



California Regional Water Quality Control Board

Lahontan Region



Winston H. Hickox
Secretary for
Environmental
Protection

Internet Address: <http://www.mscomm.com/~rwqcb6>
2501 Lake Tahoe Boulevard, South Lake Tahoe, California 96150
Phone (530) 542-5400 • FAX (530) 544-2271

Gray Davis
Governor

August 25, 1999

Ed Gee, Forest Supervisor
Lake Tahoe Basin Management Unit
870 Emerald Bay Road, Suite 1
South Lake Tahoe, CA 96150

Ex C 1

Dear Mr. Gee:

NOTICE OF VIOLATION - DISCHARGES OF WASTES IN EXCESS OF LAHONTAN BASIN PLAN WATER QUALITY OBJECTIVES FOR FECAL COLIFORM ON USFS/LTBMU GRAZING ALLOTMENTS

BACKGROUND

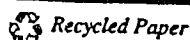
The U.S. Forest Service (USFS) Lake Tahoe Basin Management Unit (LTBMU) manages three grazing allotments for large animals on public lands in the southern portion of the Lake Tahoe basin watershed: (1) Cattle on the Meiss Meadows allotment in the upper reaches of the Upper Truckee River subwatershed, (2) Horses on the Baldwin allotment in the Tallac Creek subwatershed, and (3) Cattle on the Cold Creek allotment in the Cold Creek subwatershed.

The USFS/LTBMU and the Lahontan Regional Water Quality Control Board (LRWQCB) have been working together to monitor, assess and mitigate where necessary, the impacts of these activities to riparian and water quality since about 1993.

The general conceptual approach taken to assess and mitigate grazing impacts has followed the guidelines of the *Nonpoint Source Management Plan* (SWRCB, 1988), and the more specific *California Rangeland Water Quality Management Plan* (SWRCB, 1995). The approach is designed to minimize the amount of regulatory involvement necessary to achieve water quality objectives. The management approaches range (in sequential order of increased stringency) from: (1) Voluntary implementation of Best Management Practices (BMPs); (2) Regulatory-based encouragement of BMPs; and (3) effluent limitations. For Federal institutions with management responsibility for publicly owned lands, such as the USFS, the preferred mechanism to achieve nonpoint source controls is implementation of BMPs under an appropriate management agency agreement (MAA). None of these approaches precludes the Regional Board from exercising its full legal authority to protect waters of the State when no other solution is viable, including: notices of violation (NOV), cease and desist orders (CDO), and further enforcement action, as necessary, such as referral to the State Attorney General's Office for legal remedy.

Figures 1 and 2 (Attachment No. 1) depict the trends in fecal coliform concentrations at three-water quality monitoring stations in Meiss Meadows during the grazing seasons of 1996 and 1997, respectively. All available fecal coliform data from 1991 through 1997 are given in

California Environmental Protection Agency



Attachment No. 3. Large and clear impacts were detected at the Big Meadows (BM) station immediately after commencement of grazing. Impacts of a lesser magnitude were detected later in the grazing season at the Upper Truckee River (UTR) station and at the Round Lake Tributary (RLT) station. Some significant fecal coliform concentrations were detected at the RLT station after the cows were reputedly gone. Given the "hot source" nature of fecal coliform as an indicator of fecal contamination, an unknown alternate source of fecal coliform is indicated during this time frame. Possible other sources could be wildlife or recreation-related human activities, including dogs, and pack or riding horses.

Figures 3, 4, and 5 (Attachment No. 1) give the trends at two water quality monitoring stations located on Tallac Creek above and below the Baldwin Allotment during the grazing seasons of 1995, 1996, and 1997, respectively. All available fecal coliform data from 1993 through 1997 are given in Attachment No. 3. During grazing, the Tallac Creek at Lake Tahoe (TCLT) station generally showed elevated fecal coliform concentrations above that of the Tallac Creek at Highway 89 (TC89) station upstream of the allotment. Occasional elevated fecal coliform concentrations at the TC89 station are reportedly from upstream beaver populations, though this has not been confirmed. The off-site source is particularly notable in the 1997 data after the horses have reportedly been taken off the allotment.

VIOLATIONS

Water Quality Objectives for coliform bacteria the Lake Tahoe Basin are as follows:

Waters shall not contain concentrations of coliform organisms attributable to anthropogenic sources, including human and livestock wastes.

The fecal coliform concentration during any 30-day period shall not exceed a log mean of 20/100 ml, nor shall more than 10 percent of all samples collected during any 30-day period exceed 40/100 ml. *The log mean shall ideally be based on a minimum of not less than five samples collected as evenly spaced as practicable during any 30-day period. However, a log mean concentration exceeding 20/100 ml for any 30-day period shall indicate violation of this objective even if fewer than five samples were collected.*

- The Lahontan Regional Water Quality Control Board Basin Plan, 1993

Fecal coliform water quality objectives were violated as shown in Tables 1 and 2 (Attachment No. 2) for the Meiss and Baldwin Allotments, respectively. Data used to determine days of violations are in Attachment No. 4. Figure 6 (Attachment No. 2) outlines the procedure for determination of violations of water quality objectives.

Meiss Allotment Violations (Table 1, Attachment No. 2)

Big Meadows showed violations of fecal coliform standards in August of 1991 and 1993, presumably when cattle were present, though information regarding the timing and duration of these grazing seasons was not available. No violations were found at Big Meadows for the early season of 1994, when cows were not present. Likewise, no violations were found in the 1995 season for the Big Meadows (BM), Upper Truckee River (UTR), and Round Lake Tributary (RLT) stations. Cattle were not present during 1995. There were no violations during mid-July and August 1995, when cattle would usually be present, indicating that background sources, such as beavers, are not a significant source during periods of active grazing.

In 1996, during the period of time cattle were present, fecal coliform water quality objectives were violated 100% of the time at Big Meadows, and during the latter half of the grazing season at the UTR and RLT stations. No violations occurred before or after cattle were grazed in 1996.

Data for 1997 showed a similar trend, though there were some violations after the cattle were reportedly removed from the allotment.

Generally, when livestock were present, there were violations of fecal coliform water quality objectives. When livestock were absent, there were generally no violations of fecal coliform water quality objectives. The exception was the UTR and RLT stations in 1997 after the grazing period ended. The source of this fecal contamination is unknown, though it is unlikely that it came from residual livestock fecal coliform, since these typically die after a couple of days in the natural environment. Possible sources are either human wilderness activities or wildlife.

Baldwin Allotment Violations (Table 2, Attachment No. 2)

Trends in violations of the fecal coliform water quality objectives were similar to that found in Meiss Meadows. During the grazing period, violations occurred for virtually the entire period of record. However, the Baldwin allotment showed considerably more background fecal contamination before and after horses were on the allotment at the lower Tallac Creek station (before in 1995 and 1996, after in 1997). The upgradient site, at the Upper Tallac Creek station, showed no significant fecal contamination, with the exception of the 1997 season during the period horses were on the allotment. This suggests the source of the background fecal contamination is located between the upper and lower stations. These sources must be isolated and factored out in future monitoring efforts if consistent information is to be collected relating anthropogenic sources with aquatic fecal coliform concentrations in Tallac Creek.

CURRENT STATUS

In response to LRWQCB concerns, the USFS/LTBMU implemented the following improvements to the Meiss allotment at Big Meadows during or by the Summer of 1996: (1) construction of a public crossing for the designated trail over Big Meadows Creek at the lower end of Big Meadows; (2) installation of an enclosure upstream from the crossing providing protection for approximately 850 linear meters of stream reach; (3) stream restoration with

plantings of willows within the enclosure and physical stabilization of the headcut at the upper end of the Big Meadow enclosure with cobble and filter cloth. Additionally, the Meiss allotment was given one year of rest during the 1998 season.

Despite these efforts, fecal coliform has been detected in surface waters at concentrations in excess of Lahontan Basin Plan water quality objectives during periods of active grazing in a spatiotemporal pattern that suggests the allotted cattle or horses are the sources. Several violations of the less stringent USEPA water quality criteria for fecal coliform occurred during this period of time as well. The Forest Service needs to either implement more effective management strategies, BMPs, or discontinue allowance of grazing on these allotments. This year, the USFS staff committed to require the permittees to increase herding to better distribute cattle and rotate use of pastures.

The USFS staff has indicated to Regional Board staff that grazing can be excluded from a major portion of the Tallac Creek stream banks in the Baldwin allotment.

FUTURE MONITORING AND IMPLEMENTATION REQUIREMENTS

As discussed with USFS staff, we require the USFS to continue monitoring. Monitoring will be conducted prior to grazing, during grazing and after grazing. At least 5 samples will be taken at each location within a 30-day period. The Regional Board can no longer provide resources for monitoring. We understand the USFS will conduct monitoring at the following locations:

Big Meadows: (1) the downstream edge of the enclosure boundary, (2) the head of the meadow, and (3) at the downstream end of Big Meadows. The USFS is moving the location of the lower Big Meadows sampling station to the enclosure boundary to factor out the influence of human recreational activities near the crossing.

Upper Truckee River: (1) 100 meters upstream of the Pacific Crest Trail (PCT), (2) half way between the lower and upper PCT crossing, and (3) 500 m downstream from the lower PCT crossing.

Baldwin Allotment: (1) Tallac Creek at Lake Tahoe, (2) Tallac Creek at Highway 89, and (3) Tallac Creek upstream of beaver colonies (to isolate this source of background fecal coliform).

We also understand that the USFS will be putting an enclosure on Meiss Creek this year for the next five to ten years.

We hope this year's monitoring shows improvements. If not, USFS shall take aggressive steps to achieve compliance. We recommend, at a minimum off-stream watering of cattle, and rotating livestock between grazing areas on a more frequent basis. We expect these measures to be implemented this year. Pursuant to Section 13267 of the California Water Code, (CWC) you are required to implement the above monitoring and submit reports on the monitoring by October 1, 1999, November 30, 1999 (monitoring through October 30). Reports shall summarize data and recommend interim measures to be taken for the remainder of the grazing

Mr. Gee

-5-

season this year. The November report shall summarize all data and recommend plans to achieve compliance with water quality objectives in the future. Failure to submit the monitoring reports as requested may subject the USFS LTBMU to additional enforcement actions.

FUTURE VIOLATIONS

If additional remedial measures implemented this year do not result in achievement of water quality objectives, the USFS shall consider removal of livestock from the allotment, significant reductions of animal units allowed in the allotments, or exclusion of livestock from the entire length of stream.

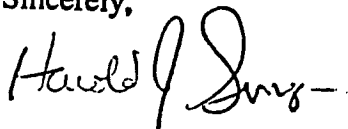
FUTURE ENFORCEMENT ACTIONS

Since the USFS is the water quality management agency, I expect you to take actions to comply with the above water quality standards.

However, if the USFS is unwilling or unable to take corrective actions, I will recommend that the Regional Board consider adoption of Waste Discharge Requirements or Cease and Desist Orders to regulate discharges in the Meiss and Baldwin allotments.

Should you have any questions concerning this matter, please contact Lauri Kemper, Chief, Lake Tahoe Unit, at (530) 542-5436 or Dr. Bruce Warden at (530) 542-5416.

Sincerely,



HAROLD J. SINGER
EXECUTIVE OFFICER

Attachments: No. 1--Figures
No. 2--Tables
No. 3--Raw Fecal Coliform Data
No. 4--Fecal Coliform Violations Database

cc: Roger Ebright, Cascade Stables
El Dorado County Health Department/Ginger Huber
League to Save Lake Tahoe/Dave Roberts
TRPA/Joe Pepi
California Attorney General's Office/Lisa Trankley
USFS - LTBMU/ Jeff Rheiner

BW/shT:FSGraze.doc
[New, General, USFS/LTBMU Grazing]

Attachment 1--Figures

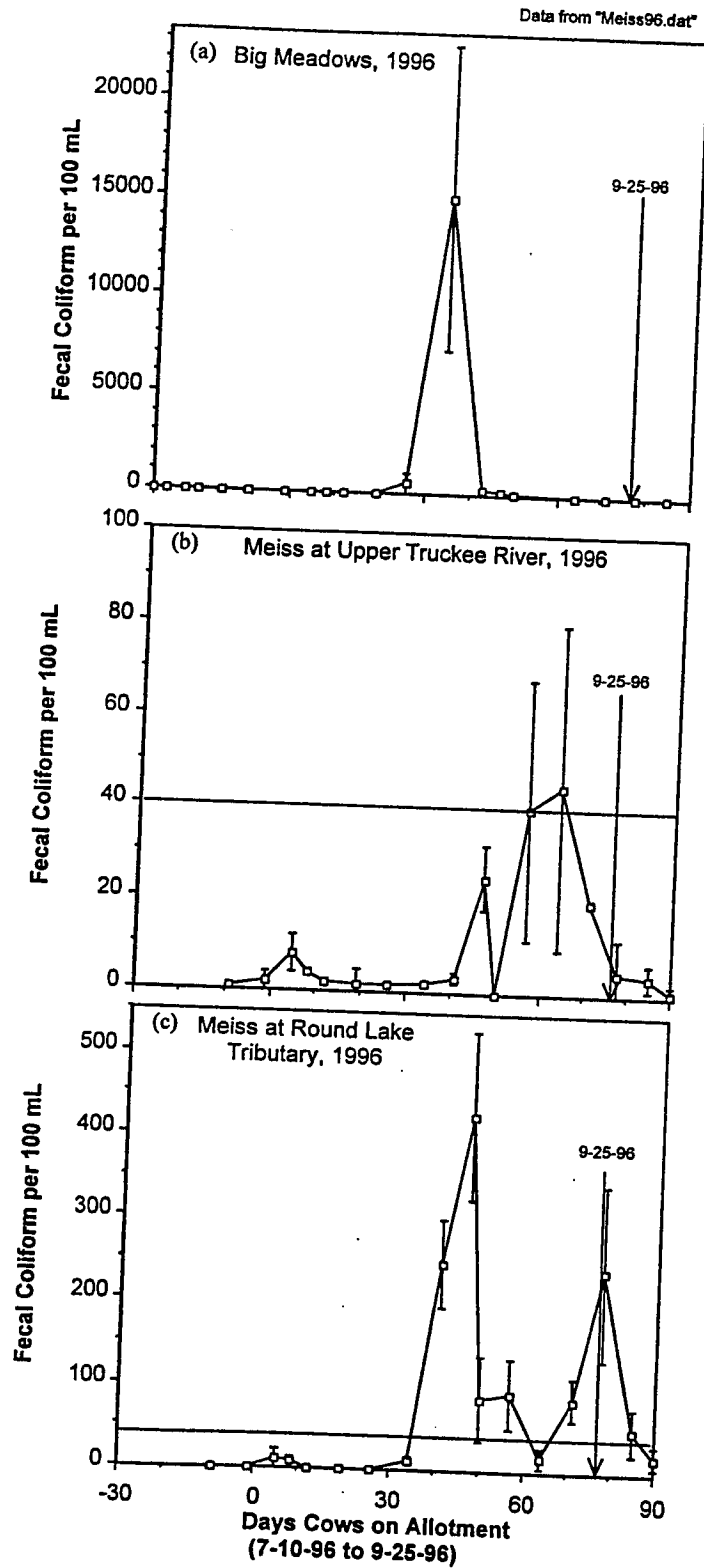


Figure 1: Meiss Allotment Fecal Coliform Trends, summer of 1996.

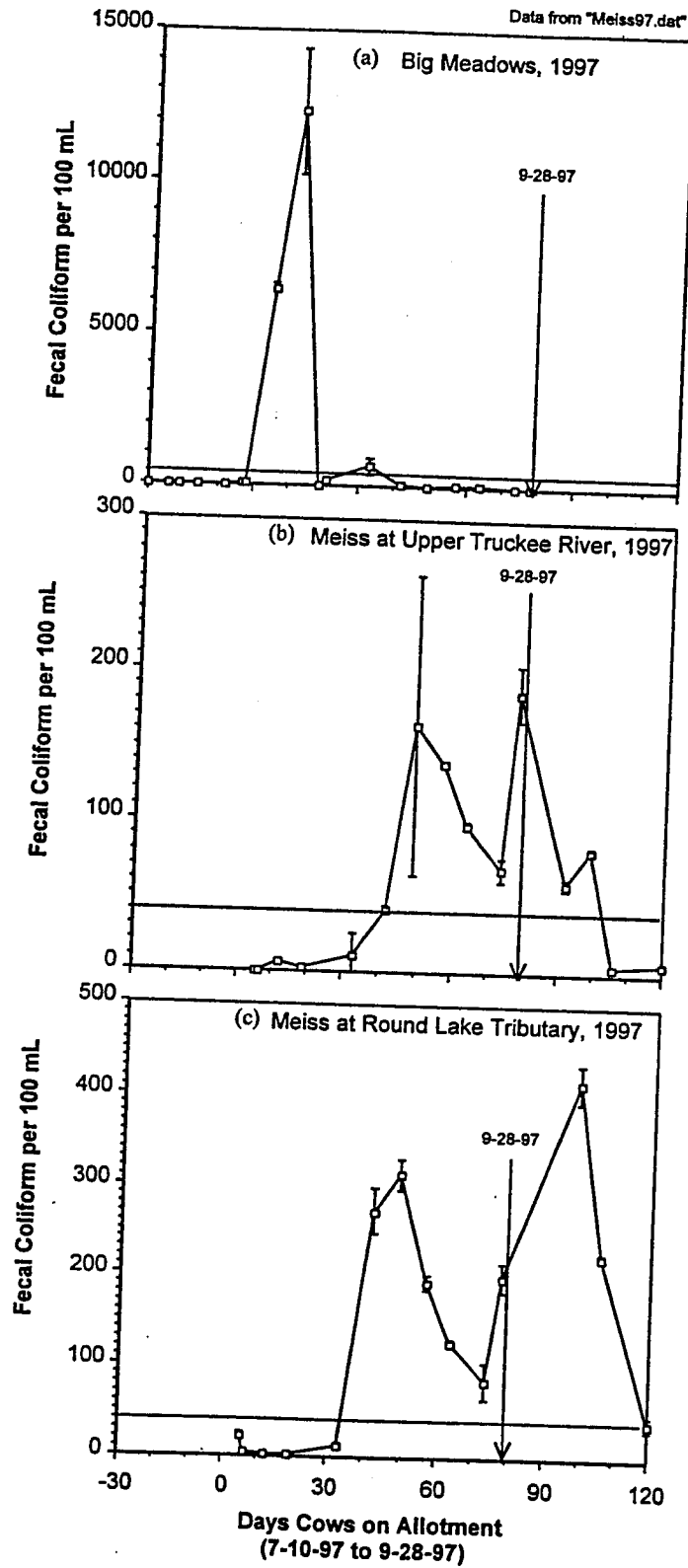


Figure 2: Meiss Allotment Fecal Coliform Trends, summer of 1997.

Tallac Creek (Baldwin Allotment), 1995

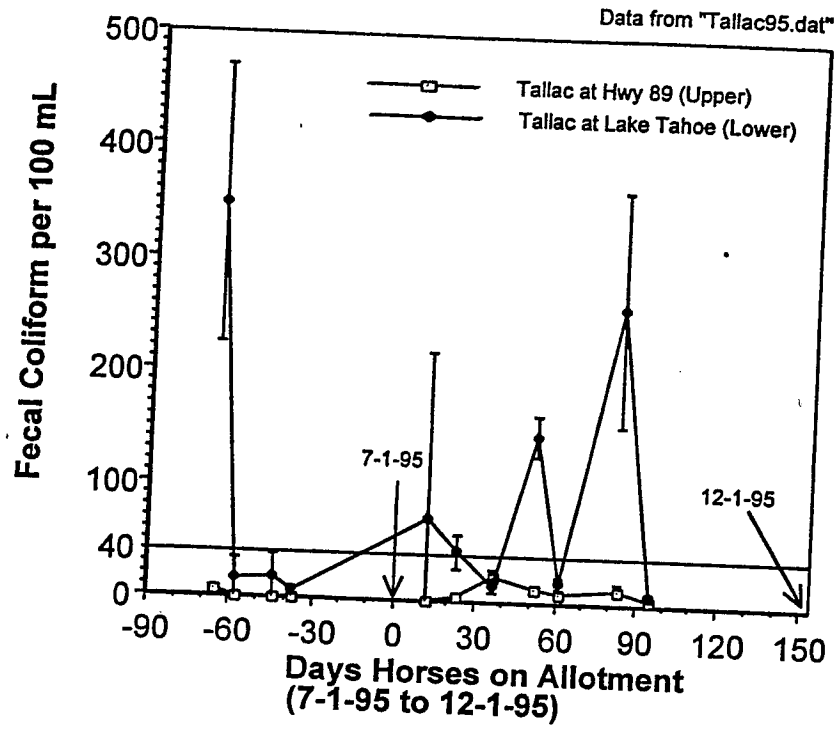


Figure 3: Baldwin Allotment Fecal Coliform Trends, summer of 1995.

Tallac Creek (Baldwin Allotment), 1996

Data from "Tallac96.dat"

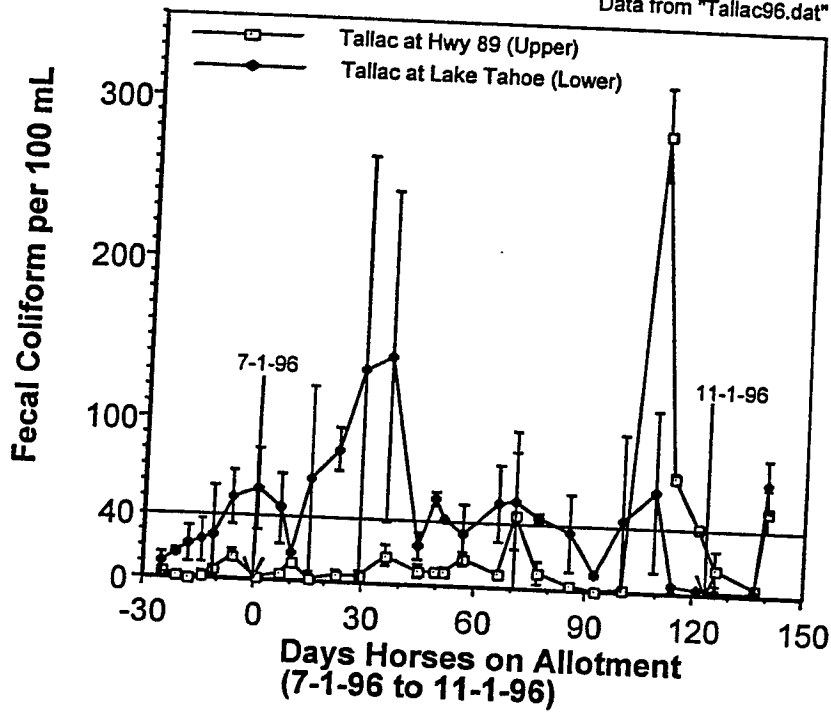


Figure 4: Baldwin Allotment Fecal Coliform Trends, summer of 1996.

Tallac Creek (Baldwin Allotment), 1997

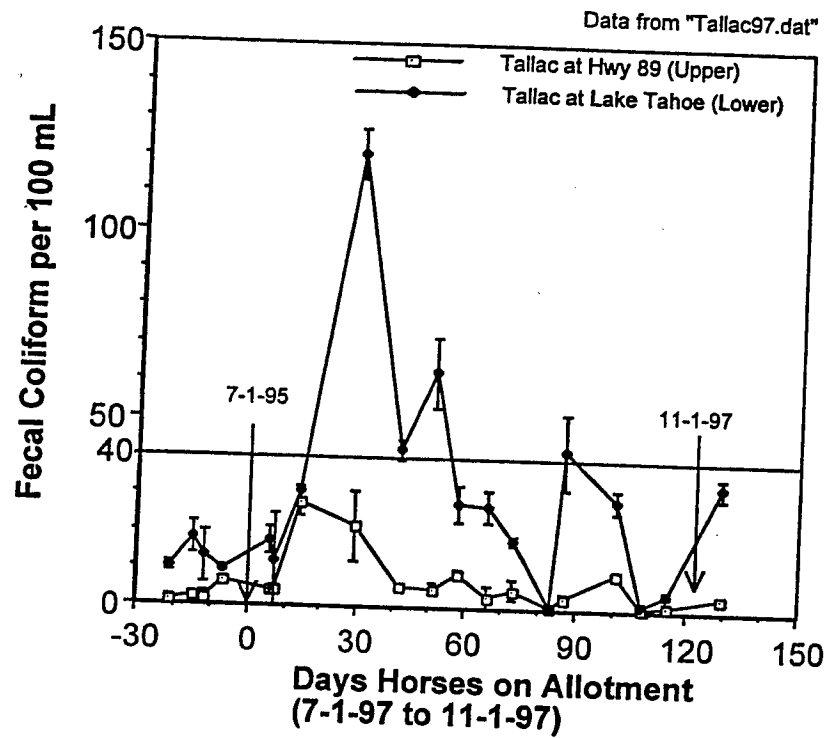


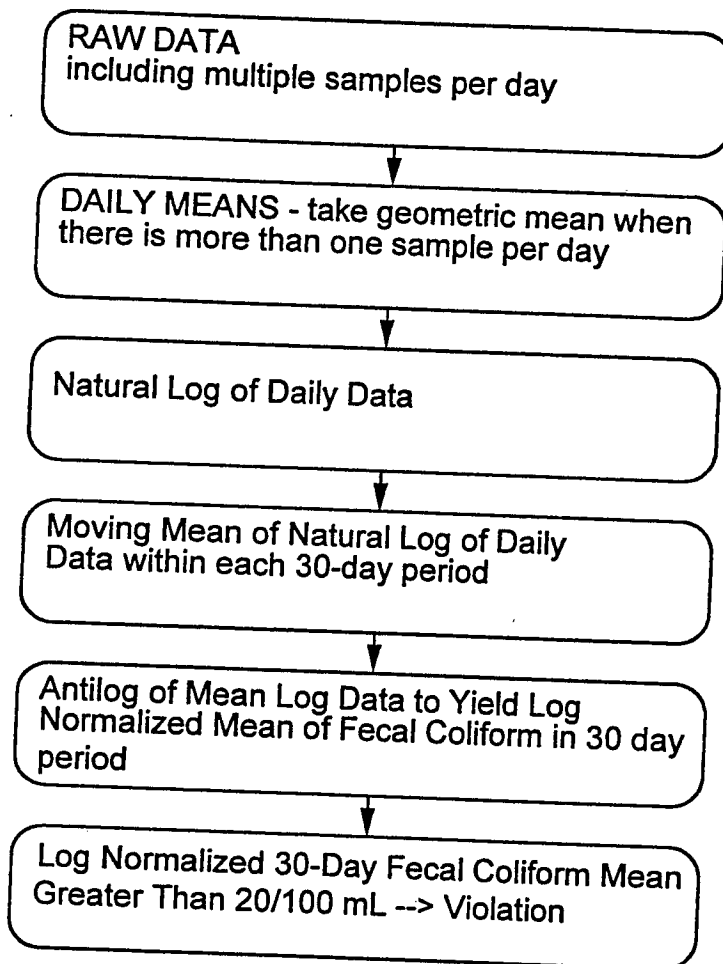
Figure 5: Baldwin Allotment Fecal Coliform Trends, summer of 1997.

FIGURE 6: DETERMINATION OF FECAL COLIFORM VIOLATIONS OF LAHONTAN BASIN PLAN WATER QUALITY OBJECTIVES

BTW

DATA REDUCTION PROCEDURE

(1) Water Quality Objective: from Log-normalized monthly data



(2) Water Quality Objective: from monthly data

If 10% or more of daily samples in a 30-day period are greater than 40 fecal coliforms per 100mL --> Violation

Note: Functionally this means that any single sample during the month above 40 fecal Coliforms/100 mL results in a violation, since there are seldom greater than 10 samples taken in a month's time period.

Note: When information of when livestock are on and off the allotment is available, periods before, during, and after livestock grazing are analyzed separately to better assess fecal coliform contamination from anthropogenic sources.

Attachment 2--Tables

Table 1: Violations of the Lahontan Basin Plan Water Quality Objectives for Fecal Coliform in Meiss Meadows, Meiss Allotment Violations

Year	grazing status	Big Meadows (BM)			Upper Truckee River (UTR)			Round Lake Tributary (RLT)			Notes
		days of violation/total days			days of violation/total days			days of violation/total days			
		>40 cfu	lognorm	Combined*	>40 cfu	lognorm	Combined*	>40 cfu	lognorm	Combined*	
1991	unknown	30/94	30/94	30/94	--	--	--	--	--	--	violation in August based on single observation
1993	unknown	36/126	36/126	36/126	--	--	--	--	--	--	violations in August
1994	unknown	0/43	0/43	0/43	--	--	--	--	--	--	pre-season data only
1995	before	0/90	0/90	0/90	0/20	0/20	0/20	0/35	0/35	0/35	Cattle were not grazed in 1995--includes background data when cows normally on
1996	before	0/34	0/34	0/34	0/9	0/9	0/9	0/9	0/9	0/9	
"	during	72/77	56/77	77/77	30/77	5/77	35/77	36/77	50/77	50/77	
"	after	0/14	0/14	0/14	0/14	0/14	0/14	14/14	14/14	14/14	
1997	before	0/30	0/30	0/30	--	--	--	--	--	--	
"	during	75/75	60/75	75/75	38/75	60/75	60/75	38/75	61/75	61/75	
"	after	--	--	--	29/41	13/41	41/41	22/41	41/41	41/41	

* Total combined days of violation: Overlap of >40 Colony Forming Units (CFU) and log normalized (lognorm) >20 CFU Water Quality Objective violations counted only once.

Table 2: Violations of the Lahontan Basin Plan Water Quality Objectives for Fecal Coliform in Baldwin Allotments during active periods of grazing.
Baldwin Allotment Violations

Year	grazing status	Tallac Creek, Upper			Tallac Creek, Lower			Notes	
		days of violation/total days			days of violation/total days				
		>40 cfu	lognorm	Total Combined*	>40 cfu	lognorm	Total Combined*		
1994	unknown	0/47	0/47	0/47	30/47	30/47	30/47	based on single high value	
1995	before	0/65	0/65	0/65	30/65	30/65	30/65		
	during	0/113	0/113	0/113	84/113	84/113	113/113		
1996	before	0/25	0/25	0/25	6/25	6/25	25/25		
	during	0/122	0/122	0/122	87/122	87/122	122/122		
	after	0/18	0/18	0/18	0/18	0/18	0/18		
1997	before	0/21	0/21	0/21	0/21	0/21	0/21		
	during	0/122	5/122	5/122	60/122	60/122	116/122		
	after	0/7	0/7	0/7	7/7	7/7	7/7		
* Total combined days of violation: Overlap of >40 Colony Forming Units (CFU) and log normalized (lognorm) >20 CFU Water Quality Objective violations counted only once.									

Attachment 3—Raw Fecal Coliform Data

TALLAC CREEK AT HIGHWAY 89				
FECAL COLIFORM				
SITE	DATE	TIME	#/100M	comments
LLAC-UP	940408	805	4	
LLAC-UP	940408	930	0	
LLAC-UP	940408	1045	1	
LLAC-UP	940408	1101	1	
LLAC-UP	940408	1405	0	
LLAC-UP	940408	1433	1	
LLAC-UP	940408	1456	0	
LLAC-UP	940412	755	0	
LLAC-UP	940412	815	0	
LLAC-UP	940412	930	0	
LLAC-UP	940412	1115	0	
LLAC-UP	940412	1135	0	
LLAC-UP	940412	1320	0	
LLAC-UP	940412	1350	0	
LLAC-UP	940412	1420	0	
LLAC-UP	940412	1455	0	
LLAC-UP	940412	1520	0	
LLAC-UP	940414	1245	0	
LLAC-UP	940414	1315	0	
LLAC-UP	940414	1345	0	
LLAC-UP	940414	1415	0	
LLAC-UP	940414	1445	0	
LLAC-UP	940414	1515	0	
LLAC-UP	940425	845	0	
LLAC-UP	940425	920	0	
LLAC-UP	940425	945	0	
LLAC-UP	940425	1015	0	
LLAC-UP	940425	1045	0	
LLAC-UP	940524	810	0	
LLAC-UP	940524	900	0	
LLAC-UP	940524	950	0	
LLAC-UP	940524	1100	0	
LLAC-UP	940524	1310	0	
LLAC-UP	940524	1340	0	
LLAC-UP	940524	1405	0	
LLAC-UP	940524	1425	0	
LLAC-UP	940524	1550	0	
LLAC-UP	950427	1215	9	

TALLAC CREEK AT HIGHWAY 89				
FECAL COLIFORM				
SITE	DATE	TIME	#/100M	comments
LLAC-UP	950427	1320	3	
LLAC-UP	950427	1340	6	
LLAC-UP	950427	1400	8	
LLAC-UP	950427	1420	6	
LLAC-UP	950427	1440	5	
LLAC-UP	950504	1130	1	
LLAC-UP	950504	1200	0	
LLAC-UP	950504	1230	0	
LLAC-UP	950504	1300	1	
LLAC-UP	950504	1330	0	
LLAC-UP	950504	1400	0	
LLAC-UP	950504	1430	0	
LLAC-UP	950518	1100	0	
LLAC-UP	950518	1130	0	
LLAC-UP	950518	1200	0	
LLAC-UP	950518	1230	0	
LLAC-UP	950518	1300	0	
LLAC-UP	950518	1330	0	
LLAC-UP	950518	1400	0	
LLAC-UP	950525	1020	0	
LLAC-UP	950525	1040	0	
LLAC-UP	950525	1100	1	
LLAC-UP	950525	1120	1	
LLAC-UP	950525	1140	0	
LLAC-UP	950525	1200	0	
LLAC-UP	950525	1330	0	
LLAC-UP	950525	1350	1	
LLAC-UP	950525	1415	0	
LLAC-UP	950525	1435	1	
LLAC-UP	950525	1455	0	
LLAC-UP	950713	945	1	
LLAC-UP	950713	1045	0	
LLAC-UP	950713	1115	0	
LLAC-UP	950713	1145	2	
LLAC-UP	950713	1215	1	
LLAC-UP	950713	1300	2	
LLAC-UP	950713	1330	0	
LLAC-UP	950724	1030	4	

TALLAC CREEK AT HIGHWAY 89				
FECAL COLIFORM				
SITE	DATE	TIME	#/100M	comments
LLAC-UP	950724	1100	6	
LLAC-UP	950724	1130	2	
LLAC-UP	950724	1200	5	
LLAC-UP	950724	1230	2	
LLAC-UP	950724	1300	3	
LLAC-UP	950807	1015	28	
LLAC-UP	950807	1105	21	
LLAC-UP	950807	1155	26	
LLAC-UP	950807	1245	22	
LLAC-UP	950807	1335	25	
LLAC-UP	950807	1425	16	
LLAC-UP	950822	1050	13	
LLAC-UP	950822	1115	10	
LLAC-UP	950822	1145	14	
LLAC-UP	950822	1210	10	
LLAC-UP	950822	1215	10	
LLAC-UP	950822	1240	11	
LLAC-UP	950831	1230	7	
LLAC-UP	950831	1250	12	
LLAC-UP	950831	1310	10	
LLAC-UP	950831	1330	10	
LLAC-UP	950831	1350	8	
LLAC-UP	950831	1410	5	
LLAC-UP	950922	1005	9	
LLAC-UP	950922	1025	10	
LLAC-UP	950922	1045	12	
LLAC-UP	950922	1105	19	
LLAC-UP	950922	1125	19	
LLAC-UP	950922	1145	9	
LLAC-UP	951004	1130	2	
LLAC-UP	951004	1145	1	
LLAC-UP	951004	1200	2	
LLAC-UP	951004	1215	3	
LLAC-UP	951004	1230	6	
LLAC-UP	951004	1245	5	
	Date	Lahontan ID	#/100 mls	
LLAC-UP	960606	956MS345	0	

TALLAC CREEK AT HIGHWAY 89				
FECAL COLIFORM				
SITE	DATE	TIME	#/100M	comments
LLAC-UP	960606	dup 345	2	
LLAC-UP	960606	956MS346	10	
LLAC-UP	960610	956MS352	2	
LLAC-UP	960610	956MS353	2	
LLAC-UP	960613	956MS358	0	
LLAC-UP	960613	956MS359	0	
LLAC-UP	960613	dup 359	0	
LLAC-UP	960617	956MS375	3	
LLAC-UP	960617	dup 375	0	
LLAC-UP	960617	956MS376	3	
LLAC-UP	960620	956MS381	5	
LLAC-UP	960620	956MS382	6	
LLAC-UP	960625	956MS390	12	
LLAC-UP	960625	956MS391	17	
LLAC-UP	960702	956MS425	0	
LLAC-UP	960702	dup 425	2	
LLAC-UP	960702	956MS426	3	
LLAC-UP	960708	967MS001	4	
LLAC-UP	960708	967MS002	4	
LLAC-UP	960711	967MS011	12	
LLAC-UP	960711	967MS012	12	
LLAC-UP	960711	dup12	10	
LLAC-UP	960716	967MS021	2	
LLAC-UP	960716	967MS022	2	
LLAC-UP	960716	dup 22	0	
LLAC-UP	960724	967MS037	3	
LLAC-UP	960724	967MS038	6	
LLAC-UP	960730	967MS047	3	
LLAC-UP	960730	967MS048	6	
LLAC-UP	960806	967MS057	22	
LLAC-UP	960806	967MS058	13	
LLAC-UP	960815	967MS074	12	
LLAC-UP	960815	967MS075	4	
LLAC-UP	960815	dup 75	8	
LLAC-UP	960819	967MS078	10	
LLAC-UP	960819	967MS079	8	
LLAC-UP	960822	967MS086	7	
LLAC-UP	960822	967MS087	10	

TALLAC CREEK AT HIGHWAY 89				
FECAL COLIFORM				
SITE	DATE	TIME	#/100M	comments
LLAC-UP	960822	dup 87	10	
LLAC-UP	960827	967MS104	20	
LLAC-UP	960827	967MS105	14	
LLAC-UP	960905	967MS116	8	
LLAC-UP	960905	967MS117	9	
LLAC-UP	960910	967MS124	8	
LLAC-UP	960910	967MS125	82	
LLAC-UP	960916	967MS147	15	
LLAC-UP	960916	967MS148	5	
LLAC-UP	960925	967MS165	2	
LLAC-UP	960925	967MS166	3	
LLAC-UP	961002	967MS177	1	
LLAC-UP	961002	967MS178	0	
LLAC-UP	961009	967MS194	1	
LLAC-UP	961009	967MS195	2	
LLAC-UP	961018	967MS200	305	
LLAC-UP	961018	967MS201	264	
LLAC-UP	961023	967MS204	73	
LLAC-UP	961023	967MS205	69	
LLAC-UP	961030	967MS209	40	
LLAC-UP	961030	967MS210	41	
LLAC-UP	961104	967MS218	12	
LLAC-UP	961104	967MS219	28	
LLAC-UP	961104	dup 219	8	
LLAC-UP	961115	967MS237	6	
LLAC-UP	961115	dup 237	4	
LLAC-UP	961115	967MS238	2	
LLAC-UP	961118	967MS241	62	
LLAC-UP	961118	967MS242	43	
LLAC-UP	970610	967MS041	1	
LLAC-UP	970610	967MS042	2	
LLAC-UP	970616	967MS047	2	
LLAC-UP	970616	967MS048	3	
LLAC-UP	970619	967MS053	3	
LLAC-UP	970619	967MS054	1	
LLAC-UP	970624	967MS061	7	
LLAC-UP	970624	967MS062	6	

TALLAC CREEK AT HIGHWAY 89				
FECAL COLIFORM				
SITE	DATE	TIME	#/100M	comments
LLAC-UP	970707	978MS010	4	
LLAC-UP	970707	978MS011	4	
LLAC-UP	970708	978MS017	4	
LLAC-UP	970708	978MS018	5	
LLAC-UP	970715	978MS023	25	
LLAC-UP	970715	978MS024	31	
LLAC-UP	970730	978MS065	15	horses on July 26
LLAC-UP	970730	978MS066	28	horses on July 26
LLAC-UP	970812	978MS091	6	
LLAC-UP	970812	978MS092	5	
LLAC-UP	970821	978MS107	4	
LLAC-UP	970821	978MS108	6	
LLAC-UP	970828	978MS117	8	
LLAC-UP	970828	978MS118	10	
LLAC-UP	970905	LTBMU	1	
LLAC-UP	970905	LTBMU	5	
LLAC-UP	970912	LTBMU	7	
LLAC-UP	970912	LTBMU	3	
LLAC-UP	970922	LTBMU	0	
LLAC-UP	970922	LTBMU	1	
LLAC-UP	970926	LTBMU	2	
LLAC-UP	970926	LTBMU	4	
LLAC-UP	971010	LTBMU	9	
LLAC-UP	971010	LTBMU	10	
LLAC-UP	971017	LTBMU	1	
LLAC-UP	971017	LTBMU	0	
LLAC-UP	971024	LTBMU	2	
LLAC-UP	971024	LTBMU	1	
LLAC-UP	971107	LTBMU	4	
LLAC-UP	971107	LTBMU	3	

TALLAC CREEK AT LAKE TAHOE				
FECAL COLIFORM				
SITE	DATE	TIME	#/100ML	comments
LLAC-LO	940408	820	0	
LLAC-LO	940408	945	0	
LLAC-LO	940408	1120	2	
LLAC-LO	940408	1415	1	
LLAC-LO	940408	1445	0	
LLAC-LO	940408	1515	0	
LLAC-LO	940412	805	0	
LLAC-LO	940412	825	0	
LLAC-LO	940412	955	0	
LLAC-LO	940412	1125	0	
LLAC-LO	940412	1145	2	
LLAC-LO	940412	1335	1	
LLAC-LO	940412	1400	0	
LLAC-LO	940412	1430	0	
LLAC-LO	940412	1503	0	
LLAC-LO	940412	1533	0	
LLAC-LO	940414	1300	5	
LLAC-LO	940414	1330	3	
LLAC-LO	940414	1400	4	
LLAC-LO	940414	1430	2	
LLAC-LO	940414	1500	7	
LLAC-LO	940414	1530	7	
LLAC-LO	940425	905	7	
LLAC-LO	940425	935	7	
LLAC-LO	940425	1000	9	
LLAC-LO	940425	1030	5	
LLAC-LO	940425	1100	4	
LLAC-LO	940524	825	124	
LLAC-LO	940524	930	133	
LLAC-LO	940524	1015	137	
LLAC-LO	940524	1125	91	
LLAC-LO	940524	1325	51	
LLAC-LO	940524	1350	49	
LLAC-LO	940524	1415	46	
LLAC-LO	940524	1440	64	
LLAC-LO	940524	1615	36	
ALLAC-LO	950525	1050	8	
ALLAC-LO	950525	1130	6	

TALLAC CREEK AT LAKE TAHOE				
FECAL COLIFORM				
SITE	DATE	TIME	#/100ML	comments
LLAC-LO	950427	1225	350.0J	
LLAC-LO	950427	1310	420.0J	
LLAC-LO	950427	1330	400.0J	
LLAC-LO	950427	1350	450.0J	
LLAC-LO	950427	1410	110	
LLAC-LO	950427	1430	350.0J	
LLAC-LO	950504	1145	12	
LLAC-LO	950504	1215	5	
LLAC-LO	950504	1245	4	
LLAC-LO	950504	1315	2	
LLAC-LO	950504	1345	2	
LLAC-LO	950504	1415	31	
LLAC-LO	950504	1445	51	
LLAC-LO	950518	1115	3	
LLAC-LO	950518	1145	1	
LLAC-LO	950518	1215	57	
LLAC-LO	950518	1245	24	
LLAC-LO	950518	1315	14	
LLAC-LO	950518	1345	8	
LLAC-LO	950518	1415	12	
LLAC-LO	950525	1030	7	
LLAC-LO	950525	1110	7	
LLAC-LO	950525	1150	9	
LLAC-LO	950525	1210	4	
LLAC-LO	950525	1340	0	
LLAC-LO	950525	1400	3	
LLAC-LO	950525	1425	4	
LLAC-LO	950525	1445	15	
LLAC-LO	950713	1000	403	
LLAC-LO	950713	1030	42	
LLAC-LO	950713	1100	22	
LLAC-LO	950713	1130	19	
LLAC-LO	950713	1200	7	
LLAC-LO	950713	1315	2	
LLAC-LO	950713	1345	6	
LLAC-LO	950724	1045	52	
LLAC-LO	950724	1115	50	
LLAC-LO	950724	1145	31	

TALLAC CREEK AT LAKE TAHOE				
FECAL COLIFORM				
SITE	DATE	TIME	#/100ML	comments
LLAC-LO	950724	1215	23	
LLAC-LO	950724	1245	65	
LLAC-LO	950724	1315	39	
LLAC-LO	950807	1040	25	
LLAC-LO	950807	1130	14	
LLAC-LO	950807	1220	11	
LLAC-LO	950807	1310	16	
LLAC-LO	950807	1400	11	
LLAC-LO	950807	1450	10	
LLAC-LO	950822	1105	150	
LLAC-LO	950822	1130	142	
LLAC-LO	950822	1200	119	
LLAC-LO	950822	1230	171	
LLAC-LO	950822	1255	141	
LLAC-LO	950822	1320	160	
LLAC-LO	950831	1240	17	
LLAC-LO	950831	1300	22	
LLAC-LO	950831	1320	23	
LLAC-LO	950831	1340	13	
LLAC-LO	950831	1400	18	
LLAC-LO	950831	1420	20	
LLAC-LO	950922	1015	126	
LLAC-LO	950922	1035	254	
LLAC-LO	950922	1055	375	
LLAC-LO	950922	1115	386	
LLAC-LO	950922	1135	236	
LLAC-LO	950922	1155	186	
LLAC-LO	951004	1120	6	
LLAC-LO	951004	1135	6	
LLAC-LO	951004	1150	4	
LLAC-LO	951004	1205	10	
LLAC-LO	951004	1220	8	
LLAC-LO	951004	1235	10	
	Date	Lahontan ID	#/100 mls	
LLAC-LO	960606	956MS347	13	
LLAC-LO	960606	956MS348	2	
LLAC-LO	960610	956MS354	13	

TALLAC CREEK AT LAKE TAHOE				
FECAL COLIFORM				
SITE	DATE	TIME	#/100ML	comments
LLAC-LO	960610	956MS355	14	
LLAC-LO	960610	dup 355	16	
LLAC-LO	960613	956MS360	18	
LLAC-LO	960613	956MS361	11	
LLAC-LO	960617	956MS377	34	
LLAC-LO	960617	956MS378	28	
LLAC-LO	960620	956MS383	8	
LLAC-LO	960620	dup 383	10	
LLAC-LO	960620	956MS384	8	
LLAC-LO	960625	956MS392	63	
LLAC-LO	960625	956MS393	58	
LLAC-LO	960702	956MS427	31	
LLAC-LO	960702	956MS428	38	
LLAC-LO	960708	967MS003	74	
LLAC-LO	960708	dup 3	62	
LLAC-LO	960708	967MS004	51	
LLAC-LO	960711	967MS013	20	
LLAC-LO	960711	967MS014	17	
LLAC-LO	960716	967MS023	17	
LLAC-LO	960716	967MS024	23	
LLAC-LO	960724	967MS039	104	
LLAC-LO	960724	dup 39	76	
LLAC-LO	960724	967MS040	97	
LLAC-LO	960730	967MS049	72	
LLAC-LO	960730	967MS050	58	
LLAC-LO	960730	dup 50	54	
LLAC-LO	960806	967MS059	284	
LLAC-LO	960806	dup 59	158	
LLAC-LO	960806	967MS060	234	
LLAC-LO	960815	967MS076	30	
LLAC-LO	960815	967MS077	30	
LLAC-LO	960819	967MS080	18	
LLAC-LO	960819	967MS081	56	
LLAC-LO	960819	dup 81	48	
LLAC-LO	960822	967MS088	55	
LLAC-LO	960822	967MS089	41	
LLAC-LO	960827	967MS106	40	
LLAC-LO	960827	dup 106	40	

TALLAC CREEK AT LAKE TAHOE				
FECAL COLIFORM				
SITE	DATE	TIME	#/100ML	comments
LLAC-LO	960827	967MS107	10	
LLAC-LO	960905	967MS118	46	
LLAC-LO	960905	dup 118	48	
LLAC-LO	960905	967MS119	30	
LLAC-LO	960910	967MS126	77	
LLAC-LO	960910	967MS127	58	
LLAC-LO	960910	dup 127	82	
LLAC-LO	960916	967MS149	22	
LLAC-LO	960916	dup 149	42	
LLAC-LO	960916	967MS150	41	
LLAC-LO	960925	967MS167	47	
LLAC-LO	960925	967MS168	54	
LLAC-LO	960925	dup 168	42	
LLAC-LO	961002	967MS179	8	
LLAC-LO	961002	967MS180	8	
LLAC-LO	961002	dup 180	10	
LLAC-LO	961009	967MS196	12	
LLAC-LO	961009	dup 196	18	
LLAC-LO	961009	967MS197	7	
LLAC-LO	961018	967MS202	105	
LLAC-LO	961018	967MS203	98	
LLAC-LO	961018	dup 203	84	
LLAC-LO	961023	967MS206	5	
LLAC-LO	961023	967MS207	4	
LLAC-LO	961023	dup 207	2	
LLAC-LO	961030	967MS211	6	
LLAC-LO	961030	967MS212	2	
LLAC-LO	961030	dup 212	2	
LLAC-LO	961104	967MS220	3	
LLAC-LO	961104	967MS221	1	
LLAC-LO	961115	967MS239	2	
LLAC-LO	961115	967MS240	2	
LLAC-LO	961118	967MS243	54	
LLAC-LO	961118	dup 243	86	
LLAC-LO	961118	967MS244	65	
LLAC-LO	970610	967MS043	10	
LLAC-LO	970610	967MS044	11	

TALLAC CREEK AT LAKE TAHOE				
FECAL COLIFORM				
SITE	DATE	TIME	#/100ML	comments
LLAC-LO	970616	967MS049	15	
LLAC-LO	970616	967MS050	21	
LLAC-LO	970619	967MS055	18	
LLAC-LO	970619	967MS056	8	
LLAC-LO	970624	967MS063	10	
LLAC-LO	970624	967MS064	9	
LLAC-LO	970707	978MS012	20	
LLAC-LO	970707	978MS013	15	
LLAC-LO	970708	978MS019	3	
LLAC-LO	970708	978MS020	21	
LLAC-LO	970715	978MS026	31	
LLAC-LO	970730	978MS063	125	horses on July 26
LLAC-LO	970730	978MS064	116	horses on July 26
LLAC-LO	970812	978MS089	40	
LLAC-LO	970812	978MS090	44	
LLAC-LO	970821	978MS109	56	
LLAC-LO	970821	978MS110	69	
LLAC-LO	970828	978MS115	31	
LLAC-LO	970828	978MS116	24	
LLAC-LO	970905	LTBMU	24	
LLAC-LO	970905	LTBMU	30	
LLAC-LO	970912	LTBMU	17	
LLAC-LO	970912	LTBMU	19	
LLAC-LO	970922	LTBMU	0	
LLAC-LO	970922	LTBMU	1	
LLAC-LO	970926	LTBMU	49	
LLAC-LO	970926	LTBMU	35	
LLAC-LO	971010	LTBMU	31	
LLAC-LO	971010	LTBMU	27	
LLAC-LO	971017	LTBMU	0	
LLAC-LO	971017	LTBMU	2	
LLAC-LO	971024	LTBMU	5	
LLAC-LO	971024	LTBMU	4	
LLAC-LO	971107	LTBMU	5	
LLAC-LO	971107	LTBMU	2	

Attachment 4—Fecal Coliform Violation Database

Upper Truckee River Watershed--Meiss USFS Allotment

Fecal Coliform	DATE	Daily Means			RLT	BM>40	UTR>40	RLT>40	Ln Means			Innorm BM	Innorm UTR	Innorm RLT
		On, d	BM	UTR					Ln BM	Ln UTR	Ln RLT			
910425			0						-1000			0		
910426												0		
910427												0		
910428												0		
910529			0						-1000			0		
910530												0		
910531												3		
910601												3		
910602												3		
910603												3		
910604			10						2.303			3		
910605												3		
910606												1		
910607												1		
910608												1		
910609												1		
910610												1		
910611												1		
910612			1									1		
910613									0			1		
910614												2		
910615												2		
910616												2		
910617												2		

Upper Truckee River Watershed--Meiss USFS Allotment

Fecal Coliform	yymmdd	cows	Daily Means			BM>40	UTR>40	RLT>40	Ln Means			Innorm BM	Innorm UTR	Innorm RLT
			BM	UTR	RLT				In BM	In UTR	In RLT			
	910618											2		
	910619											2		
	910620											2		
	910621											2		
	910622											2		
	910623											2		
	910624		2									2		
	910625								0.693			2		
	910626													
	910627													
	910628													
	910629													
	910630													
	910701													
	910702													
	910703													
	910704													
	910705													
	910706													
	910707													
	910708													
	910709													
	910710													
	910711													

Upper Truckee River Watershed--Meiss USFS Allotment

Fecal Coliform		Daily Means		BM >40		UTR >40		RLT >40		Ln Means		Innorm BM		Innorm UTR		Innorm RLT	
yymmdd	cows	BM	UTR	RLT	BM >40	UTR >40	RLT >40	In BM	In UTR	In RLT	Innorm BM	Innorm UTR	Innorm RLT				
910712																	
910713																	
910714																	
910715																	
910716																	
910717																	
910718																	
910719																	
910720																	
910721																	
910722																	
910723																	
910724																	
910725																	
910726																	
910727																	
910728						>40											
910729						>40											
910730						>40											
910731						>40											
910801						>40											
910802						>40											
910803						>40											
910804						>40											

Upper Truckee River Watershed--Meiss USFS Allotment

Fecal Coliform		Daily Means			Ln Means			Ln Means					
yymmdd	cows	BM	UTR	RLT	BM>40	UTR>40	RLT>40	In BM	In UTR	In RLT	Innorm BM	Innorm UTR	Innorm RLT
910805					>40			—	—	—			
910806					>40			—	—	—			
910807					>40			—	—	—			
910808					>40			—	—	—			
910809					>40			—	—	—			
910810					>40			—	—	—			
910811					>40			—	—	—			
910812					>40			—	—	—			
910813					>40			—	—	—			
910814					>40			—	—	—			
910815					>40			—	—	—			
910816					>40			—	—	—			
910817					>40			—	—	—			
910818					>40			—	—	—			
910819					>40			—	—	—			
910820					>40			—	—	—			
910821					>40			—	—	—			
910822					>40			—	—	—			
910823					>40			—	—	—			
910824					>40			—	—	—			
910825					>40			—	—	—			
910826		106			>40			4.66	—	—	106		
930408		0						—	—	—	0		

Upper Truckee River Watershed--Meiss USFS Allotment

Fecal Coliform		Daily Means		BM>40		UTR>40		RLT>40		Ln Means		Innorm BM		Innorm UTR		Innorm RLT	
yyymmdd	cows	DATE	On, d	BM	UTR	RLT	BM	UTR	RLT	In BM	In UTR	In RLT	Innorm BM	Innorm UTR	Innorm RLT		
930409													0				
930410													0				
930411													0				
930412													0				
930413													0				
930414													0				
930415													0				
930416													0				
930417													0				
930418													0				
930419													0				
930420													0				
930421				0									0				
930422										-1000			0				
930423													0				
930424													0				
930425													0				
930426													0				
930427													0				
930428													0				
930429													0				
930430													0				
930501													0				
930502													0				

Upper Truckee River Watershed--Meiss USFS Allotment

Fecal Coliform		Daily Means		Ln Means		Ln Means		Ln Means					
Yymmdd	cows	BM	UTR	RLT	BM>40	UTR>40	RLT>40	In BM	In UTR	In RLT	Innorm BM	Innorm UTR	Innorm RLT
930503													
930504		1						0			0		
930505											0		
930506											0		
930507											0		
930508											0		
930509											0		
930510											0		
930511											0		
930512											0		
930513											0		
930514											0		
930515											0		
930516											0		
930517											0		
930518											0		
930519		0									0		
930520								-1000			0		
930521											2		
930522											2		
930523											2		
930524											2		
930525											2		
930526											2		

Upper Truckee River Watershed--Meiss USFS Allotment

Fecal Coliform		Daily Means		Ln Means		Innorm BM		Innorm UTR		Innorm RLT	
yymmdd	cows	BM	UTR	RLT	BM>40	UTR>40	RLT>40	In BM	In UTR	In RLT	Innorm RLT
930527											2
930528											2
930529											2
930530											2
930531											2
930601											2
930602											2
930603											3
930604		2									3
930605								0.693			3
930606											4
930607											4
930608											4
930609											4
930610											4
930611											4
930612											4
930613											4
930614											4
930615											4
930616											4
930617		3									6
930618								1.099			6
930619											8
											8

Upper Truckee River Watershed--Meiss USFS Allotment

Fecal Coliform		Daily Means			Ln Means			Innorm BM			Innorm UTR			Innorm RLT		
yymmdd	cows	DATE	On, d	BM	UTR	RLT	BM>40	UTR>40	RLT>40	In BM	In UTR	In RLT	Innorm BM	Innorm UTR	Innorm RLT	
930620													8			
930621													8			
930622													10			
930623													10			
930624													10			
930625													10			
930626													10			
930627													10			
930628													10			
930629													10			
930630													10			
930701				5									10			
930702										1.609			10			
930703													15			
930704													15			
930705													15			
930706													15			
930707													15			
930708													44			
930709													44			
930710													44			
930711													44			
930712													44			
930713													44			
													76			

Upper Truckee River Watershed--Meiss USFS Allotment

Fecal Coliform		Daily Means		BM>40		UTR>40		RLT>40		Ln Means		Innorm BM		Innorm UTR		Innorm RLT	
Yymmdd	cows	BM	UTR	RLT						In BM	In UTR	In RLT					
930714													76				
930715		13.7								2.617			76				
930716													134				
930717													134				
930718													134				
930719													134				
930720													134				
930721		16.5								2.806			134				
930722													134				
930723													382				
930724													382				
930725													382				
930726													382				
930727													382				
930728													382				
930729													382				
930730													382				
930731													382				
930801													382				
930802													382				
930803													382				
930804													382				
930805		378.3											382				
930806										5.936			382				
													386				

Upper Truckee River Watershed--Meiss USFS Allotment

Fecal Coliform		Daily Means		Ln Means		Ln Means		Ln Means							
ymmdd	cows	DATE	On, d	BM	UTR	RLT	BM>40	UTR>40	RLT>40	In BM	In UTR	In RLT	Innorm BM	Innorm UTR	Innorm RLT
930807							>40						386		
930808							>40						386		
930809							>40						386		
930810							>40						386		
930811				385.9			>40			5.956			386		
930812							>40						386		
930813							>40								
930814							>40								
930815							>40								
930816							>40								
930817							>40								
930818							>40								
930819							>40								
930820							>40								
930821							>40								
930822							>40								
930823							>40								
930824							>40								
930825							>40								
930826							>40								
930827							>40								
930828							>40								
930829							>40								
930830							>40								

Upper Truckee River Watershed--Meiss USFS Allotment

Fecal Coliform		Daily Means			Ln Means		
yymmdd	cows	BM	UTR	RLT	In BM	In UTR	In RLT
DATE	On, d	BM >40	UTR >40	RLT >40	Innorm BM	Innorm UTR	Innorm RLT
930831		>40					
930901		>40					
930902		>40					
930903		>40					
930904		>40					
930905		>40					
930906		>40					
930907		>40					
930908		>40					
930909		>40					
930910		>40					
930911							
940420							
940421		0.6					
940422					-0.51		
940423							
940424							
940425							
940426							
940427							
940428							
940429							
940430							

Upper Truckee River Watershed--Meiss USFS Allotment

Fecal Coliform		Daily Means			Ln Means			Innorm BM		Innorm UTR		Innorm RLT	
yymmdd	cows	BM	UTR	RLT	BM>40	UTR>40	RLT>40	In BM	In UTR	In RLT	Innorm BM	Innorm UTR	Innorm RLT
DATE	On, d												
940501											1		
940502											1		
940503											1		
940504											1		
940505											1		
940506											1		
940507											1		
940508											1		
940509											1		
940510											1		
940511		2.5						0.901			1		
940512											1		
940513											1		
940514											1		
940515											1		
940516											1		
940517											1		
940518											1		
940519											1		
940520											1		
940521											2		
940522											2		
940523											2		
940524											2		

Upper Truckee River Watershed--Meiss USFS Allotment

Fecal Coliform		Daily Means		BM>40		UTR>40		RLT>40		Ln BM		Ln UTR		Ln RLT		Innorm BM	Innorm UTR	Innorm RLT
yyymmdd	cows	BM	UTR	RLT						In BM	In UTR	In RLT						
940525																2		
940526																2		
940527		0.4								-0.98						1		
940528																1		
940529																1		
940530																1		
940531																1		
940601																1		
																1		
																1		
950602																1		
950603		1.7								0.511						1		
950604																1		
950605																1		
950606																1		
950607																1		
950608																1		
950609																1		
950610																1		
950611																1		
950612																1		
950613																1		
950614																1		
950615																1		

Upper Truckee River Watershed--Meiss USFS Allotment

Fecal Coliform	yymmdd	cows	Daily Means			RLT	BM>40	UTR>40	RLT>40	Ln Means			Innorm BM	Innorm UTR	Innorm RLT
			BM	UTR	RLT					In BM	In UTR	In RLT			
	950616												1		
	950617												1		
	950618												1		
	950619												1		
	950620												1		
	950621												1		
	950622												1		
	950623												1		
	950624												1		
	950625												2		
	950626												2		
	950627												2		
	950628												2		
	950629												2		
	950630										1.219		2		
	950701												2		
	950702												2		
	950703												3		
	950704												3		
	950705												3		
	950706												3		
	950707												3		
	950708												3		
	950709												3		

Upper Truckee River Watershed--Meiss USFS Allotment

Fecal Coliform		Daily Means		Ln Means		Ln BM		Ln UTR		Ln RLT		Innorm BM		Innorm UTR		Innorm RLT	
yymmdd	cows	BM	UTR	RLT	BM>40	UTR>40	RLT>40	In BM	In UTR	In RLT	Innorm BM	Innorm UTR	Innorm RLT				
950710											3						
950711											3						
950712											3						
950713											3						
950714											3						
950715											3						
950716											3						
950717											3						
950718		2.1						0.762			3						
950719											3						
950720											3						
950721											3						
950722											3						
950723											3						
950724											3						
950725											3						
950726		1.8						0.613			3						
950727				1.5							2						
950728										0.405	2						
950729											2						
950730											2						
950731		1.0									2						
950801								0			2						
950802											2						
											2						

Upper Truckee River Watershed--Meiss USFS Allotment

Fecal Coliform		Daily Means		Ln Means		Ln Means		Ln Means					
yymmdd	On, d	BM	UTR	RLT	BM>40	UTR>40	RLT>40	In BM	In UTR	In RLT	Innorm BM	Innorm UTR	Innorm RLT
950803				1.0						0	2		1
950804											2		1
950805											2		1
950806											2		1
950807											2		1
950808											2		1
950809											2		1
950810											2		1
950811			8.5	3.7							2		1
950812								2.14	1.299		2		2
950813											2		2
950814											2		2
950815											2		2
950816											2		2
950817			0.8	0.5							2		2
950818								-0.182	-0.69		1		1
950819											1		1
950820											1		1
950821											1		1
950822											1		1
950823											1		1
950824											1		1
950825											1		1
950826											1		1

Upper Truckee River Watershed--Meiss USFS Allotment

Fecal Coliform	yymmdd	cows	Daily Means			BM>40	UTR>40	RLT>40	Ln Means			Innorm BM	Innorm UTR	Innorm RLT
			BM	UTR	RLT				In BM	In UTR	In RLT			
	DATE	On, d												
	950827													
	950828										1		3	1
	950829										1		3	1
	950830		1.2	0.3					0.154		1		3	1
									-1.1				2	1
	960507													
	960508													
	960509													
	960510													
	960511													
	960512													
	960513													
	960514													
	960515													
	960516													
	960517													
	960518													
	960519													
	960520													
	960521													
	960522													
	960523													
	960524													

Upper Truckee River Watershed--Meiss USFS Allotment

Fecal Coliform		Daily Means			Ln Means								
yyymmdd	cows	BM	UTR	RLT	BM>40	UTR>40	RLT>40	In BM	In UTR	In RLT	Innorm BM	Innorm UTR	Innorm RLT
960525													
960526													
960527													
960528													
960529													
960530													
960531													
960601													
960602													
960603													
960604													
960605													
960606	-34	1.0						0			1		
960607											1		
960608											1		
960609											1		
960610	-30	0.5						-0.69			1		
960611											1		
960612											1		
960613	-27	1.5						0.405			1		
960614											1		
960615											1		
960616											1		
960617	-23	1.5						0.405			1		

Upper Truckee River Watershed--Meiss USFS Allotment

Fecal Coliform		Daily Means			Ln Means			Innorm BM			Innorm UTR			Innorm RLT		
Yymmdd	cows	DATE	On, d	BM	UTR	RLT	BM>40	UTR>40	RLT>40	In BM	In UTR	In RLT	Innorm BM	Innorm UTR	Innorm RLT	
960618													1			
960619													1			
960620			-20	2.0						0.693			1			
960621													1			
960622													1			
960623													1			
960624													1			
960625			-15	12.2						2.499			1			
960626													2			
960627													2			
960628													2			
960629													2			
960630													2			
960701			-9	34.5	1.0	0.7							2			
960702										3.541	0	-0.41	3	1	1	
960703													3	1	1	
960704													3	1	1	
960705													3	1	1	
960706													3	1	1	
960707													3	1	1	
960708													3	1	1	
960709			-1	16.5	2.0	0.0							3	1	1	
960710			0							2.803	0.693	-1000	4	1	0	
960711													56	3	0	
													56	3	0	

Upper Truckee River Watershed--Meiss USFS Allotment

Fecal Coliform		Daily Means			Ln Means			Ln Means							
yymmdd	cows	DATE	On, d	BM	UTR	RLT	BM>40	UTR>40	RLT>40	In BM	In UTR	In RLT	Innorm BM	Innorm UTR	Innorm RLT
960712													56	3	0
960713													56	3	0
960714													56	3	0
960715		5		42.0	8.0	10.5	>40			3.738	2.079	2.351	142	3	0
960716							>40						181	2	0
960717							>40						181	2	0
960718		8		17.5	4.0	9.5	>40			2.862	1.386	2.251	181	2	0
960719							>40						181	2	0
960720							>40						325	2	0
960721							>40						325	2	0
960722		12		31.5	2.0	1.0	>40			3.45	0.693	0	325	2	0
960723							>40						325	2	0
960724							>40						706	2	0
960725							>40						539	2	0
960726							>40						539	2	0
960727							>40						539	2	0
960728							>40						539	2	0
960729		19		44.0	1.8	1.0	>40			3.784	0.562	0	431	3	0
960730							>40						431	3	0
960731							>40						761	4	0
960801							>40						512	0	0
960802							>40						512	0	0
960803							>40						512	0	0
960804							>40						512	0	0

Upper Truckee River Watershed--Meiss USFS Allotment

Fecal Coliform	yymmdd	cows	Daily Means			BM>40	UTR>40	RLT>40	Ln Means			Innorm BM	Innorm UTR	Innorm RLT
			On, d	BM	UTR				RLT	In BM	In UTR			
960805	26		530.0	1.5	0.0	>40			6.273	0.405	-1000	512	0	0
960806						>40						508	0	101
960807						>40						508	0	99
960808						>40						508	0	99
960809						>40						508	0	99
960810						>40						508	0	99
960811						>40						508	0	99
960812						>40						508	0	99
960813	34	15100.0	2.0	11.3		>40			9.622	0.693	2.428	508	0	99
960814						>40						508	0	99
960815						>40						111	0	107
960816						>40						111	0	107
960817						>40						111	0	107
960818						>40						111	0	107
960819						>40						111	0	107
960820	41		3.3	247.5		>40	>40					111	0	107
960821						>40	>40		1.204	5.511		111	0	107
960822	43	240.0				>40	>40					88	0	87
960823						>40	>40		5.481			88	0	87
960824						>40	>40					69	0	87
960825						>40	>40					69	0	87
960826	47	175.0	25.0	426.7		>40	>40					69	0	87
960827						>40	>40		5.165	3.219	6.056	69	0	87
960828						>40	>40					50	0	58
						>40	>40					34	0	78

Upper Truckee River Watershed--Meiss USFS Allotment

Fecal Coliform		Daily Means			BM>40	UTR>40	RLT>40	In BM	In UTR	In RLT	Innorm BM	Innorm UTR	Innorm RLT
yyymmdd	cows	BM	UTR	RLT									
DATE	On, d												
960829	50	105.0	0.0	86.7	>40	>40	>40	4.654	-1000	4.462	34	0	78
960830					>40	>40					23	21	75
960831					>40	>40					23	21	75
960901					>40	>40					23	21	75
960902					>40	>40					23	21	75
960903					>40	>40					23	21	75
960904					>40	>40					23	21	75
960905	57		40.0	93.3	>40	>40	>40		3.689	4.536	17	15	69
960906					>40	>40	>40				17	15	69
960907					>40	>40	>40				17	12	65
960908					>40	>40	>40				17	12	65
960909					>40	>40	>40				17	12	65
960910					>40	>40	>40				17	7	51
960911					>40	>40	>40				17	7	51
960912	64	35.0	45.0	16.7	>40	>40	>40	3.555	3.807	2.813	15	7	51
960913					>40	>40	>40				15	7	51
960914					>40	>40	>40				12	4	68
960915					>40	>40	>40				12	4	68
960916					>40	>40	>40				12	4	68
960917					>40	>40	>40				12	4	68
960918					>40	>40	>40				8	4	68
960919	71	35.0	20.0	86.7	>40	>40	>40	3.555	2.996	4.462	8	4	68
960920					>40	>40	>40				8	4	68
960921					>40	>40	>40				4	3	62
					>40	>40	>40				4	3	62

Upper Truckee River Watershed--Meiss USFS Allotment

Fecal Coliform		Daily Means			Ln Means								
yyymmdd	cows	BM	UTR	RLT	BM>40	UTR>40	RLT>40	In BM	In UTR	In RLT	Innorm BM	Innorm UTR	Innorm RLT
960922					>40	>40	>40				4	3	62
960923					>40	>40	>40				4	3	62
960924					>40	>40	>40				4	3	62
960925	77					>40	>40				3	3	62
960926	78	10.0	5.0	240.0			>40	2.303	1.609	5.481	3	3	62
960927							>40				3	2	32
960928							>40				3	2	32
960929							>40				3	2	32
960930							>40				3	2	32
961001							>40				3	2	32
961002							>40				3	2	32
961003	85	7.0	4.0	50.0			>40				3	2	32
961004							>40	1.946	1.386	3.912	0	2	32
961005							>40				0	1	20
961006							>40				0	1	20
961007							>40				0	1	20
961008	90		1.0	20.0			>40				0	1	20
961009							>40		0	2.996	0	1	20
961010							>40				0	1	20
961011							>40						
961012							>40						
961013							>40						
961014							>40						
961015							>40						

Upper Truckee River Watershed--Meiss USFS Allotment

Fecal Coliform		Daily Means			Ln Means					
ymmdd	cows	BM	UTR	RLT	In BM	In UTR	In RLT	Innorm BM	Innorm UTR	Innorm RLT
DATE	On, d	BM>40	UTR>40	RLT>40						
961016				>40						
961017				>40						
961018				>40						
961019				>40						
961020				>40						
961021				>40						
961022				>40						
961023				>40						
961024				>40						
961025				>40						
961026				>40						
961027				>40						
961028				>40						
961029				>40						
961030				>40						
961031				>40						
961101				>40						
970512										
970513										
970514										
970515										
970516										
970517										

Upper Truckee River Watershed--Meiss USFS Allotment

Fecal Coliform		Daily Means		BM > 40		UTR > 40		RLT > 40		Ln Means		Innorm BM	Innorm UTR	Innorm RLT
yymmdd	cows	On, d	BM	UTR	RLT	BM > 40	UTR > 40	RLT > 40	In BM	In UTR	In RLT	Innorm BM	Innorm UTR	Innorm RLT
970518														
970519														
970520														
970521														
970522														
970523														
970524														
970525														
970526														
970527														
970528														
970529														
970530														
970531														
970601														
970602														
970603														
970604														
970605														
970606														
970607														
970608														
970609														
970610		-30							2.079			8		

Upper Truckee River Watershed--Meiss USFS Allotment

Fecal Coliform		Daily Means			Ln Means			Innorm					
yyymmdd	On, d	BM	UTR	RLT	BM>40	UTR>40	RLT>40	In BM	In UTR	In RLT	Innorm BM	Innorm UTR	Innorm RLT
970611											8		
970612											8		
970613											8		
970614											8		
970615											8		
970616	-24	2.0						0.693			8		
970617											4		
970618											4		
970619	-21	1.0						0			4		
970620											3		
970621											3		
970622											3		
970623											3		
970624	-16	1.0						0			3		
970625											2		
970626											2		
970627											2		
970628											2		
970629											2		
970630											2		
970701											2		
970702	-8	0.0						-1000			2		
970703											0		
970704											0		

Upper Truckee River Watershed--Meiss USFS Allotment

Fecal Coliform	yymmdd	cows	Daily Means			RLT	BM>40	UTR>40	RLT>40	Ln Means			Innorm BM	Innorm UTR	Innorm RLT
			BM	UTR	RLT					In BM	In UTR	In RLT			
970705															
970706												0			
970707	-3		34.0								3.526	0			
970708	-2		38.0								3.638	0			
970709												0			
970710	0											0			
970711												0	0	0	5
970712												0	0	0	5
970713												0	0	0	5
970714												0	0	0	5
970715	5		6462.0	0.5	23.0		>40				8.774	0	0	0	6
970716	6			0.0	4.9		>40				-0.693	3.135	0	0	6
970717							>40				-1000	1.599	0	0	4
970718							>40					0	0	5	4
970719							>40					0	0	5	4
970720							>40					0	0	5	4
970721							>40					0	0	5	4
970722	12		12275.0	6.0	2.5		>40				9.415	0	0	5	4
970723							>40				1.792	0.916	0	5	4
970724							>40					0	0	10	19
970725							>40					0	0	10	19
970726							>40					0	0	10	19
970727							>40					0	0	10	19
970728							>40					0	0	10	19

Upper Truckee River Watershed--Meiss USFS Allotment

Fecal Coliform		Daily Means			Ln Means			Innorm BM	Innorm UTR	Innorm RLT
DATE	On, d	BM	UTR	RLT	BM>40	UTR>40	RLT>40	Ln BM	Ln UTR	Ln RLT
970729	19	0.0	2.5	2.0	>40			-1000	0.916	0.693
970730					>40					
970731	21	152.5			>40			5.027		
970801					>40					
970802					>40					
970803					>40					
970804					>40					
970805					>40					
970806					>40					
970807					>40					
970808					>40					
970809					>40					
970810					>40					
970811					>40					
970812	33	646.5	11.0	12.0	>40			6.472	2.398	2.485
970813					>40					
970814					>40					
970815					>40					
970816					>40					
970817					>40					
970818					>40					
970819					>40					
970820					>40					
970821	42	80.0	41.0	271.5	>40	>40	>40	4.382	3.714	5.604

Upper Truckee River Watershed--Meiss USFS Allotment

Fecal Coliform		Daily Means			Ln Means			Ln Means					
DATE	On, d	BM	UTR	RLT	BM>40	UTR>40	RLT>40	In BM	In UTR	In RLT	Innorm BM	Innorm UTR	Innorm RLT
970822					>40	>40	>40				44	130	197
970823					>40	>40	>40				44	130	197
970824					>40	>40	>40				33	111	159
970825					>40	>40	>40				33	111	159
970826					>40	>40	>40				33	111	159
970827					>40	>40	>40				33	111	159
970828	49	20.0	163.5	312.5	>40	>40	>40	2.996	5.097	5.745	32	123	166
970829					>40	>40	>40				35	114	142
970830					>40	>40	>40				35	114	142
970831					>40	>40	>40				35	114	142
970901					>40	>40	>40				35	114	142
970902					>40	>40	>40				35	114	142
970903					>40	>40	>40				35	114	142
970904					>40	>40	>40				35	114	142
970905	57	75.0	138.0	192.5	>40	>40	>40	4.317	4.927	5.26	35	114	142
970906					>40	>40	>40				35	114	142
970907					>40	>40	>40				28	108	128
970908					>40	>40	>40				28	108	128
970909					>40	>40	>40				28	108	128
970910					>40	>40	>40				28	108	128
970911					>40	>40	>40				28	108	128
970912	64	57.0	98.0	126.5	>40	>40	>40	4.043	4.585	4.84	28	93	128
970913					>40	>40	>40				19	91	128
970914					>40	>40	>40				19	91	129

Upper Truckee River Watershed--Meiss USFS Allotment

Fecal Coliform		Daily Means			Ln Means										
yyymmdd	cows	DATE	On, d	BM	UTR	RLT	BM>40	UTR>40	RLT>40	In BM	In UTR	In RLT	Innorm BM	Innorm UTR	Innorm RLT
970915							>40	>40	>40				19	91	129
970916							>40	>40	>40				19	91	129
970917							>40	>40	>40				19	91	129
970918							>40	>40	>40				19	89	191
970919							>40	>40	>40				19	89	191
970920							>40	>40	>40				19	89	191
970921							>40	>40	>40				19	89	191
970922	74			13.5	68.5	84.0	>40	>40	>40	2.603	4.227	4.431	19	89	191
970923							>40	>40	>40				19	89	191
970924							>40	>40	>40				28	97	287
970925							>40	>40	>40				28	97	287
970926	78			27.5	185.5	199.0	>40	>40	>40	3.314	5.223	5.293	28	46	264
970927							>40	>40	>40				28	46	264
970928	80													29	304
970929														29	304
970930														29	304
971001														29	304
971002														29	304
971003														29	304
971004														29	304
971005														29	304
971006														29	304
971007														29	304
971008														29	304

Upper Truckee River Watershed--Meiss USFS Allotment

Fecal Coliform		Daily Means		Ln Means		Ln BM		Ln UTR		Ln RLT					
yyymmdd	cows	DATE	On, d	BM	UTR	RLT	BM>40	UTR>40	RLT>40	In BM	In UTR	In RLT	Innorm BM	Innorm UTR	Innorm RLT
971009															
971010		92			59.5		>40							21	154
971011							>40			4.086				21	154
971012							>40							15	154
971013							>40							15	154
971014							>40							15	154
971015							>40							15	154
971016							>40							15	154
971017		99			81.5	415.0	>40		>40					15	154
971018							>40		>40	4.401	6.028			15	154
971019							>40		>40					6	94
971020							>40		>40					6	94
971021							>40		>40					6	94
971022							>40		>40					6	94
971023							>40		>40					6	94
971024		106			5.0	222.5	>40		>40					6	94
971025							>40		>40	1.609	5.405			6	94
971026							>40		>40					6	94
971027							>40		>40					8	40
971028							>40		>40					8	40
971029							>40		>40					8	40
971030							>40		>40					8	40
971031							>40		>40					8	40
971101							>40		>40					8	40

Upper Truckee River Watershed--Meiss USFS Allotment

Fecal Coliform	yymmdd	cows	Daily Means			BM>40	UTR>40	RLT>40	Ln BM	Ln UTR	Ln RLT	Innorm BM	Innorm UTR	Innorm RLT
			BM	UTR	RLT									
971102						>40	>40							
971103						>40	>40						8	40
971104						>40	>40						8	40
971105						>40	>40						8	40
971106						>40	>40						8	40
971107	120		7.5	39.5		>40	>40		2.015	3.676			8	40
971108						>40	>40						8	40
971109						>40	>40							
971110						>40	>40							
971111						>40	>40							
971112						>40	>40							
971113						>40	>40							
971114						>40	>40							
971115						>40	>40							

TUP & TLO Violations

TALLAC CREEK										
FECAL COLIFORM										
DATE	horses On, d	Average				Violations				
		TUP	TLO	Ln TUP	Ln TLO	TUP 30-d		TLO 30-d		com
						>40	lognorm	>40	lognorm	
940408		1.0	0.4	0.00	-0.85		0			1 off
940409				---			0			2
940410				---			0			2
940411				---			0			2
940412		0.0	0.3	-1000.00	-1.20		0			2
940413				---			0			2
940414		0.0	4.7	-1000.00	1.54		0			5
940415				---			0			5
940416				---	---		0			6
940417				---	---		0			6
940418				---	---		0			6
940419				---	---		0			6
940420				---	---		0			6
940421				---	---		0			6
940422				---	---		0			6
940423				---	---		0			6
940424				---	---		0			6
940425		0.0	6.4	-1000.00	1.86		0			6
940426				---	---		0	>40		23
940427				---	---		0	>40		81
940428				---	---		0	>40		81
940429				---	---		0	>40		81
940430				---	---		0	>40		81
940501				---	---		0	>40		81
940502				---	---		0	>40		81
940503				---	---		0	>40		81
940504				---	---		0	>40		81
940505				---	---		0	>40		81
940506				---	---		0	>40		81
940507				---	---		0	>40		81
940508				---	---		0	>40		81
940509				---	---		0	>40		81
940510				---	---		0	>40		81
940511				---	---		0	>40		81
940512				---	---		0	>40		81
940513				---	---		0	>40		81
940514				---	---		0	>40		81
940515				---	---		0	>40		81

TUP & TLO Violations

TALLAC CREEK										
FECAL COLIFORM										
DATE	horses On, d	Average		Ln TUP	Ln TLO	Violations				com
		TUP	TLO			TUP 30-d		TLO 30-d		
						>40	lognorm	>40	lognorm	
940516				---	---		0	>40	81	
940517				---	---		0	>40	81	
940518				---	---		0	>40	81	
940519				---	---		0	>40	81	
940520				---	---		0	>40	81	
940521				---	---		0	>40	81	
940522				---	---		0	>40	81	
940523				---	---		0	>40	81	
940524		0.0	81.2	-1000.00	4.40		0	>40	81	
940525				---	---		0	>40	81	
940526				---	---					
940527				---	---					
940528				---	---					
940529				---	---					
940530				---	---					
940531				---	---					
940601				---	---					
940602				---	---					
940603				---	---					
940604				---	---					
940605				---	---					
940606				---	---					
940607				---	---					
940608				---	---					
940609				---	---					
940610				---	---					
940611				---	---					
940612				---	---					
940613				---	---					
940614				---	---					
940615				---	---					
940616				---	---					
940617				---	---					
940618				---	---					
940619				---	---					
940620				---	---					
940621				---	---					
940622				---	---					

TUP & TLO Violations

TALLAC CREEK											
FECAL COLIFORM											
DATE	horses On, d	Average		Ln TUP	Ln TLO	Violations				com	
		TUP	TLO			TUP 30-d		TLO 30-d			
						>40	lognorm	>40	lognorm		
940623				---	---						
940624				---	---						
950427	-65	6.2	346.7	1.82	5.85		6	>40	347	J	
950428				---	---		6	>40	347	30 up	
950429				---	---		6	>40	347		
950430				---	---		6	>40	347		
950501				---	---		6	>40	347		
950502				---	---		6	>40	347		
950503				---	---		6	>40	347		
950504	-58	0.3	15.3	-1.25	2.73		6	>40	347		
950505				---	---		1	>40	73		
950506				---	---		1	>40	73		
950507				---	---		1	>40	73		
950508				---	---		1	>40	73		
950509				---	---		1	>40	73		
950510				---	---		1	>40	73		
950511				---	---		1	>40	73		
950512				---	---		1	>40	73		
950513				---	---		1	>40	73		
950514				---	---		1	>40	73		
950515				---	---		1	>40	73		
950516				---	---		1	>40	73		
950517				---	---		1	>40	73		
950518	-44	0.0	17.8	-1000.00	2.88		0	>40	46		
950519				---	---		0	>40	46		
950520				---	---		0	>40	46		
950521				---	---		0	>40	46		
950522				---	---		0	>40	46		
950523				---	---		0	>40	46		
950524				---	---		0	>40	46		
950525	-37	0.4	6.3	-1.01	1.84		0	>40	28		
950526				---	---		0	>40	28		
950527				---	---		0		12		
950528				---	---		0		12		
950529				---	---		0		12		
950530				---	---		0		12		
950531				---	---		0		12		

TUP & TLO Violations

TALLAC CREEK		FECAL COLIFORM		Average		Violations				
DATE	horses On, d	TUP	TLO	Ln TUP	Ln TLO	TUP 30-d		TLO 30-d		com
						>40	lognorm	>40	lognorm	
950601				—	—		0		12	
950602				—	—		0		12	
950603				—	—		0		11	
950604				—	—		0		11	
950605				—	—		0		11	
950606				—	—		0		11	
950607				—	—		0		11	
950608				—	—		0		11	
950609				—	—		0		11	
950610				—	—		0		11	
950611				—	—		0		11	
950612				—	—		0		11	
950613				—	—		0		11	
950614				—	—		0		11	
950615				—	—		0		11	
950616				—	—		0		11	
950617				—	—		0		11	
950618				—	—		0		6	
950619				—	—		0		6	
950620				—	—		0		6	
950621				—	—		0		6	
950622				—	—		0		6	
950623				—	—		0		6	
950624				—	—		0		6	
950625				—	—		#DIV/0!		#DIV/0!	
950626				—	—		#DIV/0!		#DIV/0!	
950627				—	—		#DIV/0!		#DIV/0!	
950628				—	—		#DIV/0!		#DIV/0!	
950629				—	—		#DIV/0!		#DIV/0!	
950630				—	—		#DIV/0!		#DIV/0!	
950701	0			—	—		#DIV/0!		#DIV/0!	
950702				—	—		2		56	on
950703				—	—		2		56	
950704				—	—		2		56	
950705				—	—		2		56	
950706				—	—		2		56	
950707				—	—		2		56	
950708				—	—		2		56	

TUP & TLO Violations

TALLAC CREEK											
FECAL COLIFORM											
DATE	horses On, d	Average		Ln TUP	Ln TLO	Violations				com	
		TUP	TLO			TUP 30-d		TLO 30-d			
						>40	lognorm	>40	lognorm		
950709				---	---		4			36	
950710				---	---		4			36	
950711				---	---		4			36	
950712				---	---		4			36	
950713	12	0.9	71.6	-0.2	4.3		4			36	
950714				---	---		4	>40		36	
950715				---	---		9	>40		25	
950716				---	---		9	>40		25	
950717				---	---		9	>40		25	
950718				---	---		9	>40		25	
950719				---	---		9	>40		25	
950720				---	---		9	>40		25	
950721				---	---		9	>40		25	
950722				---	---		9	>40		25	
950723				---	---		9	>40		25	
950724	23	3.7	43.3	1.3	3.8		9	>40		25	
950725				---	---		10	>40		45	
950726				---	---		16	>40		46	
950727				---	---		16	>40		46	
950728				---	---		16	>40		46	
950729				---	---		16	>40		46	
950730				---	---		16	>40		46	
950731				---	---		16	>40		46	
950801				---	---		16	>40		46	
950802				---	---		16	>40		46	
950803				---	---		13	>40		34	
950804				---	---		13	>40		34	
950805				---	---		13	>40		34	
950806				---	---		13	>40		34	
950807	37	23.0	14.5	3.1	2.7		13	>40		34	
950808				---	---		13	>40		34	
950809				---	---		10	>40		53	
950810				---	---		10	>40		53	
950811				---	---		10	>40		53	
950812				---	---		10	>40		53	
950813				---	---		10	>40		53	
950814				---	---		10	>40		53	
950815				---	---		10	>40		53	

TUP & TLO Violations

TALLAC CREEK										
FECAL COLIFORM										
DATE	horses On, d	Average		Ln TUP	Ln TLO	Violations				com
		TUP	TLO			TUP 30-d		TLO 30-d		
						>40	lognorm	>40	lognorm	
950816				---	---					
950817				---	---		10	>40	53	
950818				---	---		10	>40	53	
950819				---	---		10	>40	53	
950820				---	---		10	>40	53	
950821				---	---		10	>40	53	
950822	52	11.3	147.2	2.4	5.0		10	>40	53	
950823				---	---		10	>40	53	
950824				---	---		9	>40	19	
950825				---	---		11	>40	70	
950826				---	---		11	>40	70	
950827				---	---		11	>40	70	
950828				---	---		11	>40	70	
950829				---	---		11	>40	70	
950830				---	---		11	>40	70	
950831	61	8.7	18.8	2.2	2.9		11	>40	70	
950901				---	---		11	>40	70	
950902				---	---		13	>40	261	
950903				---	---		13	>40	261	
950904				---	---		13	>40	261	
950905				---	---		13	>40	261	
950906				---	---		6	>40	44	
950907				---	---		6	>40	44	
950908				---	---		6	>40	44	
950909				---	---		5	>40	44	
950910				---	---		5	>40	44	
950911				---	---		5	>40	44	
950912				---	---		5	>40	44	
950913				---	---		4	>40	44	
950914				---	---		4	>40	44	
950915				---	---		4	>40	44	
950916				---	---		0	>40	44	
950917				---	---		0	>40	44	
950918				---	---		0	>40	44	
950919				---	---		0	>40	44	
950920				---	---		0	>40	44	
950921				---	---		0	>40	44	
950922	83	13.0	260.5	2.6	5.6		0	>40	44	

TUP & TLO Violations

TALLAC CREEK										
FECAL COLIFORM										
DATE	horses On, d	Average		Ln TUP	Ln TLO	Violations				com
		TUP	TLO			TUP 30-d		TLO 30-d		
						>40	lognorm	>40	lognorm	
950923				—	—		0	>40	7	
950924				—	—		0	>40	7	
950925				—	—		0	>40	7	
950926				—	—		0	>40	7	
950927				—	—		0	>40	7	
950928				—	—		0	>40	7	
950929				—	—		0	>40	7	
950930				—	—		0	>40	7	
951001				—	—		0	>40	7	
951002				—	—		0	>40	7	
951003				—	—		0	>40	7	
951004	95	3.2	7.3	1.2	2.0		0	>40	7	
951005							0	>40	7	
951006								>40		
951007								>40		
951008								>40		
951009								>40		
951010								>40		
951011								>40		
951012								>40		
951013								>40		
951014								>40		
951015								>40		
951016								>40		
951017								>40		
951018								>40		
951019								>40		
951020								>40		
951021								>40		
951022								>40		
951023										
951024										
951025										
951026										
951027										
951028										
951029										
951030										

TUP & TLO Violations

TALLAC CREEK											
FECAL COLIFORM											
DATE	horses On, d	Average		Ln TUP	Ln TLO	Violations				com	
		TUP	TLO			TUP 30-d		TLO 30-d			
						>40	lognorm	>40	lognorm		
951031											
951101											
951102											
951103											
951201	153										off
960606	-25	4.0	9.3	1.39	2.23		4	>40		9	
960607				—	—		4	>40		9	
960608				—	—		4	>40		9	
960609				—	—		4	>40		9	
960610	-21	2.0	16.0	0.69	2.77		3	>40		12	
960611				—	—		3	>40		12	
960612				—	—		3	>40		12	
960613	-18	0.0	21.0	-1000.00	3.04		0	>40		15	
960614				—	—		0	>40		15	
960615				—	—		0	>40		15	
960616				—	—		0	>40		15	
960617	-14	2.0	23.3	0.69	3.15		0	>40		16	
960618				—	—		0	>40		16	
960619				—	—		0	>40		16	
960620	-11	5.5	27.0	1.70	3.30		0	>40		18	
960621				—	—		0	>40		18	
960622				—	—		0	>40		18	
960623				—	—		0	>40		18	
960624				—	—		0	>40		18	
960625	-6	14.5	50.7	2.67	3.93		0	>40		22	
960626				—	—		0	>40		22	
960627				—	—		0	>40		22	
960628				—	—		0	>40		22	
960629				—	—		0	>40		22	
960630				—	—		0	>40		22	
960701	0			—	—		4	>40		55	on
960702	1	1.7	56.0	0.5	4.0		4	>40		55	on
960703				—	—		4	>40		55	
960704				—	—		4	>40		55	
960705				—	—		4	>40		55	
960706				—	—		4	>40		55	
960707				—	—		4	>40		55	

TUP & TLO Violations

TALLAC CREEK										
FECAL COLIFORM										
DATE	horses On, d	Average		Ln TUP	Ln TLO	Violations				com
		TUP	TLO			TUP 30-d		TLO 30-d		
						>40	lognorm	>40	lognorm	
960708	7	4.0	44.3	1.4	3.8		5	>40	65	
960709				—	—		6	>40	70	
960710				—	—		6	>40	70	
960711	10	11.3	17.0	2.4	2.8		6	>40	70	
960712				—	—		6	>40	70	
960713				—	—		5	>40	99	
960714				—	—		5	>40	99	
960715				—	—		5	>40	99	
960716	15	1.3	63.5	0.3	4.2		5	>40	99	
960717				—	—		5	>40	99	
960718				—	—		7	>40	78	
960719				—	—		7	>40	78	
960720				—	—		7	>40	78	
960721				—	—		7	>40	78	
960722				—	—		8	>40	72	
960723				—	—		8	>40	72	
960724	23	4.5	81.7	1.5	4.4		8	>40	72	
960725				—	—		8	>40	65	
960726				—	—		9	>40	63	
960727				—	—		9	>40	63	
960728				—	—		9	>40	63	
960729				—	—		9	>40	63	
960730	29	4.5	132.0	1.5	4.9		10	>40	56	
960731				—	—		10	>40	56	
960801				—	—		11	>40	47	
960802				—	—		11	>40	47	
960803				—	—		11	>40	47	
960804				—	—		11	>40	47	
960805				—	—		11	>40	47	
960806	36	17.5	140.7	2.9	4.9		11	>40	47	
960807				—	—		11	>40	47	
960808				—	—		10	>40	39	
960809				—	—		10	>40	39	
960810				—	—		10	>40	39	
960811				—	—		10	>40	39	
960812				—	—		10	>40	39	
960813				—	—		13	>40	41	
960814				—	—		13	>40	41	

TUP & TLO Violations

TALLAC CREEK										
FECAL COLIFORM										
DATE	horses On, d	Average		Ln TUP	Ln TLO	Violations				com
		TUP	TLO			TUP 30-d		TLO 30-d		
						>40	lognorm	>40	lognorm	
960815	45	8.0	24.0	2.1	3.2		13	>40	41	
960816				—	—		14	>40	45	
960817				—	—		14	>40	45	
960818				—	—		13	>40	45	
960819	49	9.0	53.0	2.2	4.0		13	>40	45	
960820				—	—		14	>40	44	
960821				—	—		14	>40	44	
960822	52	9.0	40.5	2.2	3.7		14	>40	44	
960823				—	—		16	>40	44	
960824				—	—		16	>40	44	
960825				—	—		16	>40	44	
960826				—	—		16	>40	44	
960827	57	17.0	32.0	2.8	3.5		11	>40	42	
960828				—	—		10	>40	45	
960829				—	—		10	>40	45	
960830				—	—		10	>40	45	
960831				—	—		10	>40	45	
960901				—	—		10	>40	45	
960902				—	—		10	>40	45	
960903				—	—		10	>40	45	
960904				—	—		5	>40	33	
960905	66	8.5	51.7	2.1	3.9		5	>40	33	
960906				—	—		5	>40	33	
960907				—	—		5	>40	30	
960908				—	—		5	>40	30	
960909				—	—		5	>40	30	
960910	71	45.0	54.0	3.8	4.0	>40	5	>40	30	
960911				—	—	>40	4	>40	32	
960912				—	—	>40	2	>40	28	
960913				—	—	>40	2	>40	28	
960914				—	—	>40	2	>40	28	
960915				—	—	>40	2	>40	28	
960916	77	10.0	43.3	2.3	3.8	>40	2	>40	28	
960917				—	—	>40	2	>40	28	
960918				—	—	>40	1	>40	25	
960919				—	—	>40	1	>40	25	
960920				—	—	>40	5	>40	31	
960921				—	—	>40	5	>40	31	

TUP & TLO Violations

TALLAC CREEK											
FECAL COLIFORM											
						Violations					
	horses	Average				TUP 30-d		TLO 30-d			
DATE	On, d	TUP	TLO	Ln TUP	Ln TLO	>40	lognorm	>40	lognorm	com	
960922				—	—	>40	5	>40	31		
960923				—	—	>40	5	>40	31		
960924				—	—	>40	8	>40	21		
960925	86	2.5	34.7	0.9	3.5	>40	8	>40	21		
960926				—	—	>40	11	>40	18		
960927				—	—	>40	11	>40	18		
960928				—	—	>40	11	>40	18		
960929				—	—	>40	11	>40	18		
960930				—	—	>40	11	>40	18		
961001				—	—	>40	14	>40	12		
961002	93	0.5	10.0	-0.7	2.3	>40	14	>40	12		
961003				—	—	>40	33	>40	13		
961004				—	—	>40	33	>40	13		
961005				—	—	>40	29	>40	9		
961006				—	—	>40	29	>40	9		
961007				—	—	>40	29	>40	9		
961008				—	—	>40	29	>40	9		
961009	100	1.5	43.3	0.4	3.8	>40	29	>40	9		
961010				—	—		60	>40	6		
961011				—	—		60	>40	6		
961012				—	—		60	>40	6		
961013				—	—		60	>40	6		
961014				—	—		60	>40	6		
961015				—	—		60	>40	6		
961016				—	—		60	>40	6		
961017				—	—		35	>40	5		
961018	109	284.5	62.3	5.7	4.1	>40	35	>40	5		
961019				—	—	>40	25	>40	5		
961020				—	—	>40	25	>40	5		
961021				—	—	>40	16	>40	5		
961022				—	—	>40	16	>40	5		
961023	114	71.0	4.0	4.3	1.4	>40	16	>40	5		
961024				—	—	>40	12	>40	6		
961025				—	—	>40	12	>40	6		
961026				—	—	>40	12	>40	6		
961027				—	—	>40	9	>40	7		
961028				—	—	>40	9	>40	7		
961029				—	—	>40	9	>40	7		

TUP & TLO Violations

TALLAC CREEK										
FECAL COLIFORM										
DATE	horses On, d	Average		Ln TUP	Ln TLO	Violations				com
		TUP	TLO			TUP 30-d		TLO 30-d		
						>40	lognorm	>40	lognorm	
961030	121	40.5	2.3	3.7	0.8	>40	7	>40	8	
961101	123			—	—	>40	5		9	off
961102				—	—	>40	5		9	
961103				—	—	>40	5		9	
961104	126	16.0	2.0	2.77	0.69	>40	5		9	off
961105				—	—	>40	5		12	
961106				—	—	>40	5		12	
961107				—	—	>40	5		12	
961108				—	—	>40	5		12	
961109				—	—	>40	5		12	
961110				—	—	>40	5		12	
961111				—	—	>40	5		12	
961112				—	—	>40	5		12	
961113				—	—	>40	5		12	
961114				—	—	>40	5		12	
961115	137	4.0	2.0	1.39	0.69	>40	5		12	
961116				—	—	>40	5		12	
961117				—	—	>40	5		17	
961118	140	52.5	68.3	3.96	4.22	>40	5		16	
961119				—	—	>40	3		13	
961120						>40				
961121						>40				
961122						>40				
961123						>40				
961124						>40				
961125						>40				
961126						>40				
961127						>40				
961128						>40				
961129						>40				
961130						>40				
961201						>40				
961202						>40				
961203						>40				
961204						>40				
961205						>40				
961206						>40				
961207						>40				

TUP & TLO Violations

TALLAC CREEK											
FECAL COLIFORM											
						Violations					
	horses	Average				TUP 30-d		TLO 30-d			
DATE	On, d	TUP	TLO	Ln TUP	Ln TLO	>40	lognorm	>40	lognorm	com	
961208						>40					
961209						>40					
961210						>40					
961211						>40					
961212						>40					
961213						>40					
961214						>40					
961215						>40					
961216						>40					
961217						>40					
961218						>40					
970610	-21	1.5	10.3	0.41	2.33		2			10	off
970611				—	—		2			10	
970612				—	—		2			10	
970613				—	—		2			10	
970614				—	—		2			10	
970615				—	—		2			10	
970616	-15	2.5	18.0	0.92	2.89		2			14	
970617				—	—		2			14	
970618				—	—		2			14	
970619	-12	2.0	13.0	0.69	2.56		2			13	
970620				—	—		2			13	
970621				—	—		2			13	
970622				—	—		2			13	
970623				—	—		2			13	
970624	-7	6.5	9.5	1.87	2.25		3			12	
970625				—	—		3			12	
970626				—	—		3			12	
970627				—	—		3			12	
970628				—	—		3			12	
970629				—	—		3			12	
970630				—	—		3			12	
970701	0			—	—		10			30	on
970702				—	—		10			30	
970703				—	—		10			30	
970704				—	—		10			30	
970705				—	—		10			30	

TUP & TLO Violations

TALLAC CREEK										
FECAL COLIFORM										
DATE	horses On, d	Average		Ln TUP	Ln TLO	Violations				com
		TUP	TLO			TUP 30-d		TLO 30-d		
						>40	lognorm	>40	lognorm	
970707	6	4.0	17.5	1.4	2.9		10		30	on
970708	7	4.5	12.0	1.5	2.5		14		36	
970709				—	—		25		61	
970710				—	—		25		61	
970711				—	—		25		61	
970712				—	—		25		61	
970713				—	—		25		61	
970714				—	—		25		61	
970715	14	28.0	31	3.3	3.4		15		54	
970716				—	—		15		54	
970717				—	—		11		71	
970718				—	—		11		71	
970719				—	—		11		71	
970720				—	—		11		71	
970721				—	—		11		71	
970722				—	—		11		71	
970723				—	—		11		71	
970724				—	—		8		68	
970725				—	—		8		68	
970726				—	—		8		68	
970727				—	—		8		68	
970728				—	—		8		68	
970729				—	—		8		68	
970730	29	21.5	120.5	3.1	4.8		8		68	
970731				—	—		9	>40	54	
970801				—	—		6	>40	42	
970802				—	—		6	>40	42	
970803				—	—		6	>40	42	
970804				—	—		6	>40	42	
970805				—	—		6	>40	42	
970806				—	—		6	>40	42	
970807				—	—		6	>40	42	
970808				—	—		5	>40	37	
970809				—	—		5	>40	37	
970810				—	—		5	>40	37	
970811				—	—		5	>40	37	
970812	42	5.5	42.0	1.7	3.7		5	>40	37	
970813				—	—		5	>40	36	

TUP & TLO Violations

TALLAC CREEK										
FECAL COLIFORM										
DATE	horses On, d	Average		Ln TUP	Ln TLO	Violations				com
		TUP	TLO			TUP 30-d		TLO 30-d		
						>40	lognorm	>40	lognorm	
970814				—	—		5	>40	30	
970815				—	—		5	>40	30	
970816				—	—		5	>40	30	
970817				—	—		5	>40	30	
970818				—	—		5	>40	30	
970819				—	—		5	>40	30	
970820				—	—		5	>40	30	
970821	51	5.0	62.5	1.6	4.1		5	>40	30	
970822				—	—		5	>40	30	
970823				—	—		5	>40	24	
970824				—	—		5	>40	24	
970825				—	—		3	>40	9	
970826				—	—		3	>40	9	
970827				—	—		3	>40	9	
970828	58	9.0	27.5	2.2	3.3		3	>40	9	
970829				—	—		3	>40	12	
970830				—	—		2	>40	10	
970831				—	—		2	>40	10	
970901				—	—		2	>40	10	
970902				—	—		2	>40	10	
970903				—	—		2	>40	10	
970904				—	—		2	>40	10	
970905	66	3.0	27.0	1.1	3.3		2	>40	10	
970906				—	—		2	>40	10	
970907				—	—		2	>40	7	
970908				—	—		2	>40	7	
970909				—	—		2	>40	7	
970910				—	—		2	>40	7	
970911				—	—		2	>40	7	
970912	73	5.0	18.0	1.6	2.9		3	>40	10	
970913				—	—		3	>40	10	
970914				—	—		2	>40	8	
970915				—	—		2	>40	8	
970916				—	—		2	>40	8	
970917				—	—		2	>40	8	
970918				—	—		2	>40	8	
970919				—	—		2	>40	5	
970920				—	—		2	>40	5	
							2		5	

TUP & TLO Violations

TALLAC CREEK											
FECAL COLIFORM											
DATE	horses On, d	Average		Ln TUP	Ln TLO	Violations				com	
		TUP	TLO			TUP 30-d		TLO 30-d			
						>40	lognorm	>40	lognorm		
970921				—	—		2			5	
970922	83	0.5	0.5	-0.7	-0.7		2			5	
970923				—	—		2			11	
970924				—	—		2			11	
970925				—	—		2			9	
970926	87	3.0	42.0	1.1	3.7		2	>40		9	
970927				—	—		2	>40		5	
970928				—	—		2	>40		5	
970929				—	—		2	>40		5	
970930				—	—		2	>40		5	
971001				—	—		2	>40		5	
971002				—	—		2	>40		5	
971003				—	—		2	>40		5	
971004				—	—		2	>40		5	
971005				—	—		2	>40		5	
971006				—	—		2	>40		5	
971007				—	—		2	>40		5	
971008				—	—		2	>40		5	
971009				—	—		2	>40		5	
971010	101	9.5	29.0	2.3	3.4		2	>40		8	
971011				—	—		2	>40		8	
971012				—	—		1	>40		5	
971013				—	—		1	>40		5	
971014				—	—		1	>40		5	
971015				—	—		1	>40		5	
971016				—	—		1	>40		5	
971017	108	0.5	1.0	-0.7	0.0		1	>40		5	
971018				—	—		2	>40		12	
971019				—	—		2	>40		12	
971020				—	—		2	>40		12	
971021				—	—		2	>40		12	
971022				—	—		2	>40		12	
971023				—	—		2	>40		12	
971024	115	1.5	4.5	0.4	1.5		2	>40		12	
971025				—	—		4	>40		33	
971026				—	—		4			33	
971027				—	—		4			33	
971028				—	—		4			33	

TUP & TLO Violations

TALLAC CREEK										
FECAL COLIFORM										
DATE	horses On, d	Average		Ln TUP	Ln TLO	Violations				com
		TUP	TLO			TUP 30-d		TLO 30-d		
						>40	lognorm	>40	lognorm	
971029				—	—		4		33	
971030				—	—		4		33	
971031				—	—		4		33	
971101	123			—	—		4		33	
971102				—	—		4		33	off
971103				—	—		4		33	
971104				—	—		4		33	
971105				—	—		4		33	
971106				—	—		4		33	
971107	129	3.5	33.0	1.25	3.50		4		33	off
				—	—					