



Forest Service  
U.S. DEPARTMENT OF AGRICULTURE

# North Maybe Mine (NMM) Open Pit Sub-Operable Unit (OPSOU) & South Maybe Canyon Mine (SMCM) Open Pit Sub-Operable Unit (OPSOU)



## Introduction

The U.S. Forest Service, an agency of the U.S. Department of Agriculture, is proposing a plan for No Action at the North Maybe Mine (NMM) Open Pit Sub Operable Unit (OPSOU) and South Maybe Canyon Mine (SMCM) Open Pit Operable Unit (OPOU) in Caribou County, Idaho, and is inviting the public to review and comment on the Proposed Plan. The Open Pits are part of former phosphate mines located in the Phosphate Resource Area of Southeast Idaho (See Attachment A).

Operation of the mines resulted in the contamination of soils, surface water, vegetation, sediments/soils, and groundwater with metalloids (for example, arsenic and selenium), metals, and uranium daughter products (for example, radium and radon) across the sites.

This Proposed Plan provides background information on the data, future land use, analysis, and identifies the Forest Service's proposed No Action and explains the rationale for this action. A Proposed Plan is a document that the Forest Service is required to issue under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), also known as Superfund, and the regulations that implement CERCLA, known as the National Contingency Plan (NCP). The Forest Service is issuing this Proposed Plan consistent with the statutory and regulatory requirements of CERCLA § 117(a) (42 U.S.C. § 9617(a)) and the NCP § 300.430(f)(2) (40 C.F.R. § 300.430(f)(2)).

This Proposed Plan is based on information collected, evaluated, and summarized in reports prepared by NuWest Industries, Inc. (Nu-West, a subsidiary of Nutrien, Inc.), with direction and oversight provided by the Forest Service, the lead agency, and support agencies: Idaho Department of Environmental Quality (DEQ), the U.S. Fish and Wildlife Service (USFWS), and the Shoshone-Bannock Tribes.

## Public Comment Period:

### Virtual Public Meeting:

*Tuesday, July 18, 2023 from 6:00-7:00 p.m.*

**Link:** <https://bit.ly/3JDRtQ2>

Documents used in this Proposed Plan may be viewed during the Public Comment Period at:

Soda Springs Ranger District  
410 East Hopper Ave.  
Soda Springs, ID 83276-1496

The Forest Service will accept comments on the Proposed Plan during the 30-day public comment period. Comments may be submitted three ways. (See Community Involvement Section for more details).

### By Mail:

Attn: NMM SMCM Comments  
Brian Deeken  
USDA Forest Service  
4350 Cliffs Drive  
Pocatello, ID 83204

**By E-mail:** [brian.deeken@usda.gov](mailto:brian.deeken@usda.gov)

### During Public Meetings:

- The Forest Service will present the Proposed Plan and provide an opportunity for comments during this meeting.
- Other reminders of the public meeting will be placed in a fact sheet to stakeholders and legal notices in the local newspapers. Links to the Proposed Plan are available online at <https://www.fs.usda.gov/ctnf>.

This Proposed Plan highlights key information found in the Remedial Investigation (RI) report, Baseline Human Health Risk Assessment (BHHRA), Baseline Ecological Risk Assessment (BERA), and Livestock Risk Assessment (LRA). The reader should consult these reports and documents in the administrative record for more information regarding the proposed No Action Remedy.

The Forest Service is inviting public input on the rationale for No Action at NMM OPSOU and SMCM OPSOU. After considering public comments and any new information, the Forest Service, in consultation with support agencies, will issue a Record of Decision (ROD) for NMM OPSOU and SMCM OPSOU.

Information on how to provide comments or questions to the Forest Service is presented in the inset on page one and on seven. A list of environmental terms and abbreviations used in this Proposed Plan, along with referenced project Attachments A, B, C, and D are provided at the end of the document.

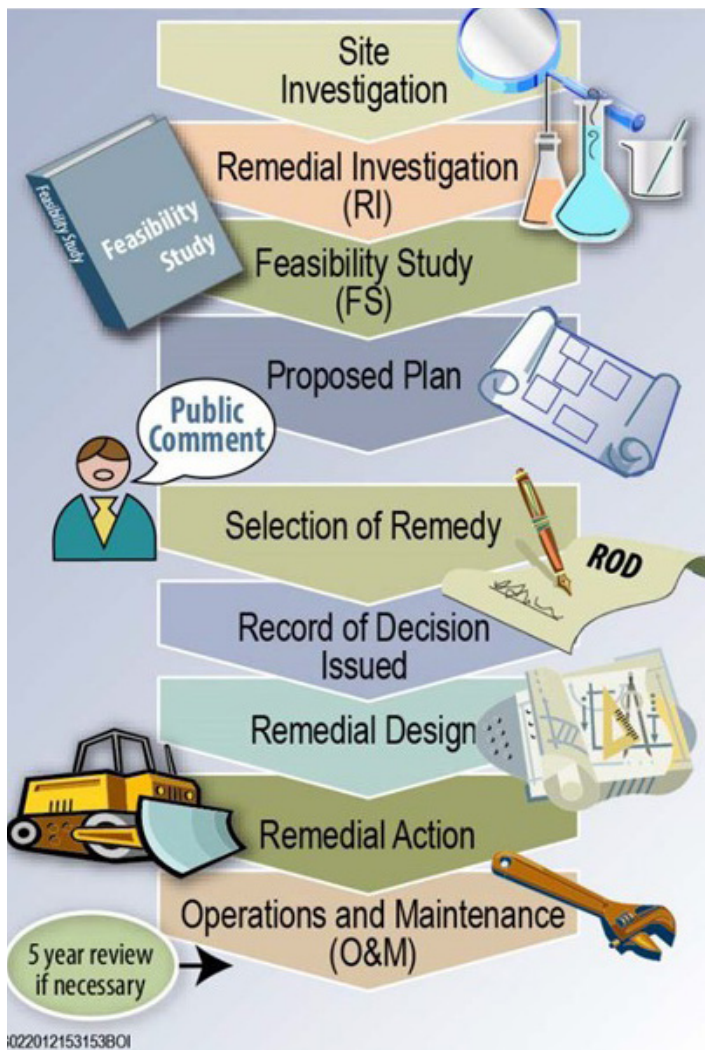


Figure 1. Steps in the Superfund Cleanup Process

## The Superfund Process

The Superfund process is a structured process, established by CERCLA and the NCP, to guide the cleanup of contaminated sites. The

process includes various steps, illustrated in Figure 1, leading from discovery of a site, through investigation, remedy selection, and implementation of a remedy.

## Site Background

The Open Pits are part of former phosphate mines located in the Phosphate Resource Area of southeast Idaho. This is an area where phosphate-rich sedimentary rock units are present near the surface and have been mined for more than 70 years. There are many historical mines within the mining district, three active mines, and some future or proposed mines. The NMM & SMCM Sites are located about 26 road miles northeast of Soda Springs, Idaho, in Caribou County. The location of NMM & SMCM are presented in Attachment A (located at the end of this document).

The NMM was operated by various operators from 1950 to 1995. NMM includes an open pit approximately 2.5 miles long and reclaimed haul roads, surrounded by 10 overburden piles.

NMM is subdivided into two Operable Units; East Mill Operable Unit (EMOU) and the West Ridge Operable Unit (WROU). NMM EMOU is further subdivided into three sub-operable units: OPSOU, East Mill Dump Sub-Operable Unit (EMD) Sub-Operable Unit, and the Creeks Sub-Operable Unit.

The SMCM was operated by various operators from 1976 to 1984. SMCM includes an open pit approximately 1.8 miles long, an adjacent overburden pile (Cross Valley Fill), and reclaimed haul roads.

SMCM is subdivided into two operable units; Open Pits Operable Unit (OPOU) and Maybe Creek Operable Unit (MCOU). The Cross Valley Fill (CVF) is also associated with SMCM.

No ore processing occurred at the Sites. Ore was hauled by rail to a processing plant near the town of Soda Springs. The key features of the Sites are presented in Attachments B and C (located at the end of this document).

In 2001, DEQ assumed leadership of an area-wide investigation of contamination from phosphate mining, with participation by other state and federal agencies and the mining companies operating in southeast Idaho. These area-wide investigations led the agencies to conclude that site-specific investigations were warranted on the larger historic and active open-pit mines located in the mining district, including the NMM, SMCM, and others.

Subsequently NuWest conducted site-specific investigations at its historical mines, including the NMM and SMCM. In October 2013, DEQ, USFWS, the Forest Service, the Shoshone-Bannock Tribes, and NuWest entered into a mine-specific legal agreement calling for NuWest to conduct investigations and develop a Remedial Investigation (RI) Report for the NMM EMOU site.

In March 2013, DEQ, USFWS, the Forest Service, the Shoshone-Bannock Tribes, and NuWest entered into a mine-specific legal agreement calling for NuWest to conduct investigations and develop a Remedial Investigation (RI) Report for the SMCM Open Pits Operable Unit (OPOU) site. The Forest Service was designated the lead agency to oversee work at both sites.

Most of the area disturbed by mining is owned by the United States and administered by the Forest Service. Nearby adjoining private lands are utilized for industrial mining operations support, ranching, and grazing.

A hydrogeological conceptual site model for NMM OPSOU and SMCM OPOU was developed to show the relationship between the sources of contaminants at the Site, mechanisms for release of contaminants, and surface water and groundwater transport pathways to various environmental media and receptors (see Attachment D at the end of the document). The model developed for the NMM OPSOU was used as a surrogate for the hydrogeochemical system at the SMCM OPOU because the Sites are located adjacent to each other and are oriented along the same geologic sequence. The model provides a framework to assess relative risks

from contaminants and develop more detailed site investigations. The following information describes elements of the conceptual site model.

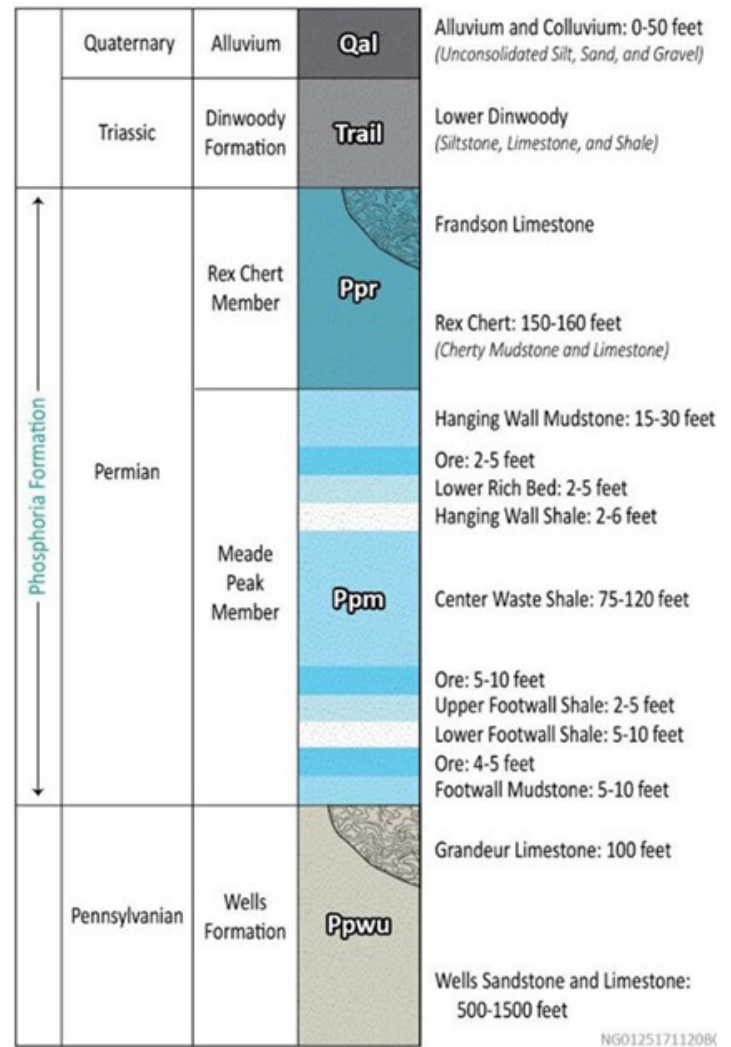


Figure 2. Generalized Stratigraphic Column for the Phosphate Resource Area of Southeast Idaho

## Sources of Contamination

The nature and extent of contamination associated with the NMM OPSOU and SMCM OPOU was investigated by reviewing existing Site information that confirmed characteristics of the mined materials and mining practices, and extensive sampling of various media within the Sites. The primary source of contaminants at the Sites is waste rock located in mine pits and dumps, particularly shale material from the Meade Peak Member of the Phosphoria

Formation (Figure 2) and overburden. This shale is naturally enriched with selenium (a nonmetal) as well as metals, metalloids, and uranium daughter products (for example, radium and radon). Reclaimed backfill areas at NMM OPSOU and SMCM OPOU were covered with overburden material containing waste shale.

## Release and Transport

One of the key questions of the RI was to better understand the release and transport of contaminants from source areas to other media. Key contaminant release processes at NMM OPSOU and SMCM OPOU include:

- Dissolution or leaching (from contact with rain or snowmelt) of contaminants from center waste shales present in source areas, and the subsequent migration (movement) of dissolved constituents in surface water (runoff and seeps) and groundwater.
- Mass wasting, surface water erosion, and deposition of contaminated particles from bedrock (e.g. pit sidewalls) and waste rock dumps, transport off the dump(s), and subsequent deposition in ephemeral and intermittent surface water bodies, which results in impacts to both sediment and downgradient soil of source areas.

Significant selenium is observed in vegetation growing on waste rock dumps. Generally, this occurs through the uptake from soil or waste rock through the root system and into plant tissue.

Media influenced and affected by mine waste and associated contaminants include:

- Surface soil material/waste rock
- Sediment (impacted sediments in the OPSOU & OPOU pit ponds)
- Surface water (OPSOU & OPOU Pit ponds)
- Groundwater (shallow aquifer)
- Vegetation growth on waste rock

Contaminant concentrations in surface water, ground water, sediment and soil were compared against human health and/or ecological screening levels or ground water quality standards to determine whether further investigation was

needed at the Open Pits. Screening levels are based on conservative, generic assumptions about exposure and are not default cleanup levels. Exceedances of comparison levels indicate areas that need further investigation and evaluation in a site-specific baseline risk assessment.

The following metals were identified as contaminants of potential concern (COPC) at NMM OPSOU:

- Surface water – Comparison levels exceeded in at least one sample for total aluminum, antimony, arsenic, beryllium, cadmium, chromium, chromium (VI), cobalt, iron, lead, manganese, molybdenum, nickel, selenium, silver, thallium, uranium, vanadium and zinc.
- Groundwater – Comparison levels were exceeded in at least one groundwater sample for arsenic, cobalt, iron, manganese, molybdenum, nickel, selenium, vanadium, and zinc.
- Sediment – comparison levels were exceeded in at least one sediment sample for antimony, beryllium, boron, cadmium, chromium, cobalt, manganese, molybdenum, nickel, silver, selenium, thallium, uranium, vanadium, and zinc.
- Soil– comparison levels were exceeded in at least one soil sample for aluminum, antimony, arsenic, barium, boron, cadmium, chromium, a cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, silver, selenium, thallium, uranium,



SMCM Open Pit, view North

vanadium, and zinc.

The following metals were identified as COPC at SMCM OPOU:

- Surface water – Comparison levels were exceeded in at least one sample for total aluminum, antimony, arsenic, beryllium, cadmium, chromium, chromium (VI), cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, selenium, silver, thallium, uranium, vanadium, and zinc.
- Groundwater – NMM OPSOU was used as a surrogate for SMCM OPOU groundwater. Comparison levels were exceeded in at least one groundwater sample for arsenic, cobalt, iron, manganese, molybdenum, nickel, selenium, vanadium, and zinc.
- Sediment – comparison levels were exceeded in at least one sediment sample for antimony, beryllium, boron, cadmium, chromium, molybdenum, nickel, silver, selenium, thallium, uranium, vanadium, and zinc.
- Soil– comparison levels were exceeded in at least one soil sample for aluminum, antimony, arsenic, barium, boron, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, molybdenum, nickel, silver, selenium, thallium, uranium, vanadium, and zinc.

## Current and Future Land Uses

The NMM and SMCM Sites are located in a rural and sparsely populated area. The nearest town is Soda Springs, which is located about 26 miles away. Seasonal ranching is the dominant land uses in the vicinity of the Sites and valleys of the area. There are many active and inactive phosphate mines and mining support facilities in the area. The surrounding area is used by the public for recreation, including hunting on private and public lands, and fishing on the Upper Blackfoot River.

The NMM and SMCM Sites includes the former mine areas and contaminated portions of adjacent properties. Currently, access is restricted to NMM OPSOU and SMCM OPOU. Current land uses of the adjoining private properties include seasonal ranching (grazing of sheep and

cattle). There is likely some limited recreational and Tribal use (hunting, gathering, and ceremonial use) of the lands at the Sites as well. There are no residences at, or near, the Sites.

The reasonably anticipated future uses of the land at the Sites include seasonal ranching (grazing of sheep on OPSOU and OPOU), recreation, and Tribal use. Residential use of the Sites is unlikely because residential use is not allowed on Forest Service lands.

## Scope and Role of the Proposed Plan

This document is based on information and analyses prepared by NuWest pursuant to an Administrative Settlement Agreement and Order on Consent/Consent Order (2013 ASAOC/CO).

A separate signed ROD addresses threats to human health and the environment posed by contaminants at NMM East Mill Dump. Other Proposed Plan(s) and ROD(s) will likely be developed for remaining areas within NMM.

A Non-Time-Critical Removal Action to construct a cap addresses threats of human health and the environment posed by contaminants at SMCM CVF. Another Proposed Plan and ROD will likely be developed for the remaining area at SMCM.

## Summary of Site Risks

Baseline human health, ecological, and livestock Risk Assessments were conducted to evaluate the risks to people and the environment from exposure to contaminants exceeding comparison values noted above at the NMM OPSOU and SMCM OPOU. A detailed description of site risks can be found in the NMM OPSOU and SMCM OPOU Baseline Human Health Risk Assessment (BHHRA) (NuWest, 2022), Baseline Ecological Risk Assessment (BERA) (NuWest 2020a), and LRA (NuWest 2020b).



*NMM Open Pit, view North*

Alternate lines of evidence (e.g. animal surveys, literature comparisons, foodweb analysis, etc.) were used in the Risk Assessments together with the calculated risks to reach conclusions on overall risks in the ecological and livestock risk assessments.

## **Human Health Risks**

COPCs noted above were evaluated in the BHHRA. In the BHHRA potential non-cancer hazards, expressed as the hazard index (HI), and estimated cancer risk were calculated. For non-cancer effects, an HI represents the sum of the ratios between the reference doses and the reasonable maximum exposure (RME) doses for a person in contact with site COPCs. An HI exceeding 1 indicates that potential health effects may occur. For known or suspected carcinogens, acceptable exposure levels generally are concentration levels that represent an excess upper bound lifetime cancer risk to an individual of between  $10^{-4}$  (a 1 in 10,000 chance of developing cancer) and  $10^{-6}$  (a 1 in 1,000,000 chance of developing cancer) using information on the relationship between dose and response.

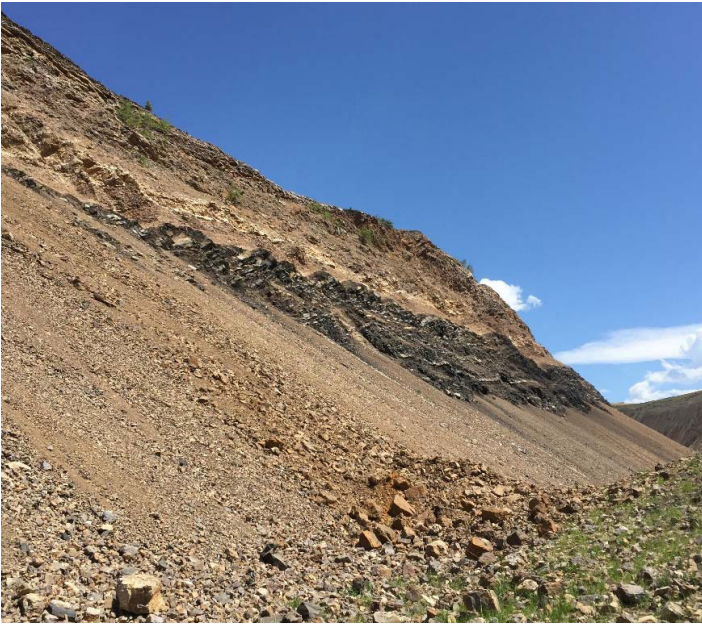
Human health risks were estimated for various exposure scenarios, based on current

and reasonably anticipated future land uses, including Native Americans (for example, elk hunting and harvesting vegetation by the Shoshone-Bannock Tribes), maintenance or Forest Service workers, recreational users, and grazing permittees. These scenarios evaluated the exposure to mining-related contaminants in environmental media (soil, sediment, vegetation, and surface water) at the Open Pits.

The primary finding of the BHHRA is that the estimated non-radionuclide and radionuclide cancer and noncancer risks associated with NMM OPSOU and SMCM OPOU are within or below the allowable USEPA CERCLA risk criteria of concern for cancer effects and noncancer effects. This finding is applicable for current and future onsite receptors.

## **Ecological Risks**

Ecological risk estimates were calculated to evaluate the potential risk of mining-related contaminants to ecological communities or populations of organisms that inhabit or are otherwise exposed to the Sites, including many species of birds, mammals, and amphibians (upper trophic level receptors), as well as aquatic and terrestrial invertebrates and vegetation (lower trophic level receptors).



*SMCM Open Pit, view South.*

In the Baseline Ecological Risk Assessment (BERA) risks to plants and animals were assessed through two Measures of Effect (MOEs):

- MOE 1 compared measured exposure estimates (based on COPC concentrations) for a receptor group to a literature-based toxicity value generating a hazard quotient (HQ). If the HQ is greater than 1, there is potential for adverse effects to ecological receptors.
- MOE 2 evaluated site-specific community metrics from multiple years of plant and animal surveys at NMM & SMCM.
- The primary findings of the BERA at NMM OPSOU & SMCM OPOU are:
- Unacceptable risk to bird, mammal, and amphibian communities from site mining-related contaminants is not expected.
- No widespread adverse effects were observed for lower trophic level receptors (vegetation and invertebrate communities). They are part of an ecosystem functioning as expected that provides food for healthy mammal and bird communities.

Specifically, for birds and mammals, HQs were low, ranging from less than 1 to 3, and the community metrics that evaluate the site-specific condition of local populations indicate the presence of healthy populations consistent with

what would be expected in similar habitats that are unaffected by mining COPCs. For amphibians, the results of the three lines of evidence evaluated indicate unacceptable risk from selenium and other COPCs to the amphibian population is not expected. For vegetation and invertebrate communities, multiple lines of evidence evaluated together, considering the underlying uncertainties, indicated no evidence of widespread adverse effects for COPCs. Although unacceptable risk to the vegetation community from vanadium cannot be excluded, the amount of vegetation is naturally low, consistent with what would be expected based on the poor rocky soil, disturbance (rockfalls and landslides), early stage of vegetation succession, and any adverse effects are likely of low magnitude when compared to natural stressors and natural low productivity of vegetation in the ecosystem.

## **Livestock Risk Assessment**

The LRA for the Sites was conducted in two main parts: (1) Livestock Human Health Risk Assessment (LHHRA), which characterized risk to human receptors who may ingest the livestock (sheep) grazing at the Sites; and (2) Livestock Ecological Risk Assessment (LERA), which characterized risk to sheep, cattle, and horses that may be exposed to COPCs at the Sites.

For human consumption of livestock the results of the LHHRA for the Sites indicate that receptors are within or below the USEPA (1992b) allowable risk range of 1E-06 to 1E-04 and HIs are below the noncancer USEPA criterion of 1.

For risks to livestock the LERA evaluated two independent MOEs to ensure the protection of growth, reproduction, and survival of livestock receptors:

- MOE 1 evaluated risk to livestock using spatially weighted Exposure Point Concentrations (EPCs) based on the area of the Sites within the grazing allotments and compared those to vegetation screening levels protective of livestock to determine potential risk to livestock from the Site. All

comparisons resulted in HQs less than 1, indicating no unacceptable risk to livestock from site COPCs.

- MOE 2 consisted of a foodweb analysis. The foodweb analysis for sheep, cattle, and horses estimated a daily dose exposure concentration in site media and developed an HQ. These comparisons resulted in HQs less than or equal to 1 for all COPCs at North Maybe Mine OPSOU and South Maybe Canyon Mine OPOU.

Based on the consistent results of both MOEs, there is high confidence in the finding of no unacceptable risk of adverse effects to livestock grazing on the Sites.

## Summary

Based on the conclusions of the RI and risk assessments, it is the Forest Service's judgement that the Open Pits do not require remedial action to prevent, mitigate, or respond to impacts from prior mining activities at NMM OPSOU and SMCM OPOU.

The RI has determined the nature and extent of impacts to each media, provides an understanding of the fate and transport of contamination, and concludes that elevated contaminant concentrations are observed in surface water, groundwater, sediment, soil, and vegetation. After evaluation of site-specific risks to human and ecological receptors the risk assessments conclude that current and



*South Maybe Canyon Mine, view South.*

future potential exposure does not result in unacceptable risk to human and ecological receptors. These conclusions indicate that the Open Pits do not require remedial action.

## Community Involvement

### Submitting Comments on the Proposed Plan

Instructions for submitting comments on the Proposed Plan are found on page 1.

Who to Contact with Questions or Concerns:

- U.S. Forest Service  
Brian Deeken  
Remedial Project Manager (208) 236-7516  
brian.deeken@usda.gov
- U.S. Forest Service  
Kathleen Gorby  
Public Affairs Officer  
kathleen.gorby@usda.gov

### Public Comment Period

The Forest Service will accept written comments on this Proposed Plan beginning on **July, 10, 2023 through August 9, 2023**. The Forest Service will make its final decision only after considering public comments. At the end of the comment period, the Forest Service will include a responsiveness summary addressing the comments in the ROD. The Forest Service will place all written comments and the Responsiveness Summary in the Forest Service's Administrative Record for the NMM and SMCM.

### Documents

The Administrative Record for the Sites contains the documents that have been used to make decisions at the Sites. The documents in the Administrative Record can be viewed at:

Soda Springs Ranger District  
410 East Hooper Ave.  
Soda Springs, ID 83276-1496  
(208) 547-4356

# References

## Key Guidance Documents

- The Revised Forest Plan for the Caribou National Forest (February 2003)
- The National Contingency Plan regulations, found at 40 CFR Section 300, and the statutory requirements of CERCLA — especially Section 121 of CERCLA, 42 U.S.C. Section 9621 — are the mandatory requirements that THE FOREST SERVICE must follow in selecting a remedy.
- In addition, the Forest Service uses guidance as appropriate in the remedy selection process. Key guidance documents used for the North Maybe Mine are as follows:
  - “Guidance for Conducting Remedial Investigations and Feasibility Studies under CERCLA,” Interim Final, OSWER no. 9355.3-01 (EPA October 1988)
  - “A Guide to Selecting Remedial Superfund Actions,” OSWER No. 9355.0-27FS (EPA April 1990)
  - “A Guide to Principal Threat and Low Level Threat Wastes,” OSWER No. 9380.3-06FS (EPA November 1991)
  - “Rules of Thumb for Superfund Remedy Selection,” OSWER No. 9355.0-69 (EPA August 1997)
  - “Incorporating Citizen Concerns into Superfund Decision Making,” OSWER No. 9230.0-18 (EPA January 1991)
  - “The Role of Cost in the Superfund Remedy Selection Process,” OSWER No. 9200.3-23FS (EPA September 1996)
- Operable Unit. Prepared by Arcadis. Dated October 27, 2020.
- NuWest 2020b. Final Livestock Risk Assessment. North Maybe Mine, East Mill Operable Unit, Open Pit Sub-Operable Unit and South Maybe Canyon Mine Open Pits Operable Unit. Prepared by Arcadis. Dated December 31, 2020.
- Forest Service, 2021. Community Involvement Plan, North Maybe Mine. Prepared by U.S. Forest Service.
- NuWest 2022. Final Baseline Human Health Risk Assessment, North Maybe Mine, East Mill Operable Unit, Open Pit Sub-Operable Unit and South Maybe Canyon Mine Open Pits Operable Unit. Prepared by Arcadis. Dated October 17, 2022.
- NuWest. 2023. Final Remedial Investigation (RI) Report. North Maybe Mine, East Mill Operable Unit (EMOU), Open Pit Sub-Operable Unit and South Maybe Canyon Mine Open Pits Operable Unit. Prepared by Arcadis. Dated January 19, 2023.

These and other guidance documents are available at:

- <http://www.epa.gov/superfund/resources/remedy/index.htm>
- <http://www.epa.gov/superfund/resources/policies/index/html>.

NMM OPSOU and SMCM OPOU investigation Activities and reports include:

- NuWest 2020a. Final Baseline Ecological Risk Assessment. North Maybe Mine, East Mill Operable Unit, Open Pit Sub-Operable Unit and South Maybe Canyon Mine Open Pits

# Useful Terms

Understanding environmental cleanup may be confusing for the average person. The following definitions of terms commonly used will assist your understanding of this document.

Term	Definition
<b>Access Controls</b>	Physical methods to discourage people from entering a site, including fencing and posting warning and informational signs.
<b>Contaminants of Concern (COCs)</b>	Contaminants, such as selenium and arsenic, that were found to exceed EPA's risk thresholds in the human health or ecological risk assessments.
<b>Exposure</b>	The amount of pollutant present in a given environment that represents a potential health threat to living organisms.
<b>Exposure Pathway</b>	How contaminants move from sources to humans and environmental receptors via paths such as dermal contact, ingestion, or inhalation.
<b>Feasibility Study</b>	A process to screen, develop, and evaluate various alternatives being considered for selection of a remedial action.
<b>Institutional Controls (ICs)</b>	Non-engineered instruments, such as administrative and legal controls, that help minimize the potential for human exposure to contamination and/or protect the integrity of the remedy.
<b>Mining-influenced Water</b>	Water affected by mining activities and exposure to mineralized geologic material, that is potentially toxic to the environment, regardless of the pH.
<b>National Priorities List (NPL)</b>	EPA's list of the most serious uncontrolled or abandoned hazardous waste sites identified for possible long-term remedial action under Superfund. A site must be on the NPL to receive money from the Trust Fund for remedial action.
<b>Operable Unit (OU)</b>	A designation based on geography or other characteristics that defines a specific area of a site and enables the Superfund process to move forward in different areas at different times, speeding up the overall cleanup process at the Site.
<b>Periodic Costs</b>	Costs that occur every few years on a scheduled basis, such as 5-year site reviews.
<b>Present Value</b>	The present worth (of a sum payable in the future) calculated by deducting interest that will accrue between the present and future date.
<b>Remedial Action (RA)</b>	The actual construction or implementation phase of a Superfund site cleanup that follows remedial design.
<b>Record of Decision (ROD)</b>	A public document that explains which cleanup alternative(s) will be used for the final remedy at the NPL site.
<b>Remedial Investigation (RI)</b>	An in-depth study designed to gather data needed to determine the nature and extent of contamination at a Superfund site; establish site cleanup criteria; identify preliminary alternatives for remedial action; and support technical and cost analyses of alternatives typically described in more detail in a co-associated Feasibility Study (FS).
<b>Superfund</b>	The program that funds and carries out EPA hazardous waste emergency and long-term removal and remedial activities. These activities include establishing the NPL, investigating sites for inclusion on the list, determining their priority and conducting and/or supervising cleanup and other remedial actions.
<b>Watershed</b>	A watershed is literally any sloping surface that sheds water, but the proper definition (Webster's) implies a topographic divide that sheds water into two or more drainage basins. Watershed is synonymous with drainage basin or catchment.

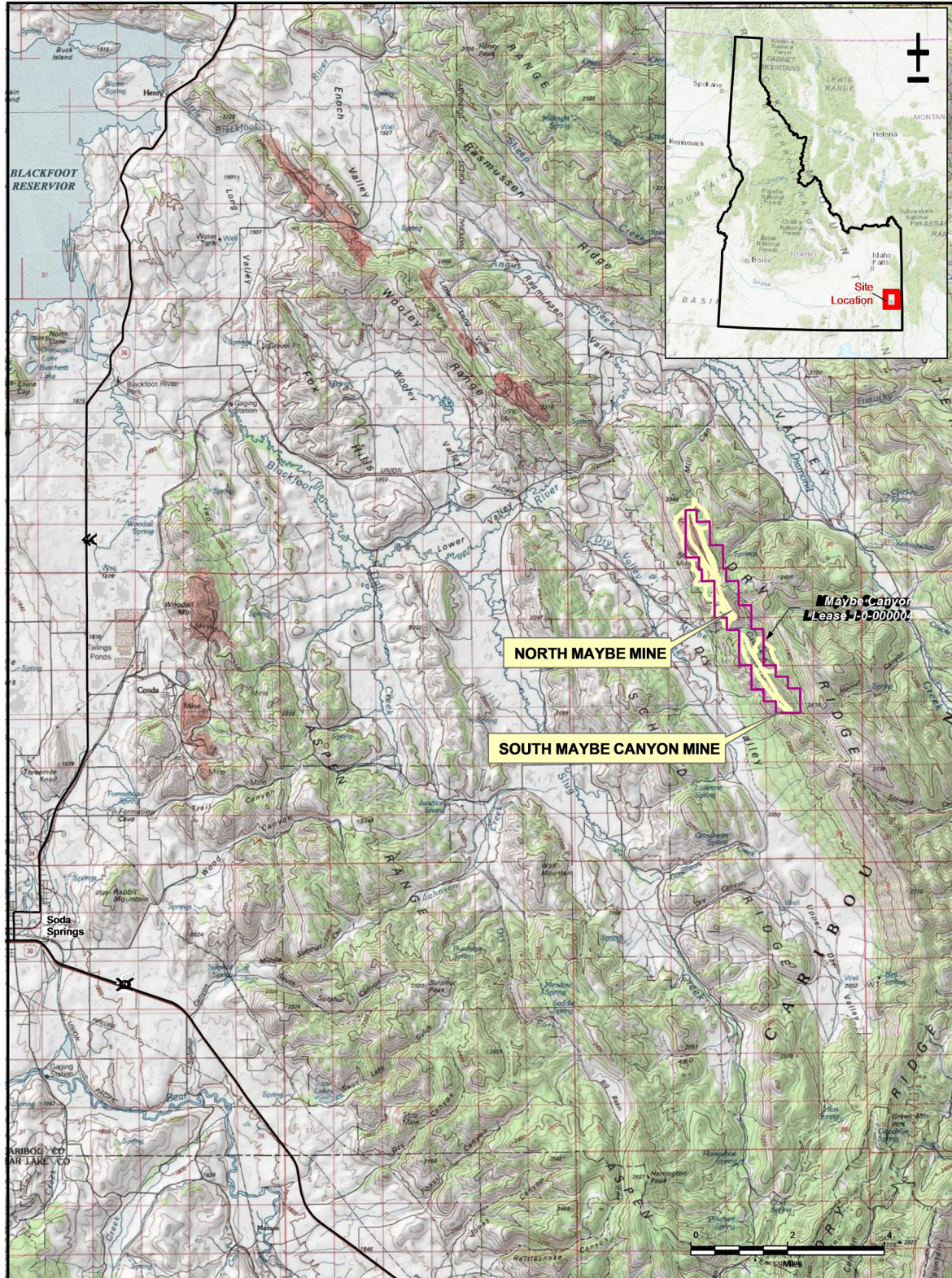


South Maybe Canyon Mine, view South.

# Attachments

# Attachment A: Site Location NMM and SMCM, Caribou County, Idaho

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**LEGEND**

- LEASE BOUNDARY
- OVERBURDEN PILE/PIT

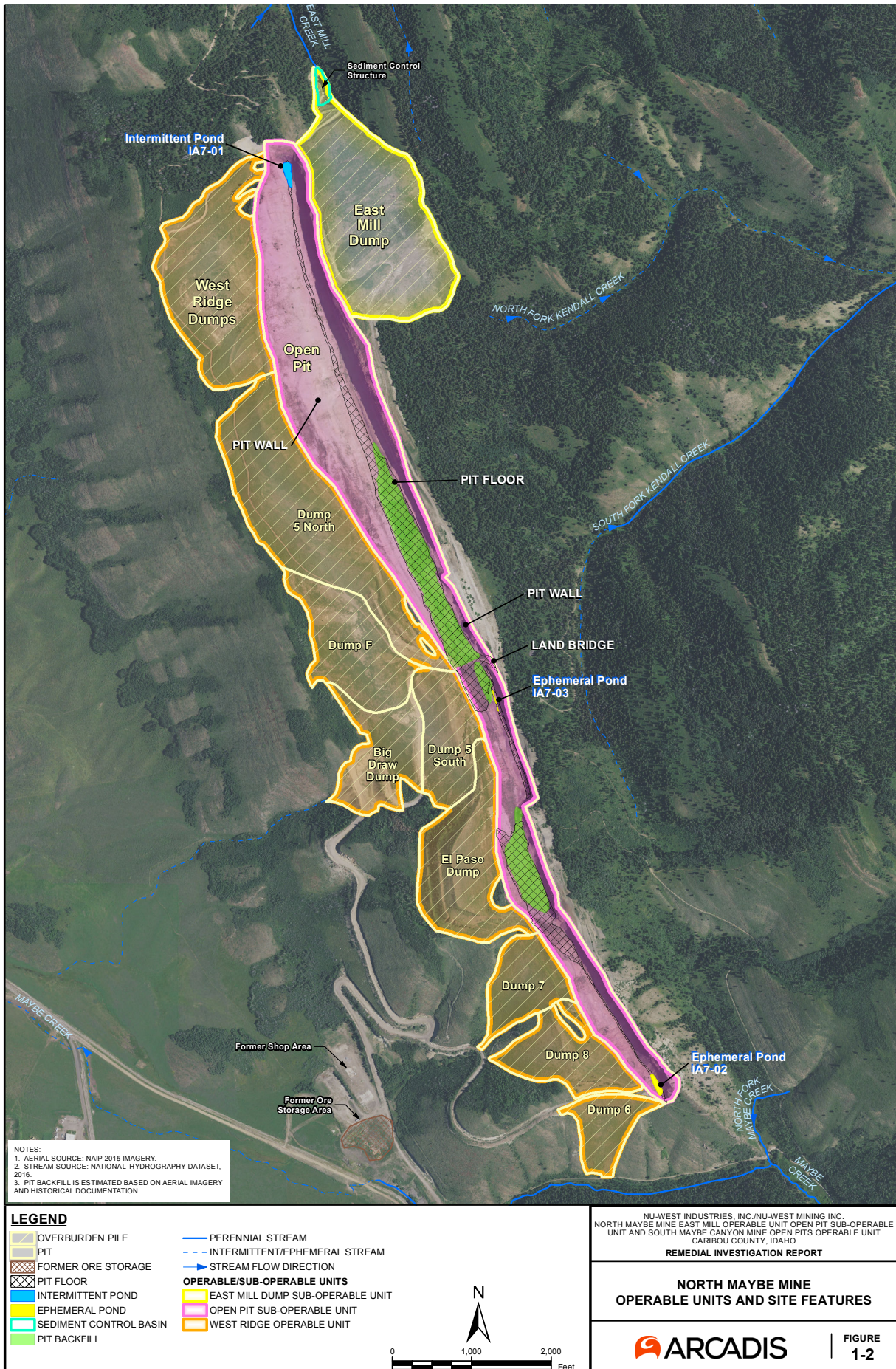
**NOTES:**  
 1. MAIN MAP BASEMAP: USGS 1:24000 TOPOGRAPHIC QUADS, SERVICED BY ESRI ARCGIS ONLINE, ACCESSED ON 1/23/2023.  
 2. INSET MAP BASEMAP: TOPOGRAPHIC, SERVICED BY ESRI ARCGIS ONLINE, ACCESSED ON 1/23/2023.

NU-WEST INDUSTRIES, INC./NU-WEST MINING INC.  
 NORTH MAYBE MINE EAST MILL OPERABLE UNIT OPEN PIT SUB-OPERABLE UNIT AND SOUTH MAYBE CANYON MINE OPEN PITS OPERABLE UNIT  
 CARIBOU COUNTY, IDAHO  
**REMEDIAL INVESTIGATION REPORT**

**SITE LOCATION**

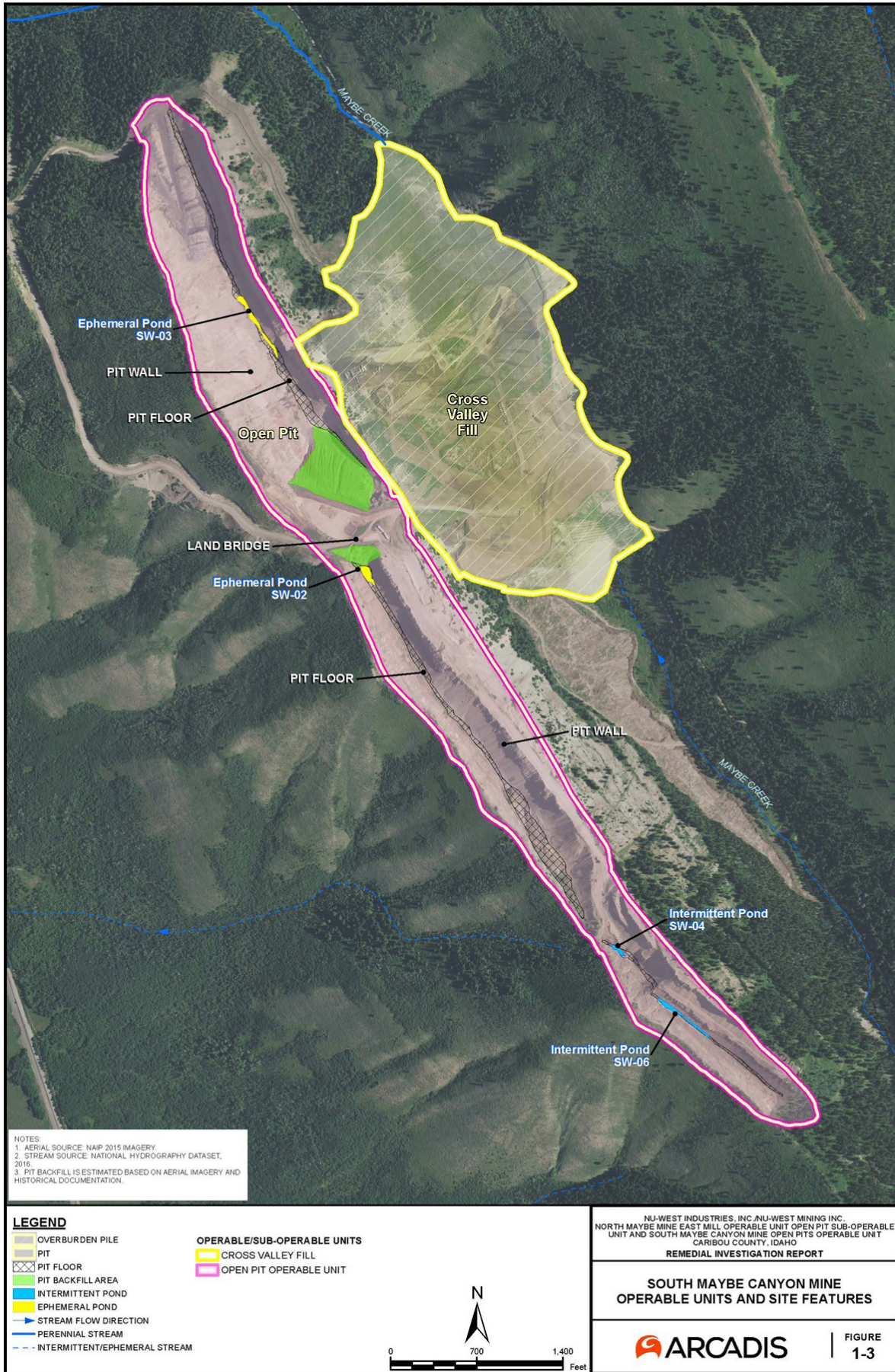


**FIGURE**  
1-1



# Attachment C: Site Features SMCM OPOU, Caribou County, Idaho

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# ATTACHMENT D: Hydrogeological Conceptual Site Model Cross-Section, NMM OPSOU, Caribou County, Idaho

CITY: CITY DIV: GROUP: ENV: CAD DB: ENV: CAD  
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 BY: ROBTABILLE, BDEVRLY

