

MEMORANDUM

Date: March 22, 2018

To: TRPA Hearings Officer

From: TRPA Staff

Subject: Sheri Kraus Land Capability Challenge;
835 Pine Ridge Road, Placer County, California
APN: 083-031-018; TRPA File #: LCAP2018-0038

Proposed Action: Hearings Officer review and approve the proposed Land Capability Challenge.

Staff Recommendation: Staff recommends the TRPA Hearings Officer approve the land capability challenge on the subject parcel. This challenge results in a change from Capability Class 3 (14,656 sq. ft., 100 percent of parcel) to Capability Class 4- XXX (14,656 sq. ft., 100 percent of parcel).

Background: The subject parcel is shown as Class 5 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 TdD, Tallac very stony coarse sandy loam, 5 to 15 percent slope map unit. However, slopes on the parcel, place it 100% in TeE, Tallac very stony coarse sandy loam, 15 to 30 percent slope map unit. The updated Soil Survey of Tahoe Basin Area, California and Nevada (NRCS, 2007) places this parcel in mapunit 7182, Paige medial sandy loam, 15 to 30 percent slopes. This parcel has a geomorphic mapping of E-1 moraine lands, undifferentiated (moderate hazard lands). Tallac soils have gravelly coarse sandy loam surface textures. Subsurface textures are gravelly coarse sandy loam and very cobbly sandy loam. A weakly silica-cemented duripan occurs at depths of 40 to 70 inches.

A land capability challenge (LCAP2018-0038) was filed with TRPA on February 7, 2018. Gary Furumoto is representing the owner Sheri Kraus. A private soil consultant was not hired for this project. TRPA consultant, Marchel Munnecke visited the site on February 13, 2018. One pit was excavated by backhoe and was described to 70 inches.

Findings: One soil pit was excavated on the parcel, and it was located east of the residence. The pit was excavated by backhoe to 70 inches, and was fully described. This soil is characterized by gravelly coarse sandy loam surface texture. Subsurface textures are gravelly coarse sandy loam, and very gravelly coarse sandy loam. Below 65 inches, a densic layer is present. This soil is very deep, well drained, and is a member of Soil Hydrologic Group B. The forest is dominated by Jeffrey pine and white fir, with scattered incense cedar. The understory is composed of mixed montane shrubs, such as greenleaf manzanita, huckleberry oak, and mountain whitethorn.

The soil on this parcel is dissimilar to the Tallac soils, because it has less than 35% rock fragments, and there was no evidence of a silica cemented layer. This soil is dissimilar to any soils mapped in the 1974 Soil Survey of the Tahoe Basin, therefore, this soil is an unmapped soil (XXX). The 2007 Soil Survey of the Lake Tahoe Basin maps this parcel as 7182, Paige medial sandy loam, 15 to 30 percent slopes. This soil is similar to the Paige soil. The new soil survey mapped most of the soils in this watershed as andic soils. Based on this assumption, this soil was described as an Andisol, and classified as Medial, mixed, frigid Humic Vitrixerands.

Based on slopes, this soil has Land Capability Class 4, XXX, 9 to 30 percent slopes for the entire parcel.

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

Land Capability District	Area (sq. ft.) 1974 soil survey	Area (sq. ft.) 2017 LCC
Class 3 (TeE, 15 to 30 percent slopes)	14,656	0
Class 4 (XXX, 9 to 30 % slopes)	0	14,656
Total Parcel Area	14,656	14,656

This memorandum was jointly prepared by TRPA consultant, Marchel Munnecke (Pyramid Botanical Consultants) and TRPA Associate Planner, Julie Roll. If you have questions on this Hearings Officer item, please contact Julie Roll, 775-589-5247, or email at jroll@trpa.org.

BAILEY LAND CAPABILITY CHALLENGE FINDINGS

Site Information	
Assessor's Parcel Numbers: (APN)	083-031-018
TRPA File No. / Submittal Date:	LCAP2018-0038 / 2/7/2018
Owner or Applicant:	Gary Furumoto
Address:	PO Box 6214, Tahoe City, CA 96145

Environmental Setting	
Bailey Soil Mapping Unit¹ / Hydrologic Soil Group (HSG) / Land Class / Geomorphic Hazard Unit	TeE, Tallac very stony coarse sandy loam, 15 to 30 percent slopes/ HSG B/ E1, Depositional Lands; moraine lands undifferentiated (Moderate hazard lands).
Soil Parent Material	Volcanic colluvium over till
Slopes and Aspect	13 to 25 percent; sloping to southeast
Elevation and Datum	6789 to 6827, Tahoe DEM
Rock Outcrops and Surface Configuration	None present
SEZ and Hydrology Source	NA
Vegetation	Jeffrey pine, white fir, incense cedar, greenleaf manzanita, huckleberry oak, and mountain whitethorn.
Ground Cover Condition	Good (vegetation 55%, duff/mulch 70% cover)
Site Features	Residence, three small decks, asphalt/ concrete driveway, rock wall, and dirt paths.

Field Investigation and Procedures	
Consultant and Address	Marchel Munnecke PO Box 1015 Twin Bridges, CA 95735
TRPA Staff Field Dates	February 13, 2018
SEZ Mapping / NRCS Hydric Soil	None present
Number of Soil Pits or Auger Holes and Description Depth	1 backhoe excavate pit, described to 65 inches.
Additional or Repetitive TRPA Sample Locations	NA
Representative Soil Profile Descriptions	Ms. Munnecke's soil profile descriptions- attached
Areas Not Examined	Residence, three small decks, asphalt/ concrete driveway, rock wall, and dirt paths.

¹ TRPA currently relies upon the Soil Survey of Tahoe Basin, California-Nevada (Rogers and Soil Conservation Service, 1974), which the Bailey Land Capability system is predicated upon.

TRPA Findings	
2006 Soil Survey Map Unit	7182, Paige medial sandy loam, 15 to 30 percent slopes, Class 4 (based on slopes), HSG B
Consultant Soil Mapping Determination and Rationale	<p>XXX- Capability Class 4, 9 to 30 percent slopes.</p> <p>The soil on this parcel is dissimilar to the Tallac soils, because it has less than 35% rock fragments, and there was not a silica cemented layer. This soil is dissimilar to any soils mapping in the 1974 Soil Survey of the Tahoe Basin, therefore, this soil is an unmapped soil (XXX).</p> <p>The 2007 Soil Survey of the Lake Tahoe Basin, maps this parcel as 7182, Paige medial sandy loam, 15 to 30 percent slopes. This soil is similar to the Paige soil. The new soil survey mapped most of the soils in this watershed as andic soils. Based on this assumption, this soil was described as an Andisol, and classified as Medial, mixed, frigid Humic Vitrixerands.</p> <p>This soil is very deep and well drained and in Soil Hydrologic Group B, with low to moderately low runoff potential. Based on slopes, this entire parcel is XXX-Class 4, with 20 percent allowable land coverage.</p>
Slope Determination	13 to 25 percent slopes
TRPA Conclusion(s)	TRPA concurs with consultants' determination and rationale above.
Applicable Area	See parcel map

Attachments:

- A. Parcel map
- B. Ms. Munnecke's, soil profile description (1 pit).

Attachment A

Parcel Map, February 13, 2018

Attachment B

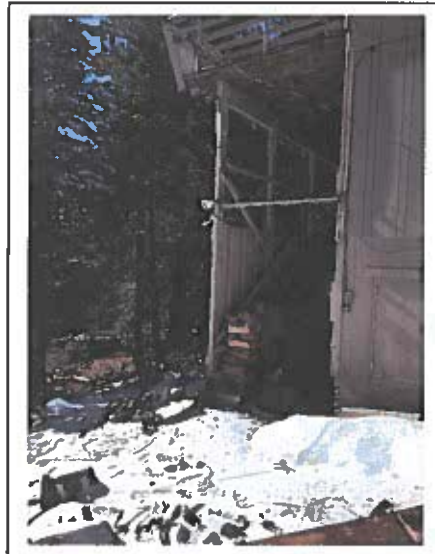
Ms. Munnecke's Soil Profile Description (1 pit)

Sheri Kraus Land Capability Challenge

835 Pine Ridge Road,
Tahoe City, Placer County, CA 96145.
APN 083-031-018, LCAP2018-0038

Soil Profile Descriptions

Marchel Munnecke
Field Date: 2-13-2018



Soil Classification: Medial, mixed, frigid Humic Vitrixerands (Some assumptions made due to lack of lab analysis, and based on soils mapped in this area in 2007 Soil Survey of the Tahoe Basin Area, California and Nevada.)

Soil Series: XXX, Capability Class 4 based on slopes.

Drainage Class: Well Drained

Hydrologic Group: B

Parent Material: Colluvium from volcanic parent material over till.

Slope: 22 % **Aspect:** Southeast

Description:

- Oi 0 to 1 inch; slightly decomposed pine needles and shrub leaves.
- A1 1 to 9 inches; gravelly medial course sandy loam, dark brown (10YR 3/3) moist; moderate fine granular structure; soft, very friable, nonsticky and nonplastic; many very fine to medium roots; many very fine and fine interstitial pores; 25 percent gravels; gradual clear boundary.
- A2 9 to 17 inches; gravelly medial coarse sandy loam, dark yellowish brown (10YR 3/4) moist; weak medium subangular blocky parting to moderate fine granular structure; soft, very friable, nonsticky and nonplastic; many very fine to medium and common coarse roots; many very fine and fine interstitial pores; 20 percent gravel and 5 percent cobbles; gradual wavy boundary.
- Bw1 17 to 35 inches; gravelly medial coarse sandy loam, dark yellowish brown (10YR 4/4) moist; moderate medium subangular blocky structure; soft, very friable, nonsticky and nonplastic; common very fine to medium roots; many very fine and fine interstitial pores; 22 percent gravel and 2 percent cobbles; gradual clear boundary.
- Bw2 35 to 58 inches; very gravelly coarse sandy loam, brown (10YR 4/3) moist; moderate medium subangular blocky structure; soft, very friable, slightly sticky and slightly plastic; common fine very to medium roots; common very fine and fine interstitial pores; 55 percent gravel and 2 percent cobbles; gradual clear boundary.
- C 58 to 65 inches; gravelly coarse sandy loam, dark yellowish brown (10YR 4/4) moist; massive; very hard, extremely firm, moderately cemented, slightly sticky and slightly plastic; few fine roots; few very fine and fine interstitial pores; 15 percent gravels; clear smooth boundary.
- Cd 65 to 70+ inches; Strongly cemented with large stones, possibly till. Cannot dig through, sampled slaked in water, not silica cemented.