

FROM: Bob Thomas (BIO-WEST, Inc. Wetland Scientist)DATE: August 10, 2018

SUBJECT: Bobcat Ridge at Powder Mountain Wetland Delineation

Mr. Guerra,

This memo provides a very brief summary description of the work I performed on July 24, 2018 at the Bobcat Ridge project area at Powder Mountain, Weber County, Utah. I visited the project area to evaluate and delineate any potential jurisdictional wetlands and waters of the U.S. Areas deemed jurisdictional by the U.S. Army Corps of Engineers (USACE) are regulated under Section 404 of the Clean Water Act, and placing fill material in these areas can require a permit from the USACE. In addition to wetlands, the Clean Water Act regulates activities in non-wetland waters of the U.S. including areas such as rivers, streams, lakes, playas, mudflats, and other aquatic environments.

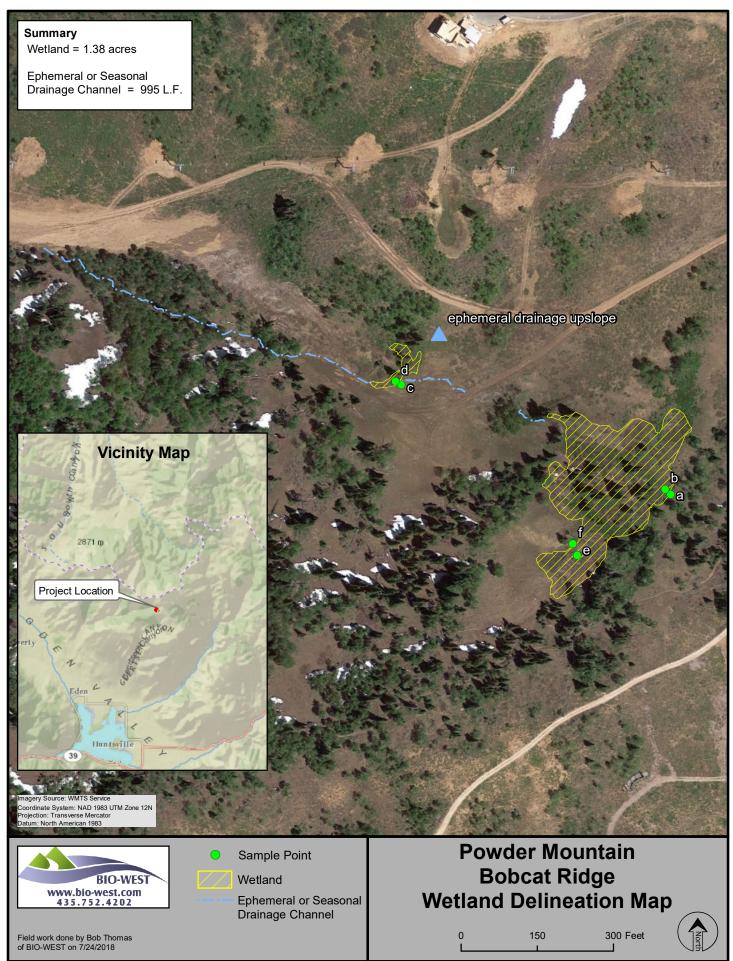
I delineated a total of 1.38-acres of potential jurisdictional wetlands and 995-linear feet of ephemeral or seasonal drainage channel that may be considered jurisdictional waters of the U.S. A map of the delineation is attached to this memo as well as representative photographs and wetland delineation data sheets. I delineated the project area wetlands using the guidance provided by the U.S. Army Corps of Engineers Wetlands Delineation Manual - 1987, and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Western Mountains, Valleys, and Coast Region – 2010. I delineated the ephemeral or seasonal drainage channels using the guidance provided in A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States – 2008. The delineated wetlands and drainage channels ultimately end up connecting to the South Fork of Wolf Creek and are part of the regional network of stream drainages.

The data provided with this memo is sufficient to prepare a comprehensive wetland delineation report and prepare a wetland impact permit application if required by your development design.

Please let me know if you have any questions or concerns.

Thanks

Attachments: Wetland Delineation Map Representative Photographs Wetland Delineation Field Data Sheets



ment Path: G:\Wetland Projects\Powder Mountain Bobcat Ridge\GIS\BobcatRidge\_WetlandMap.mxd

Map Date: 7/26/2018



Larger wetland area.



Sample Point A.



Sample Point A.



Sample Point B.



Sample Point B Saturated Soils.



Sample Point B.



Steel plate over the old spring head area at larger wetland.



Wetland plants at larger wetland.



Old stock pond within larger wetland.



Larger wetland hillslope seepage.



Ephemeral or seasonal channel downslope of wetland areas.



Ephemeral or seasonal channel downslope of wetland areas.



Ephemeral or seasonal channel downslope of wetland areas.



Ephemeral or seasonal channel downslope of wetland areas.



Sample Point C.



Sample Point D.



Smaller wetland overview.



Sample Point E.



Larger wetland overview from Sample Point E.



Sample Point E soil mottling and/or redoximorphic features.



Sample point F.



Sample point F.

# WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Bobcat Ridge @ Powder Mountain		City/County	: Eden	in Weber County	_ Sampling	Date:J	uly 24,
Applicant/Owner: <u>Summit Mountain Holding Group</u>				State:UT	_ Sampling	Point:《	9
Investigator(s):Bob Thomas		Section, To	wnship, Ra	nge: <u>Section 8, T7N,</u>	R2E		
Landform (hillslope, terrace, etc.):		Local relie	f (concave, o	convex, none): Cov	vex.	Slope (	%):
Subregion (LRR): LRR-E	Lat: 41	° 21'3	6.260"	NLong: 111 944	46.29/0	NDatum: \	, NGS 8
Soil Map Unit Name: LKG - Lucky St	as silt	Loam	0.00	NWI classi	ication:	Upland	
Are climatic / hydrologic conditions on the site typical for th							
Are Vegetation, Soil, or Hydrology							No
Are Vegetation, Soil, or Hydrology				eded, explain any answ			NO _
SUMMARY OF FINDINGS – Attach site map							res,
Hydrophytic Vegetation Present? Yes N	No_/						
Hydric Soil Present? Yes N	No	/	e Sampled	Area	No		
Wetland Hydrology Present? Yes N	No	with	in a wetlar	nd? Yes	NO	V	
VEGETATION - Use scientific names of plan <u>Tree Stratum</u> (Plot size: <u>30'F</u> ) 1. <u>Populws</u> <u>Fremy loides</u>	Absolute % Cover	Species?	Status	Dominance Test wor Number of Dominant That Are OBL, FACW	Species	0	(#
2							_ (/
3				Total Number of Dom Species Across All St		3	(E
4			×		_		(-
5'~	571	= Total Co	ver	Percent of Dominant That Are OBL, FACW		0	(A
Sapling/Shrub Stratum (Plot size:)	40%		FACU	Prevalence Index wo		5	/
1. Populus termuloides			FACN	Total % Cover of:		Multiply by:	
2				OBL species	x1:	=	
3				FACW species	x 2 =	=	
4 5				FAC species			
5'2	40%.	= Total Co	ver	FACU species			
Herb Stratum (Plot size:		$\sim$	-7	UPL species			
- Unidentified Weed (1)	30%		Facu	Column Totals:	(A)		(
2. Veratrum californicum		//	FAC	Prevalence Inde			
3. Achillea Milletolium		N	FAC	Hydrophytic Vegetat			
4. Symphyottichun ascendeng 5. Blue Whoatanes	<u>    10'1.</u> 57.		FACU	1 - Rapid Test for		Vegetation	
5. Blue wheatgrass 6. Brothus inernis	5%	AL	WPI	2 - Dominance Te			
7	<u></u>	///		3 - Prevalence Inc		-	
8				4 - Morphological data in Remar			
9				5 - Wetland Non-	/ascular Plan	its <sup>1</sup>	
10				Problematic Hydro	ophytic Veget	tation <sup>1</sup> (Exp	olain)
11				<sup>1</sup> Indicators of hydric so be present, unless dis			y mus
	Jp1.	= Total Cov	rer	be present, unless dis	urbea or pro	biematic.	
Woody Vine Stratum (Plot size:)	v						
1				Hydrophytic Vegetation			/
2					es	No	-
% Bare Ground in Herb Stratum		= Total Cov	er				

Remarks:

ampling Point:

SUL		5	ampling Point:
Profile Description: (Describe to the depth needed t	o document the indicator or confirm	the absence of indicate	ors.)
Depth Matrix	Redox Features		
(inches) Color (moist) % Color (m	oist) % <u>Type<sup>1</sup> Loc<sup>2</sup></u>	Texture	Remarks
0-5" 107h 3/3 100		Loam	
5"+ hard packed rock			
		I	
<sup>1</sup> Type: C=Concentration, D=Depletion, RM=Reduced M	atrix. CS=Covered or Coated Sand Gr	ains. <sup>2</sup> Location: PL=	Pore Lining, M=Matrix.
Hydric Soil Indicators: (Applicable to all LRRs, unles			lematic Hydric Soils <sup>3</sup> :
	Redox (S5)	2 cm Muck (A1	2)
	d Matrix (S6)	Red Parent Ma	
	Mucky Mineral (F1) (except MLRA 1)	Very Shallow D	
Hydrogen Sulfide (A4) Loamy	Gleyed Matrix (F2)	Other (Explain	n Remarks)
Depleted Below Dark Surface (A11) Deplete	d Matrix (F3)		
	Dark Surface (F6)	<sup>3</sup> Indicators of hydro	phytic vegetation and
	d Dark Surface (F7)		y must be present,
· · · · · ·	Depressions (F8)	unless disturbed	or problematic.
Restrictive Layer (if present):			
Type: Hand packed rock			
Depth (inches):		Hydric Soil Present?	Yes No
Remarks:		L	
HYDROLOGY			
Wetland Hydrology Indicators:			
Primary Indicators (minimum of one required; check all the	nat apply)	Secondary Indica	tors (2 or more required)
Surface Water (A1)	ater-Stained Leaves (B9) (except	Water-Staine	d Leaves (B9) (MLRA 1, 2,
High Water Table (A2)	MLRA 1, 2, 4A, and 4B)	4A, and 4	
	It Crust (B11)	Drainage Pat	•
	uatic Invertebrates (B13)		Nater Table (C2)
	drogen Sulfide Odor (C1)		sible on Aerial Imagery (C9)
	idized Rhizospheres along Living Root		
	esence of Reduced Iron (C4)	Shallow Aqui	
	cent Iron Reduction in Tilled Soils (C6)		
	inted or Stressed Plants (D1) (LRR A)		lounds (D6) (LRR A)
	ner (Explain in Remarks)		Hummocks (D7)
Sparsely Vegetated Concave Surface (B8)	· · · · · · · · · · · · · · · · · · ·		
Field Observations:			
/	epth (inches):		
	epth (inches):		
	epth (inches): Wetla	nd Hydrology Present?	Yes No
(includes capillary fringe)	aorial photos, provious inspections)	f available:	
Describe Recorded Data (stream gauge, monitoring well	, aenai priotos, previous inspections), i	avallable.	

Remarks:

# WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Bobcat Ridge @ Powder Mountain	City/County: Eden	in Weber County Sampling Date:July 24, 2018
Applicant/Owner: <u>Summit Mountain Holding Group</u>		State:UT Sampling Point:
Investigator(s): <u>Bob Thomas</u>	Section, Township, Ra	ange: <u>Section 8, T7N, R2E</u>
Landform (hillslope, terrace, etc.): Terra Cl	Local relief (concave,	convex, none): <u>&lt; 6 / v &lt; ×</u> Slope (%): <u>/ */</u>
Subregion (LRR): LRR-E	_ Lat: <u>41° 21' 36, 354</u>	"Long: 110 44' 46, 430" WDatum: WGS 84
Soil Map Unit Name: LKG - Lucky Sta	1 Silt Loam	NWI classification: Upland
Are climatic / hydrologic conditions on the site typical for this		
Are Vegetation, Soil, or Hydrology s		
Are Vegetation, Soil, or Hydrology n		
SUMMARY OF FINDINGS – Attach site map		locations, transects, important features, etc.
Hydrophytic Vegetation Present?       Yes       V         Hydric Soil Present?       Yes       V	o Is the Sampled	d Area
	within a Wetla	nd? Yes No
Remarks: Part of a series o Sunounding an	Fold Stock	tants
VEGETATION – Use scientific names of plant	te	
	Absolute Dominant Indicator	Dominance Test worksheet:
	% Cover Species? Status	Number of Dominant Species
1None		That Are OBL, FACW, or FAC: (A)
2		Total Number of Dominant
3		Species Across All Strata: (B)
	= Total Cover	Percent of Dominant Species That Are OBL, FACW, or FAC:(OO (A/B)
1 None		Prevalence Index worksheet:
2		Total % Cover of:Multiply by:
3		OBL species x 1 =
4		FACW species x 2 =
5		FAC species x 3 =
5'-	= Total Cover	FACU species x 4 =
Herb Stratum (Plot size: ) 1. Unidentified and D	GOIL Y FACH	UPL species         x 5 =           Column Totals:         (A) (B)
2. Carex nebras censis	DG1' Y OBL	
3. Pour pratensis	ST. N FAC	Prevalence Index = B/A =
4. Veratury californicum	SIL NI FAC	Hydrophytic Vegetation Indicators:
15 Ranunculus SP.	5% N 1	<ul> <li>1 - Rapid Test for Hydrophytic Vegetation</li> <li>2 - Dominance Test is &gt;50%</li> </ul>
6. (1) (1) (1) (1) (1) (1) (1) (1) (1) (1)		2 - Dominance rest is  >50% 3 - Prevalence Index is $\leq 3.0^1$
		4 - Morphological Adaptations <sup>1</sup> (Provide supporting
8		data in Remarks or on a separate sheet)
9		5 - Wetland Non-Vascular Plants <sup>1</sup>
10		Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
11		<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Woody Vine Stratum (Plot size:	<u>109''</u> = Total Cover	
1)		Undress hutie
2		Hydrophytic Vegetation
	= Total Cover	Present? Yes No
% Bare Ground in Herb Stratum		
Remarks:		
		٦ <sup>2</sup>

Jun. CASI

SOIL						Sampling Point:	6
Profile Description: (Describe to the de	oth needed to docum	nent the indi	cator or o	confirm	the absence o	f indicators.)	
Depth <u>Matrix</u>	Redox	Features					
(inches) Color (moist) %	Color (moist)	<u>%</u> T	ype <sup>1</sup>	<u>_oc²</u>	<u>    Texture                                    </u>	Remarks	
0-3" 107R 3/3 100					Loan	Moist	
0-14" 10783/1 95:	1. 10165/6	5%	6	M		Satural	Ed
	Day Kal	······	P			inet	
197 Focts hard	<u>  ~ ~ [ &amp; @</u>						
	· · · · · · · · · · · · · · · · · · ·	<u></u> .					
		<u> </u>	<u> </u>				
			·				
<sup>1</sup> Type: C=Concentration, D=Depletion, RN				and Gra		tion: PL=Pore Lining, M=M	
Hydric Soil Indicators: (Applicable to al	LRRs, unless other	wise noted.)				for Problematic Hydric S	Solls":
Histosol (A1)	Sandy Redox (S					Muck (A10)	
Histic Epipedon (A2)	Stripped Matrix	• •				arent Material (TF2)	0)
Black Histic (A3)	Loamy Mucky N		except MI	_RA 1)		Shallow Dark Surface (TF1)	2)
Hydrogen Sulfide (A4)	Loamy Gleyed M				Other	(Explain in Remarks)	
<ul> <li>Depleted Below Dark Surface (A11)</li> <li>Thick Dark Surface (A12)</li> </ul>	<ul> <li>Depleted Matrix</li> <li>Redox Dark Sur</li> </ul>				<sup>3</sup> Indicators	of hydrophytic vegetation	and
Sandy Mucky Mineral (S1)	Depleted Dark S					I hydrology must be preser	
Sandy Gleyed Matrix (S4)	Redox Depressi					disturbed or problematic.	,
Restrictive Layer (if present): Yes,							
Type: Hard pacted	racts					/	
Depth (inches):					Hydric Soil P	resent? Yes 🗾 I	No
Remarks:							
HYDROLOGY							
Wetland Hydrology Indicators:							
Primary Indicators (minimum of one require	d: check all that apply	()			Second	ary Indicators (2 or more re	equired)
Surface Water (A1)		ned Leaves (	B9) (exce	pt	Wa	ter-Stained Leaves (B9) (N	ILRA 1, 2,
L High Water Table (A2)						4A, and 4B)	
High Water Table (A2)         MLRA 1, 2, 4A, and 4B)           Saturation (A3)					Drainage Patterns (B10)		
Vater Marks (B1) Aquatic Invertebrates (B13)					Dry-Season Water Table (C2)		
Valer Marks (B1) Addate inverteerates (B16) Sediment Deposits (B2) Hydrogen Sulfide Odor (C1)						uration Visible on Aerial Im	
Drift Deposits (B3)		hizospheres		ing Root		omorphic Position (D2)	
Algal Mat or Crust (B4)		of Reduced Ir	-	0	、 ,	allow Aquitard (D3)	
Iron Deposits (B5)		n Reduction i		oils (C6)		C-Neutral Test (D5)	
Surface Soil Cracks (B6)		Stressed Pla				sed Ant Mounds (D6) (LRF	RA)
Inundation Visible on Aerial Imagery (E		lain in Rema		····/		st-Heave Hummocks (D7)	,
Sparsely Vegetated Concave Surface	,		·-,				
Field Observations:				T			

Field Observations:		/					
Surface Water Present?	Yes No/	_ Depth (inches):					
Water Table Present?	Yes <u>No</u>	Depth (inches):	14.				
Saturation Present? (includes capillary fringe)		_ Depth (inches): _ Depth (inches): _ Depth (inches):		land Hydrology Pr	esent? Yes	<u> </u>	
Describe Recorded Data	(stream gauge, monitoring	j well, aerial photos, p	previous inspections)	, if available:			
Remarks: らんり	Tace water	pochets	within	10' of	sample	point	

# WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

Project/Site: Bobcat Ridge @ Powder Mountain	City/County: Eden in	Weber County	Sa	ampling Date:	July 24, 2018
Applicant/Owner:Summit Mountain Holding Group		State:	UT Sa	ampling Point:	6
Investigator(s):Bob Thomas	Section, Township, Rang	e: <u>Section 8</u>	, T7N, R2E		
Landform (hillslope, terrace, etc.):	Local relief (concave, co	ivex, none):	Conve;	Slope	e (%): <u>41/</u>
Landform (hillslope, terrace, etc.): <u>5/of</u>	11°21,38.344"1	ong: <u>   ° 44</u>	153.2	<u>76 '' //</u> Datum	: <u>WGS 84</u>
Soil Map Unit Name: LKG-Lucky Star	Silt Loan	NWI	classificatio	on: Upland	
Are climatic / hydrologic conditions on the site typical for this time of ye	ear? Yes <u>x</u> No	(If no, exp	lain in Rem	arks.)	
Are Vegetation, Soil, or Hydrology significantly	disturbed? No Are "No	ormal Circumst	ances" pres	ent? Yes <u>x</u>	No
Are Vegetation, Soil, or Hydrology naturally pr	oblematic? No (If need	ed, explain an	y answers ir	n Remarks.)	
SUMMARY OF FINDINGS – Attach site map showing	g sampling point loc	ations, trai	nsects, ir	nportant fea	tures, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes No _X Yes No _X Yes No _X	Is the Sampled Area within a Wetland?	Yes	X
Remarks:				

# VEGETATION – Use scientific names of plants.

	Absolute		t Indicator	Dominance Test worksh	eet:	
<u>Tree Stratum</u> (Plot size: <u>None</u> ) 1		Species?		Number of Dominant Spec That Are OBL, FACW, or I		_ (A)
2 3	•			Total Number of Dominant Species Across All Strata:	·	_ (B)
4		= Total Co	over	Percent of Dominant Spec That Are OBL, FACW, or F		_ (A/B)
1None				Prevalence Index workst	neet:	
				Total % Cover of:	Multiply by:	
2				OBL species	x 1 =	
3			•	FACW species		
4				FAC species		
5		ta -ta	. <u></u>	FACU species		
Herb Stratum (Plot size: 5' .)	alors	= Total Co	over	UPL species		
1. unidentified weed (#1) Mad	10	<u> </u>	FACU	Column Totals:		
	mus 15	<u> </u>	UPL	Prevalence Index =	B/A =	
3. Myethia amplexicaulis	15	<u> </u>	FACU	Hydrophytic Vegetation I	Indicators:	
4. <u>Hilloa milletzlium</u>	<u> </u>	$\mathcal{N}$	FACV	1 - Rapid Test for Hyd	rophytic Vegetation	
5. Mentha aquerisis	3	$\underline{\mathcal{N}}$	<u>FACU</u>	2 - Dominance Test is	>50%	
6		<u></u> ,		3 - Prevalence Index is		
7			<u></u>	4 - Morphological Ada	ptations <sup>1</sup> (Provide sur	porting
8				data in Remarks or	on a separate sheet)	
9				5 - Wetland Non-Vasc	ular Plants <sup>1</sup>	
10				Problematic Hydrophy	tic Vegetation <sup>1</sup> (Expla	in)
11				<sup>1</sup> Indicators of hydric soil an		must
	66 :	= Total Cov	ver	be present, unless disturbe	ed or problematic.	
Woody Vine Stratum (Plot size:)	Ç					
1				Hydrophytic		
2		<u></u> ,		Vegetation	No X	
% Bare Ground in Herb Stratum $34$		= Total Cov	/er	Present? Yes _	No <u>/</u>	
Remarks:						

Profile Description: (Describe to the depth	needed to docum	ent the i	ndicator	or confirm	the absen	ce of indicators.)
Depth <u>Matrix</u>		Features	3			
(inches) Color (moist) %	Color (moist)	%	_Type <sup>1</sup>	Loc <sup>2</sup>	<u> </u>	
0-19" 107 R. 3/3 100					10an	Dern dry
						· /
					•	
		. <u> </u>	•			
			<u></u>			
			•			
<sup>1</sup> Type: C=Concentration, D=Depletion, RM=Re	duced Matrix CS			d Sand Gr	ains <sup>2</sup> l	.ocation: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators: (Applicable to all LR					Indica	tors for Problematic Hydric Soils <sup>3</sup> :
Histosol (A1)	Sandy Redox (S		,			cm Muck (A10)
Histic Epipedon (A2)	Stripped Matrix (					ed Parent Material (TF2)
Black Histic (A3)	Loamy Mucky M		) (except	MLRA 1)		ery Shallow Dark Surface (TF12)
Hydrogen Sulfide (A4)	Loamy Gleyed N				0	ther (Explain in Remarks)
Depleted Below Dark Surface (A11)	Depleted Matrix	(F3)				
Thick Dark Surface (A12)	Redox Dark Sur					ators of hydrophytic vegetation and
Sandy Mucky Mineral (S1)	Depleted Dark S		7)			tland hydrology must be present,
Sandy Gleyed Matrix (S4)	Redox Depressi	ons (F8)			uni T	ess disturbed or problematic.
Restrictive Layer (if present):						
Type:					Liudaio C.	oil Present? Yes No
Depth (inches):					Hydric So	
Remarks:						
HYDROLOGY						
Wetland Hydrology Indicators:						
Primary Indicators (minimum of one required; c	heck all that apply	')			Sec	condary Indicators (2 or more required)
Surface Water (A1)	Water-Stai	ned Leave	es (B9) ( <b>e</b> :	xcept		Water-Stained Leaves (B9) (MLRA 1, 2,
High Water Table (A2)	MLRA 1	, 2, 4A, a	ınd 4B)			4A, and 4B)
Saturation (A3)	Salt Crust (	B11)				Drainage Patterns (B10)
Water Marks (B1)	Aquatic Inv	ertebrate	s (B13)			Dry-Season Water Table (C2)
Sediment Deposits (B2)	Hydrogen S					Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3)						Geomorphic Position (D2)
Algal Mat or Crust (B4)	Presence of the second seco		•			Shallow Aquitard (D3)
Iron Deposits (B5)	Recent Iror					FAC-Neutral Test (D5)
Surface Soil Cracks (B6)	Stunted or			1) (LRR A)		Raised Ant Mounds (D6) (LRR A)
Inundation Visible on Aerial Imagery (B7)	Other (Exp	lain in Re	marks)			Frost-Heave Hummocks (D7)
Sparsely Vegetated Concave Surface (B8)						
Field Observations:	×					
	Depth (inc			1		
Water Table Present? Yes No	\ <i>L</i>			1		Y
	Depth (inc	:hes):		_ Wetla	and Hydrol	ogy Present? Yes No
(includes capillary fringe) Describe Recorded Data (stream gauge, monit	oring well. aerial c	hotos, pr	evious ins	pections). i	if available:	
		, P				
Remarks:						

### WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

SUMMARY OF FINDINGS – Attach site map showing				tures, etc.
Are Vegetation, Soil, or Hydrology naturally pro	oblematic? No (If needed.	explain any answe	rs in Remarks.)	
Are Vegetation, Soil, or Hydrology significantly	disturbed? No Are "Norm	al Circumstances" p	oresent? Yes <u>x</u>	No
Are climatic / hydrologic conditions on the site typical for this time of ye	ear? Yes <u>x</u> No	(If no, explain in R	emarks.)	
Soil Map Unit Name: LKG - Lucky Star	Silt Loam	NWI classific	ation: Upland	
Subregion (LRR): LRR-E Lat: 4//	Local relief (concave, conve $\mathcal{O}_{\mathcal{A}}$ $\mathcal{O}_{\mathcal{A}}$ $\mathcal{O}_{\mathcal{A}}$ $\mathcal{O}_{\mathcal{A}}$ $\mathcal{O}_{\mathcal{A}}$ $\mathcal{O}_{\mathcal{A}}$ $\mathcal{O}_{\mathcal{A}}$ $\mathcal{O}_{\mathcal{A}}$ Long	g: 11104415	3.428" W Datum	: WGS 84
Landform (hillslope, terrace, etc.):	Local relief (concave, conve	x, none):	Slope	e (%):
Investigator(s):Bob Thomas	Section, Township, Range: _	Section 8, T7N, R	2E	
Applicant/Owner: <u>Summit Mountain Holding Group</u>		State: UT	Sampling Point:	đ
Project/Site: Bobcat Ridge @ Powder Mountain	City/County:Eden in We	ber County	Sampling Date:	July 24, 2018

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes X No Yes X No Yes X No	ls the Sampled Area within a Wetland?	Yes <u>X</u> No
Remarks:			

# **VEGETATION – Use scientific names of plants.**

	Absolute	Dominant		Dominance Test worksheet:
	<u>% Cover</u>	<u>Species?</u>	Status	Number of Dominant Species
1. None				That Are OBL, FACW, or FAC: (A)
2				Total Number of Dominant
3				Species Across All Strata:(B)
4				
61		= Total Co	over	Percent of Dominant Species That Are OBL, FACW, or FAC: (00 (A/B)
Sapling/Shrub Stratum (Plot size:	05.4	. (		Prevalence Index worksheet:
1. Jalix Sp. (collected)	<u>_251</u> .	Y	FACW	
2				Total % Cover of: Multiply by:
3				OBL species x 1 =
4				FACW species x 2 =
5		·		FAC species x 3 =
	26			FACU species x 4 =
Herb Stratum (Plot size: 55)		= Total Co	ver	UPL species x 5 =
1. Unidentified sedge ensiterious	<u>' 70'/.</u>	<u> </u>	FACW	
2. 5a/1X 5P,	20%	Y	FACW	Prevalence Index = B/A =
3. Fall Drone glassining	3 51/1	N	UPA	Hydrophytic Vegetation Indicators:
4. Vanous- achillea milletoliun	<u> </u>	N	FACU	
5			·	$\frac{1}{\sqrt{2}}$ - Dominance Test is >50%
6				$\_$ 3 - Prevalence Index is ≤3.0 <sup>1</sup>
7				4 - Morphological Adaptations <sup>1</sup> (Provide supporting
8				data in Remarks or on a separate sheet)
9				5 - Wetland Non-Vascular Plants <sup>1</sup>
10				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
11				<sup>1</sup> Indicators of hydric soil and wetland hydrology must
	TOD	 = Total Cov		be present, unless disturbed or problematic.
Woody Vine Stratum (Plot size:)		- Total Cov	ei	
1				Ludranhutia
2				Hydrophytic Vegetation
		 = Total Cov		Present? Yes V
% Bare Ground in Herb Stratum		- 10tai 00v	er	
Remarks:				

# Samp Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Sampling Point: \_

d

Depth	Matrix		Redox Features		Dunish
(inches)	<u>Color (moist)</u>	<u>%</u> _ C	Color (moist) % Type <sup>1</sup> Loc <sup>2</sup>	<u>Texture</u>	/
0-18"	10YR 2/1	100		10au	n rocky
		•			
				-	-
			uced Matrix, CS=Covered or Coated Sand G		<sup>2</sup> Location: PL=Pore Lining, M=Matrix.
Hydric Soil Ir	ndicators: (Applicat	ole to all LRR	s, unless otherwise noted.)	Indie	cators for Problematic Hydric Soils <sup>3</sup> :
Histosol (	(A1)		Sandy Redox (S5)		2 cm Muck (A10)
	ipedon (A2)		Stripped Matrix (S6)		Red Parent Material (TF2)
Black His			Loamy Mucky Mineral (F1) (except MLRA 1)		Very Shallow Dark Surface (TF12)
	n Sulfide (A4)		Loamy Gleyed Matrix (F2)		Other (Explain in Remarks)
	Below Dark Surface (		Depleted Matrix (F3)		
	rk Surface (A12)		Redox Dark Surface (F6)	<sup>3</sup> Indi	cators of hydrophytic vegetation and
	ucky Mineral (S1)		Depleted Dark Surface (F7)		vetland hydrology must be present,
	leyed Matrix (S4)		Redox Depressions (F8)		nless disturbed or problematic.
					more distance of problematio.
	ayer (if present):				
Туре:					i and
Depth (inc	hes):			Hydric	Soil Present? Yes No
Remarks:	Δ			1	
	Varts N	set :	surface layer		
			. / ~ ~		
				~	
HYDROLOG	GY				
Wetland Hyd	Irology Indicators:				n
Primary Indica	ators (minimum of one	e required: ch	eck all that apply)	S	econdary Indicators (2 or more required)
	Nater (A1)	· · · · · · · · · · · · · · · · · · ·	Water-Stained Leaves (B9) (except		_ Water-Stained Leaves (B9) (MLRA 1, 2,
	ter Table (A2)		MLRA 1, 2, 4A, and 4B)		4A, and 4B)
Saturatio			Salt Crust (B11)		_ Drainage Patterns (B10)
Water Ma	arks (B1)		Aquatic Invertebrates (B13)		_ Dry-Season Water Table (C2)
Sediment	t Deposits (B2)		Hydrogen Sulfide Odor (C1)		_ Saturation Visible on Aerial Imagery (C9)
Drift Dep	osits (B3)				
Algal Mat			Oxidized Rhizospheres along Living Ro	oots (C3)	Geomorphic Position (D2)
rigar wan	t or Crust (B4)			· / —	,
	t or Crust (B4) osits (B5)		Presence of Reduced Iron (C4)	· · ·	Shallow Aquitard (D3)
Iron Depo	osits (B5)		Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C	.6)	Shallow Aquitard (D3) FAC-Neutral Test (D5)
Iron Depo Surface S	osits (B5) Soil Cracks (B6)		<ul> <li>Presence of Reduced Iron (C4)</li> <li>Recent Iron Reduction in Tilled Soils (C</li> <li>Stunted or Stressed Plants (D1) (LRR A</li> </ul>	.6)	Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (L <b>RR A</b> )
Iron Depo Surface S Inundatio	osits (B5) Soil Cracks (B6) on Visible on Aerial Im		Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C	.6)	Shallow Aquitard (D3) FAC-Neutral Test (D5)
Iron Depo Surface S Inundatio Sparsely	osits (B5) Soil Cracks (B6) on Visible on Aerial Im Vegetated Concave S		<ul> <li>Presence of Reduced Iron (C4)</li> <li>Recent Iron Reduction in Tilled Soils (C</li> <li>Stunted or Stressed Plants (D1) (LRR A</li> </ul>	.6)	Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Iron Depo Surface S Inundatio	osits (B5) Soil Cracks (B6) on Visible on Aerial Im Vegetated Concave S		<ul> <li>Presence of Reduced Iron (C4)</li> <li>Recent Iron Reduction in Tilled Soils (C</li> <li>Stunted or Stressed Plants (D1) (LRR A</li> </ul>	.6)	Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (L <b>RR A</b> )
Iron Depo Surface S Inundatio Sparsely	osits (B5) Soil Cracks (B6) on Visible on Aerial Im Vegetated Concave S vations:	Surface (B8)	<ul> <li>Presence of Reduced Iron (C4)</li> <li>Recent Iron Reduction in Tilled Soils (C</li> <li>Stunted or Stressed Plants (D1) (LRR A</li> </ul>	.6)	Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Iron Depo     Surface S     Inundatio     Sparsely     Field Observ     Surface Wate	osits (B5) Soil Cracks (B6) on Visible on Aerial Im Vegetated Concave S vations: er Present? Yes	Surface (B8) s No _	Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C Stunted or Stressed Plants (D1) (LRR A Other (Explain in Remarks)	.6)	Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A)
Iron Depo     Surface S     Inundatio     Sparsely     Field Observ     Surface Water     Water Table F	osits (B5) Soil Cracks (B6) on Visible on Aerial Im Vegetated Concave S rations: er Present? Yes Present? Yes	Surface (B8) s No _ s No _	Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C Stunted or Stressed Plants (D1) (LRR A Other (Explain in Remarks)	(6) (A)	Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Iron Depo Surface S Inundatio Sparsely Field Observ Surface Wate Water Table F Saturation Pro	osits (B5) Soil Cracks (B6) on Visible on Aerial Im Vegetated Concave S rations: er Present? Yes Present? Yes esent? Yes	Surface (B8) s No _	Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C Stunted or Stressed Plants (D1) (LRR A Other (Explain in Remarks)	(6) (A)	Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (L <b>RR A</b> )
Iron Depo Surface S Inundatio Sparsely Field Observ Surface Wate Water Table F Saturation Prr (includes cap	osits (B5) Soil Cracks (B6) on Visible on Aerial Im Vegetated Concave S vations: er Present? Yes Present? Yes esent? Yes illary fringe)	Surface (B8) S No SNo S No	Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C Stunted or Stressed Plants (D1) (LRR A Other (Explain in Remarks) Depth (inches): Depth (inches): Depth (inches): Wet	(6) A) tland Hydro	Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Iron Depo Surface S Inundatio Sparsely Field Observ Surface Wate Water Table F Saturation Prr (includes cap	osits (B5) Soil Cracks (B6) on Visible on Aerial Im Vegetated Concave S vations: er Present? Yes Present? Yes esent? Yes illary fringe)	Surface (B8) S No SNo S No	Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C Stunted or Stressed Plants (D1) (LRR A Other (Explain in Remarks)	(6) A) tland Hydro	Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Iron Depo Surface S Inundatio Sparsely Field Observ Surface Wate Water Table F Saturation Pro (includes cap Describe Rec	osits (B5) Soil Cracks (B6) on Visible on Aerial Im Vegetated Concave S vations: er Present? Yes Present? Yes esent? Yes illary fringe)	Surface (B8) S No SNo S No	Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C Stunted or Stressed Plants (D1) (LRR A Other (Explain in Remarks) Depth (inches): Depth (inches): Depth (inches): Wet	(6) A) tland Hydro	Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Iron Depo Surface S Inundatio Sparsely Field Observ Surface Wate Water Table F Saturation Prr (includes cap	osits (B5) Soil Cracks (B6) on Visible on Aerial Im Vegetated Concave S rations: er Present? Yes Present? Yes esent? Yes esent? Yes illary fringe) corded Data (stream g	Surface (B8) s No s No s No auge, monitor	Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C Stunted or Stressed Plants (D1) (LRR A Other (Explain in Remarks)	(6) A) tland Hydro	_ Shallow Aquitard (D3) _ FAC-Neutral Test (D5) _ Raised Ant Mounds (D6) (LRR A) _ Frost-Heave Hummocks (D7)
Iron Depo Surface S Inundatio Sparsely Field Observ Surface Wate Water Table F Saturation Pro (includes cap Describe Rec	osits (B5) Soil Cracks (B6) on Visible on Aerial Im Vegetated Concave S rations: er Present? Yes Present? Yes esent? Yes esent? Yes illary fringe) corded Data (stream g	Surface (B8) s No s No s No auge, monitor	Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C Stunted or Stressed Plants (D1) (LRR A Other (Explain in Remarks)	(6) A) tland Hydro	Shallow Aquitard (D3) FAC-Neutral Test (D5) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Iron Depo Surface S Inundatio Sparsely Field Observ Surface Wate Water Table F Saturation Pro (includes cap Describe Rec	osits (B5) Soil Cracks (B6) on Visible on Aerial Im Vegetated Concave S rations: er Present? Yes Present? Yes esent? Yes esent? Yes illary fringe) corded Data (stream g	Surface (B8) s No s No s No auge, monitor	Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C Stunted or Stressed Plants (D1) (LRR A Other (Explain in Remarks)	(6) A) tland Hydro	_ Shallow Aquitard (D3) _ FAC-Neutral Test (D5) _ Raised Ant Mounds (D6) (LRR A) _ Frost-Heave Hummocks (D7)
Iron Depo Surface S Inundatio Sparsely Field Observ Surface Wate Water Table F Saturation Pro (includes cap Describe Rec	osits (B5) Soil Cracks (B6) on Visible on Aerial Im Vegetated Concave S rations: er Present? Yes Present? Yes esent? Yes esent? Yes illary fringe) corded Data (stream g	Surface (B8) s No s No s No auge, monitor	Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C Stunted or Stressed Plants (D1) (LRR A Other (Explain in Remarks) Depth (inches): Depth (inches): Depth (inches): Wet	(6) A) tland Hydro	_ Shallow Aquitard (D3) _ FAC-Neutral Test (D5) _ Raised Ant Mounds (D6) (LRR A) _ Frost-Heave Hummocks (D7)

### WETLAND DETERMINATION DATA FORM - Western Mountains, Valleys, and Coast Region

Project/Site: Bobcat Ridge @ Powder Mountain	City/County:Eden in We	ber County	Sampling Date: July 24, 2018
Applicant/Owner: <u>Summit Mountain Holding Group</u>		State: UT	Sampling Point:
Investigator(s):Bob Thomas	Section, Township, Range: _	Section 8, T7N, R	2E
Landform (hillslope, terrace, etc.): <u>tena</u>	_ Local relief (concave, conve		
	1 21 35.054 "N Lon	g: 111° 44 48.1	<u>691 "W</u> Datum: <u>WGS 84</u>
Soil Map Unit Name: LKG - Lucky Star Sil	t-Loom	NWI classific	ation: Upland
Are climatic / hydrologic conditions on the site typical for this time of y			
Are Vegetation, Soil, or Hydrology significantly	disturbed? No Are "Norm	al Circumstances" p	resent? Yes <u>x</u> No
Are Vegetation, Soil, or Hydrology naturally p	oblematic? No (If needed,	explain any answer	rs in Remarks.)
			• • • • • •

#### SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes No Yes No Yes No	ls the Sampled Area within a Wetland?	Yes No
Remarks:			

### **VEGETATION – Use scientific names of plants.**

	Absolute	Dominant I		Dominance Test worksheet:		
Tree Stratum (Plot size: <u>NON</u> )	<u>% Cover</u>	Species?	<u>Status</u>	Number of Dominant Species	2	
1				That Are OBL, FACW, or FAC:	<u> </u>	(A)
2						
3				Total Number of Dominant Species Across All Strata:	.3	(B)
				- Species Across Air Strata.	<u> </u>	(D)
4				Percent of Dominant Species	100	
Sapling/Shrub Stratum (Plot size:)		= Total Cove	er	That Are OBL, FACW, or FAC:	,	(A/B)
				Prevalence index worksheet:		
1				Total % Cover of:	Multiply by:	
2				OBL species x 1		-
3		<u> </u>		FACW species x 2		
4				1		
5				FAC species x 3		
( مسعر		= Total Cove	r	FACU species x 4	=	-
Herb Stratum (Plot size: 6 )		- Total Cove	_	UPL species x 5		_
1. Unidentified 5000 Ensite	1460	<u> </u>	FACW	Column Totals: (A)		(B)
2. carex nebsascensis	-90		OBL	Prevalence Index = B/A = _		-
3. Alopeanus pratensis	_20	Y	FAC	Hydrophytic Vegetation Indicato		
4/ /				1 -Rapid Test for Hydrophytic	Vegetation	
5				2 - Dominance Test is >50%		
6				3 - Prevalence Index is ≤3.0 <sup>1</sup>	1 (1)	
6 7						orting
6 7 8				<ul> <li>3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>4 - Morphological Adaptations data in Remarks or on a set</li> </ul>	parate sheet)	orting
6 7 8 9				<ul> <li>3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>4 - Morphological Adaptations data in Remarks or on a se</li> <li>5 - Wetland Non-Vascular Plan</li> </ul>	parate sheet)	-
6 7 8 9 10				<ul> <li>3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>4 - Morphological Adaptations data in Remarks or on a se</li> <li>5 - Wetland Non-Vascular Plan</li> <li>Problematic Hydrophytic Vege</li> </ul>	parate sheet) nts <sup>1</sup> tation <sup>1</sup> (Explain	1)
6 7 8 9				<ul> <li>3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>4 - Morphological Adaptations data in Remarks or on a se</li> <li>5 - Wetland Non-Vascular Plan</li> <li>Problematic Hydrophytic Vege</li> <li><sup>1</sup>Indicators of hydric soil and wetlan</li> </ul>	parate sheet) nts <sup>1</sup> tation <sup>1</sup> (Explain nd hydrology m	1)
6 7 8 9 10 11				<ul> <li>3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>4 - Morphological Adaptations data in Remarks or on a se</li> <li>5 - Wetland Non-Vascular Plan</li> <li>Problematic Hydrophytic Vege</li> </ul>	parate sheet) nts <sup>1</sup> tation <sup>1</sup> (Explain nd hydrology m	1)
6 7 8 9 10 11 <u>Woody Vine Stratum</u> (Plot size:)				<ul> <li>3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>4 - Morphological Adaptations data in Remarks or on a se</li> <li>5 - Wetland Non-Vascular Plan</li> <li>Problematic Hydrophytic Vege</li> <li><sup>1</sup>Indicators of hydric soil and wetlan</li> </ul>	parate sheet) nts <sup>1</sup> tation <sup>1</sup> (Explain nd hydrology m	1)
6 7 8 9 10 11				<ul> <li>3 - Prevalence Index is ≤3.0<sup>1</sup></li> <li>4 - Morphological Adaptations data in Remarks or on a se</li> <li>5 - Wetland Non-Vascular Plat</li> <li>Problematic Hydrophytic Vege</li> <li><sup>1</sup>Indicators of hydric soil and wetlar be present, unless disturbed or pro</li> <li>Hydrophytic</li> </ul>	parate sheet) nts <sup>1</sup> tation <sup>1</sup> (Explain nd hydrology m	1)
6 7 8 9 10 11 <u>Woody Vine Stratum</u> (Plot size:)				3 - Prevalence Index is ≤3.01         4 - Morphological Adaptations data in Remarks or on a set         5 - Wetland Non-Vascular Plan         Problematic Hydrophytic Vege <sup>1</sup> Indicators of hydric soil and wetlan         be present, unless disturbed or pro         Hydrophytic         Vegetation	parate sheet) hts <sup>1</sup> tation <sup>1</sup> (Explain nd hydrology m blematic.	1)
6				3 - Prevalence Index is ≤3.01         4 - Morphological Adaptations data in Remarks or on a se         5 - Wetland Non-Vascular Plan         Problematic Hydrophytic Vege         1Indicators of hydric soil and wetlar be present, unless disturbed or problematic         Hydrophytic         Vegetation	parate sheet) nts <sup>1</sup> tation <sup>1</sup> (Explain nd hydrology m	1)
6.				3 - Prevalence Index is ≤3.01         4 - Morphological Adaptations data in Remarks or on a set         5 - Wetland Non-Vascular Plan         Problematic Hydrophytic Vege <sup>1</sup> Indicators of hydric soil and wetlan         be present, unless disturbed or pro         Hydrophytic         Vegetation	parate sheet) hts <sup>1</sup> tation <sup>1</sup> (Explain nd hydrology m blematic.	1)
6				3 - Prevalence Index is ≤3.01         4 - Morphological Adaptations data in Remarks or on a set         5 - Wetland Non-Vascular Plan         Problematic Hydrophytic Vege <sup>1</sup> Indicators of hydric soil and wetlar         be present, unless disturbed or pro         Hydrophytic         Vegetation	parate sheet) hts <sup>1</sup> tation <sup>1</sup> (Explain nd hydrology m blematic.	)
6.				3 - Prevalence Index is ≤3.01         4 - Morphological Adaptations data in Remarks or on a set         5 - Wetland Non-Vascular Plan         Problematic Hydrophytic Vege <sup>1</sup> Indicators of hydric soil and wetlar         be present, unless disturbed or pro         Hydrophytic         Vegetation	parate sheet) hts <sup>1</sup> tation <sup>1</sup> (Explain nd hydrology m blematic.	)

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Profile Description: (Describe to the de	oth needed to document the indicator or confirn	n the absence of indicators.)
Depth Matrix	Redox Features	
(inches) Color (moist) %	Color (moist) % Type <sup>1</sup> Loc <sup>2</sup>	Texture Remarks
0-6" 1078412 60	1. 107R.4/6 40%. C M	hoan dry
5-19 10X R 8/6 100	5/	Sand duy
<u> </u>		
		rains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators: (Applicable to al	Reduced Matrix, CS=Covered or Coated Sand G	Indicators for Problematic Hydric Soils <sup>3</sup> :
Histosol (A1)	Sandy Redox (S5)	2 cm Muck (A10)
Histosof (AT) Histic Epipedon (A2)	Stripped Matrix (S6)	Red Parent Material (TF2)
Black Histic (A3)	Loamy Mucky Mineral (F1) (except MLRA 1)	
Hydrogen Sulfide (A4)	Joamy Gleyed Matrix (F2)	Other (Explain in Remarks)
Depleted Below Dark Surface (A11)	Depleted Matrix (F3)	
Thick Dark Surface (A12)	Redox Dark Surface (F6)	<sup>3</sup> Indicators of hydrophytic vegetation and
Sandy Mucky Mineral (S1)	Depleted Dark Surface (F7)	wetland hydrology must be present,
Sandy Gleyed Matrix (S4)	Redox Depressions (F8)	unless disturbed or problematic.
Restrictive Layer (if present):		
Туре:		
Depth (inches):		Hydric Soil Present? Yes No
Remarks:		
Surface F	loading system have	
New York	g system i de	
HYDROLOGY		
Wetland Hydrology Indicators:		
Primary Indicators (minimum of one require	ed: check all that apply)	Secondary Indicators (2 or more required)
Surface Water (A1)	Water-Stained Leaves (B9) (except	Water-Stained Leaves (B9) (MLRA 1, 2,
High Water Table (A2)	MLRA 1, 2, 4A, and 4B)	4A, and 4B)
Saturation (A3)	Salt Crust (B11)	X Drainage Patterns (B10)
Water Marks (B1)	Aquatic Invertebrates (B13)	Dry-Season Water Table (C2)
Sediment Deposits (B2)	Hydrogen Sulfide Odor (C1)	Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3)	Oxidized Rhizospheres along Living Roo	ots (C3) Geomorphic Position (D2)
Algal Mat or Crust (B4)	Presence of Reduced Iron (C4)	Shallow Aquitard (D3)
	Recent Iron Reduction in Tilled Soils (C6	6) FAC-Neutral Test (D5)
Iron Deposits (B5)		
Iron Deposits (B5) Surface Soil Cracks (B6)	Stunted or Stressed Plants (D1) (LRR A	.) Raised Ant Mounds (D6) (LRR A)
Iron Deposits (B5) Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (E	Stunted or Stressed Plants (D1) (LRR A	.) Raised Ant Mounds (D6) (LRR A) Frost-Heave Hummocks (D7)
Surface Soil Cracks (B6)	Stunted or Stressed Plants (D1) (LRR A 37) Other (Explain in Remarks)	
Surface Soil Cracks (B6) Inundation Visible on Aerial Imagery (B	Stunted or Stressed Plants (D1) (LRR A 37) Other (Explain in Remarks)	
Surface Soil Cracks (B6)     Inundation Visible on Aerial Imagery (E     Sparsely Vegetated Concave Surface     Field Observations:	Stunted or Stressed Plants (D1) (LRR A 37) Other (Explain in Remarks)	
Surface Soil Cracks (B6)         Inundation Visible on Aerial Imagery (E         Sparsely Vegetated Concave Surface         Field Observations:         Surface Water Present?       Yes	Stunted or Stressed Plants (D1) (LRR A 37) Other (Explain in Remarks) (B8) No Depth (inches):	
Surface Soil Cracks (B6)         Inundation Visible on Aerial Imagery (E         Sparsely Vegetated Concave Surface         Field Observations:         Surface Water Present?       Yes         Water Table Present?       Yes	Stunted or Stressed Plants (D1) (LRR A 37) Other (Explain in Remarks) (B8) No Depth (inches): No Depth (inches):	Frost-Heave Hummocks (D7)
Surface Soil Cracks (B6)         Inundation Visible on Aerial Imagery (E         Sparsely Vegetated Concave Surface         Field Observations:         Surface Water Present?       Yes         Water Table Present?       Yes         Saturation Present?       Yes         (includes capillary fringe)       Yes	Stunted or Stressed Plants (D1) (LRR A 37) Other (Explain in Remarks) (B8) No Depth (inches): No Depth (inches): No Depth (inches): Weth	Frost-Heave Hummocks (D7)
Surface Soil Cracks (B6)         Inundation Visible on Aerial Imagery (E         Sparsely Vegetated Concave Surface         Field Observations:         Surface Water Present?       Yes         Water Table Present?       Yes         Saturation Present?       Yes         (includes capillary fringe)       Yes	Stunted or Stressed Plants (D1) (LRR A 37) Other (Explain in Remarks) (B8) No Depth (inches): No Depth (inches):	Frost-Heave Hummocks (D7)
Surface Soil Cracks (B6)         Inundation Visible on Aerial Imagery (E         Sparsely Vegetated Concave Surface         Field Observations:         Surface Water Present?         Yes         Water Table Present?         Yes         Saturation Present?         Yes         (includes capillary fringe)         Describe Recorded Data (stream gauge, m	Stunted or Stressed Plants (D1) (LRR A 37) Other (Explain in Remarks) (B8) No Depth (inches): No Depth (inches): No Depth (inches): Weth	Frost-Heave Hummocks (D7)
Surface Soil Cracks (B6)         Inundation Visible on Aerial Imagery (E         Sparsely Vegetated Concave Surface         Field Observations:         Surface Water Present?       Yes         Water Table Present?       Yes         Saturation Present?       Yes         (includes capillary fringe)       Yes	Stunted or Stressed Plants (D1) (LRR A 37) Other (Explain in Remarks) (B8) No Depth (inches): No Depth (inches): No Depth (inches): Weth	Frost-Heave Hummocks (D7)
Surface Soil Cracks (B6)         Inundation Visible on Aerial Imagery (E         Sparsely Vegetated Concave Surface         Field Observations:         Surface Water Present?         Yes         Water Table Present?         Yes         Saturation Present?         Yes         (includes capillary fringe)         Describe Recorded Data (stream gauge, m	Stunted or Stressed Plants (D1) (LRR A 37) Other (Explain in Remarks) (B8) No Depth (inches): No Depth (inches): No Depth (inches): Weth	Frost-Heave Hummocks (D7)

# WETLAND DETERMINATION DATA FORM – Western Mountains, Valleys, and Coast Region

	//County: <u>Eden in Weber County</u> Sampling Date: <u>July 24, 2018</u>							
Applicant/Owner: <u>Summit Mountain Holding Group</u>	State:UT Sampling Point:							
Investigator(s): Bob Thomas Sec.								
Landform (hillslope, terrace, etc.):Lo	cal relief (concave, convex, none): <u> </u>							
	21' 35. J 70"N Long: 49' 48. 811" W batum: WGS 84							
Soil Map Unit Name: LKG-Lucky Star Silt 1	NWI classification: Upland							
Are climatic / hydrologic conditions on the site typical for this time of year? Yes <u>x</u> No (If no, explain in Remarks.)								
Are Vegetation, Soil, or Hydrology significantly dis	turbed? No Are "Normal Circumstances" present? Yes <u>x</u> No							
Are Vegetation, Soil, or Hydrology naturally proble	matic? No (If needed, explain any answers in Remarks.)							
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.								
Hydrophytic Vegetation Present? Yes No								
Hydric Soil Present? Yes NoX	Is the Sampled Area							
Wetland Hydrology Present? Yes No	within a Wetland? Yes <u>No X</u>							
Remarks:	·							

### VEGETATION – Use scientific names of plants.

50'	Absolute	Dominant		Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size: <u>50 r</u> ) 1. <u>Abies DiFolia</u>		Species?		Number of Dominant Species That Are OBL, FACW, or FAC:
2 3				Total Number of Dominant Species Across All Strata:
4	10%	= Total Co	/er	Percent of Dominant Species That Are OBL, FACW, or FAC:(A/B)
1NONE				Prevalence Index worksheet:
				Total % Cover of:Multiply by:
2				OBL species x 1 =
3				FACW species x 2 =
4		·		FAC species x 3 =
5				FACU species x 4 =
Herb Stratum (Plot size: $5' \Gamma$ )	-OI'	= Total Cov	/er	UPL species x 5 =
1. Mules ear - Wyethia amplexice	120	Y	FACU	Column Totals:         (A)         (B)
2. Tanow - Achilloa millordium	290	<u> </u>	FACU	Prevalence Index = B/A =
3. Tall brome grass-Bronus	10	$\underline{\mathcal{N}}$	uph	Hydrophytic Vegetation Indicators:
4. Impre agree-	10	$\mathcal{N}$	FACU	1 - Rapid Test for Hydrophytic Vegetation
5. Symphotoicum ascendans				2 - Dominance Test is >50%
6				3 - Prevalence Index is ≤3.0 <sup>1</sup>
7				<ul> <li>4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)</li> </ul>
8				
9				5 - Wetland Non-Vascular Plants <sup>1</sup>
10				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
11				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
	_60	= Total Cove	er l	
Woody Vine Stratum (Plot size:)				
1				Hydrophytic
2				Vegetation Present? Yes NoX_
% Bare Ground in Herb Stratum	i	= Total Cove	ər	
Remarks:				

Sampling Point:

Profile Desc	ription: (Describ	e to the dept	h needed to docu	ment the i	ndicator	or confirm	n the absend	ce of indicators.)
Depth	Matrix			x Features		2	÷ ,	
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	<u>Texture</u>	Remarks
0-18"	<u>10 Yh 3</u>	<u> 4 _ 100 7 _</u>					10am	_ very dry
	·							j 1
								······································
	,	····· ·				•	<u> </u>	
							<u> </u>	
<sup>1</sup> Type: C=Cc	ncentration D=De	pletion. RM=I	Reduced Matrix, C	 S=Covered	or Coate	d Sand Gr	ains. <sup>2</sup> L	ocation: PL=Pore Lining, M=Matrix.
			RRs, unless othe					tors for Problematic Hydric Soils <sup>3</sup> :
- Histosol			Sandy Redox (				2	cm Muck (A10)
	pipedon (A2)	_	Stripped Matrix				Re	ed Parent Material (TF2)
Black His		_	Loamy Mucky I	Mineral (F1	) (except	MLRA 1)	Ve	ery Shallow Dark Surface (TF12)
	n Sulfide (A4)	-	Loamy Gleyed		)		0	ther (Explain in Remarks)
	l Below Dark Surfa	ce (A11) _	Depleted Matrix					
	irk Surface (A12)	-	Redox Dark Su	• •				tors of hydrophytic vegetation and
	lucky Mineral (S1)	-	Depleted Dark		7)			land hydrology must be present,
	leyed Matrix (S4)		Redox Depress	sions (F8)			unle	ess disturbed or problematic.
	ayer (if present):							
Туре:								
Depth (inc	ches):						Hydric Sc	bil Present? Yes No <u></u>
Remarks:								
HYDROLO	GY							
Wetland Hyd	drology Indicators	5:						nn
Primary Indic	ators (minimum of	one required;	check all that app	y)			<u>Sec</u>	ondary Indicators (2 or more required)
Surface	Water (A1)		Water-Sta	ined Leave	es (B9) ( <b>e</b>	xcept		Water-Stained Leaves (B9) (MLRA 1, 2,
	ter Table (A2)			1, 2, 4A, a				4A, and 4B)
Saturatio			Salt Crust	(B11)				Drainage Patterns (B10)
	arks (B1)		Aquatic In	Aquatic Invertebrates (B13)				Dry-Season Water Table (C2)
	t Deposits (B2)		Hydrogen	Hydrogen Sulfide Odor (C1)				Saturation Visible on Aerial Imagery (C9)
	oosits (B3)			Oxidized Rhizospheres along Living Roots (C3				Geomorphic Position (D2)
	t or Crust (B4)		Presence	of Reduce	d Iron (C4	ł)		Shallow Aquitard (D3)
Iron Dep	osits (B5)		Recent Irc				i)	FAC-Neutral Test (D5)
Surface	Soil Cracks (B6)		Stunted o	r Stressed	Plants (D	1) (LRR A)	)	Raised Ant Mounds (D6) (LRR A)
Inundatio	on Visible on Aeria	I Imagery (B7)	) Other (Ex	olain in Rei	marks)			Frost-Heave Hummocks (D7)
Sparsely	Vegetated Conca	ve Surface (B	8)					
Field Observ	vations:							
Surface Wate	er Present?	Yes N	lo Depth (in	ches):		_		
Water Table	Present?	Yes N	lo 🔀 Depth (in	ches):				
Saturation Pr			lo Depth (in				and Hydrolc	ogy Present? Yes No
(includes cap	oillary fringe)		/					
Describe Red	corded Data (strea	m gauge, mor	nitoring well, aerial	photos, pre	evious ins	pections), i	it available:	
Remarks:								

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