

Attachment 1:
Machado Lake
Nutrient TMDL
Year 1
Dry Event 1
Monitoring Site
Field Logs

Machado Lake Nutrient TMDL Sampling – Field Log

GENERAL INFORMATION

Site ID: 10 ACAD

Date: 9/11/12

Personnel: Ken Keane-Dengel (LWA), Greg Reid (LWA)
Bryant Alvarado (LWA)

OBSERVATIONS:

Weather: Sunny, WARM

Floating material or debris: floatables

Water Color: Clear (slight yellow) Water odor: None

Photograph No. (if taken): _____ Foreign Matter: Floatables

Other Notes (presence of algae, wildlife observations, etc.):

None

WATER QUALITY PARAMETERS

Time	Temp (°C)	pH	D.O. (mg/L / %)	Sp. C. (uS/cm ²)	Turbidity (NTU)
0845	23.75	8.03	8.26	98.7	2214
					20.4

ENVIRONMENTAL SAMPLES

Sample ID	Analyses	Bottle	Time
MLMRP-01-Q1-10_ACAD-1	TSS, TDS	1L HDPE	0845
MLMRP-01-Q1-10_ACAD-2	Diss. P, Total Ortho P, Nitrate, Nitrite	250 mL HDPE	0845
MLMRP-01-Q1-10_ACAD-3	Total Kjeldahl Nitrogen	250 mL HDPE (H ₂ SO ₄)	0845
MLMRP-01-Q1-10_ACAD-4	Ammonia as Nitrogen, Total Phosphorus	1 L Amber Glass (H ₂ SO ₄)	0845

FLOW

Dist (ft)	Depth (ft)	Velocity (f/s)	Free Flowing Outfalls		Flow Measurement		Units	Measurement
			Time	Volume	Width at <u>Top</u> :	in or ft		
0.5	0.5"	1.8E	Time 1	% Capture	Width at <u>Bottom</u> :	in or ft		
			Time 2	Volume	Depth at 25% of <u>Top</u> :	in or ft		
				% Capture	Depth at 50% of <u>Top</u> :	in or ft		
			Time 3	Volume	Depth at 75% of <u>Top</u> :	in or ft		
				% Capture	Depth 25% of <u>Middle</u> :	in or ft		
			Time 4	Volume	Depth at 50% of <u>Middle</u> :	in or ft		
				% Capture	Depth at 75% of <u>Middle</u> :	in or ft		
			Time 5	Volume	Depth at 25% of <u>Bottom</u> :	in or ft		
				% Capture	Depth at 50% of <u>Bottom</u> :	in or ft		
			Time 6	Volume	Depth at 75% of <u>Bottom</u> :	in or ft		
				% Capture	Distance Marked-off:	in or ft		
			Time 7	Volume	Time 1:	mm:ss.ss		
				% Capture	Time 2:	mm:ss.ss		
					Time 3:	mm:ss.ss		

QAQC SAMPLESSite ID: 10 ACAD_TAHOEDate: 9/11/12**Field Blanks**

Sample ID	Analyses	Bottle	Time
MLMRP-01-Q1-10_ACAD_TAHOE-2	Diss. P, Total Ortho P, Nitrate, Nitrite	250 mL HDPE	0915
MLMRP-01-Q1-10_ACAD_TAHOE-3	Total Kjeldahl Nitrogen	250 mL HDPE (H ₂ SO ₄)	0915
MLMRP-01-Q1-10_ACAD_TAHOE-4	Ammonia as Nitrogen, Total Phosphorus	1 L Amber Glass (H ₂ SO ₄)	0915

Site ID: 10 ACAD_DUPREEDate: 9/11/12**Field Duplicates**

Sample ID	Analyses	Bottle	Time
MLMRP-01-Q1-10_ACAD_DUPREE-1	TSS, TDS	1L HDPE	0900
MLMRP-01-Q1-10_ACAD_DUPREE-2	Diss. P, Total Ortho P, Nitrate, Nitrite	250 mL HDPE	0900
MLMRP-01-Q1-10_ACAD_DUPREE-3	Total Kjeldahl Nitrogen	250 mL HDPE (H ₂ SO ₄)	0900
MLMRP-01-Q1-10_ACAD_DUPREE-4	Ammonia as Nitrogen, Total Phosphorus	1 L Amber Glass (H ₂ SO ₄)	0900

Machado Lake Nutrient TMDL Sampling – Field Log

GENERAL INFORMATION

Site ID: 10 EAST

Date: 9/11/12

Personnel: RUD(LWA) GR(LWA) BA(LWA)

OBSERVATIONS

Weather: Sunny warm

Floating material or debris: _____

Water Color: _____ Water odor: _____

Photograph No. (if taken): (2) Foreign Matter _____

Other Notes (presence of algae, wildlife observations, etc.): _____

DRY

WATER QUALITY PARAMETERS

Time	Temp (°C)	pH	D.O. (mg/L/%)	Sp. C. (uS/cm ^o)	Turbidity (NTU)

FLOW

DRY

Dist (ft)	Depth (ft)	Velocity (f/s)	Free Flowing Outfalls		Flow Measurement	Units	Measurement
			Volume	% Capture	Width at Top :	in or ft	
			Time 1	Volume	Width at Bottom :	in or ft	
				% Capture			
			Time 2	Volume	Depth at 25% of Top :	in or ft	
				% Capture			
			Time 3	Volume	Depth at 50% of Top :	in or ft	
				% Capture			
			Time 4	Volume	Depth at 75% of Top :	in or ft	
				% Capture			
			Time 5	Volume	Depth 25% of Middle :	in or ft	
				% Capture			
			Time 6	Volume	Depth at 50% of Middle :	in or ft	
				% Capture			
			Time 7	Volume	Depth at 75% of Middle :	in or ft	
				% Capture			
				Volume	Depth at 25% of Bottom :	in or ft	
				% Capture			
				Volume	Depth at 50% of Bottom :	in or ft	
				% Capture			
				Volume	Depth at 75% of Bottom :	in or ft	
				% Capture			
				Volume	Distance Marked-off:	in or ft	
				% Capture			
				Volume	Time 1:	mm:ss.ss	
				% Capture			
				Volume	Time 2:	mm:ss.ss	
				% Capture			
				Volume	Time 3:	mm:ss.ss	
				% Capture			

Machado Lake Nutrient TMDL Sampling – Field Log

GENERAL INFORMATION

Site ID: 20 SCBG Date: 9/11/12 @ 10:00 AM
 Personnel: Beyond, GREG, RENI (LWA), ORARI E LAC

OBSERVATIONS:

Weather: _____
 Floating material or debris: N/A
 Water Color: N/A Water odor: _____
 Photograph No. (if taken): _____ Foreign Matter _____
 Other Notes (presence of algae, wildlife observations, etc.):

*SITE DRY. Hydrocarbon/Gas odor at drain outlet at end of
 20 SCBG channel.*

WATER QUALITY PARAMETERS

Time	Temp (°C)	pH	D.O. (mg/L / %)	Sp. C. (uS/cm ²)	Turbidity (NTU)

FLOW

Dist (ft)	Depth (ft)	Velocity (f/s)	Free Flowing Outfalls		Flow Measurement	Units	Measurement
			Volume	% Capture	Width at <u>Top</u> :	in or ft	
			Time 1	Volume	Width at <u>Bottom</u> :	in or ft	
				% Capture			
			Time 2	Volume	Depth at 25% of <u>Top</u> :	in or ft	
				% Capture	Depth at 50% of <u>Top</u> :	in or ft	
			Time 3	Volume	Depth at 75% of <u>Top</u> :	in or ft	
				% Capture	Depth 25% of <u>Middle</u> :	in or ft	
			Time 4	Volume	Depth at 50% of <u>Middle</u> :	in or ft	
				% Capture	Depth at 75% of <u>Middle</u> :	in or ft	
			Time 5	Volume	Depth at 25% of <u>Bottom</u> :	in or ft	
				% Capture	Depth at 50% of <u>Bottom</u> :	in or ft	
			Time 6	Volume	Depth at 75% of <u>Bottom</u> :	in or ft	
				% Capture	Distance Marked-off:	in or ft	
			Time 7	Volume	Time 1:	mm:ss.ss	
				% Capture	Time 2:	mm:ss.ss	
					Time 3:	mm:ss.ss	

From Entrance Follow CREEK LANE
 ⓐ - BEST ROUTE - PAVED ROAD TO LAKEVIEW ROAD.
 (TRAM ROAD)
 From Entrance Turn Left on Tram Road, follow
 to LAKEVIEW RD.

Machado Lake Nutrient TMDL Sampling – Field Log

GENERAL INFORMATION

Site ID: 30 VAND

Date: 9/11/12

Personnel: RKD (LWA) GR (LWA) BA (LWA)

OBSERVATIONS

Weather: cloudy cool

Floating material or debris: none

Water Color: pale yellow Water odor: none

Photograph No. (if taken): 2 Foreign Matter: organics, trash

Other Notes (presence of algae, wildlife observations, etc.):

substrate Algae

WATER QUALITY PARAMETERS

Time	Temp (°C)	pH	D.O. (mg/L / %)	Sp. C. (uS/cm ^o)	Turbidity (NTU)
1145	25.04	9.80	1206/148.5	1031	0.0

ENVIRONMENTAL SAMPLES

Sample ID	Analyses	Bottle	Time
MLMRP-01-Q1-30_VAND-1	TSS, TDS	1L HDPE	1145
MLMRP-01-Q1-30_VAND-2	Diss. P, Total Ortho P, Nitrate, Nitrite	250 mL HDPE	1145
MLMRP-01-Q1-30_VAND-3	Total Kjeldahl Nitrogen	250 mL HDPE (H ₂ SO ₄)	1145
MLMRP-01-Q1-30_VAND-4	Ammonia as Nitrogen, Total Phosphorus	1 L Amber Glass (H ₂ SO ₄)	1145

FLOW

width at middle 1 ft

Dist (ft)	Depth (ft)	Velocity (f/s)	Free Flowing Outfalls		Flow Measurement	Units	Measurement
			Volume	% Capture			
			Time 1	Volume	Width at <u>Top</u> :	in or ft	1.4
				% Capture	Width at <u>Bottom</u> :	in or ft	1.1
			Time 2	Volume	Depth at 25% of <u>Top</u> :	in or ft	1/8
				% Capture	Depth at 50% of <u>Top</u> :	in or ft	4/8
			Time 3	Volume	Depth at 75% of <u>Top</u> :	in or ft	2/8
				% Capture	Depth 25% of <u>Middle</u> :	in or ft	3/16
			Time 4	Volume	Depth at 50% of <u>Middle</u> :	in or ft	4/16
				% Capture	Depth at 75% of <u>Middle</u> :	in or ft	4/16
			Time 5	Volume	Depth at 25% of <u>Bottom</u> :	in or ft	4/16
				% Capture	Depth at 50% of <u>Bottom</u> :	in or ft	5/16
			Time 6	Volume	Depth at 75% of <u>Bottom</u> :	in or ft	4/16
				% Capture	Distance Marked-off:	in or ft	10
			Time 7	Volume	Time 1:	mm:ss.ss	00:12.06
				% Capture	Time 2:	mm:ss.ss	00:10.88
					Time 3:	mm:ss.ss	00:12.78

Machado Lake Nutrient TMDL Sampling – Field Log

GENERAL INFORMATION

Site ID: 30 VERSEP

Date: 9/11/12

Personnel: RRO (LWA) GR(LWA) BA(LWA)

OBSERVATIONS:

Weather: cloudy, humid

Floating material or debris: organics (leaves, debris)

Water Color: pale yellow Water odor: nutrient rich

Photograph No. (if taken): 2 Foreign Matter: trash

Other Notes (presence of algae, wildlife observations, etc.):

Algae on substrate

WATER QUALITY PARAMETERS

Time	Temp (°C)	pH	D.O. (mg/L / %)	Sp. C. (uS/cm°)	Turbidity (NTU)
1300	26.32	9.73	20.25 / 253.5	1798	0.0

FLOW

width at middle 17.5 ft

Dist (ft)	Depth (ft)	Velocity (f/s)	Free Flowing Outfalls		Flow Measurement	Units	Measurement
			Volume	% Capture	Width at Top :	in or ft	
			Time 1	Volume	Width at Bottom :	in or ft	16
				% Capture	Depth at 25% of Top :	in or ft	17.5
			Time 2	Volume	Depth at 50% of Top :	in or ft	17.5 3/4
				% Capture	Depth at 75% of Top :	in or ft	1.25
			Time 3	Volume	Depth 25% of Middle :	in or ft	1.75
				% Capture	Depth at 50% of Middle :	in or ft	1.75
			Time 4	Volume	Depth at 75% of Middle :	in or ft	1 1/16
				% Capture	Depth at 25% of Bottom :	in or ft	0.5
			Time 5	Volume	Depth at 50% of Bottom :	in or ft	5/8
				% Capture	Depth at 75% of Bottom :	in or ft	7/8
			Time 6	Volume	Distance Marked-off:	in or ft	5/8
				% Capture	Time 1:	mm:ss.ss	10
			Time 7	Volume	Time 2:	mm:ss.ss	00:16.57
				% Capture	Time 3:	mm:ss.ss	00:13.95
							00:13.00

width @ Bottom:

Machado Lake Nutrient TMDL Sampling – Field Log

GENERAL INFORMATION

Site ID: 31 ASHB

Date: 9/11/12

Personnel: Bryant, Greg; Resi (LWA)

OBSERVATIONS:

Weather: cloudy

Floating material or debris: trash, organics

Water Color: clear Water odor: None

Photograph No. (if taken): 2 Foreign Matter Trash

Other Notes (presence of algae, wildlife observations, etc.):

Filamentous algae, trash

WATER QUALITY PARAMETERS

Time	Temp (°C)	pH	D.O. (mg/L / %)	Sp. C. (uS/cm ²)	Turbidity (NTU)
1400	23.86	8.44	8.01 / 95.5	748.5	0.0

FLOW

Width at Middle 1.25 ft

Dist (ft)	Depth (ft)	Velocity (f/s)	Free Flowing Outfalls		Flow Measurement	Units	Measurement
			Volume	% Capture	Width at <u>Top</u> :	(in) or (ft)	
			Time 1	Volume	Width at <u>Bottom</u> :	(in) or (ft)	1.5
				% Capture	Depth at 25% of <u>Top</u> :	(in) or (ft)	1.067
			Time 2	Volume	Depth at 50% of <u>Top</u> :	(in) or (ft)	1/4
				% Capture	Depth at 75% of <u>Top</u> :	(in) or (ft)	1/2
			Time 3	Volume	Depth 25% of <u>Middle</u> :	(in) or (ft)	1/4
				% Capture	Depth at 50% of <u>Middle</u> :	(in) or (ft)	1/2
			Time 4	Volume	Depth at 75% of <u>Middle</u> :	(in) or (ft)	1/4
				% Capture	Depth at 25% of <u>Bottom</u> :	(in) or (ft)	3/4
			Time 5	Volume	Depth at 50% of <u>Bottom</u> :	(in) or (ft)	1.25
				% Capture	Depth at 75% of <u>Bottom</u> :	(in) or (ft)	1.0
			Time 6	Volume	Distance Marked-off:	(in) or (ft)	12.5
				% Capture	Time 1:	mm:ss.ss	00:29.28
			Time 7	Volume	Time 2:	mm:ss.ss	00:27.56
				% Capture	Time 3:	mm:ss.ss	00:26.75

Machado Lake Nutrient TMDL Sampling – Field Log

GENERAL INFORMATION

Site ID: 31 NORMP
 Personnel: RKD, GR, BA

Date: 9/11/12

OBSERVATIONS:

Weather: Cloudy, Humid
 Floating material or debris: trash, organics
 Water Color: Clear Water odor: none
 Photograph No. (if taken): (2) Foreign Matter: TRASH
 Other Notes (presence of algae, wildlife observations, etc.):
Filamentous Algae, trash, oily sheen

WATER QUALITY PARAMETERS

Time	Temp (°C)	pH	D.O. (mg/L / %)	Sp. C. (uS/cm ²)	Turbidity (NTU)
1330	81.02	8.05	9.49 / 108.6	188	0.0

FLOW

1330

Dist (ft)	Depth (ft)	Velocity (f/s)	Free Flowing Outfalls		Flow Measurement	Units	Measurement
			Volume	% Capture	Width at <u>Top</u> :	in or ft	
0	0	0			Width at <u>Bottom</u> :	in or ft	
2	0.05	E 0.05			Depth at 25% of <u>Top</u> :	in or ft	
4	0.05	E 0.05			Depth at 50% of <u>Top</u> :	in or ft	
6	0.10	0.07			Depth at 75% of <u>Top</u> :	in or ft	
8	0.15	0.25			Depth 25% of <u>Middle</u> :	in or ft	
10	0.15	0.18			Depth at 50% of <u>Middle</u> :	in or ft	
11	0.15	0.21			Depth at 75% of <u>Middle</u> :	in or ft	
12	0.15	0.37			Depth at 25% of <u>Bottom</u> :	in or ft	
13	0.10	0.05			Depth at 50% of <u>Bottom</u> :	in or ft	
15	0.05	E 0.08			Depth at 75% of <u>Bottom</u> :	in or ft	
17	0.05	E 0.05			Distance Marked-off:	in or ft	
19	0.05	E 0.02			Time 1:	mm:ss.ss	
20	0	0			Time 2:	mm:ss.ss	
					Time 3:	mm:ss.ss	