

Los Angeles  Department of Water & Power

ERIC GARCETTI  
Mayor

Commission  
MEL LEVINE, *President*  
WILLIAM W. FUNDERBURK JR., *Vice President*  
JILL BANKS BARAD  
MICHAEL F. FLEMING  
CHRISTINA E. NOONAN  
BARBARA E. MOSCHOS, *Secretary*

MARCIE L. EDWARDS  
General Manager

March 26, 2015

C/007/0033  
Received 3/26/2015  
Task ID #4824

**Hand Delivered on March 26, 2015**

Utah Division of Oil, Gas & Mining Coal Program (DOGM)  
1594 West North Temple, Suite 1210  
P.O. Box 145801  
Salt Lake City, Utah 84114-5801

Dear Permit Supervisor:

Subject: Intermountain Power Agency (IPA) – Permit Change, Proposed Permit  
Boundary and Disturbed Area Increase  
Wildcat Loadout Facility, C/007/0033

IPA is respectfully submitting, via hand delivery, a CD containing the supporting documentation and drawings for the proposed permit boundary and disturbed area change that will increase the disturbed area by 23 acres in our DOGM Permit C/007/0033 Wildcat Loadout Mining and Reclamation Plan. This disturbed area increase is address coal fine concerns.

If you have any comments or questions, please contact me at (801) 748-1471.

Sincerely,



Lance C. Lee  
Project Manager  
Intermountain Power Project

cc: James A. Hewlett (via email)  
Intermountain Power Agency  
Minh T. Le (via email)  
William W. Engels (via email)

**Los Angeles Aqueduct Centennial Celebrating 100 Years of Water 1913-2013**

111 N. Hope Street, Los Angeles, California 90012-2607 Mailing address: Box 51111, Los Angeles, CA 90051-5700  
Telephone: (213) 367-4211 www.LADWP.com

## APPLICATION FOR COAL PERMIT PROCESSING

Permit Change  New Permit  Renewal  Exploration  Bond Release  Transfer

**Permittee:** INTERMOUNTAIN POWER AGENCY

**Mine:** WILDCAT LOADOUT

**Permit Number:**

C/007/0033

**Title:** PROPOSED PERMIT BOUNDARY AND DISTURBED AREA EXPANSION

**Description,** Include reason for application and timing required to implement:

PROPOSAL TO EXPAND EXISTING PERMIT BOUNDARY AND DISTURBED AREA BY 23 ACRES

**Instructions:** If you answer yes to any of the first eight questions, this application may require Public Notice publication.

- Yes  No 1. Change in the size of the Permit Area? Acres: 23.00 Disturbed Area: 23.00  increase  decrease.
- Yes  No 2. Is the application submitted as a result of a Division Order? DO# \_\_\_\_\_
- Yes  No 3. Does the application include operations outside a previously identified Cumulative Hydrologic Impact Area?
- Yes  No 4. Does the application include operations in hydrologic basins other than as currently approved?
- Yes  No 5. Does the application result from cancellation, reduction or increase of insurance or reclamation bond?
- Yes  No 6. Does the application require or include public notice publication?
- Yes  No 7. Does the application require or include ownership, control, right-of-entry, or compliance information?
- Yes  No 8. Is proposed activity within 100 feet of a public road or cemetery or 300 feet of an occupied dwelling?
- Yes  No 9. Is the application submitted as a result of a Violation? NOV # \_\_\_\_\_
- Yes  No 10. Is the application submitted as a result of other laws or regulations or policies?

*Explain:* \_\_\_\_\_

- Yes  No 11. Does the application affect the surface landowner or change the post mining land use?
- Yes  No 12. Does the application require or include underground design or mine sequence and timing? (Modification of R2P2)
- Yes  No 13. Does the application require or include collection and reporting of any baseline information?
- Yes  No 14. Could the application have any effect on wildlife or vegetation outside the current disturbed area?
- Yes  No 15. Does the application require or include soil removal, storage or placement?
- Yes  No 16. Does the application require or include vegetation monitoring, removal or revegetation activities?
- Yes  No 17. Does the application require or include construction, modification, or removal of surface facilities?
- Yes  No 18. Does the application require or include water monitoring, sediment or drainage control measures?
- Yes  No 19. Does the application require or include certified designs, maps or calculation?
- Yes  No 20. Does the application require or include subsidence control or monitoring?
- Yes  No 21. Have reclamation costs for bonding been provided?
- Yes  No 22. Does the application involve a perennial stream, a stream buffer zone or discharges to a stream?
- Yes  No 23. Does the application affect permits issued by other agencies or permits issued to other entities?
- Yes  No 24. Does the application include confidential information and is it clearly marked and separated in the plan?

**Please attach three (3) review copies of the application. If the mine is on or adjacent to Forest Service land please submit four (4) copies, thank you.** (These numbers include a copy for the Price Field Office)

I hereby certify that I am a responsible official of the applicant and that the information contained in this application is true and correct to the best of my information and belief in all respects with the laws of Utah in reference to commitments, undertakings, and obligations, herein.

JAMES HEWLETT

GENERAL MANAGER

3-24-15

*[Signature]*  
Signature (Right-click above choose certify then have notary sign below)

Print Name

Position

Date

Subscribed and sworn to before me this 24<sup>th</sup> day of March, 2015

Notary Public: Michelle R. Miller, state of Utah.

My commission Expires: 8/30/2015

Commission Number: 1013249

Address: 10653 So River Front Parkway

City: So. Jordan

State: UT

Zip: 840950

} ss:



**For Office Use Only:**

Assigned Tracking Number:

Received by Oil, Gas & Mining

# APPLICATION FOR COAL PERMIT PROCESSING

## Detailed Schedule Of Changes to the Mining And Reclamation Plan

**Permittee:** INTERMOUNTAIN POWER AGENCY  
**Mine:** WILDCAT LOADOUT **Permit Number:** C/007/0033  
**Title:** PROPOSED PERMIT BOUNDARY AND DISTURBED AREA EXPANSION

Provide a detailed listing of all changes to the Mining and Reclamation Plan, which is required as a result of this proposed permit application. Individually list all maps and drawings that are added, replaced, or removed from the plan. Include changes to the table of contents, section of the plan, or other information as needed to specifically locate, identify and revise the existing Mining and Reclamation Plan. Include page, section and drawing number as part of the description.

### DESCRIPTION OF MAP, TEXT, OR MATERIAL TO BE CHANGED

<input checked="" type="checkbox"/> Add	<input type="checkbox"/> Replace	<input type="checkbox"/> Remove	PROPOSED PUBLIC NOTICE
<input type="checkbox"/> Add	<input type="checkbox"/> Replace	<input checked="" type="checkbox"/> Remove	EXISTING CHAPTER 2 PAGE 2-1
<input type="checkbox"/> Add	<input checked="" type="checkbox"/> Replace	<input type="checkbox"/> Remove	NEW CHAPTER 2 - PAGE 2-1
<input checked="" type="checkbox"/> Add	<input type="checkbox"/> Replace	<input type="checkbox"/> Remove	NEW CHAPTER 2 - PAGE 21a
<input type="checkbox"/> Add	<input type="checkbox"/> Replace	<input checked="" type="checkbox"/> Remove	EXISTING CHAPTER 2 - PAGE 2-7
<input type="checkbox"/> Add	<input checked="" type="checkbox"/> Replace	<input type="checkbox"/> Remove	NEW CHAPTER 2 PAGE - 2-7
<input type="checkbox"/> Add	<input type="checkbox"/> Replace	<input checked="" type="checkbox"/> Remove	EXISTING CHAPTER 2 - PAGE 2-25
<input type="checkbox"/> Add	<input checked="" type="checkbox"/> Replace	<input type="checkbox"/> Remove	NEW CHAPTER 2 - PAGE 2-25
<input type="checkbox"/> Add	<input type="checkbox"/> Replace	<input checked="" type="checkbox"/> Remove	EXISTING APPENDIX R - PAGE 10
<input type="checkbox"/> Add	<input checked="" type="checkbox"/> Replace	<input type="checkbox"/> Remove	NEW APPENDIX R - PAGE 10
<input checked="" type="checkbox"/> Add	<input type="checkbox"/> Replace	<input type="checkbox"/> Remove	NEW APPENDIX R - PAGE 10a
<input type="checkbox"/> Add	<input type="checkbox"/> Replace	<input checked="" type="checkbox"/> Remove	EXISTING PLATE 1 - SURFACE FACILITY MAP
<input type="checkbox"/> Add	<input checked="" type="checkbox"/> Replace	<input type="checkbox"/> Remove	NEW PLATE 1 - SURFACE FACILITY MAP
<input type="checkbox"/> Add	<input type="checkbox"/> Replace	<input checked="" type="checkbox"/> Remove	EXISTING PLATE 2A - DRAINAGE MAP
<input type="checkbox"/> Add	<input checked="" type="checkbox"/> Replace	<input type="checkbox"/> Remove	NEW PLATE 2A - DRAINAGE MAP
<input type="checkbox"/> Add	<input type="checkbox"/> Replace	<input checked="" type="checkbox"/> Remove	EXISTING PLATE 11 - SOIL MAP
<input type="checkbox"/> Add	<input checked="" type="checkbox"/> Replace	<input type="checkbox"/> Remove	NEW PLATE 11 - SOIL MAP
<input checked="" type="checkbox"/> Add	<input type="checkbox"/> Replace	<input type="checkbox"/> Remove	NEW PLATE 13B - NEW TOPSOIL PILE "B-1" (INSITU)
<input type="checkbox"/> Add	<input type="checkbox"/> Replace	<input checked="" type="checkbox"/> Remove	EXISTING PLATE 15 - WATERSHED MAP
<input type="checkbox"/> Add	<input checked="" type="checkbox"/> Replace	<input type="checkbox"/> Remove	NEW PLATE 15 - WATERSHED MAP
<input type="checkbox"/> Add	<input type="checkbox"/> Replace	<input checked="" type="checkbox"/> Remove	EXISTING PLATE 16 - OWNERSHIP MAP
<input type="checkbox"/> Add	<input checked="" type="checkbox"/> Replace	<input type="checkbox"/> Remove	NEW PLATE 16 - OWNERSHIP MAP
<input type="checkbox"/> Add	<input type="checkbox"/> Replace	<input checked="" type="checkbox"/> Remove	EXISTING PLATE 29 - VEGETATION MAP
<input type="checkbox"/> Add	<input checked="" type="checkbox"/> Replace	<input type="checkbox"/> Remove	NEW PLATE 29 - VEGETATION MAP
<input checked="" type="checkbox"/> Add	<input type="checkbox"/> Replace	<input type="checkbox"/> Remove	APPENDIX R - NEW ASCA A, SEDCAD CALCULATIONS
<input checked="" type="checkbox"/> Add	<input type="checkbox"/> Replace	<input type="checkbox"/> Remove	APPENDIX R - NEW ASCA B, SEDCAD CALCULATIONS
<input checked="" type="checkbox"/> Add	<input type="checkbox"/> Replace	<input type="checkbox"/> Remove	APPENDIX R - NEW ASCA C, SEDCAD CALCULATIONS
<input checked="" type="checkbox"/> Add	<input type="checkbox"/> Replace	<input type="checkbox"/> Remove	NEW PLATE 16a - OWNERSHIP MAP W/ 1/4 CORNERS PER PETE HESS REQUEST

<b>Any other specific or special instruction required for insertion of this proposal into the Mining and Reclamation Plan.</b>	<b>Received by Oil, Gas &amp; Mining</b>
--	--

# PROPOSED

## PUBLIC NOTICE FOR PERMIT BOUNDARY EXPANSION

### Wildcat Loadout 5495 West 3550 North Consumers Road, Helper Utah 84526

PUBLIC NOTICE FOR PERMIT BOUNDARY EXPANSION

Wildcat Loadout

5495 West 3550 North

Consumers Road, Helper Utah 84526

Intermountain Power Agency (IPA) is the lease holder of the Wildcat Loadout. IPA was granted the right-of-way in August, 2011 by the Bureau of Land Management. IPA has submitted an application to the Utah Division of Oil, Gas and Mining to expand the existing permit boundary and disturbed area boundary for UDOGM Permit (C/007/0033) by approximately 23 acres.

The permit area is located on State Highway 139 (Consumers Road) near the Utah Railway railroad tracks.

The description of the proposed expansion area is as follows:

Township 13 South, Range 9 East, Section 33, SLBM

Beginning at a point 2.476.01 feet North and 546.66 feet West of the Southeast corner of Section 33, Township 13 South, Range 9 East, SLBM, then South 767.24 feet to the intersection of the Western edge of Trestle Road, then Southwesterly along said edge of road 1,169.87 feet to the intersection of the Eastern edge of the existing permit boundary, then North 1,588.74 feet along existing permit boundary, then Southeasterly 315.74 feet along existing permit boundary, then Northeasterly 522.25 feet along existing permit boundary to point of beginning.

Contains 23.00 acres M/L

A copy of this application is available for inspection at the Division of Oil, Gas and Mining at 1594 West North Temple, Suite 1210, Salt Lake City, Utah and at the Carbon County recorder's office. Comments, objections, or requests for an informal conference should be addressed to the Utah Division of Oil, Gas and Mining, 1594 West North Temple, Suite 1210, P.O. Box 145801, Salt Lake City, Utah 84114-5801. Comments shall be received no later than 30 days after date of last publication.

Published in the Sun Advocate xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx 2015.

**R645-301-200.            SOILS**

*HISTORICAL NOTE:* In 2004, the Division issued an Order DO-04 for wind-blown fines which had accumulated outside the disturbed area, primarily in the area southwest of the main coal storage pile below sediment Pond B. A complete description of the mitigation plan proposed for DO-04 is included in Appendix P.

An Addendum to Appendix P has been included to reflect actions taken to mitigate NOV No. 10132 issued on November 26, 2013, which includes defining 6.83 acres of previously undisturbed area as disturbed area. The Division's soil scientist, Priscilla Burton, suggested and Division management concurred that protection of the topsoil resource "insitu" (A-1) was preferable to salvage and storage of topsoil, based on a lack of immediate need for expansion, limited activity foreseen at the site, and the historic difficulty in revegetation of topsoil stockpiles in this climate. This 6.83 acre area was included in the 2003 soil survey. (Refer to Appendix D)

To prevent further issues from potential wind blown and waterbourne fines, IPA is requesting to increase the existing permit area and disturbed area by approximately 23 acres. As discussed with the Division's soil scientist, Priscilla Burton, it was suggested that this proposed expansion area also be considered as an "insitu" topsoil pile (B-1) and no additional soil survey will be required unless construction activities or other significant disturbances are performed. This area was also included in the 2003 soil survey. (Refer to Appendix D and Plate 11-Soils Map). (Topsoile piles are located on Plates 13a and 13b).

Pursuant to discussions with the Division's Biologist, Joe Helfrich, it was also determined that no new Vegetation survey would be required for the proposed expansion area.

This proposed expansion area was also included in the Vegetation Survey. (Refer to Appendix I and Plate 29-Vegetation Map).

I. Soil Survey and Vegetation Inventory (please see Appendix D, Appendix D Supplement, and Appendix I).

1. Introduction

Appendix D is a survey conducted by the SCS in the Wildcat area and depicts the major soil types here. Appendix D also includes a survey including sampling as performed by Earl Jensen consulting as a soil scientist. Included in this survey is a soil profile description for each soil type identified on the permit area. Plate 11 depicts the soils as outlined by the Order 3 Survey performed by the SCS.

**R645-301-211.            PREMINING SOIL RESOURCES**

The entire disturbed area, with the exception of approximately 20 acres, was disturbed pre-law by previous owners, and no topsoil was saved.

Topsoil was removed prior to construction in 1984, and stored and protected for use in final reclamation. Please see Plate 13C for a summary of stored topsoil. Appendix D also includes a topsoil mass balance and includes soil quality data from the Utah State

University Testing Laboratory. The mass balance indicates that there may not be sufficient volume of topsoil for final reclamation. IPA has committed to identifying and testing for suitable substitute material either off the permit area or possibly within

area. Where possible, all final grading and placement of topsoil will be done along the contour to minimize erosion.

In all cases, grading will be conducted in a manner which minimizes erosion and provides a stable surface for the placement of topsoils.

Upon reclamation, topsoil will be hauled to the area by end dump trucks, piled and spread using a grader. Where possible, the soil will be distributed along the contour. The thickness of the re-established soil will be consistent with soils in the vicinity and will be sufficient to support vegetation equal to or superior to pre-mining history. As previously mentioned, Andalex was unable to gather topsoil because of the previous disturbance. However, IPA has committed to identifying and testing topsoil substitute areas either within or outside of the permit area as needed so that

upon final reclamation, the entire disturbed area of approximately ~~88.62~~111.62 acres can be resurfaced with six inches of topsoil or less if allowed by the Division (please see Plate 1 for the location of these topsoil substitute areas. They are identified on Plate 1 as revegetation test plots.) Existing topsoil piles on site total approximately 464,499 cubic feet (17,204 cubic yards) of material. IPA feels and it is apparent from the soils inventory, that much of the fill material used onsite could be used as topsoil substitute. As previously mentioned, four topsoil substitute areas have been identified and are shown on Plate 1. Soil samples from these locations have been analyzed and the results are included in Appendix N. Once it has been determined that the substitute material is suitable for reclamation purposes, the actual area of substitute material will be carefully outlined on Plate 1 and the volumes included in the Topsoil Pile Summary. These areas have been protected from wind and water erosion through revegetation using the currently approved seed mixture. Please refer to Appendix D for the specific methods for this

hydromulched.

### Mulching Techniques

Vegetative cover will be promptly re-established following cessation of mining activities to stabilize erosion. Re-seeding will occur during the first normal period for favorable growth following regrading. Mulch will be applied to all reseeded areas. Areas which are hydromulched will be done so using an organic type mulch at the rate of one ton per acre. Where hydroseeding and hydromulching occur, a tackifier will be added to both the seed and the mulch.

Mulch will be used wherever seeds are planted. All disturbed areas will be reseeded. These areas are shown on Plate 1B and constitute ~~88.62~~111.62 acres. (Not including the Utah Railway tracks).

## 2.11 Alternate Sediment Control Areas (ASCA)

There will be ~~8-10~~ Alternate Sediment Control Areas (ASCA) remaining on this site. The ASCA designations are ASCA-1, ASCA-2, ASCA-3, ASCA-4, ASCA-5, ASCA-6, ASCA-7 and Proposed ASCA's-8-A,B & C. Only areas not able or required to be drained to sediment ponds are included as ASCA=s. All ASCA=s are existing, ~~except ASCA-8, which will be added for the outslope of new Sediment Pond AG@.~~

~~A temporary ASCA has been created in the northernmost area of the proposed disturbed area by the utilization of excelsior logs as treatment, to prevent any coal fines from entering into the wash that enters the permit area from the west. It is the operators intent that, upon approval of the 6.83 acre disturbed area addition, an application will be submitted immediately to expand the existing permit boundary by 22 acres, and defining this addition as disturbed area. Pursuant to that submittal, a larger ASCA is proposed for the northern drainage as well as 2-3 other ASCA=s to control sediment.~~

The following are descriptions of each of the ASCA=s and methods of treatment:

ASCA-1 - This is the area west of the railroad right-of-way and scale house access road. The area is approximately 0.76 acres and is treated for sediment control by vegetation.

ASCA-2 - This is an existing ASCA area on the outslope east of Sediment Pond E. The area is approximately 0.15 acres and is treated by vegetation.

ASCA-3 - This is an area north of new Sediment Pond@G@, and includes the area proposed for vacuum cleaning. The area is approximately 2.32 acres and is treated for sediment by straw bales and vegetation.

ASCA-4 - This is the area surrounding Sediment Pond AA@ and including Topsoil Storage Pile A. This is an area of approximately 2.73 acres and is treated by straw bales and vegetation.

ASCA-5 - This is the area south and west of Topsoil Storage Piles E and B, including those piles. The area is approximately 1.71 acres, and is treated by a combination of berms, straw bales and vegetation.

ASCA-6 - This is an area southeast of the train loading facility along the Disturbed Area boundary. It is approximately 1.08 acres and is treated by vegetation.

ASCA-7 - This is Topsoil Storage Pile F. It is approximately 0.30 acres and is treated by a berm and vegetation.

~~ASCA-8 - This will be a new ASCA located on the outslope of new Sediment Pond G. It will have an area of approximately 0.27 acres, and will be treated by vegetation~~

**ASCA-A- This will be a new ASCA located in the northernmost drainage of the proposed expansion area. It will have an area of approximately 3.62 acres and will be treated by vegetation and excelsior logs.**

**ASCA-B- This will be a new ASCA located in the center drainage of the proposed expansion area. It will have an area of approximately 6.84 acres and will be treated by vegetation and excelsior logs.**

**ASCA-C- This will be a new ASCA located in the southernmost drainage of the proposed expansion area. It will have an area of approximately 6.43 acres and will be treated by vegetation and excelsior logs.**

**The locations of the proposed new ASCA locations can be found on Plate 2a – Drainage Map**

**SEDCAD Calculations for proposed ASCA's A, B, and C are included.**

# PERMIT AREA EXPANSION

## ASCA AREA "A"

Tom Paluso



---

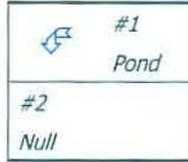
***General Information***

***Storm Information:***

Storm Type:	NRCS Type II
Design Storm:	10 yr - 24 hr
Rainfall Depth:	1.640 inches

### Structure Networking:

Type	Stru #	(flows into)	Stru #	Musk. K (hrs)	Musk. X	Description
Pond	#1	==>	#2	0.026	0.399	
Null	#2	==>	End	0.000	0.000	



### Structure Routing Details:

Stru #	Land Flow Condition	Slope (%)	Vert. Dist. (ft)	Horiz. Dist. (ft)	Velocity (fps)	Time (hrs)
#1	8. Large gullies, diversions, and low flowing streams	5.08	33.00	650.00	6.75	0.026
<b>#1</b>	<b>Muskingum K:</b>					<b>0.026</b>

**Structure Summary:**

		Immediate Contributing Area (ac)	Total Contributing Area (ac)	Peak Discharge (cfs)	Total Runoff Volume (ac-ft)
#1*	In	3.620	3.620	2.22	0.16
	Out			0.00	0.00
#2		0.000	3.620	2.22	0.00

*\*Denotes structures with incomplete design parameters. Results for these structures have not been evaluated, and may affect downstream structures.*

---

***Structure Detail:***

*Structure #1 (Pond)*

Structure design parameters are not specified. No results to show.

*Structure #2 (Null)*

**Subwatershed Hydrology Detail:**

Stru #	SWS #	SWS Area (ac)	Time of Conc (hrs)	Musk K (hrs)	Musk X	Curve Number	UHS	Peak Discharge (cfs)	Runoff Volume (ac-ft)
#1	1	3.620	0.026	0.026	0.399	85.000	F	2.22	0.163
	$\Sigma$	<b>3.620</b>						<b>2.22</b>	<b>0.163</b>
#2	$\Sigma$	<b>3.620</b>						<b>2.22</b>	<b>0.000</b>

**Subwatershed Time of Concentration Details:**

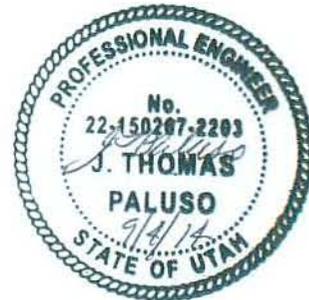
Stru #	SWS #	Land Flow Condition	Slope (%)	Vert. Dist. (ft)	Horiz. Dist. (ft)	Velocity (fps)	Time (hrs)
#1	1	8. Large gullies, diversions, and low flowing streams	5.08	33.00	650.00	6.750	0.026
#1	1	<b>Time of Concentration:</b>					<b>0.026</b>

**Subwatershed Muskingum Routing Details:**

Stru #	SWS #	Land Flow Condition	Slope (%)	Vert. Dist. (ft)	Horiz. Dist. (ft)	Velocity (fps)	Time (hrs)
#1	1	8. Large gullies, diversions, and low flowing streams	5.08	33.00	650.00	6.750	0.026
#1	1	<b>Muskingum K:</b>					<b>0.026</b>

**PERMIT AREA EXPANSION**  
**ASCA AREA "B"**

Tom Paluso



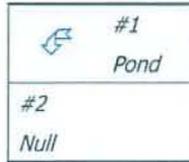
## ***General Information***

### ***Storm Information:***

Storm Type:	NRCS Type II
Design Storm:	10 yr - 24 hr
Rainfall Depth:	1.670 inches

### Structure Networking:

Type	Stru #	(flows into)	Stru #	Musk. K (hrs)	Musk. X	Description
Pond	#1	==>	#2	0.028	0.403	
Null	#2	==>	End	0.000	0.000	



### Structure Routing Details:

Stru #	Land Flow Condition	Slope (%)	Vert. Dist. (ft)	Horiz. Dist. (ft)	Velocity (fps)	Time (hrs)
#1	8. Large gullies, diversions, and low flowing streams	5.59	40.00	715.00	7.09	0.028
<b>#1</b>	<b>Muskingum K:</b>					<b>0.028</b>

***Structure Summary:***

		Immediate Contributing Area (ac)	Total Contributing Area (ac)	Peak Discharge (cfs)	Total Runoff Volume (ac-ft)
#1*	In	6.840	6.840	2.97	0.21
	Out			0.00	0.00
#2		0.000	6.840	2.97	0.00

*\*Denotes structures with incomplete design parameters. Results for these structures have not been evaluated, and may affect downstream structures.*

---

***Structure Detail:***

*Structure #1 (Pond)*

Structure design parameters are not specified. No results to show.

*Structure #2 (Null)*

***Subwatershed Hydrology Detail:***

Stru #	SWS #	SWS Area (ac)	Time of Conc (hrs)	Musk K (hrs)	Musk X	Curve Number	UHS	Peak Discharge (cfs)	Runoff Volume (ac-ft)
#1	1	6.840	0.028	0.028	0.403	80.000	F	2.97	0.212
	$\Sigma$	<b>6.840</b>						<b>2.97</b>	<b>0.212</b>
<b>#2</b>	$\Sigma$	<b>6.840</b>						<b>2.97</b>	<b>0.000</b>

***Subwatershed Time of Concentration Details:***

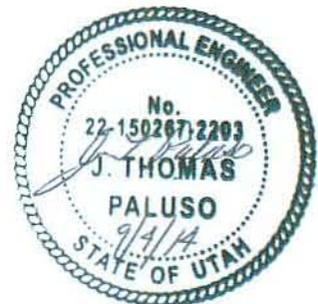
Stru #	SWS #	Land Flow Condition	Slope (%)	Vert. Dist. (ft)	Horiz. Dist. (ft)	Velocity (fps)	Time (hrs)
#1	1	8. Large gullies, diversions, and low flowing streams	5.59	40.00	715.00	7.090	0.028
<b>#1</b>	<b>1</b>	<b>Time of Concentration:</b>					<b>0.028</b>

***Subwatershed Muskingum Routing Details:***

Stru #	SWS #	Land Flow Condition	Slope (%)	Vert. Dist. (ft)	Horiz. Dist. (ft)	Velocity (fps)	Time (hrs)
#1	1	8. Large gullies, diversions, and low flowing streams	5.59	40.00	715.00	7.090	0.028
<b>#1</b>	<b>1</b>	<b>Muskingum K:</b>					<b>0.028</b>

# PERMIT AREA EXPANSION

## ASCA AREA "C"



Tom Paluso

EIS Enviromental & Engineering Consulting  
31 North Main Street  
Helper, Utah 84526

---

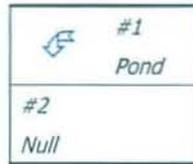
## ***General Information***

### ***Storm Information:***

Storm Type:	NRCS Type II
Design Storm:	10 yr - 24 hr
Rainfall Depth:	1.670 inches

### Structure Networking:

Type	Stru #	(flows into)	Stru #	Musk. K (hrs)	Musk. X	Description
Pond	#1	==>	#2	0.039	0.394	
Null	#2	==>	End	0.000	0.000	



### Structure Routing Details:

Stru #	Land Flow Condition	Slope (%)	Vert. Dist. (ft)	Horiz. Dist. (ft)	Velocity (fps)	Time (hrs)
#1	8. Large gullies, diversions, and low flowing streams	4.44	40.00	900.00	6.32	0.039
<b>#1</b>	<b>Muskingum K:</b>					<b>0.039</b>

***Structure Summary:***

		Immediate Contributing Area (ac)	Total Contributing Area (ac)	Peak Discharge (cfs)	Total Runoff Volume (ac-ft)
#1*	In	6.430	6.430	2.79	0.20
	Out			0.00	0.00
#2		0.000	6.430	2.79	0.00

*\*Denotes structures with incomplete design parameters. Results for these structures have not been evaluated, and may affect downstream structures.*

***Structure Detail:***

*Structure #1 (Pond)*

Structure design parameters are not specified. No results to show.

*Structure #2 (Null)*

***Subwatershed Hydrology Detail:***

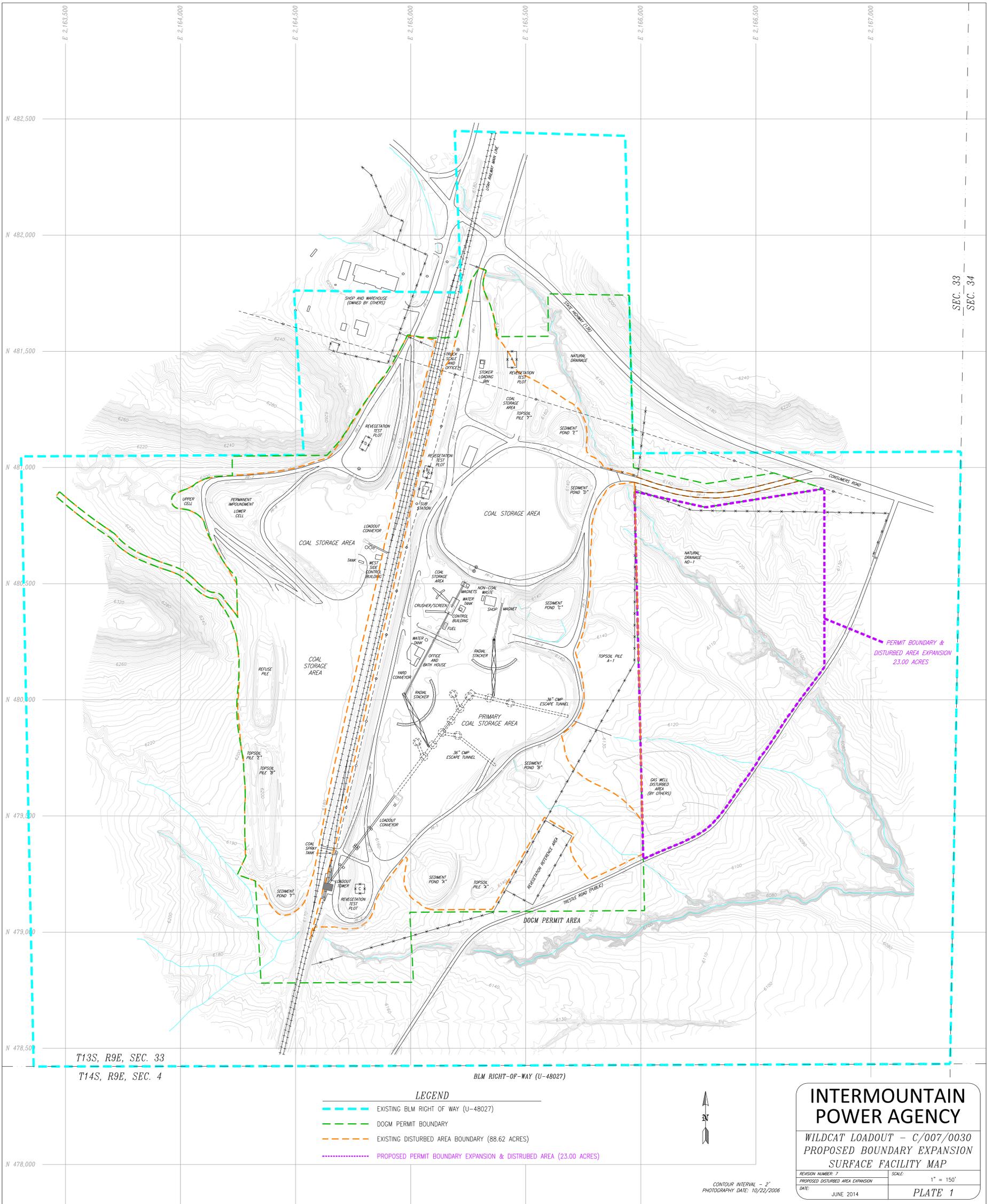
Stru #	SWS #	SWS Area (ac)	Time of Conc (hrs)	Musk K (hrs)	Musk X	Curve Number	UHS	Peak Discharge (cfs)	Runoff Volume (ac-ft)
#1	1	6.430	0.039	0.039	0.394	80.000	F	2.79	0.200
	<b>Σ</b>	<b>6.430</b>						<b>2.79</b>	<b>0.200</b>
<b>#2</b>	<b>Σ</b>	<b>6.430</b>						<b>2.79</b>	<b>0.000</b>

***Subwatershed Time of Concentration Details:***

Stru #	SWS #	Land Flow Condition	Slope (%)	Vert. Dist. (ft)	Horiz. Dist. (ft)	Velocity (fps)	Time (hrs)
#1	1	8. Large gullies, diversions, and low flowing streams	4.44	40.00	900.00	6.320	0.039
<b>#1</b>	<b>1</b>	<b>Time of Concentration:</b>					<b>0.039</b>

***Subwatershed Muskingum Routing Details:***

Stru #	SWS #	Land Flow Condition	Slope (%)	Vert. Dist. (ft)	Horiz. Dist. (ft)	Velocity (fps)	Time (hrs)
#1	1	8. Large gullies, diversions, and low flowing streams	4.44	40.00	900.00	6.320	0.039
<b>#1</b>	<b>1</b>	<b>Muskingum K:</b>					<b>0.039</b>



SEC. 33  
SEC. 34

T13S, R9E, SEC. 33  
T14S, R9E, SEC. 4

BLM RIGHT-OF-WAY (U-48027)

- LEGEND**
- EXISTING BLM RIGHT OF WAY (U-48027)
  - DOGM PERMIT BOUNDARY
  - EXISTING DISTURBED AREA BOUNDARY (88.62 ACRES)
  - PROPOSED PERMIT BOUNDARY EXPANSION & DISTURBED AREA (23.00 ACRES)

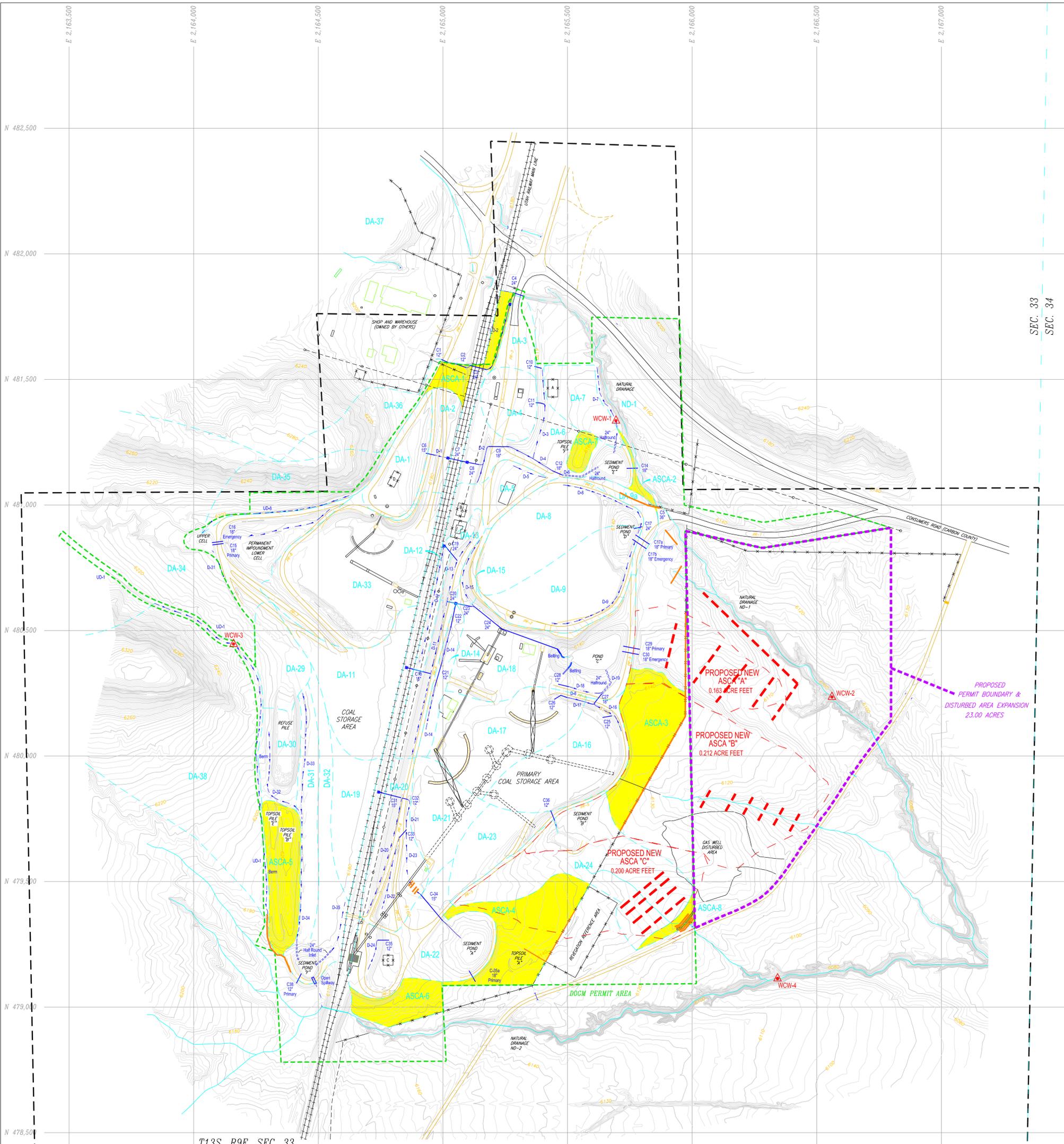


**INTERMOUNTAIN  
POWER AGENCY**

*WILDCAT LOADOUT - C/007/0030  
PROPOSED BOUNDARY EXPANSION  
SURFACE FACILITY MAP*

REVISION NUMBER: 7	SCALE: 1" = 150'
PROPOSED DISTURBED AREA EXPANSION	DATE: JUNE 2014
PLATE 1	

CONTOUR INTERVAL - 2'  
PHOTOGRAPHY DATE: 10/23/2006



SEC. 33  
SEC. 34

T13S, R9E, SEC. 33  
T14S, R9E, SEC. 4  
BLM RIGHT-OF-WAY (U-48027)

**LEGEND:**

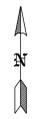
- DOCM PERMIT AREA: ---
- BLM RIGHT-OF-WAY (U-48027): ---
- PRIMARY ROAD: ---
- FENCE LINE: ---
- CULVERT (CMP): ---
- DITCH: ---
- HALF-ROUND (CMP): ---
- WATER MONITORING STATION: ---
- DRAINAGE AREA: ---
- ASCA AREA: ---
- EXISTING SEDIMENT CONTROLS: ---

**EXISTING & PROPOSED ASCA'S**

EXISTING ASCA-1	- 0.76 ACRES	- TREATMENT - VEGETATION
EXISTING ASCA-2	- 0.15 ACRES	- TREATMENT - VEGETATION
EXISTING ASCA-3	- 2.32 ACRES	- TREATMENT - STRAW BALES/EXCELSIOR LOGS & VEGETATION
EXISTING ASCA-4	- 2.73 ACRES	- TREATMENT - STRAW BALES/EXCELSIOR LOGS & VEGETATION
EXISTING ASCA-5	- 1.71 ACRES	- TREATMENT - BERMS, STRAW BALES/EXCELSIOR LOGS & VEGETATION
EXISTING ASCA-6	- 1.08 ACRES	- TREATMENT - VEGETATION
EXISTING ASCA-7	- 0.30 ACRES	- TREATMENT - BERM & VEGETATION
PROPOSED ASCA-A	- 3.62 ACRES	- TREATMENT - EXCELSIOR LOGS & VEGETATION
PROPOSED ASCA-B	- 6.84 ACRES	- TREATMENT - EXCELSIOR LOGS & VEGETATION
PROPOSED ASCA-C	- 6.43 ACRES	- TREATMENT - EXCELSIOR LOGS & VEGETATION

- PROPOSED EXCELSIOR LOGS FOR SEDIMENT CONTROL (Quantities & locations may vary)
- PROPOSED NEW ASCA AREAS
- PROPOSED PERMIT BOUNDARY EXPANSION & DISTURBED AREA (23.00 ACRES)

**NOTE:**  
SEE PLATE 15 FOR EXTENDED WATERSHEDS.



CONTOUR INTERVAL - 2'  
PHOTOGRAPHY DATE: 10/22/2006

**INTERMOUNTAIN  
POWER AGENCY**

WILDCAT LOADOUT  
PROPOSED DRAINAGE MAP  
BOUNDARY & DISTURBED  
AREA EXPANSION

REVISION NUMBER:	5	SCALE:	1" = 150'
DATE:	DECEMBER 2014		PLATE 2A

# SOIL LEGEND

SYMBOL	NAME	SYMBOL	NAME
1	Atrac very fine sandy loam, 1 to 6 percent slopes	62	Milfork family-Comodore complex
2	Badland	63	Milfork family-Podo association
3	Badland-Rubbeland-Rock outcrop complex	64	Minchey loam, 1 to 3 percent slopes
4	Beja very gravely fine sandy loam, 1 to 8 percent slopes	65	Milvida very fine sandy loam, 1 to 6 percent slopes
5	Beja complex	66	Milvida gravelly fine sandy loam, 3 to 8 percent slopes
6	Beja-Comodore complex	67	Milvida very stony fine sandy loam, 1 to 3 percent slopes
7	Beja-Trag complex	68	Moffat fine sandy loam, 3 to 8 percent slopes
8	Billings silty clay loam, 1 to 3 percent slopes	69	Moffat-Persayo complex
9	Billings-Gullied land complex	70	Nelman-Travessilla-Rock outcrop complex
10	Cabba family, 20 to 40 percent slopes	71	Pathead extremely bouldery fine sandy loam, 40 to 70 percent slopes
11	Cabba family, 40 to 70 percent slopes	72	Pathead-Curcanti family association
12	Cabba family-Badland-Rock outcrop complex	73	Persoyer Variant loam, 1 to 3 percent slopes
13	Cabba family-Guben-Rock outcrop complex	74	Persoyer Variant loam, 3 to 6 percent slopes
14	Casnos-Rock outcrop complex, 2 to 25 percent slopes	75	Perma family, 15 to 40 percent slopes
15	Casnos-Rock outcrop complex, 40 to 70 percent slopes	76	Perma family-Datino complex
16	Chipeta silty clay loam, 8 to 15 percent slopes	77	Persayo loam, 3 to 8 percent slopes
17	Chipeta-Badland complex	78	Persayo very cobbly clay loam, 3 to 15 percent slopes
18	Chipeta-Persayo complex	79	Persayo-Badland complex
19	Chusadera fine sandy loam, 1 to 8 percent slopes	80	Persayo-Chipeta complex
20	Comodore-Datino Variant complex	81	Persayo-Graybull complex
21	Croydon loam, 8 to 30 percent slopes	82	Podo gravelly sandy loam, 1 to 8 percent slopes
22	Croydon loam, 30 to 50 percent slopes	83	Podo-Cabba family complex
23	Curcanti family-Pathead complex	84	Podo-Rock outcrop complex
24	Datino Variant very stony loam, 50 to 80 percent slopes	85	Rabbitex silt loam, 15 to 50 percent slopes
25	Doney family, 3 to 15 percent slopes	86	Rabbitex-Doney family-Milfork family complex
26	Doney family, 50 to 70 percent slopes	87	Rabbitex-Pathead complex
27	Doney family-Podo complex	88	Rabbitex family-Datino Variant complex
28	Doney-Toze families complex	89	Rabasi silty clay loam
29	Dumps, mine	90	Ravola loam, 1 to 3 percent slopes
30	Falcon-Rock outcrop complex	91	Ravola loam, 1 to 6 percent slopes, eroded
31	Ferron silt loam	92	Ravola-Gullied land complex
32	Frandsen-Gullied land complex	93	Ravola-Slickspots complex
33	Gerst-Badland-Rubbeland complex, 15 to 80 percent slopes	94	Riverwash
34	Gerst-Badland-Rubbeland complex, 50 to 70 percent slopes	95	Rock outcrop
35	Gerst-Badland-Stormitt complex	96	Rock outcrop-Rubbeland-Travessilla complex
36	Gerst-Strych-Badland complex, 3 to 50 percent slopes	97	Rotulua family-Trag complex
37	Gerst-Strych-Badland complex, 50 to 70 percent slopes	98	Sagers silty clay loam
38	Gerst-Travessilla complex	99	Saltair silty clay loam
39	Glenberg family, 1 to 3 percent slopes	100	Senchert loam, 3 to 15 percent slopes
40	Glenberg family, 3 to 6 percent slopes	101	Senchert loam, 30 to 50 percent slopes
41	Green River-Juva Variant complex	102	Senchert-Senchert family complex
42	Greybull loam, 3 to 8 percent slopes	103	Senchert-Toze family complex
43	Grobutte-Cabba families association	104	Senchert family, 3 to 15 percent slopes
44	Guben-Doney family-Datino Variant complex, 15 to 40 percent slopes	105	Senchert family-Senchert complex
45	Guben-Doney family-Datino Variant complex, 40 to 70 percent slopes	106	Shawpican-Podo-Rock outcrop complex
46	Guben-Pathead extremely stony loams	107	SuperWinetti complex
47	Guben-Rock outcrop complex	108	Silas loam
48	Haverdad loam, 1 to 8 percent slopes	109	Silas Bryan loams
49	Haverdad loam, alluvial, 0 to 3 percent slopes	110	Stormitt gravelly sandy clay loam, 3 to 10 percent slopes
50	Haverdad loam, moist, 1 to 5 percent slopes	111	Stormitt-Minchey complex
51	Hernandez family, 1 to 3 percent slopes	112	Strych very bouldery fine sandy loam, 3 to 20 percent slopes
52	Hernandez family, 3 to 8 percent slopes	113	Strych very stony loam, 3 to 15 percent slopes
53	Hernandez family, moist, 1 to 6 percent slopes	114	Strych very stony loam, dry, 3 to 50 percent slopes
54	Hernandez family-Atrac complex	115	Trag stony loam, 30 to 60 percent slopes
55	Hunting loam, 1 to 3 percent slopes	116	Trag-Baja-Rotulua family complex
56	Hunting loam, moderately saline, 1 to 3 percent slopes	117	Trag-Baja-Senchert complex
57	Hunting silty clay loam, 1 to 3 percent slopes	118	Trag-Croydon complex
58	Juva Variant fine sandy loam	119	Travessilla sandy loam, 1 to 8 percent slopes
59	Kilpack clay loam, 1 to 3 percent slopes	120	Travessilla-Rock outcrop complex
60	Kilpack clay loam, 3 to 6 percent slopes	121	Travessilla-Rock outcrop-Gerst complex
61	Libbings silty clay loam	122	Travessilla-Travessilla family-Rock outcrop complex
		123	Travessilla family, 1 to 8 percent slopes
		124	Uinta family-Podo association
		125	Uinta-Toze families complex
		126	Winetti Variant cobbly fine sandy loam, 0 to 8 percent slopes

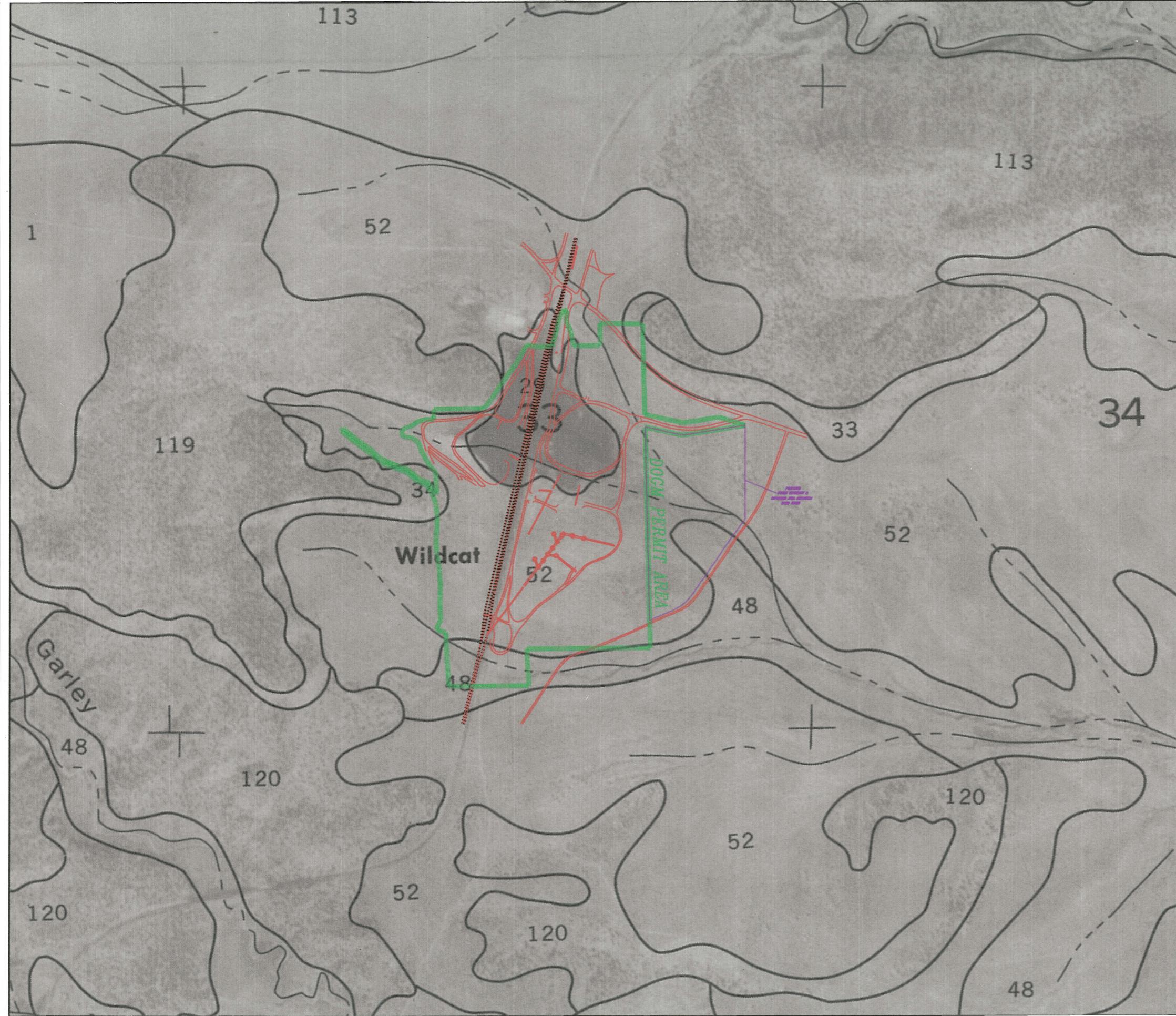
**SOURCE:**  
Soil Survey of Carbon Area, Utah  
USDA, Soil Conservation Service

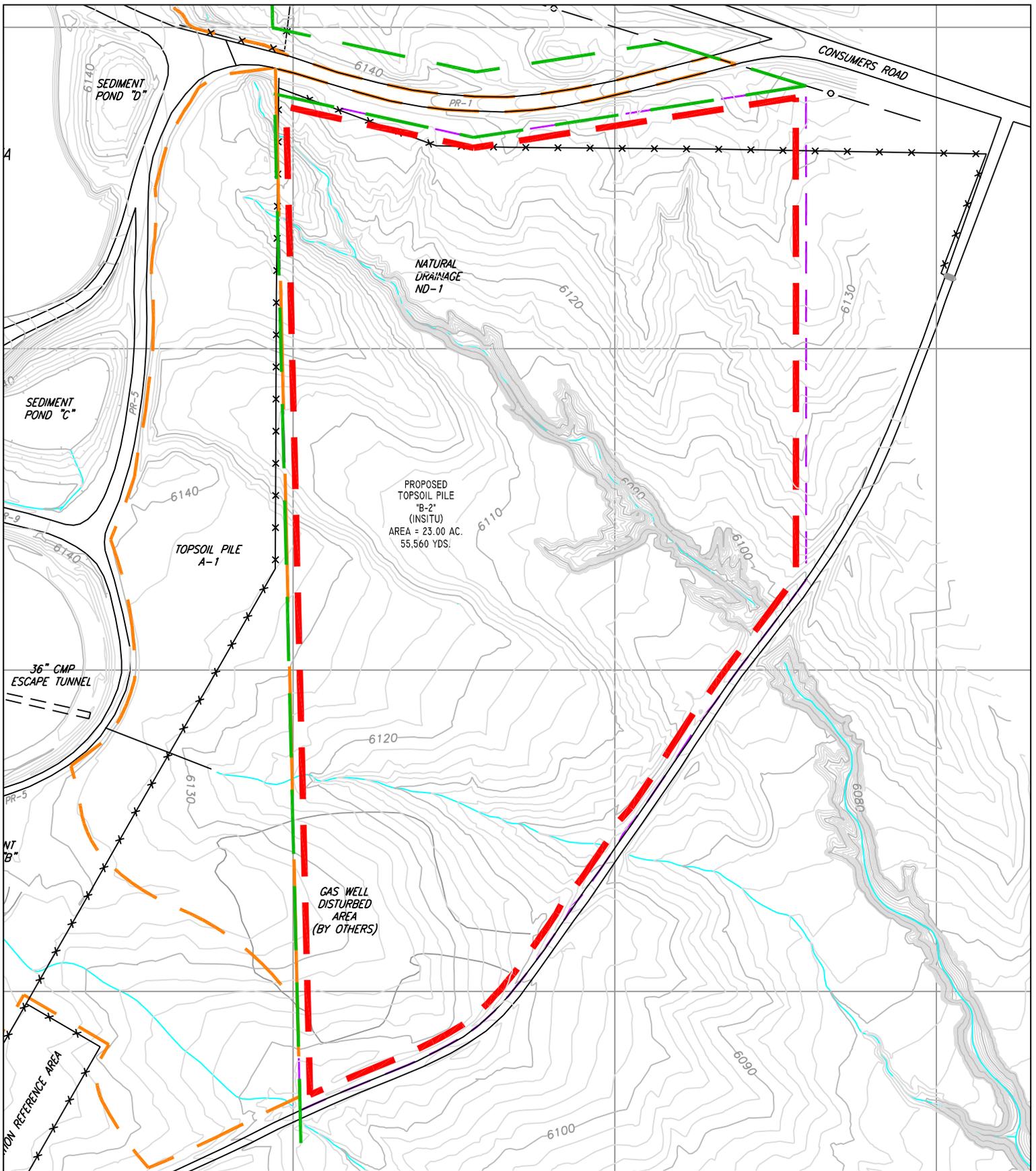
**Proposed 23 Acre Permit and  
Disturbed Area Expansion**

## INTERMOUNTAIN POWER AGENCY

### WILDCAT LOADOUT SOIL MAP

REVISION NUMBER:	4	SCALE:	1" = 800'
DATE:	JUNE 2014		PLATE 11





**LEGEND**

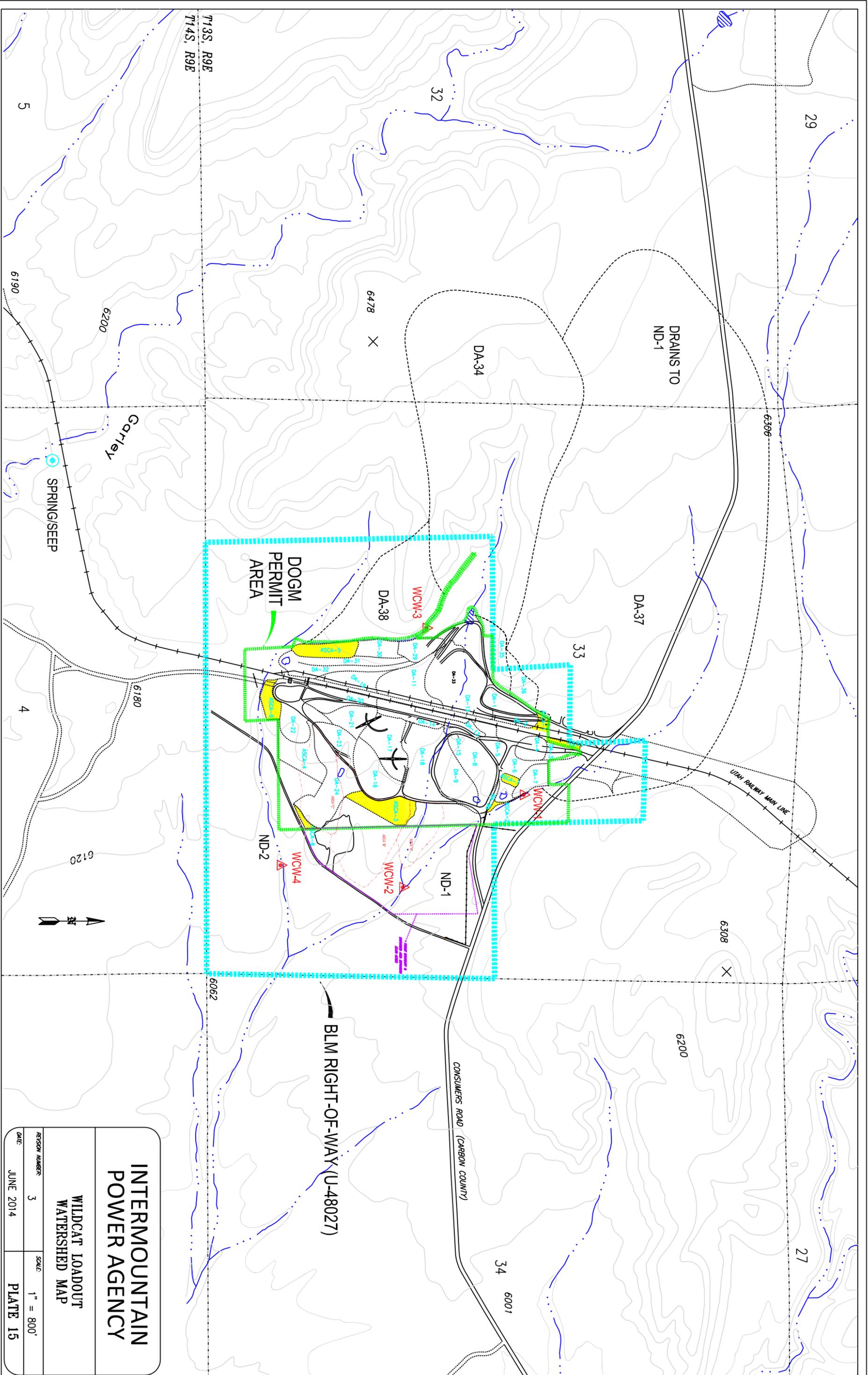
- DOGM PERMIT BOUNDARY - (EXISTING)
- DOGM PERMIT BOUNDARY EXPANSION - (PROPOSED)
- PROPOSED NEW TOPSOIL PILE "B-1" (INSITU) 23.00 ACRES



**INTERMOUNTAIN  
POWER AGENCY**

**WILDCAT LOADOUT - C/007/0030**  
**PROPOSED**  
**NEW TOPSOIL PILE "B-1" (INSITU)**

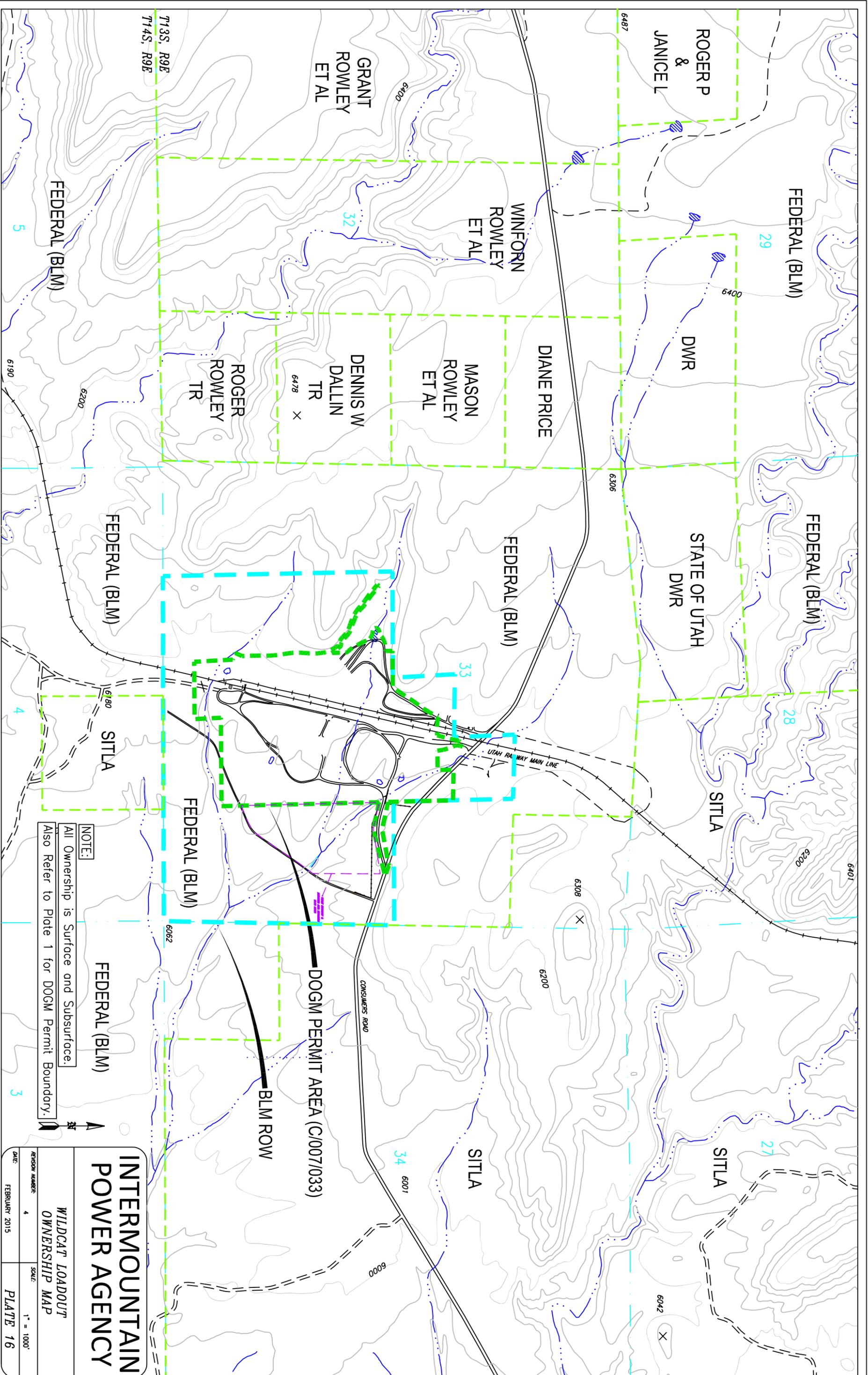
REVISION NUMBER:	SCALE: 1" = 200'
PROPOSED DISTURBED AREA EXPANSION	
DATE: DECEMBER 8, 2014	<b>PLATE 13B</b>



**INTERMOUNTAIN  
POWER AGENCY**

**WILDCAT LOADOUT  
WATERSHED MAP**

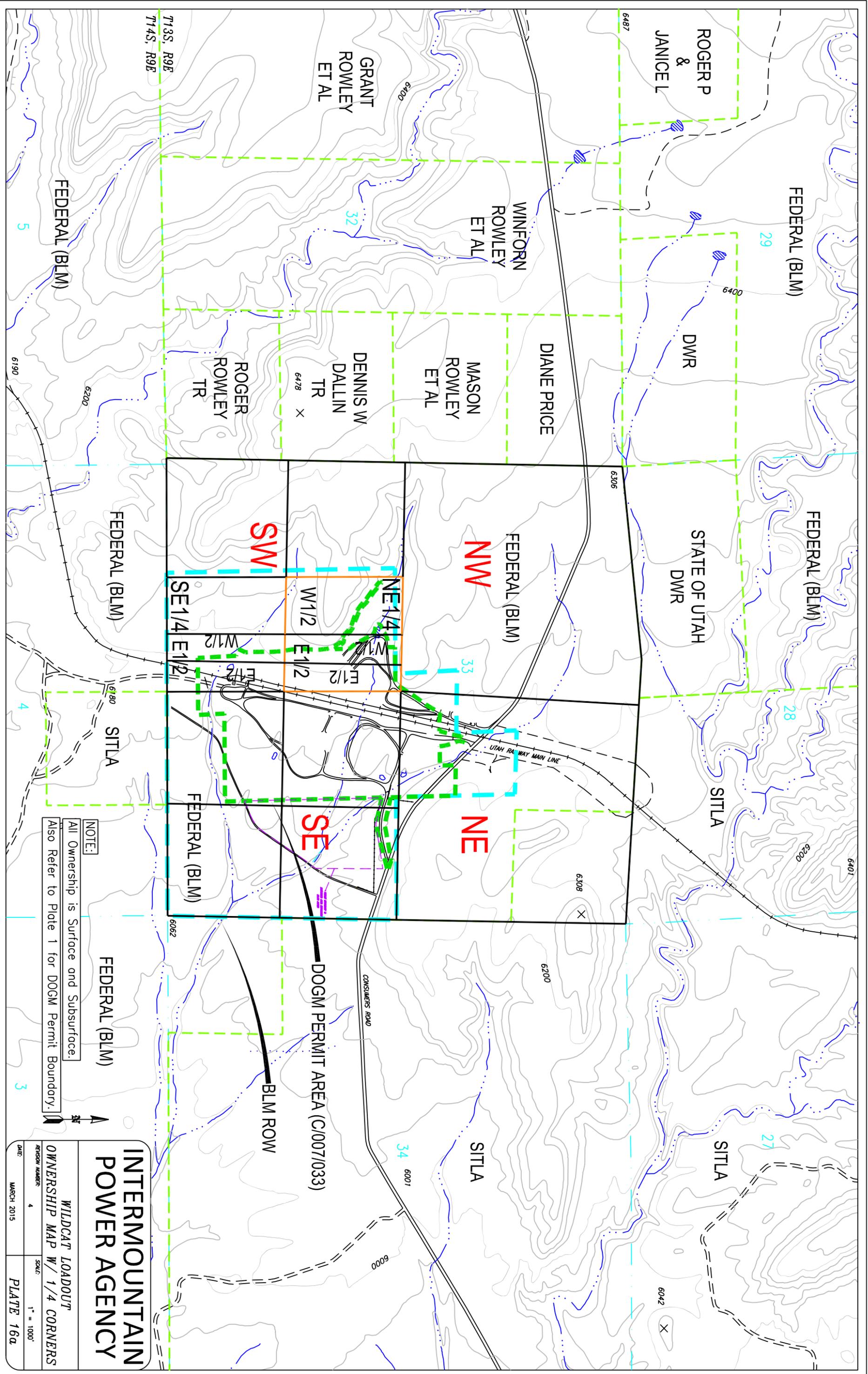
PERSON NUMBER:	3	SCALE:	1" = 800'
DATE:	JUNE 2014	PLATE:	15



**INTERMOUNTAIN  
POWER AGENCY**

**NOTE:**  
All Ownership is Surface and Subsurface.  
Also Refer to Plate 1 for DOGM Permit Boundary.

<b>WILDCAT LOADOUT OWNERSHIP MAP</b>	
REVISION NUMBER: 4	SCALE: 1" = 1000'
DATE: FEBRUARY 2015	PLATE 16



**NOTE:**  
 All Ownership is Surface and Subsurface.  
 Also Refer to Plate 1 for DOGM Permit Boundary.

**INTERMOUNTAIN  
 POWER AGENCY**

**WILDCAT LOADOUT  
 OWNERSHIP MAP W/ 1/4 CORNERS**

REGION NUMBER: 4  
 SCALE: 1" = 1000'  
 DATE: MARCH 2015  
 PLATE 16a



**INTERMOUNTAIN  
POWER AGENCY**

**WILDCAT LOADOUT  
VEGETATION MAP**

COMPILED BY: M.T. NERO SCIENTIFIC, INC. PHOTOGRAPHY DATE: 10/22/2004	
REVISION NUMBER: 2	SCALE: NO SCALE
DATE: JUNE 2014	PLATE 29