

Mail PO Box 5310 Stateline, NV 89449-5310 Location 128 Market Street Stateline, NV 89449

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#### STAFF REPORT

Date:	January 27, 2022
То:	TRPA Hearings Officer
From:	TRPA Staff
Subject	Brodsky Land Capability Challenge; 649 Alpine View, Washoe County, Nevada; APN 131-212-13, TRPA File Number LCAP2021-0198

#### Staff Recommendation:

Staff recommends the TRPA Hearings Officer approve the Land capability challenge on the subject parcel. The challenge changes Class 1b-20,553 sq. ft. (100 percent of parcel) to Class 4-20,553 sq. ft. (100 percent of parcel).

#### Required Motion:

In order to approve the proposed land capability challenge, the Hearings Officer must make the following motion, based on the staff report:

1) A motion to approve the proposed land capability challenge.

Staff recommends that the Hearings Officer take the following actions, based on this staff report.

## Background:

The subject parcel is shown as Class 1b- Stream Environment Zone (SEZ) on TRPA Land Capability Overlay Maps (aka Bailey Land Capability maps). The Soil Conservation Service *Soil Survey of Tahoe Basin Area, California-Nevada* (Rogers, 1974) places the subject parcel in the MsE, Meeks very stony loamy coarse sand, 15 to 30 percent slope mapunit (Class 1a). A Land Capability Verification (LCV) completed in 1999 verified the entire parcel as 1b-SEZ. The updated *Soil Survey of Tahoe Basin Area, California and Nevada* (NRCS, 2007) maps this parcel as mapunit 7485- Meeks gravelly loamy coarse sand, 15 to 30 percent slopes. This parcel has a geomorphic mapping of E1 for Moraine Lands, undifferentiated (Moderate hazard lands). The Meeks soils formed in glacial outwash and moraines from primarily granitic parent material. Meeks soils have a very stony loamy coarse sand A-horizon, with gravelly and very gravelly loamy coarse sand subsurface textures. A weakly cemented silica horizon occurs between depths of 41 to 70 inches. A thin (1 millimeter thick) silica lamina occurs on the surface of this horizon.

A Land capability challenge (LCAP2021-0198) was filed by David Herzog on behalf of owners Michael and Kendra Brodsky on July 9, 2021. A private soil consultant was not retained for this Land capability challenge. TRPA consultant, Marchel Munnecke, visited the site on September 23, 2021. One soil pit was excavated by backhoe and described.



#### Findings:

One soil pit was excavated by backhoe to 12 feet as part of a soil hydrologic application. The upper 65 inches was described for this land capability challenge. The pit was located approximately 15 feet southeast of the southeast side of the residence. This soil formed in colluvium and debris material from primarily volcanic parent material. This soil is characterized by a gravelly loam surface texture, with very stony loam, very stony sandy loam, very cobbly sandy clay loam, very gravelly silt loam and extremely gravelly silt loam subsurface textures. From 35 to 65 inches the soil is unsorted and has inclusions of various material including silty alluvial material, pieces of volcanic mud flow rocks, and colluvium. There is also ash mixed in the soil from 43 to 55 inches. Beginning at 65 inches are layers of weathered volcanic mud flow material. At 138 inches is a soil layer with a light gray color, a silty clay texture, and 15% yellowish brown redoximorphic concentrations. These features indicate a seasonal high-water table at this depth (11.5 feet). This soil is very deep, well drained, and is a member of Soil Hydrologic Group B. The vegetation is dominated by a white fir, incense cedar and Jeffrey pine forest with creeping snowberry dominant in the understory. There are also patches of Sierra current, a few Scouler's willows, and one aspen tree with suckers near the front of the residence.

In the Soil Conservation Service Soil Survey of Tahoe Basin Area, California-Nevada (Rogers, 1974), the Meeks soils are partially defined by a silica cemented layer at depths of 41 to 70 inches, and form in glacial outwash and moraine material from primarily granitic parent material. This soil lacks a silica cemented layer and has formed in primarily volcanic material. It has finer textures than the Meeks soil and has a mixed soil that appears to be from debris flow deposits. This soil is taxonomically the same as the Jorge soil which is mapped in the vicinity in the 2007 soil survey. However, this soil has finer textures at depth and may have formed in debris flow deposits and has a very different appearance form the Jorge soil. This soil is dissimilar to the Tahoma soils because it has more rock fragments. This soil is dissimilar to any soils mapped in the 1974 Soil Survey. Table 4 in the *Land-Capability Classification of the Lake Tahoe Basin, California and Nevada* is utilized to classify unnamed soils. Based on Table 4 this parcel is Class 4- XXX 16-30 percent slopes.

This parcel was mapped as 100% SEZ in a 1999 land capability verification. The Bailey Land Capability GIS layer shows this area as Class 1b- SEZ (see photographs, Image 3). This layer has additional areas identified as SEZ that were not mapped in the 1974 Soil Survey. The 1974 Soil Survey maps this area as MsE- Class 1a (see photographs, Image 4). TRPA has not officially adopted the Bailey Land Capability SEZ layer, but it is used for preliminary LCV review. There is no evidence of primary or secondary SEZ indicators on this parcel. There is a creek drainage approximately 110 feet to the northwest of this parcel. The vegetation on this parcel is upland conifer forest with creeping snowberry in the understory. There are a few Scouler's willows present, but they are not continuous, and do not have the associated species to indicate the primary SEZ vegetation type of Willow Thicket as described in the Appendix of *The Vegetation of the Lake Tahoe Region* (TRPA 1971). There is no evidence of surface flow, and the depth to the seasonal high-water table was 11.5 feet below the ground surface.

The table below summarizes the changes in land capability as concluded by this land capability challenge.

Land Capability District	Area (sq. ft.) 1999 LCV	Area (sq. ft.) 2022 LCC
Class 1b (SEZ)	20,553	0
Class 4 (XXX, 16 to 30 % slopes)	0	20,553
Total Parcel Area	20,553	20,553

This memorandum was jointly prepared by Senior Planner, Julie Roll. If you have questions on this Hearings Officer item, please contact Julie Roll, 775-589-5247, or email at jroll@trpa.gov.

Site Information	
Assessor's Parcel Numbers: (APN)	131-212-13
TRPA File No. / Submittal Date:	LCAP2021-0198 / 7/9/2021
Owner or Applicant:	David Herzog
Address:	PO Box 105, Tahoe Vista, CA 96148

# BAILEY LAND CAPABILITY CHALLENGE FINDINGS

Environmental Setting		
Bailey Soil Mapping Unit <sup>1</sup> /	MsE, Meeks very stony loamy coarse sand, 15 to 30	
Hydrologic Soil Group (HSG) / Land	percent slope mapunit, Class 1a/ HSG B/ E1- Moraine	
Class / Geomorphic Hazard Unit	Land, undifferentiated (Moderate erosion hazard)	
Soil Parent Material	Colluvium over debris flows over volcanic mud flows	
Slopes and Aspect	23 to 29 percent; sloping southwest.	
Elevation and Datum	6,766 to 6,814 feet, Google Earth	
Rock Outcrops and Surface	Uniform slightly convex slope. No rock out crops on	
Configuration	the parcel or in the area.	
SEZ and Hydrology Source	There is a drainage approximately 110 feet to the	
	northwest of this parcel. The vegetation on this parcel	
	is upland conifer forest with creeping snowberry in the	
	understory. There are a few Scouler's willow present,	
	but they are not continuous, and do not have the	
	associated species to indicate the Willow Thicket	
	vegetation type as described in the Appendix of <u>The</u>	
	Vegetation of the Lake Tahoe Region (TRPA 1971).	
	There is no evidence of surface flow, and the depth to	
	the seasonal high-water table was 11.5 feet below the	
	ground surface.	

<sup>&</sup>lt;sup>1</sup> TRPA currently relies upon the <u>Soil Survey of Tahoe Basin, California-Nevada</u> (Rogers and Soil Conservation Service, 1974), which the Bailey Land Capability system is predicated upon.

Vegetation	The vegetation is dominated by a white fir, incense cedar and Jeffrey pine forest with creeping snowberry dominant in the understory. There are also patches of Sierra current, a few Scouler's willows and one aspen
Ground Cover Condition	Good (vegetation 85 %, duff/mulch 65 % cover)
Site Features	Residence, garage, retaining walls, stairways, walkways, several decks, A/C driveway.

Field Investigation and Procedures		
Consultant and Address	Marchel Munnecke (TRPA consultant)	
	PO Box 1015	
	Twin Bridges, CA 95735	
TRPA Staff Field Dates	September 23, 2021	
SEZ Mapping / NRCS Hydric Soil	None present	
Number of Soil Pits or Auger Holes	1 pit excavated by backhoe to 12 feet that was	
and Description Depth	described for this challenge to 65 inches.	
Additional or Repetitive TRPA	NA	
Sample Locations		
Representative Soil Profile	Ms. Munnecke's soil profile description, see attached.	
Descriptions		
Areas Not Examined	Residence, garage, retaining walls, stairways,	
	walkways, several decks, A/C driveway.	

TRPA Findings		
2006 Soil Survey Map Unit	7485- Meeks gravelly loamy coarse sand, 15 to 30	
	percent slopes (Class 1a)	
Consultant Soil Mapping	Based on slopes and soil characteristics this parcel is	
Determination and Rationale	entirely mapped as capability Class 4- XXX, 16 to 30	
	percent slopes.	
	In the Soil Conservation Service Soil Survey of Tahoe	
	Basin Area, California-Nevada (Rogers, 1974), the	
	Meeks soils are defined by a silica cemented layer at	
	depths of 41 to 70 inches, and form in glacial outwash	
	and moraine material from primarily granitic parent	
	material. This soil lacks a silica cemented layer and has	
	formed in primarily volcanic material. It has finer	
	textures than the Meeks soil and has a mixed soil that	
	appears to be from debris flow deposits. This soil is	
	taxonomically the same as the Jorge soil which is	
	mapped in the vicinity in the 2007 Soil Survey.	

	However, this soil has finer textures at depth and may have formed in debris flow deposits and has a very different appearance form the Jorge soil. This soil is dissimilar to the Tahoma soils because it has more rock fragments. This soil is dissimilar to any soils mapped in the 1974 Soil Survey. Table 4 in the Land- Capability Classification of the Lake Tahoe Basin, California and Nevada is utilized to classify unnamed soils. Based on Table 4 this parcel is Class 4- XXX 16-30 percent slopes.
	This parcel was mapped as 100% SEZ in a 1999 land capability verification. The Bailey Land Capability GIS layer shows this area as Class 1b- SEZ (see photographs, Image 3). This layer has additional areas identified as SEZ that were not mapped in the 1974 Soil Survey. The 1974 Soil Survey maps this area as MsE- Class 1a (see photographs, Image 4). TRPA has not officially adopted the Bailey Land Capability SEZ layer, but it is used for preliminary LCV review. There is no evidence of primary or secondary SEZ indicators on this parcel. There is a creek drainage approximately 110 feet to the northwest of this parcel. The vegetation on this parcel is upland conifer forest with creeping snowberry in the understory. There are a few Scouler's willows present, but they are not continuous, and do not have the associated species to indicate the primary SEZ vegetation type of Willow Thicket as described in the Appendix of <i>The</i> <i>Vegetation of the Lake Tahoe Region</i> (TRPA 1971). There is no evidence of surface flow, and the depth to the seasonal high-water table was 11.5 feet below the ground surface.
Slope Determination	23 to 29 percent slopes.
TRPA Conclusion(s)	TRPA concurs with consultants' determination and
	rationale above.
Applicable Area	See parcel map for soil delineations.

#### Contact Information:

This staff report was prepared by TRPA Senior Planner Julie Roll. If you have questions on this Hearings Officer item, please contact Julie Roll at 775-589-5247 or jroll@trpa.gov.

#### Attachments:

- A. Parcel map with soil map units delineated
- B. Ms. Munnecke's soil profile description
- C. Site photographs

#### Attachment A

Parcel map with soil map units delineated



#### Attachment B

Ms. Munnecke's soil profile description

# Michael and Kendra Brodsky Land Capability Challenge

649 Alpine View, Incline Village, Washoe County, NV 89451. APN 131-212-13, LCAP2021-0198

Soil Profile Description Marchel Munnecke Field Date: 9-23-21



# Pit 131-212-13:

Soil Classification: Loamy-skeletal, isotic, frigid Andic Haploxeralfs Soil Series: XXX, Land Capability Class 4. Drainage Class: Well Drained Hydrologic Group: B Parent Material: Debris flow material over volcanic mud flow material. Slope: 28 % Aspect: South Southwest Vegetation: The vegetation is dominated by a white fir, incense cedar and Jeffrey pine forest with creeping snowberry dominant in the understory. There are also patches of Sierra current, a few Scouler's willows, and one aspen tree with suckers near the front of the residence.

AGENDA ITEM V.A

# **Description:**

- A1 0 to 7 inches; gravelly loam, very dark grayish brown (10YR 3/2), very dark brown (10YR 2/2) moist; moderate medium granular structure; loose, loose, nonsticky and nonplastic; many very fine to medium roots; many very fine and fine irregular pores; 15 percent gravels and 2 percent cobbles; gradual wavy boundary.
- A2 7 to 23 inches; very stony loam, dark grayish brown (10YR 4/2), very dark brown (10YR 2/2) moist; moderate medium subangular blocky structure; loose, loose, nonsticky and nonplastic; many very fine to very coarse roots; many very fine and fine irregular pores, 20 percent gravel, 5 percent cobbles, and 20 percent stones; gradual wavy boundary.
- Bw 23 to 35 inches; very stony sandy loam, brown (10YR 4/3), very dark grayish brown (10YR 3/2) moist; weak fine subangular blocky structure; soft, very friable, slightly sticky and slightly plastic; many very fine to coarse roots; many very fine and fine irregular pores, 25 percent gravel. 2 percent cobbles, and 15 percent stones; gradual wavy boundary.
- Bt1 35 to 43 inches; very cobbly sandy clay loam, variegated brown (10YR 5/3) and yellowish brown (10YR 5/6), dark brown (10YR 3/3) moist; weak medium subangular blocky structure; moderately hard, firm, moderately sticky and moderately plastic; many fine to coarse roots; common clay films bridging sand grains; many very fine and fine irregular pores; 25 percent gravel, 15 percent cobbles and 5 percent stones, gradual wavy boundary.
- Bt2 43 to 58 inches; very gravelly silt loam, variegated grayish brown (10YR 5/2) and yellowish brown (10YR 5/6), brown (10YR 4/3) moist; massive; moderately hard, firm, slightly sticky and slightly plastic; common fine and medium roots; common clay films on ped faces; common fine irregular pores and common fine and medium tubular pores; 25 percent gravel, 15 percent cobbles and 5 percent stones, gradual wavy boundary.
- C 58 to 65+ inches; extremely gravelly silt loam, pale brown (10YR 6/3), dark yellowish brown (10YR 4/4) moist; massive; very hard, extremely firm, slightly sticky and slightly plastic; few fine roots; few fine tubular pores; 60 percent gravel.

This pit was excavated to 144 inches for a soil hydrology application. Beginning at 65 inches are layers of weathered volcanic mud flow material. At 138 inches is a layer with a light gray (7.5YR 7/1) color, with silty clay texture, and 15% yellowish brown (10YR 5/6) redoximorphic concentrations. These features indicate a seasonal high-water table at this depth (11.5 feet).

The upper 35 inches appears to be colluvium over old debris flow material (colluvium and alluvium) over layers of volcanic mud flow deposits. The soil has ash mixed in between 43 to 58 inches but is not quite enough to call the texture a very gravelly "ashy" silt loam.

Attachment C

Site photographs



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#### PHOTOGRAPHS (Addendum to APN 131-212-13 February 3, 2022 Staff Summary)



Photo 1 - a. Pit to a depth of 65 inches. Photo 1- b. View looking from above pit towards the west, along the south side of the residence.



Photo 2 – a. View from behind the house towards northwest corner of the parcel. Photo 2— b. Pit to 12 feet deep. Tube is from old gravel drainage system. The arrow points to the deepest part of the pit.

imagine. plan. achieve.

AGENDA ITEM V.A



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