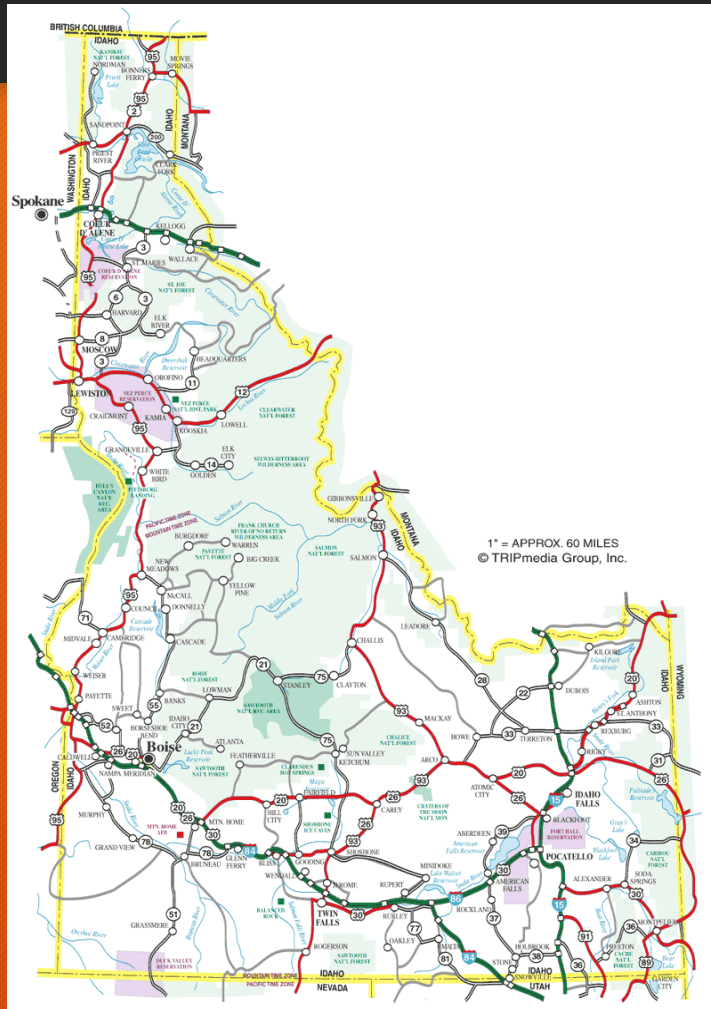


# Mining and NPL Superfund Sites

Tribal Lands Environmental Forum

August 21, 2019

# Location of Fort Hall Reservation



# Our Story

Fort Hall Reservation home to the Shoshone and Bannock People Located in Southeast Idaho

- Customs, culture, health being impacted by the Nations most toxic sites- National Priority List (NPL) Superfund Sites
  - Elemental Phosphorus and Fertilizer
    - Production plants that process the ore that is mined
- Mining Sites
  - Mine Phosphate Ore
  - Impacts to groundwater, surface water, soils, vegetation,
  - Health, culture, customs and traditions being impacted

# EASTERN MICHAUD FLATS SUPERFUND SITE

- EASTERN MICHAUD FLATS SUPERFUND SITE
- LISTED IN 1991 AS A NPL SITE
- CONSISTS OF THREE OPERABLE UNITS:
  - JR SIMPLOT'S - DON PLANT- ADJACENT TO RESERVATION
  - FMC- WITHIN THE RESERVATION BOUNDARY
  - OFF-SITE- ANYWHERE THE CONTAMINATION IS LOCATED
  - Simplot- Operating facility
    - Continuous annual violations of fluoride standards
    - Groundwater contamination
      - Pump and treat system
      - Shut down when pH of water pumped from ground below 2

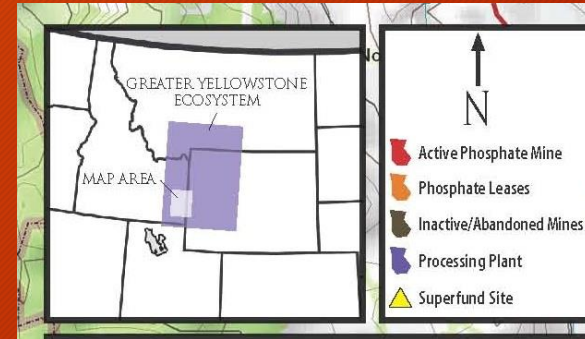
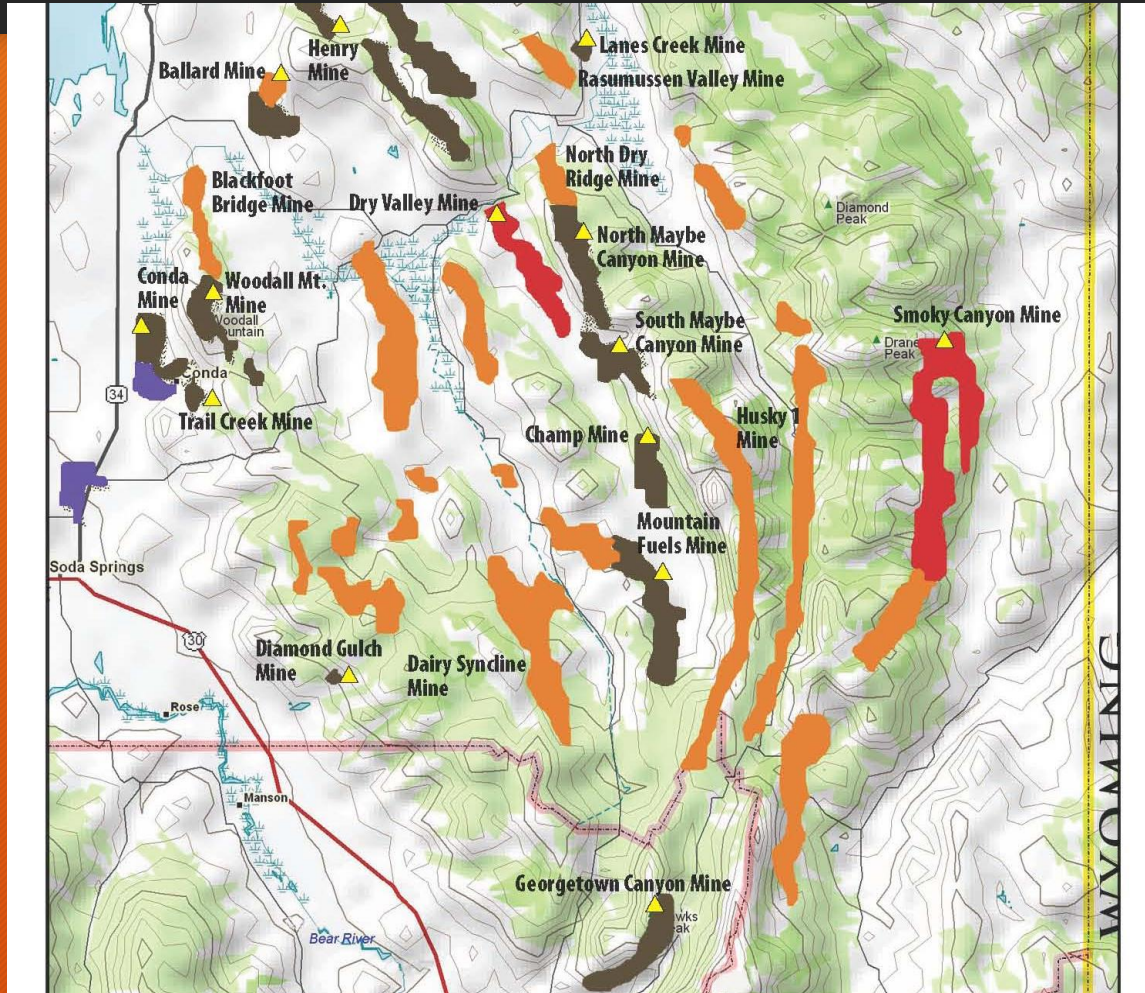
- FMC Corporation

- Largest elemental phosphorus producing plant in the US
- Shutdown in 2001
- RCRA and CERCLA
- Phosphine generation- RCRA and Superfund ponds
  - Phosphine moves throughout soils
  - Is dilution appropriate? Or should we be removing the source
  - Capping
    - 22 railroad cars
    - 16,000+ tons of elemental phosphorus

# CURRENT MINING IMPACTS

- GAY MINE- OVER 7000 ACRES WITHIN THE EXTERIOR BOUNDARIES OF THE FORT HALL RESERVATION - 5,000 IMPACTED ACRES
- 17 INACTIVE PHOSPHATE MINES IMPACTING OVER 17,000 ACRES -ABORIGINAL HOMELANDS
- ORE FROM GAY MINE AND SMOKY CANYON MINE WAS/IS SHIPPED TO PROCESSING FACILITIES ON AND ADJACENT TO RESERVATION
- 4 ADDITIONAL MINES PROPOSED COVERING 7,300 ACRES
- 15,000 ACRES HAVE BEEN LEASED FOR FUTURE MINING - IN ADDITION TO THE ABOVE FIGURES

# SE Idaho Phosphate Mines





NORTH &  
SOUTH  
MAYBE  
MINES



# PEDRO CREEK ODA



# SMOKY CANYON MINE



# Livestock Mortality Estimates



1985-1986			200-300
1996	6		
1997	1		300
1998			55
1999			131
2000			Unknown quantity
2001			150-160
2003			327
2005			34-39
2010	Unknown quantity	18	
2012			95
<b>Total</b>	<b>≈7</b>	<b>18</b>	<b>≈1292</b>

# GAY MINE





EAST  
LIMB  
GAY  
MINE

# What Can We Do Now?

## Monitor and Measure

- Superfund is a complicated process- cleanup does not mean the same thing to all
- MEASURE- SAMPLE
  - CONTAMINATION IN SURFACE WATER, GROUNDWATER, SOILS, VEGETATION, ANIMAL TISSUE
  - ANYTHING YOU MAY USE OR COME INTO CONTACT WITH
  - KNOW WHAT CONTAMINANTS ARE IN THE RESOURCES YOU USE
  - THIS WILL BE CRITICAL FOR FUTURE DECISION MAKING

# NATIVE AMERICAN RISK SCENARIO

- RISK ASSESSMENTS DETERMINE WHAT IS CLEANED UP AND TO WHAT DEGREE
  - MAY HAVE CONTAMINATION BUT IF NO RECEPTOR- NO CLEANUP
- CRITICAL TO PROTECTING HUMAN HEALTH AND ENVIRONMENT
- AGENCIES- USFS, BLM, EPA USE VARIOUS SCENARIOS TO DETERMINE LEVEL OF ACCEPTABLE CONTAMINATION
  - INDUSTRIAL SCENARIO- MORE CONTAMINATION MAY BE LEFT IN PLACE- WORKERS AREN'T LIVING THERE 24 HOURS A DAY
  - BLM USES A RECREATIONAL SCENARIO- INTERMITTENT USE
  - USFS- MANY TIMES WILL NOT EVALUATE A CONSERVATIVE RESIDENTIAL SCENARIO FOR GROUNDWATER DUE TO POLICIES

# NATIVE AMERICAN RISK SCENARIO- CON'T

- FOR THE SHOSHONE-BANNOCK PEOPLE- AND OTHER TREATY TRIBES USE OF THE RESOURCE IS NOT RESTRICTED BY WHAT THE AGENCY DETERMINES TO BE CLEAN
  - EAT SO MANY FISH A MONTH- BECAUSE OF CADMIUM OR MERCURY
  - CONSUME SO MUCH ELK OR DEER LIVER BECAUSE OF LEVEL OF SELENIUM OR OTHER METALS
  - LIMIT WATER INTAKE BECAUSE OF CONTAMINANTS
  - TREATY ALLOWS FOR FULL USE OF THE RESOURCE- NOT RESTRICTED BECAUSE OF CONTAMINATION-



# SAMPLING/ MEASURING THE CONTAMINATION

- MEASURE LEVEL OF CONTAMINATION IN THE RESOURCES WE USE
- AGENCIES TELL HOW MUCH OF THE CONTAMINATION IS A PROBLEM VS. US TELLING THEM HOW MUCH YOU USE AND HOW
  - EX- WE HAVE RUN INTO COMPLICATIONS ON THIS ISSUE- USFS, BLM, EPA WANT TO KNOW
    - MODE- INGESTION, INHALATION, ADSORPTION - NO PROBLEM
    - HOW MUCH..... THAT IS THE? NO USE OF THE RESOURCE- NO RISK- NO CLEANUP
    - IT IS UP TO THE AGENCIES TO DETERMINE HOW MUCH CONTAMINATION IN A RESOURCE IS A PROBLEM - VS. TRIBES TELLING AGENCIES HOW MUCH THEY USE

# THINGS WE CONTINUE TO WORK ON

Follow appropriate Government-to-Government lines of communication and protocol.

Building better risk assessment models and standard-setting processes that incorporate tribal land-use scenarios, including residential, subsistence, cultural, and spiritual uses.

Address ARARs issues surrounding soil and waste standards and land-use regulations and planning on tribal reservations.

Designing remedy selection processes that can more effectively take into account tribal needs to permanently restore and protect reservation lands for tribal uses.

# Lessons Learned the Hard Way!

- Sample, know what contaminants are in the food you eat, soils you use, plants, animals.
- INSIST ON THE AGENCIES COMPLETING A NATIVE AMERICAN RISK SCENARIO-
- If you haven't already- Develop your own cleanup standards and Tribal programs
- Monitor- be diligent, know what is being monitored for, what it is representing, and when you should look at averaging vs. maximum values.

ANY QUESTIONS OR IF YOU WOULD LIKE HELP WITH SUPERFUND OR RCRA ISSUES CONTACT:

Shoshone-Bannock Tribes

Susan Hanson

- [susanthanson9@icloud.com](mailto:susanthanson9@icloud.com)
- 208-241-1697

Kelly Wright

- [kwright@sbtribes.com](mailto:kwright@sbtribes.com)
- 208-236-1048

