2
50	453	4.6	4.6
50	454	4.7	4.7
50	455	4.1	4.0
50	456	3.7	3.6
51	457	3.3	3.2
51	458	3.1	2.9
51	459	2.8	2.7
51	460	19.4	19.2
51	461	99.2	99.7
51	462	65.0	65.7
51	463	7.1	7.2
51	464	5.9	6.0
51	465	5.1	5.1
51	466	7.0	7.2
51	467	5.6	5.7
51	468	5.0	5.0
52	469	4.5	4.5
52	470	4.1	4.0
52	471	3.9	3.8
52	472	7.3	7.3
52	473	74.7	75.0
52	474	37.6	38.0
52	475	7.0	7.1
52	476	5.9	6.0
52	477	5.2	5.2

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
52	478	4.6	4.6
52	479	4.2	4.0
52	480	3.8	3.6
53	481	3.4	3.2
53	482	3.1	2.9
53	483	2.9	2.7
53	484	5.1	4.9
53	485	58.7	58.5
53	486	37.1	37.3
53	487	5.7	5.8
53	488	4.9	4.9
53	489	4.4	4.3
53	490	3.9	3.8
53	491	3.5	3.4
53	492	3.2	3.0
54	493	2.9	2.8
54	494	2.7	2.5
54	495	2.5	2.3
54	496	8.6	8.4
54	497	44.2	44.3
54	498	79.1	79.8
54	499	7.0	7.2
54	500	5.9	6.0
54	501	8.2	8.5
54	502	17.3	17.8
54	503	7.4	7.7
54	504	6.4	6.6
55	505	5.7	5.7
55	506	5.1	5.1
55	507	4.9	4.9
55	508	10.8	10.9
55	509	48.0	48.4
55	510	35.4	35.8
55	511	7.4	7.6
55	512	6.4	6.4
55	513	5.6	5.6
55	514	5.0	4.9
55	515	4.5	4.4

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
55	516	4.0	3.9
56	517	3.7	3.5
56	518	3.4	3.2
56	519	3.1	2.9
56	520	5.8	5.6
56	521	61.1	60.9
56	522	62.8	63.1
56	523	6.4	6.5
56	524	5.4	5.4
56	525	5.3	5.3
56	526	9.9	10.1
56	527	5.8	5.9
56	528	5.2	5.2
57	529	4.6	4.6
57	530	4.2	4.1
57	531	3.8	3.7
57	532	20.9	20.9
57	533	47.8	48.1
57	534	40.0	40.4
57	535	7.5	7.7
57	536	6.4	6.4
57	537	5.6	5.6
57	538	19.8	20.0
57	539	7.4	7.6
57	540	6.2	6.2
58	541	5.5	5.4
58	542	5.9	5.8
58	543	4.7	4.5
58	544	8.0	8.0
58	545	57.0	57.2
58	546	64.5	65.0
58	547	7.9	8.0
58	548	6.7	6.7
58	549	5.8	5.7
58	550	5.1	5.0
58	551	4.6	4.4
58	552	4.1	3.9
59	553	3.7	3.5

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
59	554	3.4	3.2
59	555	3.1	2.9
59	556	3.9	3.7
59	557	34.1	33.6
59	558	77.6	77.8
59	559	16.3	16.4
59	560	5.8	5.8
59	561	5.0	5.0
59	562	4.4	4.3
59	563	4.0	3.8
59	564	3.6	3.4
60	565	3.2	3.1
60	566	3.0	2.8
60	567	2.7	2.5
60	568	20.7	20.3
60	569	53.6	53.8
60	570	103.9	104.8
60	571	34.2	34.5
60	572	7.0	7.1
60	573	6.5	6.6
60	574	5.5	5.5
60	575	4.8	4.8
60	576	4.3	4.2
61	577	3.9	3.8
61	578	3.6	3.4
61	579	3.2	3.0
61	580	4.3	4.1
61	581	33.9	33.7
61	582	26.0	26.1
61	583	5.2	5.2
61	584	4.6	4.5
61	585	4.1	4.0
61	586	3.7	3.5
61	587	3.3	3.2
61	588	3.0	2.9
62	589	2.8	2.6
62	590	2.6	2.4
62	591	2.3	2.1

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
62	592	3.3	3.1
62	593	45.5	45.2
62	594	81.0	81.6
62	595	11.6	11.8
62	596	5.5	5.6
62	597	4.8	4.8
62	598	6.6	6.8
62	599	5.4	5.5
62	600	4.8	4.8
63	601	4.3	4.3
63	602	3.9	3.9
63	603	4.5	4.5
63	604	5.5	5.4
63	605	35.0	35.1
63	606	50.1	50.5
63	607	6.6	6.8
63	608	5.6	5.7
63	609	5.8	5.9
63	610	6.8	7.0
63	611	5.6	5.8
63	612	5.1	5.1
64	613	4.6	4.5
64	614	4.2	4.1
64	615	3.7	3.6
64	616	24.6	24.6
64	617	75.4	75.8
64	618	48.4	48.8
64	619	7.2	7.4
64	620	6.1	6.2
64	621	5.3	5.3
64	622	5.4	5.4
64	623	4.7	4.7
64	624	4.3	4.1
65	625	3.8	3.7
65	626	3.5	3.3
65	627	3.2	3.0
65	628	4.0	3.8
65	629	61.5	61.4

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
65	630	107.3	107.9
65	631	6.6	6.7
65	632	5.6	5.6
65	633	10.3	10.5
65	634	9.3	9.7
65	635	7.3	7.5
65	636	6.3	6.4
66	637	5.6	5.6
66	638	5.1	5.0
66	639	4.5	4.5
66	640	8.9	8.9
66	641	95.1	95.5
66	642	98.4	99.0
66	643	22.8	23.0
66	644	7.4	7.4
66	645	6.3	6.2
66	646	5.5	5.3
66	647	4.9	4.7
66	648	4.4	4.2
67	649	3.9	3.7
67	650	3.6	3.3
67	651	3.3	3.0
67	652	6.3	6.1
67	653	68.2	67.9
67	654	76.3	76.6
67	655	6.8	6.9
67	656	5.7	5.7
67	657	5.0	4.9
67	658	4.4	4.3
67	659	4.0	3.8
67	660	3.6	3.4
68	661	3.3	3.0
68	662	3.0	2.8
68	663	2.7	2.5
68	664	3.4	3.2
68	665	24.4	24.0
68	666	24.7	24.7
68	667	4.7	4.7

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
68	668	4.1	4.1
68	669	3.7	3.6
68	670	3.7	3.6
68	671	3.3	3.2
68	672	3.0	2.9
69	673	2.8	2.6
69	674	2.6	2.4
69	675	2.3	2.2
69	676	27.9	27.6
69	677	73.4	73.8
69	678	153.5	154.6
69	679	6.9	7.1
69	680	5.9	6.0
69	681	5.1	5.1
69	682	4.5	4.5
69	683	4.0	4.0
69	684	3.6	3.5
70	685	3.3	3.1
70	686	3.0	2.8
70	687	2.7	2.6
70	688	2.5	2.3
70	689	26.5	26.1
70	690	62.2	62.3
70	691	11.9	12.0
70	692	4.9	4.9
70	693	4.3	4.3
70	694	7.1	7.2
70	695	5.3	5.4
70	696	4.7	4.7
71	697	4.2	4.2
71	698	3.8	3.8
71	699	3.4	3.4
71	700	6.9	7.0
71	701	51.7	52.1
71	702	39.8	40.3
71	703	12.8	13.1
71	704	6.3	6.4
71	705	5.4	5.5

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
71	706	4.8	4.8
71	707	4.3	4.2
71	708	3.9	3.8
72	709	3.5	3.3
72	710	3.2	3.0
72	711	2.9	2.8
72	712	2.7	2.5
72	713	6.0	5.8
72	714	4.7	4.5
72	715	3.2	3.1
72	716	2.9	2.8
72	717	4.1	4.1
72	718	4.3	4.4
72	719	3.8	3.8
72	720	3.5	3.5
73	721	3.2	3.2
73	722	3.0	2.9
73	723	4.7	4.6
73	724	9.3	9.3
73	725	39.6	40.1
73	726	53.5	54.3
73	727	21.1	21.5
73	728	6.8	7.0
73	729	5.9	6.0
73	730	5.2	5.2
73	731	4.6	4.6
73	732	4.1	4.1
74	733	3.7	3.6
74	734	3.4	3.3
74	735	3.1	3.0
74	736	3.3	3.1
74	737	19.9	19.6
74	738	18.9	18.8
74	739	4.4	4.3
74	740	3.8	3.8
74	741	3.4	3.3
74	742	3.6	3.5
74	743	3.2	3.1

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
74	744	2.9	2.8
75	745	2.7	2.5
75	746	2.5	2.3
75	747	2.3	2.1
75	748	13.3	13.1
75	749	53.1	53.2
75	750	37.6	38.1
75	751	6.3	6.6
75	752	5.4	5.5
75	753	4.9	5.0
75	754	4.4	4.4
75	755	3.9	3.9
75	756	3.5	3.5
76	757	3.2	3.1
76	758	3.0	2.8
76	759	2.9	2.8
76	760	10.9	10.8
76	761	47.9	48.1
76	762	55.3	55.9
76	763	8.7	8.9
76	764	5.9	6.0
76	765	5.1	5.2
76	766	4.6	4.6
76	767	4.1	4.1
76	768	3.7	3.6
77	769	3.3	3.2
77	770	3.1	2.9
77	771	2.9	2.8
77	772	6.1	6.0
77	773	67.9	68.1
77	774	121.8	122.8
77	775	24.2	24.5
77	776	6.7	6.8
77	777	6.0	6.0
77	778	27.8	28.1
77	779	6.9	7.1
77	780	5.9	6.0
78	781	5.2	5.2

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
78	782	4.7	4.6
78	783	5.4	5.3
78	784	7.0	7.0
78	785	54.9	55.0
78	786	75.1	75.6
78	787	32.2	32.4
78	788	6.9	6.9
78	789	5.8	5.8
78	790	5.8	5.8
78	791	5.0	4.9
78	792	4.4	4.3
79	793	4.0	3.8
79	794	3.7	3.5
79	795	3.3	3.1
79	796	5.4	5.2
79	797	56.1	56.0
79	798	80.8	81.4
79	799	29.4	29.7
79	800	6.8	6.9
79	801	5.8	5.8
79	802	6.6	6.7
79	803	5.5	5.5
79	804	4.9	4.9
80	805	4.4	4.3
80	806	4.0	3.9
80	807	3.6	3.5
80	808	7.0	6.9
80	809	31.3	31.3
80	810	15.3	15.5
80	811	5.8	5.8
80	812	5.1	5.1
80	813	18.9	19.1
80	814	9.1	9.4
80	815	7.0	7.2
80	816	6.2	6.3
81	817	5.5	5.5
81	818	5.0	5.0
81	819	8.9	9.1

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
81	820	12.7	13.0
81	821	52.8	53.4
81	822	52.4	53.0
81	823	8.5	8.7
81	824	7.3	7.3
81	825	9.0	9.2
81	826	7.2	7.3
81	827	6.4	6.4
81	828	5.7	5.6
82	829	5.1	5.0
82	830	4.6	4.4
82	831	4.2	4.0
82	832	9.8	9.6
82	833	21.8	21.7
82	834	6.4	6.4
82	835	5.3	5.2
82	836	4.8	4.6
82	837	4.3	4.1
82	838	3.9	3.7
82	839	3.5	3.3
82	840	3.3	3.0
83	841	3.0	2.8
83	842	2.8	2.5
83	843	2.6	2.3
83	844	4.4	4.2
83	845	26.9	26.5
83	846	27.7	27.7
83	847	5.2	5.2
83	848	4.6	4.5
83	849	4.1	4.0
83	850	3.7	3.6
83	851	3.4	3.2
83	852	3.1	2.9
84	853	2.8	2.6
84	854	2.6	2.4
84	855	2.4	2.2
84	856	5.2	5.0
84	857	33.4	33.2

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
84	858	42.0	42.4
84	859	6.1	6.3
84	860	5.3	5.3
84	861	4.7	4.7
84	862	4.6	4.6
84	863	4.0	4.0
84	864	3.7	3.6
85	865	3.3	3.2
85	866	3.1	2.9
85	867	2.8	2.7
85	868	16.6	16.4
85	869	24.9	25.1
85	870	9.6	9.8
85	871	5.4	5.6
85	872	4.8	4.8
85	873	4.3	4.3
85	874	3.8	3.8
85	875	3.5	3.4
85	876	3.2	3.0
86	877	2.9	2.8
86	878	2.7	2.5
86	879	2.4	2.3
86	880	3.8	3.7
86	881	13.7	13.6
86	882	16.1	16.2
86	883	5.0	5.2
86	884	4.5	4.5
86	885	4.0	4.0
86	886	3.6	3.6
86	887	3.3	3.2
86	888	3.0	2.9
87	889	2.8	2.7
87	890	2.6	2.4
87	891	2.6	2.5
87	892	10.4	10.3
87	893	10.4	10.5
87	894	10.7	10.8
87	895	4.2	4.2

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
87	896	3.7	3.7
87	897	3.4	3.3
87	898	3.1	3.0
87	899	2.8	2.7
87	900	2.6	2.5
88	901	2.4	2.3
88	902	2.2	2.1
88	903	2.0	1.9
88	904	7.0	6.9
88	905	52.3	52.3
88	906	48.6	49.2
88	907	6.2	6.4
88	908	5.2	5.4
88	909	4.6	4.7
88	910	4.1	4.1
88	911	3.7	3.7
88	912	3.3	3.2
89	913	3.0	2.9
89	914	2.8	2.7
89	915	2.6	2.4
89	916	2.6	2.5
89	917	12.1	11.9
89	918	3.2	3.1
89	919	2.9	2.8
89	920	2.7	2.6
89	921	2.4	2.3
89	922	2.2	2.1
89	923	2.1	1.9
89	924	1.9	1.7
90	925	1.7	1.6
90	926	1.6	1.4
90	927	1.6	1.4
90	928	7.1	7.0
90	929	53.7	53.7
90	930	66.6	67.4
90	931	16.2	16.6
90	932	5.5	5.8
90	933	4.8	4.9

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
90	934	4.4	4.5
90	935	4.0	4.0
90	936	3.6	3.5
91	937	3.2	3.2
91	938	2.9	2.9
91	939	3.5	3.4
91	940	36.1	36.1
91	941	62.9	63.5
91	942	55.5	56.2
91	943	7.1	7.3
91	944	5.9	6.1
91	945	5.1	5.2
91	946	4.6	4.6
91	947	4.1	4.0
91	948	3.7	3.6
92	949	3.3	3.2
92	950	3.0	2.9
92	951	3.0	2.8
92	952	12.4	12.3
92	953	79.9	80.2
92	954	61.1	61.6
92	955	11.8	12.0
92	956	5.9	6.0
92	957	5.1	5.1
92	958	4.9	4.9
92	959	4.3	4.3
92	960	3.9	3.8
93	961	3.5	3.4
93	962	3.2	3.0
93	963	2.9	2.7
93	964	4.9	4.8
93	965	44.4	44.4
93	966	40.3	40.7
93	967	10.6	10.8
93	968	5.7	5.8
93	969	5.2	5.2
93	970	4.6	4.6
93	971	4.1	4.0

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
93	972	3.7	3.6
94	973	3.3	3.2
94	974	3.0	2.9
94	975	2.8	2.6
94	976	3.6	3.5
94	977	46.3	46.1
94	978	86.7	87.3
94	979	20.9	21.2
94	980	6.0	6.1
94	981	5.1	5.2
94	982	4.5	4.5
94	983	4.0	4.0
94	984	3.6	3.5
95	985	3.3	3.1
95	986	3.0	2.9
95	987	2.7	2.6
95	988	10.7	10.5
95	989	34.0	34.0
95	990	27.1	27.3
95	991	5.7	5.8
95	992	4.9	5.0
95	993	4.4	4.4
95	994	5.7	5.8
95	995	4.7	4.8
95	996	4.3	4.3
96	997	3.9	3.8
96	998	3.5	3.5
96	999	3.4	3.3
96	1000	5.2	5.1
96	1001	14.4	14.4
96	1002	7.5	7.6
96	1003	4.5	4.6
96	1004	4.0	4.0
96	1005	3.6	3.6
96	1006	3.7	3.6
96	1007	3.4	3.3
96	1008	3.1	3.0
97	1009	2.9	2.7

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
97	1010	2.6	2.5
97	1011	2.4	2.3
97	1012	8.0	7.9
97	1013	24.9	25.0
97	1014	38.5	38.9
97	1015	5.9	6.0
97	1016	5.1	5.2
97	1017	4.5	4.6
97	1018	4.1	4.0
97	1019	3.7	3.6
97	1020	3.3	3.2
98	1021	3.0	2.9
98	1022	2.8	2.7
98	1023	2.6	2.4
98	1024	5.8	5.7
98	1025	51.7	51.8
98	1026	53.1	53.6
98	1027	6.3	6.4
98	1028	5.3	5.4
98	1029	4.7	4.7
98	1030	4.2	4.1
98	1031	3.8	3.7
98	1032	3.4	3.3
99	1033	3.1	3.0
99	1034	2.8	2.7
99	1035	2.8	2.7
99	1036	11.6	11.5
99	1037	43.7	43.9
99	1038	23.2	23.6
99	1039	6.0	6.2
99	1040	5.2	5.3
99	1041	4.7	4.7
99	1042	5.0	5.0
99	1043	4.3	4.3
99	1044	3.9	3.8
100	1045	3.5	3.4
100	1046	3.2	3.1
100	1047	3.0	2.8

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
100	1048	4.9	4.8
100	1049	26.8	26.9
100	1050	18.7	19.0
100	1051	5.5	5.7
100	1052	4.9	4.9
100	1053	4.4	4.4
100	1054	3.9	3.9
100	1055	3.6	3.5
100	1056	3.2	3.1
101	1057	3.0	2.8
101	1058	2.7	2.6
101	1059	2.5	2.3
101	1060	30.9	30.6
101	1061	79.6	80.0
101	1062	62.7	63.2
101	1063	6.5	6.7
101	1064	5.5	5.6
101	1065	4.8	4.8
101	1066	4.3	4.2
101	1067	3.8	3.7
101	1068	3.5	3.3
102	1069	3.1	3.0
102	1070	2.9	2.7
102	1071	3.4	3.3
102	1072	9.6	9.5
102	1073	31.1	31.2
102	1074	15.8	16.1
102	1075	5.5	5.6
102	1076	4.8	4.8
102	1077	4.3	4.3
102	1078	7.1	7.2
102	1079	5.0	5.1
102	1080	4.4	4.4
103	1081	3.9	3.9
103	1082	3.6	3.5
103	1083	3.3	3.2
103	1084	4.5	4.5
103	1085	55.4	55.5

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
103	1086	54.6	55.0
103	1087	6.5	6.6
103	1088	5.5	5.5
103	1089	4.8	4.8
103	1090	4.3	4.2
103	1091	3.9	3.8
103	1092	3.5	3.3
104	1093	3.2	3.0
104	1094	2.9	2.8
104	1095	2.7	2.5
104	1096	4.1	3.9
104	1097	46.2	46.0
104	1098	45.0	45.2
104	1099	5.8	5.9
104	1100	5.0	5.0
104	1101	4.4	4.4
104	1102	5.1	5.2
104	1103	4.4	4.4
104	1104	4.0	3.9
105	1105	3.6	3.5
105	1106	3.3	3.2
105	1107	3.4	3.3
105	1108	5.6	5.6
105	1109	20.2	20.3
105	1110	74.1	74.8
105	1111	7.3	7.6
105	1112	6.2	6.4
105	1113	5.4	5.5
105	1114	4.9	4.9
105	1115	4.3	4.3
105	1116	3.9	3.8
106	1117	3.5	3.4
106	1118	3.2	3.1
106	1119	2.9	2.8
106	1120	4.1	4.0
106	1121	40.1	40.1
106	1122	66.8	67.3
106	1123	14.1	14.4

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
106	1124	6.1	6.3
106	1125	5.3	5.4
106	1126	4.9	4.9
106	1127	4.4	4.3
106	1128	3.9	3.8
107	1129	3.6	3.4
107	1130	3.3	3.1
107	1131	3.0	2.8
107	1132	24.9	24.7
107	1133	54.5	54.8
107	1134	40.0	40.4
107	1135	6.9	7.1
107	1136	5.9	6.0
107	1137	5.2	5.2
107	1138	5.5	5.6
107	1139	4.8	4.8
107	1140	4.3	4.2
108	1141	3.9	3.8
108	1142	3.5	3.4
108	1143	3.5	3.4
108	1144	6.5	6.5
108	1145	36.8	36.9
108	1146	39.2	39.6
108	1147	6.5	6.6
108	1148	5.6	5.6
108	1149	8.0	8.2
108	1150	6.6	6.8
108	1151	5.8	5.9
108	1152	5.2	5.2
109	1153	4.6	4.6
109	1154	4.2	4.1
109	1155	4.6	4.5
109	1156	7.4	7.4
109	1157	41.5	41.7
109	1158	28.6	28.9
109	1159	6.8	7.0
109	1160	5.9	5.9
109	1161	5.2	5.2

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
109	1162	4.7	4.7
109	1163	4.3	4.1
109	1164	3.8	3.7
110	1165	3.5	3.3
110	1166	3.2	3.0
110	1167	5.3	5.1
110	1168	6.5	6.5
110	1169	33.3	33.4
110	1170	18.7	18.9
110	1171	6.0	6.0
110	1172	5.2	5.2
110	1173	4.7	4.6
110	1174	4.2	4.1
110	1175	3.8	3.7
110	1176	3.5	3.3
111	1177	3.2	3.0
111	1178	2.9	2.7
111	1179	2.9	2.7
111	1180	42.5	42.0
111	1181	43.6	43.9
111	1182	33.0	33.3
111	1183	6.1	6.2
111	1184	5.2	5.2
111	1185	4.6	4.6
111	1186	5.9	6.0
111	1187	5.2	5.2
111	1188	4.6	4.6
112	1189	4.1	4.1
112	1190	3.8	3.7
112	1191	6.7	6.7
112	1192	11.1	11.2
112	1193	90.6	91.3
112	1194	86.8	87.7
112	1195	8.2	8.4
112	1196	6.9	7.0
112	1197	7.0	7.1
112	1198	7.9	8.1
112	1199	6.7	6.8

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
112	1200	5.8	5.8

Abbreviations:

cfs= cubic feet per second

SHSM = Stibnite Hydrologic Site Model

USGS = United States Geologic Survey

Table B - 17. Simulated Streamflow at USGS Gage 13311000

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
13	1	13.0	12.3
13	2	12.0	11.5
13	3	13.6	12.3
13	4	17.6	15.3
13	5	52.6	50.2
13	6	154.3	152.0
13	7	16.7	15.7
13	8	14.8	13.9
13	9	13.4	12.6
13	10	14.7	14.0
13	11	12.5	11.8
13	12	11.6	10.9
14	13	10.8	10.3
14	14	10.1	9.7
14	15	10.0	9.3
14	16	28.4	26.3
14	17	70.0	67.3
14	18	48.1	46.5
14	19	14.5	13.5
14	20	13.0	12.1
14	21	11.9	11.0
14	22	11.4	10.6
14	23	10.5	10.0
14	24	9.8	9.3
15	25	9.1	8.7
15	26	8.6	7.9

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
15	27	8.1	7.5
15	28	11.5	10.6
15	29	45.2	43.0
15	30	94.9	92.9
15	31	24.8	24.0
15	32	14.0	13.5
15	33	13.1	13.6
15	34	33.4	33.2
15	35	14.7	14.6
15	36	13.1	13.1
16	37	12.0	11.9
16	38	11.1	11.2
16	39	12.9	12.5
16	40	17.7	17.8
16	41	166.3	161.9
16	42	157.5	156.5
16	43	17.4	16.8
16	44	15.0	14.7
16	45	13.5	13.3
16	46	12.4	12.3
16	47	11.7	11.7
16	48	10.7	10.6
17	49	10.0	9.7
17	50	9.3	9.1
17	51	8.8	8.7
17	52	11.7	11.9
17	53	99.7	97.0
17	54	148.4	147.4
17	55	14.7	14.2
17	56	12.9	12.5
17	57	11.7	11.3
17	58	10.6	10.3
17	59	9.8	9.4

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
17	60	9.1	8.7
18	61	8.4	8.1
18	62	8.0	7.5
18	63	7.5	7.2
18	64	10.4	10.7
18	65	85.1	84.1
18	66	123.2	122.9
18	67	23.6	23.2
18	68	13.7	13.3
18	69	12.2	11.9
18	70	11.7	11.5
18	71	10.8	10.6
18	72	9.9	9.7
19	73	9.2	9.0
19	74	8.7	8.4
19	75	8.2	8.0
19	76	10.0	9.6
19	77	31.0	31.1
19	78	16.6	16.5
19	79	10.0	9.5
19	80	9.2	8.8
19	81	8.6	8.6
19	82	9.2	9.0
19	83	8.6	8.4
19	84	8.2	7.9
20	85	7.7	7.5
20	86	7.4	7.3
20	87	8.4	8.6
20	88	66.5	65.9
20	89	173.9	172.6
20	90	103.2	103.9
20	91	15.1	14.7
20	92	13.1	12.8

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
20	93	11.9	11.7
20	94	11.4	11.2
20	95	10.4	10.2
20	96	9.6	9.4
21	97	8.9	8.8
21	98	8.4	8.8
21	99	8.7	9.3
21	100	37.9	39.1
21	101	61.1	60.8
21	102	42.6	42.2
21	103	12.7	12.3
21	104	11.4	11.1
21	105	10.4	10.2
21	106	10.0	10.4
21	107	9.7	9.7
21	108	9.0	8.9
22	109	8.5	8.3
22	110	8.1	7.8
22	111	7.6	8.9
22	112	12.3	14.3
22	113	148.0	145.8
22	114	206.8	205.8
22	115	29.9	29.8
22	116	13.6	13.9
22	117	31.0	31.4
22	118	17.3	18.0
22	119	16.7	16.3
22	120	14.0	13.9
23	121	12.6	12.5
23	122	11.6	12.3
23	123	12.8	14.1
23	124	17.9	19.5
23	125	218.1	215.9

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
23	126	78.4	79.7
23	127	19.0	19.0
23	128	14.0	14.0
23	129	12.6	12.8
23	130	11.5	11.8
23	131	10.5	10.9
23	132	9.8	10.0
24	133	9.0	9.3
24	134	8.5	8.7
24	135	8.0	8.4
24	136	10.0	10.5
24	137	39.6	41.7
24	138	69.4	69.4
24	139	12.5	12.6
24	140	11.2	11.4
24	141	10.2	10.5
24	142	9.4	9.7
24	143	8.8	9.0
24	144	8.2	8.4
25	145	7.7	7.9
25	146	7.3	7.6
25	147	6.9	8.7
25	148	41.9	43.7
25	149	71.2	72.9
25	150	53.8	53.9
25	151	13.4	13.5
25	152	11.9	12.2
25	153	10.8	11.1
25	154	10.9	11.3
25	155	9.9	10.3
25	156	9.3	9.6
26	157	8.7	9.0
26	158	8.2	8.5

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
26	159	7.7	8.3
26	160	12.0	13.0
26	161	56.7	59.3
26	162	47.5	47.8
26	163	12.4	12.6
26	164	11.1	11.4
26	165	10.3	10.6
26	166	12.7	13.6
26	167	10.3	10.8
26	168	9.7	10.1
27	169	9.1	9.4
27	170	8.6	8.9
27	171	8.1	9.3
27	172	15.7	19.0
27	173	140.3	144.8
27	174	137.7	140.4
27	175	36.8	36.9
27	176	15.0	15.2
27	177	13.2	13.5
27	178	11.9	12.2
27	179	10.9	11.2
27	180	10.0	10.2
28	181	9.2	9.4
28	182	8.6	8.8
28	183	8.1	8.5
28	184	9.2	11.1
28	185	72.3	75.4
28	186	183.9	186.6
28	187	13.9	14.0
28	188	12.2	12.1
28	189	10.9	11.0
28	190	15.7	16.4
28	191	10.7	11.0

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
28	192	9.9	10.2
29	193	9.6	9.8
29	194	10.5	10.5
29	195	13.1	13.3
29	196	47.5	48.6
29	197	46.0	46.7
29	198	29.7	30.1
29	199	13.5	13.9
29	200	12.2	12.6
29	201	11.2	11.5
29	202	11.1	11.6
29	203	10.4	10.9
29	204	9.7	10.0
30	205	9.1	9.4
30	206	8.6	8.8
30	207	8.1	8.8
30	208	16.5	17.4
30	209	57.4	60.2
30	210	82.0	82.7
30	211	14.6	14.6
30	212	13.0	13.2
30	213	11.8	12.0
30	214	10.8	11.0
30	215	10.0	10.1
30	216	9.2	9.4
31	217	8.6	8.7
31	218	8.1	8.2
31	219	7.6	9.0
31	220	20.4	24.4
31	221	166.2	170.0
31	222	114.9	116.6
31	223	14.5	14.4
31	224	12.6	12.6

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
31	225	11.4	11.4
31	226	10.4	10.4
31	227	9.5	9.6
31	228	8.8	8.8
32	229	8.2	8.2
32	230	7.7	7.7
32	231	7.2	7.5
32	232	9.8	11.2
32	233	79.0	81.3
32	234	92.2	93.2
32	235	13.5	13.4
32	236	11.6	11.5
32	237	10.5	10.4
32	238	9.6	9.6
32	239	8.8	8.8
32	240	8.2	8.2
33	241	7.6	7.6
33	242	7.2	7.2
33	243	6.7	7.9
33	244	11.3	14.5
33	245	142.9	148.8
33	246	253.7	257.5
33	247	40.3	40.2
33	248	13.3	13.2
33	249	11.7	11.6
33	250	10.6	10.6
33	251	9.7	9.7
33	252	8.9	9.0
34	253	8.2	8.3
34	254	7.7	7.8
34	255	7.2	7.9
34	256	16.5	18.2
34	257	67.8	70.0

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
34	258	43.1	43.2
34	259	12.6	12.7
34	260	11.4	11.4
34	261	10.4	10.5
34	262	10.4	10.6
34	263	9.5	9.8
34	264	8.9	9.1
35	265	8.3	8.5
35	266	7.9	8.4
35	267	11.0	12.7
35	268	61.2	64.6
35	269	151.4	155.2
35	270	94.9	95.4
35	271	15.2	15.2
35	272	13.2	14.5
35	273	29.2	30.0
35	274	26.6	26.9
35	275	15.6	16.0
35	276	14.0	14.5
36	277	12.8	13.2
36	278	11.9	12.4
36	279	13.5	14.0
36	280	23.0	25.1
36	281	131.7	135.9
36	282	100.7	102.1
36	283	17.9	17.9
36	284	15.6	15.7
36	285	14.0	14.1
36	286	14.0	14.3
36	287	12.6	12.9
36	288	11.7	11.9
37	289	10.8	11.0
37	290	10.1	10.2

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
37	291	9.5	11.1
37	292	47.8	50.7
37	293	121.5	124.6
37	294	97.5	98.4
37	295	24.8	24.5
37	296	15.7	15.6
37	297	13.9	14.0
37	298	12.6	12.6
37	299	11.5	11.5
37	300	10.6	10.5
38	301	9.8	9.7
38	302	9.1	9.0
38	303	8.5	12.4
38	304	103.9	106.6
38	305	110.7	114.8
38	306	157.0	159.2
38	307	65.5	65.2
38	308	16.0	15.9
38	309	14.0	14.0
38	310	13.2	13.3
38	311	11.9	12.0
38	312	11.0	11.0
39	313	10.1	10.1
39	314	9.5	9.4
39	315	8.8	8.9
39	316	11.9	11.8
39	317	31.8	34.1
39	318	65.8	65.6
39	319	13.2	13.2
39	320	12.0	11.9
39	321	11.0	11.0
39	322	10.1	10.1
39	323	9.4	9.3

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
39	324	8.8	8.7
40	325	8.2	8.1
40	326	7.8	7.7
40	327	7.3	7.4
40	328	7.7	11.3
40	329	154.1	157.0
40	330	127.5	129.1
40	331	26.9	26.7
40	332	12.6	12.4
40	333	11.2	11.1
40	334	10.2	10.1
40	335	9.4	9.3
40	336	8.7	8.6
41	337	8.1	8.0
41	338	7.6	7.6
41	339	7.1	9.1
41	340	45.1	48.0
41	341	134.7	138.1
41	342	97.5	98.6
41	343	27.1	27.0
41	344	13.4	13.3
41	345	12.8	13.1
41	346	24.4	24.9
41	347	14.2	14.5
41	348	12.8	13.1
42	349	11.7	12.0
42	350	11.2	11.7
42	351	14.8	15.5
42	352	31.6	34.8
42	353	166.0	170.8
42	354	91.4	91.4
42	355	17.8	17.7
42	356	15.5	15.6

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
42	357	13.8	14.5
42	358	39.4	39.9
42	359	14.0	14.3
42	360	12.7	12.9
43	361	11.6	11.8
43	362	10.8	10.9
43	363	10.0	11.0
43	364	22.8	25.7
43	365	158.5	163.2
43	366	172.5	174.8
43	367	17.2	17.1
43	368	14.9	14.8
43	369	13.3	13.3
43	370	12.0	12.0
43	371	11.0	11.0
43	372	10.1	10.1
44	373	9.4	9.3
44	374	8.8	8.7
44	375	8.2	10.1
44	376	49.8	52.3
44	377	138.3	140.6
44	378	49.3	49.2
44	379	14.0	13.8
44	380	12.4	12.3
44	381	11.2	11.1
44	382	10.6	10.5
44	383	10.3	10.4
44	384	9.5	9.5
45	385	8.9	8.9
45	386	8.4	8.5
45	387	7.9	9.0
45	388	21.2	22.8
45	389	68.3	72.1

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
45	390	158.5	160.5
45	391	20.6	20.4
45	392	14.7	14.6
45	393	13.1	13.8
45	394	47.1	47.4
45	395	14.3	14.4
45	396	13.2	13.1
46	397	11.6	11.6
46	398	10.6	10.7
46	399	9.8	11.8
46	400	68.9	71.2
46	401	121.7	124.7
46	402	72.2	72.1
46	403	15.8	15.8
46	404	13.9	13.9
46	405	12.5	13.1
46	406	22.0	22.3
46	407	13.8	14.1
46	408	12.6	12.8
47	409	11.6	11.8
47	410	10.8	10.9
47	411	10.0	11.9
47	412	63.4	66.1
47	413	140.4	144.6
47	414	137.0	138.4
47	415	17.1	16.9
47	416	14.7	14.7
47	417	13.2	13.1
47	418	11.9	11.9
47	419	10.9	10.8
47	420	10.0	9.9
48	421	9.3	9.2
48	422	8.7	8.7

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
48	423	8.2	9.0
48	424	13.8	15.1
48	425	102.1	105.4
48	426	165.0	167.4
48	427	47.5	47.2
48	428	15.0	14.8
48	429	13.2	13.1
48	430	11.8	11.8
48	431	10.8	10.7
48	432	9.9	9.8
49	433	9.1	9.0
49	434	8.6	8.5
49	435	8.0	9.5
49	436	22.0	24.7
49	437	129.5	133.9
49	438	140.2	141.4
49	439	33.3	33.0
49	440	14.9	14.8
49	441	13.2	13.1
49	442	11.8	11.8
49	443	10.8	10.8
49	444	9.9	9.8
50	445	9.1	9.1
50	446	8.5	8.4
50	447	8.0	8.0
50	448	10.2	11.7
50	449	69.4	71.4
50	450	89.1	91.1
50	451	23.2	23.2
50	452	12.9	12.8
50	453	11.6	11.5
50	454	11.5	11.6
50	455	10.4	10.5

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
50	456	9.7	9.8
51	457	9.0	9.1
51	458	8.5	8.5
51	459	8.0	10.6
51	460	55.0	60.6
51	461	231.9	236.8
51	462	144.6	147.0
51	463	17.1	17.0
51	464	14.0	13.9
51	465	12.5	12.8
51	466	18.7	19.1
51	467	13.0	13.2
51	468	11.9	12.1
52	469	11.0	11.2
52	470	10.3	10.5
52	471	10.2	10.9
52	472	22.2	25.4
52	473	176.6	180.4
52	474	87.1	87.7
52	475	15.9	15.8
52	476	13.9	13.9
52	477	12.5	12.6
52	478	11.4	11.4
52	479	10.5	10.5
52	480	9.7	9.6
53	481	9.0	8.9
53	482	8.4	8.4
53	483	7.9	8.3
53	484	14.2	16.8
53	485	144.8	148.3
53	486	86.8	87.5
53	487	13.7	13.4
53	488	12.1	11.9

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
53	489	10.9	10.8
53	490	10.0	9.9
53	491	9.2	9.1
53	492	8.6	8.5
54	493	8.0	7.9
54	494	7.5	7.4
54	495	7.0	8.6
54	496	29.2	32.5
54	497	107.5	111.2
54	498	180.4	183.1
54	499	16.0	15.8
54	500	13.9	14.7
54	501	24.6	25.2
54	502	38.3	38.4
54	503	16.6	16.9
54	504	14.7	15.0
55	505	13.3	13.6
55	506	12.3	12.6
55	507	12.3	13.2
55	508	30.7	33.3
55	509	113.2	116.1
55	510	83.9	84.7
55	511	17.1	17.1
55	512	15.0	15.1
55	513	13.5	13.6
55	514	12.3	12.4
55	515	11.3	11.3
55	516	10.4	10.4
56	517	9.6	9.6
56	518	9.0	9.1
56	519	8.5	9.3
56	520	17.0	19.2
56	521	149.9	153.5

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
56	522	142.4	144.5
56	523	15.1	15.0
56	524	13.2	13.1
56	525	12.8	13.0
56	526	25.4	25.8
56	527	13.6	13.8
56	528	12.5	12.6
57	529	11.5	11.6
57	530	10.7	10.8
57	531	10.0	11.8
57	532	56.6	58.8
57	533	114.4	117.3
57	534	93.1	94.0
57	535	17.0	16.9
57	536	14.9	14.9
57	537	13.3	15.0
57	538	60.3	59.9
57	539	16.7	16.6
57	540	14.3	14.3
58	541	12.8	13.0
58	542	14.2	13.8
58	543	11.8	12.5
58	544	18.4	19.8
58	545	137.2	142.2
58	546	146.9	148.0
58	547	17.9	17.5
58	548	15.4	15.3
58	549	13.7	13.7
58	550	12.4	12.4
58	551	11.4	11.3
58	552	10.4	10.4
59	553	9.7	9.5
59	554	9.0	8.9

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
59	555	8.4	8.6
59	556	10.5	12.1
59	557	87.4	90.6
59	558	181.4	183.3
59	559	40.5	40.3
59	560	13.9	13.7
59	561	12.3	12.2
59	562	11.1	11.0
59	563	10.2	10.1
59	564	9.4	9.3
60	565	8.7	8.6
60	566	8.2	8.0
60	567	7.6	10.6
60	568	60.3	63.1
60	569	129.1	134.7
60	570	233.9	237.3
60	571	76.0	76.1
60	572	15.7	15.6
60	573	14.5	14.6
60	574	12.8	12.9
60	575	11.6	11.7
60	576	10.6	10.7
61	577	9.8	9.8
61	578	9.2	9.2
61	579	8.5	8.8
61	580	10.6	12.0
61	581	83.6	86.3
61	582	62.5	62.5
61	583	12.6	12.5
61	584	11.3	11.2
61	585	10.3	10.3
61	586	9.5	9.5
61	587	8.8	8.8

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
61	588	8.2	8.2
62	589	7.7	7.6
62	590	7.3	7.2
62	591	6.8	7.0
62	592	8.9	12.1
62	593	116.0	119.9
62	594	188.0	190.3
62	595	29.2	29.2
62	596	13.3	13.1
62	597	11.8	12.2
62	598	17.9	18.4
62	599	12.7	12.9
62	600	11.5	11.7
63	601	10.6	10.8
63	602	10.2	10.4
63	603	11.8	11.7
63	604	13.7	14.8
63	605	87.6	90.1
63	606	117.3	119.0
63	607	15.6	15.5
63	608	13.6	13.6
63	609	20.6	21.2
63	610	17.8	18.3
63	611	13.3	13.6
63	612	12.1	12.4
64	613	11.2	11.4
64	614	10.4	10.6
64	615	9.7	12.1
64	616	66.8	70.1
64	617	176.4	180.6
64	618	109.3	110.6
64	619	16.3	16.2
64	620	14.1	14.1

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
64	621	12.7	12.7
64	622	12.6	12.7
64	623	11.4	11.5
64	624	10.6	10.6
65	625	9.8	9.9
65	626	9.2	9.3
65	627	8.6	8.8
65	628	10.2	14.5
65	629	153.2	158.4
65	630	244.0	247.0
65	631	15.7	15.8
65	632	13.3	14.2
65	633	29.2	29.5
65	634	19.4	19.5
65	635	16.3	16.4
65	636	14.5	14.8
66	637	13.2	13.5
66	638	12.2	12.5
66	639	11.3	13.0
66	640	22.8	27.2
66	641	227.9	234.5
66	642	218.8	221.1
66	643	52.9	52.7
66	644	16.8	16.7
66	645	14.8	14.8
66	646	13.2	13.2
66	647	12.0	12.0
66	648	11.0	11.0
67	649	10.2	10.1
67	650	9.5	9.5
67	651	8.9	9.9
67	652	15.9	18.1
67	653	168.2	172.4

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
67	654	173.0	175.2
67	655	16.1	15.8
67	656	13.9	13.7
67	657	12.5	12.3
67	658	11.3	11.1
67	659	10.3	10.2
67	660	9.5	9.4
68	661	8.8	8.7
68	662	8.3	8.1
68	663	7.8	7.8
68	664	9.3	10.1
68	665	61.7	63.0
68	666	61.1	60.9
68	667	11.9	11.7
68	668	10.8	10.6
68	669	9.9	9.8
68	670	9.7	9.7
68	671	9.0	9.0
68	672	8.4	8.4
69	673	7.9	7.9
69	674	7.5	7.7
69	675	7.2	11.0
69	676	80.9	84.3
69	677	173.6	180.6
69	678	334.9	340.2
69	679	15.9	16.0
69	680	13.8	13.8
69	681	12.4	12.4
69	682	11.2	11.2
69	683	10.3	10.3
69	684	9.4	9.4
70	685	8.8	8.7
70	686	8.2	8.1

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
70	687	7.7	7.6
70	688	7.3	9.5
70	689	70.9	73.7
70	690	147.8	150.0
70	691	30.7	30.5
70	692	12.3	12.1
70	693	11.0	11.5
70	694	21.8	22.2
70	695	12.4	12.5
70	696	11.3	11.3
71	697	10.4	10.4
71	698	9.6	9.7
71	699	8.9	9.8
71	700	18.8	21.1
71	701	126.8	130.6
71	702	92.5	93.8
71	703	32.6	32.6
71	704	14.8	14.8
71	705	13.1	13.2
71	706	11.8	11.9
71	707	10.8	10.8
71	708	9.9	9.9
72	709	9.1	9.1
72	710	8.6	8.5
72	711	8.0	8.0
72	712	7.6	7.6
72	713	17.8	18.7
72	714	16.4	16.8
72	715	8.6	8.5
72	716	8.1	8.7
72	717	13.4	14.2
72	718	10.6	10.7
72	719	9.7	9.8

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
72	720	9.2	9.3
73	721	8.7	8.8
73	722	8.3	8.7
73	723	12.3	13.0
73	724	28.5	31.6
73	725	95.7	99.0
73	726	123.2	125.7
73	727	50.4	50.3
73	728	16.2	16.2
73	729	14.3	14.5
73	730	12.8	13.0
73	731	11.7	11.9
73	732	10.7	10.8
74	733	9.9	10.0
74	734	9.2	9.2
74	735	8.6	8.8
74	736	9.3	9.9
74	737	51.9	52.7
74	738	49.3	49.0
74	739	11.4	11.2
74	740	10.2	10.1
74	741	9.4	9.3
74	742	9.4	9.4
74	743	8.7	8.7
74	744	8.2	8.2
75	745	7.7	7.8
75	746	7.3	7.4
75	747	6.9	8.2
75	748	38.1	41.4
75	749	127.9	130.8
75	750	88.3	89.4
75	751	18.1	18.1
75	752	13.3	13.2

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
75	753	12.3	12.3
75	754	11.1	11.2
75	755	10.3	10.4
75	756	9.5	9.6
76	757	8.8	8.9
76	758	8.3	8.5
76	759	8.7	9.5
76	760	31.2	33.5
76	761	113.3	117.2
76	762	126.9	128.8
76	763	24.0	23.9
76	764	14.4	14.4
76	765	12.8	12.8
76	766	11.7	11.8
76	767	10.7	10.9
76	768	9.9	9.9
77	769	9.1	9.2
77	770	8.6	8.7
77	771	8.7	9.3
77	772	18.7	22.1
77	773	166.3	172.8
77	774	273.9	278.2
77	775	56.4	56.7
77	776	15.3	15.3
77	777	14.0	15.1
77	778	65.2	65.5
77	779	15.8	16.1
77	780	14.0	14.2
78	781	12.6	12.8
78	782	11.6	12.0
78	783	13.8	14.4
78	784	17.4	19.4
78	785	136.1	140.2

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
78	786	171.7	174.9
78	787	74.8	75.3
78	788	17.5	17.4
78	789	14.1	14.1
78	790	13.5	13.6
78	791	12.0	12.2
78	792	11.0	11.1
79	793	10.2	10.2
79	794	9.5	9.6
79	795	8.9	9.4
79	796	13.4	16.1
79	797	138.2	143.0
79	798	185.3	188.5
79	799	67.9	68.1
79	800	15.6	15.4
79	801	13.8	13.7
79	802	14.5	14.7
79	803	12.9	13.1
79	804	11.8	12.0
80	805	11.0	11.1
80	806	10.3	10.3
80	807	9.6	10.2
80	808	21.8	23.2
80	809	75.7	77.2
80	810	39.7	39.7
80	811	14.0	13.9
80	812	12.5	13.9
80	813	49.7	49.7
80	814	19.4	19.4
80	815	15.9	16.1
80	816	14.4	14.7
81	817	13.2	13.5
81	818	12.2	13.4

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
81	819	26.4	27.8
81	820	33.7	36.3
81	821	121.5	125.2
81	822	118.9	120.5
81	823	19.4	19.4
81	824	17.0	17.6
81	825	22.5	23.1
81	826	16.6	16.9
81	827	15.1	15.4
81	828	13.8	14.1
82	829	12.7	12.9
82	830	11.8	12.0
82	831	11.0	11.4
82	832	28.7	29.2
82	833	56.4	56.8
82	834	20.3	20.2
82	835	13.3	13.2
82	836	12.1	12.0
82	837	11.1	11.0
82	838	10.3	10.2
82	839	9.6	9.5
82	840	9.0	8.8
83	841	8.4	8.2
83	842	8.0	7.7
83	843	7.5	8.0
83	844	16.6	17.9
83	845	69.7	70.7
83	846	68.1	68.0
83	847	12.9	12.6
83	848	11.6	11.4
83	849	10.6	10.4
83	850	9.7	9.6
83	851	9.0	8.9

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
83	852	8.5	8.3
84	853	7.9	7.8
84	854	7.5	7.3
84	855	7.0	8.2
84	856	20.7	22.7
84	857	83.4	85.3
84	858	98.6	99.8
84	859	14.5	14.3
84	860	12.7	12.6
84	861	11.5	11.5
84	862	11.2	11.3
84	863	10.2	10.3
84	864	9.5	9.5
85	865	8.8	8.9
85	866	8.3	8.4
85	867	7.8	8.9
85	868	43.2	45.6
85	869	62.4	63.1
85	870	27.0	26.9
85	871	13.2	13.1
85	872	11.8	11.8
85	873	10.7	10.8
85	874	9.9	9.9
85	875	9.2	9.2
85	876	8.6	8.5
86	877	8.0	8.0
86	878	7.6	7.5
86	879	7.1	7.2
86	880	9.8	10.0
86	881	35.8	37.5
86	882	42.0	41.7
86	883	12.2	12.3
86	884	11.1	11.2

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
86	885	10.2	10.3
86	886	9.5	9.6
86	887	8.8	8.9
86	888	8.3	8.3
87	889	7.8	7.8
87	890	7.4	7.5
87	891	7.4	7.9
87	892	29.1	29.6
87	893	28.7	29.3
87	894	29.6	29.4
87	895	10.9	10.9
87	896	9.9	9.9
87	897	9.2	9.2
87	898	8.5	8.6
87	899	8.0	8.0
87	900	7.5	7.5
88	901	7.1	7.0
88	902	6.7	6.7
88	903	6.7	7.6
88	904	23.8	26.4
88	905	125.8	129.8
88	906	112.6	114.5
88	907	17.5	17.5
88	908	13.1	13.1
88	909	11.7	11.7
88	910	10.6	10.7
88	911	9.7	9.8
88	912	9.0	9.0
89	913	8.3	8.3
89	914	7.8	7.8
89	915	7.3	7.3
89	916	7.4	7.6
89	917	32.4	33.3

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
89	918	10.1	10.3
89	919	8.3	8.1
89	920	7.8	7.7
89	921	7.3	7.2
89	922	6.9	6.8
89	923	6.5	6.4
89	924	6.2	6.1
90	925	5.9	5.8
90	926	5.7	5.8
90	927	5.9	7.0
90	928	24.8	28.1
90	929	131.7	135.9
90	930	152.7	155.2
90	931	40.0	39.9
90	932	13.5	13.5
90	933	11.9	11.9
90	934	11.0	11.2
90	935	10.1	10.3
90	936	9.3	9.4
91	937	8.6	8.7
91	938	8.1	8.4
91	939	9.7	12.0
91	940	93.9	97.1
91	941	147.3	151.3
91	942	124.8	126.9
91	943	17.0	17.1
91	944	13.8	13.9
91	945	12.3	12.4
91	946	11.2	11.3
91	947	10.3	10.4
91	948	9.5	9.5
92	949	8.8	8.8
92	950	8.2	8.4

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
92	951	8.6	10.2
92	952	36.8	40.3
92	953	188.6	193.5
92	954	136.7	139.6
92	955	29.8	29.8
92	956	14.0	13.9
92	957	12.3	12.3
92	958	11.8	11.9
92	959	10.7	10.8
92	960	9.9	9.9
93	961	9.1	9.2
93	962	8.5	8.6
93	963	8.0	8.3
93	964	12.0	13.8
93	965	108.8	112.7
93	966	94.5	96.1
93	967	28.3	28.3
93	968	13.9	13.9
93	969	12.8	12.9
93	970	11.6	11.7
93	971	10.6	10.8
93	972	9.8	9.9
94	973	9.1	9.1
94	974	8.5	8.6
94	975	8.0	8.4
94	976	10.3	13.1
94	977	118.0	122.2
94	978	200.1	202.9
94	979	49.5	49.6
94	980	14.2	14.1
94	981	12.5	12.4
94	982	11.2	11.2
94	983	10.3	10.2

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
94	984	9.4	9.4
95	985	8.7	8.7
95	986	8.2	8.1
95	987	7.6	8.9
95	988	33.1	35.7
95	989	84.6	86.4
95	990	64.9	65.0
95	991	13.5	13.3
95	992	12.0	11.9
95	993	10.9	11.0
95	994	17.6	18.4
95	995	11.2	11.4
95	996	10.4	10.5
96	997	9.7	9.8
96	998	9.1	9.2
96	999	9.0	9.1
96	1000	12.2	12.0
96	1001	37.1	38.3
96	1002	22.0	22.3
96	1003	11.4	11.3
96	1004	10.4	10.4
96	1005	9.6	9.6
96	1006	9.5	9.7
96	1007	9.0	9.1
96	1008	8.5	8.6
97	1009	8.0	8.1
97	1010	7.6	7.6
97	1011	7.2	8.2
97	1012	25.0	26.7
97	1013	61.1	63.4
97	1014	91.5	92.5
97	1015	14.2	14.2
97	1016	12.6	12.6

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
97	1017	11.4	11.5
97	1018	10.5	10.5
97	1019	9.6	9.7
97	1020	8.9	8.9
98	1021	8.3	8.3
98	1022	7.8	7.9
98	1023	7.5	8.8
98	1024	18.7	20.6
98	1025	128.5	132.2
98	1026	121.8	124.0
98	1027	14.7	14.7
98	1028	12.9	12.9
98	1029	11.6	11.6
98	1030	10.6	10.6
98	1031	9.7	9.7
98	1032	9.0	9.0
99	1033	8.3	8.3
99	1034	7.8	7.9
99	1035	8.2	8.7
99	1036	31.8	34.2
99	1037	105.9	107.5
99	1038	55.9	56.1
99	1039	14.2	14.2
99	1040	12.6	12.7
99	1041	11.6	11.7
99	1042	11.7	12.0
99	1043	10.7	10.9
99	1044	10.0	10.2
100	1045	9.3	9.4
100	1046	8.8	8.9
100	1047	8.2	8.6
100	1048	12.8	13.6
100	1049	66.6	68.8

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
100	1050	47.2	47.6
100	1051	13.4	13.5
100	1052	12.1	12.2
100	1053	11.0	11.2
100	1054	10.2	10.3
100	1055	9.4	9.5
100	1056	8.8	8.8
101	1057	8.2	8.3
101	1058	7.8	7.8
101	1059	7.3	10.6
101	1060	86.6	90.7
101	1061	186.6	191.1
101	1062	139.7	141.7
101	1063	15.0	14.9
101	1064	13.0	12.9
101	1065	11.7	11.6
101	1066	10.6	10.5
101	1067	9.7	9.7
101	1068	9.0	8.9
102	1069	8.3	8.2
102	1070	7.8	7.9
102	1071	9.2	9.6
102	1072	26.9	28.1
102	1073	73.8	75.0
102	1074	39.8	39.8
102	1075	13.3	13.2
102	1076	11.9	12.0
102	1077	10.9	11.1
102	1078	21.2	22.0
102	1079	12.2	12.4
102	1080	11.0	11.2
103	1081	10.2	10.3
103	1082	9.5	9.6

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
103	1083	8.9	9.2
103	1084	11.7	14.5
103	1085	138.6	141.4
103	1086	126.9	129.3
103	1087	18.1	18.2
103	1088	13.4	13.3
103	1089	12.0	11.9
103	1090	10.9	10.8
103	1091	10.0	9.9
103	1092	9.2	9.1
104	1093	8.5	8.5
104	1094	8.0	7.9
104	1095	7.5	7.9
104	1096	10.5	12.4
104	1097	113.6	116.8
104	1098	104.3	105.9
104	1099	14.1	14.0
104	1100	12.4	12.2
104	1101	11.2	11.1
104	1102	11.8	12.1
104	1103	10.8	11.0
104	1104	10.0	10.2
105	1105	9.4	9.5
105	1106	8.8	9.0
105	1107	9.3	9.4
105	1108	13.6	14.0
105	1109	51.2	55.4
105	1110	172.3	175.0
105	1111	17.0	17.1
105	1112	14.8	14.9
105	1113	13.3	13.4
105	1114	12.2	12.4
105	1115	11.2	11.4

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
105	1116	10.3	10.5
106	1117	9.6	9.7
106	1118	8.9	9.0
106	1119	8.4	8.7
106	1120	10.6	13.3
106	1121	102.1	105.8
106	1122	156.9	159.1
106	1123	35.6	35.7
106	1124	14.6	14.6
106	1125	13.0	13.0
106	1126	12.2	12.3
106	1127	11.1	11.2
106	1128	10.3	10.3
107	1129	9.5	9.5
107	1130	9.0	9.1
107	1131	8.6	10.6
107	1132	67.1	69.3
107	1133	128.7	132.0
107	1134	92.4	93.6
107	1135	15.9	15.8
107	1136	13.9	13.9
107	1137	12.4	12.5
107	1138	12.7	13.0
107	1139	11.6	11.8
107	1140	10.7	10.9
108	1141	10.0	10.0
108	1142	9.3	9.5
108	1143	9.7	10.1
108	1144	20.4	21.4
108	1145	88.9	91.9
108	1146	92.4	93.4
108	1147	15.2	15.2
108	1148	13.4	14.4

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
108	1149	24.9	25.4
108	1150	14.8	15.2
108	1151	13.4	13.8
108	1152	12.3	12.6
109	1153	11.4	11.6
109	1154	10.6	10.9
109	1155	12.0	12.2
109	1156	21.2	22.1
109	1157	101.0	103.8
109	1158	68.6	68.6
109	1159	15.9	15.8
109	1160	14.1	14.1
109	1161	12.8	12.8
109	1162	11.8	11.9
109	1163	10.9	11.0
109	1164	10.1	10.2
110	1165	9.4	9.6
110	1166	9.3	9.5
110	1167	13.2	12.8
110	1168	16.9	17.5
110	1169	80.7	82.4
110	1170	46.4	46.4
110	1171	14.6	14.6
110	1172	13.2	13.3
110	1173	12.0	12.2
110	1174	11.2	11.3
110	1175	10.3	10.4
110	1176	9.6	9.7
111	1177	9.0	9.0
111	1178	8.5	8.8
111	1179	9.1	11.4
111	1180	111.5	113.3
111	1181	103.5	106.1

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
111	1182	77.7	77.8
111	1183	14.6	14.4
111	1184	12.8	12.7
111	1185	11.6	11.8
111	1186	14.2	14.6
111	1187	12.3	12.4
111	1188	11.2	11.4
112	1189	10.4	10.6
112	1190	9.9	10.8
112	1191	16.9	17.8
112	1192	34.5	38.8
112	1193	210.8	216.2
112	1194	190.1	192.9
112	1195	19.0	18.9
112	1196	16.4	16.4
112	1197	16.2	16.5
112	1198	17.4	17.9
112	1199	15.8	16.1
112	1200	14.1	14.4

Abbreviations:

cfs= cubic feet per second

SHSM = Stibnite Hydrologic Site Model

USGS = United States Geologic Survey

Table B - 18. Simulated Streamflow at USGS Gage 13311250

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
13	1	16.9	15.3
13	2	15.7	14.2
13	3	18.4	16.0
13	4	23.2	19.3
13	5	65.2	62.3
13	6	170.8	169.0
13	7	21.4	17.0
13	8	19.1	15.8

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
13	9	17.4	14.6
13	10	18.5	16.9
13	11	16.1	13.6
13	12	15.0	12.3
14	13	14.0	12.8
14	14	13.1	12.0
14	15	13.1	11.9
14	16	35.5	32.8
14	17	84.1	83.7
14	18	53.2	48.9
14	19	18.5	14.5
14	20	16.7	13.3
14	21	15.3	12.6
14	22	14.6	13.3
14	23	13.5	12.5
14	24	12.6	11.7
15	25	11.8	10.9
15	26	11.2	9.9
15	27	10.5	9.5
15	28	14.9	13.6
15	29	56.1	54.9
15	30	110.1	111.4
15	31	28.9	27.5
15	32	17.7	16.8
15	33	16.6	16.6
15	34	38.5	37.8
15	35	18.6	18.1
15	36	16.7	16.3
16	37	15.3	15.0
16	38	14.3	14.0
16	39	17.1	16.3
16	40	23.3	23.6
16	41	200.6	204.2
16	42	180.2	184.0
16	43	22.5	21.4

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
16	44	19.6	18.8
16	45	17.6	17.1
16	46	16.3	15.8
16	47	15.3	15.0
16	48	14.2	13.7
17	49	13.2	12.7
17	50	12.4	11.9
17	51	11.6	11.4
17	52	15.6	15.5
17	53	120.2	121.1
17	54	169.5	173.3
17	55	19.1	18.1
17	56	16.8	16.1
17	57	15.3	14.6
17	58	14.0	13.4
17	59	13.0	12.4
17	60	12.1	11.5
18	61	11.3	10.7
18	62	10.6	10.0
18	63	10.0	9.6
18	64	13.8	13.9
18	65	103.0	105.3
18	66	142.7	146.5
18	67	28.0	27.2
18	68	17.6	16.9
18	69	15.9	15.2
18	70	15.2	14.7
18	71	14.1	13.6
18	72	13.0	12.6
19	73	12.2	11.7
19	74	11.5	11.0
19	75	10.8	10.4
19	76	13.3	12.6
19	77	36.4	36.4
19	78	19.6	19.3

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
19	79	12.8	12.2
19	80	11.9	11.3
19	81	11.2	11.0
19	82	11.7	11.4
19	83	11.0	10.7
19	84	10.5	10.1
20	85	9.9	9.6
20	86	9.6	9.4
20	87	11.2	11.3
20	88	82.1	84.1
20	89	206.8	213.8
20	90	115.6	118.4
20	91	19.4	18.6
20	92	17.0	16.4
20	93	15.5	15.0
20	94	14.7	14.3
20	95	13.5	13.2
20	96	12.6	12.2
21	97	11.7	11.5
21	98	11.1	11.4
21	99	11.9	12.3
21	100	45.1	46.2
21	101	71.8	73.3
21	102	46.9	46.2
21	103	16.4	15.7
21	104	14.8	14.3
21	105	13.7	13.3
21	106	13.0	13.3
21	107	12.7	12.6
21	108	11.9	11.6
22	109	11.2	10.9
22	110	10.6	10.3
22	111	10.0	11.2
22	112	16.6	18.2
22	113	179.2	184.8

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
22	114	239.7	246.3
22	115	34.4	34.0
22	116	17.6	17.7
22	117	35.6	35.7
22	118	23.3	23.8
22	119	22.1	21.3
22	120	18.5	18.1
23	121	16.7	16.4
23	122	15.5	15.9
23	123	17.5	18.7
23	124	24.2	26.4
23	125	262.0	270.7
23	126	87.8	89.8
23	127	24.0	23.6
23	128	18.5	18.2
23	129	16.7	16.7
23	130	15.3	15.4
23	131	14.1	14.3
23	132	13.1	13.2
24	133	12.2	12.3
24	134	11.5	11.6
24	135	10.8	11.1
24	136	13.5	13.8
24	137	47.6	49.9
24	138	79.1	80.6
24	139	16.2	16.0
24	140	14.7	14.6
24	141	13.5	13.5
24	142	12.5	12.5
24	143	11.6	11.7
24	144	10.9	11.0
25	145	10.2	10.3
25	146	9.7	9.9
25	147	9.3	11.1
25	148	51.3	53.6

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
25	149	84.6	89.2
25	150	61.0	61.6
25	151	17.2	17.0
25	152	15.5	15.4
25	153	14.1	14.2
25	154	14.0	14.3
25	155	12.9	13.1
25	156	12.1	12.3
26	157	11.3	11.6
26	158	10.7	11.0
26	159	10.1	10.7
26	160	15.4	16.3
26	161	68.9	73.8
26	162	52.2	52.4
26	163	15.7	15.8
26	164	14.2	14.4
26	165	13.2	13.4
26	166	15.6	16.4
26	167	13.1	13.5
26	168	12.3	12.6
27	169	11.6	11.9
27	170	11.0	11.3
27	171	10.4	11.6
27	172	21.0	24.1
27	173	171.2	183.7
27	174	158.5	165.9
27	175	41.3	41.2
27	176	19.1	19.1
27	177	17.0	17.1
27	178	15.4	15.6
27	179	14.2	14.3
27	180	13.1	13.2
28	181	12.1	12.2
28	182	11.4	11.5
28	183	10.7	11.0

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
28	184	12.5	14.2
28	185	87.0	92.1
28	186	212.7	222.6
28	187	18.0	17.9
28	188	15.9	15.6
28	189	14.4	14.3
28	190	19.0	19.5
28	191	13.8	14.0
28	192	13.0	13.2
29	193	12.8	12.9
29	194	14.1	13.9
29	195	17.3	17.2
29	196	57.7	60.0
29	197	52.8	53.9
29	198	33.7	33.9
29	199	17.2	17.4
29	200	15.7	15.9
29	201	14.4	14.6
29	202	14.2	14.6
29	203	13.4	13.7
29	204	12.6	12.8
30	205	11.8	12.0
30	206	11.2	11.3
30	207	10.6	11.2
30	208	21.2	21.8
30	209	71.3	77.1
30	210	92.6	95.3
30	211	18.6	18.3
30	212	16.6	16.6
30	213	15.2	15.2
30	214	14.0	14.0
30	215	12.9	13.0
30	216	12.0	12.1
31	217	11.2	11.3
31	218	10.6	10.6

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
31	219	10.0	11.3
31	220	25.7	29.5
31	221	198.6	210.7
31	222	128.7	133.1
31	223	18.5	18.2
31	224	16.3	16.1
31	225	14.8	14.7
31	226	13.6	13.5
31	227	12.6	12.5
31	228	11.7	11.6
32	229	10.9	10.9
32	230	10.3	10.2
32	231	9.7	9.9
32	232	13.3	14.5
32	233	94.0	99.0
32	234	104.9	108.4
32	235	17.5	17.1
32	236	15.3	14.9
32	237	13.9	13.7
32	238	12.8	12.6
32	239	11.8	11.7
32	240	11.0	10.9
33	241	10.3	10.2
33	242	9.7	9.6
33	243	9.1	10.2
33	244	15.4	18.4
33	245	175.5	189.3
33	246	295.8	309.3
33	247	44.7	44.4
33	248	17.2	16.9
33	249	15.3	15.1
33	250	14.0	13.9
33	251	12.9	12.8
33	252	11.9	11.9
34	253	11.1	11.1

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
34	254	10.4	10.4
34	255	9.8	10.4
34	256	20.9	22.4
34	257	81.4	86.0
34	258	48.1	48.0
34	259	16.3	16.1
34	260	14.8	14.7
34	261	13.6	13.5
34	262	13.4	13.5
34	263	12.4	12.5
34	264	11.7	11.8
35	265	10.9	11.0
35	266	10.4	10.8
35	267	14.9	16.3
35	268	78.1	84.6
35	269	178.6	189.1
35	270	104.1	105.5
35	271	19.6	19.2
35	272	17.3	18.3
35	273	33.8	34.2
35	274	34.4	35.0
35	275	20.1	20.3
35	276	18.2	18.4
36	277	16.7	16.9
36	278	15.7	16.0
36	279	18.2	18.3
36	280	29.2	31.9
36	281	157.0	167.5
36	282	115.1	119.1
36	283	23.3	22.8
36	284	20.4	20.1
36	285	18.3	18.3
36	286	18.1	18.2
36	287	16.4	16.6
36	288	15.2	15.3

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
37	289	14.2	14.2
37	290	13.3	13.3
37	291	12.4	14.0
37	292	59.0	62.6
37	293	146.0	154.9
37	294	112.8	116.8
37	295	29.9	29.2
37	296	20.2	19.8
37	297	18.1	17.8
37	298	16.4	16.2
37	299	15.0	14.9
37	300	13.9	13.7
38	301	12.9	12.7
38	302	12.0	11.9
38	303	11.3	15.1
38	304	126.7	133.4
38	305	135.1	144.3
38	306	183.6	191.7
38	307	71.5	70.9
38	308	20.7	20.2
38	309	18.3	17.9
38	310	17.2	17.0
38	311	15.6	15.5
38	312	14.4	14.3
39	313	13.4	13.3
39	314	12.5	12.4
39	315	11.7	11.8
39	316	15.5	15.3
39	317	39.7	42.1
39	318	75.0	76.1
39	319	17.0	16.7
39	320	15.5	15.3
39	321	14.3	14.1
39	322	13.2	13.0
39	323	12.3	12.2

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
39	324	11.5	11.4
40	325	10.8	10.7
40	326	10.2	10.1
40	327	9.7	9.7
40	328	10.5	14.0
40	329	182.1	191.5
40	330	147.7	153.6
40	331	30.9	30.5
40	332	16.2	15.8
40	333	14.6	14.3
40	334	13.4	13.2
40	335	12.4	12.2
40	336	11.5	11.4
41	337	10.8	10.6
41	338	10.2	10.1
41	339	9.6	11.5
41	340	56.2	59.7
41	341	161.1	171.1
41	342	109.8	113.2
41	343	31.4	30.9
41	344	17.2	16.9
41	345	16.4	16.6
41	346	28.9	29.1
41	347	18.2	18.3
41	348	16.6	16.7
42	349	15.3	15.5
42	350	14.9	15.3
42	351	19.9	20.5
42	352	42.0	46.8
42	353	195.6	207.9
42	354	103.9	105.7
42	355	23.3	22.8
42	356	20.4	20.1
42	357	18.3	18.6
42	358	45.1	45.5

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
42	359	18.4	18.4
42	360	16.7	16.8
43	361	15.4	15.4
43	362	14.4	14.4
43	363	13.3	14.3
43	364	30.7	33.5
43	365	193.2	206.6
43	366	199.2	207.4
43	367	22.3	21.9
43	368	19.5	19.1
43	369	17.5	17.2
43	370	15.9	15.7
43	371	14.6	14.4
43	372	13.5	13.3
44	373	12.5	12.4
44	374	11.8	11.6
44	375	11.0	12.9
44	376	61.1	64.1
44	377	163.9	172.3
44	378	54.8	54.6
44	379	18.2	17.7
44	380	16.2	15.9
44	381	14.8	14.5
44	382	13.9	13.8
44	383	13.5	13.5
44	384	12.5	12.5
45	385	11.7	11.7
45	386	11.1	11.2
45	387	10.7	11.7
45	388	28.5	30.0
45	389	84.9	92.6
45	390	183.2	191.2
45	391	25.3	24.8
45	392	18.9	18.5
45	393	16.9	17.5

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
45	394	53.5	53.7
45	395	18.6	18.5
45	396	17.3	17.1
46	397	15.3	15.2
46	398	14.1	14.0
46	399	13.0	15.0
46	400	84.9	89.8
46	401	144.8	153.3
46	402	81.2	82.0
46	403	20.6	20.2
46	404	18.3	18.0
46	405	16.5	16.9
46	406	26.6	26.7
46	407	18.1	18.1
46	408	16.5	16.6
47	409	15.3	15.3
47	410	14.3	14.3
47	411	13.3	15.1
47	412	78.6	83.4
47	413	167.7	178.5
47	414	157.5	163.2
47	415	22.3	21.7
47	416	19.4	19.0
47	417	17.4	17.1
47	418	15.8	15.6
47	419	14.5	14.3
47	420	13.4	13.2
48	421	12.5	12.3
48	422	11.7	11.6
48	423	11.3	12.0
48	424	19.1	20.1
48	425	125.8	134.6
48	426	193.1	201.8
48	427	52.6	51.9
48	428	19.5	19.0

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
48	429	17.3	17.0
48	430	15.6	15.4
48	431	14.3	14.1
48	432	13.2	13.0
49	433	12.2	12.1
49	434	11.5	11.4
49	435	10.7	12.2
49	436	29.7	32.4
49	437	156.2	167.2
49	438	162.3	168.1
49	439	38.3	37.6
49	440	19.4	19.0
49	441	17.2	17.0
49	442	15.6	15.4
49	443	14.3	14.2
49	444	13.2	13.0
50	445	12.2	12.1
50	446	11.4	11.3
50	447	10.7	10.7
50	448	13.5	15.0
50	449	83.6	87.5
50	450	102.5	107.4
50	451	27.3	27.0
50	452	16.6	16.3
50	453	15.1	14.9
50	454	14.7	14.7
50	455	13.5	13.5
50	456	12.6	12.6
51	457	11.8	11.8
51	458	11.1	11.1
51	459	10.5	13.0
51	460	70.1	77.5
51	461	279.4	295.8
51	462	163.8	170.3
51	463	21.8	21.3

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
51	464	18.2	17.8
51	465	16.3	16.5
51	466	23.1	23.2
51	467	17.0	17.0
51	468	15.6	15.7
52	469	14.5	14.6
52	470	13.6	13.7
52	471	13.8	14.4
52	472	29.2	32.5
52	473	212.9	225.7
52	474	97.5	99.5
52	475	20.6	20.2
52	476	18.2	17.9
52	477	16.4	16.3
52	478	15.0	15.0
52	479	13.9	13.8
52	480	12.9	12.8
53	481	12.0	11.9
53	482	11.3	11.2
53	483	10.6	11.0
53	484	18.3	20.7
53	485	172.6	182.9
53	486	97.3	99.4
53	487	17.7	17.2
53	488	15.7	15.4
53	489	14.4	14.1
53	490	13.2	13.0
53	491	12.3	12.1
53	492	11.4	11.3
54	493	10.7	10.6
54	494	10.1	10.0
54	495	9.5	11.0
54	496	36.3	39.5
54	497	131.2	140.6
54	498	209.2	218.8

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
54	499	20.5	20.1
54	500	17.9	18.5
54	501	29.1	29.4
54	502	47.3	47.9
54	503	21.4	21.4
54	504	19.0	19.1
55	505	17.3	17.4
55	506	16.0	16.2
55	507	16.3	17.1
55	508	39.2	42.8
55	509	137.1	145.7
55	510	95.5	97.9
55	511	22.0	21.6
55	512	19.4	19.3
55	513	17.6	17.5
55	514	16.0	16.0
55	515	14.8	14.7
55	516	13.7	13.6
56	517	12.7	12.6
56	518	11.9	12.0
56	519	11.3	12.1
56	520	21.9	23.8
56	521	181.3	192.7
56	522	159.3	164.9
56	523	19.4	19.0
56	524	17.1	16.8
56	525	16.4	16.5
56	526	30.0	30.1
56	527	17.5	17.5
56	528	16.1	16.2
57	529	14.9	15.0
57	530	14.0	14.0
57	531	13.0	14.8
57	532	70.0	73.6
57	533	137.6	146.0

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
57	534	106.6	110.1
57	535	21.9	21.4
57	536	19.3	19.0
57	537	17.4	18.9
57	538	68.1	67.8
57	539	21.8	21.5
57	540	19.1	18.9
58	541	17.2	17.1
58	542	19.3	18.8
58	543	16.2	16.8
58	544	24.7	26.8
58	545	165.0	177.2
58	546	168.8	174.5
58	547	23.5	22.9
58	548	20.5	20.0
58	549	18.3	18.0
58	550	16.6	16.4
58	551	15.2	15.1
58	552	14.0	13.9
59	553	13.0	12.8
59	554	12.2	12.0
59	555	11.4	11.5
59	556	14.4	15.9
59	557	105.2	111.7
59	558	212.4	221.5
59	559	45.2	44.8
59	560	18.2	17.7
59	561	16.2	15.9
59	562	14.8	14.5
59	563	13.6	13.4
59	564	12.6	12.4
60	565	11.7	11.5
60	566	11.0	10.8
60	567	10.3	13.3
60	568	75.7	80.2

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
60	569	160.3	173.2
60	570	275.3	288.2
60	571	82.1	82.0
60	572	20.3	19.8
60	573	18.7	18.5
60	574	16.6	16.5
60	575	15.2	15.2
60	576	14.0	14.0
61	577	13.0	12.9
61	578	12.2	12.1
61	579	11.4	11.6
61	580	14.2	15.5
61	581	100.2	106.0
61	582	69.7	70.2
61	583	16.3	16.0
61	584	14.8	14.6
61	585	13.7	13.5
61	586	12.6	12.5
61	587	11.8	11.6
61	588	11.0	10.9
62	589	10.3	10.2
62	590	9.8	9.7
62	591	9.2	9.4
62	592	12.0	15.2
62	593	140.4	149.6
62	594	220.8	230.8
62	595	33.5	33.2
62	596	17.1	16.8
62	597	15.3	15.6
62	598	21.9	22.2
62	599	16.6	16.6
62	600	15.1	15.1
63	601	13.9	14.1
63	602	13.6	13.8
63	603	16.1	15.8

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
63	604	18.7	19.9
63	605	104.1	110.3
63	606	133.5	138.8
63	607	20.5	20.1
63	608	18.0	17.8
63	609	24.7	25.1
63	610	22.1	22.4
63	611	17.3	17.5
63	612	15.9	16.1
64	613	14.7	14.8
64	614	13.7	13.9
64	615	12.8	15.2
64	616	84.0	89.8
64	617	211.8	224.6
64	618	123.5	127.3
64	619	21.2	20.7
64	620	18.6	18.3
64	621	16.7	16.5
64	622	16.3	16.3
64	623	14.9	15.0
64	624	13.9	13.9
65	625	12.9	13.0
65	626	12.2	12.2
65	627	11.4	11.6
65	628	13.7	17.9
65	629	186.0	198.2
65	630	287.2	300.0
65	631	20.1	20.0
65	632	17.3	18.0
65	633	33.8	33.9
65	634	25.7	25.8
65	635	21.2	21.1
65	636	18.9	19.0
66	637	17.3	17.4
66	638	16.0	16.2

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
66	639	14.8	16.4
66	640	32.9	38.4
66	641	279.7	298.7
66	642	255.9	266.1
66	643	58.5	57.9
66	644	21.8	21.4
66	645	19.3	19.1
66	646	17.4	17.3
66	647	15.9	15.8
66	648	14.6	14.5
67	649	13.6	13.4
67	650	12.7	12.6
67	651	12.0	13.0
67	652	22.0	24.0
67	653	204.5	217.5
67	654	198.0	205.5
67	655	21.0	20.4
67	656	18.3	17.8
67	657	16.5	16.1
67	658	15.0	14.7
67	659	13.8	13.6
67	660	12.8	12.6
68	661	11.9	11.7
68	662	11.2	11.0
68	663	10.5	10.6
68	664	12.5	13.3
68	665	72.6	75.1
68	666	68.3	68.7
68	667	15.5	15.1
68	668	14.1	13.8
68	669	13.1	12.9
68	670	12.7	12.6
68	671	11.8	11.7
68	672	11.1	11.0
69	673	10.4	10.4

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
69	674	9.9	10.0
69	675	9.8	13.5
69	676	103.4	110.9
69	677	213.0	229.2
69	678	386.3	403.9
69	679	20.4	20.2
69	680	17.9	17.6
69	681	16.1	16.0
69	682	14.7	14.6
69	683	13.6	13.5
69	684	12.6	12.5
70	685	11.7	11.6
70	686	11.0	10.9
70	687	10.3	10.3
70	688	9.9	12.1
70	689	86.5	91.4
70	690	172.8	181.1
70	691	34.7	34.3
70	692	16.0	15.5
70	693	14.4	14.8
70	694	25.9	26.0
70	695	16.1	16.0
70	696	14.7	14.7
71	697	13.6	13.7
71	698	12.8	12.8
71	699	11.9	12.7
71	700	25.1	27.5
71	701	153.9	164.5
71	702	105.2	108.7
71	703	37.5	37.2
71	704	19.1	18.9
71	705	17.1	17.0
71	706	15.5	15.5
71	707	14.3	14.2
71	708	13.1	13.1

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
72	709	12.2	12.1
72	710	11.4	11.4
72	711	10.7	10.7
72	712	10.1	10.2
72	713	20.4	21.3
72	714	18.9	19.3
72	715	11.0	10.9
72	716	10.4	11.0
72	717	15.9	16.6
72	718	13.2	13.3
72	719	12.2	12.3
72	720	11.6	11.7
73	721	11.0	11.2
73	722	10.5	10.9
73	723	15.9	16.5
73	724	37.8	42.1
73	725	116.3	124.9
73	726	140.2	146.8
73	727	55.2	54.9
73	728	20.5	20.3
73	729	18.2	18.3
73	730	16.4	16.6
73	731	15.1	15.2
73	732	13.9	14.0
74	733	12.9	12.9
74	734	12.0	12.1
74	735	11.3	11.4
74	736	12.5	13.1
74	737	60.3	61.5
74	738	55.1	55.1
74	739	14.8	14.5
74	740	13.4	13.1
74	741	12.4	12.2
74	742	12.2	12.2
74	743	11.4	11.3

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
74	744	10.7	10.7
75	745	10.1	10.2
75	746	9.6	9.7
75	747	9.1	10.5
75	748	47.5	51.3
75	749	152.3	161.7
75	750	100.0	103.5
75	751	22.3	22.0
75	752	17.1	16.9
75	753	15.9	15.7
75	754	14.5	14.5
75	755	13.4	13.5
75	756	12.4	12.5
76	757	11.6	11.6
76	758	10.9	11.1
76	759	12.0	12.6
76	760	38.7	41.3
76	761	135.0	144.6
76	762	144.9	150.9
76	763	28.9	28.5
76	764	18.8	18.5
76	765	16.7	16.6
76	766	15.4	15.3
76	767	14.2	14.2
76	768	13.1	13.1
77	769	12.2	12.2
77	770	11.5	11.6
77	771	11.9	12.5
77	772	23.9	27.2
77	773	204.7	220.6
77	774	323.9	339.5
77	775	61.3	61.3
77	776	19.7	19.4
77	777	18.0	19.0
77	778	75.9	76.9

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
77	779	20.6	20.6
77	780	18.3	18.3
78	781	16.6	16.6
78	782	15.4	15.6
78	783	19.0	19.4
78	784	23.7	26.3
78	785	164.9	176.1
78	786	199.5	208.8
78	787	83.1	83.9
78	788	22.7	22.2
78	789	18.7	18.4
78	790	17.8	17.7
78	791	16.0	15.9
78	792	14.7	14.6
79	793	13.6	13.5
79	794	12.7	12.7
79	795	11.9	12.4
79	796	18.2	20.7
79	797	169.9	182.2
79	798	218.4	228.9
79	799	74.1	74.1
79	800	20.2	19.8
79	801	18.0	17.7
79	802	18.6	18.6
79	803	16.7	16.8
79	804	15.4	15.5
80	805	14.4	14.4
80	806	13.5	13.5
80	807	12.6	13.2
80	808	27.6	28.8
80	809	90.8	95.4
80	810	44.0	43.8
80	811	17.9	17.7
80	812	16.2	17.4
80	813	56.1	56.0

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
80	814	26.2	26.5
80	815	20.4	20.5
80	816	18.6	18.7
81	817	17.0	17.2
81	818	15.8	16.9
81	819	35.1	37.4
81	820	45.4	49.8
81	821	145.3	154.8
81	822	132.4	136.3
81	823	24.8	24.4
81	824	21.8	22.1
81	825	27.5	27.8
81	826	21.0	21.2
81	827	19.3	19.4
81	828	17.7	17.9
82	829	16.3	16.5
82	830	15.2	15.4
82	831	14.2	14.6
82	832	34.7	35.0
82	833	66.3	68.3
82	834	24.3	24.1
82	835	17.0	16.8
82	836	15.5	15.3
82	837	14.3	14.2
82	838	13.3	13.1
82	839	12.4	12.3
82	840	11.6	11.5
83	841	10.9	10.8
83	842	10.4	10.2
83	843	9.8	10.3
83	844	20.0	21.2
83	845	83.3	87.0
83	846	75.8	76.5
83	847	16.2	15.8
83	848	14.7	14.4

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
83	849	13.5	13.3
83	850	12.5	12.4
83	851	11.7	11.5
83	852	10.9	10.8
84	853	10.3	10.2
84	854	9.7	9.6
84	855	9.2	10.4
84	856	26.2	28.2
84	857	100.5	106.6
84	858	111.5	115.6
84	859	18.3	18.1
84	860	16.3	16.1
84	861	14.9	14.7
84	862	14.3	14.3
84	863	13.2	13.2
84	864	12.3	12.3
85	865	11.5	11.5
85	866	10.8	10.9
85	867	10.2	11.3
85	868	51.0	53.5
85	869	74.1	77.0
85	870	30.9	30.6
85	871	16.8	16.6
85	872	15.1	15.0
85	873	13.9	13.8
85	874	12.8	12.8
85	875	11.9	11.9
85	876	11.2	11.1
86	877	10.5	10.5
86	878	9.9	9.9
86	879	9.3	9.5
86	880	12.7	12.9
86	881	43.6	45.7
86	882	48.1	48.5
86	883	15.4	15.4

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
86	884	14.1	14.1
86	885	13.1	13.1
86	886	12.2	12.2
86	887	11.4	11.5
86	888	10.7	10.8
87	889	10.1	10.1
87	890	9.6	9.7
87	891	9.7	10.1
87	892	33.9	34.4
87	893	33.4	34.2
87	894	32.3	32.1
87	895	13.5	13.5
87	896	12.4	12.4
87	897	11.5	11.6
87	898	10.8	10.9
87	899	10.2	10.2
87	900	9.6	9.6
88	901	9.0	9.1
88	902	8.6	8.7
88	903	8.7	9.7
88	904	29.8	32.5
88	905	148.5	159.1
88	906	126.9	132.0
88	907	21.6	21.4
88	908	16.8	16.6
88	909	15.2	15.1
88	910	13.9	13.8
88	911	12.8	12.8
88	912	11.8	11.8
89	913	11.0	11.0
89	914	10.4	10.4
89	915	9.8	9.8
89	916	9.8	10.0
89	917	36.6	37.6
89	918	12.7	12.8

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
89	919	10.8	10.6
89	920	10.1	10.0
89	921	9.6	9.5
89	922	9.1	9.0
89	923	8.6	8.5
89	924	8.1	8.1
90	925	7.7	7.8
90	926	7.6	7.8
90	927	8.1	9.1
90	928	32.1	35.8
90	929	158.0	169.5
90	930	174.8	182.8
90	931	44.2	43.9
90	932	17.3	17.0
90	933	15.4	15.2
90	934	14.3	14.3
90	935	13.3	13.3
90	936	12.3	12.3
91	937	11.4	11.5
91	938	10.7	11.0
91	939	13.4	15.5
91	940	114.6	121.8
91	941	177.5	188.3
91	942	141.6	147.2
91	943	21.9	21.6
91	944	18.2	17.9
91	945	16.3	16.2
91	946	15.0	14.9
91	947	13.8	13.7
91	948	12.7	12.7
92	949	11.8	11.8
92	950	11.2	11.3
92	951	12.0	13.5
92	952	48.8	53.1
92	953	228.0	242.6

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
92	954	154.8	161.4
92	955	34.6	34.2
92	956	18.3	17.9
92	957	16.3	16.0
92	958	15.5	15.4
92	959	14.1	14.1
92	960	13.1	13.0
93	961	12.2	12.1
93	962	11.4	11.4
93	963	10.7	11.0
93	964	16.0	17.6
93	965	132.1	141.3
93	966	108.5	112.6
93	967	32.9	32.5
93	968	18.0	17.7
93	969	16.6	16.5
93	970	15.1	15.1
93	971	13.9	13.9
93	972	12.9	12.9
94	973	12.0	12.0
94	974	11.3	11.3
94	975	10.6	11.0
94	976	14.2	16.8
94	977	142.4	151.9
94	978	235.8	246.9
94	979	54.2	54.0
94	980	18.4	18.0
94	981	16.3	16.1
94	982	14.8	14.6
94	983	13.6	13.5
94	984	12.6	12.5
95	985	11.7	11.6
95	986	11.0	10.9
95	987	10.3	11.6
95	988	40.6	43.0

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
95	989	101.1	106.6
95	990	72.7	73.4
95	991	17.5	17.1
95	992	15.7	15.4
95	993	14.4	14.3
95	994	21.0	21.7
95	995	14.5	14.6
95	996	13.5	13.6
96	997	12.6	12.7
96	998	11.9	12.0
96	999	12.0	12.1
96	1000	15.9	15.6
96	1001	43.9	45.5
96	1002	25.4	25.6
96	1003	14.6	14.4
96	1004	13.4	13.3
96	1005	12.4	12.4
96	1006	12.2	12.3
96	1007	11.6	11.7
96	1008	10.9	11.0
97	1009	10.4	10.4
97	1010	9.8	9.9
97	1011	9.3	10.4
97	1012	31.6	33.2
97	1013	74.3	79.8
97	1014	102.6	106.1
97	1015	18.0	17.7
97	1016	16.1	16.0
97	1017	14.7	14.6
97	1018	13.5	13.5
97	1019	12.5	12.5
97	1020	11.6	11.6
98	1021	10.9	10.9
98	1022	10.3	10.4
98	1023	10.0	11.4

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
98	1024	24.9	26.9
98	1025	155.3	166.1
98	1026	137.3	142.8
98	1027	18.8	18.6
98	1028	16.6	16.4
98	1029	15.1	14.9
98	1030	13.8	13.7
98	1031	12.8	12.7
98	1032	11.8	11.8
99	1033	11.1	11.0
99	1034	10.4	10.4
99	1035	11.1	11.5
99	1036	38.2	40.7
99	1037	125.4	131.7
99	1038	62.8	63.4
99	1039	18.3	18.0
99	1040	16.4	16.2
99	1041	15.1	15.1
99	1042	15.1	15.3
99	1043	13.9	14.0
99	1044	13.0	13.1
100	1045	12.1	12.2
100	1046	11.4	11.6
100	1047	10.9	11.2
100	1048	16.4	17.0
100	1049	78.8	83.2
100	1050	53.0	53.7
100	1051	17.0	16.9
100	1052	15.5	15.5
100	1053	14.3	14.3
100	1054	13.2	13.2
100	1055	12.3	12.3
100	1056	11.5	11.5
101	1057	10.8	10.8
101	1058	10.2	10.2

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
101	1059	9.6	13.0
101	1060	105.6	113.0
101	1061	223.7	237.3
101	1062	156.6	162.4
101	1063	19.3	18.9
101	1064	16.9	16.6
101	1065	15.3	15.0
101	1066	14.0	13.8
101	1067	12.9	12.8
101	1068	12.0	11.9
102	1069	11.2	11.1
102	1070	10.5	10.6
102	1071	12.5	12.8
102	1072	33.4	34.6
102	1073	87.1	91.2
102	1074	43.9	43.7
102	1075	17.0	16.8
102	1076	15.4	15.3
102	1077	14.2	14.3
102	1078	24.5	25.3
102	1079	15.7	15.8
102	1080	14.2	14.3
103	1081	13.2	13.3
103	1082	12.4	12.4
103	1083	11.6	11.8
103	1084	15.5	18.1
103	1085	165.3	174.5
103	1086	146.7	153.5
103	1087	22.6	22.4
103	1088	17.5	17.1
103	1089	15.7	15.5
103	1090	14.3	14.2
103	1091	13.2	13.1
103	1092	12.2	12.1
104	1093	11.4	11.3

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
104	1094	10.7	10.7
104	1095	10.1	10.4
104	1096	14.0	15.8
104	1097	136.2	144.4
104	1098	118.1	122.4
104	1099	18.3	17.9
104	1100	16.2	15.8
104	1101	14.7	14.5
104	1102	15.3	15.5
104	1103	14.2	14.3
104	1104	13.2	13.3
105	1105	12.4	12.5
105	1106	11.7	11.8
105	1107	12.5	12.6
105	1108	17.9	18.1
105	1109	64.1	70.7
105	1110	201.6	211.7
105	1111	21.8	21.6
105	1112	19.1	18.9
105	1113	17.2	17.2
105	1114	15.8	15.9
105	1115	14.6	14.7
105	1116	13.5	13.5
106	1117	12.5	12.6
106	1118	11.8	11.8
106	1119	11.0	11.3
106	1120	14.0	16.6
106	1121	123.8	131.8
106	1122	184.9	193.7
106	1123	40.1	40.0
106	1124	18.7	18.5
106	1125	16.8	16.7
106	1126	15.7	15.7
106	1127	14.4	14.4
106	1128	13.4	13.4

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
107	1129	12.4	12.4
107	1130	11.7	11.8
107	1131	11.6	13.5
107	1132	82.5	86.7
107	1133	154.3	163.6
107	1134	104.6	108.0
107	1135	20.5	20.1
107	1136	18.0	17.7
107	1137	16.3	16.1
107	1138	16.5	16.6
107	1139	15.3	15.3
107	1140	14.1	14.2
108	1141	13.1	13.2
108	1142	12.4	12.4
108	1143	13.0	13.3
108	1144	26.5	27.4
108	1145	107.2	114.7
108	1146	103.9	106.8
108	1147	19.6	19.2
108	1148	17.4	18.2
108	1149	29.2	29.5
108	1150	18.9	19.1
108	1151	17.3	17.4
108	1152	15.9	16.1
109	1153	14.8	14.9
109	1154	13.8	14.1
109	1155	15.9	16.0
109	1156	27.5	28.6
109	1157	121.2	129.4
109	1158	76.8	77.5
109	1159	20.5	20.2
109	1160	18.3	18.1
109	1161	16.6	16.6
109	1162	15.5	15.4
109	1163	14.3	14.3

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
109	1164	13.2	13.3
110	1165	12.4	12.5
110	1166	12.7	12.7
110	1167	17.4	16.8
110	1168	23.0	23.8
110	1169	95.1	100.3
110	1170	50.6	50.5
110	1171	18.5	18.4
110	1172	16.8	16.8
110	1173	15.4	15.5
110	1174	14.3	14.4
110	1175	13.3	13.4
110	1176	12.4	12.4
111	1177	11.6	11.7
111	1178	11.0	11.3
111	1179	12.2	14.5
111	1180	132.8	139.1
111	1181	120.7	127.3
111	1182	86.2	87.0
111	1183	18.7	18.3
111	1184	16.6	16.3
111	1185	15.1	15.2
111	1186	18.0	18.2
111	1187	15.9	16.0
111	1188	14.6	14.7
112	1189	13.6	13.7
112	1190	13.1	14.0
112	1191	23.2	24.1
112	1192	50.3	57.7
112	1193	253.1	268.9
112	1194	215.0	223.3
112	1195	24.5	24.1
112	1196	21.3	21.1
112	1197	20.8	20.9
112	1198	22.2	22.4

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
112	1199	20.5	20.6
112	1200	18.3	18.5

Abbreviations:

cfs= cubic feet per second

SHSM = Stibnite Hydrologic Site Model

USGS = United States Geologic Survey

Table B - 19. Simulated Streamflow at USGS Gage 13311450

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
13	1	10.5	9.8
13	2	9.8	9.0
13	3	9.5	8.7
13	4	13.0	12.3
13	5	32.8	31.9
13	6	124.2	122.8
13	7	14.0	13.7
13	8	12.5	12.0
13	9	11.2	10.6
13	10	10.3	9.6
13	11	9.4	8.7
13	12	8.7	7.9
14	13	8.1	7.3
14	14	7.6	6.8
14	15	7.1	6.3
14	16	14.1	13.5
14	17	48.0	46.8
14	18	18.8	18.6
14	19	12.2	12.0
14	20	10.9	10.6
14	21	9.9	9.5
14	22	9.1	8.6
14	23	8.4	7.8
14	24	7.8	7.2
15	25	7.3	6.7
15	26	6.9	6.2
15	27	6.5	5.8

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
15	28	9.8	9.3
15	29	26.9	26.4
15	30	55.7	55.0
15	31	13.2	13.3
15	32	11.7	11.6
15	33	10.6	10.3
15	34	15.3	15.3
15	35	12.0	11.9
15	36	10.8	10.6
16	37	9.9	9.5
16	38	9.1	8.7
16	39	9.6	9.1
16	40	14.1	13.8
16	41	119.1	118.2
16	42	115.6	114.8
16	43	15.1	14.9
16	44	13.2	12.9
16	45	11.8	11.4
16	46	10.7	10.1
16	47	9.8	9.2
16	48	9.0	8.3
17	49	8.4	7.7
17	50	7.9	7.1
17	51	7.4	6.6
17	52	9.1	8.4
17	53	68.5	66.8
17	54	104.4	103.3
17	55	12.4	12.1
17	56	11.0	10.5
17	57	9.9	9.4
17	58	9.1	8.5
17	59	8.4	7.8
17	60	7.8	7.1
18	61	7.3	6.6
18	62	6.8	6.2
18	63	6.4	5.7

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
18	64	8.4	7.8
18	65	57.5	56.1
18	66	82.0	81.4
18	67	13.0	13.0
18	68	11.4	11.3
18	69	10.2	10.0
18	70	9.5	9.1
18	71	8.8	8.4
18	72	8.1	7.6
19	73	7.5	7.0
19	74	7.1	6.5
19	75	6.6	6.1
19	76	8.7	8.2
19	77	16.3	15.8
19	78	8.8	8.6
19	79	8.0	7.6
19	80	7.4	7.0
19	81	6.9	6.5
19	82	7.4	7.0
19	83	6.6	6.2
19	84	6.2	5.8
20	85	5.8	5.4
20	86	5.5	5.1
20	87	5.4	5.0
20	88	35.1	34.2
20	89	135.0	134.4
20	90	69.7	69.8
20	91	13.2	13.4
20	92	11.7	11.6
20	93	10.5	10.3
20	94	9.5	9.2
20	95	8.8	8.4
20	96	8.1	7.7
21	97	7.6	7.1
21	98	7.1	6.6
21	99	6.7	6.1

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
21	100	24.1	23.6
21	101	41.1	40.6
21	102	15.9	16.1
21	103	11.4	11.4
21	104	10.2	10.1
21	105	9.4	9.2
21	106	8.6	8.3
21	107	8.2	7.9
21	108	7.6	7.2
22	109	7.1	6.6
22	110	6.6	6.2
22	111	6.2	5.7
22	112	9.3	8.9
22	113	106.8	105.6
22	114	155.5	154.3
22	115	17.7	17.6
22	116	11.6	11.4
22	117	15.9	16.0
22	118	15.2	15.3
22	119	13.5	13.4
22	120	11.4	11.2
23	121	10.3	10.0
23	122	9.5	9.1
23	123	9.8	9.4
23	124	13.9	13.6
23	125	161.0	159.4
23	126	51.2	50.8
23	127	14.0	13.9
23	128	12.4	12.1
23	129	11.1	10.7
23	130	10.1	9.6
23	131	9.3	8.7
23	132	8.6	8.0
24	133	8.0	7.4
24	134	7.5	6.9
24	135	7.1	6.4

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
24	136	7.8	7.2
24	137	23.7	22.9
24	138	35.1	34.2
24	139	10.3	10.0
24	140	9.3	9.0
24	141	8.5	8.2
24	142	7.9	7.5
24	143	7.4	6.9
24	144	6.9	6.4
25	145	6.4	5.9
25	146	6.1	5.6
25	147	5.7	5.2
25	148	19.6	19.2
25	149	50.9	50.3
25	150	24.5	24.7
25	151	12.7	13.0
25	152	11.2	11.3
25	153	10.2	10.2
25	154	9.3	9.2
25	155	8.6	8.3
25	156	8.0	7.6
26	157	7.4	7.0
26	158	7.0	6.6
26	159	6.5	6.1
26	160	11.7	11.6
26	161	38.1	37.6
26	162	19.5	19.6
26	163	10.9	11.0
26	164	9.9	9.9
26	165	9.1	8.9
26	166	9.9	9.8
26	167	8.5	8.3
26	168	7.9	7.6
27	169	7.4	7.0
27	170	7.0	6.6
27	171	6.5	6.1

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
27	172	12.8	12.6
27	173	98.0	97.5
27	174	92.4	92.7
27	175	14.8	15.1
27	176	13.0	13.0
27	177	11.6	11.5
27	178	10.5	10.2
27	179	9.6	9.2
27	180	8.9	8.4
28	181	8.2	7.7
28	182	7.7	7.2
28	183	7.2	6.7
28	184	7.3	6.8
28	185	50.6	49.5
28	186	123.5	122.5
28	187	12.2	12.0
28	188	10.8	10.5
28	189	9.8	9.4
28	190	9.7	9.3
28	191	8.6	8.2
28	192	8.0	7.5
29	193	7.5	6.9
29	194	7.3	6.8
29	195	11.3	10.9
29	196	26.3	26.0
29	197	26.4	26.2
29	198	12.2	12.4
29	199	10.9	10.9
29	200	9.9	9.8
29	201	9.1	8.9
29	202	8.4	8.1
29	203	8.1	7.8
29	204	7.5	7.1
30	205	7.0	6.6
30	206	6.6	6.1
30	207	6.2	5.7

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
30	208	12.5	12.3
30	209	34.1	33.8
30	210	46.5	46.5
30	211	12.8	13.0
30	212	11.3	11.4
30	213	10.3	10.2
30	214	9.4	9.2
30	215	8.7	8.4
30	216	8.0	7.7
31	217	7.5	7.1
31	218	7.0	6.6
31	219	6.6	6.2
31	220	11.6	11.4
31	221	116.9	115.9
31	222	76.1	75.9
31	223	12.5	12.5
31	224	11.1	11.0
31	225	10.1	9.8
31	226	9.2	8.8
31	227	8.5	8.1
31	228	7.9	7.4
32	229	7.4	6.9
32	230	6.9	6.4
32	231	6.5	6.0
32	232	7.8	7.3
32	233	53.4	52.1
32	234	51.2	50.7
32	235	11.2	11.2
32	236	9.9	9.7
32	237	9.0	8.7
32	238	8.3	8.0
32	239	7.7	7.3
32	240	7.1	6.8
33	241	6.7	6.3
33	242	6.3	5.9
33	243	5.9	5.5

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
33	244	8.2	7.8
33	245	94.2	92.9
33	246	176.3	174.9
33	247	16.9	16.8
33	248	10.9	10.7
33	249	9.7	9.5
33	250	8.9	8.5
33	251	8.2	7.8
33	252	7.6	7.2
34	253	7.1	6.7
34	254	6.7	6.2
34	255	6.3	5.8
34	256	9.4	9.1
34	257	40.7	39.9
34	258	16.2	16.4
34	259	10.5	10.6
34	260	9.5	9.5
34	261	8.7	8.6
34	262	8.1	7.9
34	263	7.5	7.3
34	264	7.0	6.7
35	265	6.6	6.2
35	266	6.2	5.9
35	267	6.6	6.3
35	268	24.7	24.4
35	269	110.4	109.9
35	270	58.8	58.9
35	271	12.6	12.7
35	272	11.1	11.1
35	273	17.4	17.8
35	274	17.7	18.3
35	275	13.9	14.2
35	276	12.4	12.5
36	277	11.2	11.1
36	278	10.3	10.1
36	279	10.4	10.1

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
36	280	16.2	16.2
36	281	88.6	88.6
36	282	66.9	67.1
36	283	16.0	16.2
36	284	14.1	14.0
36	285	12.6	12.4
36	286	12.1	11.7
36	287	10.7	10.3
36	288	9.8	9.3
37	289	9.1	8.5
37	290	8.5	7.9
37	291	7.9	7.3
37	292	22.7	22.1
37	293	91.8	91.1
37	294	66.9	67.0
37	295	16.2	16.3
37	296	14.2	14.1
37	297	12.7	12.4
37	298	11.4	11.0
37	299	10.4	9.9
37	300	9.6	9.0
38	301	8.8	8.2
38	302	8.2	7.6
38	303	7.7	7.1
38	304	55.9	54.6
38	305	85.2	84.9
38	306	116.3	115.8
38	307	42.2	41.9
38	308	15.2	15.1
38	309	13.4	13.2
38	310	12.0	11.6
38	311	10.9	10.4
38	312	10.0	9.4
39	313	9.2	8.6
39	314	8.6	7.9
39	315	8.0	7.3

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
39	316	11.0	10.4
39	317	15.9	15.5
39	318	35.0	34.2
39	319	11.7	11.6
39	320	10.6	10.3
39	321	9.7	9.4
39	322	8.9	8.5
39	323	8.3	7.8
39	324	7.7	7.2
40	325	7.2	6.7
40	326	6.8	6.3
40	327	6.4	5.9
40	328	6.0	5.5
40	329	89.7	87.9
40	330	75.4	75.0
40	331	12.1	12.1
40	332	10.7	10.5
40	333	9.6	9.4
40	334	8.8	8.5
40	335	8.1	7.8
40	336	7.6	7.2
41	337	7.1	6.6
41	338	6.7	6.2
41	339	6.2	5.8
41	340	13.0	12.8
41	341	83.4	82.6
41	342	68.8	68.9
41	343	13.6	13.8
41	344	12.0	12.0
41	345	10.8	10.7
41	346	16.2	16.4
41	347	12.2	12.3
41	348	11.0	11.0
42	349	10.1	9.9
42	350	9.3	9.1
42	351	10.3	10.0

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
42	352	17.0	17.0
42	353	122.8	122.3
42	354	62.5	62.6
42	355	16.0	16.1
42	356	14.0	13.9
42	357	12.5	12.3
42	358	16.3	16.3
42	359	12.9	12.8
42	360	11.7	11.4
43	361	10.6	10.3
43	362	9.9	9.4
43	363	9.1	8.6
43	364	17.6	17.4
43	365	117.4	116.7
43	366	129.1	127.9
43	367	16.0	15.9
43	368	14.0	13.7
43	369	12.5	12.2
43	370	11.3	10.8
43	371	10.3	9.8
43	372	9.5	8.9
44	373	8.8	8.2
44	374	8.2	7.6
44	375	7.7	7.0
44	376	14.3	13.9
44	377	109.6	108.1
44	378	35.3	35.1
44	379	13.7	13.7
44	380	12.1	11.9
44	381	10.9	10.6
44	382	9.9	9.5
44	383	9.2	8.7
44	384	8.5	8.0
45	385	7.9	7.4
45	386	7.4	6.9
45	387	7.0	6.4

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
45	388	13.4	13.1
45	389	44.8	44.2
45	390	108.2	108.0
45	391	15.0	15.2
45	392	13.1	13.1
45	393	11.8	11.6
45	394	15.2	15.3
45	395	12.4	12.3
45	396	11.2	11.0
46	397	10.1	9.8
46	398	9.4	9.0
46	399	8.6	8.2
46	400	40.4	39.7
46	401	90.3	90.2
46	402	45.6	45.8
46	403	15.6	15.8
46	404	13.8	13.7
46	405	12.3	12.1
46	406	16.2	16.2
46	407	12.7	12.6
46	408	11.5	11.2
47	409	10.5	10.2
47	410	9.8	9.3
47	411	9.0	8.5
47	412	34.4	33.7
47	413	109.7	109.3
47	414	93.4	92.9
47	415	16.3	16.3
47	416	14.2	14.0
47	417	12.7	12.4
47	418	11.5	11.0
47	419	10.5	9.9
47	420	9.6	9.0
48	421	8.9	8.3
48	422	8.3	7.7
48	423	7.8	7.1

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
48	424	10.4	9.8
48	425	74.1	72.6
48	426	125.5	124.7
48	427	26.4	26.1
48	428	13.1	12.9
48	429	11.7	11.4
48	430	10.5	10.1
48	431	9.6	9.1
48	432	8.8	8.3
49	433	8.2	7.7
49	434	7.7	7.2
49	435	7.2	6.6
49	436	13.5	13.2
49	437	97.4	96.2
49	438	104.6	104.3
49	439	22.8	22.8
49	440	13.5	13.5
49	441	12.1	11.9
49	442	10.8	10.5
49	443	9.9	9.5
49	444	9.1	8.6
50	445	8.4	7.9
50	446	7.9	7.4
50	447	7.4	6.9
50	448	9.6	9.2
50	449	45.3	44.5
50	450	53.2	52.8
50	451	12.6	12.6
50	452	11.1	11.1
50	453	10.1	9.9
50	454	10.0	9.8
50	455	8.9	8.6
50	456	8.2	7.9
51	457	7.7	7.3
51	458	7.2	6.8
51	459	6.7	6.4

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
51	460	32.9	32.3
51	461	183.2	182.2
51	462	106.3	105.4
51	463	14.6	14.7
51	464	12.8	12.7
51	465	11.5	11.3
51	466	14.0	14.0
51	467	11.4	11.2
51	468	10.3	10.1
52	469	9.5	9.2
52	470	8.8	8.5
52	471	8.5	8.1
52	472	16.3	16.3
52	473	131.9	131.1
52	474	55.9	55.8
52	475	14.9	14.9
52	476	13.1	13.0
52	477	11.8	11.5
52	478	10.6	10.3
52	479	9.7	9.3
52	480	9.0	8.5
53	481	8.3	7.9
53	482	7.8	7.3
53	483	7.3	6.8
53	484	11.8	11.5
53	485	108.5	107.1
53	486	63.7	63.3
53	487	12.5	12.4
53	488	11.1	10.9
53	489	10.0	9.7
53	490	9.1	8.8
53	491	8.5	8.1
53	492	7.9	7.4
54	493	7.3	6.9
54	494	6.9	6.5
54	495	6.5	6.0

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
54	496	12.6	12.4
54	497	80.9	80.2
54	498	135.0	134.7
54	499	14.7	14.9
54	500	12.8	12.9
54	501	15.4	15.6
54	502	19.2	19.8
54	503	14.6	14.9
54	504	12.9	13.0
55	505	11.6	11.6
55	506	10.7	10.5
55	507	10.2	9.9
55	508	18.1	18.2
55	509	82.0	82.0
55	510	47.5	47.8
55	511	16.1	16.3
55	512	14.2	14.2
55	513	12.7	12.6
55	514	11.5	11.2
55	515	10.5	10.1
55	516	9.7	9.2
56	517	8.9	8.4
56	518	8.3	7.8
56	519	7.8	7.2
56	520	12.4	12.0
56	521	119.0	117.5
56	522	104.2	103.3
56	523	13.1	12.9
56	524	11.6	11.3
56	525	11.2	10.8
56	526	15.8	15.7
56	527	12.1	11.9
56	528	10.9	10.7
57	529	10.0	9.7
57	530	9.3	8.9
57	531	8.6	8.2

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
57	532	23.5	23.3
57	533	98.9	98.6
57	534	65.9	66.1
57	535	16.0	16.2
57	536	14.0	14.0
57	537	12.6	12.4
57	538	24.5	24.5
57	539	16.9	17.1
57	540	14.1	14.1
58	541	12.6	12.4
58	542	12.6	12.4
58	543	10.7	10.4
58	544	17.3	17.2
58	545	103.6	102.9
58	546	113.2	112.3
58	547	16.6	16.5
58	548	14.4	14.2
58	549	12.9	12.6
58	550	11.7	11.2
58	551	10.6	10.1
58	552	9.8	9.2
59	553	9.0	8.4
59	554	8.4	7.8
59	555	7.9	7.3
59	556	7.9	7.3
59	557	55.1	53.7
59	558	120.6	119.6
59	559	16.1	16.0
59	560	11.9	11.6
59	561	10.7	10.3
59	562	9.7	9.3
59	563	8.9	8.5
59	564	8.3	7.8
60	565	7.7	7.2
60	566	7.2	6.8
60	567	6.8	6.3

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
60	568	32.8	32.1
60	569	115.8	115.4
60	570	206.3	203.6
60	571	62.8	62.3
60	572	14.5	14.5
60	573	14.3	14.3
60	574	12.2	12.1
60	575	11.1	10.8
60	576	10.1	9.8
61	577	9.3	8.9
61	578	8.7	8.2
61	579	8.1	7.6
61	580	10.0	9.7
61	581	53.4	52.4
61	582	41.1	40.8
61	583	12.0	12.0
61	584	10.7	10.5
61	585	9.7	9.5
61	586	8.9	8.6
61	587	8.2	7.9
61	588	7.7	7.3
62	589	7.2	6.8
62	590	6.7	6.4
62	591	6.3	6.0
62	592	7.9	7.7
62	593	74.6	73.6
62	594	141.2	140.8
62	595	13.0	13.1
62	596	11.5	11.5
62	597	10.3	10.2
62	598	14.2	14.4
62	599	11.2	11.2
62	600	10.1	10.0
63	601	9.2	9.1
63	602	8.6	8.4
63	603	9.2	9.0

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
63	604	11.3	11.2
63	605	60.0	59.6
63	606	85.0	85.1
63	607	14.0	14.3
63	608	12.4	12.4
63	609	11.5	11.5
63	610	14.2	14.3
63	611	11.4	11.4
63	612	10.4	10.3
64	613	9.5	9.3
64	614	8.9	8.6
64	615	8.2	8.0
64	616	32.2	31.9
64	617	136.6	136.4
64	618	89.3	88.9
64	619	15.2	15.3
64	620	13.3	13.2
64	621	11.9	11.7
64	622	10.8	10.5
64	623	9.9	9.5
64	624	9.1	8.7
65	625	8.4	8.0
65	626	7.9	7.5
65	627	7.4	7.0
65	628	9.5	9.2
65	629	102.7	101.6
65	630	181.1	179.2
65	631	13.6	13.6
65	632	12.0	11.9
65	633	16.6	16.8
65	634	18.2	18.7
65	635	14.5	14.7
65	636	12.7	12.7
66	637	11.4	11.3
66	638	10.5	10.3
66	639	9.7	9.4

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
66	640	16.1	16.0
66	641	165.4	164.2
66	642	169.0	166.3
66	643	41.3	40.9
66	644	14.7	14.6
66	645	13.0	12.8
66	646	11.7	11.3
66	647	10.6	10.2
66	648	9.7	9.3
67	649	9.0	8.5
67	650	8.4	7.9
67	651	7.9	7.4
67	652	12.2	11.9
67	653	119.1	117.6
67	654	139.7	138.1
67	655	13.6	13.6
67	656	12.0	11.8
67	657	10.8	10.5
67	658	9.8	9.5
67	659	9.0	8.7
67	660	8.3	8.0
68	661	7.8	7.4
68	662	7.3	6.9
68	663	6.9	6.5
68	664	7.3	6.9
68	665	46.0	45.0
68	666	40.8	40.4
68	667	10.4	10.4
68	668	9.3	9.2
68	669	8.5	8.4
68	670	7.9	7.7
68	671	7.3	7.1
68	672	6.8	6.6
69	673	6.4	6.2
69	674	6.0	5.8
69	675	5.7	5.5

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
69	676	37.1	36.6
69	677	135.3	135.4
69	678	291.9	286.5
69	679	14.1	14.6
69	680	12.4	12.6
69	681	11.1	11.2
69	682	10.1	10.1
69	683	9.3	9.2
69	684	8.6	8.4
70	685	8.0	7.8
70	686	7.5	7.3
70	687	7.0	6.8
70	688	6.6	6.3
70	689	48.9	48.3
70	690	114.8	114.5
70	691	29.4	29.5
70	692	11.6	11.7
70	693	10.4	10.4
70	694	14.9	15.2
70	695	11.3	11.4
70	696	10.2	10.2
71	697	9.3	9.3
71	698	8.7	8.6
71	699	8.0	7.9
71	700	14.7	14.9
71	701	94.9	94.8
71	702	73.3	73.8
71	703	23.4	23.7
71	704	13.5	13.8
71	705	12.1	12.2
71	706	10.9	10.8
71	707	9.9	9.8
71	708	9.1	8.9
72	709	8.4	8.2
72	710	7.9	7.6
72	711	7.4	7.1

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
72	712	6.9	6.6
72	713	10.8	10.7
72	714	8.5	8.4
72	715	7.8	7.7
72	716	7.3	7.1
72	717	9.5	9.6
72	718	9.3	9.4
72	719	8.1	8.1
72	720	7.5	7.5
73	721	7.1	7.0
73	722	6.7	6.6
73	723	8.7	8.7
73	724	16.8	17.1
73	725	83.4	83.6
73	726	99.4	100.3
73	727	41.3	41.8
73	728	14.3	14.7
73	729	12.7	12.9
73	730	11.4	11.4
73	731	10.4	10.3
73	732	9.5	9.3
74	733	8.8	8.5
74	734	8.2	7.9
74	735	7.6	7.3
74	736	7.6	7.3
74	737	35.9	35.2
74	738	29.9	29.7
74	739	10.5	10.5
74	740	9.4	9.3
74	741	8.6	8.5
74	742	8.0	7.8
74	743	7.4	7.2
74	744	6.9	6.7
75	745	6.5	6.2
75	746	6.1	5.9
75	747	5.8	5.5

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
75	748	15.0	15.0
75	749	100.8	100.3
75	750	57.1	57.6
75	751	13.6	14.1
75	752	12.0	12.3
75	753	10.8	10.9
75	754	9.8	9.7
75	755	9.0	8.9
75	756	8.3	8.1
76	757	7.7	7.5
76	758	7.3	7.0
76	759	6.8	6.6
76	760	13.3	13.4
76	761	79.7	79.4
76	762	83.5	83.9
76	763	14.3	14.7
76	764	12.6	12.8
76	765	11.3	11.3
76	766	10.2	10.1
76	767	9.4	9.2
76	768	8.7	8.4
77	769	8.0	7.8
77	770	7.6	7.3
77	771	7.1	6.8
77	772	13.2	13.2
77	773	107.6	107.1
77	774	205.9	203.8
77	775	46.3	46.1
77	776	13.8	13.9
77	777	12.3	12.2
77	778	29.0	29.1
77	779	14.5	14.7
77	780	12.8	12.9
78	781	11.5	11.4
78	782	10.6	10.4
78	783	11.3	11.0

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
78	784	14.4	14.3
78	785	97.3	96.8
78	786	120.1	119.1
78	787	50.3	49.8
78	788	14.3	14.3
78	789	12.7	12.5
78	790	11.5	11.2
78	791	10.4	10.1
78	792	9.6	9.1
79	793	8.8	8.4
79	794	8.3	7.8
79	795	7.7	7.3
79	796	11.9	11.6
79	797	102.5	101.4
79	798	134.0	133.1
79	799	43.8	43.6
79	800	14.0	14.0
79	801	12.4	12.3
79	802	13.1	13.0
79	803	11.1	10.9
79	804	10.1	9.9
80	805	9.3	9.0
80	806	8.7	8.3
80	807	8.1	7.7
80	808	13.5	13.4
80	809	51.0	50.4
80	810	21.2	21.4
80	811	12.7	12.9
80	812	11.4	11.4
80	813	19.7	20.0
80	814	19.8	20.5
80	815	15.3	15.7
80	816	13.6	13.9
81	817	12.3	12.4
81	818	11.3	11.3
81	819	19.4	19.7

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
81	820	23.1	23.7
81	821	83.1	83.8
81	822	80.7	81.0
81	823	18.4	18.6
81	824	16.0	16.0
81	825	20.4	20.6
81	826	16.0	15.9
81	827	14.3	14.1
81	828	12.9	12.6
82	829	11.7	11.3
82	830	10.8	10.3
82	831	10.0	9.4
82	832	15.4	15.2
82	833	33.7	33.0
82	834	13.2	13.1
82	835	11.9	11.6
82	836	10.8	10.5
82	837	9.9	9.5
82	838	9.1	8.7
82	839	8.4	8.0
82	840	7.9	7.4
83	841	7.3	6.9
83	842	6.9	6.5
83	843	6.5	6.1
83	844	10.6	10.3
83	845	49.0	48.1
83	846	40.7	40.3
83	847	11.6	11.7
83	848	10.4	10.3
83	849	9.4	9.3
83	850	8.7	8.5
83	851	8.0	7.8
83	852	7.5	7.2
84	853	7.0	6.7
84	854	6.6	6.3
84	855	6.2	5.9

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
84	856	10.7	10.6
84	857	59.7	59.1
84	858	74.9	75.0
84	859	13.3	13.6
84	860	11.7	11.9
84	861	10.5	10.5
84	862	9.9	9.8
84	863	9.0	8.8
84	864	8.3	8.1
85	865	7.7	7.5
85	866	7.2	7.0
85	867	6.8	6.5
85	868	23.9	23.8
85	869	41.5	41.6
85	870	14.7	15.3
85	871	12.4	12.8
85	872	11.1	11.3
85	873	10.2	10.2
85	874	9.3	9.3
85	875	8.6	8.5
85	876	8.0	7.8
86	877	7.4	7.2
86	878	7.0	6.7
86	879	6.5	6.3
86	880	9.4	9.3
86	881	29.6	29.5
86	882	27.4	27.7
86	883	11.9	12.3
86	884	10.7	11.0
86	885	9.8	9.9
86	886	9.0	9.0
86	887	8.3	8.2
86	888	7.7	7.6
87	889	7.2	7.0
87	890	6.8	6.6
87	891	6.4	6.1

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
87	892	12.8	12.9
87	893	23.3	23.4
87	894	13.4	13.7
87	895	10.0	10.2
87	896	9.1	9.2
87	897	8.4	8.4
87	898	7.8	7.7
87	899	7.3	7.2
87	900	6.8	6.7
88	901	6.4	6.2
88	902	6.1	5.9
88	903	5.7	5.5
88	904	11.7	11.7
88	905	90.2	89.5
88	906	80.9	81.3
88	907	13.3	13.7
88	908	11.7	11.8
88	909	10.5	10.5
88	910	9.5	9.4
88	911	8.7	8.6
88	912	8.1	7.9
89	913	7.5	7.3
89	914	7.1	6.8
89	915	6.6	6.3
89	916	6.7	6.4
89	917	22.7	22.2
89	918	7.8	7.7
89	919	7.2	7.0
89	920	6.7	6.5
89	921	6.3	6.0
89	922	5.9	5.7
89	923	5.5	5.3
89	924	5.3	5.1
90	925	5.0	4.8
90	926	4.8	4.6
90	927	4.5	4.4

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
90	928	10.4	10.4
90	929	86.6	85.8
90	930	109.3	109.9
90	931	29.9	30.3
90	932	12.0	12.3
90	933	10.7	10.8
90	934	9.6	9.6
90	935	8.9	8.8
90	936	8.2	8.0
91	937	7.6	7.4
91	938	7.1	6.9
91	939	7.2	6.9
91	940	42.5	42.1
91	941	129.1	129.3
91	942	108.7	108.3
91	943	15.2	15.5
91	944	13.2	13.4
91	945	11.8	11.8
91	946	10.7	10.5
91	947	9.7	9.5
91	948	9.0	8.7
92	949	8.3	8.0
92	950	7.8	7.4
92	951	7.3	6.9
92	952	14.2	14.0
92	953	147.0	146.0
92	954	118.0	116.9
92	955	24.1	24.0
92	956	12.7	12.6
92	957	11.3	11.1
92	958	10.4	10.2
92	959	9.5	9.1
92	960	8.7	8.3
93	961	8.1	7.7
93	962	7.6	7.2
93	963	7.1	6.7

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
93	964	11.3	11.0
93	965	87.4	86.5
93	966	65.8	65.9
93	967	20.0	20.2
93	968	12.5	12.5
93	969	11.2	11.1
93	970	10.1	9.9
93	971	9.2	9.0
93	972	8.5	8.2
94	973	7.9	7.6
94	974	7.4	7.1
94	975	7.0	6.6
94	976	8.8	8.5
94	977	80.6	79.7
94	978	147.2	146.7
94	979	33.8	33.7
94	980	12.9	12.9
94	981	11.4	11.4
94	982	10.3	10.1
94	983	9.4	9.1
94	984	8.7	8.3
95	985	8.1	7.7
95	986	7.6	7.2
95	987	7.1	6.7
95	988	13.4	13.3
95	989	65.3	64.7
95	990	39.2	39.4
95	991	13.2	13.4
95	992	11.6	11.7
95	993	10.5	10.5
95	994	13.5	13.7
95	995	10.9	10.9
95	996	9.9	9.9
96	997	9.1	9.0
96	998	8.5	8.3
96	999	8.0	7.8

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
96	1000	11.5	11.4
96	1001	22.9	22.8
96	1002	10.7	10.8
96	1003	9.6	9.6
96	1004	8.8	8.7
96	1005	8.1	8.0
96	1006	7.6	7.4
96	1007	7.2	7.0
96	1008	6.7	6.4
97	1009	6.3	6.0
97	1010	6.0	5.7
97	1011	5.6	5.4
97	1012	12.1	12.1
97	1013	42.8	42.6
97	1014	62.3	62.5
97	1015	12.9	13.4
97	1016	11.5	11.7
97	1017	10.3	10.4
97	1018	9.4	9.4
97	1019	8.7	8.6
97	1020	8.0	7.9
98	1021	7.5	7.3
98	1022	7.0	6.8
98	1023	6.6	6.3
98	1024	11.5	11.4
98	1025	91.1	90.5
98	1026	85.3	85.4
98	1027	12.9	13.1
98	1028	11.4	11.5
98	1029	10.3	10.2
98	1030	9.4	9.2
98	1031	8.7	8.4
98	1032	8.0	7.7
99	1033	7.5	7.2
99	1034	7.0	6.7
99	1035	6.6	6.2

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
99	1036	13.3	13.3
99	1037	83.9	83.4
99	1038	38.4	38.8
99	1039	13.6	13.9
99	1040	12.0	12.2
99	1041	10.8	10.8
99	1042	9.8	9.7
99	1043	9.1	8.9
99	1044	8.4	8.1
100	1045	7.8	7.5
100	1046	7.3	7.0
100	1047	6.9	6.5
100	1048	11.0	11.0
100	1049	47.4	47.0
100	1050	24.4	24.7
100	1051	12.2	12.5
100	1052	10.9	11.0
100	1053	9.9	9.9
100	1054	9.1	9.0
100	1055	8.4	8.2
100	1056	7.8	7.6
101	1057	7.3	7.0
101	1058	6.9	6.6
101	1059	6.4	6.1
101	1060	46.5	46.0
101	1061	133.6	133.5
101	1062	98.4	98.0
101	1063	13.8	13.9
101	1064	12.2	12.1
101	1065	10.9	10.8
101	1066	9.9	9.7
101	1067	9.1	8.8
101	1068	8.4	8.1
102	1069	7.9	7.5
102	1070	7.4	7.0
102	1071	7.7	7.3

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
102	1072	14.2	14.1
102	1073	58.6	58.0
102	1074	21.0	21.3
102	1075	12.3	12.5
102	1076	10.9	11.0
102	1077	10.0	9.9
102	1078	11.9	12.0
102	1079	9.9	9.8
102	1080	9.1	9.0
103	1081	8.4	8.2
103	1082	7.9	7.6
103	1083	7.3	7.1
103	1084	9.3	9.1
103	1085	98.5	97.8
103	1086	87.9	87.9
103	1087	13.5	13.7
103	1088	11.9	11.9
103	1089	10.7	10.6
103	1090	9.7	9.5
103	1091	8.9	8.6
103	1092	8.3	7.9
104	1093	7.7	7.3
104	1094	7.3	6.9
104	1095	6.8	6.4
104	1096	9.5	9.2
104	1097	86.8	85.7
104	1098	75.7	75.5
104	1099	12.6	12.7
104	1100	11.1	11.1
104	1101	10.0	9.9
104	1102	10.6	10.5
104	1103	9.2	9.0
104	1104	8.5	8.2
105	1105	7.9	7.6
105	1106	7.4	7.1
105	1107	6.9	6.6

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
105	1108	11.3	11.2
105	1109	31.6	31.5
105	1110	113.8	113.8
105	1111	14.5	14.9
105	1112	12.8	12.9
105	1113	11.4	11.4
105	1114	10.3	10.2
105	1115	9.5	9.3
105	1116	8.7	8.4
106	1117	8.1	7.8
106	1118	7.6	7.2
106	1119	7.1	6.7
106	1120	8.8	8.6
106	1121	68.0	67.4
106	1122	106.7	106.8
106	1123	21.6	21.7
106	1124	12.8	12.8
106	1125	11.4	11.3
106	1126	10.3	10.1
106	1127	9.4	9.1
106	1128	8.7	8.4
107	1129	8.1	7.7
107	1130	7.6	7.2
107	1131	7.1	6.7
107	1132	28.0	27.6
107	1133	100.6	100.3
107	1134	66.4	66.6
107	1135	15.0	15.3
107	1136	13.2	13.2
107	1137	11.8	11.7
107	1138	12.2	12.1
107	1139	10.5	10.3
107	1140	9.6	9.4
108	1141	8.9	8.6
108	1142	8.3	7.9
108	1143	7.8	7.4

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
108	1144	13.9	13.8
108	1145	62.9	62.3
108	1146	62.7	62.8
108	1147	13.8	14.0
108	1148	12.2	12.2
108	1149	17.5	17.8
108	1150	13.8	14.0
108	1151	12.2	12.2
108	1152	11.1	10.9
109	1153	10.1	9.9
109	1154	9.4	9.1
109	1155	9.3	9.0
109	1156	14.9	14.9
109	1157	72.0	71.5
109	1158	49.1	49.2
109	1159	14.7	14.8
109	1160	13.0	12.9
109	1161	11.6	11.5
109	1162	10.5	10.3
109	1163	9.7	9.3
109	1164	8.9	8.5
110	1165	8.3	7.9
110	1166	7.8	7.3
110	1167	8.9	8.5
110	1168	13.3	13.1
110	1169	64.2	63.4
110	1170	30.4	30.2
110	1171	12.1	12.1
110	1172	10.7	10.6
110	1173	9.8	9.5
110	1174	8.9	8.7
110	1175	8.3	8.0
110	1176	7.7	7.4
111	1177	7.2	6.8
111	1178	6.8	6.4
111	1179	6.4	6.0

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
111	1180	53.9	53.0
111	1181	78.9	78.8
111	1182	46.2	46.4
111	1183	13.3	13.5
111	1184	11.8	11.8
111	1185	10.6	10.5
111	1186	12.1	12.1
111	1187	10.6	10.6
111	1188	9.6	9.4
112	1189	8.8	8.6
112	1190	8.2	7.9
112	1191	11.5	11.3
112	1192	17.7	17.9
112	1193	146.4	146.0
112	1194	148.9	147.3
112	1195	16.0	16.1
112	1196	13.9	13.9
112	1197	13.0	12.9
112	1198	15.8	15.9
112	1199	12.8	12.7
112	1200	11.5	11.3

Abbreviations:

cfs = cubic feet per second

SHSM = Stibnite Hydrologic Site Model

USGS = United States Geologic Survey

Table B - 20. Simulated Streamflow at EFSFSR Downstream of Sugar Creek

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
13	1	27.7	25.3
13	2	25.7	23.4
13	3	28.2	24.9
13	4	36.6	31.8
13	5	99.7	94.7
13	6	298.7	292.7
13	7	35.8	30.9

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
13	8	31.9	27.9
13	9	28.9	25.4
13	10	29.0	26.6
13	11	25.7	22.4
13	12	23.9	20.4
14	13	22.3	20.2
14	14	20.9	19.0
14	15	20.5	18.4
14	16	50.0	46.6
14	17	134.6	131.1
14	18	72.3	67.7
14	19	31.0	26.7
14	20	27.8	24.0
14	21	25.4	22.3
14	22	23.9	22.1
14	23	22.1	20.5
14	24	20.6	19.0
15	25	19.3	17.7
15	26	18.2	16.3
15	27	17.1	15.4
15	28	25.0	23.1
15	29	83.9	81.9
15	30	168.7	167.1
15	31	42.5	41.0
15	32	29.7	28.6
15	33	27.4	27.1
15	34	54.1	53.3
15	35	30.9	30.2
15	36	27.7	27.0
16	37	25.4	24.7
16	38	23.6	23.0
16	39	26.9	25.6
16	40	37.7	37.7

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
16	41	327.6	323.9
16	42	300.5	299.9
16	43	37.9	36.6
16	44	33.1	31.9
16	45	29.8	28.7
16	46	27.2	26.2
16	47	25.4	24.4
16	48	23.4	22.2
17	49	21.7	20.5
17	50	20.4	19.2
17	51	19.1	18.1
17	52	24.9	24.1
17	53	192.4	188.9
17	54	278.6	277.6
17	55	31.8	30.4
17	56	28.1	26.8
17	57	25.5	24.2
17	58	23.3	22.0
17	59	21.6	20.3
17	60	20.1	18.8
18	61	18.7	17.5
18	62	17.7	16.3
18	63	16.6	15.5
18	64	22.4	21.8
18	65	163.7	162.4
18	66	228.4	228.8
18	67	41.4	40.4
18	68	29.4	28.4
18	69	26.4	25.4
18	70	24.9	24.0
18	71	23.1	22.2
18	72	21.3	20.4
19	73	19.9	18.9

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
19	74	18.7	17.7
19	75	17.6	16.7
19	76	22.2	21.1
19	77	53.0	52.6
19	78	28.7	28.0
19	79	20.9	20.0
19	80	19.5	18.5
19	81	18.3	17.6
19	82	19.2	18.6
19	83	17.8	17.0
19	84	16.8	16.0
20	85	15.9	15.2
20	86	15.3	14.7
20	87	16.8	16.4
20	88	119.2	119.2
20	89	349.4	349.7
20	90	187.2	188.8
20	91	33.0	32.1
20	92	29.0	28.2
20	93	26.2	25.5
20	94	24.5	23.7
20	95	22.5	21.7
20	96	20.9	20.0
21	97	19.5	18.7
21	98	18.4	18.1
21	99	18.8	18.6
21	100	69.7	70.2
21	101	114.2	114.4
21	102	63.2	62.5
21	103	28.0	27.4
21	104	25.3	24.6
21	105	23.2	22.6
21	106	21.8	21.8

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
21	107	21.1	20.6
21	108	19.6	18.9
22	109	18.4	17.6
22	110	17.4	16.6
22	111	16.4	17.1
22	112	26.2	27.4
22	113	292.9	291.9
22	114	402.2	402.0
22	115	52.4	51.7
22	116	29.5	29.3
22	117	51.9	51.9
22	118	38.7	39.3
22	119	35.8	35.0
22	120	30.1	29.5
23	121	27.3	26.6
23	122	25.2	25.3
23	123	27.6	28.3
23	124	38.4	40.3
23	125	433.4	432.1
23	126	139.7	141.0
23	127	38.3	37.7
23	128	31.2	30.5
23	129	28.1	27.6
23	130	25.6	25.2
23	131	23.6	23.2
23	132	21.9	21.4
24	133	20.4	19.8
24	134	19.2	18.6
24	135	18.0	17.7
24	136	21.5	21.2
24	137	71.7	73.2
24	138	115.3	115.4
24	139	26.7	26.3

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
24	140	24.2	23.8
24	141	22.2	21.8
24	142	20.6	20.2
24	143	19.2	18.8
24	144	17.9	17.5
25	145	16.8	16.4
25	146	15.9	15.6
25	147	15.2	16.5
25	148	71.4	73.3
25	149	137.8	140.2
25	150	85.8	86.6
25	151	30.2	30.2
25	152	27.0	27.0
25	153	24.6	24.5
25	154	23.6	23.6
25	155	21.7	21.7
25	156	20.2	20.1
26	157	18.9	18.8
26	158	17.8	17.7
26	159	16.8	16.9
26	160	27.4	28.1
26	161	108.9	112.1
26	162	72.0	72.2
26	163	26.9	27.0
26	164	24.4	24.4
26	165	22.5	22.5
26	166	25.7	26.3
26	167	21.8	22.0
26	168	20.4	20.4
27	169	19.1	19.1
27	170	18.1	18.0
27	171	17.1	17.9
27	172	34.1	37.1

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
27	173	276.1	282.7
27	174	254.9	259.5
27	175	56.5	56.5
27	176	32.4	32.3
27	177	28.9	28.8
27	178	26.2	26.0
27	179	24.0	23.7
27	180	22.2	21.8
28	181	20.5	20.1
28	182	19.3	18.8
28	183	18.1	17.8
28	184	20.0	21.2
28	185	139.3	142.4
28	186	343.0	346.5
28	187	30.5	30.1
28	188	26.9	26.3
28	189	24.4	23.8
28	190	28.9	29.0
28	191	22.7	22.3
28	192	21.2	20.9
29	193	20.4	20.0
29	194	21.5	20.8
29	195	28.8	28.4
29	196	84.6	86.5
29	197	79.6	80.5
29	198	46.2	46.4
29	199	28.4	28.4
29	200	25.8	25.8
29	201	23.8	23.7
29	202	22.8	22.9
29	203	21.8	21.7
29	204	20.2	20.0
30	205	19.0	18.7

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
30	206	17.9	17.6
30	207	16.9	17.1
30	208	34.0	34.4
30	209	107.6	111.7
30	210	140.5	142.3
30	211	31.6	31.6
30	212	28.3	28.2
30	213	25.8	25.6
30	214	23.6	23.4
30	215	21.8	21.6
30	216	20.3	19.9
31	217	18.9	18.5
31	218	17.8	17.4
31	219	16.8	17.6
31	220	37.6	41.2
31	221	323.1	328.2
31	222	207.1	209.6
31	223	31.4	31.0
31	224	27.7	27.2
31	225	25.1	24.6
31	226	23.0	22.5
31	227	21.3	20.7
31	228	19.8	19.2
32	229	18.5	17.9
32	230	17.4	16.8
32	231	16.4	16.0
32	232	21.3	22.0
32	233	149.6	151.9
32	234	158.0	159.7
32	235	29.0	28.5
32	236	25.5	24.8
32	237	23.2	22.6
32	238	21.3	20.7

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
32	239	19.7	19.2
32	240	18.3	17.8
33	241	17.1	16.6
33	242	16.2	15.6
33	243	15.2	15.8
33	244	23.9	26.4
33	245	276.8	283.8
33	246	481.3	486.0
33	247	61.9	61.3
33	248	28.4	27.8
33	249	25.3	24.8
33	250	23.1	22.6
33	251	21.3	20.8
33	252	19.7	19.2
34	253	18.4	17.9
34	254	17.3	16.8
34	255	16.2	16.3
34	256	30.6	31.7
34	257	124.1	126.6
34	258	64.7	64.7
34	259	27.1	26.9
34	260	24.5	24.4
34	261	22.5	22.3
34	262	21.7	21.6
34	263	20.1	20.0
34	264	18.8	18.7
35	265	17.7	17.4
35	266	16.7	16.8
35	267	21.7	22.8
35	268	105.1	109.9
35	269	295.0	300.3
35	270	163.8	164.9
35	271	32.5	32.2

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
35	272	28.7	29.6
35	273	51.6	52.2
35	274	52.5	53.6
35	275	34.3	34.7
35	276	30.9	31.1
36	277	28.1	28.2
36	278	26.2	26.3
36	279	28.8	28.6
36	280	45.7	48.4
36	281	251.3	257.3
36	282	184.3	186.8
36	283	39.6	39.2
36	284	34.7	34.3
36	285	31.2	30.8
36	286	30.4	30.1
36	287	27.4	27.1
36	288	25.3	24.9
37	289	23.5	22.9
37	290	22.0	21.4
37	291	20.5	21.4
37	292	82.4	85.3
37	293	243.0	247.1
37	294	182.5	184.5
37	295	46.4	45.7
37	296	34.7	34.1
37	297	31.0	30.4
37	298	28.0	27.4
37	299	25.7	25.0
37	300	23.7	22.9
38	301	21.9	21.1
38	302	20.5	19.7
38	303	19.2	22.3
38	304	186.5	189.2

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
38	305	225.0	230.3
38	306	305.4	308.5
38	307	114.2	113.1
38	308	36.3	35.5
38	309	32.0	31.3
38	310	29.5	28.8
38	311	26.8	26.1
38	312	24.6	23.9
39	313	22.8	22.0
39	314	21.3	20.5
39	315	19.9	19.3
39	316	26.7	25.9
39	317	56.0	58.0
39	318	110.7	110.7
39	319	29.0	28.5
39	320	26.3	25.8
39	321	24.2	23.6
39	322	22.3	21.7
39	323	20.8	20.2
39	324	19.4	18.8
40	325	18.2	17.5
40	326	17.2	16.5
40	327	16.2	15.8
40	328	16.7	19.7
40	329	277.9	280.8
40	330	226.8	229.5
40	331	43.3	42.7
40	332	27.2	26.5
40	333	24.5	23.9
40	334	22.4	21.8
40	335	20.8	20.2
40	336	19.3	18.7
41	337	18.0	17.4

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
41	338	17.0	16.5
41	339	16.0	17.4
41	340	69.7	73.1
41	341	250.4	254.9
41	342	180.5	182.8
41	343	45.3	45.0
41	344	29.5	29.1
41	345	27.5	27.4
41	346	45.5	45.8
41	347	30.7	30.8
41	348	27.9	27.9
42	349	25.6	25.6
42	350	24.5	24.5
42	351	30.5	30.7
42	352	59.6	64.3
42	353	325.3	331.6
42	354	168.1	168.8
42	355	39.7	39.1
42	356	34.7	34.2
42	357	31.1	31.1
42	358	61.7	62.0
42	359	31.5	31.4
42	360	28.6	28.4
43	361	26.3	25.9
43	362	24.4	24.0
43	363	22.6	23.0
43	364	48.7	51.2
43	365	318.5	324.9
43	366	333.8	336.4
43	367	38.7	38.0
43	368	33.8	33.0
43	369	30.3	29.6
43	370	27.4	26.7

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
43	371	25.2	24.4
43	372	23.2	22.4
44	373	21.5	20.7
44	374	20.2	19.4
44	375	18.9	20.1
44	376	76.0	78.5
44	377	279.2	281.6
44	378	90.5	90.0
44	379	32.2	31.6
44	380	28.6	28.0
44	381	26.0	25.3
44	382	24.1	23.4
44	383	22.9	22.3
44	384	21.2	20.6
45	385	19.8	19.2
45	386	18.7	18.2
45	387	17.8	18.3
45	388	42.3	43.5
45	389	132.8	137.6
45	390	296.9	300.4
45	391	40.6	40.2
45	392	32.3	31.9
45	393	28.9	29.3
45	394	69.1	69.3
45	395	31.3	31.0
45	396	28.8	28.3
46	397	25.7	25.2
46	398	23.7	23.2
46	399	21.9	23.4
46	400	127.3	130.4
46	401	240.0	244.5
46	402	127.6	128.2
46	403	36.6	36.2

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
46	404	32.3	31.9
46	405	29.1	29.2
46	406	43.2	43.1
46	407	31.1	30.9
46	408	28.3	28.0
47	409	26.0	25.7
47	410	24.3	23.8
47	411	22.5	23.8
47	412	114.7	117.8
47	413	283.4	289.1
47	414	254.8	256.9
47	415	39.0	38.2
47	416	33.9	33.2
47	417	30.4	29.7
47	418	27.5	26.8
47	419	25.2	24.4
47	420	23.2	22.4
48	421	21.5	20.7
48	422	20.2	19.5
48	423	19.2	19.3
48	424	29.7	30.2
48	425	204.6	208.4
48	426	324.6	327.8
48	427	79.3	78.2
48	428	32.9	32.1
48	429	29.3	28.5
48	430	26.4	25.7
48	431	24.1	23.4
48	432	22.2	21.5
49	433	20.6	19.9
49	434	19.3	18.7
49	435	18.1	19.0
49	436	43.6	46.0

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
49	437	259.6	264.8
49	438	271.1	273.4
49	439	61.5	60.7
49	440	33.3	32.7
49	441	29.6	29.1
49	442	26.7	26.1
49	443	24.4	23.8
49	444	22.5	21.9
50	445	20.8	20.2
50	446	19.5	18.8
50	447	18.2	17.7
50	448	23.3	24.3
50	449	130.6	132.8
50	450	158.0	160.9
50	451	40.1	39.8
50	452	28.0	27.6
50	453	25.4	24.9
50	454	25.0	24.7
50	455	22.6	22.3
50	456	21.0	20.7
51	457	19.6	19.2
51	458	18.5	18.1
51	459	17.4	19.5
51	460	104.7	110.6
51	461	473.4	480.1
51	462	273.9	276.6
51	463	36.7	36.2
51	464	31.3	30.7
51	465	28.1	27.9
51	466	37.4	37.4
51	467	28.6	28.4
51	468	26.2	26.0
52	469	24.2	23.9

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
52	470	22.6	22.3
52	471	22.5	22.6
52	472	45.9	49.1
52	473	353.0	358.4
52	474	154.5	155.8
52	475	35.8	35.3
52	476	31.5	31.1
52	477	28.5	28.0
52	478	25.9	25.4
52	479	23.9	23.3
52	480	22.1	21.5
53	481	20.5	19.9
53	482	19.3	18.7
53	483	18.1	18.0
53	484	30.4	32.4
53	485	287.4	291.4
53	486	162.1	163.2
53	487	30.4	29.8
53	488	27.1	26.4
53	489	24.6	24.0
53	490	22.6	22.0
53	491	20.9	20.3
53	492	19.5	18.9
54	493	18.2	17.6
54	494	17.1	16.6
54	495	16.1	17.2
54	496	49.3	52.3
54	497	217.0	222.0
54	498	350.6	354.8
54	499	35.5	35.2
54	500	31.1	31.6
54	501	44.8	45.3
54	502	67.0	68.0

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
54	503	36.3	36.5
54	504	32.2	32.3
55	505	29.2	29.2
55	506	26.9	26.9
55	507	26.7	27.2
55	508	57.6	61.4
55	509	224.1	228.8
55	510	144.5	146.2
55	511	38.5	38.2
55	512	34.0	33.6
55	513	30.6	30.3
55	514	27.8	27.4
55	515	25.5	25.0
55	516	23.5	23.0
56	517	21.8	21.2
56	518	20.5	20.0
56	519	19.2	19.5
56	520	34.6	36.1
56	521	307.4	311.7
56	522	266.7	269.0
56	523	32.8	32.2
56	524	29.0	28.3
56	525	27.8	27.5
56	526	46.0	46.1
56	527	29.8	29.6
56	528	27.2	27.0
57	529	25.1	24.9
57	530	23.4	23.1
57	531	21.8	23.2
57	532	94.7	97.6
57	533	241.4	245.8
57	534	174.7	176.7
57	535	38.3	37.9

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
57	536	33.6	33.2
57	537	30.2	31.5
57	538	93.0	92.7
57	539	39.1	38.8
57	540	33.4	33.1
58	541	30.0	29.7
58	542	32.2	31.4
58	543	27.2	27.3
58	544	42.3	44.2
58	545	275.1	281.4
58	546	286.3	287.8
58	547	40.5	39.6
58	548	35.3	34.5
58	549	31.5	30.8
58	550	28.5	27.8
58	551	26.1	25.3
58	552	24.0	23.2
59	553	22.2	21.4
59	554	20.8	20.0
59	555	19.5	18.9
59	556	22.5	23.4
59	557	163.2	166.3
59	558	339.9	342.6
59	559	61.7	60.9
59	560	30.4	29.6
59	561	27.2	26.4
59	562	24.7	24.0
59	563	22.7	22.0
59	564	21.0	20.3
60	565	19.6	18.9
60	566	18.4	17.8
60	567	17.3	19.7
60	568	110.0	113.0

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
60	569	282.7	290.0
60	570	490.7	493.5
60	571	145.4	144.6
60	572	35.1	34.6
60	573	33.3	33.0
60	574	29.1	28.8
60	575	26.5	26.2
60	576	24.3	23.9
61	577	22.5	22.0
61	578	21.0	20.5
61	579	19.6	19.4
61	580	24.5	25.3
61	581	156.5	159.3
61	582	111.3	111.4
61	583	28.6	28.2
61	584	25.7	25.3
61	585	23.6	23.1
61	586	21.7	21.3
61	587	20.2	19.7
61	588	18.9	18.4
62	589	17.7	17.2
62	590	16.7	16.2
62	591	15.7	15.5
62	592	20.1	23.0
62	593	219.7	224.5
62	594	369.0	373.0
62	595	46.8	46.5
62	596	28.8	28.5
62	597	25.9	26.0
62	598	36.4	36.8
62	599	28.0	28.0
62	600	25.3	25.3
63	601	23.4	23.3

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
63	602	22.4	22.3
63	603	25.5	25.0
63	604	30.3	31.3
63	605	166.7	170.7
63	606	221.7	224.8
63	607	34.9	34.6
63	608	30.6	30.4
63	609	36.5	36.7
63	610	36.5	36.9
63	611	29.0	29.1
63	612	26.5	26.5
64	613	24.5	24.4
64	614	22.8	22.7
64	615	21.2	23.3
64	616	118.5	122.6
64	617	356.3	362.6
64	618	215.1	216.8
64	619	36.7	36.3
64	620	32.2	31.7
64	621	28.9	28.4
64	622	27.4	27.0
64	623	25.0	24.6
64	624	23.2	22.7
65	625	21.6	21.2
65	626	20.3	19.9
65	627	19.0	18.7
65	628	23.4	27.2
65	629	295.5	301.4
65	630	477.7	481.0
65	631	34.0	33.8
65	632	29.6	30.1
65	633	50.8	51.0
65	634	44.3	44.7

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
65	635	35.9	36.0
65	636	31.8	31.9
66	637	28.9	28.9
66	638	26.7	26.6
66	639	24.7	26.0
66	640	49.4	54.9
66	641	456.7	465.0
66	642	432.5	433.8
66	643	100.2	99.1
66	644	36.8	36.2
66	645	32.6	32.1
66	646	29.3	28.8
66	647	26.7	26.2
66	648	24.6	24.0
67	649	22.7	22.1
67	650	21.3	20.7
67	651	20.0	20.5
67	652	34.5	36.2
67	653	331.7	336.8
67	654	342.7	344.7
67	655	35.0	34.2
67	656	30.6	29.8
67	657	27.5	26.9
67	658	25.0	24.4
67	659	23.1	22.4
67	660	21.3	20.7
68	661	19.9	19.2
68	662	18.7	18.1
68	663	17.5	17.2
68	664	20.0	20.4
68	665	119.6	120.7
68	666	109.5	109.5
68	667	26.1	25.7

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
68	668	23.6	23.2
68	669	21.8	21.4
68	670	20.7	20.4
68	671	19.3	19.0
68	672	18.1	17.8
69	673	17.0	16.7
69	674	16.1	16.0
69	675	15.6	19.1
69	676	143.9	148.7
69	677	356.7	366.2
69	678	690.2	692.5
69	679	34.9	35.0
69	680	30.6	30.4
69	681	27.5	27.4
69	682	25.0	24.8
69	683	23.1	22.8
69	684	21.3	21.0
70	685	19.9	19.6
70	686	18.7	18.3
70	687	17.5	17.2
70	688	16.7	18.6
70	689	137.3	140.5
70	690	293.1	296.7
70	691	64.5	64.0
70	692	27.9	27.5
70	693	25.0	25.4
70	694	41.0	41.4
70	695	27.6	27.6
70	696	25.1	25.1
71	697	23.2	23.1
71	698	21.6	21.5
71	699	20.1	20.8
71	700	40.1	42.8

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
71	701	254.7	260.5
71	702	180.2	183.1
71	703	61.3	61.1
71	704	33.0	32.9
71	705	29.4	29.4
71	706	26.6	26.5
71	707	24.4	24.2
71	708	22.5	22.2
72	709	20.8	20.5
72	710	19.5	19.2
72	711	18.3	17.9
72	712	17.3	16.9
72	713	31.4	32.2
72	714	27.5	27.8
72	715	19.0	18.7
72	716	17.8	18.3
72	717	25.6	26.4
72	718	22.7	22.8
72	719	20.5	20.6
72	720	19.3	19.4
73	721	18.2	18.3
73	722	17.3	17.6
73	723	24.8	25.4
73	724	55.1	59.8
73	725	204.0	209.6
73	726	243.1	248.0
73	727	96.9	96.9
73	728	35.2	35.3
73	729	31.2	31.3
73	730	28.1	28.2
73	731	25.7	25.6
73	732	23.6	23.5
74	733	21.8	21.6

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
74	734	20.4	20.1
74	735	19.1	18.9
74	736	20.3	20.5
74	737	96.6	97.2
74	738	85.4	85.1
74	739	25.4	25.1
74	740	23.0	22.7
74	741	21.2	20.8
74	742	20.4	20.1
74	743	19.0	18.7
74	744	17.8	17.6
75	745	16.8	16.6
75	746	15.9	15.7
75	747	15.0	16.1
75	748	63.0	66.8
75	749	258.6	263.2
75	750	158.9	161.7
75	751	36.3	36.3
75	752	29.5	29.3
75	753	26.9	26.8
75	754	24.5	24.4
75	755	22.6	22.5
75	756	20.9	20.8
76	757	19.5	19.3
76	758	18.4	18.3
76	759	19.0	19.4
76	760	52.5	55.2
76	761	219.6	225.1
76	762	231.9	235.7
76	763	43.6	43.4
76	764	31.7	31.5
76	765	28.3	28.1
76	766	25.8	25.6

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
76	767	23.8	23.6
76	768	22.0	21.7
77	769	20.4	20.1
77	770	19.2	19.0
77	771	19.3	19.4
77	772	37.4	40.7
77	773	320.7	329.5
77	774	540.7	545.2
77	775	108.0	107.7
77	776	33.9	33.6
77	777	30.6	31.4
77	778	105.6	106.5
77	779	35.4	35.5
77	780	31.4	31.3
78	781	28.4	28.2
78	782	26.2	26.2
78	783	30.5	30.6
78	784	38.4	40.8
78	785	268.4	274.3
78	786	325.3	329.1
78	787	133.9	134.1
78	788	37.4	36.7
78	789	31.8	31.1
78	790	29.5	29.1
78	791	26.7	26.2
78	792	24.5	24.0
79	793	22.7	22.1
79	794	21.2	20.7
79	795	19.8	19.9
79	796	30.4	32.5
79	797	279.2	285.1
79	798	359.2	363.4
79	799	118.3	117.9

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
79	800	34.5	34.0
79	801	30.6	30.2
79	802	32.0	31.8
79	803	28.1	27.9
79	804	25.8	25.6
80	805	23.9	23.6
80	806	22.4	22.0
80	807	20.9	21.1
80	808	41.3	42.5
80	809	144.3	146.6
80	810	65.4	65.4
80	811	30.9	30.8
80	812	27.8	29.0
80	813	76.1	76.4
80	814	46.4	47.3
80	815	35.9	36.4
80	816	32.4	32.7
81	817	29.5	29.7
81	818	27.3	28.4
81	819	54.9	57.6
81	820	69.5	74.1
81	821	233.7	239.7
81	822	215.4	217.9
81	823	43.5	43.2
81	824	38.2	38.4
81	825	48.2	48.6
81	826	37.3	37.3
81	827	33.8	33.7
81	828	30.8	30.6
82	829	28.3	28.0
82	830	26.2	25.9
82	831	24.4	24.2
82	832	50.4	50.5

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
82	833	101.1	101.8
82	834	37.8	37.4
82	835	29.1	28.6
82	836	26.5	26.0
82	837	24.4	23.8
82	838	22.6	22.0
82	839	21.0	20.4
82	840	19.7	19.0
83	841	18.4	17.8
83	842	17.5	16.8
83	843	16.5	16.5
83	844	30.9	31.8
83	845	134.5	135.9
83	846	116.9	117.2
83	847	28.1	27.7
83	848	25.3	24.9
83	849	23.2	22.8
83	850	21.4	21.0
83	851	19.9	19.5
83	852	18.6	18.2
84	853	17.4	17.0
84	854	16.5	16.0
84	855	15.5	16.5
84	856	37.3	39.1
84	857	163.3	166.6
84	858	188.7	191.3
84	859	31.9	31.9
84	860	28.3	28.1
84	861	25.6	25.4
84	862	24.5	24.3
84	863	22.4	22.2
84	864	20.8	20.6
85	865	19.4	19.1

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
85	866	18.3	18.1
85	867	17.2	17.9
85	868	75.3	77.8
85	869	117.1	119.2
85	870	46.0	46.2
85	871	29.5	29.6
85	872	26.5	26.6
85	873	24.2	24.2
85	874	22.3	22.3
85	875	20.7	20.6
85	876	19.3	19.1
86	877	18.1	17.8
86	878	17.0	16.8
86	879	16.0	15.9
86	880	22.3	22.4
86	881	73.6	75.8
86	882	75.9	76.5
86	883	27.6	27.9
86	884	25.1	25.3
86	885	23.1	23.2
86	886	21.4	21.4
86	887	19.9	19.9
86	888	18.6	18.5
87	889	17.5	17.3
87	890	16.5	16.4
87	891	16.2	16.4
87	892	47.0	47.7
87	893	57.0	57.9
87	894	45.9	46.0
87	895	23.6	23.8
87	896	21.7	21.8
87	897	20.1	20.2
87	898	18.7	18.7

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
87	899	17.6	17.6
87	900	16.6	16.5
88	901	15.6	15.5
88	902	14.8	14.7
88	903	14.6	15.4
88	904	41.8	44.6
88	905	244.0	249.8
88	906	210.2	214.0
88	907	35.2	35.3
88	908	28.8	28.6
88	909	25.9	25.8
88	910	23.6	23.4
88	911	21.7	21.5
88	912	20.1	19.8
89	913	18.7	18.4
89	914	17.6	17.3
89	915	16.6	16.2
89	916	16.7	16.6
89	917	59.6	60.1
89	918	20.6	20.7
89	919	18.1	17.8
89	920	17.0	16.7
89	921	16.0	15.7
89	922	15.1	14.8
89	923	14.3	14.0
89	924	13.5	13.3
90	925	12.9	12.7
90	926	12.5	12.5
90	927	12.8	13.6
90	928	42.9	46.6
90	929	250.7	256.6
90	930	288.7	293.7
90	931	74.4	74.4

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
90	932	29.6	29.6
90	933	26.4	26.3
90	934	24.2	24.1
90	935	22.3	22.3
90	936	20.6	20.5
91	937	19.2	19.0
91	938	18.1	18.1
91	939	20.8	22.6
91	940	160.3	165.0
91	941	312.7	318.9
91	942	253.5	256.3
91	943	37.5	37.4
91	944	31.8	31.5
91	945	28.5	28.2
91	946	25.9	25.6
91	947	23.8	23.4
91	948	21.9	21.5
92	949	20.4	19.9
92	950	19.2	18.9
92	951	19.5	20.5
92	952	63.5	67.7
92	953	384.3	390.3
92	954	276.2	279.1
92	955	59.1	58.4
92	956	31.3	30.7
92	957	27.9	27.3
92	958	26.1	25.7
92	959	23.8	23.4
92	960	22.0	21.5
93	961	20.4	20.0
93	962	19.2	18.8
93	963	18.0	17.8
93	964	27.5	28.8

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
93	965	224.2	228.9
93	966	176.3	179.1
93	967	53.3	52.9
93	968	30.8	30.5
93	969	28.0	27.7
93	970	25.4	25.2
93	971	23.4	23.1
93	972	21.6	21.3
94	973	20.1	19.7
94	974	18.9	18.6
94	975	17.7	17.7
94	976	23.2	25.5
94	977	227.6	232.8
94	978	390.8	395.0
94	979	88.3	88.0
94	980	31.5	31.1
94	981	28.0	27.7
94	982	25.3	24.9
94	983	23.3	22.8
94	984	21.5	21.0
95	985	19.9	19.4
95	986	18.7	18.3
95	987	17.6	18.4
95	988	54.4	56.8
95	989	169.3	172.2
95	990	112.4	113.2
95	991	31.0	30.7
95	992	27.6	27.3
95	993	25.1	24.9
95	994	34.8	35.5
95	995	25.6	25.7
95	996	23.7	23.6
96	997	22.0	21.8

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
96	998	20.6	20.4
96	999	20.3	20.0
96	1000	27.7	27.2
96	1001	67.1	68.7
96	1002	36.4	36.6
96	1003	24.4	24.2
96	1004	22.3	22.2
96	1005	20.7	20.5
96	1006	20.0	19.9
96	1007	18.9	18.8
96	1008	17.8	17.6
97	1009	16.8	16.6
97	1010	16.0	15.7
97	1011	15.1	15.9
97	1012	44.0	45.8
97	1013	119.2	123.1
97	1014	166.7	169.2
97	1015	31.2	31.3
97	1016	27.9	27.9
97	1017	25.3	25.3
97	1018	23.2	23.1
97	1019	21.4	21.2
97	1020	19.9	19.7
98	1021	18.6	18.3
98	1022	17.5	17.3
98	1023	16.8	17.8
98	1024	36.7	38.7
98	1025	252.5	257.9
98	1026	225.5	228.9
98	1027	32.0	31.9
98	1028	28.3	28.1
98	1029	25.6	25.4
98	1030	23.4	23.1

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
98	1031	21.6	21.3
98	1032	20.1	19.7
99	1033	18.7	18.3
99	1034	17.6	17.3
99	1035	17.9	17.9
99	1036	51.9	54.3
99	1037	213.2	216.1
99	1038	101.6	102.6
99	1039	32.1	32.2
99	1040	28.7	28.6
99	1041	26.1	26.1
99	1042	25.2	25.2
99	1043	23.1	23.1
99	1044	21.5	21.4
100	1045	20.1	19.9
100	1046	18.9	18.8
100	1047	17.9	17.9
100	1048	27.6	28.2
100	1049	128.0	130.9
100	1050	77.7	78.6
100	1051	29.5	29.6
100	1052	26.6	26.7
100	1053	24.4	24.4
100	1054	22.5	22.4
100	1055	20.9	20.7
100	1056	19.5	19.2
101	1057	18.2	18.0
101	1058	17.2	16.9
101	1059	16.2	19.2
101	1060	155.1	160.0
101	1061	365.5	372.4
101	1062	258.3	261.2
101	1063	33.5	33.1

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
101	1064	29.4	28.9
101	1065	26.5	26.0
101	1066	24.1	23.6
101	1067	22.2	21.7
101	1068	20.6	20.1
102	1069	19.2	18.7
102	1070	18.1	17.7
102	1071	20.4	20.3
102	1072	48.0	49.1
102	1073	147.8	149.9
102	1074	65.3	65.2
102	1075	29.6	29.5
102	1076	26.6	26.5
102	1077	24.4	24.3
102	1078	36.7	37.4
102	1079	25.8	25.8
102	1080	23.5	23.4
103	1081	21.8	21.6
103	1082	20.4	20.2
103	1083	19.1	19.1
103	1084	25.0	27.5
103	1085	269.2	273.6
103	1086	238.4	242.3
103	1087	36.4	36.3
103	1088	29.7	29.2
103	1089	26.7	26.3
103	1090	24.3	23.9
103	1091	22.4	21.9
103	1092	20.7	20.2
104	1093	19.3	18.8
104	1094	18.2	17.7
104	1095	17.1	17.0
104	1096	23.7	25.3

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
104	1097	227.6	231.3
104	1098	196.0	198.6
104	1099	31.1	30.8
104	1100	27.6	27.1
104	1101	25.0	24.5
104	1102	26.2	26.2
104	1103	23.6	23.4
104	1104	21.9	21.7
105	1105	20.5	20.3
105	1106	19.3	19.1
105	1107	19.6	19.3
105	1108	29.5	29.5
105	1109	97.3	102.9
105	1110	322.2	326.9
105	1111	36.7	36.7
105	1112	32.2	32.1
105	1113	28.9	28.8
105	1114	26.4	26.3
105	1115	24.3	24.1
105	1116	22.4	22.2
106	1117	20.8	20.5
106	1118	19.5	19.2
106	1119	18.3	18.2
106	1120	23.1	25.4
106	1121	195.6	200.2
106	1122	297.5	301.7
106	1123	62.1	61.9
106	1124	31.8	31.5
106	1125	28.4	28.2
106	1126	26.2	26.0
106	1127	24.0	23.7
106	1128	22.2	21.9
107	1129	20.7	20.3

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
107	1130	19.5	19.2
107	1131	18.8	20.3
107	1132	112.2	115.1
107	1133	260.3	265.1
107	1134	172.8	175.2
107	1135	35.8	35.6
107	1136	31.5	31.2
107	1137	28.4	28.0
107	1138	28.9	28.8
107	1139	26.0	25.9
107	1140	24.0	23.7
108	1141	22.2	21.9
108	1142	20.9	20.5
108	1143	21.0	20.8
108	1144	40.7	41.5
108	1145	173.7	177.9
108	1146	168.2	170.1
108	1147	33.7	33.4
108	1148	29.9	30.6
108	1149	47.0	47.5
108	1150	33.0	33.2
108	1151	29.7	29.8
108	1152	27.2	27.2
109	1153	25.1	25.0
109	1154	23.4	23.4
109	1155	25.5	25.2
109	1156	42.8	43.8
109	1157	197.6	201.9
109	1158	126.4	127.1
109	1159	35.5	35.2
109	1160	31.5	31.3
109	1161	28.5	28.2
109	1162	26.2	25.9

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
109	1163	24.2	23.8
109	1164	22.4	22.0
110	1165	20.8	20.5
110	1166	20.6	20.2
110	1167	26.5	25.5
110	1168	36.6	37.2
110	1169	162.2	164.5
110	1170	81.3	80.9
110	1171	30.8	30.7
110	1172	27.7	27.6
110	1173	25.4	25.2
110	1174	23.5	23.2
110	1175	21.8	21.5
110	1176	20.3	20.0
111	1177	19.0	18.6
111	1178	17.9	17.8
111	1179	18.8	20.6
111	1180	190.7	193.3
111	1181	203.0	207.0
111	1182	133.1	133.8
111	1183	32.4	32.0
111	1184	28.7	28.3
111	1185	26.0	25.8
111	1186	30.3	30.4
111	1187	26.8	26.7
111	1188	24.4	24.2
112	1189	22.6	22.5
112	1190	21.5	22.1
112	1191	35.0	35.7
112	1192	70.0	76.3
112	1193	409.2	416.7
112	1194	369.2	371.6
112	1195	40.9	40.4

Mine Year	Stress Period	No Action SHSM (cfs)	Mining SHSM (cfs)
112	1196	35.6	35.1
112	1197	34.1	34.0
112	1198	38.3	38.5
112	1199	33.6	33.5
112	1200	30.0	30.0

Abbreviations:

cfs = cubic feet per second

SHSM = Stibnite Hydrologic Site Model