



Motorized Trails Assessment Study

For Table 2
Trails
in the
Plumas
National Forest

*Motorized Travel
Management Plans*

Feather River
Ranger
District

Prepared by
Butte County
Resource Conservation District

June 20, 2018



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OVERVIEW

PURPOSE

This report provides a detailed trail assessment study for 18 trails totaling approximately 13.35 miles in the Plumas National Forest- Feather River Ranger District. These trails were listed on Table 2 in the 2010 Record of Decision as part of the Plumas National Forest Public Motorized Travel Management (R5-MB-189) as requiring mitigations before they could be placed on the Motor Vehicle Use Map (MVUM) as open to the public.

The mitigation recommendations in travel management focused on reducing soil and water impacts of trails added to the NFTS, including out-sloping trails for water drainage, installing drainage structures, improving trail/stream crossings, relocating short segments where surveys have been completed on the new locations, and restricting season of use.

Funding for trails assessment was provided through the Recreational Trails Program grant program. Originally the grant called for the assessment of an additional trail (19 trails totaling 15.25 miles) but the 6M22N was not removed from the MVUM so it was not analyzed as part of this project.

GOAL

The goal of this assessment is to collect and report information about the Table 2 OHV Trails to determine which trails have long term sustainability, and to recommend mitigation measures. These recommendations will be based on data, observations, professional expertise, and input from user groups and Plumas National Forest.

TRAILS AND AREAS IN THE ASSESSMENT

The trails within this assessment are all within Plumas National Forest- Feather River Ranger District, but they are grouped in 4 distinct areas within the district. It is important to define these areas because of their differences in location, level of use, type of use, and topography. See attachment 1 for the breakdown on trails by type, area, season of use, distance, priority, resource concerns and recommended mitigations.

SURVEY METHODS

Trail surveys were based on the standard and supporting guidelines as defined in the 2008 Soil Conservation Standards. The assessment consisted of using a recreation grade Global Positioning System (GPS) Unit, a survey distance wheel, photography to document areas of importance, Geographical Information Systems (GIS), clinometer, OHV Trail Condition Evaluation Form and Code Key (attachment 2), and professional judgment to record and generate information about trail alignment, trail segments with good/ poor condition, problem areas, surface, slopes, distances, connectivity, level of use and reroute potential (if needed). The Plumas National Forest also provided hydrology technical expertise on many of the trail surveys. In addition, the Butte County Resource Conservation District contracted the services of a trails professional who has background in hydrology.

CRITERIA FOR EVALUATION

In addition to the utilization of the 2008 Soil Standards and Table 2 recommendations, the assessment also looked to additional factors to guide prioritization of work and funding. These factors were natural resource impacts, the level of cost/ maintenance required and the recreational value for each trail.

- **Natural Resource Impacts**

All the trails on Table 2 were placed there because of their potential impacts on natural resources. This element of the survey evaluates whether or not the mitigation efforts will reduce long term impact on natural resources. If a trail goes through a cultural resources site, is there a suitable alternative? Or, if a trail has significant fall line grades (i.e., it runs parallel to slope), no amount of rolling grade dips installed may correct its issues. Initial assessment for natural resource impacts was based on hydrology. Additional inputs from USFS specialists for botany, archeology and wildlife will be needed to make a complete assessment of natural resource impacts. Priorities for trail mitigations may change with additional natural resource studies and recommendations.

- **Level of Cost and Maintenance Required**

Trails are expensive to build and maintain, and trails funding is limited. This element considers the amount of work that is needed to create and maintain a sustainable trail. If a trail is getting limited use and has poor connectivity, and a large bridge needs to be constructed, does it make sense to utilize funding and staff resources to complete the work? Or, if a trail is in an unsuitable location, gets limited use, and is going to require significant maintenance every season, does it make sense to keep the trail open at all?

- **Recreational Value**

Recreational value is an important consideration for users and land managers. If users are not going to use a trail (which could be for a number of reasons), should resources be utilized to complete mitigations? Recreational value input is based upon field observations, level of current use, the type of user experience each trail provides, connectivity, and input from users about the trail. In some cases, trails in this assessment had not been in use for many years, or were in a location that did not provide connectivity or had poor user experience.

MAPPED VS GROUND

The USFS provided GIS tracks for all the trails that were included in the survey. For the trails surveyed in the Little Grass Valley area, USFS provided tracks that closely matched what was on the ground. However, in the Granite Basin area, these tracks often did not match the locations of the on-the-ground trails. The on-the-ground trails would often have the same start and end location as the track but would vary widely in between. Many of these trails were originally located on logging roads and had been relocated over time. After consultation, the USFS advised that the survey should focus on the on-the-ground trail. In the process, BCRCD did evaluate the (mapped) track locations, but in most cases the ground trail was in a more appropriate and sustainable location than the old road. In the maps corresponding to each trail you will see both the track provided by USFS (purple) and on the ground trail (red).

LOOKING FORWARD

Due to limited funds and staffing, it will take some time and a large amount of funding to complete all the recommended mitigations. With this understanding, the assessment also prioritizes each trail for mitigations -- high, medium or low. It is recommended that high priority trails be evaluated first, working to low priority as time and funding allow.

RECOMMENDED MAINTENANCE MITIGATIONS FROM TRAVEL MANAGEMENT

Initially, mitigations from travel management were basic -- and the same for every trail -- so they were not listed under the reports for individual trails. The recommended mitigations for every trail were: rolling dips, out-sloping and hardened crossings. On many sections of trail, however, these mitigations would not be sufficient, so re-routes were recommended in many places.

SURVEY DATA (FOR EACH TRAIL):

Each trail contains a survey data collection sheet, photos, map and summary recommendations.

OUTREACH:

We did work to identify users that currently utilize these individual trails or areas. The Paradise Ridge Riders are a off-road motorcycle club that utilize the Four Trees, Pulga, and Granite Basin areas for trail riding and provided some insight into the Table 2 trails and type of trail experience they prefer.

The Little Grass Valley area does receive a high level of OHV and summer recreation use in the summer but to our knowledge there are no OHV groups that ride frequently in this area.

THE TRAILS

5M13

NARRATIVE

Trail: 5M13

Location: Four Trees

Designated Use: Motorcycle

Season of Use: 8/16-12/31

Length: 1.11 miles

Trail mitigations per Table 2: Rolling Dips, out-sloping, and hardened crossings. Season of use for California Spotted Owl.

Connectivity:

- 23N30X to north -road open to all vehicles, connects to 5M17 which is M legal
- 23N28 to south -road open to highway legal vehicles
- With 23N28 on the south end of 5M13, M trail terminates at a road that only allows for highway legal vehicles. Making a loop option would allow M to connect back into 23N30X.
- Overall, area has good connectivity to other roads and trail, great trailhead access from Four Trees Staging Area

Current Trail Usage: Trail showed signs of moderate use

Observations:

Natural Resource Impacts/ Sustainability

The North end of trail shows some issues but is not hydrologically connected to any streams. It has sustainable grades that include old road bed and shows moderate soil erosion. South end of trail has many steep grades with sections that are hydrologically connected and show a higher level of erosion.

Level of Cost and Maintenance

The north end of trail would require moderate maintenance in fall line sections. With steeper grades and many fall line sections, the south end of the trail will continue to have issues in its current location, even with a high level of maintenance. With steep side slopes and limitations due to topography, a reroute of the south end would be challenging.

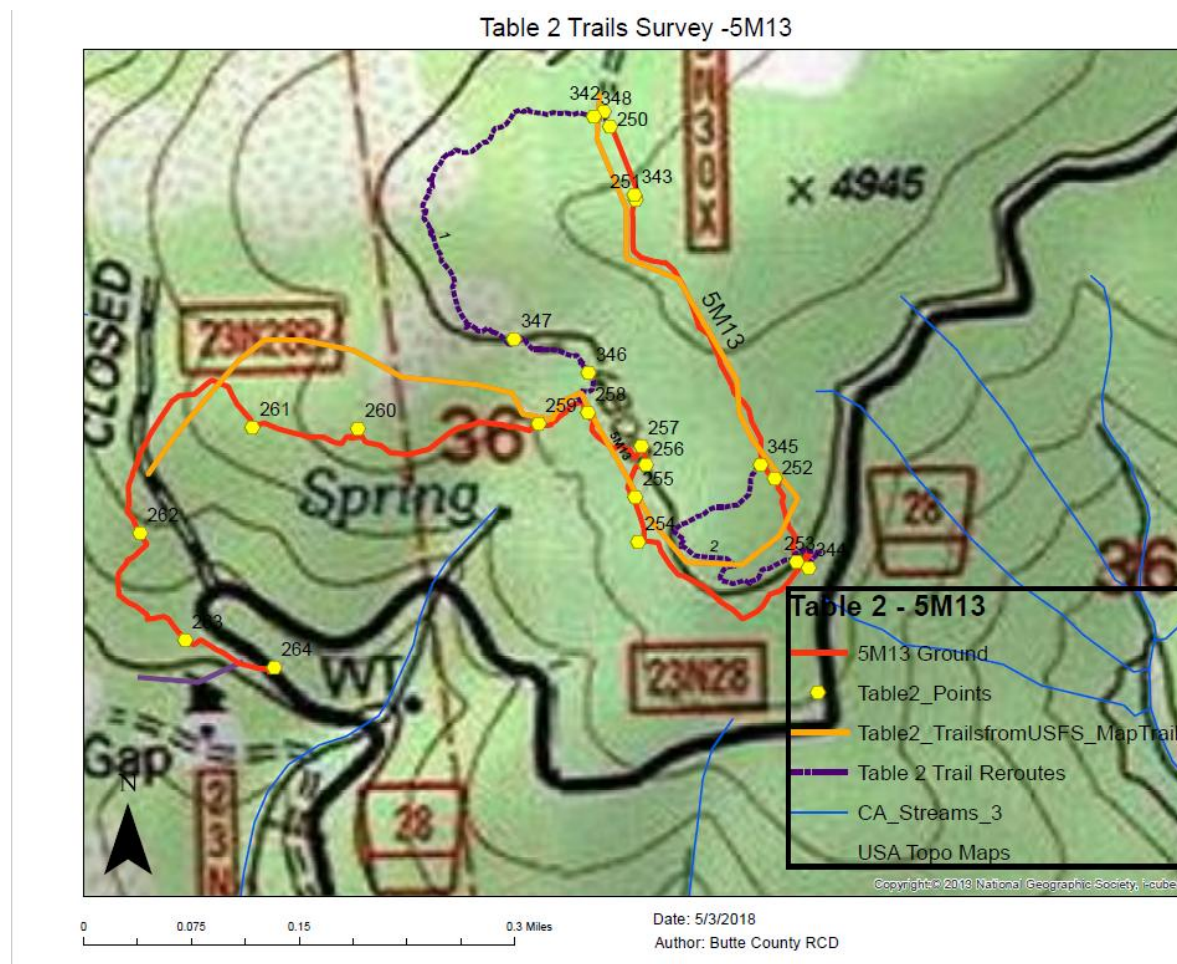
Recreational Value

Due to the trail connectivity, convenient staging area, and level of use, 5M13 has high recreational value.

Recommendations:

It is recommended that several reroutes should be created on the north end of 5M13 to reduce the grade of several sections and create a loop option to disconnect the over-grade portions of the trail. Once a reroute is complete to create a loop, the south end of the trail should be closed and restored.

MAP



TRAIL LOG

Trail	5M13
Date	10/10/2017
Vehicle Type	M
Trail Difficulty	More difficult
Location	4 Trees
Begin Segment	250
End Segment	264
Track ID	2017-10-
Trail Distance	1.11
Avg Trails Slope	
Survey Completed by	Thad/ Andrew

Section Begin/End GPS Points	Section Length	Trail Slope	Crossings	Conditio n Code	Cause Code	Comments	Photo Numbers
B= 250	90 ft	20+%	N/A	Yellow	C7, C15	Trail shows medium usage, trail incision at entrance	313
E=251	330 ft	5%				consider reroute to lower grade	
B= 251	1260 ft	-5%	N/A	Green	N/A	trail meanders uphill, no sign of surface erosion	314
E=252						crosses small meadow area	
B=252	168 ft	-15%	N/A	Red	C7, C8	9-10 inch incision, no drainage, long run, consider reroute	315
E=253	324 ft	-25%	N/A			Grade to steep for effective RGD, trail connects to old road	
B=254	182 ft	0%	N/A	Green		Clear trees on old road, alternate created due to trees	316/317
E=255							
B=255	125 ft	0%	swell	Yellow	C19	armor swell (257) rock on site, unstable tread in swell	318
E=256							
B=257	255 ft	0%				trail drops off old road DH, -25% (258)	319
E=258		-25%				side-hill available to consider reroute	
B=258	290 ft	-25%		Red	C7, C8,C15		
E=259							
Site 259			ephemeral			ephemeral drainage, seasonal flow, shallow surface flow	320/321
						braided, W 2-4', D 4", evidence of old channel +26 ft past site	
B=259	750 ft	-15%		Yellow		departs map trail, traverses	
E=260		-8%				Goes DH (260)	
B=260	420 ft	-15%	n/a	Red	C7, C8,C15	trail flattens, returns to map trail, starts descending again	322
E=261		-20%					
B=261	1000 ft	-10%	n/a	Yellow		trail goes DH, short section at 15%, level of incision 4"	323
E=262		-15%					
B=262	630 ft	-10%	n/a	Red	C7, C8,C15	continues to head fall line, slightly levels at 488 ft,	324
E=263		-25%				continues steep at 552 ft,	
B=263	250 ft	5%				traverses, connects with road	325
E=264		-20%	n/a	Yellow		(264) end of trail	

PHOTOS







NARRATIVE

Trail: 5M24

Location: Concow

Designated Use: M

Season of Use: 8/16-10/14

Trail Difficulty: Most Difficult

Length: 1.17 miles

Trail mitigations per Table 2: Monitor for CRLF and FYLF species of concern

Connectivity:

- 24N13.1 to north and east (connects to road at beginning and end) which allows for all motorized use, 5M24 M trail to south which allows for all motorized use
- Allows for access to 24NO4 (connects to Hwy 70)
- Good connectivity to network of other roads and trails
- Has ability to create several loops options utilizing roads and trails

Current Trail Usage: High; encountered multiple riders on week day while on trails and area roads

Observations:

Due to a higher level of usage, topography, hydro-connectivity, and fall line alignment, the 5M24 trail needs some significant mitigations. From the north end, the trail descends a steep ridge to a stream crossing. The south end of the trail (after the stream crossing) needs minimal work and does not have any hydro connectivity.

Natural Resource Impacts and Sustainability: 5M13 has a number of hydro connected sections of trail due to steep grades, topography and stream crossing. There are also several sections of trail that show high levels of erosion at the north end.

Level and Cost and Maintenance: The trail showed signs of recent and historical maintenance. Due to the erosive soils, steep grades and hydrological connectivity the 5M13 is going to be a long term maintenance challenge and require significant funds to mitigate. The stream crossing (located at point 368 on map) will require a large bridge and additional armoring to reduce sediment erosion into water course

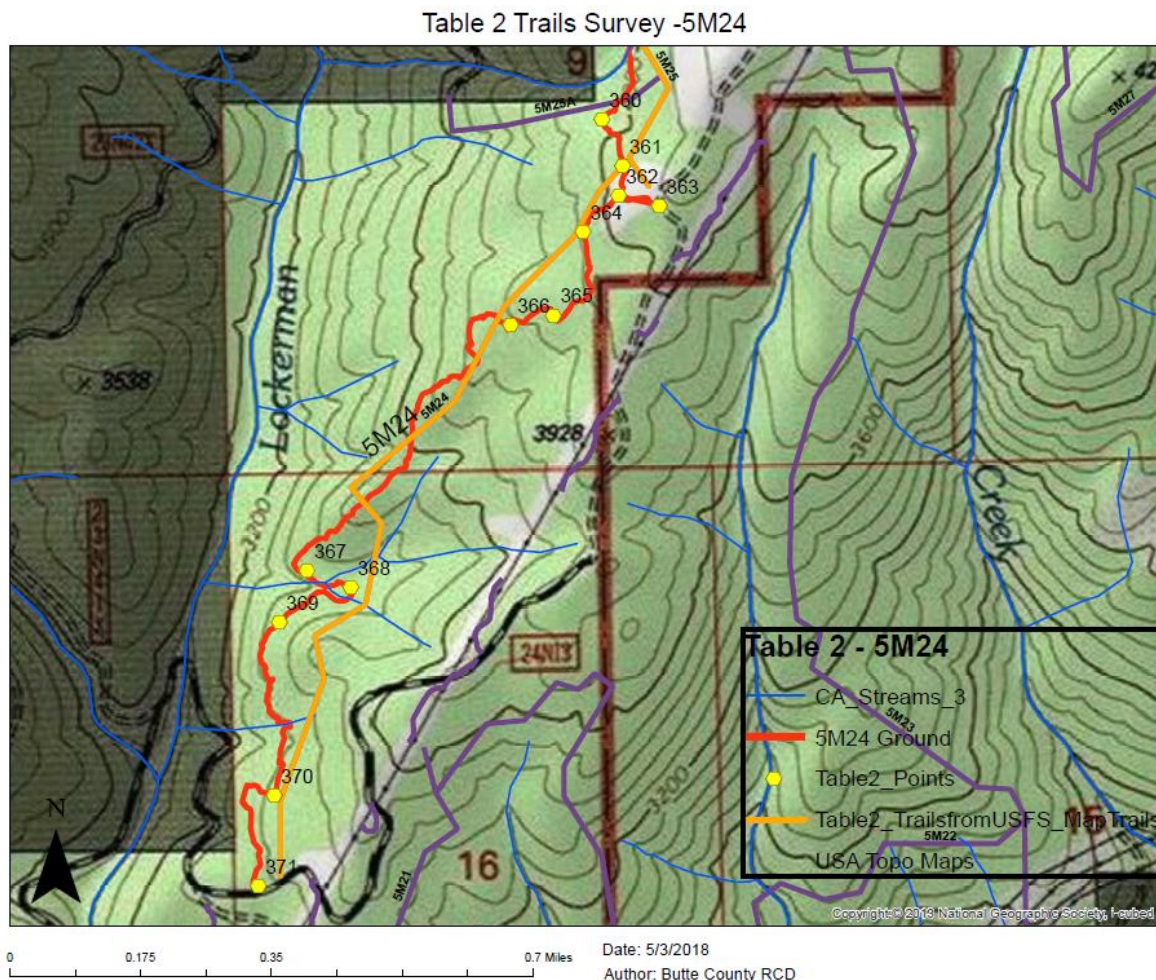
Recreational Value: Due to the opportunity for connectivity, ease of access and high level of use the 5M24 has a high recreational value.

Recommendations:

Even though long term maintenance will be a challenge, due to the high level of recreational value efforts should be made to preserve the natural resources while completing trail mitigations to allow for continued use. The installation of a bridge, plus armored entry and exit for the

perennial stream crossing, would make a big impact to reduce hydro connectivity. In addition, tread maintenance should be completed end-to-end to help reduce natural resource impacts and allow for trail sustainability. Alternatively, the north end of the trail could be moved up hill to create a more contouring alignment and avoid going down the ridge. This layout would connect to the perennial stream higher in the watershed, which could create a better opportunity for a crossing and reduce erosion impacts.

MAP



TRAIL LOG

Trail SM24
 Date 11/7/2017
 Vehicle Type M
 Trail Difficulty most difficult
 Location Concow
 Begin Segment 362
 End Segment 371
 Track ID 17-11-2017 151358
 Trail Distance 1.17
 Avg Trails Slope
 Survey Completed by Thad/ Oswaldo/ Lawrence

Section B= Begin/ E=							Photo Numbers
End/ P=Point	Section Length	Trail Slope	Crossings	Condition Code	Cause Code	Comments	
B=363	160 ft	0%	n/a	Green		trail starts at road SM25	436
E=362	300 ft	-10%				minimal evidence of use at entrance off road	437
B=363	255 ft	-36%		Red	C7,C8,	3-3.5 ft incision, multi channel,	438/439/440/441
E=364						ephemeral stream at head, rare plants in area	
B=364		0	5%	Green		trail departs drainage	442
	244 ft					ephemeral crossing, no concern	443
	351 ft					swell	
	432 ft					ephemeral crossing, no concern	444
	500 ft	-20%				trail starts to descend ridge	
	575 ft	-10%					
	804 ft					trail descends into drainage	
E=365	863 ft	-28%				(365) crosses ephemeral drain from above	445
B=365	0 ft -55 ft	40%		Red- R2		sediment deposited into watercourse	446
	55 ft					climbs out of drain, heads DH	
	104 ft	-10%				swell- minimal scour	
	333 ft	-10%				trail on ridge between drainages	447
E=366	380 ft	-24%				cross old road bed (366)	448
B=366	0 ft	11%				goes UH from old road bed	
	150 ft	0%				back to ridge	
	345 ft	-10%				trail on rock	449
	410 ft	-5%				levels	
	882 ft	-22%				goes DH on DG surface	450
	915 ft	-17%				threaded, incised 1-2'	
	1000 ft	-23%				trail flattens- start DH on ridge	
	1430 ft	5%				levels stays on ridge	
	2262 ft	-10%				goes DH	
	2400 ft	-24%				incision	
E=367	3043 ft	-17%		Red R-2		ephemeral drainage- sediment depositing	451
Site 367				Red		water channeling into trail, getting into stream	452/453/454
						trail climbs w/ parallel channel below	
S=367	0 ft	-10%		Red R-7			
	290 ft	-27%				trail goes fall line to stream	
E=368	375 ft					perennial stream	
Site 368				Red R-2		perennial stream, bridge needed, alternate crossing	455 DS
						V shaped, stable in channel, riparian veg	456 US
						8'x3' channel, BF 4'	457 RB
						trail not incised 2"	458 LB
B=368	0 ft	37%		Yellow		minimal incision , complete tread maintenance debern	
	45 ft	10%				trail parallels stream/ not depositing levels at 45 ft	
	360 ft	25%				climbs	
	480 ft	10%				trail levels	
	642 ft					up/down	
E=369	700 ft					drainage divide (369)	
S=369	0 ft	-27%		Yellow		DH	
	65 ft	-5%				Levels	
	300 ft	-20%				DH	
	366 ft					swell, no impact	
	400 ft	5%				levels	
	460 ft	21%				climbs	
	500 ft					ephemeral crossing, not significant	
	600 ft	-5%					
	890 ft					ephemeral crossing, no issues	459
	960 ft	5%				ephemeral crossing, no issues	460
	1240 ft	27%				climbs	
E=370	1480 ft					drainage divide (370) heads DH	
B=370	0 ft	-22%				DH from drainage divide	
	130 ft					trail levels	
	213 ft	-12%				goes DH	
	382 ft					ephemeral crossing, no issues	461
	525 ft	5%				UH/DH	
	656 ft	21%				UP no incision	
	780 ft					trail sign- no official	462
E=371	990 ft						463

PHOTOS











NARRATIVE

Trail: 5M25

Location: Concow

Designated Use: M

Season of Use: 8/16-12/31

Trail Difficulty: Most Difficult

Length: 0.76

Trail mitigations per Table 2: Season of use for California Spotted Owl

Connectivity:

- Trail connects to 24N13.1 on north and south end, trail connect to 5M24 on south end
- Allows for access to 24NO4 (connects to Hwy 70)
- Good connectivity to network of other roads and trails
- Has ability to create several loops options utilizing roads and trails

Current Trail Usage: High; ran into multiple M users on connecting trails and roads. Evidence of maintenance on trail.

Observations:

Many sections of trail are holding up well, but several of the steeper grade sections are creating significant erosion issues. The trail can be rerouted to mitigate some of the issues and regular maintenance work will help minimize impacts. Botanical species of concern also drives the need for reroute.

Natural Resource Impacts and Sustainability:

Damage to botanical species of concerns and soil erosion is occurring.

Level of Cost and Maintenance:

The reroute of a short section to avoid area of botanical species of concern and area of high erosion will be a moderate cost. Although the suggested reroute is short in length it will involve the NEPA process. If left in its current condition and location, the trail will continue to have a high level of erosion and impacts to the botanical resource.

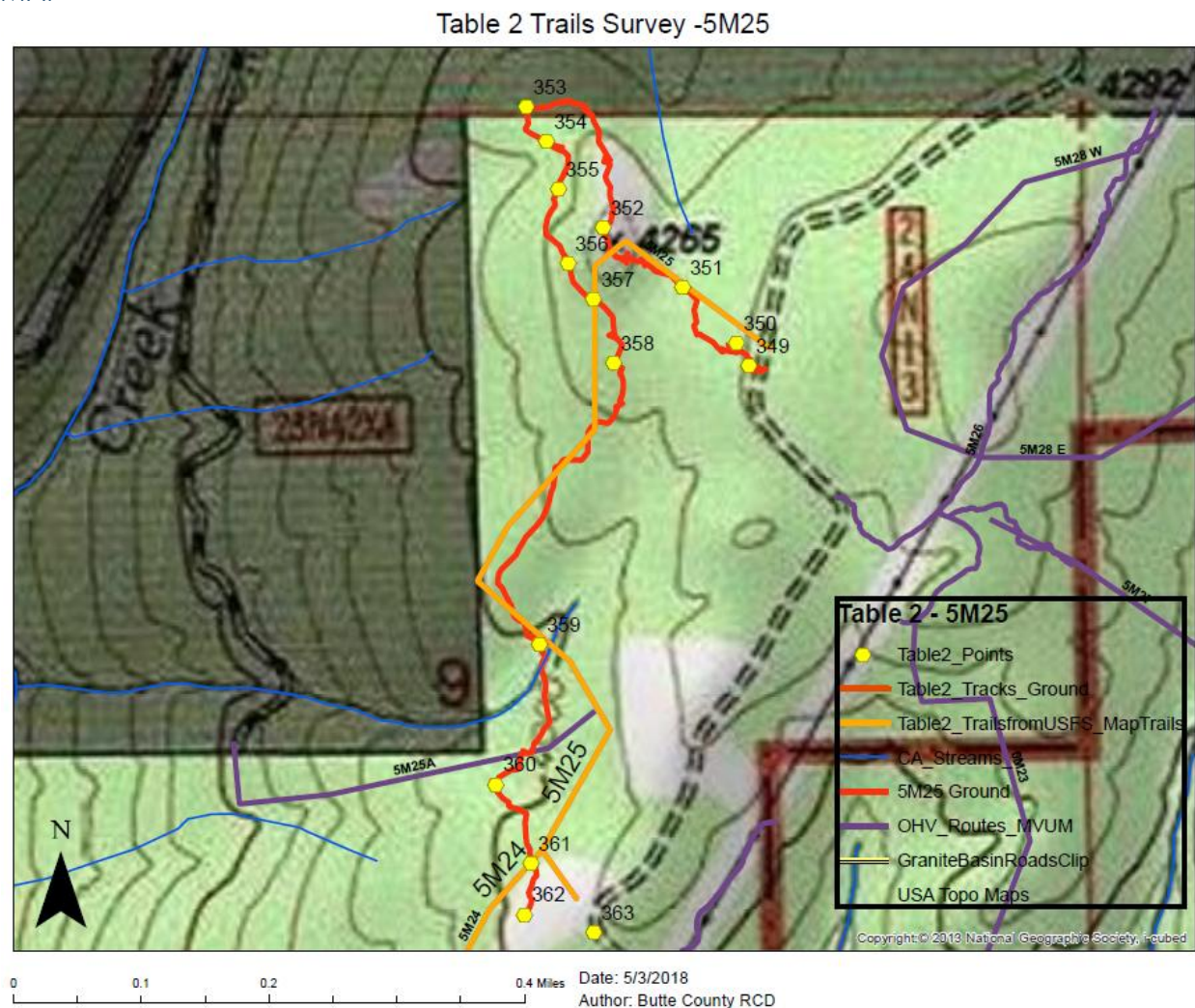
Recreational Value:

With good trail connectivity, a high level of use, and lots of roads/ trails in area creating the opportunity for loop options, the trail has high recreational value.

Recommendations:

Much of the damage to botanical species of concern and erosion issues are on the same ridge line. Creating a reroute to remove the fall line section of trail will allow for protection of species and reduce the erosion impacts.

MAP



TRAIL LOG

Motorized Trails Assessment Study for Table 2 Trails

Trail SM25
 Date 11/7/2017
 Vehicle Type M
 Trail Difficulty most difficult
 Location Concow
 Begin Segment 349
 End Segment 362
 Track ID 11-7-2017 122816
 Trail Distance 0.76
 Avg Trails Slope
 Survey Completed by Thad/ Oswaldo/ Lawrence

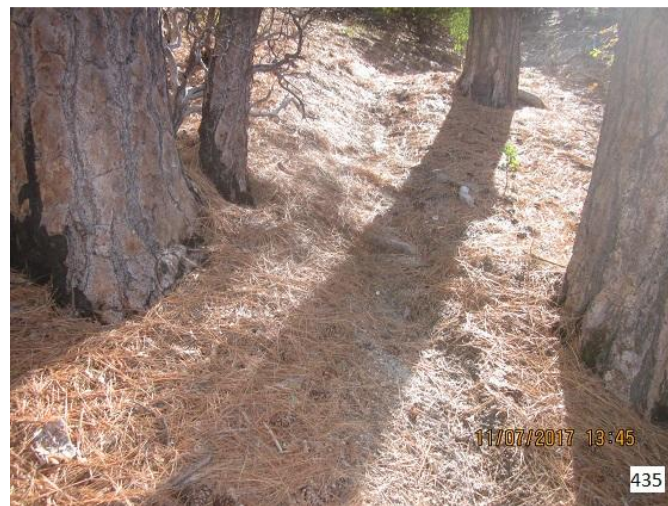
Section B= Begin/ E=

End/ P=Point	Section Length	Trail Slope	Crossings	Condition Code	Cause Code	Comments	Photo Numbers
S=349	75 ft	-18%		Yellow		trail starts, evidence of moderate use	418
	139 ft	10%				at 70 ft trail enters from R (350) minimal use	419
	275 ft	-6%				DH/UH, no incision	
	360 ft	5%				DH/UH, no incision	
	510 ft	21%				low area, reroute to hill side	
E=351						steep UH, reroute to side slope	
S=351	160 ft	-23%				reroute to side hill,	
	430 ft	27%				incision 2'	420
E=352	0 ft	-20%				rock outcrop at top of steep grade	421
S=352	315 ft	-35%				leaves ridge, DH on DG ridge	422
	560 ft	-25%				saddle at 315 feet- SOC in area	423
	644 ft	-13%				saddle goes DH- SOC in area	424/425
E=353	833 ft	-10%				departs ridge DH	
B=353	180 ft	-16%				ephemeral crossing, steep grade in/out	426
E=354						scour, sediment dam created by trail	
B=354	80 ft	38%				incision 2-2.5'	
E=355	250 ft	24%				ephemeral crossing, durable/ limited scour	427
B=355	370 ft	34%				more defined channel below trail crossing	428
						trail departs channel up steep grade, 1-2' incision	429
E=356						SOC along trail, 300' run w/ no drainage	
B=356	0 ft	-10%				drainage divide (356) goes DH	
	186 ft					trail comes in from L (357)	430
	413 ft					swell, no concerns	
	530 ft	5%				hits ridge, small incision	
E=358						drainage divide (358) goes DH	431
B=358	0 ft	-30%					
	197 ft	5%				flattens +/-	
	576 ft	-12%				grade increases	
	700 ft	7%				flattens +/-	
	1437 ft					drops into drainage, 1-2' incision	
E=359	1600 ft					Intermittent stream (359) limited impact, no concern	432
B=359	0 ft	29%				trail departs crossing	
	60 ft	10%				levels +/-	
	232 ft					ephemeral drainage, no issues	
	450 ft					swell, no issues	
	745 ft					side trail R (360)	
E=360						Ephemeral drainage at (360)	
B=360		0	20%			UH, 2-3" incision	
	340 ft					hits ridge	
	417 ft					ephemeral (361), no concern	434/435
	553 ft	3%				ridge +/-, braided trail	
E=362	627 ft					trail ends, SM24 comes in from L	

PHOTOS







NARRATIVE

Trail: 6M22A

Location: Granite Basin

Designated Use: M

Season of Use: 5/1-10/14

Trail Difficulty: Most Difficult

Length: 0.65

Trail mitigations per Table 2: Crossing for MYLF, season of use for California Spotted Owl

Connectivity:

- Trail on north end connects to 6M23 (does require travel on 23N18 ML3 road)
- South end connects to 6M22N and 23N12X (open to all vehicles)
- With a number of connected trails and roads and a number of loop options, connectivity is good.
- Additional trail connectivity is limited due to ML 3 for road 23N18. (23N18 road evaluation for mixed use is a part of Granite Basin OHV Development Grant.)

Current Trail Usage: Trail shows heavy usage for area, and evidence of maintenance activity.

Observations: 6M22A has multiple problem areas associated with its water crossings and proximity to water course. An additional challenge is its segments of fall line trail that are seeing a high level of erosion in multiple areas of the trail.

Natural Resource Impacts and Sustainability: Due to the number of intermittent and perennial stream crossings, there is evidence of hydro connectivity and introduction of sediments into streams due to trail activity.

Level of Cost and Maintenance: With a large number of stream crossings that would require bridges, plus fall line trail down to crossings, there are really no maintenance solutions available for this trail in its current state.

Recreational Value: With a high level of usage and good connectivity 6M22A has a strong recreational value.

Recommendations: Although 6M22A has a high level of resource impact this trail is a valuable part of the overall network. It is recommended to reroute almost all the current trail and completely disconnect the north end of the trail, which has a number of problem areas. The recommended reroute avoids all stream crossing and fall line trail alignments. In addition, the reroute would take advantage of a great view shed to the west of the current trail, and include technical rock elements. The overall distance of the reroute would be similar to the current alignment.

Table 2 Trails Survey -6M22A



TRAIL LOG

Trail 6M22A
 Date 10/6/2017
 Vehicle Type M
 Trail Difficulty most difficult
 Location Granite Basin
 Begin Segment 644
 End Segment 658
 Track ID
 Trail Distance
 Avg Trails Slope
 Survey Completed by Thad Walker/ Aric

Section B= Begin/ E=

End/ P=Point	Section Length	Trail Slope	Crossings	Cause Code	Comments	Photo Numbers
B=644	100 ft	-8/ -15%			trail start, shows evidence of use,	217
E=645					trail dips and climbs, NC	218
B=645	133 ft	-15/ -20%			NC, trenching, soil loss, DG, filtration at flat spot	219
E=646					P=646 short flat spot	
B=646	153 ft	-30/ -35%			trail goes fall line, entrenched DG, intermittent stream at bottom	222
E=647						
P=647					Site 11 intermittent stream, stagnant step pool, no surface flow, riparian veg (alder) higher grade, soils in stream from trail V shape BFF=5 ft, TP 20wx4d, consider reroute	LB 220 RB221
B=647	390 ft	+5/ +25 %			Trail climbs to ridge, install 5 RGD, NC	223
E= 648						
B=648	640 ft				trail drops and goes flat, NC	
E= 649						
P= 649					Site 12 perennial stream, riparian veg (alder, ferns), road above DG deposited from culvert not trail, not much discharge, cut bank above utilize pavers to armor, look for possible re-route?, trail next to stream	224 225 226
B=649	130 ft				trail stays flat, moves away from stream	
E= 650					stays in historic flood plain	
P= 650					Site 13 perennial stream (same stream as site 12), trail crosses on bedrock evidence of stream bank erosion, mine site, 20wx4d, 30 ft BFF, riparian veg (alder, fern)	RB 227 LB 228
P= 650	+133 ft				HC, just above stream, steep side slope, no filtration,	
	+333 ft				re-route uphill	229
B= 651	440 ft				alternates with original crossing,	230
E= 652					parallels creek, move uphill	
B= 652	240	+25%			climbs fall line to drainage divide	231
E= 653						
B= 653	586	2/3 %			better soils, NC, follow land form	
E=654						
B= 654	140 ft	20+ %			consider reroute, NC, gully developing,	
E= 655	275 ft	5 %			connects to road, trail continues	
B=655	420 ft				ground trail connect to road 23N18N P=656	232
E=656						
B= 656	545 ft	-5/ 29 %			trails goes fall line, install 8 RGD or consider reroute, NC	
E= 657					connects to intermittent stream, shows incision	
P= 657					Site 14 intermittent stream, some sediment deposition from trail riparian veg (alder), developed channel, BFF 3 ft, 10wx3d, stable in channel not flowing, moist mud, armor crossing	233
B=657	380	+10/ +15%			NC, install 5 RGD	
E=658						
P=258					End of trail	234

PHOTOS









NARRATIVE

Trail: 6M29C

Location: Granite Basin

Designated Use: M

Season of Use: 8/16-10/14

Trail Difficulty: Easiest

Length: .76

Trail mitigations per Table 2:

Crossings for MYLF. Season of use for California Spotted Owl and Yellow-legged Frog

Connectivity:

- To the north, trail connects to 23N35X road which allows all motorized use
- To the south, trail connects to 6M29 trail which is open to 50" or less
- Connectivity does allow for access to other trails and roads that are currently open to OHV use, but is redundant as other trails in area provide similar access

Current Trail Usage:

No evidence of current use or maintenance,

Observations:

This trail is located on old logging road -- wide corridor -- and no trail specific corridor is present. Trail is a decommissioned resource extraction road and does not resemble a recreational trail. Trail has significant perennial stream -over 15' in width and 6+' in depth. The trail ends at an active and historic mine area that contained lots of trash.

Natural Resource Impacts and Sustainability:

Other than the large stream crossing at the south end, there is limited hydro connectivity.

Level and Cost and Maintenance:

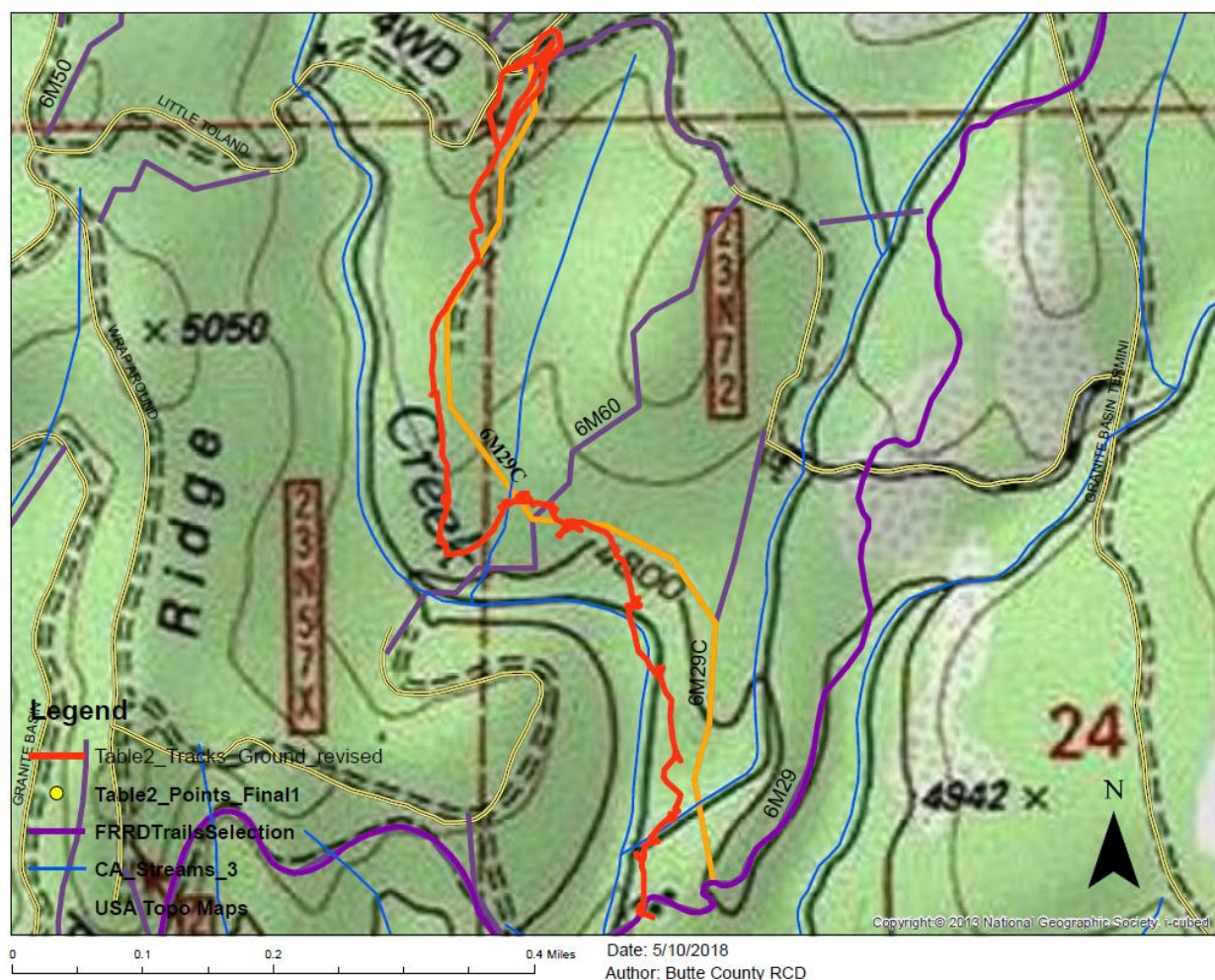
Re-opening this trail would require investment in a large bridge and installation of drainage features. M Group also did not express interest in riding a trail of this nature or maintaining such a trail.

Recreational Value:

Although trail does provide connectivity there are other trails in the area that provide similar access and improved recreational experience, and they are being utilized. In speaking with M user groups, little desire to maintain a trail of this nature or invest in mitigation needs was heard. The recreational value of this trail is low.

Due to low recreational value, redundant connectivity, and the high cost of bridge infrastructure, it is recommended that no investment be made in this trail and that it not be added back to the MVUM.

Table 2 Trails Survey -6M29C



TRAIL LOG

Trail 6M29C
 Date 10/6/2017
 Vehicle Type M
 Trail Difficulty easiest
 Location Granite Basin
 Begin Segment 628
 End Segment 644
 Track ID
 Trail Distance 0.76
 Avg Trails Slope
 Survey Completed by Thad/ Aric

Section B= Begin/ E=

End/ P=Point	Section Length	Trail Slope	Crossings	Condition Code	Cause Code	Comments	Photo Numbers
B=628	900	-5%				no evidence of use, 20-25' wide	
E=629		-12%				water bars in place, no sediment loss	202
B=629	134 ft	0%				flattens out, old landing, trees in trail	
E=630		3%				(630) end of landing	
B=630	575 ft	0%				trail stays on ridge top, flat/ wide	203
E=631		-5%				WB's intact no NC, leaves map trail	
B=631	455 ft	-10%				flattens out and heads DH, wide	
E=632		-20%				stays on ridge, WB's functioning	204
B=632	200 ft	-5%				old landing	
E=633		-8%					
B=633	340 ft	-10%				highly entrenched, big boulder block trail	
E=634		-15%				WB's functioning	
B=634	Site					intermittent crossing, deep V 10"x15'	205/206
						surface/ subsurface flow, possible US crossing	
B=634	346 ft					overgrown, hard to follow, mostly flat	207
E=635							
B=635						Mine Site (636) shows evidence of use	208
E=637						trail intersection leading down to mine site	
B=637		3%				overgrown side slope	
E=638		5%					
B=638	424 ft	-5%				trail forks, L-crosses ephemeral at 240 ft	
E=639		-12%				better trail crosses lower on stream	
639	Site	-10%				ephemeral stream, highly eroded	
						headcut at crossing 2.5', stays in channel	209 US
						150' draining down road, no water present	210 DS
S=639	650 FT	-3%				install 8 RGD, goes off map trail,	
E=640		-15%				contours above creek NC	
S=640	200 ft	-25%				goes fall line for 20 ft, splits R existing trail/	
E=641		2%				L mapped road, rejoins road	211
S=641	95 ft	-15%				goes fall line to creek	
F=642							
	642 Site					Perennial stream- tributary of Big Boulder Creek	212 R
						stays in channel, minned to bed rock, durable crossing	213 L
						unstable bank soils, sides sluffing (not due to trail)	214 US
						W 15'x15' 6", high gradient step pool	
S=642	110 ft	20%				goes UH to flat landing -mine site (643)	215
E=644		0%				Trail End- connects to 6M29	

PHOTOS





6M29D

NARRATIVE

Trail: 6M29D

Location: Granite Basin

Designated Use: M

Season of Use: 9/16-10/14

Trail Difficulty: More Difficult

Length: .52

Trail mitigations per Table 2: Crossing for MYLF. Season of use for California Spotted Owl and Goshawk

Connectivity:

- On the north end, trail connects to 6M29E and 6M29A which are both M trails
- On the south end, trail connects to 6M36 M trail and road 23N58Y which allows all motorized use
- Overall, trail has strong connectivity and provides multi loop options

Current Trail Usage: Current trail usage is high. Trail shows evidence of recent maintenance.

Observations: Most M users connect to 6M29D via 6M36 (just to east), to ride as a loop. Trail starts on a flat and crosses a perennial stream. Trail usage is eroding the stream bank and depositing sediments into the stream. From there, the trail climbs a ridge (+5-+20% grade), and parallels a stream to the east until connecting into 6M29E.

Natural Resource Impacts and Sustainability:

With a short reroute at bottom of trail to move away from stream, rolling grade dips installed on steeper slopes and bridge constructed across perennial stream the hydro connectivity would be eliminated

Level and Cost and Maintenance:

Majority of cost would be to construct bridge across stream. Cost of installing drainage features would be minimal. Due to steep alignment, drainage features would need to be cleared seasonally and reconstructed as needed to maintain frequency of drainage.

Recreational Value:

With good connectivity and current high usage levels for the area, 6M29D has a strong recreational value.

Recommendations:

It is recommended that a bridge be installed across the stream, and drainage features be installed and maintained.

MAP

Table 2 Trails Survey -6M29D



TRAIL LOG

Trail 6M29D
Date 10/5/2017
Vehicle Type M
Trail Difficulty more difficult
Location Granite Basin
Begin Segment 237
End Segment 249
Track ID
Trail Distance
Avg Trails Slope
Survey Completed by Thad Walker/ Aric

Section B= Begin/ E= End/ P=Point	Section Length	Trail Slope	Crossings	Cause Code	Comments	Photo Numbers
B=237 E=238	240 ft	0%			starts slightly off map trail, rejoins flat, DG, trail used frequently, evidence of maintenance	306
B=238 E=239	500 ft				trail moves off map trail, goes next to ephemeral stream soil destabilization, HC possible, reroute up hill	307
B= 239 E= 240	160 ft				trail parallels stream and drops into perennial stream	
P= 240					Site 7 Perennial Stream, some cobble present, box shape, evidence of past mining stable in channel, minor sedimentation, slightly incised, riparian veg (alder, sedges, ferns) Consider armored crossing or bridge	308 LB 309 RB
B= 240 E= 241	1600 ft				ground trail departs map trail, install 8 RGD, P=241 connects back to map NC	
B=241 E= 242	840 ft	+5/ +20%			ephemeral on R not connected to trail, install 10 RGD, complete RGD maintenance, NC	
B= 242 E= 243	452 ft	+5/ +10%			RGD maintenance, install 5 RGD P=243 trail ends, connects with 6M29E	310

PHOTOS



NARRATIVE

Trail: 6M30
 Location: Granite Basin
 Designated Use: M
 Season of Use: n/a
 Trail Difficulty: Difficult
 Length: 0.2 miles

Trail mitigations per Table 2:

This trail was not included in the Table 2 list, but has been recognized by the Plumas USFS due to resource concerns. This trail is in a different location than indicated on MVUM and USFS notes.

Connectivity:

- Trail connects to 23N28X to the north (all motorized)
- Trail connects to 23N60X and 23N23 to the south (all motorized)
- Great connectivity to other trails and roads in the system

Current Trail Usage:

Trail currently receives a high volume of use. There is evidence of trail maintenance.

Observations:

The trail has low bridge and fall line segments that are hydro connected and incised

Natural Resource Impacts and Sustainability:

The current bridge reduces impacts on natural resources, but it is undersized and has fall line segments leading into bridge.

Level of Cost and Maintenance:

The proposed reroute is short and would have a better reduction in cost and impact than replacing the bridge. Some permeable pavers may be utilized in tread if trail grade cannot be reduced.

Recreational Value:

Recreational Value for this section of trail is high, due to its level of use and connectivity to the rest of the system.

Recommendations:

Create a reroute that will disconnect the trail from the crossing bridge. Remove the bridge, then rehabilitate the area.

MAP



TRAIL LOG

Trail	6M30						
Date	10/4/2017						
Vehicle Type	M						
Trail Difficulty	Difficult						
Location	Granite Basin						
Begin Segment	219						
End Segment	224						
Track ID							
Trail Distance	0.25						
Avg Trails Slope							
Survey Completed by	Thad/ Aric						
Section B= Begin/ E= End/ P=Point	Section Length	Trail Slope	Crossings	Condition Code	Cause Code	Comments	Photo Numbers
219	0.2	5%		Green		6M30 splits at intersections with 6M30A	
		20%		Yellow		Trail is incised	
223				Red		Perennial spring with bridge crossing	
224	0.05					Trail ends at road 23N60X	
Alternate							
223	0.2	8%				Reroute trail north of stream to avoid crossing connect into 23N23	

NARRATIVE

Trail: 6M30W

Location: Granite Basin

Designated Use: M

Season of Use: 5/1-10/14

Trail Difficulty: n/a

Length: 0.17

Trail mitigations per Table 2: Cultural SPM's needed. Season of use for Mountain Yellow-Legged Frog.

Connectivity:

- Trail connects on east end to 6M30, which is an M trail
- Trail connects on west end to 23N60X, which is open to all motorized usage
- Trail would provide loop option

Current Trail Usage:

Trail is no longer on ground and no evidence of it remains.

Observations:

Area was searched and no trail could be found.

Natural Resource Impacts and Sustainability:

If trail were located in the area, it would have no hydro connectivity.

Level of Cost and Maintenance:

Because it would be new construction, and subject to the NEPA process, the trail would be expensive per foot to build. However, the distance is short.

Recreational Value:

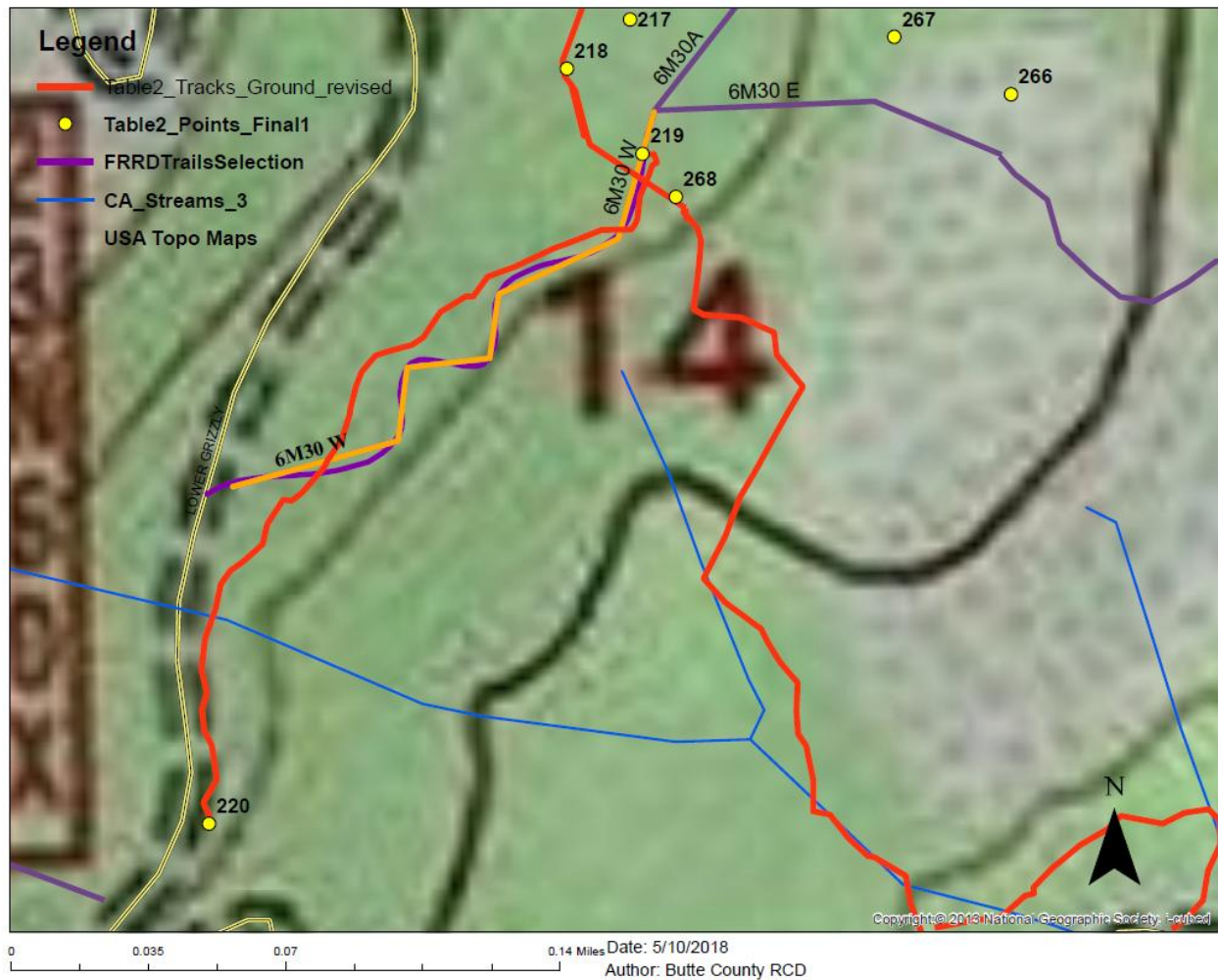
If new trail was constructed, it would allow for short loop options for 6M30 and road 23N60X.

Recommendations:

Construct new trail, at 5-8% average grade, that would create a connection to 23N60X.

MAP

Table 2 Trails Survey -6M30W



TRAIL LOG

Trail 6M30W
Date 10/4/2017
Vehicle Type M
Trail Difficulty n/a
Location Granite Basin
Begin Segment 219
End Segment 220
Track ID
Trail Distance 0.17
Avg Trails Slope
Survey Completed by Thad/ Aric

Section B= Begin/ E= End/ P=Point	Section Length	Trail Slope	Crossings	Cause Code	Comments	Photo Numbers
B=219					no evidence of trail on ground	290
E=220						291
Reroute						
B=219		5%			Laid out new trail 5-8% grade	
E=220		8%			connects to 23N60X track: 2017-10-05 102113	

PHOTOS



6M31E

NARRATIVE

Trail: 6M31E

Location: Granite Basin

Designated Use: M

Season of Use: 5/1-10/14

Trail Difficulty: n/a

Length: 0.15

Trail mitigations per Table 2: Install crossing for MYLF. Season of use for MYLF.

Connectivity: Trail is no longer on ground and does not provide any connectivity to other trails.

Current Trail Usage: Trail no longer on ground

Observations: Mapped location starts at road failure and goes into riparian area

Natural Resource Impacts and Sustainability: Mapped trail is located in riparian area

Level of Cost and Maintenance: N/A

Recreational Value: Trail not on ground

Recommendations: Trail is not on ground and should not be added back to MVUM.

MAP

Table 2 Trails Survey -6M31E



TRAIL LOG

Trail 6M31E
 Date 10/4/2017
 Vehicle Type M
 Trail Difficulty easiest
 Location Granite Basin
 Begin Segment 211
 End Segment 215
 Track ID
 Trail Distance 0.15
 Avg Trails Slope
 Survey Completed by

Section B= Begin/ E=

End/ P=Point	Section Length	Trail Slope	Crossings	Cause Code	Comments	Photo Numbers
B=211					Trail starts at road failure in bend	283
E=215					no evidence of trail, goes into riparian area 6M30 trail on ground, continues	284

PHOTOS



6M34A

NARRATIVE

Trail: 6M34A

Location: Granite Basin

Designated Use: M

Season of Use: 0.37

Trail Difficulty: N/A

Length: 0.37 miles

Trail mitigations per Table 2: Rolling dips, out-sloping and hardened crossings.

Connectivity:

- To the north, trail connects to 6M34
- To the south, trail connects to 23N28X, which connects to 6M30
- This trail would allow connection to trails and roads on the north side of Oro Quincy Hwy.

Current Trail Usage: Not currently utilized and no longer on ground.

Observations:

Trail is no longer on ground and north end of trail is unrecognizable. Traces of an old road bed can be found, with water bars on some sections. South end of the trail has a large embankment down to road below. Area overall is thinned, but is on a steep side slope (20-25%).

Natural Resource Impacts and Sustainability:

This trail was located in proximity to a perennial stream, but has no current impact and does not cross stream.

Level of Cost and Maintenance: If trail was placed back in its original location (steep fall line), it would be a challenge to maintain and could pose issues to the stream below. If trail was relocated and laid out at a lower grade, it would have lower impact on natural resources and require less maintenance.

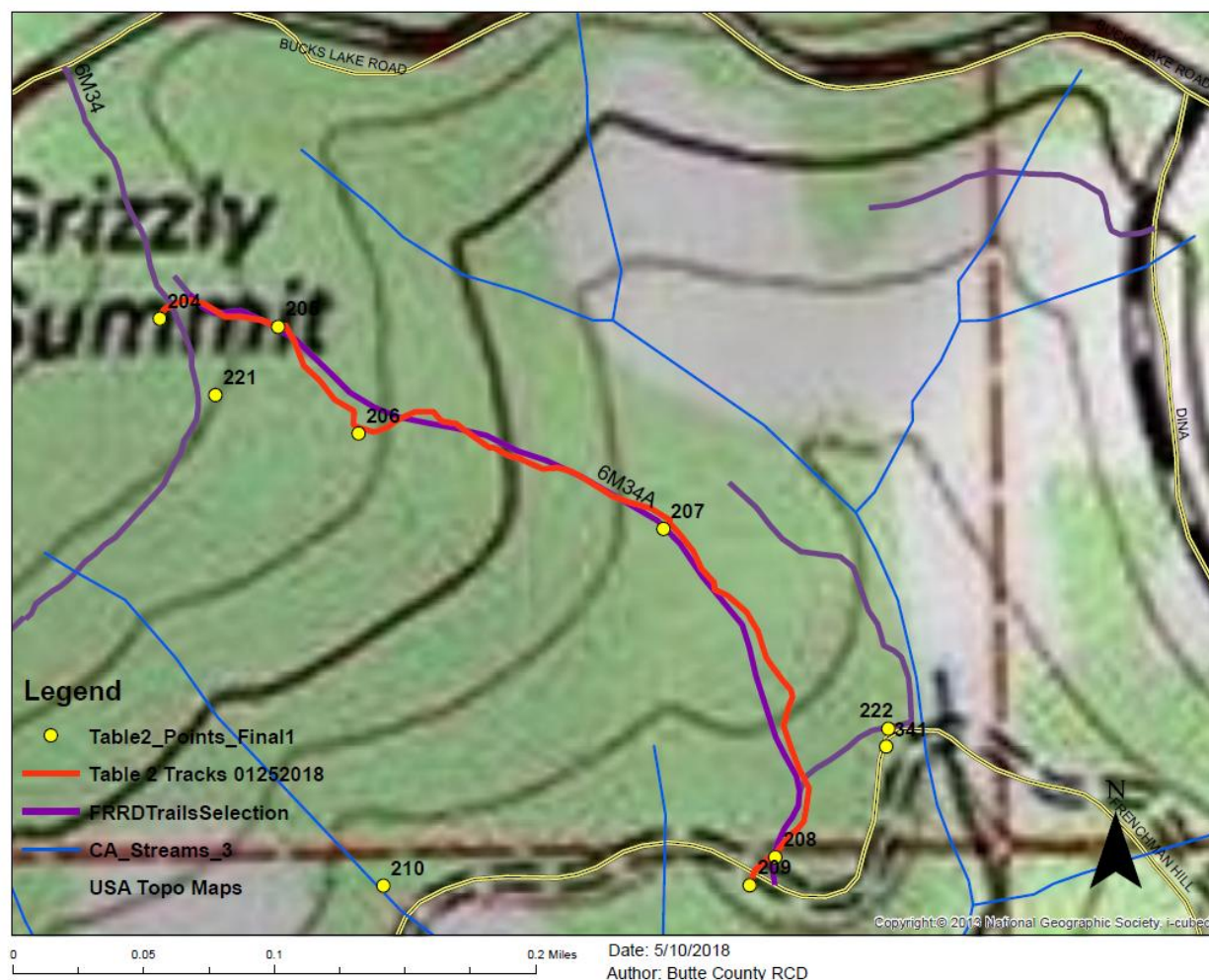
Recreational Value: The 6M34A, though not utilized and no longer on ground, nonetheless has high recreational value because of the opportunity to connect to surrounding trails and create loop options.

Recommendations:

Although this trail could be re-established on its same mapped aspect, it would still be a steeper grade due to topography (estimated at 10% with multi climbing turns). Alternatively, if 6M34 (which connects to 6M34A at its north end) could be extended to the west to connect with road 23N60X (open to all vehicles), then that would provide connectivity to trails on both sides of Oro Quincy Hwy. It is recommended that the extension be for 50'> vehicles, to allow for increased access.

MAP

Table 2 Trails Survey -6M34A



TRAIL LOG

Trail 6M34A
 Date 10/6/2017
 Vehicle Type M
 Trail Difficulty n/a
 Location Granite Basin
 Begin Segment 204
 End Segment 209
 Track ID
 Trail Distance 0.37
 Avg Trails Slope
 Survey Completed by Thad/ Aric

Section B= Begin/ E=		Section Length	Trail Slope	Crossings	Condition Code	Cause Code	Comments	Photo Numbers
End/ P=Point								
B=204	E=205	250 ft	-25%				start of trail off road- 6M34, no trail on ground old logging road, evidence of WB's but	277
B=205	E=206		-15%				continues fall line, hard to identify	
B=206	E=207	700 ft	-20%				vegetation cover is light	
B=207	E=208	850 ft	-30%				goes fall line toward creek	278
B=208	E=209	110 ft	-5%				water bars in tact, NC to stream	
B=209			-30%				trail flattens, evidence of old bench	
							trees growing on trail bench	
							fork in trail, steep grade to road, incised	279
							overgrown, End of Trail	280

PHOTOS



NARRATIVE

Trail: 6M36

Location: Granite Basin

Designated Use: M

Season of Use: 9/16-10/14

Trail Difficulty:

Length: 0.86

Trail mitigations per Table 2: Install crossing for MYLF; season of use for CSO/ NOGO/ MYLF.

Connectivity:

- To north, trail connects to road 23N23 (open to all vehicles)
- To south, trail connects to road 23N58Y (open to all vehicles) and trail 6M29D (M).
- Connection to 6M29D creates loop opportunity.

Current Trail Usage: Currently, trails see high usage for the area, and show signs of active maintenance.

Observations:

Trail to north end is in good condition, but could benefit from some drainage maintenance work. Traveling south, the trail goes into a low area and crosses a perennial stream, and is hydro connected. The south end of the trail has some soil erosion issues, and there is evidence of non-motorcycle travel on south end of trail.

Natural Resource Impacts and Sustainability: Trail does have hydro connectivity in several locations and some entrenched trail (sediment loss).

Level and Cost and Maintenance: Relocation of several sections of the trail and installation of a bridge would require significant funds, but would reduce the required maintenance and natural resource impacts over the long term.

Recreational Value: With a high level of usage and strong connectivity, 6M36 has a high recreational value.

Recommendations: With the installation of a bridge at the perennial stream crossing, relocating the fall line sections to side hill, and moving the south end of trail to prevent non-M access, many of the current natural resource impacts would be reduced – and the recreational experience would be enhanced as well.

Table 2 Trails Survey -6M36



TRAIL LOG

Trail 6M36
Date 10/5/2017
Vehicle Type M
Trail Difficulty more difficult
Location Granite Basin
Begin Segment 225
End Segment 248
Track ID
Trail Distance
Avg Trails Slope
Survey Completed by Thad Walker, Aric
Overall Rating

Section B= Begin/ E=	End/ P=Point	Section Length	Trail Slope	Crossings	Cause Code	Comments	Photo Numbers
B 225		290 ft	-5%			Trail Start- Trail Shows Use	292
E 226						Trail 226 comes in from L	
B 226		740 ft	-10/-15%			Series of RGD functioning well/ NC	293
E 227						Basic RGD maintenance	
B 227		130 ft	-25/-30%			Steep grade, signs of surface transport	
E 228						Install 2 RGD, flattens out at bottom	
B 228		315 ft	+/- 3%			trail contours on flat area, ferns present	294
E 229						no sign of soil moisture or transport	
P 229						Perennial Stream, shows evidence of high flow	295
Site 5						not escaping channel, shows minimal bank erosion	296 LB
						steep V, naturally cobbled, stable in banks, install armored crossing	297 RB
B 229		125 ft				flat along historic flood plain, mapped trail departs ground trail	298
E 230						ephemeral side channel, forded crossing, install armoring	
B 230		530 ft	+3/+6%			trail climbs to ridge, evidence of historic ditch R, install 5 RGD	299
E 231							
B 231		425 ft	-10/-25%			steep grade, evidence of trail incision,	300
E 232						consider re-route to avoid low area, historic ditch connects into trail	301
B 232		230 ft				ephemeral stream connected from historic ditch	
E 233						move trail up hill, reroute	302
B 233		290 ft	+/- 1/5%			flat trails runs into ephemeral P=234	
E 234							
P 235						ground trail re-connects to map trail	304
						no evidence of former trail use- berm intact, DG soils, continue on ground trail	
B 235		1075 ft	-5/-20%			fall line to end of trail, heavy soil loss, NC, consider reroute P=244	
E 236						gradual side slope, alternative 10 RGD but likely to erode, evidence of quad use	
						consider alternate to by-pass to road connection/ connect direct to 6M29D	
						P= 236 end of 6M36 ground	305
B 235		235 ft	-25/-30%			map trail evaluation: no evidence of recent use	
E 245						DG soil, steep fall line	
B 245						trail flattens P=235, then climbs, road does not appear on ground	
E 246							
B 246						evidence of road reappears on ridge top	312
E 247						P=313 road crosses creek, limited evidence of road	313
P 248						map trail connects to ground trail	

6M36 Reroutes

Reroute ID	Start	End	Track	Photo
RR1	315	316	2017-10-25-123337	avoids steep grade, adds narrow single-track
RR2	322	323	2017-10-25-150629	avoids low area and erosion issues
RR3	317	318	2017-10-25-141557	moved DH
RR4	319	320	2017-10-25-143748	reroutes short section, over grade

PHOTOS







NARRATIVE

Trail: 9M04

Location: Little Grass Valley

Designated Use: M

Season of Use: 5/1-10/14

Trail Difficulty: n/a

Length: 0.18

Trail mitigations per Table 2: Install crossing for MYLF, season of use for MYLF.

Connectivity:

- To the west, trail connects to 21N77Y (all vehicle), which connects to FS HWY 512.
- To the east, trail connects to 21N78Y (all vehicle).
- Overall connectivity is redundant; other options for connectivity exist in this area.

Current Trail Usage: No current usage; trail is no longer on ground.

Observations: From the west, the trail was hard to locate. It crosses an old irrigation ditch. Walking down slope, some evidence of old road bed and resource extraction was found. Steep fall line grade (40-50% in places) descends to perennial stream. No evidence of old trail hydro connectivity.

Natural Resource Impacts and Sustainability:

Due to the steep grades and perennial stream in area, this is not a viable trail location. If trail was reopened, it would have natural resource impacts.

Level of Cost and Maintenance: Re-opening this trail would not be feasible from a cost of construction and long term maintenance perspective.

Recreational Value: Stream is a positive control point to visit via foot travel, but overall, this area has no OHV value and would never be sustainable.

Recommendations: Do not reestablish trail or add back to MVUM. No additional restoration work needed to decommission.

Table 2 Trails Survey -9M04



TRAIL LOG

Trail 9M04
 Date 10/12/2017
 Vehicle Type M
 Trail Difficulty n/a
 Location Granite Basin
 Begin Segment 302
 End Segment 304
 Track ID 017-10-12 163722
 Trail Distance 0.18
 Avg Trails Slope
 Survey Completed by Thad, Andrew, Aric

Section B= Begin/ E=	End/ P=Point	Section Length	Trail Slope	Crossings	Condition Code	Cause Code	Comments	Photo Numbers
B=302			0%				Trail starts off road and connects to irrigation ditch	401
E= 303			-15%				no evidence of use, no bench, entrance blocked	
B=303		43 ft					steep DH to abandoned road bench	402
		55ft						
		77 ft	-50%				fall line grade, still no evidence of trail	
		200 ft	-40%				connects to old irrigation ditch	405
		381 ft	-36%					
		524 ft	-10%				break in grade	
		601 ft	-28%					
		681 ft	-40%				continues fall line	
E=304 Site		881 ft					Perennial stream, riparian vegetation, stable in bank	403
							no sediment entering stream	404
							No evidence of trail on other side of stream	

PHOTOS





NARRATIVE

Trail: 9M05

Location: Little Grass Valley

Designated Use: <50"

Season of Use: n/a

Trail Difficulty: easiest

Length: 1.57

Trail mitigations per Table 2: Cultural SPM's needed.

Connectivity:

- To west, trail connects to 21N15 (all vehicles)
- To east, connects to FS Hwy 511A
- Close to town and a staging area, this trail provides access to the OHV area and creates loop opportunities

Current Trail Usage: Current use is high.

Observations: On west end, trail saw recent logging operations. Logging operations had done road work on trail and had a few improperly installed culverts. Overall, trail grade is sustainable, but needs drainage work. Engineering assessment needed for perennial stream crossing (Rabbit Creek). Many of the culverts were clogged and non-functional, creating trail erosion and sediment loss. Drainage work and armoring also needs to be completed on east end of trail, where there is a riparian area and access to highway.

Natural Resource Impacts and Sustainability:

Evidence of sediment deposition at Rabbit Creek crossing. Though many of the other sections of trail are not showing evidence of hydro connectivity, future possibility of this is high due to proximity to stream and lack of culvert maintenance.

Level of Cost and Maintenance:

Much of the cost will depend on the Rabbit Creek Crossing assessment. Road-to-trail conversion will be a substantial cost, but will greatly reduce impacts on natural resources, as well as reducing maintenance needs.

Recreational Value:

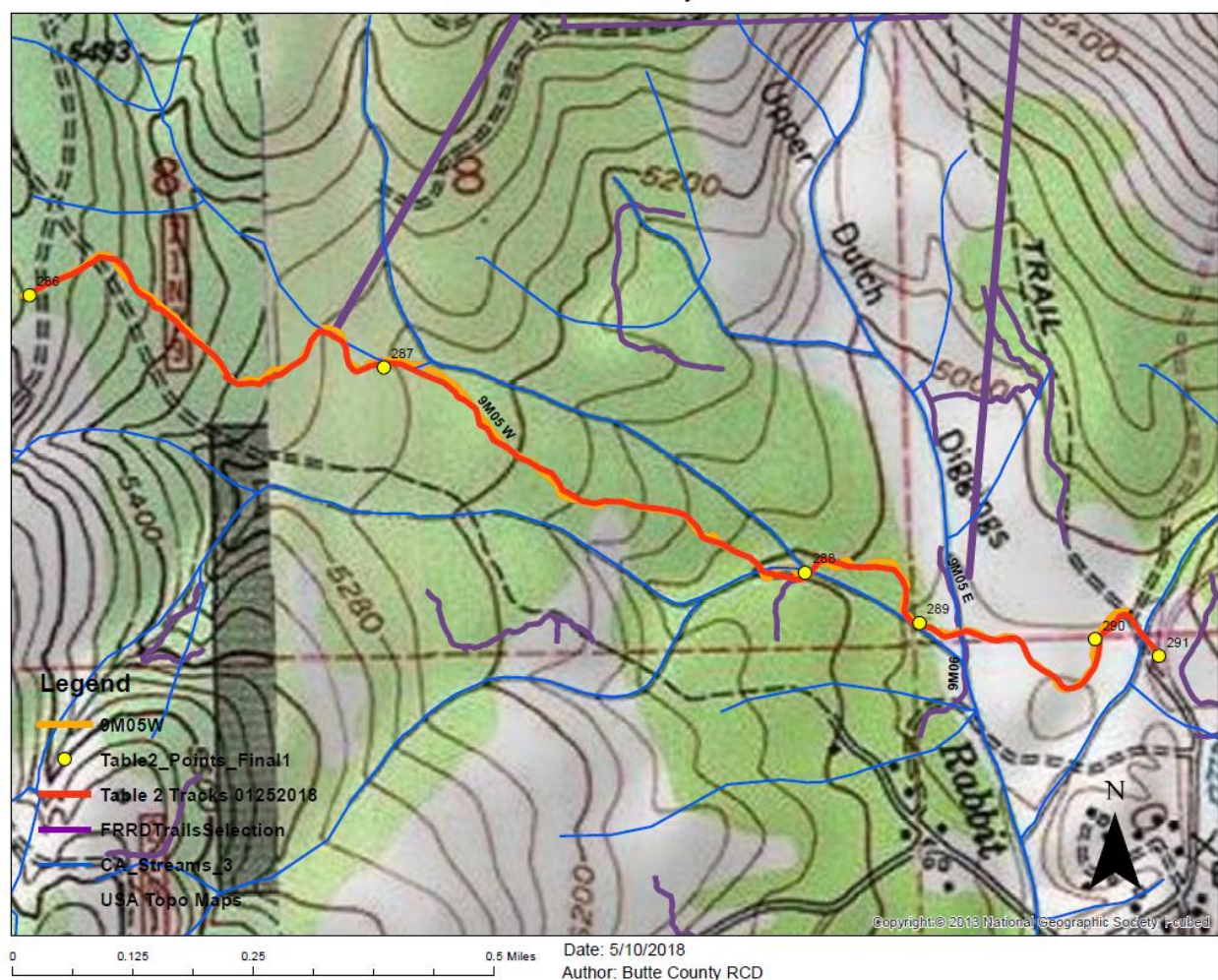
Due to connectivity, level of use and allowable uses, 9M05 has high recreational value.

Recommendations:

Trail is a logging road on its west end (15+ ft width) with recent drainage work associated with logging activity. This drainage work is functioning and sustainable. East of the logging work, it is recommended that road-to-trail conversion take place. This would involve pulling culverts and installing rock-armored rolling dips, to allow for natural hydro flow and reduce natural resources impacts. Sufficient quantities of rock are already on site for this work. A complete engineering assessment is needed on the Rabbit Creek crossing, due to undersized culvert and evidence of side channels. East end of road (Dutch Diggings Area) should be graded and drainage installed to reduce impact on riparian area.

MAP

Table 2 Trails Survey -9M05



TRAIL LOG

Motorized Trails Assessment Study for Table 2 Trails

Trail 9M05
 Date 10/11/2017
 Vehicle Type <50"
 Trail Difficulty easiest
 Location Little Grass Valley
 Begin Segment 286
 End Segment 291
 Track ID 2017-10-11 173043
 Trail Distance 1.57
 Avg Trails Slope
 Survey Completed by Thad, Andrew

Section B= Begin/ E=

End/ P=Point	Section Length	Trail Slope	Crossings	Condition Code	Cause Code	Comments	Photo Numbers
B=286		-10%		Green		Trail starts at road intersection, evidence of recent logging operations/ road maintenance	349
	125 ft					15 ft width for tread, evidence of high use, no veg RGD in place and functioning	350
	337 ft					RGD in place and functioning	
	558 ft					RGD in place and functioning	
	891 ft					RGD in place and functioning	
	1121 ft					RGD in place and functioning	
	1451 ft			Yellow		culvert not installed correctly, not on grade	351
	1974 ft					culvert in place	
	2152 ft					culvert not installed correctly, not on grade	
	2410 ft					culvert, clean/ overtopping road, diverts on road	
	2561 ft					clear channel	352
E=287	2610 ft					End of timber unit- expect additional soil run off	
B=287	0 ft			Yellow		8.5 width/ rocky surface, boulder/ cobble lower side slope, water diverting down trail	352
	150 ft					Install RAD (rock armored dip) rocky and limited soil	
	208 ft					Install RAD	
	285 ft					reroute around rock choke point	
	459 ft					Install RAD	
	500 ft					side channel spilling onto trail-elevate road/ widen channel	
	535 ft					24" culvert- pull culvert and install armored crossing	
	665 ft					Install RGD (soil in area)	
	741 ft					culvert clogged- pull culvert/ road armored crossing	
	960 ft					trail levels/ install RGD	
	1087 ft					install RAD- rocky area	
	1140 ft					install RAD	
	1285 ft					culvert clogged- pull culvert/ road armored crossing	
	1442 ft					install RAD	
	1565 ft					Install RGD (soil in area)	
	1641 ft					install RAD	
	1750 ft					Install RGD (soil in area)	
	1794 ft					install RGD	
	1867 ft					install RAD	
	1956 ft					install RGD	
	2132 ft					remove downed tree	
	2212 ft					create sediment basin for drainage	
	2290 ft					install RGD	
	2370 ft					install RAD w/ extended exit 30-40'	
	2424 ft					install RAD w/ extended exit 20'	
	2536 ft					install RAD	
	2620 ft					install RAD	
	2705 ft					road enters from R "the pines"	
E=288	2800 ft			Red		Intermittent stream w/ large flow 4' culvert in place	
						evidence of stream topping culvert, boulder/ bed rock substrate	356 DS
						overflow adjacent channel/ topping road evidence of substrate	357 DS
						scoured on DS side, minimal soil covering culvert inlet	358
							359 US
						rock piled at channel on inlet side- poor dam	
						install bridge or larger open bottom culvert w/ trash rack	
B=288		0		Yellow		climbs from stream crossing	
	70-131 ft	12%				pull berm and out slope	
	260 ft	-5%				install RGD	
	437 ft					install RGD	
	551 ft					notch out to drain old irrigation fill ditch	
	659 ft					install RGD	
E= 288	932 ft					start of diggings area	

5=289	0 ft		
	189 ft		crosses another trail
	254 ft		culvert installed- active flow
	334 ft		culvert 36' rusted
	473 ft		muddy area- import gravel 60'x10'
	660 ft		wet area- evidence of muddiness
	721 ft		culvert installed- install trash rack
	757 ft		wet area- evidence of muddiness
	1120 ft		wet area- evidence of muddiness
	1204 ft		wet area- evidence of muddiness
	1278 ft	Red	double culvert, road entrenched, flowing into stream
	1379 ft		wetland area, topping road, flow going down road
			install open bottom culvert or elevate tread
			wetland area on both sides of road
	1447 ft		wet area- evidence of muddiness
	1592 ft		box culvert installed
	1790 ft		culvert installed
	1800 ft		end of trail- consider season closure
			361

PHOTOS





NARRATIVE

Trail: 9M12

Location: Little Grass Valley

Designated Use: M

Season of Use: 5/1-10/14

Trail Difficulty: n/a

Length: .38 miles

Trail mitigations per Table 2: Cultural SMP's needed, evaluate after MYLF study complete; install crossing for MYLF. Season of use for MYLF.

Connectivity:

- North end of trail connects to 22N55Y (all vehicles).
- South end connects to Forest Hwy 512 (Highway legal vehicle).
- Connectivity creates loop option, but is redundant to the nearby 9M13.

Current Trail Usage: Little to no use; heavy ground cover.

Observations: Trail starts by crossing swell and shows little to no signs of use. Fall line grade is 25-30% on many sections.

Natural Resource Impacts and Sustainability:

Crossing would need to be created at swell to protect MYLF habitat. Steep grades would lead to entrenchment and soil loss if trail was utilized.

Level of Cost and Maintenance:

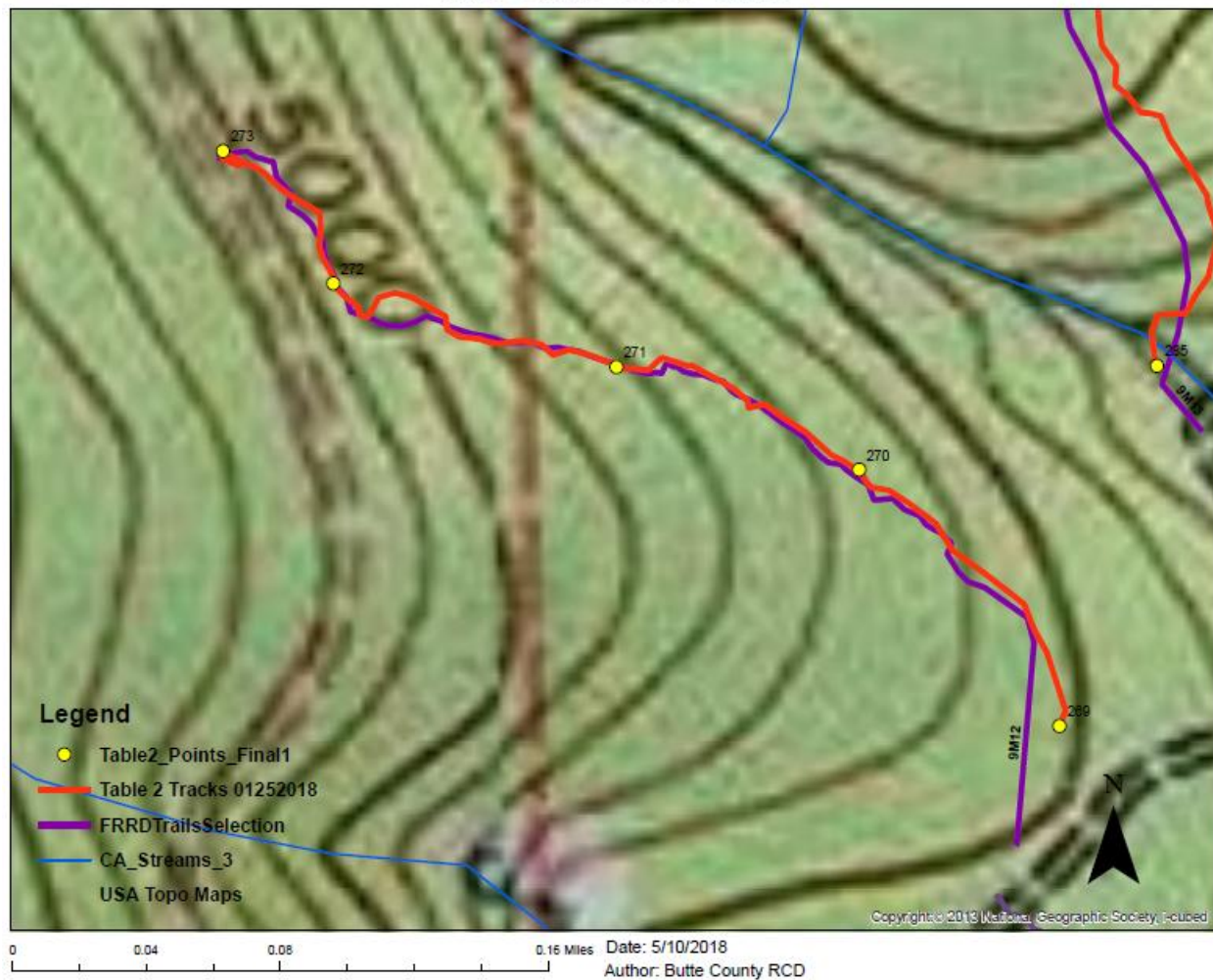
With its steep grades, this trail would need a full rebuild. For the same reason, long-term maintenance would be extensive and frequently needed.

Recreational Value:

With limited to no usage, and a parallel connector (9M13) just east, recreational value is low.

Recommendations: Do not add trail back to MVUM. Needs little to no work for decommission.

Table 2 Trails Survey -9M12



TRAIL LOG

Trail 9M12
 Date 10/11/2017
 Vehicle Type M
 Trail Difficulty
 Location Little Grass Valley
 Begin Segment 269
 End Segment 273
 Track ID 2017-10-11 105632
 Trail Distance 0.38
 Avg Trails Slope
 Survey Completed by Thad and Andrew

Section B= Begin/ E= End/ P=Point	Section Length	Trail Slope	Crossings	Condition Code	Cause Code	Comments	Photo Numbers
B=269	0 ft					little to no use, heavy ground cover starts across road from landing, crosses swell	326
	400 ft	5%				grassy road w/ incision 3-4"	327
E= 270	550 ft	7%				stabilized tread, no active erosion	
B=270		25%				steep/ fall line	
E=271		30%				hits landing (271)	328
B=271		0%				leaves landing	
E=272		25%				heavy vegetation- (272) lower grade/ road bed	
B=272	100 ft					3 skids come together- stays on old road bed	
E=273						trail ends	329

PHOTOS



NARRATIVE

Trail: 9M13

Location: Little Grass Valley

Designated Use: all vehicles

Season of Use: 8/16-10/14

Trail Difficulty: easiest

Length: .48 miles

Trail mitigations per Table 2: Evaluate after MYLF study complete. Season of use for CSO/ MYLF.

Connectivity:

- To North, trail connects to 22N55Y (all vehicles).
- To South, trail connects to Forest HWY 512 (highway legal vehicles).
- Opportunity exists to create loop options, connect with other roads/ trails.

Current Trail Usage: Evidence of moderate and recent usage.

Observations: Overall, trail is sustainable and maintainable. Has a few fall line sections with minor reels. Stable crossing, but needs evaluation for MYLF.

Natural Resource Impacts and Sustainability:

Overall, trail is not hydro connected, and it could be improved with drainage mitigations. Evaluation for MYLF is needed for crossing. Long term sustainability and reduced impacts achievable.

Level of Cost and Maintenance:

Overall, trail is in good condition. Needs additional drainage installation (rolling grade dips). Overall, cost for mitigations is low, and the trail will have limited long-term maintenance needs.

Recreational Value: With evidence of current usage, multiple use, and connectivity to other roads and trails, recreational value for this trail is high.

Recommendations: Complete MYLF study for crossing and complete required mitigations. Complete prescribed drainage work, then add back to MVUM.

MAP

Table 2 Trails Survey -9M13



TRAIL LOG

Trail	9M13
Date	10/11/2017
Vehicle Type	All
Trail Difficulty	easiest
Location	Little Grass Valley
Begin Segment	283
End Segment	285
Track ID	201-10-11 141052
Trail Distance	0.48
Avg Trails Slope	
Survey Completed by	Thad, Andrew

Section B= Begin/ E= End/ P=Point	Section Length	Trail Slope	Crossings	Condition Code	Cause Code	Comments	Photo Numbers
B=283	80 ft	-10%		yellow		starts at intersection with road, moderate use	341
	150 ft	-12%				80 ft install RGD, berm on both sides	
	248 ft					install RGD	
	330 ft					install RGD (large) evidence of reeling	342
	450 ft	-20%		yellow		install RGD	
	543 ft					install RGD	
	672 ft					wet crossing, stable, removes berms	
	710 ft					install critical dip just below crossing	343
	830 ft					install RGD	344
	895 ft	5%				swell crossing, stable	
E=284	950 ft	-6%				intersects road	
S=284	0 ft						
	20 ft					install RGD, water running down road	
	102 ft	0%				goes flat	
	205 ft	-12%				install RGD- water on trail	
	303 ft					install RGD	
	433 ft	-3%				install RGD- trail goes flat	
	600 ft					install RGD	
	690 ft	-15%				install RGD	
	840 ft					install RGD	
	920 ft					install RGD	
	1020 ft					install RGD	
	1100 ft					install RGD	
	1195 ft	-20%				install RGD- grade increases	
	1240 ft	-25%				install RGD- grade increases	
	1300 ft						
	1340 ft						
	1390 ft					install RGD- inboard ditch start	
	1490 ft					inboard ditch end	
E=285	1510 ft					End of trail- installed armored drainage on R runoff from trail going into perennial stream	346/347
						rock available on site	348

PHOTOS





NARRATIVE

Trail: 9M14N

Location: Little Grass Valley

Designated Use: All vehicles

Season of Use: 8/16-10/14

Trail Difficulty: Easiest

Length: 0.94

Trail mitigations per Table 2: Install crossing for MYLF. Cultural SPM's needed. Season of use for MYLF/ CSO.

Connectivity:

- To north, trail connects to 22N53 (all vehicles)
- To south, trail connects to 22N55Y
- Trail allows for access to multiple roads and trails with loop options.

Current Trail Usage: Moderate usage. Access has been limited by fallen trees. Crossing needs recommendation for mitigation (armored or bridge). Rest of trail needs drainage work (rolling grade dips) and trees removed.

Observations:

Old logging road, 10'-15' width for duration of trail. Intermittent crossing needs mitigations. Has several fall line sections, but they are short. Drainage work and tree removal are needed.

Natural Resource Impacts and Sustainability:

Needs a crossing at the intermittent stream. With drainage installation and maintenance and downed tree removal, overall erosion will be greatly reduced.

Level of Cost and Maintenance:

Installing a bridge at the intermittent stream would be costly. If trail drainage is added, long term maintenance needs will be reduced.

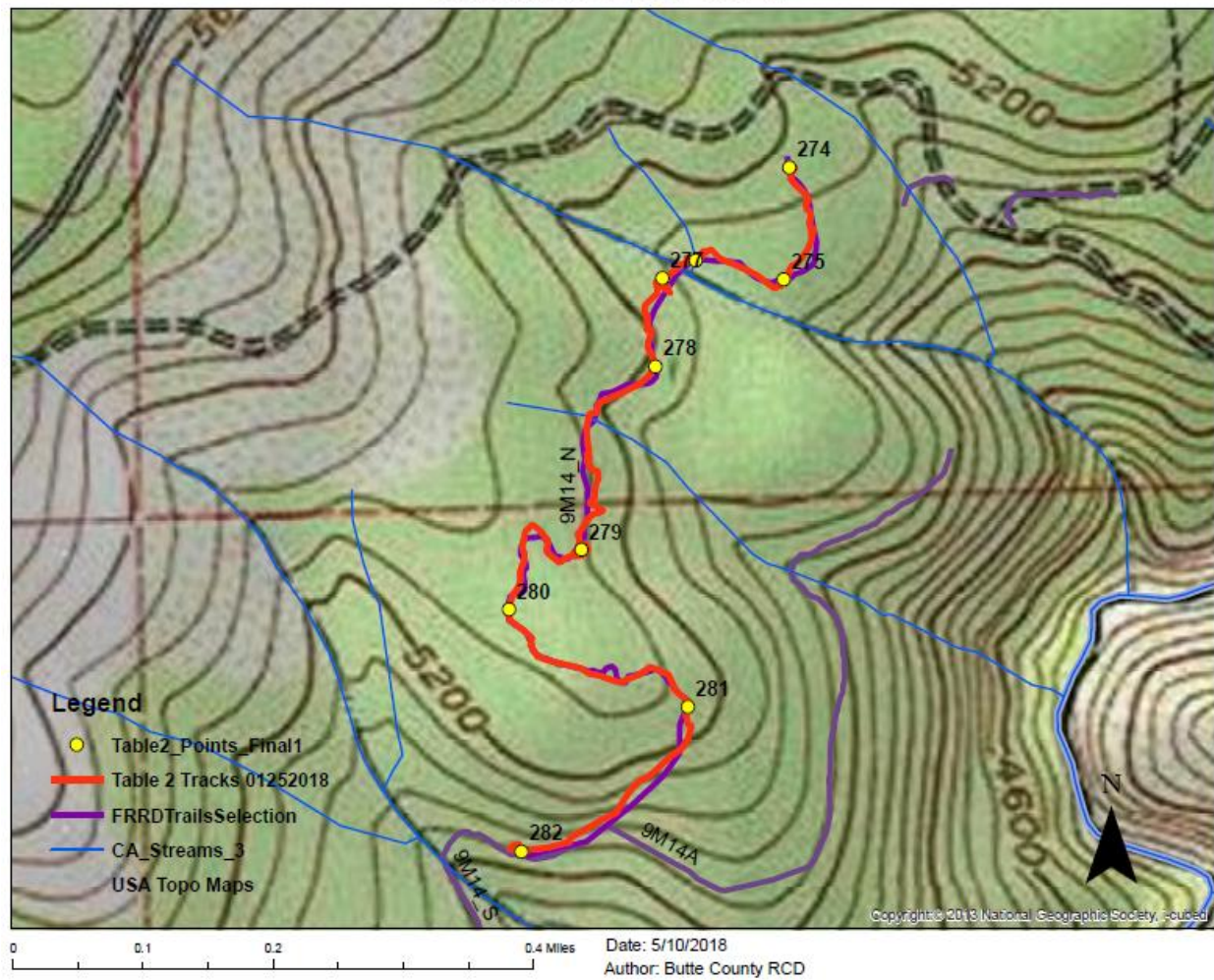
Recreational Value:

With historical use, multiple use, and good connectivity, 9M14N has high recreational value.

Recommendations: Consult with a specialist about the intermittent crossing (either bridge or armored crossing). Then, complete the drainage mitigations, remove the downed trees, and finally add back to MVUM.

MAP

Table 2 Trails Survey -9M14N



TRAIL LOG

Trail	9M149
Date	10/11/2017
Vehicle Type	All
Trail Difficulty	easiest
Location	Little Grass Valley
Begin Segment	274
End Segment	282
Track ID	2017-10-11 132437
Trail Distance	0.94
Avg Trails Slope	
Survey Completed by	Thad, Andrew

Section B= Begin/ E=							Photo Numbers
End/ P=Point	Section Length	Trail Slope	Crossings	Condition Code	Cause Code	Comments	
B=274				Yellow		trail starts and road intersection, 12-15" w not capturing run-off from road low/ mod use, litter coverage RGD need maintenance/ additional	330
	175 ft					install RGD- keep water off road	
	326 ft	10%				road forks at campsite	331
	400 ft					RGD need maintenance	
	540 ft					RGD need maintenance	
	590 ft					trees in trail grade levels	
E=275	0 ft						
S=275	280 ft					large tree forcing reroute	332
E=276	350 ft			Yellow		ephemeral drainage- NC debris dam create sediment detention basin	333
B=276	0 ft						
E=277	150 ft					excavate/ tree at 30 ft	
277 Site				Red		intermittent stream crossing incision 3-4', rock substrate, vertical bank	RB 334 LB 335
						some erosion, appears stable, vegetation Reroute created on L side crosses downstream	
						depositional zone-step down w/debris dam lay back R slope/ armor, install critical dip	
B=277	0 ft	15%		Yellow			
	95 ft					install RGD	
	150 ft					install RGD	
	200 ft	20%				grade increases	336
	300 ft					RGD maintenance -failing	
E=278	390 ft					break in grade	
B=278	0 ft	-5%					
	80 ft					install RGD	
	125 ft					install RGD	
	212 ft					install RGD	
	308 ft					2 large trees 2'd and 3'd	337
	367 ft					reroute goes uphill	
	497 ft					install RGD after swell	
	572 ft					reroute goes below down tree	
	751 ft					2 large trees 4'd	338
	775 ft					reroute rejoins trail	
	806 ft					reroute 3 large trees	
	883 ft					large tree in trail	
Site 279						ephemeral crossing from irrigation ditch	339
	909 ft	10%				reroute rejoins trail	
	1039 ft	15%				grade increases though switchback, install RGD	
	1275 ft					install RGD	
	1365 ft					reroute due to tree	
E=280	1425 ft					reroute rejoins trail, break in grade	
S=280	0 ft	1%					
	100 ft	3%				install RGD	
	153 ft					tree across trail	
	420 ft					install RGD	
	480 ft					install RGD	
	575 ft					install RGD	
	644 ft					install RGD	
	840 ft					install RGD	
E=281	912 ft					2 trees in trail, break in grade	
S=281	0 ft	-15%					
	51 ft					install RGD	
	110 ft					no water bar	
	221 ft					install RGD	
	360 ft					install RGD	
	475 ft					install RGD	
	585 ft					knick to drain low area	
	750 ft					install RGD	
E=282	935 ft					hits road intersection, end of trail	340

PHOTOS





NARRATIVE

Trail: 9M15

Location: Little Grass Valley

Designated Use: M

Season of Use: n/a

Trail Difficulty: moderate

Length: 0.81 miles

Trail mitigations per Table 2: Evaluate after MYLF study complete. Install crossing for MYLF. Cultural SPMs needed.

Connectivity:

- To north end, trail ends at hill top; no connectivity. No evidence of dispersed camping.
- To south, trail ends at FS HWY 890 (highway legal vehicles).
- 21N96B (all vehicle) connects to trail at mid-point.

Current Trail Usage: Trail shows little to no evidence of recent use. South end of trail blocked by tree.

Observations: Overall, trail is on sustainable grades and needs moderate drainage work to reduce erosion impacts. High concern for drainage at Sears Ravine, drainage from Diggings area.

Natural Resource Impacts and Sustainability: There is a multi-culvert crossing from mining area and evidence of water topping trail; this area needs additional hydro and engineering evaluation for impacts and failure possibility (consider decommission of section).

Level of Cost and Maintenance: Unknown.

Recreational Value: Low value for M, due to wide road and no connectivity at north end. With few trail routes in St Louis area, trail may have historical value. North end of trail has dispersed camping potential, but no evidence of recent use.

Recommendations:

Complete additional evaluation of crossing for recommendation and cultural SPMs. Due to lack of trail use and lack of connectivity, this trail has a low priority for adding back to MVUM. May have value to access historical area of St. Louis.

MAP

Table 2 Trails Survey -9M15



TRAIL LOG

Trail	9M15
Date	10/12/2017
Vehicle Type	M
Trail Difficulty	most difficult
Location	Little Grass Valley
Begin Segment	292
End Segment	295
Track ID	2017-10-12 095551
Trail Distance	0.81
Avg Trails Slope	
Survey Completed by	Thad, Arick, Andrew

Section B= Begin/ E= End/ P=Point	Section Length	Trail Slope	Crossings	Condition Code	Cause Code	Comments	Photo Numbers
B=292	80 ft	-5%		yellow		start of trail, 20-25' w avg, trees down at start little/ no use, stable tread, leaf litter	362
	401 ft					WB- maintenance	
	543 ft	-10%				WB- maintenance, increase in grade	
	750 ft					WB- maintenance	363
	926 ft					tree/ culvert	
	1075 ft						
	1170 ft						
E=293						culvert buried, surface erosion 2-3"Dx4' W outlet from mining area, topping road	364
S=293		3%				change in slope	365
	640 ft	-5%					
	950 ft						
E=294	1155 ft			Red		mining site, confluence, 3 culverts, intermittent	366
						culvert US blocked	367
						culvert DS	368
						2 channels, topping road	
						Pull culverts/ open channel, excavate material	
						rehab area, culverts incorrectly positioned	
						not natural stream flow	
S=294	0 ft	15%		Yellow			
	1250 ft					WB-maintenance needed, surface reeling	370
	1403 ft					install RGD	
	1540 ft					install RGD	
	1680 ft					install RGD	
	1900 ft	0%				flat, old landing	
	2419 ft					install 3 sediment basins, road is low	
E=295	2655 ft					end of trail, large tree across trail	371

PHOTOS





NARRATIVE

Trail: 9M16

Location: Little Grass Valley

Designated Use: <50"

Season of Use: 5/1-10/14

Trail Difficulty: Easiest

Length: 1.22 miles

Trail mitigations per Table 2: Evaluate after MYLF study complete. Install crossing for MYLF. Cultural SPMs needed. Season of use for MYLF.

Connectivity:

- To north, trail connects to FS HWY 890 (highway legal vehicles).
- To south, trail ends at Caledonia Mine, private property.
- No loop opportunities.

Current Trail Usage: Moderate

Observations:

Created for mine access: Wide road with multiple stream crossings. Lots of mining infrastructure still in place. Number of hydro connected sites. Sustainable trail grades, but lots of draining mitigations needed.

Natural Resource Impacts and Sustainability:

This trail would need a crossing (bridge or armored), based on MYLF study. Prescribed drainage mitigation would reduce soil loss and hydro connectivity.

Level of Cost and Maintenance:

Due to the large number of mitigations needed and their scope, the cost of mitigation work for this trail would be high. If mitigations were complete, maintenance needs would be reduced.

Recreational Value:

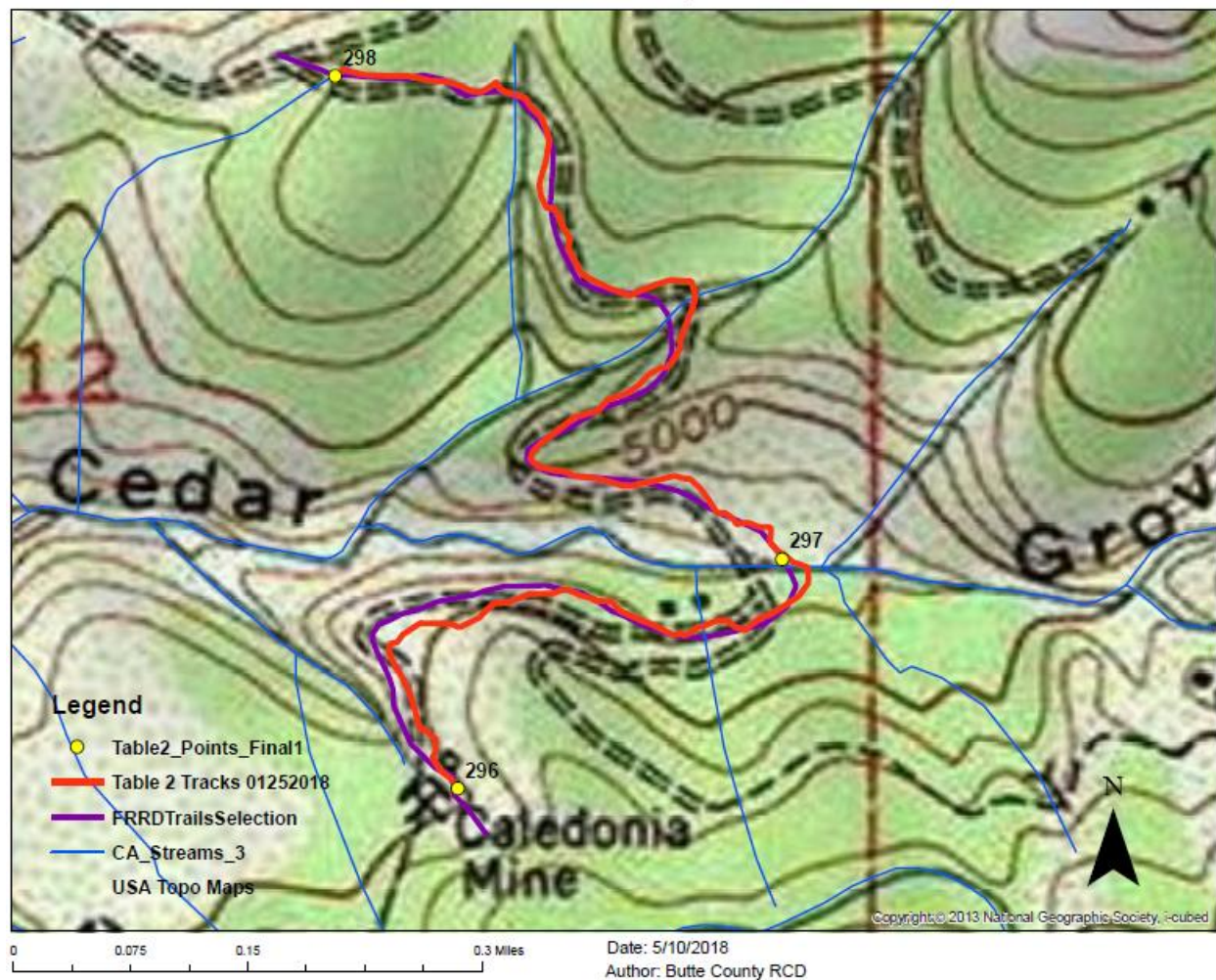
Trail appears to have high value for mining/ historical access (including active claims) -- but low recreational value, due to lack of connectivity and use.

Recommendations:

Considering the lower recreational value, this trail should be low priority for OHV fund dollars to complete mitigations. Also, there are concerns about connection to private property and mining operations.

MAP

Table 2 Trails Survey -9M16



TRAIL LOG

Trail	9M16
Date	10/12/2017
Vehicle Type	<50"
Trail Difficulty	easiest
Location	Little Grass Valley
Begin Segment	296
End Segment	298
Track ID	2017-10-12 120810
Trail Distance	1.22
Avg Trails Slope	
Survey Completed by	Thad, Andrew, Aric

Section B= Begin/ E=		Section Length	Trail Slope	Crossings	Condition Code	Cause Code	Comments	Photo Numbers
End/ P=Point								
B=296			0				trail start- low use, little recreation value	372
							mine sites, no connectivity	373
	38 ft						ephemeral crossing	374
							rock retaining basin for mining	
	106 ft		15%				trail climbs out of stream to flat	
	164 ft		-20%				trail DH- road reinforced with rock/ stable	
	250 ft		10%				install RGD	
	400 ft		15%				install RGD	
	551 ft						sign "Oacoes Too" mining claim/ trail levels	375
	811 ft						install RGD, install outslope drain	
	909 ft		5%				break in slope	
	1200 ft		-10%				trail DH, de berm road, stable tread, historic wall	
	1530 ft						evidence of surface erosion, road captures 25 ft	376
							rock retaining wall on down hill side	
	1650 ft		-3%				crosses ephemeral drainage	
			-5%				portions rock armored, stable, vegetation	377
	1783 ft						ephemeral diverting down road 40', stable	378
							remove sediment, rock armor, critical dip install	379
	1869 ft						spring with non-natural retaining element (297)	380
							old pipe, flowing down road 20', not functioning	
	1976 ft						road comes in from L	
	2152 ft						road reconnects with trail	
	2195 ft						Intermittent drainage crossing-overflow from stream	
E=297	2260 ft						intermittent stream	
Site 297							heavily mined stream, riparian vegetation	381 US
							6-10' BFF, max depth 1'	382 DS
							mined to bedrock, boulder/ cobbles/ gravels	383 RB
							leave as forded crossing, no current flow,	384 LB
S=297	0 ft						flat leaving stream	
	212 ft		17%				exits stream terrace	
	335 ft						install RGD	
	436 ft						swell, stable; no evidence of surface erosion	385
	490 ft						install RGD	
	515 ft						concentrated flow on road, active erosion D 4-5"x1' W	
	600 ft		12%				install RGD, pull berm	
	666 ft						install RGD, pull berm	
	740 ft						install RGD, pull berm	
	815 ft						install RGD, pull berm	
	900 ft						install RGD, pull berm	
	1034 ft						install RGD, pull berm	
	1104 ft						install RGD, road incised	
	1316 ft						install RGD, extend exit 40"	
	1439 ft		20%				install RGD, grade increases	
	1530 ft		20%				install RGD	
	1630 ft		-2%				break in slope	
	1745 ft						impoundment, dam created by falling tree	386 US
							perennial stream, evidence of sub-surface flow	387
							riparian zone below, head cut due to road	388 DS
							eroded to substrate, remove log, drain	389
	1775 ft						install armored crossing, impoundment ends, tree	
	1775 ft		17%				trail goes UH	
	1875 ft		5%				install RGD, swell crossing trail	
	1955 ft						install RGD	
	2108 ft						install RGD	
	2210 ft						install RGD	
	2350 ft		5%				remove berm, outslope, pull berm	
	2435 ft						install RGD, pull berm	
	2576 ft						install RGD, stop pull berm	
	2705 ft						swell, stable, remove berm, outslope	
	2833 ft		10%				swell, stable, old pipe	
	2963 ft						install RGD	
	3152 ft		-5%				break in grade	
	3290 ft						install RGD	
	3380 ft						install RGD	
E=298	3500 ft						trail ends	390

PHOTOS







NARRATIVE

Trail: 10M02

Location: Little Grass Valley

Designated Use: <50"

Season of Use: 8/16-10/14

Trail Difficulty: Most Difficult

Length: 1.25

Trail mitigations per Table 2: Install crossing for MYLF. Cultural SPMs needed. Season of use for CSO/ MYLF.

Connectivity:

- North end connects to 21N08 (all vehicles).
- South end connects to 10M01 (all vehicles).

Current Trail Usage: Low

Observations:

Majority of trail starting from North end is sustainable and needs minimal drainage work. 1755' feet on south end has steep grades and significant erosion and evidence of hydro connectivity.

Natural Resource Impacts and Sustainability:

Although most of the trail has minimal issues, the south end has significant soil loss and evidence of hydro connectivity. This is due to hydrology, mechanical erosion, and steep trail grades (35+% for long runs).

Level and Cost and Maintenance:

There are limited solutions for the south end of trail, and limited opportunity for reroute due to steep slopes and drainages.

Recreational Value:

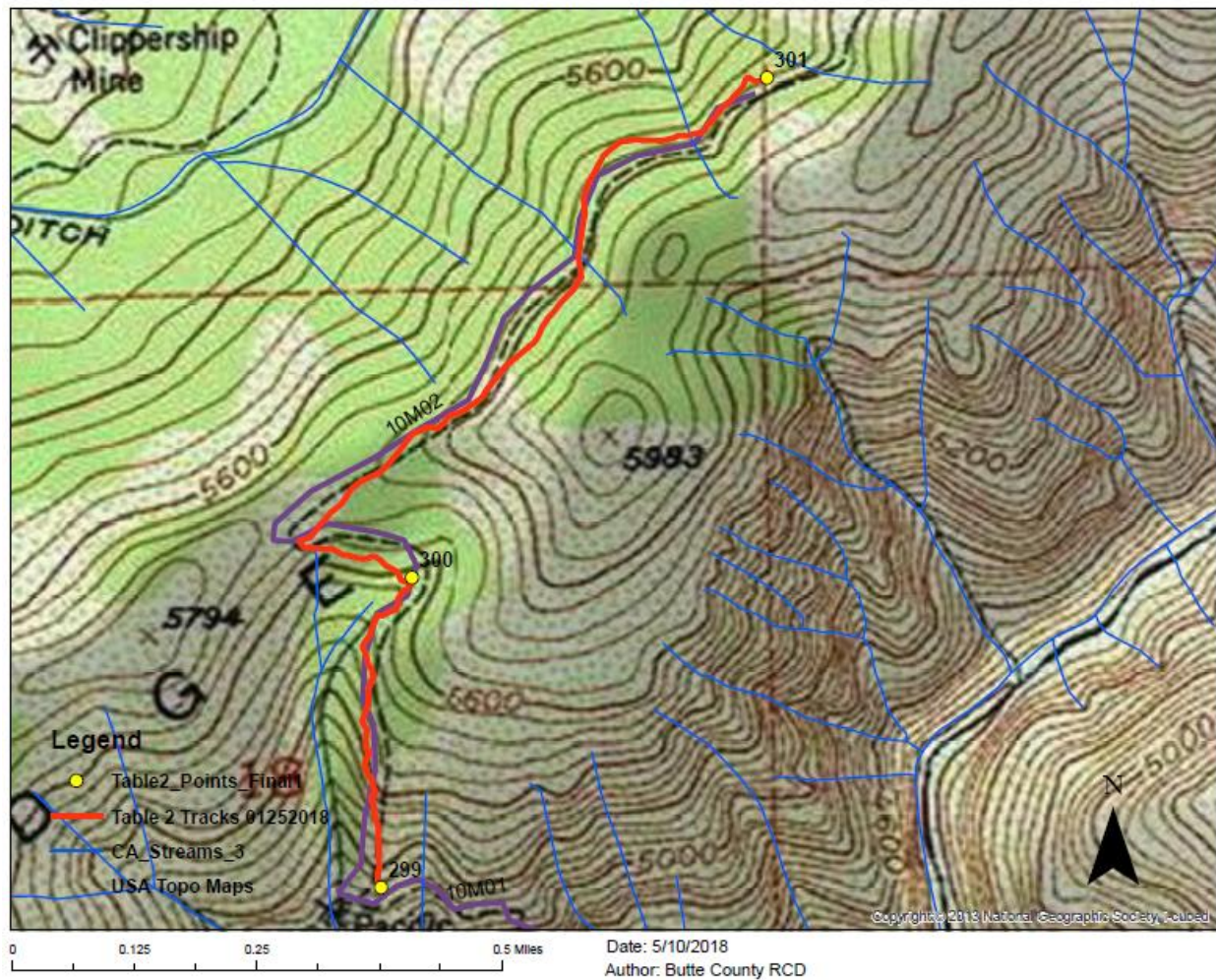
Trails does have good connectivity but evidence of use is low. Access is remote and difficult. Multiple trees had to be removed to access the start of trail. The south end of the trail presents extreme difficulty for 50" OHV use.

Recommendations:

Consider closure and restoration of south end of trail. Complete the mitigations on north end, but this work should be lower priority due to the loss of connectivity that will result from the mitigation work at the south end. Long-term, look for a viable re-route that could extend this trail on the ridge top (i.e., south-west) to eventually connect with 21N69A.

MAP

Table 2 Trails Survey -10M02



TRAIL LOG

Trail	10M02
Date	10/12/2017
Vehicle Type	<50"
Trail Difficulty	more difficult
Location	Little Grass Valley
Begin Segment	299
End Segment	301
Track ID	2017-10-12 163222
Trail Distance	1.25
Avg Trails Slope	
Survey Completed by	Thad, Andrew, Aric

Section B= Begin/ E=		Section Length	Trail Slope	Crossings	Condition Code	Cause Code	Comments	Photo Numbers
End/ P=Point								
B=299	0 ft		33%				trail starts; steep grade, 10-15' W	391
			35%				little evidence of use, 99% void of soil	392
	444 ft		25%				cobbles and gravels covering bedrock	
	567 ft		22%				break in grade, canopy cover, some soil	
							spring from back slope, running down trail 40'	
							saturated condition, vegetation cover, stable	
	607 ft						spring- back slope	393
	647 ft						spring- back slope	
	724 ft		27%				spring or seep, little to no soil, rock- gravel/ cobbles	394
							trail is primary drain for large/ steep watershed above	
	820 ft		35%				road connects from L	
	1223 ft		15%				change in grade/ soil and veg present, install water bar every 40'	395
	1327 ft						outslope drain	
	1538 ft						tree in trail- creates reroute	
	1600 ft						tree in trail	
	1660 ft						reroute returns to trail	
	1755 ft						stop water bar install and restoration work	
							trail stable, no surface erosion, no sediment transport	
300 Site	1766 ft						intermittent stream, riparian vegetation, water present	394 US
	1782 ft		0%				forded crossing stable, natural cobble, leave as is, trail flattens	395 DS
	1865 ft						break in slope, install RGD	
	1945 ft						install RGD, de berm	
	1950 ft		17%				tree across trail	
	2025 ft						install RGD	
	2075 ft		23%				install RGD, grade increases	
	2125 ft						install RGD	
	2175 ft						install RGD, de berm	
	2225 ft						install RGD	
	2275 ft						install RGD, de berm	
	2325 ft						install RGD	
	2375 ft						install RGD, de berm	
	2425 ft						install RGD	
	2447 ft		12%				top of switchback, break in slope, install RGD	
	2647 ft						install RGD, tread stable	
	2765 ft		15%				install RGD	
	2825 ft						install RGD	
	2975 ft						install RGD	
	3125 ft						install RGD	
	3275 ft						install RGD	
	3331 ft		5%				install RGD, break in slope	
	0 ft		-17%				break in slope, zero out, no GPS pin	398
	1121 ft						stable bench, no surface erosion	
	1221 ft		3%				break in slope, rolling contour, de berm shoulder	
	1875 ft		-3%					
	2303 ft		10%				change in slope	
	2425 ft						swell, stable, little surface erosion	
	2787 ft						reroute created due to downed tree	399
E=301	2900 ft						trail ends, stop survey	400

PHOTOS



