



STATE OF IDAHO  
DEPARTMENT OF  
ENVIRONMENTAL QUALITY

1410 North Hillton • Boise, Idaho 83706 • (208) 373-0502

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

March 28, 2012

Mr. Ken Marcy  
U.S. Environmental Protection Agency  
12928 SW 276<sup>th</sup> Street  
Vashon, WA 98070

RE: Abbreviated Preliminary Assessment Report for the Teakean Butte Occurrence,  
Clearwater County, Idaho

Dear Mr. Marcy:

Attached is an Abbreviated Preliminary Assessment (APA) for the Teakean Butte Occurrence near Orofino, Idaho. The Idaho Department of Environmental Quality (DEQ) did not visit this property due to lack of contaminant sources and receptors at this site.

Limited information was available for this site. Historical records mention this was a lode and placer operation and had relatively low production numbers, the Occurrence was producing from 1907-1936. Desktop research and an interview with the landowner led **DEQ to recommend that the property status of the Teakean Butte Occurrence be designated as No Remedial Action Planned (NRAP).**

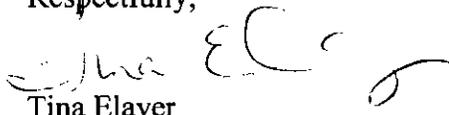
A copy of this letter and report will be sent to the landowner, Gayle Marek.

A link to DEQ's Teakean Butte Occurrence APA can also be found on DEQ's Mining Preliminary Assessment Web page at:

<http://www.deq.idaho.gov/waste-mgmt-remediation/remediation-activities/mining-preliminary-assessments.aspx>

If you have any questions about this site, the report, or DEQ's recommendations, please do not hesitate to call me at (208) 373-0563.

Respectfully,

  
Tina Elayer  
Mine Waste Specialist

attachment

cc: Gayle Marek  
Teakean Butte Occurrence File

## ABBREVIATED PRELIMINARY ASSESSMENT

This is an Abbreviated Preliminary Assessment (APA) for the Teakean Butte Occurrence near Orofino, 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 Teakean Butte Occurrence. Maps generated during desktop research are attached.

**Preparer:** Tina Elayer **Date:** 2/22/12  
Idaho Department of Environmental Quality  
1410 N. Hilton  
Boise, ID 83706  
(208) 373-0563  
tina.elayer@deq.idaho.gov

**Site Name:** Teakean Butte Occurrence

**Previous Names (aka):** Teakean Butte

**Site Owner:** Gayle Marek

**Address:** 716 Three Bear Road  
Kendrick, ID 83537

**Site Location:** The site is located on the Teakean Butte, north of Orofino. From Orofino travel northwest on Old Highway 7 approximately seven miles to Cavendish Road. Follow Cavendish Road for approximately five miles due north where the road will turn back into Old Highway 7. After three miles Old Highway 7 turns into a series of local roads. Head east and then south east on Jeter Chandler road for approximately two miles. The mine site is located by the radio towers.

Township 38 North, Range 1 East, Section 31

**Latitude:** 46.58906°N **Longitude:** -116.3896°W

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

DEQ did not visit this property due to lack of contaminant sources and receptors at the Teakean Butte Occurrence site. The property owner, Gayle Marek, did give DEQ permission to visit the site.

The USGS MRDS web site contains the following information; this site was an occurrence and the primary commodities were in descending order of value; Gold, Titanium, Zirconium, REE, Iron, and Garnet.

Four different kinds of ore were estimated in the placer analysis in pounds/cubic yard; Ilmenite (17-23), Magnetite (TR-1), Monazite (0.2-0.7), Zircon (TR-1) and Garnet (TR-1). The ore was found in an unconsolidated deposit of alluvium with mineral in place.

The ore body identified in USGS records indicates a mixture of; Mica schist, quartzite, and calc-silicate rock; Proterozoic high-grade metasedimentary rocks; trans-Idaho metamorphic province.

The total lode production for the following years:

1907-1936- 8,973 FINE OUNCES GOLD; 174.07/OZ. AG; 758,804 LB. CU; 367,349 LB. PB; 1248 LB. ZN

The total placer production for the following years:

1914-1936- 247 FINE OZ. AU AND 35 FINE OZ. AG.

The MRDS information was reported by Pat J. Miller for the USGS on August 1, 1974.

**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?		<b>x</b>
2. Is the site being addressed by some other remedial program (Federal, State, or Tribal)?		<b>x</b>
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)?		<b>x</b>
4. Are the hazardous substances that may be released from the site excluded by policy considerations (i.e., deferred to RCRA corrective action)?		<b>x</b>
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>	<b>x</b>	

**Please explain all “yes” answer(s):**

DEQ spoke with the landowner (Gayle Marek) on May 5, 2011 who mentioned there were not any signs of past mining. She did want a geologist to identify a big rock on her property which apparently has garnets or rubies in it. She visits this property in late May as the access is extremely limited by snow.

**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.

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

<b>If the answers to questions 1, 2, and 3 above were all “yes” then answer the questions below before proceeding to Part 3.</b>	<b>YES</b>	<b>NO</b>
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?		

**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.

<b>Suspected/Documented Site Conditions</b>		<b>APA</b>	<b>Full PA</b>	<b>PA/SI</b>	<b>SI</b>
1. Releases or potential to release are not documented at the site. <b>YES</b>		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) <b>YES</b>		Yes			
3. On-site, adjacent, or nearby receptors are not present. <b>YES</b>		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). <b>YES</b>	Option 1: APA	Yes			
5. There is documentation that a sensitive receptor has been exposed to a hazardous substance released from the site. <b>NO</b>	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. <b>NO</b>	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. <b>NO</b>		Yes			
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. <b>NO</b>		Yes			

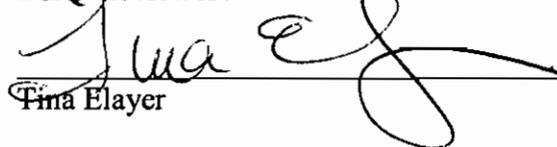
### Part 3 - DEQ Site Assessment Decision

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:

  
Tina Elayer

  
Date

#### Please Explain the Rationale for Your Decision:

Historical records mention this was a placer operation and had low production numbers. This led DEQ to **recommend that the property status of the Teakean Butte Occurrence be designated as No Remedial Action Planned (NRAP).**

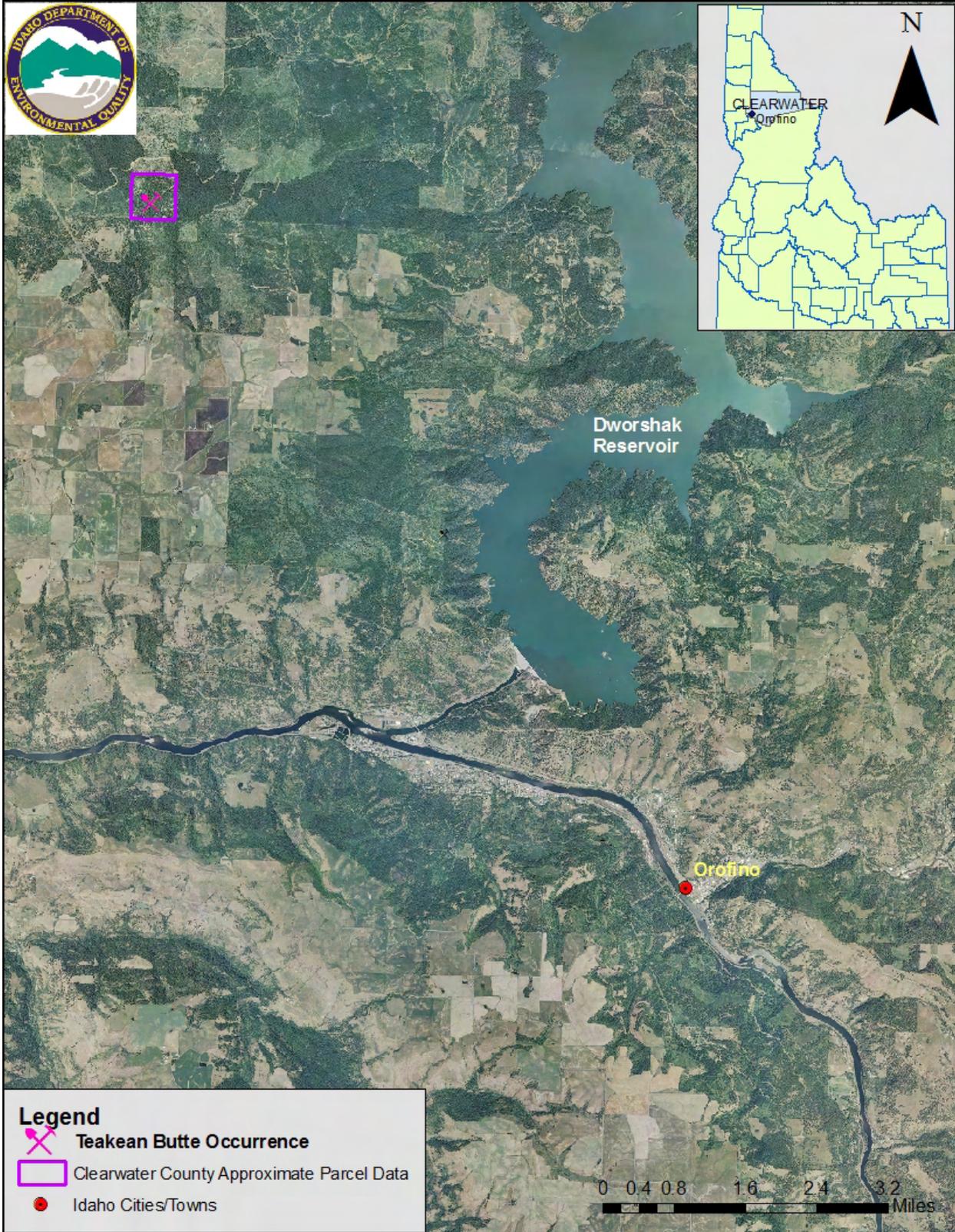
#### References:

Savage, C.N. 1964. Titanium, Zirconium, and Hafnium in Mineral and Water Resource of Idaho: Idaho Bureau of Mines and Geology Spec. Rept. 1, p. 217-223.

USGS MRDS Database, Teakean Butte Occurrence  
[http://tin.er.usgs.gov/mrds//show-mrds.php?dep\\_id=10072131](http://tin.er.usgs.gov/mrds//show-mrds.php?dep_id=10072131)

#### Attachment:

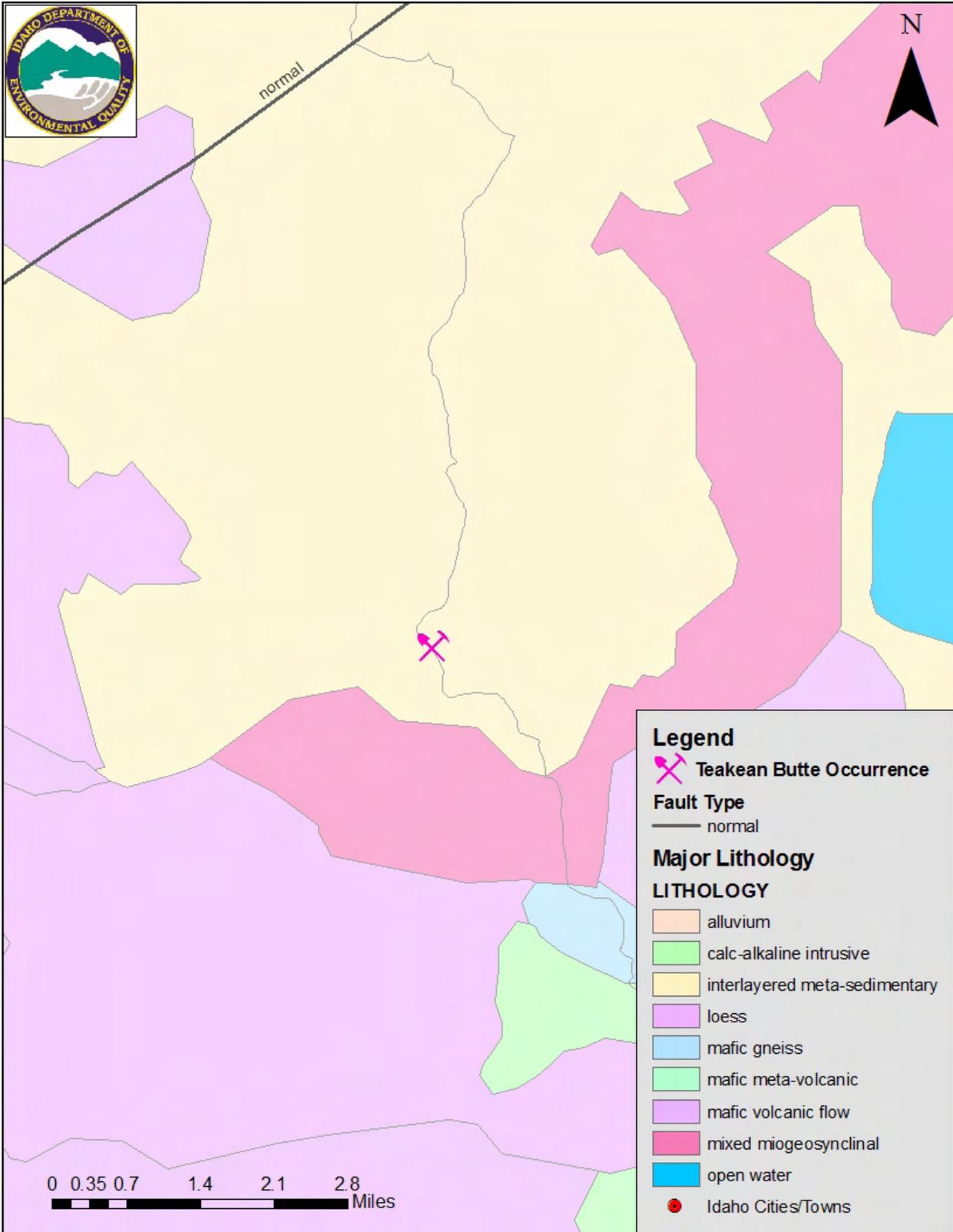
Maps



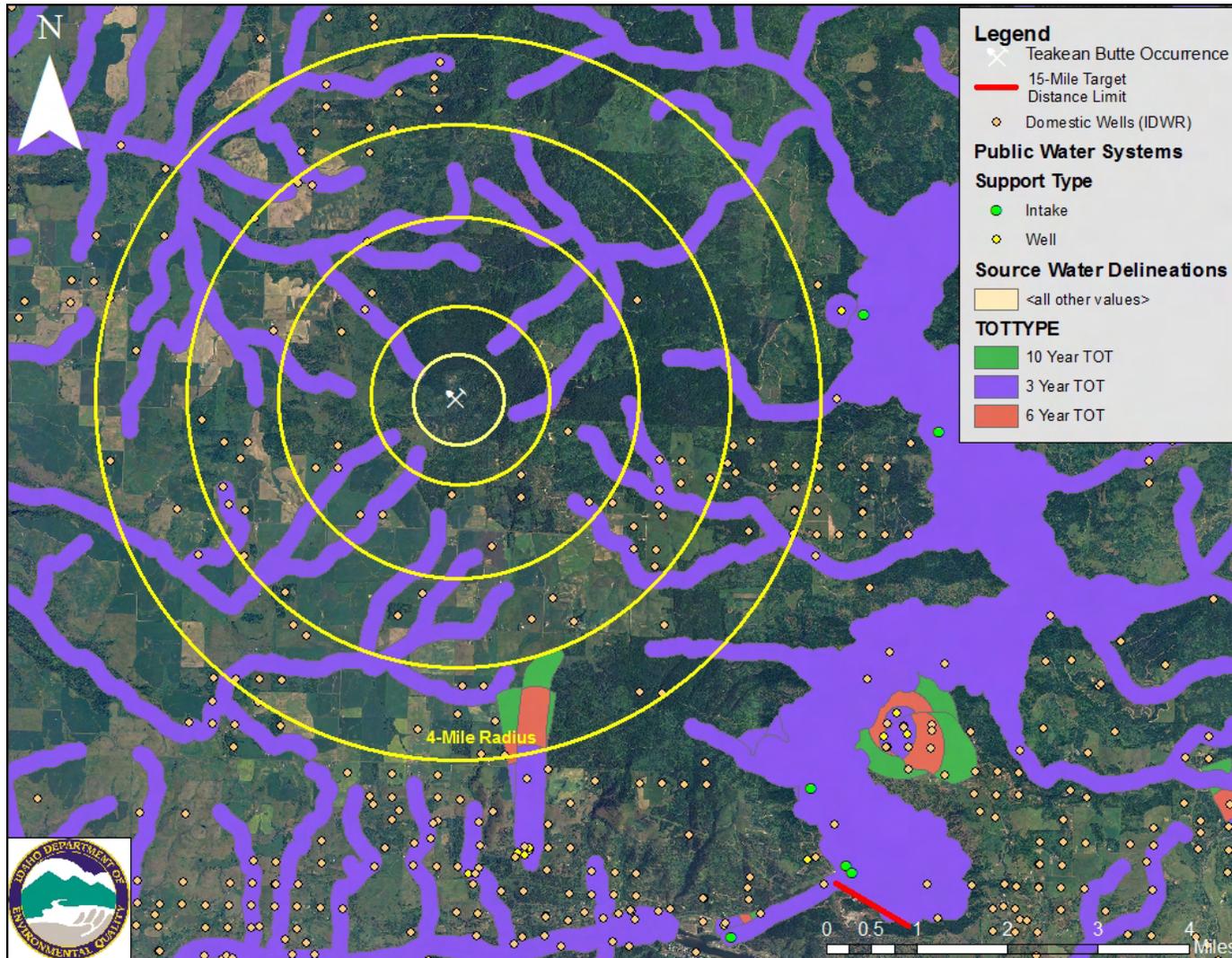
**Map 1. Aerial Overview Map Teakean Butte Occurrence**  
 Parcel data from Clearwater County Assessor's Office. (Map Source: National Agricultural Imagery Program (NAIP) 2009 1m)



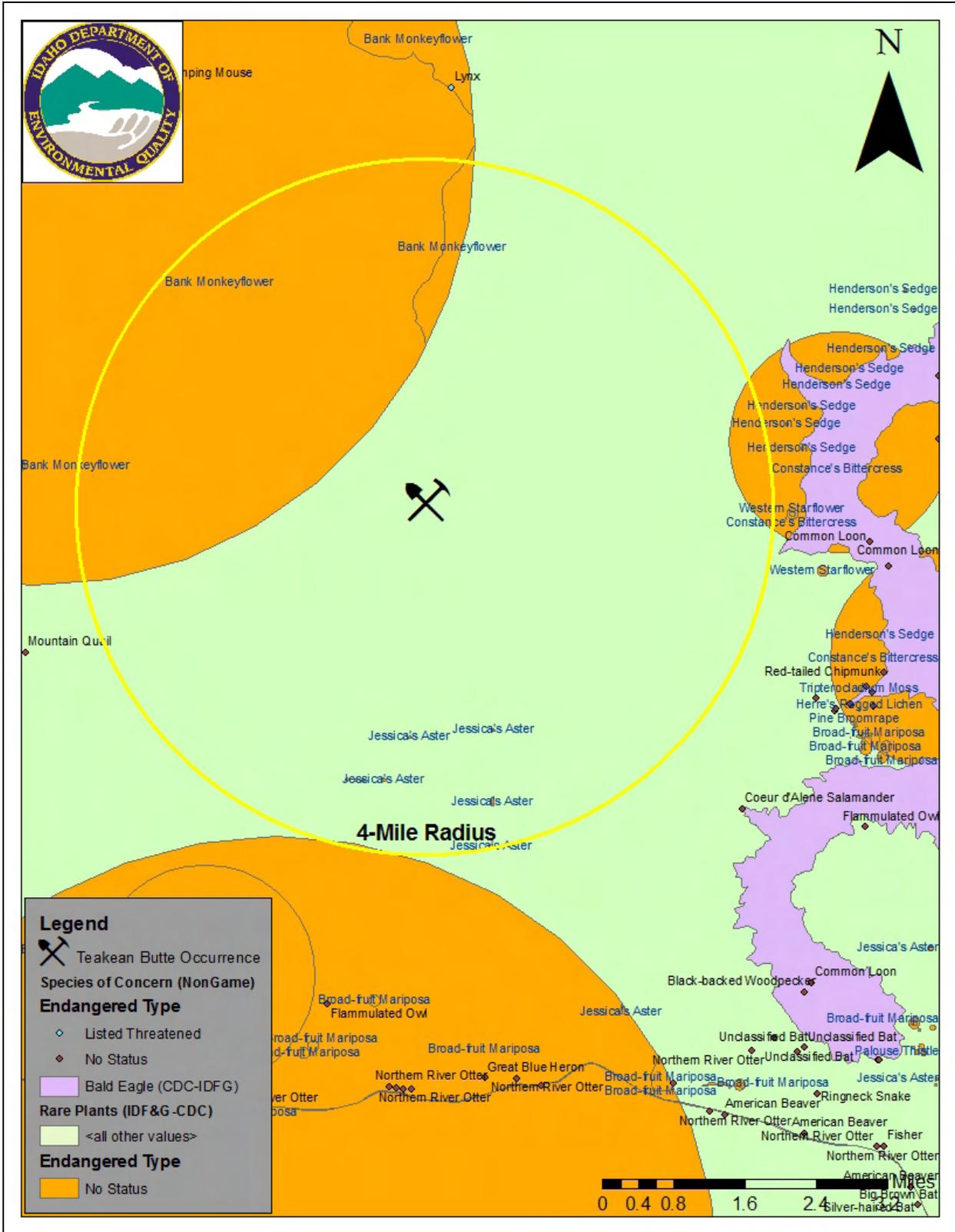
**Map 2. Aerial Overview (Close-up) Map of the Teakean Butte Occurrence site (Map Source: National Agricultural Imagery Program (NAIP) 2004)**



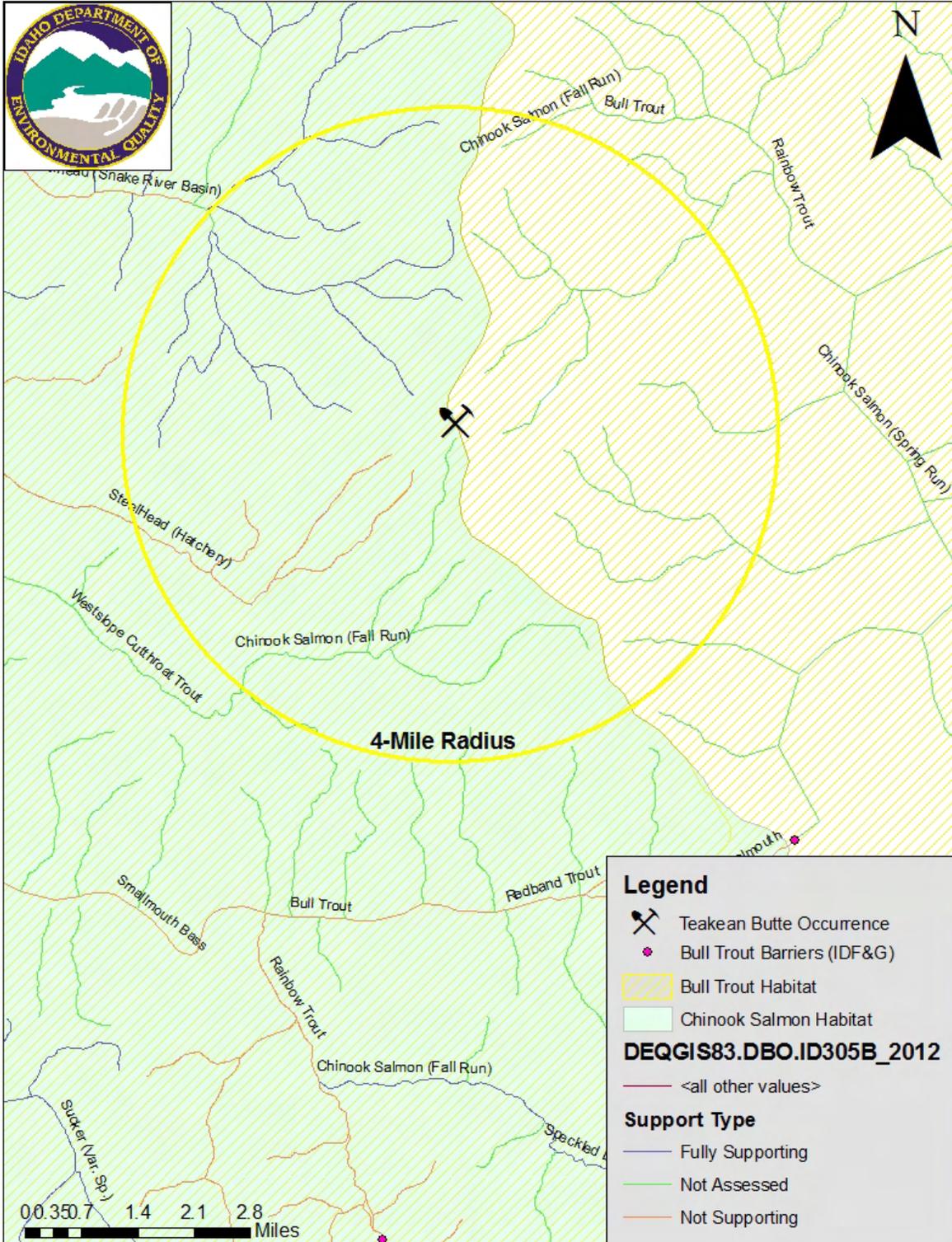
**Map 3. Map of Major Lithology in the Vicinity of the Teakean Butte Occurrence**  
 (Map Source: ArcSDE.DEQ.GIS83.DBO.major lithology)



**Map 4. Domestic Wells Located Within the 4-Mile Radius, there are no Public Water Systems within the 4-Mile Radius, 15-Mile TDL of the Teakean Butte Occurrence is located at the southern end of Dworshak Reservoir. . There are no significant wetlands recognized by the U.S. Fish and Wildlife Service in the vicinity. (Map Source: 2009 Natural Color 1-meter NAIP Idaho)**



**Map 5. Sensitive Species In and Around the Teakean Butte Occurrence; Species of Concern (Plants and Animals) (Map Sources: SDE Feature Dataset, Animal Conservation Database; Idaho DEQ GIS ArcSDE 9.2 Geodatabase)**



**Map 6. Fisheries Within 4-Mile Radius and in the Vicinity of the Teakean Butte Occurrence. State of Idaho 305(b) Map for Impaired Waters Not Supporting Cold Water Aquatic Life and Salmonid Spawning Due to Temperature. (Map source: SDE Feature Dataset, Idaho DEQ GIS ArcSDE 9.2 Geodatabase)**