



STATE OF IDAHO
DEPARTMENT OF
ENVIRONMENTAL QUALITY

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C.L. "Butch" Otter, Governor
Curt Fransen, Director

March 28, 2012

Mr. Robert R. Lowry
Amador Silver & Gold Mining Company
1550 NW Laurel Heights
Albany, OR 97321

Subject: Abbreviated Preliminary Assessment of the Lone Pine Mine and
Mother Lode Mine, Idaho County, Idaho

Dear Mr. Lowry:

The Idaho Department of Environmental Quality (DEQ) has completed a review of historical mining data and geological information for the above referenced mine located near Florence, Idaho. Subsequent to that review, DEQ conducted a site visit to the Lone Pine Mine and Mother Lode Mine.

During the site visit, mining activities such as collapsed adits, waste dumps, and remnants of milling equipment were observed and photographed in order to provide a comprehensive analysis necessary to complete an Abbreviated Preliminary Assessment.

Preliminary Assessments are conducted by DEQ according to the Federal Comprehensive Environmental Response, Compensation and Liabilities Act (CERCLA). The reasons to complete a Preliminary Assessment (PA) include:

- 1) To identify those sites which are not CERCLIS caliber because they do not pose a threat to public health or the environment (No Remedial Action Planned (NRAP));
- 2) To determine if there is a need for removal actions or other programmatic management of sites;
- 3) To determine if a Site Investigation, which is a more detailed site characterization, is needed; and/or
- 4) To gather data to facilitate later evaluation of the release of hazardous substances through the Hazard Ranking System (HRS).

DEQ has also completed PAs under contract with the U.S. Environmental Protection Agency in order to identify risks to human health and the environment, and make recommendations to land owners regarding how risks might be managed, if necessary.

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During a DEQ field visit if sources, pathways, and receptors are identified for heavy metal contamination and samples are collected, a PA is generally written. If there is no evidence of receptors being influenced by sources of contamination, as was the case with the Lone Pine Mine and Mother Lode Mine, then an Abbreviated Preliminary Assessment (APA) is written.

Attached is the Abbreviated Preliminary Assessment for the Lone Pine Mine and Mother Lode Mine. The APA includes limited historical and geological information, photographs, and maps.

A site inspection involving direct observations confirmed that sources for contaminants of concern do not exist in concentrations that present a threat to human or ecological receptors. No contaminants, petroleum, or hazardous materials are on the site of either the Lone Pine Mine or Mother Lode Mine.

Surface water testing for metals from the Lone Pine Mine adits showed no concentration above the water quality standards. It is unknown if the water flowing from the two adits reaches Healy Creek. The closest possible off site source of drinking water is the McMeekin Ranch, which is more than 11 stream miles downstream of the mine. The Mother Lode Mine was a dry site with no water flowing from the collapsed adit.

There are not public water systems within the 15-mile target distance limit.

Although no mineralization was evident, the waste dump/parking area could provide an airborne pathway to occupants of the cabin. The cabin is rarely occupied, but when occupied, dust control/abatement would be an excellent preventative measure to minimize human contact with the waste dump material.

In addition there are no public water systems within the 15 TDL.

This information was used by DEQ to recommend the property status of the Lone Pine Mine and Mother Lode Mine be designated as No Remedial Action Planned (NRAP).

DEQ looks forward to addressing any questions you may have regarding our findings. Please contact me (208-373-0563) if you have any comments, questions, or if I may be of any other assistance.

Sincerely,



Tina Elayer
Mine Waste Program Specialist
Waste Management and Remediation Division

Attachments

cc: Ken Marcy – U.S. EPA
Daniel Stewart – DEQ Grangeville
Scott Sanner – BLM
Lone Pine/Mother Lode Mine File

ABBREVIATED PRELIMINARY ASSESSMENT

This is an Abbreviated Preliminary Assessment (APA) for the Lone Pine Mine and Mother Lode Mine near Florence, Idaho. This document provides the rationale for the determination of No Remedial Action Planned (NRAP) and that no additional analysis or site investigation is necessary for the Lone Pine and Mother Lode Mines. Additional sheets are attached which contain relevant information including historical and geologic information, photographs, maps, and references generated during the site visit or desktop research.

Preparer: Daniel D. Stewart **Date:** 10/20/11
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(208) 983-0808
daniel.stewart@deq.idaho.gov

Site Name: Lone Pine Mine and Mother Lode Mine

Previous Names (aka): Lone Pine Mine: Halmadge (Holmadge)
Mother Lode Mine: Moder Lode

Site Owner: Robert R. Lowry

Address: Amador Silver & Gold Mining Company
1550 NW Laurel Heights
Albany, OR 97321

Site Location: From IGS 2003:

Access from the townsite of Florence is on FS Road 643 south to FS Road 9929. The Mother Lode adit is south of this junction less than ¼ mile, and the Lone Pine is just northeast of the junction. FS Road 76283, a short spur off Road 9929, leads to the main adit at the Lone Pine.

The Lone Pine Mine and Mother Lode Mine are within ¼ mile of each other.

Township 25 North, Range 3 East, Section 26

Latitude: 45.48395°N **Longitude:** -116.05484°W

Describe the release (or potential release) and its probable nature:

The Lone Pine Mine and Mother Lode Mine were investigated by the Idaho Department of Environmental Quality (DEQ) on September 22, 2011 for potential releases of heavy metals by airborne, surface water or ground water pathways. Additionally, potential discharges of other

deleterious materials, such as petroleum products and ore processing chemicals were investigated. No deleterious materials, petroleum products or ore processing chemicals were evident at the sites. The Mother Lode Mine was a dry site while the Lone Pine Mine had water flowing from two adits.

Part 1 - Superfund Eligibility Evaluation

If all answers are “no” go on to Part 2, otherwise proceed to Part 3.	YES	NO
1. Is the site currently in CERCLIS or an “alias” of another site?		x
2. Is the site being addressed by some other remedial program (Federal, State, or Tribal)?		x
3. Are the hazardous substances that may be released from the site regulated under a statutory exclusion (e.g., petroleum, natural gas, natural gas liquids, synthetic gas usable for fuel, normal application of fertilizer, release located in a workplace, naturally occurring, or regulated by the NRC, UMTRCA, or OSHA)?		x
4. Are the hazardous substances that may be released from the site excluded by policy considerations (i.e., deferred to RCRA corrective action)?		x
5. Is there sufficient documentation to demonstrate that there is no potential for a release that constitutes risk to human or ecological receptors? <i>(e.g., comprehensive remedial investigation equivalent data showing no release above ARARs, completed removal action, documentation showing that no hazardous substance releases have occurred, or an EPA approved risk assessment completed)?</i>	x	

Please explain all “yes” answer(s):

A site inspection involving direct observations confirmed that contaminants of concern including hazardous materials and petroleum products do not exist in concentrations that present a threat to human health or the environment. No contaminants or hazardous substances remain on the site of either the Lone Pine Mine or the Mother Lode Mine.

Surface water testing for metals from the Lone Pine Mine adits showed no concentrations violating water quality standards. Table 1 summarizes laboratory analysis of the surface water samples taken from the two Lone Pine adits. It is unknown if the water flowing from the two adits reaches Healy Creek. The closest possible off site source of drinking water is the McMeekin Ranch which is more than 11 miles downstream of the mine site. The Mother Lode Mine was a dry site with no water flowing from the collapsed adit. There are no public water systems within the 15-mile target distance limit (TDL).

Although no mineralization was evident, the waste dump/parking area could provide an airborne pathway to occupants of the cabin located on the Lone Pine Mine site. The cabin is rarely occupied, but when occupied, dust control/abatement would be an excellent preventative measure to minimize human contact with the waste dump material.

Table 1. Total Recoverable Metals Analysis in Surface Water – Lone Pine Mine Adits
(Concentrations expressed in mg/l unless otherwise stated.)

Description	DEQ Ground Water Standard (T)	DEQ Drinking Water Standard MCL	DEQ Cold Water Biota Standard Acute	DEQ Cold Water Biota Standard Chronic	Adit 1 Surface Water Sample LPAD1SW	Adit 2 Surface Water Sample LPAD2SW2
Antimony					<0.020	<0.020
Arsenic	0.05	0.01	0.36	0.19	<0.025	<0.025
Barium	2	2			0.0274	0.0215
Cadmium	0.005	0.005	0.00082 (H)	0.00037 (H)	<0.0020	<0.0020
Chromium (Total)	0.1	0.1			<0.0060	<0.0060
Copper	1.3		0.0046 (H)	0.0035 (H)	<0.010	<0.010
Iron	0.3*				<0.06	<0.06
Lead	0.015	0.15	0.014 (H)	0.00054 (H)	<0.0075	<0.0075
Manganese	0.05				<0.004	<0.004
Selenium	0.05	0.05	0.018 (T)	0.005 (T)	<0.040	<0.040
Silver	0.1*		0.0032 (H)		<0.0050	<0.0050
Zinc	5*		0.035 (H)	0.032 (H)	<0.01	<0.01

*Secondary MCL (T) – Standard in Total (H) – Hardness dependent *25 mg/l

Part 2 - Initial Site Evaluation

For Part 2, if information is not available to make a “yes” or “no” response, further investigation may be needed. In these cases, determine whether an APA is appropriate. Exhibit 1 parallels the questions in Part 2. Use Exhibit 1 to make decisions in Part 3.

If the answer is “no” to any of questions 1, 2, or 3, proceed directly to Part 3.	YES	NO
1. Does the site have a release or a potential to release?		x
2. Does the site have uncontained sources containing CERCLA eligible substances?		x
3. Does the site have documented on-site, adjacent, or nearby targets?		x

If the answers to questions 1, 2, and 3 above were all “yes” then answer the questions below before proceeding to Part 3.	YES	NO
4. Does documentation indicate that a target (e.g., drinking water wells, drinking surface water intakes, etc.) has been exposed to a hazardous substance released from the site?		
5. Is there an apparent release at the site with no documentation of exposed targets, but there are targets on site or immediately adjacent to the site?		
6. Is there an apparent release and no documented on-site targets or targets immediately adjacent to the site, but there are nearby targets (e.g., targets within one mile)?		
7. Is there no indication of a hazardous substance release, and there are uncontained sources containing CERCLA hazardous substances, but there is a potential to release with targets present on site or in proximity to the site?		

Notes:

DEQ met with the caretaker, Mr. Gary Solberg, on site. Mr. Solberg told DEQ that the drinking water source for the cabin is from the water discharged from Lone Pine Mine Adit 1. Water quality analysis indicated no surface drinking water standards violations. Both Lone Pine Mine adits are closed and no safety issues exist. The waste dumps have been incorporated and mixed into the parking area in front of the cabin.

During the site assessment, DEQ used references from several different documents including U.S. Geological Survey (USGS) maps, county tax rolls, and historical reports that have spelled numerous claim names, town sites, and/or geographic features differently from one and another. DEQ's use of the different spellings is to remain in context with the reference used for each given section of text or written in this report.

Exhibit 1 – Site Assessment Decision Guidelines for a Site

Exhibit 1 identifies different types of site information and provides some possible recommendations for further site assessment activities based on that information. The assessor should use Exhibit 1 in determining the need for further action at the site, based on the answers to the questions in Part 2. Please use your professional judgment when evaluating a site. Your judgment may be different from the general recommendations for a site given below.

Suspected/Documented Site Conditions		APA	Full PA	PA/SI	SI
1. Releases or potential to release are not documented at the site.		Yes			
2. Uncontained sources with CERCLA-eligible substances have not been documented as being present on the site. (i.e., they do exist at site)		Yes			
3. On-site, adjacent, or nearby receptors are not present.		Yes			
4. There is no documentation or observations made leading to the conclusion that a sensitive receptor is present or may have been exposed (e.g., drinking water system user inside four mile TDL). 5. There is documentation that a sensitive receptor has been exposed to a hazardous substance released from the site.	Option 1: APA	Yes			
	Option 2: Full PA or PA/SI	No			
6. There is an apparent release at the site with no documentation of targets, but there are targets on site or immediately adjacent to the site.	Option 1: APA SI	No			
	Option 2: PA/SI	No			
7. There is an apparent release and no documented on-site targets and no documented targets immediately adjacent to the site, but there are nearby targets. Nearby targets are those targets that are located within one mile of the site and have a relatively high likelihood of exposure to a hazardous substance migration from the site.		No			
8. There are: no indications of a hazardous substance release; uncontained sources containing CERCLA hazardous substances; but there is a potential to release with targets present on site or in proximity to the site.		No			

Part 3 - DEQ Site Assessment Decision

When completing Part 3, use Part 2 and Exhibit 1 to select the appropriate decision. For example, if the answer to question 1 in Part 2 was “no,” then an APA may be performed and the “NRAP” box below should be checked. Additionally, if the answer to question 4 in Part 2 is “yes,” then you have two options (as indicated in Exhibit 1): Option 1 -- conduct an APA and check the “Lower Priority SI” or “Higher Priority SI” box below; or Option 2 -- proceed with a combined PA/SI assessment.

Check the box that applies based on the conclusions of the APA:

<input checked="" type="checkbox"/>	No Remedial Action Planned (NRAP)	Defer to NRC
<input type="checkbox"/>	Higher Priority SI	Refer to Removal Program
<input type="checkbox"/>	Lower Priority SI	Site is being addressed as part of another CERCLIS site
<input type="checkbox"/>	Defer to RCRA Subtitle C	Other:

DEQ Reviewer:

Daniel D. Stewart
 Daniel D. Stewart

3/28/12
 Date

Please Explain the Rationale for Your Decision:

Although the cabin is rarely occupied, the cabin parking area consists of a mixture of material including the waste dump material from the Lone Pine Mine adits. The waste material is primarily decomposed native granitic rock with no mineralization evident. Should this be a concern, dust abatement (watering) the parking area when the cabin is occupied is recommended. Water quality analysis of the adit water indicated no surface water quality standards violations. The closest off site potential drinking water source is a ranch which is more than 11 miles downstream. Therefore, no deleterious surface water pathways exist to any water sources or receptors.

As a result of DEQ’s research and observations, it is recommending the Lone Pine Mine and Mother Lode Mine sites be designated as NRAP.

Attachments:

- Historical and Geologic Information
- Site Conditions and Photographs
- Map
- References

Historical Information and Geologic Information

Numerous sources were used during desktop research prior to visiting the site. DEQ could not improve or expound upon these reports by writing additional historical or geological text, therefore they were directly referenced and cited.

Mine History: The following history of the Lone Pine Mine and Mother Lode Mine is from IGS (2003):

The Lone Pine claim of Gus Halmadge was located by Halmadge in 1935 (other claims included in the group included the Lone Pine Dump and the Moder Lode, aka Mother Lode). The Lone Pine was 2.5 miles southwest of Old Florence on the Allison Creek Road, west of the Gold Bug and north of the Poorman. The improvements on the three claims included the discovery cuts (all 6 feet deep), two 5-foot x 7-foot tunnels (200 feet and 126 feet to the face, and 40 feet and 133 feet to the face). A log cabin at the mine measured 20 feet by 50 feet. In 1939, a 70-foot-long tunnel exposed two veinlets that struck about north 65 degrees west and trended towards an old, caved-in shaft higher on the hill. The tunnel level was about 35 feet below the collar of the shaft. Halmadge did all the development work himself during the winter over the years, using an ore car and rail and bringing out the ore by hand. He never did send out any ore; he was planning to send some to the Bunker Hill but found that the cost of the canvas sacks was too high. He moved the three-stamp mill from the Gilt Edge to the Moder Lode, but apparently he never set it up. In later years, the tunnel on the Moder Lode at the head of Cow Creek had a 240-foot-long tunnel. Gene Fuzzell reports that Halmadge took sixteen years to drive his tunnel 416 feet, leading Fuzzell to comment, "a gopher could do better than that."

Geologic Features: The following is the description of the Lone Pine Mine (aka Holmadge, Halmadge) from Reed (1939):

The exact location of the lode prospect of August Holmadge is not known, but the principal opening is probably in the southern part of Sec. 26, T. 25N, R3E. A small tunnel lies a few feet north of the Nut Basin-Florence road, probably in the SW ¼ NW ¼ of Sec. 26. The Holmadge prospect is a short distance south of the mapped area.

A tunnel about 70 feet long exposes two veinlets that strike about N. 65° W. A veinlet, which may be one of those shown in the tunnel, was seen in a small prospect above the tunnel face. The veinlets in the tunnel trend toward an old, caved shaft higher on the hill and about 100 feet from the tunnel face. The tunnel level is about 35 feet below the collar of the shaft. The shaft was accessible for a few sets and in it is exposed a vein up to 3 inches thick that strikes about N. 65° W. Mr. Holmadge says that vein matter as much as 18 inches thick was found a little farther down the shaft.

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Site Conditions and Photographs of the Lone Pine Mine

All of the Lone Pine Mine photographs in this section were taken by DEQ on September 22, 2011.

Lone Pine Mine Adit 1 was closed in 2010. As shown in Photo 1, the native material is decomposed granitic material.



Photo 1. Lone Pine Adit 1; Latitude 45.48395°N and Longitude -116.05484°W

Lone Pine Mine Adit 1 was discharging water at approximately five gallons per minute (gpm). As shown in Photo 2, the pipe drains into a culvert on the right which then eventually meets and mixes with Adit 2 drainage.



Photo 2. Lone Pine Mine Adit 1 drainage pipe.

Lone Pine Mine Adit 2 is collapsed and well vegetated. No mineralization was evident. The waste material was spread and mixed in the cabin parking area.



Photo 3. Lone Pine Mine Adit 2.



Photo 4. Lone Pine Mine Adit 2 is at the top of the photo.
Note native decomposed rock with no mineralization.

Photo 5 shows the drainage pipe (white pipe) from Lone Pine Mine Adit 2 and the culvert drainage water from Lone Pine Mine Adit 1. They come together at the northeast corner of the cabin parking area.



Photo 5. Drainage pipe from Lone Pine Mine Adit 2 and drainage water from Lone Pine Mine Adit 1; Latitude 45.48415°N and Longitude -116.05511°W.

Photo 6 shows closed Lone Pine Adit 1 behind and between the two trucks. The waste material has been spread and mixed to form the parking area for the cabin. No mineralization was evident in the waste material. Lone Pine Mine Adit 2 is to the right and behind the cabin. Its waste material was spread and mixed as well into the parking area.



Photo 6. Lone Pine Mine Adit 1 (behind and between two trucks), parking area, and cabin.



Photo 7. Front view of original Gus Halmadge cabin.

Pieces of a disassembled three-stamp mill are at the junction of FS Roads 76283 and 76283A. This is probably the mill that was formerly at the Gilt Edge Mine (IGS 2003).



Photo 8. Pieces of a disassembled three-stamp mill.



Photo 9. Flywheel with shaft and cams for three-stamp hammer mill.

Site Conditions and Photographs of the Mother Lode Mine

The Mother Lode Mine photographs in this section were taken by DEQ on September 22, 2011.

Photo 10 shows the 20 yards of timber supports and then the collapsed Mother Lode Mine adit. No mineralization was evident. The adit was dry with no discharge.



Photo 10. Mother Lode Mine collapsed adit; Latitude 45.48178°N and Longitude -116.05652°.

A road now exists between the Mother Lode Mine waste dump and the collapsed adit. The waste dump is mixed into the road. Though difficult to estimate, the dump size is approximately 9 yards x 9 yards x 2 yards. As shown in Photo 11, the dump is well vegetated and stable. Waste material left consisted of native material with no mineralization evident.



Photo 11. Mother Lode Mine waste dump.

Maps

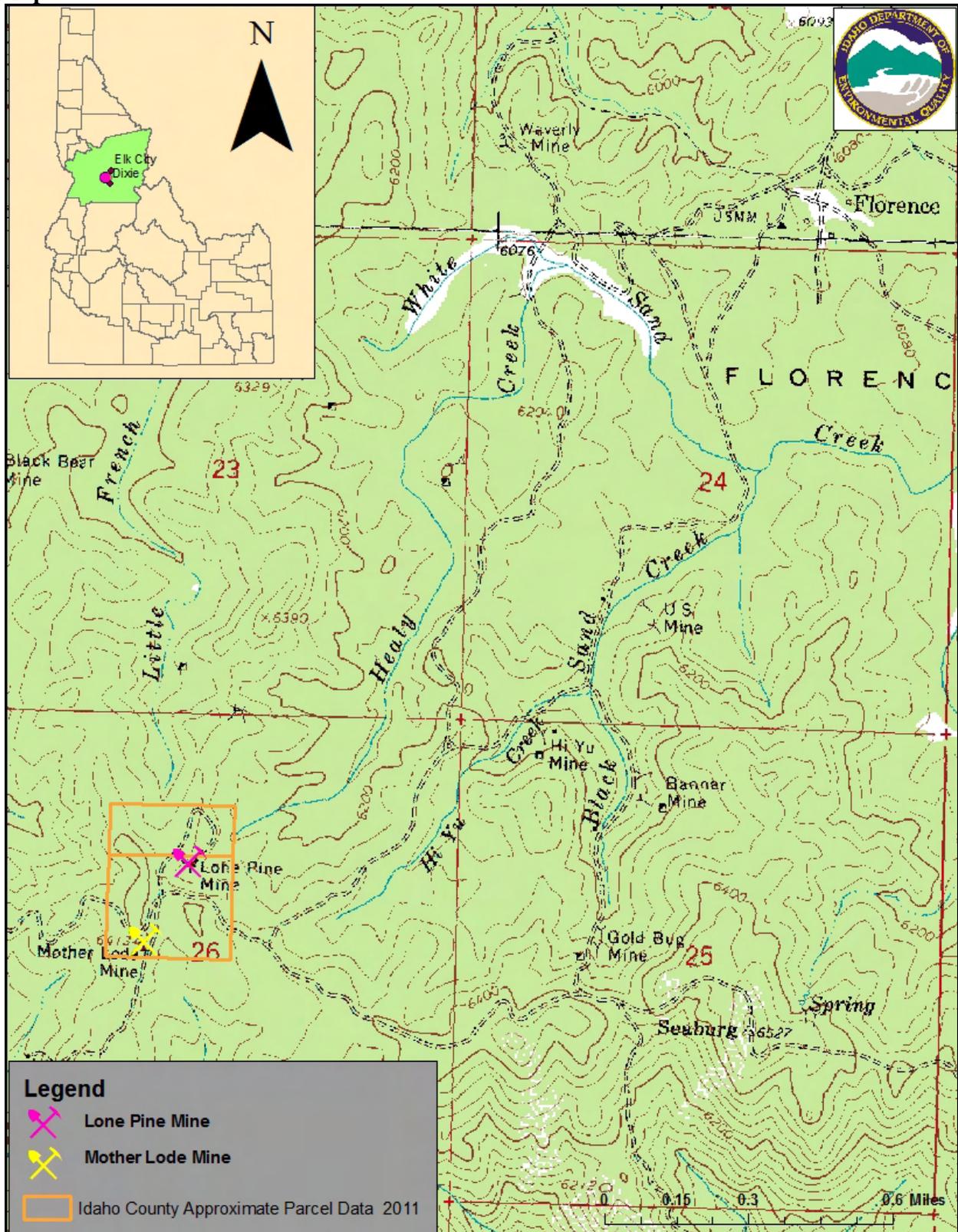


Figure 1. Location of the Lone Pine Mine and Mother Lode Mine in Idaho County, Idaho (Map Source: USGS 24k Quads)

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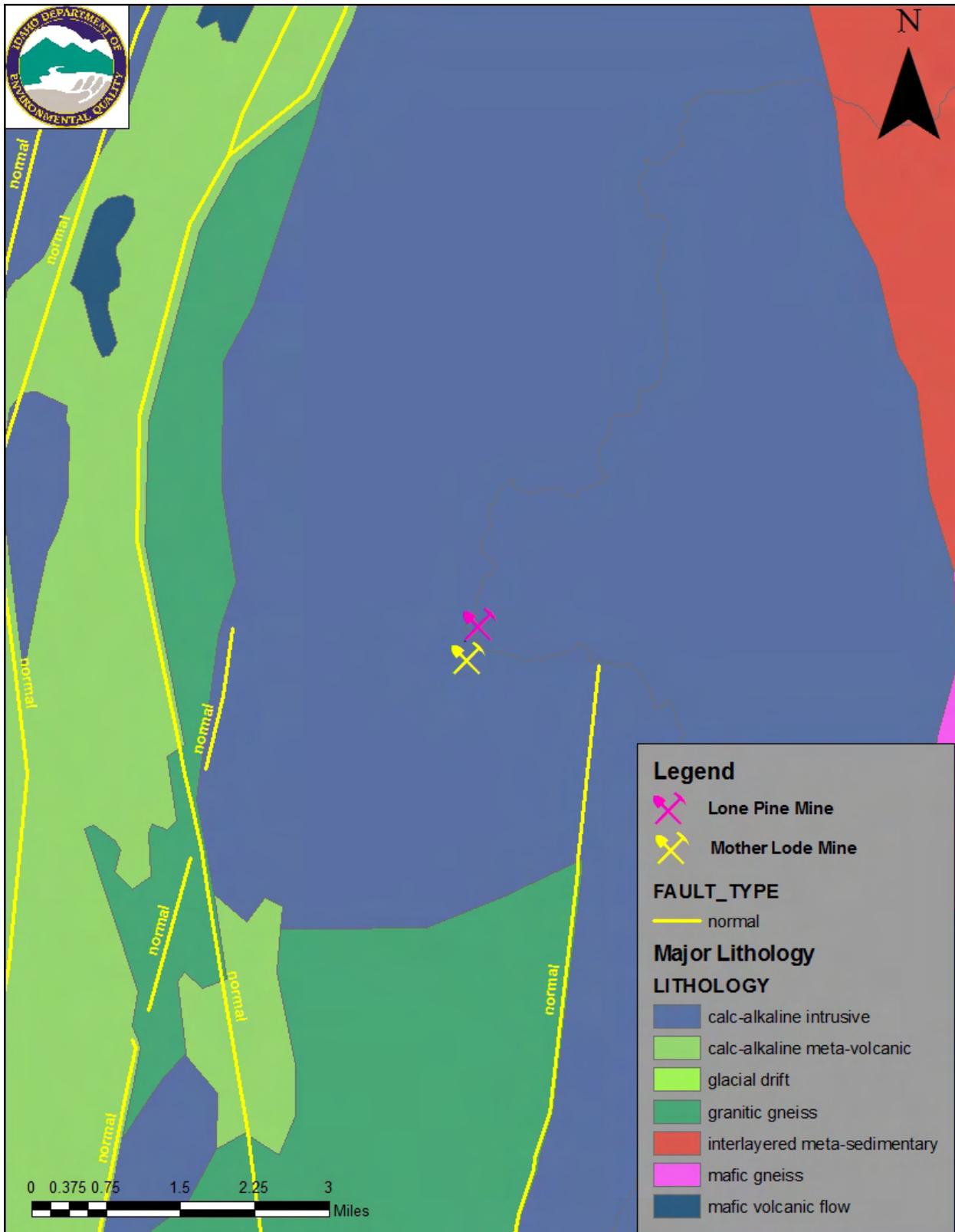


Figure 2. Major Lithology of the Lone Pine Mine and Mother Lode Mine and Surrounding Area (Map Source: SDE Feature Class, USGS 1995. Idaho GIS ArcSDE 9.2 Geodatabase)

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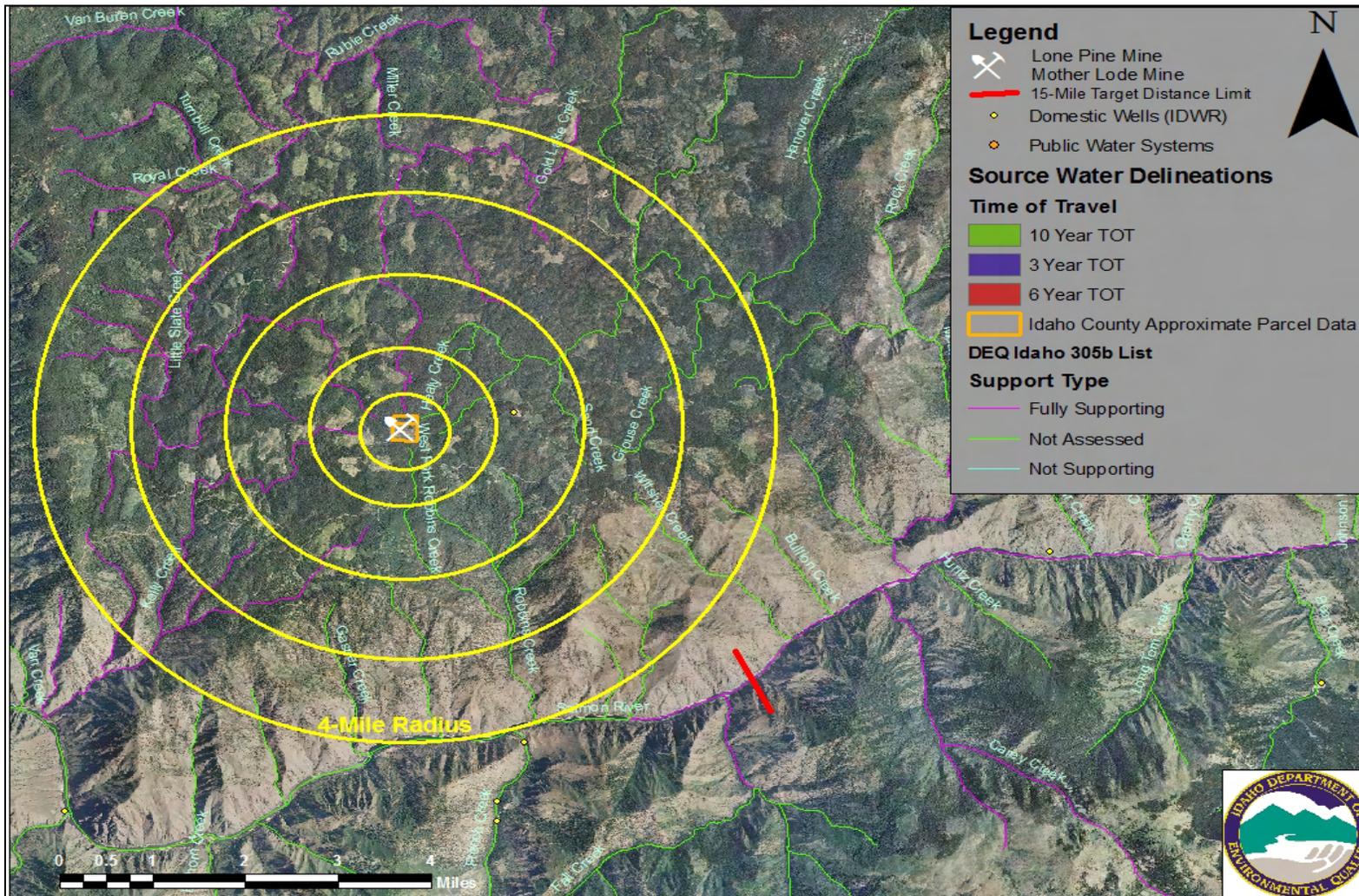


Figure 3. There is one domestic well within two miles of the Lone Pine and Mother Lode Mines. No Public Water Systems within the 4-mile radius, 15-mile TDL. There are no significant wetlands within a 2-mile radius or in the general area. Sensitive streams located in the vicinity of the Lone Pine Mine and Mother Lode Mine are also shown.
 (Map Source: Idaho GIS ArcSDE 9.3 Geodatabase, National Agricultural Imagery Program (NAIP) 2009 1-meter)

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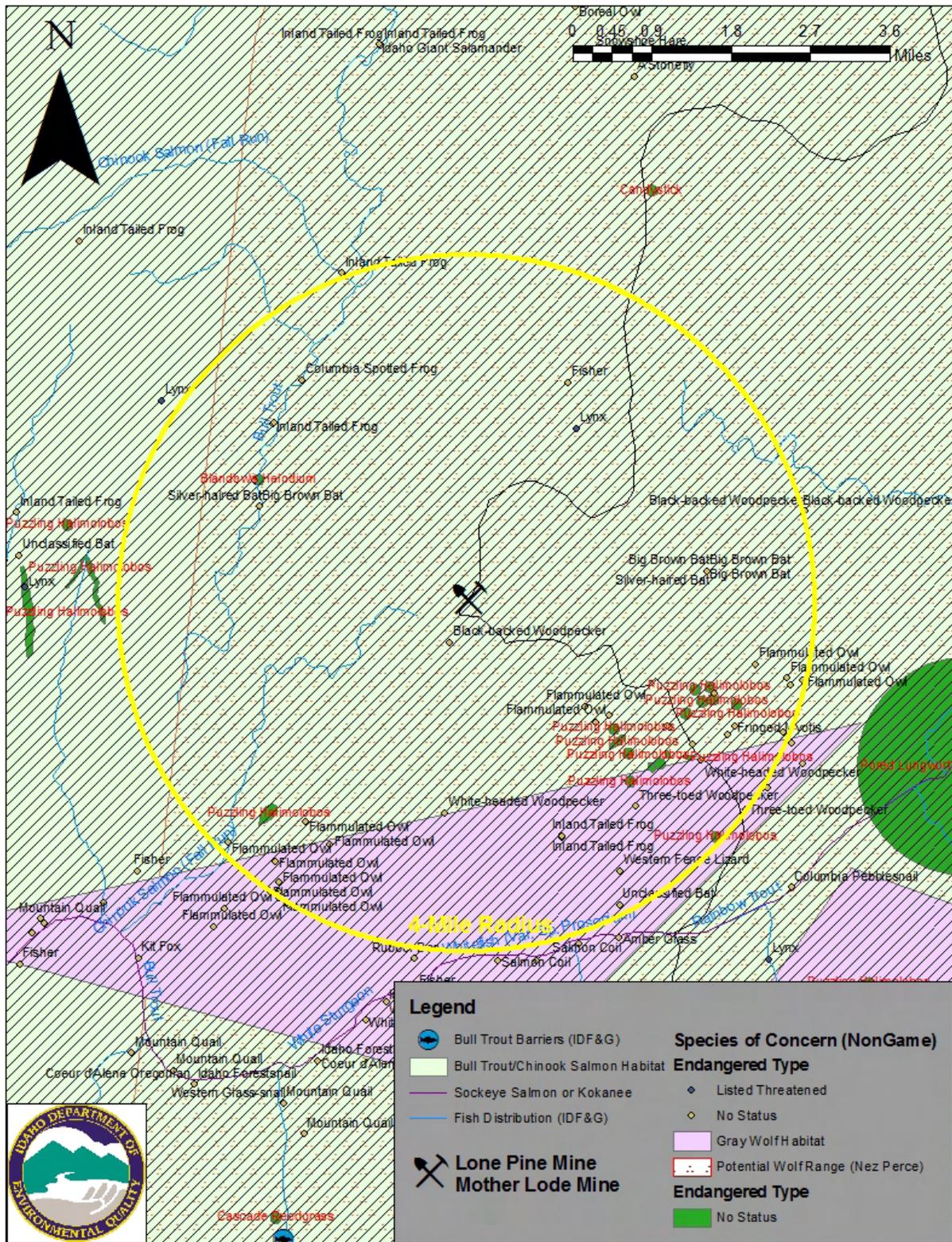


Figure 4. Sensitive Species Within 4-Mile Radius and Surrounding Area of the Lone Pine Mine and Mother Lode Mine. Species of Concern: Non-Game Animals and Plants. Fisheries Within 4- Mile Radius and Surrounding Area. (Map Source: SDE Feature Dataset, Animal Conservation Database. Idaho GIS ArcSDE 9.2 Geodatabase)

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References

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