Attached is a copy of the 2019 updated overview factsheet for phosphate mine site investigations and cleanup in southeast Idaho. The Idaho Department of Environmental Quality (DEQ), along with the U.S. Environmental Protection Agency (EPA) and the U.S. Forest Service (USFS) prepared this factsheet to outline the latest progress at each of the mine sites.

If you prefer to receive future information and updates via email, or if you would like to be removed from the mailing list, please contact Kelly Green, kgreen@northwindgrp.com, 208.760.7130.

Phosphate Resource Area FACT SHEET

Southeast Idaho Selenium Project

SELENIUM: A naturally occurring element that is an essential nutrient in small doses but which in high levels can cause adverse effects in humans and animals.

Georgetown Canyon Mine looking north along Snowdrift Mountain

Profiling the depths and abundance of plant roots within a test plot as part of the Field Scale Plant Uptake Pilot Study at Conda/ Woodall Mountain Mine

Southeast Idaho is one of the world's major phosphate producing regions, and phosphate mining has been an important industry in the area since the early 20th century. In 2018, phosphate mining and manufacturing directly contributed an estimated 1,129 industry jobs, $120.8 million in payroll and benefits, and $342.3 million to the gross state product. Mining royalties and taxes continue to provide millions in revenue to the State of Idaho, which funds education and other local programs.*

The rapid death of tiny organisms (i.e., algae and diatoms) living in what was once a shallow sea approximately 250 million years ago create the presence of phosphate ore. The concentrated phosphorous in their bodies did not have time to dissolve back into the sea water. As a result, the phosphate and other materials (i.e., selenium) were trapped in the seabed shales, siltstones, and other sedimentary rocks that are mined today in this area.

Phosphate mining has resulted in some negative ecological consequences. Waste rock dumps and open pits act as pathways that can transport selenium and other contaminants to the environment through ground and surface water.

The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), as well as state law, provides a framework to address these issues, which occur at some phosphate mines in the region. Additional investigations and planning for cleanup at mining sites are also ongoing with oversight from the U.S. Environmental Protection Agency (EPA), U.S. Forest Service (USFS), Idaho Department of Environmental Quality (DEQ), Bureau of Land Management (BLM), Shoshone-Bannock Tribes, and U.S. Fish and Wildlife Service (FWS).

The agencies, Tribes, and mining companies participating in the investigations welcome public involvement throughout the process because it produces better cleanup decisions. The agencies provide the latest updates about the progress at each of the mine sites at their booth during the Caribou County Fair or through this fact sheet, which contains contact information and website addresses for additional information.

** 2018 Idaho Mining Association Direct Estimated Employment and gross state product.*

September 2019

PHOSPHATE CLEANUP SITES IN SOUTHEAST IDAHO

Key Terms

ADMINISTRATIVE SETTLEMENT AGREEMENT / CONSENT ORDER

A negotiated agreement of the parties involved to address potential cleanup sites.

REMOVAL ACTION

A removal action is a response to actual or threatened releases of a pollutant or contaminant that pose a threat to public health or the environment.

OVERBURDEN

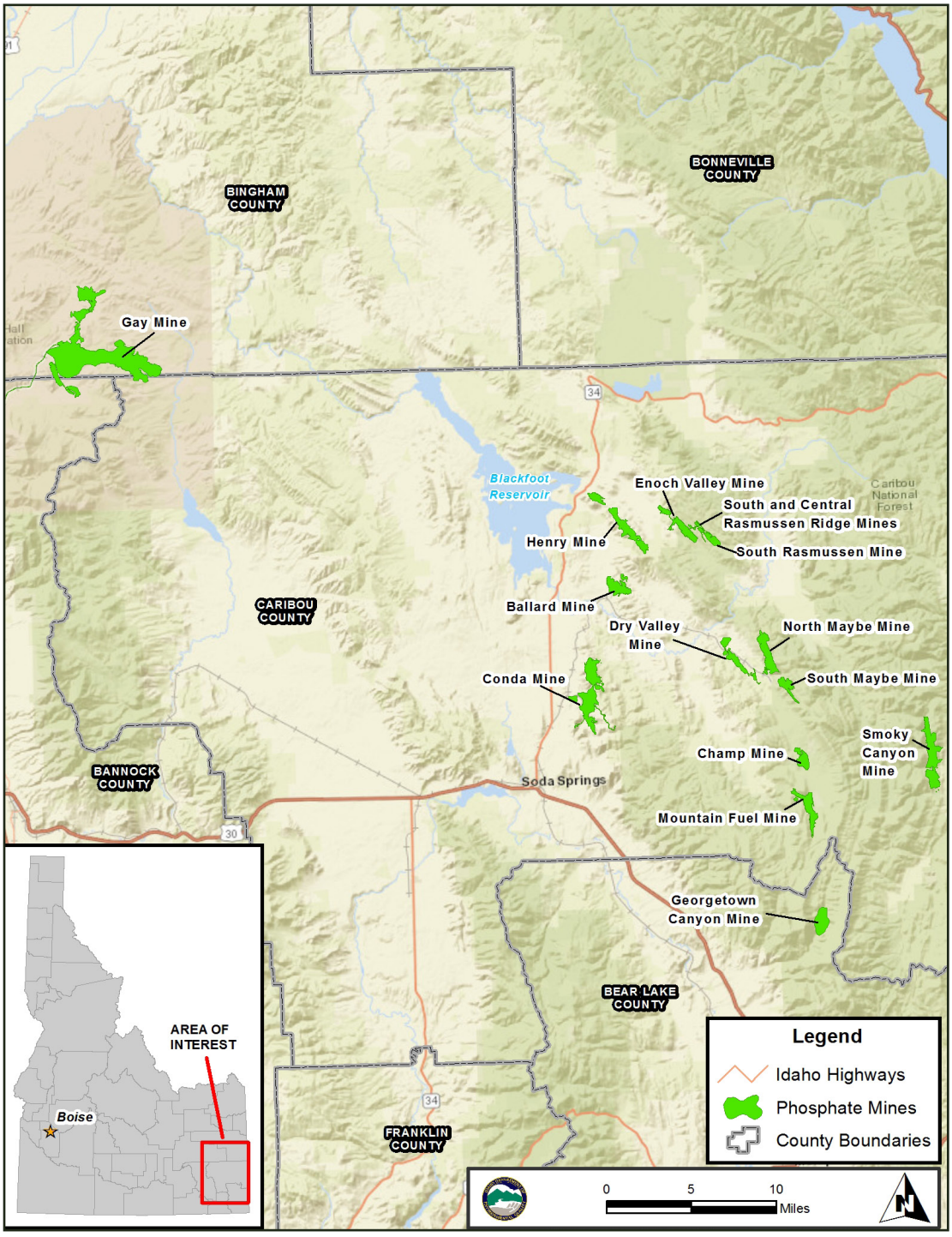
A mining term for waste rock or soil overlying a mineral deposit.

REMEDIAL INVESTIGATION / FEASIBILITY STUDY

The Remedial Investigation (RI) is the mechanism for collecting data to characterize site conditions, determine the nature and extent of the waste/contamination, assess risk to human health and the environment, and conduct treatability testing, if needed. The Feasibility Study (FS) is the mechanism used for the development, screening, and detailed evaluation of alternative remedial actions.

PROPOSED PLAN

A brief summary of the alternatives studied to conduct the remedial response for a site. The Proposed Plan, as well as the RI and FS, form the basis for the lead agency's preferred alternative. It is also made available for public comment.



Phosphate cleanup sites in Southeast Idaho are highlighted in green. The Blackfoot Reservoir is approximately 15 miles north of Soda Springs.

CERCLA REMEDIAL ACTION SITES

Sites led by federal agencies, such as EPA, USFS, or with state co-leads where cleanup is governed by the methodology established by CERCLA to characterize the nature and extent of contamination and assess risks to evaluate potential remedial options.

BALLARD, ENOCH VALLEY, AND HENRY MINES

Active Status: Record of Decision for Ballard Mine, RI/FS for Henry, Enoch Valley on hold

EPA and DEQ hosted an open house and public hearing at Soda Springs City Hall in March 2018

IN 2018

EPA issued a Proposed Plan for cleanup of P4/Bayer's Ballard Mine Site in March 2018 and immediately followed its release with community outreach and involvement activities, including communication of the Plan via a fact-sheet, a formal request for public comment, and a public meeting held in Soda Springs. A Record of Decision is anticipated in Fall 2019.

For the Henry Mine, a draft FS and a Baseline Risk Assessment were completed.

Work at the Enoch Valley Mine Site is on hold while progress is being made at Ballard and Henry.

NEXT STEPS

CHAMP MINE

Active Status: Remedial Investigation, Ecological, Human Health, and Livestock Risk Assessments

IN 2018

Field work conducted by NuWest to support the RI (i.e., groundwater and surface water sampling) continued. Ecological, human health, and livestock risk assessments are under review by the Agencies.

Champ Mine Pit looking north

NEXT STEPS

CONDA WOODALL MOUNTAIN MINE

Active Status: Feasibility Study, Operations and Maintenance

IN 2018

As part of a pilot-scale treatability study, the mining company, Simplot, designed and constructed an in-situ permeable reactive barrier, two seep treatment cells, and a monitoring network in the headwaters of the Pedro Creek tributary downgradient of an overburden disposal area.

The field-scale plant uptake pilot study was completed in 2018; a final report will be issued this year.

Operations and maintenance activities continued on the Pedro Creek Overburden Disposal Area Removal Action cover and associated water management features that were constructed in 2013-2015.

Excavation activities involved in the creation of a permeable reactive barrier

DID YOU KNOW?

Initially, mining operations at Conda were conducted underground before being fully converted to open pit mining by 1954.

NEXT STEPS

GEORGETOWN CANYON MINE

Active Status: Remedial Investigation / Feasibility Study

Georgetown Canyon Mine looking south along Snowdrift Mountain

IN 2018

Work completed by NuWest and CFI Industries in 2018 included three rounds of groundwater and surface water monitoring during the peak snowmelt, early summer, and early fall periods, with an additional round of groundwater monitoring in late summer.

DID YOU KNOW?

The RI included data collection from 2012 to 2018.

NEXT STEPS

MOUNTAIN FUEL MINE

Active Status: Remedial Investigation, Ecological, Human Health, and Livestock Risk Assessments

IN 2018

Field work conducted by NuWest to support the RI (i.e., groundwater and surface water sampling) continued. Ecological, human health, and livestock risk assessments are under review by the Agencies.

NEXT STEPS

1. REMEDIAL INVESTIGATION
2. FEASIBILITY STUDY
3. PROPOSED PLAN
4. PUBLIC COMMENT PERIOD
5. RECORD OF DECISION

NORTH DRY VALLEY MINE

Active Status: Administrative Settlement Agreement/Order on Consent

IN 2018

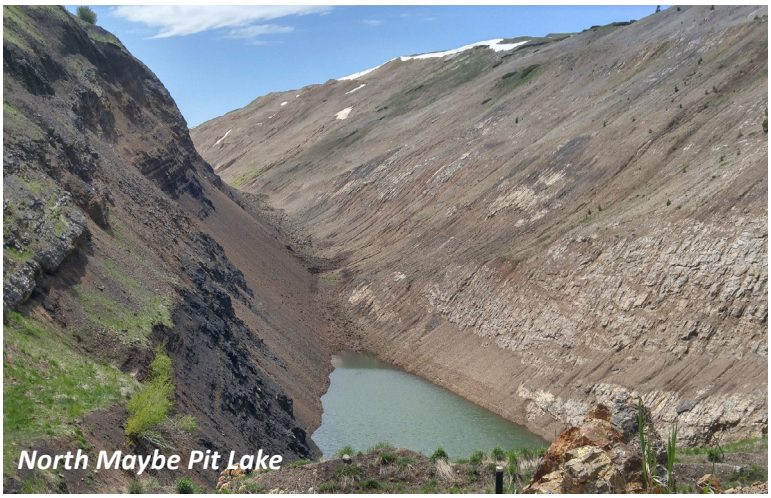
DEQ completed a Preliminary Assessement in early 2019. The next step is to negotiate a CERCLA Consent Order/Administrative Settlement Agreement on Consent with FMC, the owner of the mine.

NORTH MAYBE MINE

Active Status: Remedial Investigation/Feasibility Study

IN 2018

NuWest conducted field activities associated with the North Maybe Mine RI/FS that included surface water and groundwater sampling. NuWest is continuing work on the Focused FS for the East Mill Dump, as well as human health and ecological risk assessments for the site.



North Maybe Pit Lake

NEXT STEPS

1. REMEDIAL INVESTIGATION
2. FEASIBILITY STUDY
3. PROPOSED PLAN
4. PUBLIC COMMENT PERIOD
5. RECORD OF DECISION

SMOKY CANYON MINE

Active Status: Feasibility Study

An aerial view of the Pilot Water Treatment Plant at Smoky Canyon Mine, showing expansion associated with Phase II

IN 2018

J.R. Simplot Company's Pilot Water Treatment Plant (Phase 2) was constructed with ultra-fine filtration, reverse osmosis, fluidized bed reactors, and post-treatment systems which increase the quantity of treatment from approximately 250 gallons per minute (gpm) to approximately 2,000 gpm. The FS is underway for portions of Smoky Canyon Mine under CERCLA action.

DID YOU KNOW?

Phase 2 of the pilot water treatment plant has resulted in an approximate 80 to 85 percent reduction in selenium from influent solutions, with a flow increase from 250 gpm to approximately 1,850 gpm to date.

NEXT STEPS

SOUTH MAYBE CANYON MINE

Active Status: Remedial Investigation, Ecological, Human Health, and Livestock Risk Assessments

IN 2018

NuWest performed field activities at the site, including surface water and groundwater sampling. NuWest completed the construction of the cap at the Cross Valley Fill and began operations and maintenance activities on the Cross Valley Fill. Work on the human health and ecological risk assessments for the Open Pits Operable Unit at the site continues.

DID YOU KNOW?

The surface water in Maybe Creek had a 95 percent reduction in contaminant concentrations after completion of the cap construction at the Cross Valley Fill.

Revegetation on the top deck of the Cross Valley Fill

NEXT STEPS

STATE REMEDIAL ACTION SITES

Differ from CERCLA remedial action sites in that measures taken in response to degradation are in accordance with the Idaho Environmental Protection and Health Act (Idaho Code § 39101 et. seq.).

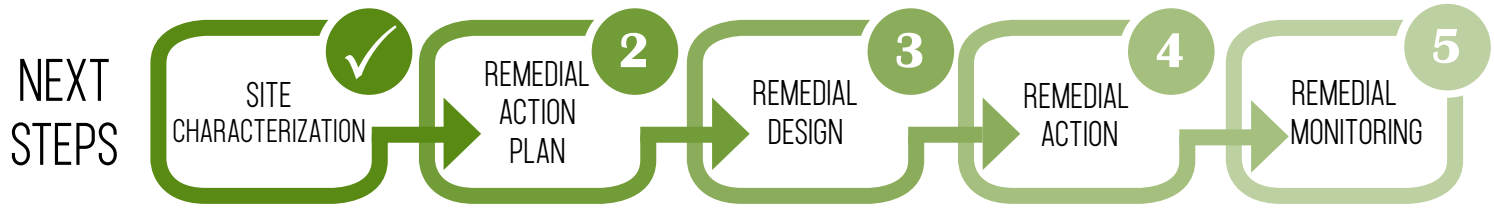
SOUTH CENTRAL RASMUSSEN RIDGE MINE AREA

Active Status: Remedial Action Plan, Remedial Design, and Remedial Action

Wildflowers are present throughout the Phosphate Resource Area

IN 2018

NuWest submitted a Draft Remedial Action Plan (RAP) to DEQ and BLM for review. The Draft RAP proposed placement of an engineered cap over the lower portion and the southern external waste rock pile to prevent the mobilization of selenium to groundwater and surface water. The Agencies and NuWest are in the process of optimizing the remedial action needs. NuWest and DEQ have also been working to establish a statistically-based groundwater quality background for the project.



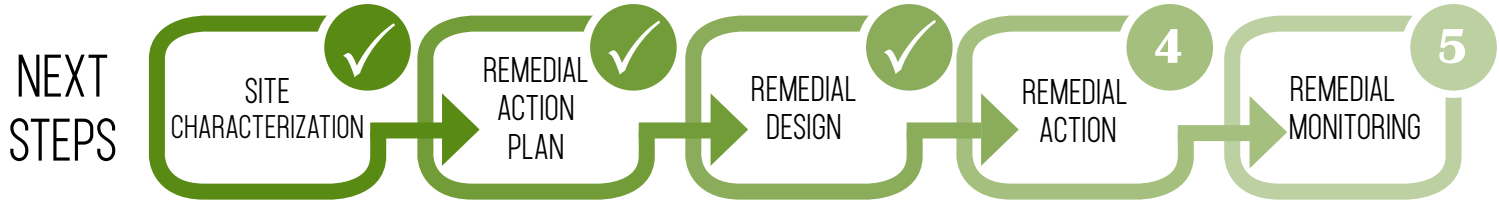
SOUTH RASMUSSEN MINE

Active Status: Remedial Action and Remedial Monitoring

IN 2018

Remedial work conducted by P4/Bayer continued at the South Rasmussen Mine, including monitoring of the permeable reactive barrier (PRB) and point of compliance wells, and further investigation was conducted to identify sources of selenium found in groundwater in Watershed A. A tracer study to help determine possible sources of selenium in Wells Formation wells at the mine has been completed; however, no source has been identified. A pilot study is being considered to investigate releasing treated water from the Horseshoe Overburden Area to the upper reach of South Fork Sheep Creek. An Operations, Maintenance, and Monitoring Plan was approved by DEQ and finalized by P4.

PRB excavation backfilled with treatment media at South Rasmussen Mine Horseshoe Overburden Area



NATURAL RESOURCE DAMAGE ASSESSMENT & RESTORATION (NRDAR)

Process undertaken pursuant to CERCLA, with objective of determining injury to natural resources caused by a hazardous substance release; assessing damage to restore or replace injured trust resources and services lost over time; and recover damages, and restore lost resources and services.

The Southeast Idaho Phosphate Mine Site Trustee Council has issued the Draft Injury Assessment Plan (IAP) for the Southeast Idaho Phosphate Mine Site Assessment Area (Assessment Area). The 30-day comment period will begin on September 21, 2019. The Draft IAP is available online at: https://www.fws.gov/idahonrdar/

The Draft IAP sets forth the Trustee Council's proposed approach for assessing potential natural resource damages related to the Assessment Area. A formal injury assessment plan is one of the first steps in a natural resource damages process being conducted pursuant to CERCLA 42 U.S.C. § 9601, et seq. Consistent with applicable regulations found at 43 C.F.R. Part 11, the Trustee Council is seeking public review and comment on the Draft IAP.

The Trustee Council will hold public meetings to provide information on the Draft IAP and how to submit comments. The meetings are scheduled from 4:30 to 6:30 pm on September 24th at the Soda Springs City Hall, 9 West 2nd South, Soda Springs, ID, and 4:30 to 6:30 pm on October 1st at the Fort Hall Casino Hotel, 777 Bannock Trail Ave, Fort Hall, ID.

Questions or Comments on the Draft IAP may be directed via email to: sandi_fisher@fws.gov or by mail to U.S. Fish and Wildlife Service, Eastern Idaho Field Office, C/O Sandi Fisher, 4425 Burley Drive, Suite A, Chubbuck, ID, 83202.

FOR MORE INFORMATION, CONTACT THE FOLLOWING:

BALLARD, ENOCH VALLEY, AND HENRY MINES

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CONDA WOODALL MOUNTAIN MINE

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WANT TO JOIN THE MAILING LIST?

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