

2019 FISH AND BENTHIC MACROINVERTEBRATE SURVEYS IN TAHOE KEYS LAGOONS

Final Report

Prepared for
Tahoe Regional Planning Agency

April 2020



Draft

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TABLE OF CONTENTS

2019 Fish and Benthic Macroinvertebrate Surveys in Tahoe Keys Lagoons Draft Report

	<u>Page</u>
Chapter 1, Introduction	1-1
Chapter 2, Methods	2-1
2.1 Benthic Macroinvertebrate (BMI) Assemblage Surveys	2-3
2.1.1 Nearshore Sampling	2-5
2.1.2 Mid-channel Sampling.....	2-5
2.2 Fish Assemblage Surveys	2-6
2.2.1 Boat Electrofishing	2-6
2.2.2 Otter Trawling.....	2-8
2.2.3 Minnow Trapping.....	2-10
Chapter 3, Results	3-1
3.1 BMI Assemblage	3-1
3.1.1 Tolerance/Intolerance Metrics.....	3-1
3.1.2 Functional Feeding Groups (FFG).....	3-2
3.2 Fish Assemblage.....	3-2
3.2.1 Boat Electrofishing	3-3
3.2.2 Otter Trawling.....	3-5
3.2.3 Minnow Trapping.....	3-7
Chapter 4, Discussion	4-1
Chapter 5, References.....	5-1

Appendices

- A Baseline Study Plan
- B BMI Taxa Data Summaries
- C Water Quality Data Summaries
- D Fish Assemblage Data Summaries

List of Figures

Figure 1 Tahoe Keys Lagoons Restoration Project Area	1-1
Figure 2 BMI and Fish Survey Areas	2-2
Figure 3 BMI Nearshore and Mid-Channel Sampling Locations.....	2-4
Figure 4 Boat Electrofishing Transects	2-7

Figure 5	Otter Trawl Transects.....	2-9
Figure 6	Minnow Trap Locations	2-11
Figure 7	Boat Electrofishing Catch Per Hour By Site.....	3-4
Figure 8	Boat Electrofishing Catch Per Hour a) Non-native Species b) Native and Cold Water Species	3-6

List of Tables

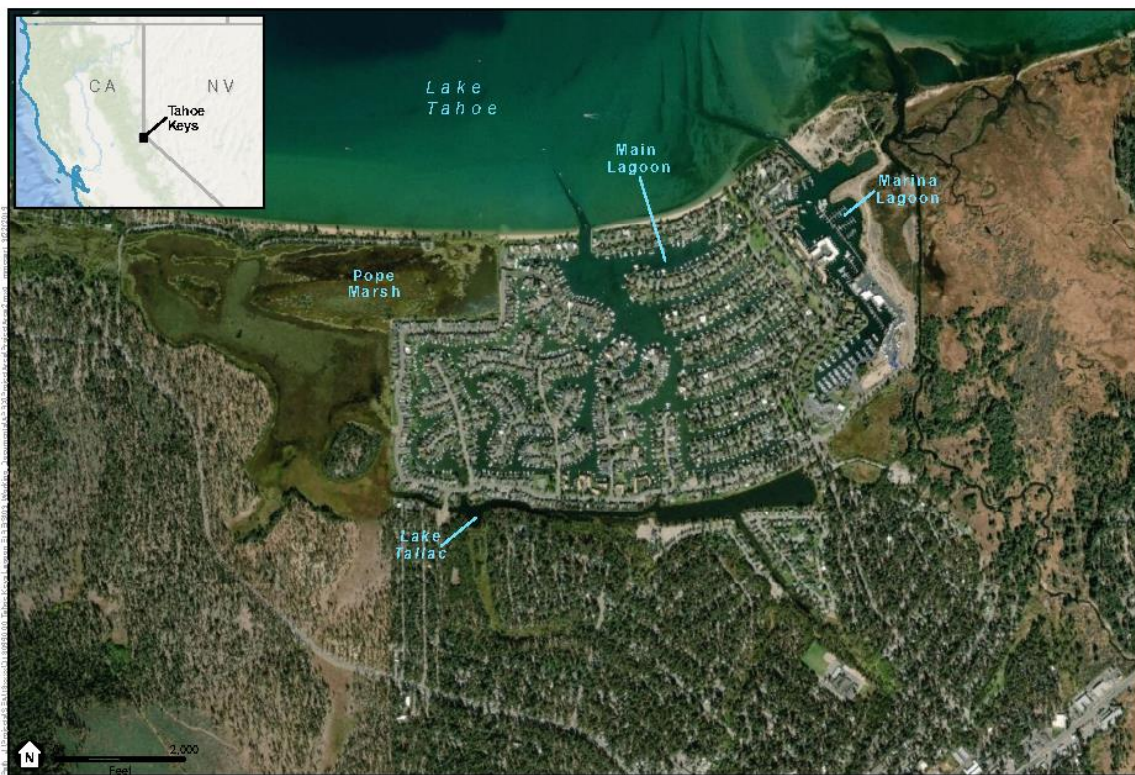
Table 1	BMI Indicator Values By Survey Area.....	3-2
Table 2	2019 Fish Survey Results	3-3
Table 3	2019 Boat Electrofishing Catch Per Hour By Site	3-4
Table 4	Boat Electrofishing Catch Per Hour in 2015 and 2019	3-5
Table 5	2019 Otter Trawl Catch Per Trawl	3-7

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CHAPTER 1

Introduction

Surveys to comprehensively describe the fish and benthic macroinvertebrate (BMI) species assemblages in the Tahoe Keys Lagoons were conducted in June and October of 2019 (**Figure 1**). The purpose of these surveys was to support the evaluation of the Tahoe Keys Lagoons Restoration Program (TKLRP) alternatives in an Environmental Impact Report and Environmental Impact Statement (EIR/EIS) and Antidegradation Analysis (AA), under contract to the Tahoe Regional Planning Agency (TRPA). This report describes the survey methods and results from the 2019 BMI and fish surveys. This report also provides a brief description of prior BMI and fish surveys in the Tahoe Keys Lagoons, along with basic comparisons of results between the 2019 and prior surveys.



SOURCE: DigitalGlobe, 2018

Tahoe Keys Lagoons Restoration Program EIR/EIS, D180990

Figure 1
Tahoe Keys Lagoons Restoration Project Area

CHAPTER 2

Methods

The Tahoe Keys Lagoons consist of three man-made embayments connected to the southern end of Lake Tahoe: Main Lagoon (108 acres), Marina Lagoon (32 acres), and Lake Tallac (30 acres). For all fish and BMI surveys, the lagoons were sub-divided into approximately 17-acre sites to produce six sites in the Main Lagoon and two sites each in the Marina Lagoon and Lake Tallac (**Figure 2**). Each site was further divided into five evenly distributed sampling locations. Transects and sampling locations within the Marina Lagoon avoided marina property. At two of the five sampling locations within each site, the following water quality parameters were measured with multi-sensor sondes: turbidity, water temperature, conductivity, pH, and dissolved oxygen. A detailed description of survey methods is provided in **Appendix A, Baseline Study Plan** (ESA 2019).



SOURCE: NAIP, 2016; BMI, 2019; ESA, 2019

Tahoe Keys Lagoon

Figure 2
BMI and Fish Studies Survey Areas

2.1 Benthic Macroinvertebrate (BMI) Assemblage Surveys

Methods for BMI surveys were consistent with those described in **Appendix A**, with the exception of the number of sampling locations within each site. In the 2019 surveys, there were five sampling locations in each site rather than seven (**Figure 3**).

Collected BMI samples were shipped to a laboratory for taxonomic analysis. Taxa were identified to family or species and used to determine the following metrics: species richness, BMI community tolerance/intolerance, and functional feeding groups. Species richness is defined as the number of different species present. BMI community tolerance/intolerance metrics evaluate the sensitivity of species to disturbed habitat using a 0 – 1 scale, where 0 is very sensitive (intolerant) to disturbed habitat and 10 is very tolerant to disturbed habitat. Functional feeding groups were used to analyze the BMI community on behavioral feeding mechanisms rather than taxonomic group. This method of analysis avoids the relatively non-informative necessity to classify the majority of aquatic insect taxa as omnivores and it establishes linkages to basic aquatic food resource categories, coarse particulate organic matter (CPOM), and fine particulate organic matter (FPOM), which require different adaptations for their exploitation.



SOURCE: NAIP, 2016; BMI, 2019; ESA, 2019

Tahoe Keys Lagoon

Figure 3
BMI Nearshore and Mid-Channel Sampling Locations

2.1.1 Nearshore Sampling

Nearshore samples were collected off the bow of a boat using a 500- μ m mesh D-frame sweep net. Samples were collected within three meters of the shoreline at depths no greater than two meters. Samples were collected following an adaptation of the Standard Operating Procedures for Collection of Macroinvertebrates, Benthic Algae, and Associated Physical Habitat Data in California Depressional Wetlands (California SWAMP 2015). The sampling location was approached slowly via boat with the collector on the bow holding the sweep net in hand. Once the sampling location was reached, the collector held the net in front of themselves at arms' length with the net handle perpendicular to themselves and the opening of the net facing the right. The net was then plunged into the water quickly until it reached the lake bottom. The net was then swept to the right while gently rubbing the lake bottom in an undulating motion that covered a swath about a meter long, quickly turned 180 degrees and swept to the left in the same undulating motion. After completing the sweeping motions, the net was quickly raised out of the water and the contents were emptied into a clean bucket of water. Once emptied, the net was rinsed over the bucket with a squeeze bottle filled with clean water to ensure the collection of any remaining BMI in the net. Subsequent nearshore samples collected within each site were added to the same bucket to form a composite sample for each nearshore site.

Each nearshore composite sample was elutriated using a 500- μ m mesh sieve. The contents were deposited into one-liter sample bottles, labeled, and covered with 90% denatured alcohol to preserve the samples before being shipped off for analysis. The collected nearshore samples were then shipped to Jon Lee Consulting for taxonomic analysis. Jon Lee is a taxonomist located in Eureka, California that specializes in freshwater macroinvertebrate taxonomy as it relates to biological assessment.

2.1.2 Mid-channel Sampling

Mid-channel samples were collected from the bow of a boat with a petite Ponar grab sampler¹ at the deepest point of the channel cross-section. The sampling location was approached slowly via boat with the collector on the bow with the Ponar sampler secured to the boat with a rope. Once the sampling location was reached, the collector slowly lowered the Ponar sampler into the water until the unit was fully submerged. Once fully submerged, the Ponar sampler was released and allowed to quickly sink to the lake bottom. Once the Ponar sampler reached the lake bottom, the collector retrieved the sample by pulling in the rope and raising the Ponar sampler out of the water and onto the deck of the boat. Once on-board the boat, the contents of the Ponar sampler were emptied into a clean bucket and the Ponar sampler was rinsed over the bucket with a squeeze bottle filled with clean water to ensure the collection of any remaining BMI in the Ponar sampler. Subsequent mid-channel samples collected within each site were added to the same bucket to form a composite sample for each mid-channel site.

Each mid-channel composite sample was elutriated using a 250- μ m mesh sieve. Many of the mid-channel composite samples were too large to fit into a one-liter sample bottle, as a result the

¹ A petite Ponar grab sampler is used to take sediment samples. The petite size (15 pounds) allows the Ponar sampler to be easily carried and deploy by hand rather than with the use of heavy machinery.

composite samples were not bottled in their entirety. To collect a representative mid-channel composite sample, the contents of the bucket were stirred thoroughly prior to elutriation, and the sample was elutriated in small batches until a single one-liter sample bottle was filled. Once filled, the sample bottle was labeled and covered with 90% denatured alcohol to preserve the samples before being shipped off for analysis. The collected mid-channel samples were then shipped to Jon Lee Consulting for taxonomic analysis.

2.2 Fish Assemblage Surveys

Methods for fish assemblage surveys were consistent with those described in Appendix A, with the exception of the number of electrofishing transects within each site. In the 2019 surveys, there were five electrofishing transects in each site rather than six.

To comprehensively assess the fish assemblage while providing continuity with past methods, the 2019 surveys used electrofishing and added minnow trapping to target native minnows, and otter trawling to target the deepest habitat units in the lagoons.

All captured fish were briefly held in a live well until they were individually identified to species, counted, total length measured (mm), weighed (g), and released. Data summaries were prepared by survey sites and gear types.

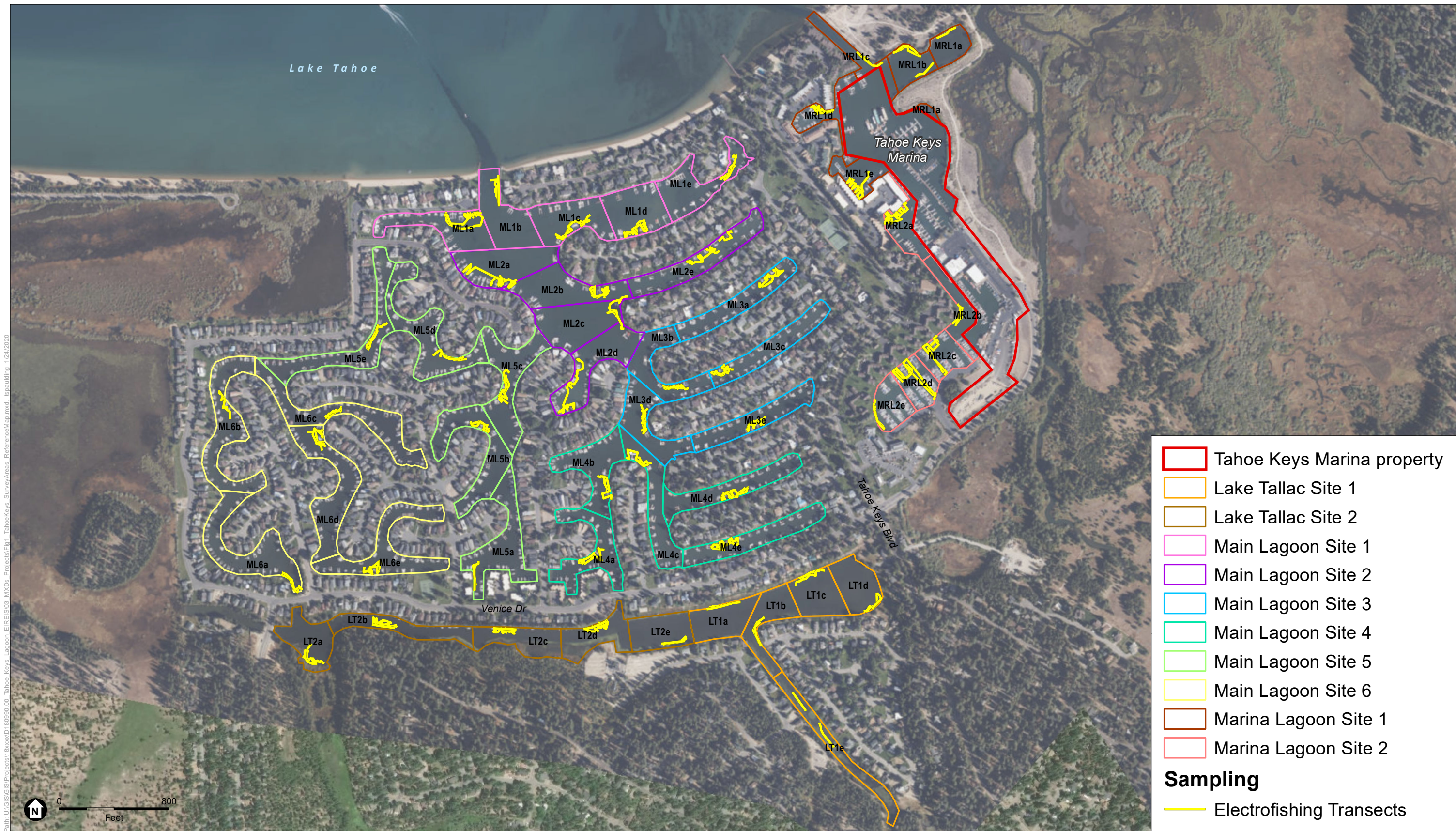
2.2.1 Boat Electrofishing

Boat electrofishing survey methods were consistent with those described in the Baseline Study Plan (ESA 2019) with the exception of the number of electrofishing transects within each site. In the 2019 surveys, there were five electrofishing transects in each site rather than six.

Within each site, five 50-meter electrofishing transects were sampled, one per sampling location. Transects were identified in the field as areas of minimal conflict; areas with few watercraft and humans. Once a potential transect location was identified, it was measured using ArcCollector on an iPad prior to sampling (**Figure 4**). All captured fish were briefly held in a live well until they were individually identified to species, counted, measured, weighed, and released.

Electrofishing was performed using a Smith-Root Generator-Powered Pulsator (GPP) set to Pulsed DC with a duty cycle of 60, high range power, and 40-65% power. These settings resulted in an electric current in the range of 4 to 8.5 amps while electrofishing. These settings were adjusted depending on the conductivity of the water and observed fish response to the electrical field to ensure high capture efficiency while minimizing injury to all fish species.

In 2019, electrofishing was complicated by aquatic vegetation. On numerous occasions fish were observed swimming down into vegetation where they could not be seen and therefore were not caught.



SOURCE: NAIP, 2016; BMI, 2019; ESA, 2019

Tahoe Keys Lagoon

Figure 4
Boat Electrofishing Transects

2.2.2 Otter Trawling

Otter trawling survey methods were consistent with those described in the Baseline Study Plan: Fisheries and Benthic Macroinvertebrates in Tahoe Keys Lagoons (ESA 2019). The net head line dimensions of the otter trawl were 12 feet wide by 3 feet high. Otter trawl sampling was conducted only in ML1 and ML2 due to presence of deep water habitat and the ability to safely navigate a deep water trawl (**Figure 5**).

All captured fish were briefly held in a live well until they were individually identified to species, counted, measured, weighed, and released.

During the 2019 sampling, otter trawling was hindered by wind and submerged aquatic vegetation. High winds severely limited the navigability of the boat while trawling resulting in a few trawling transects that were shorter than the target length of 400-500 meters. Additionally, a few trawls were loaded with debris and little or no fish. It is possible that aquatic vegetation filled the net early in trawl and reduced the effectiveness of the trawl.



SOURCE: NAIP, 2016; BMI, 2019; ESA, 2019

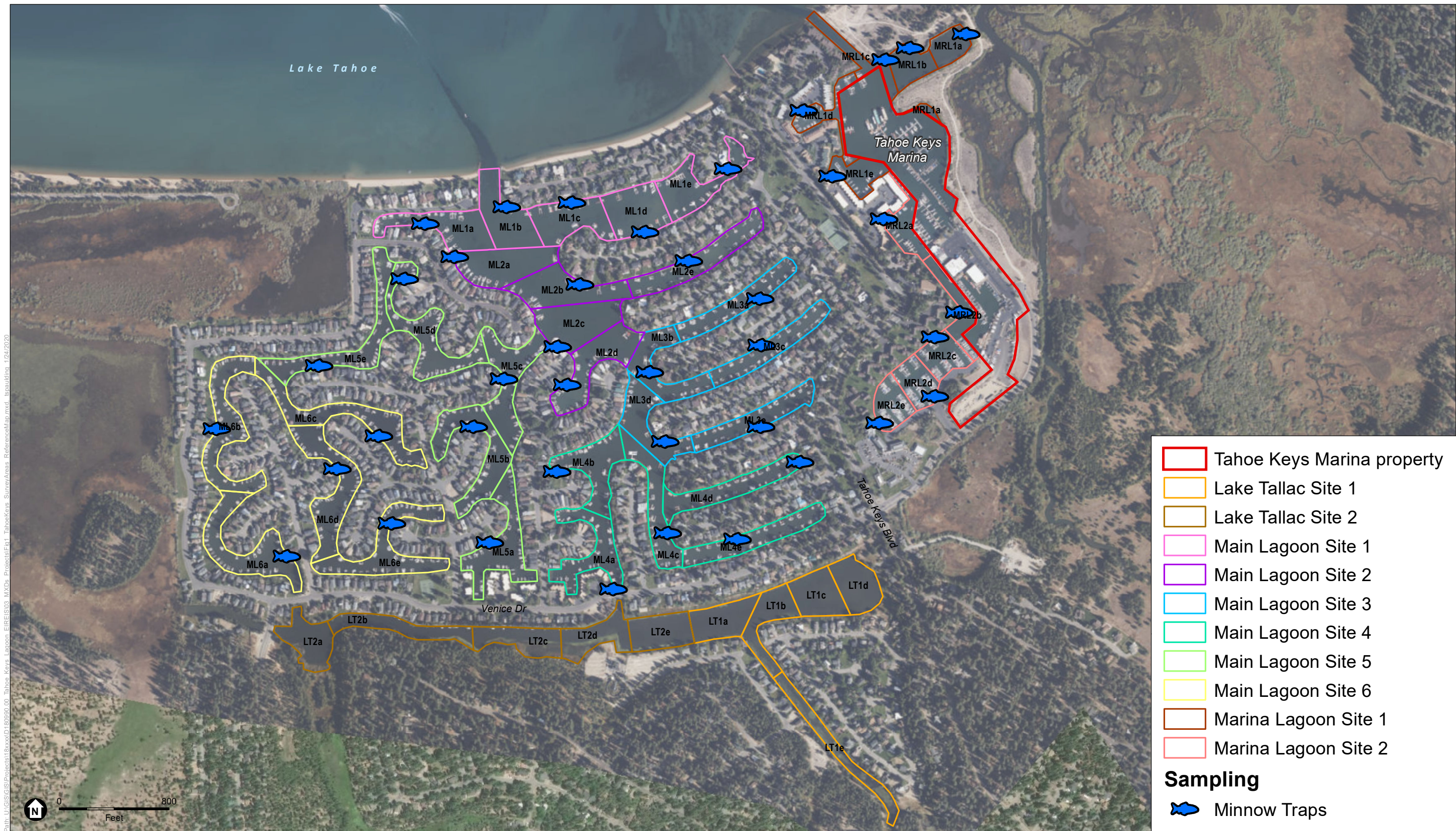
Tahoe Keys Lagoon

Figure 5
Otter Trawl Transects

2.2.3 Minnow Trapping

Minnow trapping survey methods were consistent with those described in the Baseline Study Plan (ESA 2019).

Minnow trap dimensions were 9 inch by 16.5 inch, double entrance opening of 1 inch with ¼ inch mesh galvanized steel wire. Minnow traps were set within 10 feet of the shoreline and allowed to fish for one night. The minnow traps were submerged in a variety of habitats including submerged vegetation, emergent vegetation, boulder structures, and boat docks. Traps were deployed and retrieved by one 4-person crew using a boat; two trap tenders, one data collector, and the boat operator. Locations of minnow traps are shown in **Figure 6**.



SOURCE: NAIP, 2016; BMI, 2019; ESA, 2019

Tahoe Keys Lagoon

Figure 6
Minnow Trap Locations

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CHAPTER 3

Results

3.1 BMI Assemblage

In the 2019 BMI surveys, a total of 73 distinct taxa were identified from 33 families among the ten survey areas. **Appendix B** lists the taxa and counts from the 2019 BMI survey areas.

Copepods in the Cyclopidae family were the dominant benthic taxa among the Marina Lagoon, Main Lagoon, and Lake Tallac. Ostracoda (seed shrimp), Chironomidae (midge), Euryercidae, and Glossiphoniidae (leeches) were also dominant organisms among survey areas. Data summaries for BMI taxa collected at each site are provided in **Appendix B**. Data summaries for water quality data collected at each site are provided in **Appendix C**.

3.1.1 Richness and Composition/Diversity Metrics

Taxonomic richness for all taxa was calculated as the total number of species represented in the benthic macroinvertebrate community at each site during 2019 BMI surveys. Taxonomic richness for all taxa was highest in ML4 and MRL1 with a total of 58 and 57 species identified in ML4 and MRL1, respectively. ML6 had the lowest taxonomic richness with 42 species identified (**Table 1**).

EPT taxa richness was also calculated to evaluate quality of habitat. Generally used in a stream setting, habitat quality is considered high if there is a high EPT species richness. EPT taxa richness includes benthic aquatic macroinvertebrates in the Ephemeroptera (mayflies), Plecoptera (stoneflies), and Trichoptera (caddisflies) families. EPT taxa richness was highest in ML1, ML4, and ML5 (values of 6, 5, and 5 respectively). ML6 had the lowest EPT taxa richness, with 1 EPT species present (**Table 1**).

3.1.2 Tolerance/Intolerance Metrics

The macroinvertebrate Index of Biotic Integrity (IBI) was used to estimate the overall tolerance of the BMI community to disturbed or degraded habitat conditions. BMI species are assigned a tolerance number from 0 to 10 indicating that group's known sensitivity to disturbance; 0 being most sensitive and 10 being most tolerant (Lunde and Resh 2011). In the 2019 BMI surveys, there was little variability in IBI values across all survey areas. Values ranged from 7.24 to 7.59 (**Table 1**). These IBI tolerance values suggest the BMI community with the 2019 survey areas has a high tolerance of degraded water quality. In addition to high IBI tolerance values, 4 out of 73 species observed were intolerant (tolerance values <5). The 2019 results were similar to a study conducted in 2016 concluding the community was comprised of tolerant taxon (Sierra Ecosystem Associates 2017).

TABLE 1
BMI INDICATOR VALUES BY SURVEY AREA

Metric	Main Lagoon						Marina Lagoon		Lake Tallac	
	ML1	ML2	ML3	ML4	ML5	ML6	MRL1	MRL2	LT1	LT2
Richness										
Taxa Richness	46	50	48	58	47	42	57	47	52	50
EPT Taxa Richness	5	4	4	6	3	1	5	2	4	4
Composition/Diversity										
Percent Dominant Taxa	35.4	35.3	18.1	34.0	22.9	54.7	18.5	31.6	22.2	44.7
Dominant Taxa	<i>Cyclopidae spp</i>	<i>Cyclopidae spp</i>	<i>Chironomidae spp</i>	<i>Cyclopidae spp</i>	<i>Cyclopidae spp</i>	<i>Cyclopidae spp</i>	<i>Ostracoda spp</i>	<i>Cyclopidae spp</i>	<i>Cyclopidae spp</i>	<i>Cyclopidae spp</i>
Tolerance/Intolerance										
Hilsenhoff Biotic Index (HBI)	7.59	7.41	7.28	7.49	7.47	7.55	7.27	7.53	7.24	7.28
Functional Feeding Groups										
Percent Scrapers	1%	1%	1%	1%	1%	1%	2%	1%	4%	2%
Percent Predators	4%	5%	4%	5%	6%	3%	8%	5%	10%	4%
Percent Collector-Filterers	7%	6%	15%	10%	9%	9%	8%	14%	16%	6%
Percent Collector-Gatherer	88%	86%	79%	83%	82%	86%	81%	80%	69%	87%
Other*	1%	2%	1%	1%	2%	1%	1%	<1%	<1%	<1%

NOTE:

* Other includes macrophyte herbivores, omnivores, parasites, and piercer herbivores FFGs

3.1.3 Functional Feeding Groups (FFG)

BMI taxa were grouped into FFGs based on mouth morphology, rather than taxonomic group, because mouth morphology determines and limits feeding behavior. Major freshwater FFGs include: Scrapers, Predators, Collector-filterers, and Collector- Gatherers. Other FFGs include macrophyte herbivores, herbivores, omnivores, parasites, and piercer herbivores. (Jonsson and Malmqvist 2003). During the 2019 BMI surveys, Collector- Gatherer was the dominant FFG among all survey areas (Table 1).

3.2 Fish Assemblage

In the 2019 fish surveys, 13 fish species were caught across all gear types; five native and cold water species and eight nonnative species. A total of 1,731 individual fish were caught across all

gear types; 53 individuals were native and cold water species and 1,678 were nonnative (**Table 2**). Data summaries for fish species collected at each site are provided in **Appendix D**.

TABLE 2
2019 FISH SURVEY RESULTS

Common Name	Scientific Name	Origin	Electrofishing	Otter Trawl	Minnow Trap
Black Bullhead	<i>Ameiurus melas</i>	Nonnative	4	-	-
Black Crappie	<i>Pomoxis nigromaculatus</i>	Nonnative	45	6	-
Bluegill	<i>Lepomis macrochirus</i>	Nonnative	787	108	6
Brown Bullhead	<i>Ameiurus nebulosus</i>	Nonnative	197	5	-
Golden Shiner	<i>Notemigonus crysoleucas</i>	Nonnative	7	-	-
Goldfish	<i>Carassius auratus</i>	Nonnative	99	-	-
Lahontan Redside*	<i>Richardsonius egregius</i>	Native	4	2	-
Largemouth Bass	<i>Micropterus salmoides</i>	Nonnative	407	6	-
Mountain Sucker*	<i>Catostomus platyrhynchus</i>	Native	1	-	-
Rainbow Trout*	<i>Oncorhynchus mykiss</i>	Nonnative	4	-	-
Spotted Bass	<i>Micropterus punctulatus</i>	Nonnative	-	1	-
Tahoe Sucker*	<i>Catostomus tahoensis</i>	Native	35	1	-
Tui Chub*	<i>Gila bicolor</i>	Native	6	-	-
Total			1,596	129	6
NOTES:					
* Native and cold water species					

3.2.1 Boat Electrofishing

During the 2019 boat electrofishing surveys, 1,596 individual fish were caught across all sites surveyed. Catch per unit effort (CPUE) is used as an index for relative abundance. CPUE was calculated as the number of individual fish caught per hour of electrofishing. Time spent electrofishing was recorded in the field as the number of seconds an electric current was applied to the water.

Bluegill had the highest CPUE across all sites. Largemouth Bass had the second highest CPUE across all sites, followed by Brown Bullhead. Of the native and cold water species caught, Tahoe Sucker had the highest CPUE across all sites. The Main Lagoon had the highest CPUE of all individuals caught, follow by Lake Tallac. The Marina Lagoon had the lowest CPUE for individuals caught (**Figure 7**). CPUE and species composition are presented in **Table 3**.

In 2015, a boat electrofishing effort was conducted to remove warm water fish from the Tahoe Keys Main Lagoon and Marina Lagoon (Chandra et al. 2015). 2015 efforts did not sample Lake Tallac. For comparison, 2019 catch only includes fish caught in the Main Lagoon and Marina Lagoon. Total shock time was 62.8 hours and 4.5 hours in 2015 and 2019 respectively.

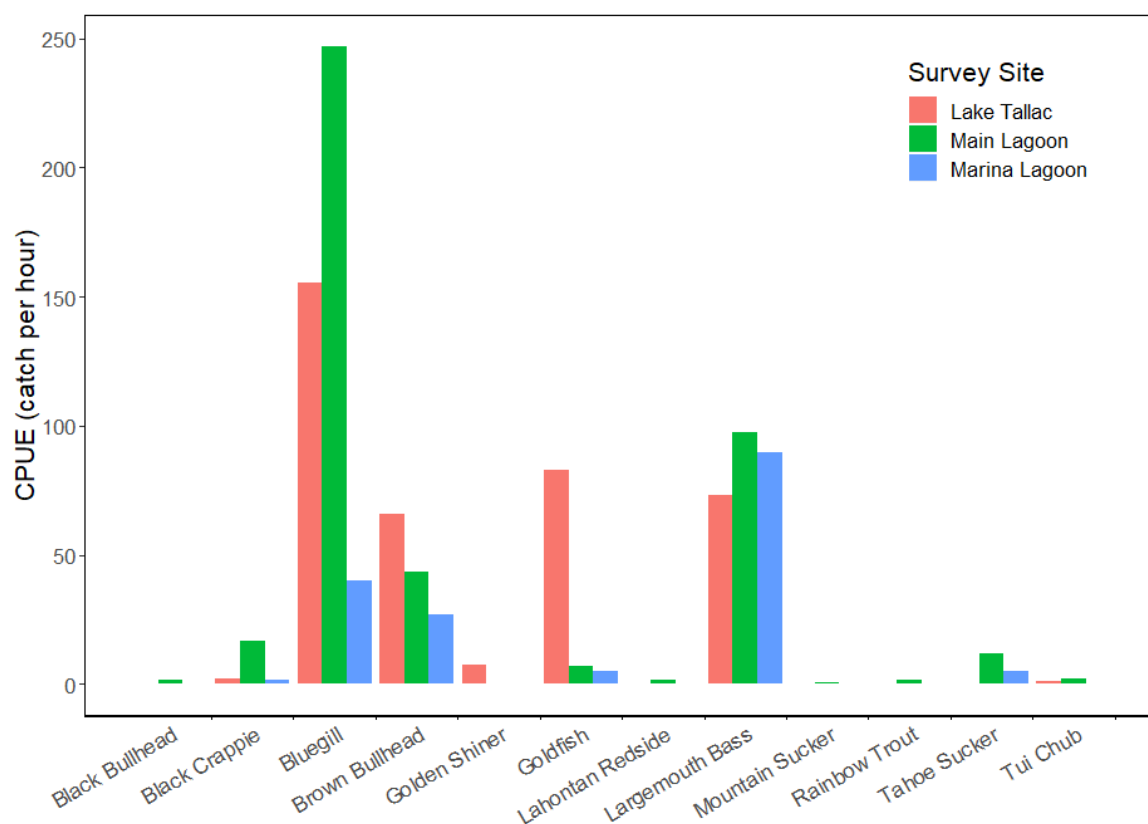


Figure 7
Boat Electrofishing Catch Per Hour By Site

TABLE 3
2019 BOAT ELECTROFISHING CATCH PER HOUR BY SITE

Common Name	Lake Tallac	Main Lagoon	Marina Lagoon	All Sites
Black Bullhead	0	1.65	0	0.89
Black Crappie	2.19	16.90	1.74	10.03
Bluegill	155.29	246.87	40.11	175.37
Brown Bullhead	65.61	43.69	27.03	43.90
Golden Shiner	7.66	0	0	1.56
Goldfish	83.11	7.01	5.23	22.06
Lahontan Redside*	0	1.65	0	0.891
Largemouth Bass	73.27	97.68	89.80	90.69
Mountain Sucker*	0	0.41	0	0.22
Rainbow Trout*	0	1.65	0	0.89
Tahoe Sucker*	0	11.95	5.23	7.80
Tui Chub*	1.09	2.06	0	1.34
Total	388.21	431.51	169.15	355.63
NOTES:				

* Native and cold water species

Bluegill and Largemouth Bass had the highest CPUE in 2015 and 2019. Brown Trout, Golden Shiner, and Mountain Whitefish were caught in the Main Lagoon and Marina Lagoon in 2015 but not 2019. Black Bullhead and Mountain Sucker were two species caught in 2019 efforts that were not caught during 2015. 2015 surveys caught more Tahoe Sucker and Tui Chub per unit of effort than 2019 surveys. Tahoe Sucker was the most abundant native, coldwater species caught in 2019. A species list and CPUE comparison is presented in **Table 4** and **Figure 8**.

TABLE 4
BOAT ELECTROFISHING CATCH PER HOUR IN 2015 AND 2019

	2015	2019**
Black Bullhead	-	0.89
Black Crappie	2.01	9.58
Bluegill	73.15	143.72
Brown Bullhead	26.73	30.53
Brown Trout*	0.10	-
Golden Shiner	0.19	-
Goldfish	0.13	5.13
Lahontan Redside*	0.13	0.89
Largemouth Bass	73.56	75.76
Mountain Sucker*	-	0.22
Mountain Whitefish*	0.10	-
Rainbow Trout*	0.59	0.89
Tahoe Sucker*	13.49	7.80
Tui Chub*	12.92	1.11
Total	203.08	276.53
NOTES:		
* Native and cold water species		
** Only includes individuals caught in the Main Lagoon and Marina Lagoon		

3.2.2 Otter Trawling

During the 2019 otter trawling surveys, 129 individual fish were caught across 17 trawling events. CPUE was used as an index for relative abundance. CPUE was calculated as the total number of individual fish caught per number of trawls. Bluegill made up the majority of the otter trawl catch, followed by other nonnative, warm water species. Three individual native fish were caught during otter trawl surveys, Table 5 Otter trawling has not been conducted in prior survey efforts in the Tahoe Keys, therefore there is no comparison data.

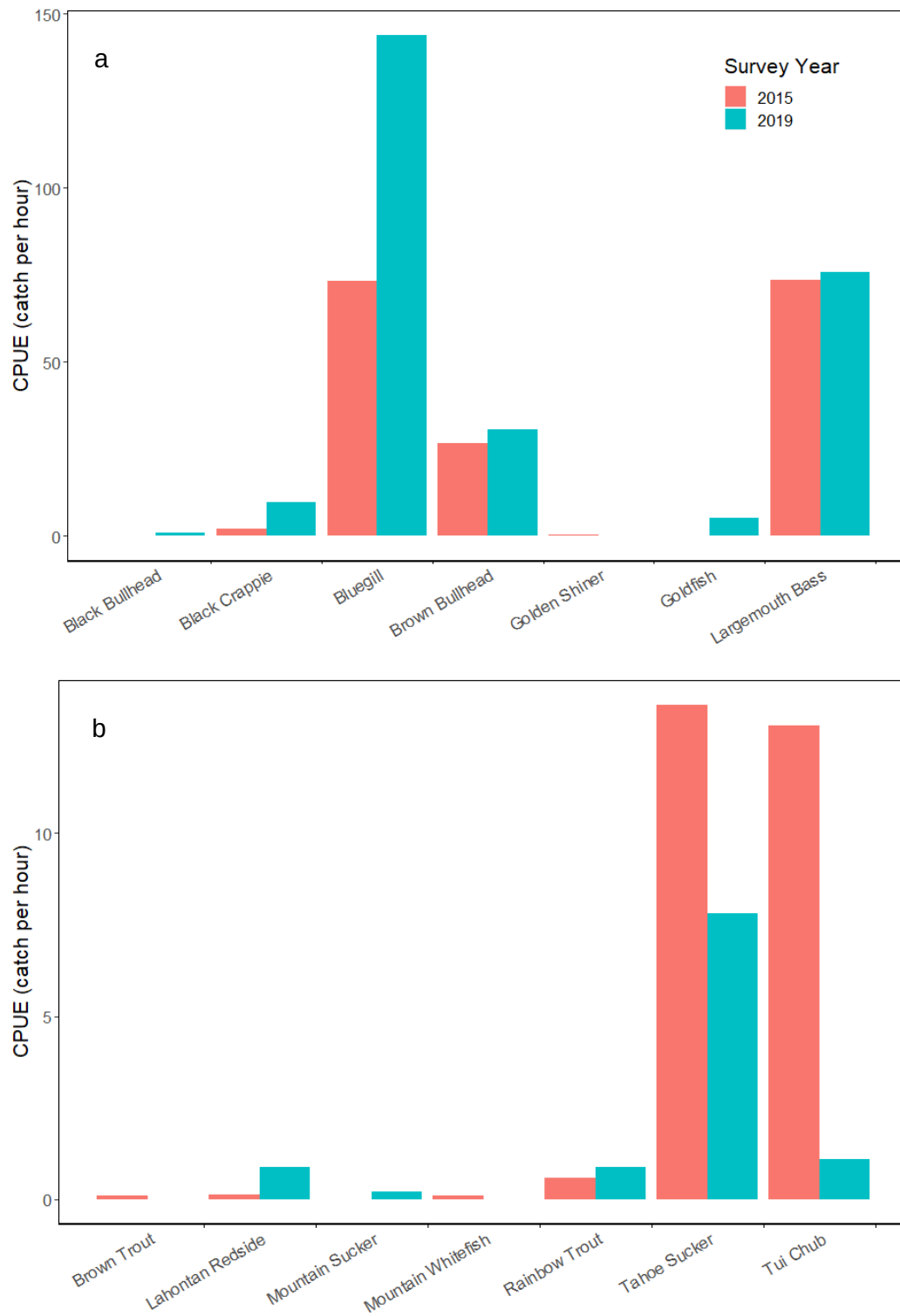


Figure 8
Boat Electrofishing Catch Per Hour a) Non-native Species b) Native and Cold Water Species

TABLE 5
2019 OTTER TRAWL CATCH PER TRAWL

Species	CPUE
Black Crappie	0.35
Bluegill	6.35
Brown Bullhead	0.29
Lahontan Redside*	0.12
Largemouth Bass	0.35
Spotted Bass	0.06
Tahoe Sucker*	0.06
Total	7.59
NOTES:	
* Native species	

3.2.3 Minnow Trapping

During the 2019 minnow trapping surveys, a total of 100 individual minnow traps were set and 6 Bluegill were caught. No other species were caught. Minnow trapping has not been conducted in prior surveys in Tahoe Keys, therefore there is no comparison data.

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CHAPTER 4

Discussion

The 2019 BMI and fish surveys were conducted to characterize the aquatic community of Tahoe Keys lagoons and Lake Tallac.

Results from the 2019 BMI surveys indicate that the BMI taxa currently present in the Tahoe Keys are representative of a community that is tolerant to degraded conditions. The benthic environment consists of static (i.e., non-flowing) water conditions, sediment with high organic content, and degraded water quality (e.g., low DO) at the sediment interface due to the decomposition of invasive plant material, all of which limit existing taxa to those that have high tolerance levels.

Results from the 2019 fish surveys indicate the fish community is dominated by nonnative, warm water species and a low abundance of native, cold water species in the Tahoe Keys lagoons and Lake Tallac. The observed species assemblage can be partially explained by existing habitat conditions. Static, shallow, warm water conditions with abundant invasive submerged aquatic vegetation creates favorable habitat conditions for nonnatives such as Largemouth Bass, Bluegill, and catfish, and unfavorable conditions for native species. Furthermore, Tahoe Keys consists of dead-end embayments lacking any upstream habitat, and as a result, is not a migratory corridor for native species. In addition to unfavorable habitat conditions for native species, the presence of nonnative predatory species such as Largemouth Bass and catfish likely further limits the presence of natives.

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CHAPTER 5

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Appendix A

Baseline Study Plan

Draft Baseline Study Plan: Fisheries and Benthic Macroinvertebrates in Tahoe Keys Lagoons

Prepared for:
Tahoe Regional Planning Association

June 2019

Prepared by:
Environmental Science Associates



Draft

Baseline Study Plan: Fisheries and Benthic Macroinvertebrates in Tahoe Keys Lagoons

Prepared for:
Tahoe Regional Planning Association

June 2019

Prepared by:
Environmental Science Associates

A stylized, handwritten signature in black ink, appearing to read 'C. Turner'.

Cameron Turner, Ph.D.
Senior Fisheries Biologist

A handwritten signature in blue ink, appearing to read 'Jim Good'.

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Los Angeles	Sacramento	Tampa

Background

The Tahoe Keys Lagoons consists of three man-made embayments connected to the southern end of Lake Tahoe: Main Lagoon (aka West Lagoon), Marina Lagoon (aka East Lagoon), and Lake Tallac (Table 1, Figure 1). The Tahoe Keys Lagoons Restoration Project (TKLRP) aims to reduce and control the abundant growth of non-native and nuisance aquatic plants currently infesting the lagoons. The TKLRP proponents are monitoring a variety of physical and biological parameters to provide information on the development of project technologies, and independent scientists are collecting baseline information on water quality and biological resources under contract to the Tahoe Regional Planning Agency. In 2019, surveys will be carried out to comprehensively describe the fish and benthic macroinvertebrate species assemblages in the Tahoe Keys Lagoons. Descriptions of these assemblages will provide baseline biological data for use in evaluating environmental impacts of alternatives proposed for the TKLRP.

Table 1: Tahoe Keys Lagoons Areas and Volumes

	Area (ha)	Volume (m ³)
Main Lagoon	45	1,357,000
Marina Lagoon	13	395,000
Lake Tallac	12	370,000

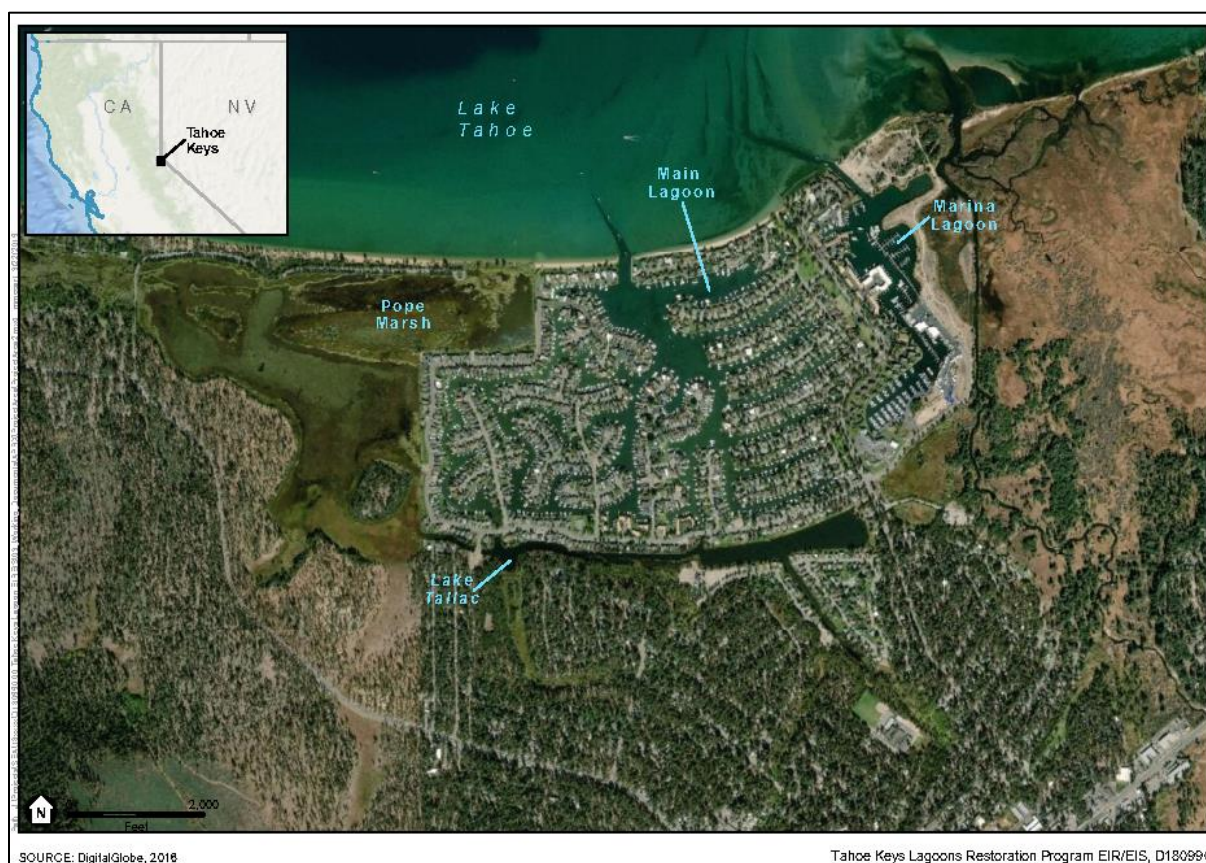
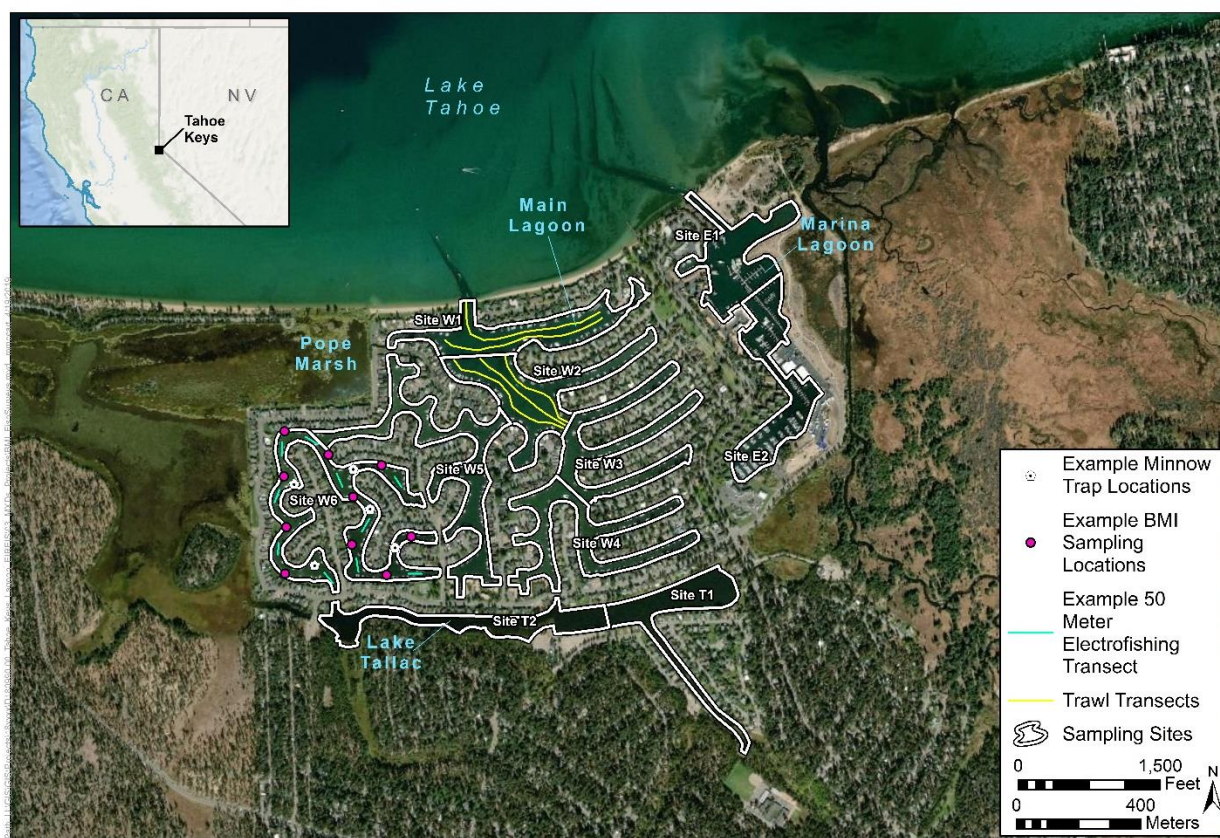


Figure 1: Tahoe Keys Lagoons Restoration Project Area

Benthic Macroinvertebrate (BMI) assemblage surveys

The design of BMI assemblage surveys was based on the Lake Tahoe Nearshore Evaluation and Monitoring Framework (Heyvaert 2013), the California Surface Water Ambient Monitoring Program (SWAMP) protocol for depressional wetlands (SWAMP 2015), the US Environmental Protection Agency (EPA) protocol for lakes (US EPA 1997a), and the most recent BMI assemblage surveys in the Tahoe Keys Lagoons (Sierra Ecosystem Associates et al. 2017).

BMI surveys will be conducted in the early summer (e.g., late June) and again in the fall (e.g., October). For each survey, the lagoons will be sub-divided into approximately 7-hectare sites to produce six sites in the Main Lagoon and two sites each in the Marina Lagoon and Lake Tallac (Figure 2). Within each site, seven sampling locations will be distributed at evenly spaced intervals along the shoreline. Figure 2 shows examples of roughly evenly distributed locations and transects within site W6. Transects and sampling locations within the Marina Lagoon will avoid marina property. At two of the seven sampling locations within each site, the following water quality parameters will be measured with multi-sensor sondes: turbidity, water temperature, conductivity, pH, and dissolved oxygen.



SOURCE: DigitalGlobe, 2016

Tahoe Keys Lagoons Restoration Program EIR/EIS, D180990

Figure 2: Fish and BMI Sampling Sites, Trawl Transects, and Example Locations for Minnow Traps, BMI Sampling, and Electrofishing Transects

At all seven sampling locations, one nearshore BMI sample and one mid-channel BMI sample will be collected. Nearshore samples will be collected with a 500- μ m mesh D-frame sweep net at $\leq$ 1-meter depth. Mid-channel samples will be collected from a boat with a petite Ponar grab sampler at the deepest point of the channel cross-section. Within each site, samples will be composited into one nearshore composite sample and one mid-channel composite sample. BMI sampling will be conducted by a 4-person crew using a boat.

Nearshore composite samples will be elutriated with a 500- μ m mesh sieve. Mid-channel composite samples will be elutriated with a 250- μ m mesh sieve. Elutriated samples will be preserved with 95% ethanol. This protocol will produce 10 nearshore and 10 mid-channel composite samples in each season's survey, for a total of 40 composite samples.

Before shipping BMI composite samples to a taxonomy laboratory, ethanol will be drained from the containers using sheer nylons as a sieve. Taxonomic identification and enumeration will be conducted with 600-count subsampling and Level 2 Southwest Association of Freshwater Invertebrate Taxonomists (SAFIT) standard taxonomic effort (STE). A total of 4 samples (10% of project total) will be independently identified and enumerated by two separate laboratories for quality control.

Complications: The abundance of aquatic vegetation in the Tahoe Keys Lagoons is likely to complicate BMI surveys by filling the nearshore sweep net and obstructing mid-channel sediment grabs. For nearshore samples this will require additional elutriation time in the field to remove invertebrates from collected vegetation. For mid-channel samples this will require additional time in the field to locate unobstructed sampling points and to offset and repeat failed Ponar grabs.

Fish assemblage surveys

The design of fish assemblage surveys was based on the Lake Tahoe Nearshore Evaluation and Monitoring Framework (Heyvaert 2013), the US EPA protocol for lakes (US EPA 1997b), the US EPA protocol for non-wadeable rivers (US EPA 2018), and the most recent fish surveys in the Tahoe Keys Lagoons (Chandra et al. 2009; Ngai et al. 2010; Chandra et al. 2015). The Tahoe Keys Lagoons fish assemblage is currently dominated by non-native warmwater fish, e.g. 87% of all fish captured in the most recent survey (Chandra et al. 2015), but methods (electrofishing near shore) have targeted these fish and their habitat. To comprehensively assess the fish assemblage while providing continuity with past data, the present surveys will use electrofishing but add minnow trapping to target native minnows and otter trawling to target the deepest habitat. Fish surveys will be conducted in the early summer (e.g., late June) and again in the fall (e.g., October). The sub-division of the lagoons into 10 sites for BMI surveys will also be used for fish surveys.

Within each site, six 50-meter electrofishing transects will be distributed at evenly spaced intervals along the shoreline. At two of the six transects, the following water quality parameters will be measured with multi-sensor sondes: turbidity, water temperature, conductivity, pH, and dissolved oxygen. At all six transects, fish will be sampled by electrofishing the full 50-meter transect at a depth of $\leq$ 3 meters. Electrofishing will be conducted by a 4-person crew using an electrofishing boat. Electrofishing settings will be adjusted as needed based on environmental conditions and observed fish response to the electrical field to ensure high capture efficiency while avoiding or minimizing injury and/or mortality to all fish species. Settings will typically start at 10% of range, 30 Hz, 100 volts.

Electrofishing will not affect boat or dock anti-corrosion systems (Y. Smith, personal communication, April 30, 2019) but does present a hazard for non-target organisms (including humans) in the water near the boat. The boat will discontinue electrofishing if any human is in the water within 30 meters of the boat (USFWS 2016). Aquatic mammals and birds generally move away from an electrofishing boat before they are affected by its electrical field, but the crew will actively look for non-target wildlife and discontinue electrofishing if they are in the water within 10 meters of the boat.

Within each site, five minnow trap locations will be distributed at evenly spaced intervals along the shoreline and a single minnow trap will be deployed at each location for one night. Minnow traps will be baited with dog food and submerged underneath structures such as boat docks. Traps will be deployed and retrieved by two 2-person crews using boats.

Finally, the two Main Lagoon sites near the entry channel include the deepest habitat in the Tahoe Keys Lagoons (up to 6 meters) and these sites will also be sampled by otter trawling. Five bottom trawls of approximately 400-500 meters each will be conducted within the two sites. Otter trawling will be conducted by a 4-person crew using a boat.

All captured fish will be briefly held in a live well (electrofishing, trawling) or bucket until they are individually identified to species, counted, measured, weighed, and released.

Complications: The abundance of aquatic vegetation in the Tahoe Keys Lagoons is likely to complicate fish surveys by filling the otter trawl net. This will require shortening trawl lengths to remove collected vegetation, increasing the time required to sample the target sites. The abundance of people in the Tahoe Keys Lagoons is likely to complicate fish surveys by interrupting electrofishing for safety reasons. This will require additional time in the field to wait for safe conditions or relocate to unoccupied transects.

Proposed schedule

June

- 17-21: Fish surveys – two days of electrofishing and minnow trapping, one day of trawling and minnow trapping.
- 24-28: BMI surveys – four days of sampling and processing for shipment.

October

- 7-11: Fish surveys – two days of electrofishing and minnow trapping, one day of trawling and minnow trapping.
- 14-18: BMI surveys – four days of sampling and processing for shipment.

Technical memorandum

The results of the 2019 BMI and fish surveys will be described in a technical memorandum. The memorandum will document the survey methods used and the summarize results in tables and figures. Brief descriptions of prior BMI and fish surveys in the Tahoe Keys Lagoons will also be included, along with basic comparisons of results between the current and prior surveys. The memorandum will also include a map showing the BMI sampling locations and fish survey sites.

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Appendix B

BMI Taxa Data Summaries

APPENDIX B
BMI Taxa Data Summaries

Class/Order/Family	Taxon Identification	Main Lagoon						Marina Lagoon		Lake Tallac	
		ML1	ML2	ML3	ML4	ML5	ML6	MRL1	MRL2	LT1	LT2
Hydrozoa	Hydridae Hydra	17	20	9	6	30	15	2	0	6	0
Turbellaria	Hydridae spp	17	18	5	4	36	10	6	6	24	14
Bivalvia	Sphaeriidae spp	4	9	33	17	2	2	11	32		1
Bivalvia	Sphaeriidae Pisidum	5	8	21	25	11	1	6	3	8	1
Gastropoda	Valvatidae Valvata	0	0	0	1	1	0	0	0	0	0
Gastropoda	Lymnaeidae Lymnaea	0	0	0	0	0	0	0	1	0	0
Gastropoda	Physidae Physa	2	2	4	3	5	2	11	2	14	14
Gastropoda	Planorbidae spp	0	0	0	0	6	0	14	2	0	0
Gastropoda	Planorbidae Gyraulus	13	20	7	4	6	20	10	2	72	21
Gastropoda	Planorbidae Menetus	1	5	2	5	5	3	3	0	4	11
Hirudinea	Erpobdellidae spp	0	0	0	0	1	0	0	0	0	0
Hirudinea	Glossiphoniidae Helobdella	0	0	0	0	0	0	0	0	0	1
Oligochaeta	Glossiphoniidae spp	55	190	71	99	142	156	60	80	366	146
Arachnida	Subclass: Acari spp	0	0	0	1	2	0	0	0	0	0
Arachnida	Hygrobatidae Hygrobatas	0	0	0	0	0	0	1	0	0	0
Arachnida	Lebertiidae Lebertia	0	0	0	0	1	0	0	1	0	0
Arachnida	Limnesiidae Limnesia	6	2	0	1	1	1	3	1	2	0
Arachnida	Mideopsidae Mideopsis	3	4	7	14	5	3	19	8	0	0
Arachnida	Pionidae Forelia	0	1	1	1	0	1	0	0	2	1
Arachnida	Pionidae Piona	0	1	0	0	0	0	3	5	0	1
Arachnida	Sperchontidae Sperchonopsis	0	0	0	1	0	0	0	0	0	0
Arachnida	Unionicolidae Neumania	0	0	0	0	0	0	2	0	0	0
Arachnida	Oribatida spp	0	0	0	0	0	1	0	0	0	0
Arachnida	Oribatida Hydrozetes	2	5	6	2	7	3	6	1	10	0
Ostracoda	Ostracoda spp	268	264	183	334	435	117	317	297	26	29
Amphipoda	Crangonyctidae Crangonyx	3	59	1	0	2	61	17	12	4	4
Amphipoda	Gammaridae Gammarus	0	0	0	0	0	0	0	0	0	1
Amphipoda	Hyaellidae Hyaella	132	171	129	133	195	36	144	43	36	76

Diplostraca	<i>Bosminidae Bosmina</i>	2	3	5	4	0	1	0	0	16	2
Diplostraca	<i>Chydoridae spp</i>	0	1	0	0	0	0	0	0	0	0
Diplostraca	<i>Chydoridae Alona</i>	22	42	37	39	33	7	0	2	0	0
Diplostraca	<i>Chydoridae Camptocercus</i>	4	1	0	0	1	9	0	1	8	0
Diplostraca	<i>Chydoridae Chydorus</i>	0	0	0	0	0	0	0	0	202	1
Diplostraca	<i>Chydoridae Graptoleberis testudinaria</i>	0	0	0	0	0	0	0	1	62	0
Diplostraca	<i>Chydoridae Kurzia</i>	0	2	0	0	0	0	0	11	42	3
Diplostraca	<i>Chydoridae Leydigia</i>	0	0	0	0	0	0	0	0	2	0
Diplostraca	<i>Daphniidae Ceriodaphnia</i>	1	0	0	1	0	0	0	0	0	0
Diplostraca	<i>Daphniidae Daphnia</i>	2	6	29	5	0	32	0	1	0	20
Diplostraca	<i>Daphniidae Moinodaphnia</i>	0	3	0	0	0	0	0	11	2	0
Diplostraca	<i>Daphniidae Simocephalus</i>	97	81	42	138	181	141	66	82	100	32
Diplostraca	<i>Eurycercidae Eurycercus</i>	255	207	193	188	285	208	92	101	36	34
Diplostraca	<i>Ilyocryptidae Ilyocryptus</i>	6	5	9	20	3	5	1	0	0	3
Diplostraca	<i>Sididae Sida</i>	18	19	23	28	10	10	5	33	38	36
Copepoda - Calanoida	<i>Calanoida spp</i>	1	0	0	0	0	0	0	3	0	0
Copepoda - Calanoida	<i>Diaptomidae spp</i>	0	0	3	3	1	8	0	0	4	2
Copepoda - Calanoida	<i>Temoridae spp</i>	0	1	0	1	0	0	1	0	0	0
Copepoda - Cyclopodia	<i>Cyclopidae spp</i>	722	849	281	915	648	1,310	292	524	538	952
Harpacticoida	<i>Harpacticoida spp</i>	45	73	37	38	185	0	40	10	8	1
Ephemeroptera	<i>Baetidae Callibaetis</i>	1	0	0	1	0	0	0	0	4	2
Ephemeroptera	<i>Caenidae Caenis</i>	0	0	0	0	0	0	4	1	174	84
Trichoptera	<i>Hydroptilidae Agraylea</i>	6	11	3	3	17	0	1	0	0	0
Trichoptera	<i>Hydroptilidae Hydroptila</i>	2	4	4	1	2	0	0	0	0	0
Trichoptera	<i>Hydroptilidae Oxyethira</i>	8	27	7	22	34	17	9	4	10	3
Trichoptera	<i>Leptoceridae Mystacides</i>	0	2	0	2	0	0	1	0	0	0
Trichoptera	<i>Leptoceridae Oecetis</i>	4	0	10	9	0	0	4	0	16	2
Odonata	<i>Aeshnidae Anax</i>	0	0	0	0	0	0	0	0	0	1
Odonata	<i>Libellulidae Leucorrhinia</i>	0	0	0	0	0	0	0	0	0	1
Odonata	<i>Coenagrionidae spp</i>	6	5	12	23	52	14	23	2	110	30
Odonata	<i>Odonata Ischnura</i>	0	2	1	0	0	1	0	0	0	0
Hemiptera	<i>Notonectidae Notonecta</i>	0	0	0	0	0	1	0	0	0	0
Coleoptera	<i>Halipidae Peltodytes</i>	0	0	0	0	2	0	0	0	0	0

Diptera-Ceratopogonidae	<i>Ceratopogonidae spp</i>	0	0	0	0	0	0	1	0	0	0
Diptera-Ceratopogonidae	<i>Bezzia/Palpomyia</i>	3	4	12	5	9	5	30	8	16	20
Diptera-Ceratopogonidae	<i>Dasyhelea</i>	0	0	0	0	0	0	0	0	0	5
Diptera-Ceratopogonidae	<i>Probezzia</i>	0	3	1	5	1	0	2	0	2	0
Diptera - Chrionomidae	<i>Chironomidae spp</i>	203	125	307	364	236	64	277	165	0	338
Diptera - Chrionomidae	<i>Chironomus spp</i>	2	3	0	6	2	0	7	8	8	1
Diptera - Chrionomidae	<i>Cladopelma spp</i>	0	0	3	10	0	0	0	0	6	0
Diptera - Chrionomidae	<i>Cryptochironomus spp</i>	0	0	0	1	0	0	3	0	2	0
Diptera - Chrionomidae	<i>Dicrotendipes spp</i>	21	5	47	20	18	15	25	6	62	6
Diptera - Chrionomidae	<i>Microtendipes pedellus</i>	0	0	0	0	0	0	1	0	10	0
Diptera - Chrionomidae	<i>Parachironomus spp</i>	10	43	5	41	36	23	23	52	34	17
Diptera - Chrionomidae	<i>Phaenopsectra spp</i>	0	0	2	1	0	0	4	5	8	2
Diptera - Chrionomidae	<i>Polypedilum spp</i>	0	0	4	1	0	0	3	1	8	16
Diptera - Chrionomidae	<i>Pseudochironomus spp</i>	0	6	4	5	10	7	8	6	4	4
Diptera - Chrionomidae	<i>Cladotanytarsus spp</i>	0	0	1	0	0	0	1	0	0	0
Diptera - Chrionomidae	<i>Micropsectra spp</i>	0	0	0	0	1	0	4	2	2	0
Diptera - Chrionomidae	<i>Micropsectra/Tanytarsus spp</i>	7	0	17	14	0	2	23	41	50	0
Diptera - Chrionomidae	<i>Paratanytarsus spp</i>	5	19	66	21	37	19	22	14	140	22
Diptera - Chrionomidae	<i>Stempellina spp</i>	2	0	0	0	0	0	1	0	0	0
Diptera - Chrionomidae	<i>Tanytarsus spp</i>	0	0	0	2	0	0	9	11	30	4
Diptera - Orthoclaadiinae	<i>Orthoclaadiinae spp</i>	18	18	17	32	37	7	30	7	0	10
Diptera - Orthoclaadiinae	<i>Corynoneura spp</i>	2	1	0	2	7	4	10	0	14	12
Diptera - Orthoclaadiinae	<i>Cricotopus spp</i>	6	17	7	11	33	17	17	0	12	99
Diptera - Orthoclaadiinae	<i>Psectrocladius spp</i>	14	15	7	11	8	12	23	28	26	14
Diptera - Tanypdinae	<i>Tanypdinae spp</i>	2	4	17	19	4	2	9	0	0	20
Diptera - Tanypdinae	<i>Clinotanypus spp</i>	0	0	0	0	0	0	0	0	2	0
Diptera - Tanypdinae	<i>Procladius spp</i>	0	0	2	3	0	0	1	0	6	3
Diptera - Tanypdinae	<i>Tanypus spp</i>	0	0	0	1	0	0	0	0	0	0
Diptera - Tanypdinae	<i>Ablabesmyia spp</i>	8	20	2	14	43	23	3	18	26	5
Diptera - Tanypdinae	<i>Guttipelopia spp</i>	4	1	2	7	0	0	1	1	14	4
Diptera - Tanypdinae	<i>Labrundinia spp</i>	0	0	0	0	0	0	2	0	0	0
Ephydriidae	<i>Ephydriidae spp</i>	0	0	0	0	0	0	0	1	0	0
Total Count		2,037	2,407	1,698	2,688	2,829	2,396	1,714	1,657	2,428	2,132

Appendix C

Water Quality Data Summaries

Appendix C
Water Quality Data Summaries

Site	ML1	ML1	ML1	ML1	ML1	ML1
Location	E	E	D	D	C	C
Location_Method	Nearshore	Midchannel	Nearshore	Midchannel	Nearshore	Midchannel
Date	6/18/2019	6/18/2019	6/18/2019	6/18/2019	6/18/2019	6/18/2019
Time_Arrival	8:35 AM	8:35 AM	8:35 AM	8:35 AM	8:35 AM	8:35 AM
Time_Departure	9:07 AM	9:07 AM	9:07 AM	9:07 AM	9:07 AM	9:07 AM
Time_First_Sample	8:38 AM	8:38 AM	8:38 AM	8:38 AM	8:38 AM	8:38 AM
Crew_Recorder	M. Silva	M. Silva	M. Silva	M. Silva	M. Silva	M. Silva
Crew_Other1	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley
Crew_Other2	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge
Crew_Other3	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes
GPS_Device1	iPAD #9	iPAD #9	iPAD #9	iPAD #9	iPAD #9	iPAD #9
GPS_Device2	Lowe Lowrance	Lowe Lowrance	Lowe Lowrance	Lowe Lowrance	Lowe Lowrance	Lowe Lowrance
Emergent_Vegetation_percent	na	na	na	na	na	na
Submerged_Algae_percent	na	na	na	na	na	na
Submerged_Other_percent	na	na	na	na	na	na
Surface_Algae_percent	na	na	na	na	na	na
Surface_Other_percent	na	na	na	na	na	na
Location_Sample_Time	8:42 AM	8:38 AM	8:42 AM	8:45 AM	8:54 AM	8:52 AM
Location_Depth_feet	4	18.5	5	13.5	3	21.5
Location_Distance_from_Shore_feet	5.5	na	5.5	na	3	na
Location_Comments	Bouldery, SAV	na	Bouldery, SAV	na	Rocky substrate	na
Turbidity_NTU1	na	1.81	na	na	na	na
Turbidity_NTU2	na	1.86	na	na	na	na
Water_Temp_degC	na	19.4	na	na	na	na
Conductivity_μS*cm-1	na	na	na	na	na	na
pH	na	na	na	na	na	na
DO_percent	na	100.7	na	na	na	na
DO_mg*L-1	na	9.27	na	na	na	na
Notes	na	na	na	na	na	na

Site	ML1	ML1	ML1	ML1	ML2	ML2
Location	B	B	A	A	A	A
Location_Method	Nearshore	Midchannel	Nearshore	Midchannel	Midchannel	Nearshore
Date	6/18/2019	6/18/2019	6/18/2019	6/18/2019	6/18/2019	6/18/2019
Time_Arrival	8:35 AM	8:35 AM	8:35 AM	8:35 AM	9:19 AM	9:19 AM
Time_Departure	9:07 AM	9:07 AM	9:07 AM	9:07 AM	9:58 AM	9:58 AM
Time_First_Sample	8:38 AM	8:38 AM	8:38 AM	8:38 AM	9:27 AM	9:27 AM
Crew_Recorder	M. Silva	M. Silva	M. Silva	M. Silva	M. Silva	M. Silva
Crew_Other1	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley
Crew_Other2	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge
Crew_Other3	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes
GPS_Device1	iPAD #9	iPAD #9	iPAD #9	iPAD #9	iPAD #9	iPAD #9
GPS_Device2	Lowe Lowrance	Lowe Lowrance	Lowe Lowrance	Lowe Lowrance	Lowe Lowrance	Lowe Lowrance
Emergent_Vegetation_percent	na	na	na	na	3	3
Submerged_Algae_percent	na	na	na	na	97	97
Submerged_Other_percent	na	na	na	na	0	0
Surface_Algae_percent	na	na	na	na	0	0
Surface_Other_percent	na	na	na	na	0	0
Location_Sample_Time	8:59 AM	8:57 AM	9:04 AM	9:02 AM	9:27 AM	9:32 AM
Location_Depth_feet	5.5	22.5	5	9	10	2.8
Location_Distance_from_Shore_feet	4	na	4	na	na	6
Location_Comments	SAV substrate	na	90% SAV, 10% rock	na	na	Sandy substrate
Turbidity_NTU1	na	na	3.68	na	2.37	na
Turbidity_NTU2	na	na	2.43	na	2.01	na
Water_Temp_degC	na	na	19.2	na	19.4	na
Conductivity_μS*cm-1	na	na	na	na	na	na
pH	na	na	na	na	na	na
DO_percent	na	na	93.2	na	94.3	na
DO_mg*L-1	na	na	8.63	na	8.72	na
Notes	na	na	na	na	na	na

Site	ML2	ML2	ML2	ML2	ML2	ML2
Location	B	B	E	E	C	C
Location_Method	Midchannel	Nearshore	Midchannel	Nearshore	Midchannel	Nearshore
Date	6/18/2019	6/18/2019	6/18/2019	6/18/2019	6/18/2019	6/18/2019
Time_Arrival	9:19 AM	9:19 AM	9:19 AM	9:19 AM	9:19 AM	9:19 AM
Time_Departure	9:58 AM	9:58 AM	9:58 AM	9:58 AM	9:58 AM	9:58 AM
Time_First_Sample	9:27 AM	9:27 AM	9:27 AM	9:27 AM	9:27 AM	9:27 AM
Crew_Recorder	M. Silva	M. Silva	M. Silva	M. Silva	M. Silva	M. Silva
Crew_Other1	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley
Crew_Other2	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge
Crew_Other3	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes
GPS_Device1	iPAD #9	iPAD #9	iPAD #9	iPAD #9	iPAD #9	iPAD #9
GPS_Device2	Lowe Lowrance	Lowe Lowrance	Lowe Lowrance	Lowe Lowrance	Lowe Lowrance	Lowe Lowrance
Emergent_Vegetation_percent	3	3	3	3	3	3
Submerged_Algae_percent	97	97	97	97	97	97
Submerged_Other_percent	0	0	0	0	0	0
Surface_Algae_percent	0	0	0	0	0	0
Surface_Other_percent	0	0	0	0	0	0
Location_Sample_Time	9:33 AM	9:36 AM	9:42 AM	9:44 AM	9:48 AM	9:51 AM
Location_Depth_feet	26.5	5.5	13.5	5	22	3.5
Location_Distance_from_Shore_feet	na	4	na	6	na	1
Location_Comments	na	All SAV substrate	na	Boulder, SAV, and some sand	na	Sandy and SAV
Turbidity_NTU1	na	na	na	na	na	na
Turbidity_NTU2	na	na	na	na	na	na
Water_Temp_degC	na	na	na	na	na	na
Conductivity_μS*cm-1	na	na	na	na	na	na
pH	na	na	na	na	na	na
DO_percent	na	na	na	na	na	na
DO_mg*L-1	na	na	na	na	na	na
Notes	na	na	na	na	na	na

Site	ML2	ML2	ML3	ML3	ML3	ML3
Location	D	D	A	A	B	B
Location_Method	Midchannel	Nearshore	Midchannel	Nearshore	Midchannel	Nearshore
Date	6/18/2019	6/18/2019	6/18/2019	6/18/2019	6/18/2019	6/18/2019
Time_Arrival	9:19 AM	9:19 AM	10:34 AM	10:34 AM	10:34 AM	10:34 AM
Time_Departure	9:58 AM	9:58 AM	11:05 AM	11:05 AM	11:05 AM	11:05 AM
Time_First_Sample	9:27 AM	9:27 AM	10:36 AM	10:36 AM	10:36 AM	10:36 AM
Crew_Recorder	M. Silva	M. Silva	M. Silva	M. Silva	M. Silva	M. Silva
Crew_Other1	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley
Crew_Other2	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge
Crew_Other3	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes
GPS_Device1	iPAD #9	iPAD #9	iPAD #9	iPAD #9	iPAD #9	iPAD #9
GPS_Device2	Lowe Lowrance	Lowe Lowrance	Lowe Lowrance	Lowe Lowrance	Lowe Lowrance	Lowe Lowrance
Emergent_Vegetation_percent	3	3	na	na	na	na
Submerged_Algae_percent	97	97	na	na	na	na
Submerged_Other_percent	0	0	na	na	na	na
Surface_Algae_percent	0	0	na	na	na	na
Surface_Other_percent	0	0	na	na	na	na
Location_Sample_Time	9:55 AM	9:57 AM	10:36 AM	10:37 AM	10:43 AM	10:45 AM
Location_Depth_feet	14	5	13.5	3	15	1.8
Location_Distance_from_Shore_feet	na	1	na	5	na	4
Location_Comments	na	Sandy substrate; some SAV	Sandy substrate	Sandy/silty, SAV	sand	Sandy substrate with cobble and algae
Turbidity_NTU1	3.10	na	2.48	na	na	na
Turbidity_NTU2	2.28	na	3.16	na	na	na
Water_Temp_degC	19.6	na	20.0	na	na	na
Conductivity_μS*cm-1	na	na	na	na	na	na
pH	na	na	na	na	na	na
DO_percent	94.5	na	98.5	na	na	na
DO_mg*L-1	8.68	na	8.94	na	na	na
Notes	na	na	na	na	na	na

Site	ML3	ML3	ML3	ML3	ML3	ML3
Location	C	C	D	D	E	E
Location_Method	Midchannel	Nearshore	Midchannel	Nearshore	Nearshore	Midchannel
Date	6/18/2019	6/18/2019	6/18/2019	6/18/2019	6/18/2019	6/18/2019
Time_Arrival	10:34 AM	10:34 AM	10:34 AM	10:34 AM	10:34 AM	10:34 AM
Time_Departure	11:05 AM	11:05 AM	11:05 AM	11:05 AM	11:05 AM	11:05 AM
Time_First_Sample	10:36 AM	10:36 AM	10:36 AM	10:36 AM	10:36 AM	10:36 AM
Crew_Recorder	M. Silva	M. Silva	M. Silva	M. Silva	M. Silva	M. Silva
Crew_Other1	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley
Crew_Other2	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge
Crew_Other3	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes
GPS_Device1	iPAD #9	iPAD #9	iPAD #9	iPAD #9	iPAD #9	iPAD #9
GPS_Device2	Lowe Lowrance	Lowe Lowrance	Lowe Lowrance	Lowe Lowrance	Lowe Lowrance	Lowe Lowrance
Emergent_Vegetation_percent	na	na	na	na	na	na
Submerged_Algae_percent	na	na	na	na	na	na
Submerged_Other_percent	na	na	na	na	na	na
Surface_Algae_percent	na	na	na	na	na	na
Surface_Other_percent	na	na	na	na	na	na
Location_Sample_Time	10:49 AM	10:51 AM	10:58 AM	10:59 AM	11:04 AM	11:03 AM
Location_Depth_feet	15	1.6	9	2.5	2.3	16
Location_Distance_from_Shore_feet	na	0.5	na	3	3	na
Location_Comments	mud, silt	SAV, sandy, silt	SAV, mud	Sand and gravel	Rocky substrate	na
Turbidity_NTU1	na	na	na	na	na	3.49
Turbidity_NTU2	na	na	na	na	na	na
Water_Temp_degC	na	na	na	na	na	20.3
Conductivity_μS*cm-1	na	na	na	na	na	na
pH	na	na	na	na	na	na
DO_percent	na	na	na	na	na	100.6
DO_mg*L-1	na	na	na	na	na	9.09
Notes	na	na	na	na	na	na

Site	ML4	ML4	ML4	ML4	ML4	ML4
Location	E	C	C	D	D	B
Location_Method	Midchannel	Midchannel	Nearshore	Nearshore	Midchannel	Nearshore
Date	6/17/2019	6/17/2019	6/17/2019	6/17/2019	6/17/2019	6/17/2019
Time_Arrival	9:15 AM	9:15 AM	9:15 AM	9:15 AM	9:15 AM	9:15 AM
Time_Departure	10:32 AM	10:32 AM	10:32 AM	10:32 AM	10:32 AM	10:32 AM
Time_First_Sample	9:19 AM	9:19 AM	9:19 AM	9:19 AM	9:19 AM	9:19 AM
Crew_Recorder	M. Silva	M. Silva	M. Silva	M. Silva	M. Silva	M. Silva
Crew_Other1	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley
Crew_Other2	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge
Crew_Other3	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes
GPS_Device1	iPAD #9	iPAD #9	iPAD #9	iPAD #9	iPAD #9	iPAD #9
GPS_Device2	Lowe Lowrance	Lowe Lowrance	Lowe Lowrance	Lowe Lowrance	Lowe Lowrance	Lowe Lowrance
Emergent_Vegetation_percent	5	5	5	5	5	5
Submerged_Algae_percent	95	95	95	95	95	95
Submerged_Other_percent	0	0	0	0	0	0
Surface_Algae_percent	0	0	0	0	0	0
Surface_Other_percent	0	0	0	0	0	0
Location_Sample_Time	9:45 AM	9:56 AM	9:57 AM	10:00 AM	10:05 AM	10:12 AM
Location_Depth_feet	17	11	2.2	1.4	16.5	1.8
Location_Distance_from_Shore_feet	na	na	3	3.5	na	5.5
Location_Comments	na	na	Samples taken off bow of boat with D-frame kick net	Samples taken off bow of boat with D-frame kick net	na	Samples taken off bow of boat with D-frame kick net
Turbidity_NTU1	na	na	na	2.93	na	na
Turbidity_NTU2	na	na	na	na	na	na
Water_Temp_degC	na	na	na	19.7	na	na
Conductivity_μS*cm-1	na	na	na	na	na	na
pH	na	na	na	na	na	na
DO_percent	na	na	na	100.5	na	na
DO_mg*L-1	na	na	na	9.18	na	na
Notes	na	na	na	na	na	na

Site	ML4	ML4	ML4	ML5	ML5	ML5
Location	B	A	A	A	A	B
Location_Method	Midchannel	Nearshore	Midchannel	Midchannel	Nearshore	Nearshore
Date	6/17/2019	6/17/2019	6/17/2019	6/17/2019	6/17/2019	6/17/2019
Time_Arrival	9:15 AM	9:15 AM	9:15 AM	10:55 AM	10:55 AM	10:55 AM
Time_Departure	10:32 AM	10:32 AM	10:32 AM	11:38 AM	11:38 AM	11:38 AM
Time_First_Sample	9:19 AM	9:19 AM	9:19 AM	11:05 AM	11:05 AM	11:05 AM
Crew_Recorder	M. Silva	M. Silva	M. Silva	M. Silva	M. Silva	M. Silva
Crew_Other1	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley
Crew_Other2	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge
Crew_Other3	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes
GPS_Device1	iPAD #9	iPAD #9	iPAD #9	iPAD #9	iPAD #9	iPAD #9
GPS_Device2	Lowe Lowrance	Lowe Lowrance	Lowe Lowrance	Lowe Lowrance	Lowe Lowrance	Lowe Lowrance
Emergent_Vegetation_percent	5	5	5	na	na	na
Submerged_Algae_percent	95	95	95	na	na	na
Submerged_Other_percent	0	0	0	na	na	na
Surface_Algae_percent	0	0	0	na	na	na
Surface_Other_percent	0	0	0	na	na	na
Location_Sample_Time	10:16 AM	10:26 AM	10:31 AM	11:05 AM	11:10 AM	11:16 AM
Location_Depth_feet	11	3.5	11.5	13.5	5.5	2.4
Location_Distance_from_Shore_feet	na	7	na	na	1	6
Location_Comments	na	Samples taken off bow of boat with D-frame kick net	na	na	A long sheet pile break wall; sandy substrate	na
Turbidity_NTU1	na	na	5.91	2.81	na	na
Turbidity_NTU2	na	na	na	3.00	na	na
Water_Temp_degC	na	na	20.1	19.7	na	na
Conductivity_μS*cm-1	na	na	na	na	na	na
pH	na	na	na	na	na	na
DO_percent	na	na	98.2	104.5	na	na
DO_mg*L-1	na	na	8.91	9.56	na	na
Notes	na	na	na	na	na	na

Site	ML5	ML5	ML5	ML5	ML5	ML5
Location	B	C	C	D	D	E
Location_Method	Midchannel	Nearshore	Midchannel	Nearshore	Midchannel	Midchannel
Date	6/17/2019	6/17/2019	6/17/2019	6/17/2019	6/17/2019	6/17/2019
Time_Arrival	10:55 AM	10:55 AM	10:55 AM	10:55 AM	10:55 AM	10:55 AM
Time_Departure	11:38 AM	11:38 AM	11:38 AM	11:38 AM	11:38 AM	11:38 AM
Time_First_Sample	11:05 AM	11:05 AM	11:05 AM	11:05 AM	11:05 AM	11:05 AM
Crew_Recorder	M. Silva	M. Silva	M. Silva	M. Silva	M. Silva	M. Silva
Crew_Other1	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley
Crew_Other2	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge
Crew_Other3	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes
GPS_Device1	iPAD #9	iPAD #9	iPAD #9	iPAD #9	iPAD #9	iPAD #9
GPS_Device2	Lowe Lowrance	Lowe Lowrance	Lowe Lowrance	Lowe Lowrance	Lowe Lowrance	Lowe Lowrance
Emergent_Vegetation_percent	na	na	na	na	na	na
Submerged_Algae_percent	na	na	na	na	na	na
Submerged_Other_percent	na	na	na	na	na	na
Surface_Algae_percent	na	na	na	na	na	na
Surface_Other_percent	na	na	na	na	na	na
Location_Sample_Time	11:19 AM	na	11:22 AM	11:27 AM	11:31 AM	11:35 AM
Location_Depth_feet	11.5	3.5	12	4.5	15	13.5
Location_Distance_from_Shore_feet	na	5	na	7	na	na
Location_Comments	na	Bouldery substrate with SAV (water milfoil)	na	Rocky, vegetated substrate	na	na
Turbidity_NTU1	na	na	na	na	na	na
Turbidity_NTU2	na	na	na	na	na	na
Water_Temp_degC	na	na	na	na	na	na
Conductivity_μS*cm-1	na	na	na	na	na	na
pH	na	na	na	na	na	na
DO_percent	na	na	na	na	na	na
DO_mg*L-1	na	na	na	na	na	na
Notes	na	na	na	na	na	na

Site	ML5	ML6	ML6	ML6	ML6	ML6
Location	E	E	E	D	D	C
Location_Method	Nearshore	Midchannel	Nearshore	Midchannel	Nearshore	Midchannel
Date	6/17/2019	6/17/2019	6/17/2019	6/17/2019	6/17/2019	6/17/2019
Time_Arrival	10:55 AM	11:43 AM	11:43 AM	11:43 AM	11:43 AM	11:43 AM
Time_Departure	11:38 AM	1:00 PM	1:00 PM	1:00 PM	1:00 PM	1:00 PM
Time_First_Sample	11:05 AM	11:54 AM	11:54 AM	11:54 AM	11:54 AM	11:54 AM
Crew_Recorder	M. Silva	M. Silva	M. Silva	M. Silva	M. Silva	M. Silva
Crew_Other1	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley
Crew_Other2	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge
Crew_Other3	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes
GPS_Device1	iPAD #9	iPAD #9	iPAD #9	iPAD #9	iPAD #9	iPAD #9
GPS_Device2	Lowe Lowrance	Lowe Lowrance	Lowe Lowrance	Lowe Lowrance	Lowe Lowrance	Lowe Lowrance
Emergent_Vegetation_percent	na	5	5	5	5	5
Submerged_Algae_percent	na	95	95	95	95	95
Submerged_Other_percent	na	0	0	0	0	0
Surface_Algae_percent	na	0	0	0	0	0
Surface_Other_percent	na	0	0	0	0	0
Location_Sample_Time	11:38 AM	11:54 AM	na	12:03 PM	na	12:31 PM
Location_Depth_feet	1.3	14.5	2.5	18	1.6	14.5
Location_Distance_from_Shore_feet	3	na	3	na	4	na
Location_Comments	Boulder substrate	na	Rocky, vegetated substrate	na	Boulder substrate	na
Turbidity_NTU1	7.90	6.33	na	na	na	na
Turbidity_NTU2	3.48	3.32	na	na	na	na
Water_Temp_degC	20.7	21.3	na	na	na	na
Conductivity_μS*cm-1	na	na	na	na	na	na
pH	na	na	na	na	na	na
DO_percent	111.9	113.2	na	na	na	na
DO_mg*L-1	10.04	10.04	na	na	na	na
Notes	na	na	na	na	na	na

Site	ML6	ML6	ML6	ML6	ML6	LT1
Location	C	B	B	A	A	A
Location_Method	Nearshore	Midchannel	Nearshore	Midchannel	Nearshore	Midchannel
Date	6/17/2019	6/17/2019	6/17/2019	6/17/2019	6/17/2019	6/19/2019
Time_Arrival	11:43 AM	11:43 AM	11:43 AM	11:43 AM	11:43 AM	10:11 AM
Time_Departure	1:00 PM	1:00 PM	1:00 PM	1:00 PM	1:00 PM	11:21 AM
Time_First_Sample	11:54 AM	11:54 AM	11:54 AM	11:54 AM	11:54 AM	10:28 AM
Crew_Recorder	M. Silva	M. Silva	M. Silva	M. Silva	M. Silva	N. Dunkley
Crew_Other1	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	K. Berridge
Crew_Other2	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge	C. Reyes
Crew_Other3	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	M. Silva
GPS_Device1	iPAD #9	iPAD #9	iPAD #9	iPAD #9	iPAD #9	iPAD #9
GPS_Device2	Lowe Lowrance	Lowe Lowrance	Lowe Lowrance	Lowe Lowrance	Lowe Lowrance	Lowe Lowrance
Emergent_Vegetation_percent	5	5	5	5	5	5
Submerged_Algae_percent	95	95	95	95	95	45
Submerged_Other_percent	0	0	0	0	0	45
Surface_Algae_percent	0	0	0	0	0	5
Surface_Other_percent	0	0	0	0	0	0
Location_Sample_Time	na	12:45 PM	na	1:07 PM	na	10:28 AM
Location_Depth_feet	4	15.5	2.1	16.5	0.9	9.5
Location_Distance_from_Shore_feet	6	na	4	na	2.5	na
Location_Comments	Rocky substrate	na	Rocky substrate	na	Rocky substrate	na
Turbidity_NTU1	na	5.47	na	na	na	1.62
Turbidity_NTU2	na	3.07	na	na	na	2.23
Water_Temp_degC	na	21.3	na	na	na	22.6
Conductivity_μS*cm-1	na	na	na	na	na	na
pH	na	na	na	na	na	na
DO_percent	na	112.3	na	na	na	na
DO_mg*L-1	na	9.89	na	na	na	na
Notes	na	na	na	na	na	YSI not working - DO readings not stabilizing

Site	LT1	LT1	LT1	LT1	LT1	LT1
Location	A	E	E	B	B	C
Location_Method	Nearshore	Nearshore	Midchannel	Midchannel	Nearshore	Midchannel
Date	6/19/2019	6/19/2019	6/19/2019	6/19/2019	6/19/2019	6/19/2019
Time_Arrival	10:11 AM	10:11 AM	10:11 AM	10:11 AM	10:11 AM	10:11 AM
Time_Departure	11:21 AM	11:21 AM	11:21 AM	11:21 AM	11:21 AM	11:21 AM
Time_First_Sample	10:28 AM	10:28 AM	10:28 AM	10:28 AM	10:28 AM	10:28 AM
Crew_Recorder	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley
Crew_Other1	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge
Crew_Other2	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes
Crew_Other3	M. Silva	M. Silva	M. Silva	M. Silva	M. Silva	M. Silva
GPS_Device1	iPAD #9	iPAD #9	iPAD #9	iPAD #9	iPAD #9	iPAD #9
GPS_Device2	Lowe Lowrance	Lowe Lowrance	Lowe Lowrance	Lowe Lowrance	Lowe Lowrance	Lowe Lowrance
Emergent_Vegetation_percent	5	5	5	5	5	5
Submerged_Algae_percent	45	45	45	45	45	45
Submerged_Other_percent	45	45	45	45	45	45
Surface_Algae_percent	5	5	5	5	5	5
Surface_Other_percent	0	0	0	0	0	0
Location_Sample_Time	10:31 AM	10:47 AM	10:50 AM	10:55 AM	10:59 AM	11:02 AM
Location_Depth_feet	1.4	1.3	5	11	1.4	9.5
Location_Distance_from_Shore_feet	5	2	na	na	5.5	na
Location_Comments	na	Silty substrate, SAV and emergent vegetation	na	na	Sand; SAV and emergent; muddy	Silt, algae, and SAV
Turbidity_NTU1	na	na	na	na	na	na
Turbidity_NTU2	na	na	na	na	na	na
Water_Temp_degC	na	na	na	na	na	na
Conductivity_μS*cm-1	na	na	na	na	na	na
pH	na	na	na	na	na	na
DO_percent	na	na	na	na	na	na
DO_mg*L-1	na	na	na	na	na	na
Notes	na	na	na	na	na	na

Site	LT1	LT1	LT1	LT2	LT2	LT2
Location	C	D	D	A	A	B
Location_Method	Nearshore	Midchannel	Nearshore	Midchannel	Nearshore	Midchannel
Date	6/19/2019	6/19/2019	6/19/2019	6/19/2019	6/19/2019	6/19/2019
Time_Arrival	10:11 AM	10:11 AM	10:11 AM	8:58 AM	8:58 AM	8:58 AM
Time_Departure	11:21 AM	11:21 AM	11:21 AM	10:10 AM	10:10 AM	10:10 AM
Time_First_Sample	10:28 AM	10:28 AM	10:28 AM	9:00 AM	9:00 AM	9:00 AM
Crew_Recorder	N. Dunkley	N. Dunkley	N. Dunkley	N.Dunkley	N.Dunkley	N.Dunkley
Crew_Other1	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge
Crew_Other2	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes
Crew_Other3	M. Silva	M. Silva	M. Silva	M. Silva	M. Silva	M. Silva
GPS_Device1	iPAD #9	iPAD #9	iPAD #9	iPAD #9	iPAD #9	iPAD #9
GPS_Device2	Lowe Lowrance	Lowe Lowrance	Lowe Lowrance	Lowe Lowrance	Lowe Lowrance	Lowe Lowrance
Emergent_Vegetation_percent	5	5	5	7	7	7
Submerged_Algae_percent	45	45	45	44	44	44
Submerged_Other_percent	45	45	45	44	44	44
Surface_Algae_percent	5	5	5	0	0	0
Surface_Other_percent	0	0	0	5	5	5
Location_Sample_Time	11:05 AM	11:10 AM	11:15 AM	9:00 AM	9:06 AM	9:18 AM
Location_Depth_feet	2.5	10	1.7	20.5	3.2	8
Location_Distance_from_Shore_feet	6	na	5.5	na	1.7	na
Location_Comments	50% SAV, 50% sand; some floating vegetation as well	na	na	na	Substrate = SAV (myriophyllum)	na
Turbidity_NTU1	na	na	3.48	2.82	na	na
Turbidity_NTU2	na	na	1.97	2.09	na	na
Water_Temp_degC	na	na	23.7	21.7	na	na
Conductivity_μS*cm-1	na	na	na	na	na	na
pH	na	na	na	na	na	na
DO_percent	na	na	na	na	na	na
DO_mg*L-1	na	na	na	na	na	na
Notes	na	na	YSI not working - DO readings not stabilizing	YSI not working - readings would not stabilize	na	na

Site	LT2	LT2	LT2	LT2	LT2	LT2
Location	B	C	C	D	D	E
Location_Method	Nearshore	Midchannel	Nearshore	Midchannel	Nearshore	Midchannel
Date	6/19/2019	6/19/2019	6/19/2019	6/19/2019	6/19/2019	6/19/2019
Time_Arrival	8:58 AM	8:58 AM	8:58 AM	8:58 AM	8:58 AM	8:58 AM
Time_Departure	10:10 AM	10:10 AM	10:10 AM	10:10 AM	10:10 AM	10:10 AM
Time_First_Sample	9:00 AM	9:00 AM	9:00 AM	9:00 AM	9:00 AM	9:00 AM
Crew_Recorder	N.Dunkley	N.Dunkley	N.Dunkley	N.Dunkley	N.Dunkley	N.Dunkley
Crew_Other1	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge
Crew_Other2	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes
Crew_Other3	M. Silva	M. Silva	M. Silva	M. Silva	M. Silva	M. Silva
GPS_Device1	iPAD #9	iPAD #9	iPAD #9	iPAD #9	iPAD #9	iPAD #9
GPS_Device2	Lowe Lowrance	Lowe Lowrance	Lowe Lowrance	Lowe Lowrance	Lowe Lowrance	Lowe Lowrance
Emergent_Vegetation_percent	7	7	7	7	7	7
Submerged_Algae_percent	44	44	44	44	44	44
Submerged_Other_percent	44	44	44	44	44	44
Surface_Algae_percent	0	0	0	0	0	0
Surface_Other_percent	5	5	5	5	5	5
Location_Sample_Time	9:22 AM	9:32 AM	9:34 AM	9:41 AM	9:44 AM	9:51 AM
Location_Depth_feet	2.8	20.5	3	6	1.3	15.5
Location_Distance_from_Shore_feet	4.5	na	4	na	0.5	na
Location_Comments	silty & SAV	na	rocky, silty, and SAV	A lot of submerged aquatic vegetation present	All SAV; floating aquatic vegetation present as well (lily pads)	SAV, silt, algae
Turbidity_NTU1	na	na	na	na	na	na
Turbidity_NTU2	na	na	na	na	na	na
Water_Temp_degC	na	na	na	na	na	na
Conductivity_μS*cm-1	na	na	na	na	na	na
pH	na	na	na	na	na	na
DO_percent	na	na	na	na	na	na
DO_mg*L-1	na	na	na	na	na	na
Notes	na	na	na	na	na	

Site	LT2	MRL1	MRL1	MRL1	MRL1	MRL1
Location	E	E	E	D	D	C
Location_Method	Nearshore	Midchannel	Nearshore	Midchannel	Nearshore	Midchannel
Date	6/19/2019	6/18/2019	6/18/2019	6/18/2019	6/18/2019	6/18/2019
Time_Arrival	8:58 AM	2:08 PM	2:08 PM	2:08 PM	2:08 PM	2:08 PM
Time_Departure	10:10 AM	3:30 PM	3:30 PM	3:30 PM	3:30 PM	3:30 PM
Time_First_Sample	9:00 AM	2:26 PM	2:26 PM	2:26 PM	2:26 PM	2:26 PM
Crew_Recorder	N.Dunkley	N.Dunkley	N.Dunkley	N.Dunkley	N.Dunkley	N.Dunkley
Crew_Other1	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge
Crew_Other2	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes
Crew_Other3	M. Silva	M. Silva	M. Silva	M. Silva	M. Silva	M. Silva
GPS_Device1	iPAD #9	iPAD #9	iPAD #9	iPAD #9	iPAD #9	iPAD #9
GPS_Device2	Lowe Lowrance	Lowe Lowrance	Lowe Lowrance	Lowe Lowrance	Lowe Lowrance	Lowe Lowrance
Emergent_Vegetation_percent	7	3	3	3	3	3
Submerged_Algae_percent	44	48.5	48.5	48.5	48.5	48.5
Submerged_Other_percent	44	48.5	48.5	48.5	48.5	48.5
Surface_Algae_percent	0	0	0	0	0	0
Surface_Other_percent	5	0	0	0	0	0
Location_Sample_Time	9:59 AM	2:26 PM	2:32 PM	2:39 PM	2:42 PM	2:51 PM
Location_Depth_feet	2.7	13	4	16	3.5	14
Location_Distance_from_Shore_feet	1.8	na	4	na	5	na
Location_Comments	All SAV and floating vegetation	na	Sandy bottom with SAV	na	Overhanging vegetation; sandy bottom; boulders on shore	na
Turbidity_NTU1	4.26	1.96	na	na	na	na
Turbidity_NTU2	2.22	1.54	na	na	na	na
Water_Temp_degC	22.9	20.6	na	na	na	na
Conductivity_μS*cm-1	na	na	na	na	na	na
pH	na	na	na	na	na	na
DO_percent	na	99.0	na	na	na	na
DO_mg*L-1	na	8.89	na	na	na	na
Notes	YSI not working - readings would not stabilize	na	na	na	na	na

Site	MRL1	MRL1	MRL1	MRL1	MRL1	MRL2
Location	C	B	B	A	A	E
Location_Method	Nearshore	Nearshore	Midchannel	Midchannel	Nearshore	Midchannel
Date	6/18/2019	6/18/2019	6/18/2019	6/18/2019	6/18/2019	6/18/2019
Time_Arrival	2:08 PM	2:08 PM	2:08 PM	2:08 PM	2:08 PM	1:22 PM
Time_Departure	3:30 PM	3:30 PM	3:30 PM	3:30 PM	3:30 PM	2:02 PM
Time_First_Sample	2:26 PM	2:26 PM	2:26 PM	2:26 PM	2:26 PM	1:27 PM
Crew_Recorder	N.Dunkley	N.Dunkley	N.Dunkley	N.Dunkley	N.Dunkley	N.Dunkley
Crew_Other1	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge
Crew_Other2	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes
Crew_Other3	M. Silva	M. Silva	M. Silva	M. Silva	M. Silva	M. Silva
GPS_Device1	iPAD #9	iPAD #9	iPAD #9	iPAD #9	iPAD #9	iPAD #9
GPS_Device2	Lowe Lowrance	Lowe Lowrance	Lowe Lowrance	Lowe Lowrance	Lowe Lowrance	Lowe Lowrance
Emergent_Vegetation_percent	3	3	3	3	3	0
Submerged_Algae_percent	48.5	48.5	48.5	48.5	48.5	50
Submerged_Other_percent	48.5	48.5	48.5	48.5	48.5	50
Surface_Algae_percent	0	0	0	0	0	0
Surface_Other_percent	0	0	0	0	0	0
Location_Sample_Time	2:54 PM	2:57 PM	3:00 PM	3:04 PM	3:06 PM	1:27 PM
Location_Depth_feet	2.5	2	13	7	4.5	14
Location_Distance_from_Shore_feet	3	4	na	na	8	na
Location_Comments	Sandy with SAV	Sandy bottom; woody debris present	na	na	All SAV	na
Turbidity_NTU1	na	na	na	na	2.54	1.67
Turbidity_NTU2	na	na	na	na	2.87	1.59
Water_Temp_degC	na	na	na	na	20.5	21.0
Conductivity_μS*cm-1	na	na	na	na	na	na
pH	na	na	na	na	na	na
DO_percent	na	na	na	na	125.3	100.1
DO_mg*L-1	na	na	na	na	11.33	8.93
Notes	na	na	na	na	na	For Marina Lagoon: mostly sandy bottom; significantly less naturalized - no rocks, no trees; all sheet pile

Site	MRL2	MRL2	MRL2	MRL2	MRL2	MRL2	MRL2
Location	E	D	D	C	C	B	B
Location_Method	Nearshore	Midchannel	Nearshore	Midchannel	Nearshore	Midchannel	Nearshore
Date	6/18/2019	6/18/2019	6/18/2019	6/18/2019	6/18/2019	6/18/2019	6/18/2019
Time_Arrival	1:22 PM	1:22 PM	1:22 PM	1:22 PM	1:22 PM	1:22 PM	1:22 PM
Time_Departure	2:02 PM	2:02 PM	2:02 PM	2:02 PM	2:02 PM	2:02 PM	2:02 PM
Time_First_Sample	1:27 PM	1:27 PM	1:27 PM	1:27 PM	1:27 PM	1:27 PM	1:27 PM
Crew_Recorder	N.Dunkley	N.Dunkley	N.Dunkley	N.Dunkley	N.Dunkley	N.Dunkley	N.Dunkley
Crew_Other1	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge
Crew_Other2	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes
Crew_Other3	M. Silva	M. Silva	M. Silva	M. Silva	M. Silva	M. Silva	M. Silva
GPS_Device1	iPAD #9	iPAD #9	iPAD #9	iPAD #9	iPAD #9	iPAD #9	iPAD #9
GPS_Device2	Lowe Lowrance	Lowe Lowrance	Lowe Lowrance	Lowe Lowrance	Lowe Lowrance	Lowe Lowrance	Lowe Lowrance
Emergent_Vegetation_percent	0	0	0	0	0	0	0
Submerged_Algae_percent	50	50	50	50	50	50	50
Submerged_Other_percent	50	50	50	50	50	50	50
Surface_Algae_percent	0	0	0	0	0	0	0
Surface_Other_percent	0	0	0	0	0	0	0
Location_Sample_Time	1:28 PM	1:31 PM	1:34 PM	1:39 PM	1:43 PM	1:47 PM	1:51 PM
Location_Depth_feet	7.5	10.5	10	11	9	16	5
Location_Distance_from_Shore_feet	0	na	0	na	0	na	0
Location_Comments	Scrape on sheet piles (submerged, on shore)	na	wall scrape	na	Sheet pile wall scrape	No vegetation on grab	Scraped log along sheet pile
Turbidity_NTU1	na	na	na	na	na	na	na
Turbidity_NTU2	na	na	na	na	na	na	na
Water_Temp_degC	na	na	na	na	na	na	na
Conductivity_μS*cm-1	na	na	na	na	na	na	na
pH	na	na	na	na	na	na	na
DO_percent	na	na	na	na	na	na	na
DO_mg*L-1	na	na	na	na	na	na	na
Notes	na	na	na	na	na	na	na

Site	MRL2	MRL2	ML6	ML6	ML6	ML6	ML6
Location	A	A	A	A	B	B	C
Location_Method	Midchannel	Nearshore	Midchannel	Nearshore	Midchannel	Nearshore	Midchannel
Date	6/18/2019	6/18/2019	10/14/2019	10/14/2019	10/14/2019	10/14/2019	10/14/2019
Time_Arrival	1:22 PM	1:22 PM	11:09 AM	11:09 AM	11:09 AM	11:09 AM	11:09 AM
Time_Departure	2:02 PM	2:02 PM	11:53 AM	11:53 AM	11:53 AM	11:53 AM	11:53 AM
Time_First_Sample	1:27 PM	1:27 PM	11:09 AM	11:09 AM	11:09 AM	11:09 AM	11:09 AM
Crew_Recorder	N.Dunkley	N.Dunkley	C. Turner	C. Turner	C. Turner	C. Turner	C. Turner
Crew_Other1	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge
Crew_Other2	C. Reyes	C. Reyes	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley
Crew_Other3	M. Silva	M. Silva	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes
GPS_Device1	iPAD #9	iPAD #9	iPAD	iPAD	iPAD	iPAD	iPAD
GPS_Device2	Lowe Lowrance	Lowe Lowrance	na	na	na	na	na
Emergent_Vegetation_percent	0	0	2	2	2	2	2
Submerged_Algae_percent	50	50	0	0	0	0	0
Submerged_Other_percent	50	50	98	98	98	98	98
Surface_Algae_percent	0	0	0	0	0	0	0
Surface_Other_percent	0	0	0	0	0	0	0
Location_Sample_Time	1:55 PM	1:58 PM	11:09 AM	11:13 AM	11:19 AM	11:22 AM	11:31 AM
Location_Depth_feet	19	4	15	2	15	1.5	13.5
Location_Distance_from_Shore_feet	na	na	100	2	80	3	50
Location_Comments	na	Sandy substrate	mud	Rock; sweep of bottom	mud	Rock; sweep of bottom	mud
Turbidity_NTU1	na	4.29	4.04	na	na	na	na
Turbidity_NTU2	na	1.54	na	na	na	na	na
Water_Temp_degC	na	19.9	10.7	na	na	na	na
Conductivity_μS*cm-1	na	na	138.7	na	na	na	na
pH	na	na	7.72	na	na	na	na
DO_percent	na	96.8	71.5	na	na	na	na
DO_mg*L-1	na	8.81	7.93	na	na	na	na
Notes	na		surface algae bloom	na	na	na	na

Site	ML6	ML6	ML6	ML6	ML6	ML5	ML5
Location	C	D	D	E	E	A	A
Location_Method	Nearshore	Midchannel	Nearshore	Midchannel	Nearshore	Midchannel	Nearshore
Date	10/14/2019	10/14/2019	10/14/2019	10/14/2019	10/14/2019	10/14/2019	10/14/2019
Time_Arrival	11:09 AM	11:09 AM	11:09 AM	11:09 AM	11:09 AM	12:05 PM	12:05 PM
Time_Departure	11:53 AM	11:53 AM	11:53 AM	11:53 AM	11:53 AM	12:50 PM	12:50 PM
Time_First_Sample	11:09 AM	11:09 AM	11:09 AM	11:09 AM	11:09 AM	12:07 PM	12:07 PM
Crew_Recorder	C. Turner	C. Turner	C. Turner	C. Turner	C. Turner	C. Turner	C. Turner
Crew_Other1	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge
Crew_Other2	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley
Crew_Other3	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes
GPS_Device1	iPAD	iPAD	iPAD	iPAD	iPAD	iPAD	iPAD
GPS_Device2	na	na	na	na	na	na	na
Emergent_Vegetation_percent	2	2	2	2	2	0	0
Submerged_Algae_percent	0	0	0	0	0	0	0
Submerged_Other_percent	98	98	98	98	98	70	70
Surface_Algae_percent	0	0	0	0	0	30	30
Surface_Other_percent	0	0	0	0	0	0	0
Location_Sample_Time	11:33 AM	11:43 AM	11:40 AM	11:50 AM	11:52 AM	12:43 PM	12:45 PM
Location_Depth_feet	3	17.5	3	14	4	12	4
Location_Distance_from_Shore_feet	2	75	2	40	4	50	3
Location_Comments	Sand; sweep of bottom	mud	Rock; sweep of bottom	mud	Sand; sweep of bottom	mud	Sand; sweep of bottom
Turbidity_NTU1	na	na	na	na	na	8.65	na
Turbidity_NTU2	na	na	na	na	na	na	na
Water_Temp_degC	na	na	na	na	na	10.9	na
Conductivity_μS*cm-1	na	na	na	na	na	131.8	na
pH	na	na	na	na	na	8.31	na
DO_percent	na	na	na	na	na	82.2	na
DO_mg*L-1	na	na	na	na	na	9.09	na
Notes	na	na	na	na	na	na	na

Site	ML5	ML5	ML5	ML5	ML5	ML5	ML5
Location	B	B	C	C	D	D	E
Location_Method	Midchannel	Nearshore	Midchannel	Nearshore	Midchannel	Nearshore	Midchannel
Date	10/14/2019	10/14/2019	10/14/2019	10/14/2019	10/14/2019	10/14/2019	10/14/2019
Time_Arrival	12:05 PM	12:05 PM	12:05 PM	12:05 PM	12:05 PM	12:05 PM	12:05 PM
Time_Departure	12:50 PM	12:50 PM	12:50 PM	12:50 PM	12:50 PM	12:50 PM	12:50 PM
Time_First_Sample	12:07 PM	12:07 PM	12:07 PM	12:07 PM	12:07 PM	12:07 PM	12:07 PM
Crew_Recorder	C. Turner	C. Turner	C. Turner	C. Turner	C. Turner	C. Turner	C. Turner
Crew_Other1	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge
Crew_Other2	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley
Crew_Other3	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes
GPS_Device1	iPAD	iPAD	iPAD	iPAD	iPAD	iPAD	iPAD
GPS_Device2	na	na	na	na	na	na	na
Emergent_Vegetation_percent	0	0	0	0	0	0	0
Submerged_Algae_percent	0	0	0	0	0	0	0
Submerged_Other_percent	70	70	70	70	70	70	70
Surface_Algae_percent	30	30	30	30	30	30	30
Surface_Other_percent	0	0	0	0	0	0	0
Location_Sample_Time	12:35 PM	12:37 PM	12:32 PM	12:31 PM	12:24 PM	12:29 PM	12:12 PM
Location_Depth_feet	11	2	10	2	14	3.5	10
Location_Distance_from_Shore_feet	30	2	50	2	50	3	45
Location_Comments	mud	Rock; sweep of bottom	mud	Rock; sweep of bottom	Mud	Sand; sweep of bottom	mud
Turbidity_NTU1	na	na	na	na	na	na	na
Turbidity_NTU2	na	na	na	na	na	na	na
Water_Temp_degC	na	na	na	na	na	na	na
Conductivity_μS*cm-1	na	na	na	na	na	na	na
pH	na	na	na	na	na	na	na
DO_percent	na	na	na	na	na	na	na
DO_mg*L-1	na	na	na	na	na	na	na
Notes	na	na	na	na	na	na	na

Site	ML5	MRL2	MRL2	MRL2	MRL2	MRL2	MRL2
Location	E	E	E	D	D	C	C
Location_Method	Nearshore	Midchannel	Nearshore	Midchannel	Nearshore	Midchannel	Nearshore
Date	10/14/2019	10/14/2019	10/14/2019	10/14/2019	10/14/2019	10/14/2019	10/14/2019
Time_Arrival	12:05 PM	8:38 AM	8:38 AM	8:38 AM	8:38 AM	8:38 AM	8:38 AM
Time_Departure	12:50 PM	9:30 AM	9:30 AM	9:30 AM	9:30 AM	9:30 AM	9:30 AM
Time_First_Sample	12:07 PM	8:49 AM	8:49 AM	8:49 AM	8:49 AM	8:49 AM	8:49 AM
Crew_Recorder	C. Turner	C. Turner	C. Turner	C. Turner	C. Turner	C. Turner	C. Turner
Crew_Other1	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge
Crew_Other2	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley
Crew_Other3	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes
GPS_Device1	iPAD	iPAD	iPAD	iPAD	iPAD	iPAD	iPAD
GPS_Device2	na	na	na	na	na	na	na
Emergent_Vegetation_percent	0	0	0	0	0	0	0
Submerged_Algae_percent	0	0	0	0	0	0	0
Submerged_Other_percent	70	100	100	100	100	100	100
Surface_Algae_percent	30	0	0	0	0	0	0
Surface_Other_percent	0	0	0	0	0	0	0
Location_Sample_Time	12:13 PM	8:49 AM	8:54 AM	9:01 AM	9:05 AM	9:09 AM	9:12 AM
Location_Depth_feet	2	16	15	15	15	16	5
Location_Distance_from_Shore_feet	3	100	1	100	1	125	1
Location_Comments	Sand; sweep of bottom	mud	Sweep through vegetation tips	mud	Sweep through vegetation tips	mud	Sand; sweep along bottom
Turbidity_NTU1	na	2.54	na	na	na	na	na
Turbidity_NTU2	na	na	na	na	na	na	na
Water_Temp_degC	na	11.3	na	na	na	na	na
Conductivity_μS*cm-1	na	19.3	na	na	na	na	na
pH	na	7.57	na	na	na	na	na
DO_percent	na	82.9	na	na	na	na	na
DO_mg*L-1	na	9.08	na	na	na	na	na
Notes	na	na	na	na	na	na	na

Site	MRL2	MRL2	MRL2	MRL2	MRL1	MRL1	MRL1
Location	B	B	A	A	E	E	D
Location_Method	Midchannel	Nearshore	Midchannel	Nearshore	Midchannel	Nearshore	Midchannel
Date	10/14/2019	10/14/2019	10/14/2019	10/14/2019	10/14/2019	10/14/2019	10/14/2019
Time_Arrival	8:38 AM	8:38 AM	8:38 AM	8:38 AM	9:50 AM	9:50 AM	9:50 AM
Time_Departure	9:30 AM	9:30 AM	9:30 AM	9:30 AM	10:25 AM	10:25 AM	10:25 AM
Time_First_Sample	8:49 AM	8:49 AM	8:49 AM	8:49 AM	9:50 AM	9:50 AM	9:50 AM
Crew_Recorder	C. Turner	C. Turner	C. Turner	C. Turner	C. Turner	C. Turner	C. Turner
Crew_Other1	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge
Crew_Other2	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley
Crew_Other3	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes
GPS_Device1	iPAD	iPAD	iPAD	iPAD	iPAD	iPAD	iPAD
GPS_Device2	na	na	na	na	na	na	na
Emergent_Vegetation_percent	0	0	0	0	5	5	5
Submerged_Algae_percent	0	0	0	0	0	0	0
Submerged_Other_percent	100	100	100	100	95	95	95
Surface_Algae_percent	0	0	0	0	0	0	0
Surface_Other_percent	0	0	0	0	0	0	0
Location_Sample_Time	9:15 AM	9:18 AM	9:25 AM	9:29 AM	9:50 AM	9:55 AM	10:01 AM
Location_Depth_feet	16	7	18	4	11	3	16
Location_Distance_from_Shore_feet	60	1	100	1	150	1	40
Location_Comments	mud	Sweep through vegetation	mud	Sand; sweep along bottom	mud	Sand; sweep of bottom	mud
Turbidity_NTU1	na	na	na	na	2.47	na	na
Turbidity_NTU2	na	na	na	na	na	na	na
Water_Temp_degC	na	na	na	na	11.1	na	na
Conductivity_µS*cm-1	na	na	na	na	97.8	na	na
pH	na	na	na	na	8.03	na	na
DO_percent	na	na	na	na	82.9	na	na
DO_mg*L-1	na	na	na	na	9.12	na	na
Notes	na	na	na	na	na	na	na

Site	MRL1	MRL1	MRL1	MRL1	MRL1	MRL1	MRL1
Location	D	C	C	B	B	A	A
Location_Method	Nearshore	Midchannel	Nearshore	Midchannel	Nearshore	Midchannel	Nearshore
Date	10/14/2019	10/14/2019	10/14/2019	10/14/2019	10/14/2019	10/14/2019	10/14/2019
Time_Arrival	9:50 AM	9:50 AM	9:50 AM	9:50 AM	9:50 AM	9:50 AM	9:50 AM
Time_Departure	10:25 AM	10:25 AM	10:25 AM	10:25 AM	10:25 AM	10:25 AM	10:25 AM
Time_First_Sample	9:50 AM	9:50 AM	9:50 AM	9:50 AM	9:50 AM	9:50 AM	9:50 AM
Crew_Recorder	C. Turner	C. Turner	C. Turner	C. Turner	C. Turner	C. Turner	C. Turner
Crew_Other1	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge
Crew_Other2	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley
Crew_Other3	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes
GPS_Device1	iPAD	iPAD	iPAD	iPAD	iPAD	iPAD	iPAD
GPS_Device2	na	na	na	na	na	na	na
Emergent_Vegetation_percent	5	5	5	5	5	5	5
Submerged_Algae_percent	0	0	0	0	0	0	0
Submerged_Other_percent	95	95	95	95	95	95	95
Surface_Algae_percent	0	0	0	0	0	0	0
Surface_Other_percent	0	0	0	0	0	0	0
Location_Sample_Time	10:05 AM	10:10 AM	10:12 AM	10:16 AM	10:17 AM	10:21 AM	10:25 AM
Location_Depth_feet	4	13	3	9	2	10	1
Location_Distance_from_Shore_feet	1	50	4	75	4	70	2
Location_Comments	Sand; sweep of bottom	mud	Sand; sweep of bottom	mud	Sand; sweep of bottom	mud	Rock; sweep of bottom
Turbidity_NTU1	na	na	na	na	na	na	na
Turbidity_NTU2	na	na	na	na	na	na	na
Water_Temp_degC	na	na	na	na	na	na	na
Conductivity_μS*cm-1	na	na	na	na	na	na	na
pH	na	na	na	na	na	na	na
DO_percent	na	na	na	na	na	na	na
DO_mg*L-1	na	na	na	na	na	na	na
Notes	na	na	na	na	na	na	na

Site	ML1	ML1	ML1	ML1	ML1	ML1	ML1
Location	A	A	B	B	C	C	D
Location_Method	Midchannel	Nearshore	Nearshore	Midchannel	Nearshore	Midchannel	Nearshore
Date	10/15/2019	10/15/2019	10/15/2019	10/15/2019	10/15/2019	10/15/2019	10/15/2019
Time_Arrival	2:21 PM	2:21 PM	2:21 PM	2:21 PM	2:21 PM	2:21 PM	2:21 PM
Time_Departure	3:00 PM	3:00 PM	3:00 PM	3:00 PM	3:00 PM	3:00 PM	3:00 PM
Time_First_Sample	2:25 PM	2:25 PM	2:25 PM	2:25 PM	2:25 PM	2:25 PM	2:25 PM
Crew_Recorder	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley
Crew_Other1	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge
Crew_Other2	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes
Crew_Other3	T. Spaulding	T. Spaulding	T. Spaulding	T. Spaulding	T. Spaulding	T. Spaulding	T. Spaulding
GPS_Device1	iPAD	iPAD	iPAD	iPAD	iPAD	iPAD	iPAD
GPS_Device2	na	na	na	na	na	na	na
Emergent_Vegetation_percent	0	0	0	0	0	0	0
Submerged_Algae_percent	5	5	5	5	5	5	5
Submerged_Other_percent	95	95	95	95	95	95	95
Surface_Algae_percent	0	0	0	0	0	0	0
Surface_Other_percent	0	0	0	0	0	0	0
Location_Sample_Time	2:25 PM	2:26 PM	2:32 PM	2:35 PM	2:38 PM	2:39 PM	2:43 PM
Location_Depth_feet	10	1.8	3.5	25.5	4.5	22	4
Location_Distance_from_Shore_feet	70	5	2	200	3	60	5
Location_Comments	muddy	rocky	rocky with algae	muddy	sandy	muddy	sandy
Turbidity_NTU1	3.08	na	na	na	na	na	na
Turbidity_NTU2	na	na	na	na	na	na	na
Water_Temp_degC	12.1	na	na	na	na	na	na
Conductivity_μS*cm-1	103.7	na	na	na	na	na	na
pH	8.41	na	na	na	na	na	na
DO_percent	90.4	na	na	na	na	na	na
DO_mg*L-1	9.79	na	na	na	na	na	na
Notes	Trouble with deploying ponar - too much vegetation could be blocking ponar from substrate	Turtle seen: N 38°56.155' W 120°00.926'; sunny with slight breeze	na	na	na	na	na

Site	ML1	ML1	ML1	ML2	ML2	ML2	ML2
Location	D	E	E	D	D	C	C
Location_Method	Midchannel	Midchannel	Nearshore	Midchannel	Nearshore	Nearshore	Midchannel
Date	10/15/2019	10/15/2019	10/15/2019	10/15/2019	10/15/2019	10/15/2019	10/15/2019
Time_Arrival	2:21 PM	2:21 PM	2:21 PM	1:35 PM	1:35 PM	1:35 PM	1:35 PM
Time_Departure	3:00 PM	3:00 PM	3:00 PM	2:13 PM	2:13 PM	2:13 PM	2:13 PM
Time_First_Sample	2:25 PM	2:25 PM	2:25 PM	1:35 PM	1:35 PM	1:35 PM	1:35 PM
Crew_Recorder	N. Dunkley	N. Dunkley	N. Dunkley	K. Berridge	K. Berridge	K. Berridge	K. Berridge
Crew_Other1	K. Berridge	K. Berridge	K. Berridge	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley
Crew_Other2	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes
Crew_Other3	T. Spaulding	T. Spaulding	T. Spaulding	T. Spaulding	T. Spaulding	T. Spaulding	T. Spaulding
GPS_Device1	iPAD	iPAD	iPAD	iPAD	iPAD	iPAD	iPAD
GPS_Device2	na	na	na	na	na	na	na
Emergent_Vegetation_percent	0	0	0	10	10	10	10
Submerged_Algae_percent	5	5	5	5	5	5	5
Submerged_Other_percent	95	95	95	85	85	85	85
Surface_Algae_percent	0	0	0	0	0	0	0
Surface_Other_percent	0	0	0	0	0	0	0
Location_Sample_Time	2:47 PM	2:52 PM	2:54 PM	1:35 PM	1:41 PM	1:47 PM	1:50 PM
Location_Depth_feet	22	20	4	14.5	4	3.25	22
Location_Distance_from_Shore_feet	200	70	5	40	0	1	250
Location_Comments	muddy	Muddy; multiple attempts at Ponar (x4)	sandy	mud	sand; scraped along bottom along sheetpile	mud/rock	mud
Turbidity_NTU1	na	na	na	3.47	na	na	na
Turbidity_NTU2	na	na	na	na	na	na	na
Water_Temp_degC	na	na	na	12.4	na	na	na
Conductivity_μS*cm-1	na	na	na	112.4	na	na	na
pH	na	na	na	8.25	na	na	na
DO_percent	na	na	na	89.3	na	na	na
DO_mg*L-1	na	na	na	9.5	na	na	na
Notes	na	na	na	na	na	na	na

Site	ML2	ML2	ML2	ML2	ML2	ML2	ML3
Location	E	E	B	B	A	A	E
Location_Method	Midchannel	Nearshore	Nearshore	Midchannel	Nearshore	Midchannel	Midchannel
Date	10/15/2019	10/15/2019	10/15/2019	10/15/2019	10/15/2019	10/15/2019	10/15/2019
Time_Arrival	1:35 PM	1:35 PM	1:35 PM	1:35 PM	1:35 PM	1:35 PM	12:00 PM
Time_Departure	2:13 PM	2:13 PM	2:13 PM	2:13 PM	2:13 PM	2:13 PM	12:40 PM
Time_First_Sample	1:35 PM	1:35 PM	1:35 PM	1:35 PM	1:35 PM	1:35 PM	12:00 PM
Crew_Recorder	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge
Crew_Other1	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley
Crew_Other2	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes
Crew_Other3	T. Spaulding	T. Spaulding	T. Spaulding	T. Spaulding	T. Spaulding	T. Spaulding	T. Spaulding
GPS_Device1	iPAD	iPAD	iPAD	iPAD	iPAD	iPAD	iPAD
GPS_Device2	na	na	na	na	na	na	na
Emergent_Vegetation_percent	10	10	10	10	10	10	10
Submerged_Algae_percent	5	5	5	5	5	5	0
Submerged_Other_percent	85	85	85	85	85	85	90
Surface_Algae_percent	0	0	0	0	0	0	0
Surface_Other_percent	0	0	0	0	0	0	0
Location_Sample_Time	1:53 PM	1:55 PM	2:00 PM	2:02 PM	2:06 PM	2:10 PM	12:00 PM
Location_Depth_feet	16	4	1.8	25	1	12	15
Location_Distance_from_Shore_feet	40	3	2	150	3	80	50
Location_Comments	mud	rock	rock	mud	rock	mud	mud
Turbidity_NTU1	na	na	na	na	na	na	3.1
Turbidity_NTU2	na	na	na	na	na	na	na
Water_Temp_degC	na	na	na	na	na	na	11.4
Conductivity_μS*cm-1	na	na	na	na	na	na	118.8
pH	na	na	na	na	na	na	7.81
DO_percent	na	na	na	na	na	na	79.1
DO_mg*L-1	na	na	na	na	na	na	8.63
Notes	na	na	na	na	na	na	na

Site	ML3	ML3	ML3	ML3	ML3	ML3	ML3
Location	E	D	D	C	C	B	B
Location_Method	Nearshore	Midchannel	Nearshore	Midchannel	Nearshore	Nearshore	Midchannel
Date	10/15/2019	10/15/2019	10/15/2019	10/15/2019	10/15/2019	10/15/2019	10/15/2019
Time_Arrival	12:00 PM	12:00 PM	12:00 PM	12:00 PM	12:00 PM	12:00 PM	12:00 PM
Time_Departure	12:40 PM	12:40 PM	12:40 PM	12:40 PM	12:40 PM	12:40 PM	12:40 PM
Time_First_Sample	12:00 PM	12:00 PM	12:00 PM	12:00 PM	12:00 PM	12:00 PM	12:00 PM
Crew_Recorder	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge
Crew_Other1	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley
Crew_Other2	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes
Crew_Other3	T. Spaulding	T. Spaulding	T. Spaulding	T. Spaulding	T. Spaulding	T. Spaulding	T. Spaulding
GPS_Device1	iPAD	iPAD	iPAD	iPAD	iPAD	iPAD	iPAD
GPS_Device2	na	na	na	na	na	na	na
Emergent_Vegetation_percent	10	10	10	10	10	10	10
Submerged_Algae_percent	0	0	0	0	0	0	0
Submerged_Other_percent	90	90	90	90	90	90	90
Surface_Algae_percent	0	0	0	0	0	0	0
Surface_Other_percent	0	0	0	0	0	0	0
Location_Sample_Time	12:04 PM	12:11 PM	12:13 PM	12:18 PM	12:25 PM	12:31 PM	12:34 PM
Location_Depth_feet	1.8	13	1.8	15	1	0.8	15
Location_Distance_from_Shore_feet	1	50	2.5	50	2	1	50
Location_Comments	rock	mud	sand	mud	sand	rock	mud
Turbidity_NTU1	na	na	na	na	na	na	na
Turbidity_NTU2	na	na	na	na	na	na	na
Water_Temp_degC	na	na	na	na	na	na	na
Conductivity_μS*cm-1	na	na	na	na	na	na	na
pH	na	na	na	na	na	na	na
DO_percent	na	na	na	na	na	na	na
DO_mg*L-1	na	na	na	na	na	na	na
Notes	na	na	na	na	na	na	na

Site	ML3	ML3	ML4	ML4	ML4	ML4	ML4
Location	A	A	E	E	C	C	D
Location_Method	Midchannel	Nearshore	Midchannel	Nearshore	Nearshore	Midchannel	Nearshore
Date	10/15/2019	10/15/2019	10/15/2019	10/15/2019	10/15/2019	10/15/2019	10/15/2019
Time_Arrival	12:00 PM	12:00 PM	11:04 AM	11:04 AM	11:04 AM	11:04 AM	11:04 AM
Time_Departure	12:40 PM	12:40 PM	11:45 AM	11:45 AM	11:45 AM	11:45 AM	11:45 AM
Time_First_Sample	12:00 PM	12:00 PM	11:04 AM	11:04 AM	11:04 AM	11:04 AM	11:04 AM
Crew_Recorder	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge
Crew_Other1	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley
Crew_Other2	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes
Crew_Other3	T. Spaulding	T. Spaulding	T. Spaulding	T. Spaulding	T. Spaulding	T. Spaulding	T. Spaulding
GPS_Device1	iPAD	iPAD	iPAD	iPAD	iPAD	iPAD	iPAD
GPS_Device2	na	na	na	na	na	na	na
Emergent_Vegetation_percent	10	10	5	5	5	5	5
Submerged_Algae_percent	0	0	0	0	0	0	0
Submerged_Other_percent	90	90	95	95	95	95	95
Surface_Algae_percent	0	0	0	0	0	0	0
Surface_Other_percent	0	0	0	0	0	0	0
Location_Sample_Time	12:38 PM	12:40 PM	11:04 AM	11:13 AM	11:17 AM	11:20 AM	11:26 AM
Location_Depth_feet	14.5	2.5	16	1.5	2	10	1.5
Location_Distance_from_Shore_feet	40	4	40	3	2	80	4
Location_Comments	mud	sand	mud	rock	sand	mud	sand
Turbidity_NTU1	na	na	2.84	na	na	na	na
Turbidity_NTU2	na	na	na	na	na	na	na
Water_Temp_degC	na	na	11.0	na	na	na	na
Conductivity_μS*cm-1	na	na	118.4	na	na	na	na
pH	na	na	7.65	na	na	na	na
DO_percent	na	na	72.8	na	na	na	na
DO_mg*L-1	na	na	8.02	na	na	na	na
Notes	na	na	na	na	na	na	na

Site	ML4	ML4	ML4	ML4	ML4	LT2	LT2
Location	D	B	B	A	A	A	A
Location_Method	Midchannel	Nearshore	Midchannel	Midchannel	Nearshore	Midchannel	Nearshore
Date	10/15/2019	10/15/2019	10/15/2019	10/15/2019	10/15/2019	10/16/2019	10/16/2019
Time_Arrival	11:04 AM	11:04 AM	11:04 AM	11:04 AM	11:04 AM	10:30 AM	10:30 AM
Time_Departure	11:45 AM	11:45 AM	11:45 AM	11:45 AM	11:45 AM	11:25 AM	11:25 AM
Time_First_Sample	11:04 AM	11:04 AM	11:04 AM	11:04 AM	11:04 AM	10:36 AM	10:36 AM
Crew_Recorder	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge
Crew_Other1	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley
Crew_Other2	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes
Crew_Other3	T. Spaulding	T. Spaulding	T. Spaulding	T. Spaulding	T. Spaulding	T. Spaulding	T. Spaulding
GPS_Device1	iPAD	iPAD	iPAD	iPAD	iPAD	iPAD	iPAD
GPS_Device2	na	na	na	na	na	na	na
Emergent_Vegetation_percent	5	5	5	5	5	20	20
Submerged_Algae_percent	0	0	0	0	0	0	0
Submerged_Other_percent	95	95	95	95	95	55	55
Surface_Algae_percent	0	0	0	0	0	0	0
Surface_Other_percent	0	0	0	0	0	25	25
Location_Sample_Time	11:28 AM	11:36 AM	11:38 AM	11:42 AM	11:44 AM	10:36 AM	10:40 AM
Location_Depth_feet	16	1.2	11	10	1.5	19.5	1.5
Location_Distance_from_Shore_feet	70	1	70	100	2	70	15
Location_Comments	mud	mud	mud	mud	mud	mud	silt
Turbidity_NTU1	na	na	na	na	na	3.57	na
Turbidity_NTU2	na	na	na	na	na	na	na
Water_Temp_degC	na	na	na	na	na	9.1	na
Conductivity_μS*cm-1	na	na	na	na	na	318.0	na
pH	na	na	na	na	na	7.28	na
DO_percent	na	na	na	na	na	72.7	na
DO_mg*L-1	na	na	na	na	na	8.38	na
Notes	na	na	na	na	na	na	na

Site	LT2	LT2	LT2	LT2	LT2	LT2	LT2
Location	B	B	C	C	D	D	E
Location_Method	Midchannel	Nearshore	Midchannel	Nearshore	Nearshore	Midchannel	Nearshore
Date	10/16/2019	10/16/2019	10/16/2019	10/16/2019	10/16/2019	10/16/2019	10/16/2019
Time_Arrival	10:30 AM	10:30 AM	10:30 AM	10:30 AM	10:30 AM	10:30 AM	10:30 AM
Time_Departure	11:25 AM	11:25 AM	11:25 AM	11:25 AM	11:25 AM	11:25 AM	11:25 AM
Time_First_Sample	10:36 AM	10:36 AM	10:36 AM	10:36 AM	10:36 AM	10:36 AM	10:36 AM
Crew_Recorder	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge
Crew_Other1	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley
Crew_Other2	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes
Crew_Other3	T. Spaulding	T. Spaulding	T. Spaulding	T. Spaulding	T. Spaulding	T. Spaulding	T. Spaulding
GPS_Device1	iPAD	iPAD	iPAD	iPAD	iPAD	iPAD	iPAD
GPS_Device2	na	na	na	na	na	na	na
Emergent_Vegetation_percent	20	20	20	20	20	20	20
Submerged_Algae_percent	0	0	0	0	0	0	0
Submerged_Other_percent	55	55	55	55	55	55	55
Surface_Algae_percent	0	0	0	0	0	0	0
Surface_Other_percent	25	25	25	25	25	25	25
Location_Sample_Time	10:47 AM	10:54 AM	10:58 AM	11:00 AM	11:07 AM	11:15 AM	11:18 AM
Location_Depth_feet	12.5	2.8	20	0.8	0.5	7.5	1.2
Location_Distance_from_Shore_feet	30	3	50	1.2	0.5	30	5
Location_Comments	mud	Sand; very vegetated	mud	mud	sand	mud	silt
Turbidity_NTU1	na	na	na	na	na	na	na
Turbidity_NTU2	na	na	na	na	na	na	na
Water_Temp_degC	na	na	na	na	na	na	na
Conductivity_μS*cm-1	na	na	na	na	na	na	na
pH	na	na	na	na	na	na	na
DO_percent	na	na	na	na	na	na	na
DO_mg*L-1	na	na	na	na	na	na	na
Notes	na	na	na	na	na	na	na

Site	LT2	LT1	LT1	LT1	LT1	LT1	LT1	LT1	LT1
Location	E	A	A	E	E	B	B	C	C
Location_Method	Midchannel	Midchannel	Nearshore	Midchannel	Nearshore	Midchannel	Nearshore	Midchannel	Nearshore
Date	10/16/2019	10/16/2019	10/16/2019	10/16/2019	10/16/2019	10/16/2019	10/16/2019	10/16/2019	10/16/2019
Time_Arrival	10:30 AM	11:45 AM	11:45 AM	11:45 AM	11:45 AM	11:45 AM	11:45 AM	11:45 AM	11:45 AM
Time_Departure	11:25 AM	12:40 PM	12:40 PM	12:40 PM	12:40 PM	12:40 PM	12:40 PM	12:40 PM	12:40 PM
Time_First_Sample	10:36 AM	11:54 AM	11:54 AM	11:54 AM	11:54 AM	11:54 AM	11:54 AM	11:54 AM	11:54 AM
Crew_Recorder	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge
Crew_Other1	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley
Crew_Other2	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes
Crew_Other3	T. Spaulding	T. Spaulding	T. Spaulding	T. Spaulding	T. Spaulding	T. Spaulding	T. Spaulding	T. Spaulding	T. Spaulding
GPS_Device1	iPAD	iPAD	iPAD	iPAD	iPAD	iPAD	iPAD	iPAD	iPAD
GPS_Device2	na	na	na	na	na	na	na	na	na
Emergent_Vegetation_percent	20	20	20	20	20	20	20	20	20
Submerged_Algae_percent	0	0	0	0	0	0	0	0	0
Submerged_Other_percent	55	55	55	55	55	55	55	55	55
Surface_Algae_percent	0	0	0	0	0	0	0	0	0
Surface_Other_percent	25	25	25	25	25	25	25	25	25
Location_Sample_Time	11:22 AM	11:54 AM	11:56 AM	12:00 PM	12:09 PM	12:15 PM	12:17 PM	12:18 PM	12:22 PM
Location_Depth_feet	18	12	1.2	8.5	1.8	11	0.8	8	1.8
Location_Distance_from_Shore_feet	100	50	2	20	3	30	2	100	3
Location_Comments	mud	mud	mud	mud	silt	mud	mud	mud	silt
Turbidity_NTU1	na	3.74	na	na	na	na	na	na	na
Turbidity_NTU2	na	na	na	na	na	na	na	na	na
Water_Temp_degC	na	10.1	na	na	na	na	na	na	na
Conductivity_μS*cm-1	na	297.0	na	na	na	na	na	na	na
pH	na	7.49	na	na	na	na	na	na	na
DO_percent	na	81.1	na	na	na	na	na	na	na
DO_mg*L-1	na	9.13	na	na	na	na	na	na	na
Notes	na	na	na	na	Site location changed due to heavy vegetation making it inaccessible for boat	na	na	na	na

Site	LT1	LT1
Location	D	D
Location_Method	Midchannel	Nearshore
Date	10/16/2019	10/16/2019
Time_Arrival	11:45 AM	11:45 AM
Time_Departure	12:40 PM	12:40 PM
Time_First_Sample	11:54 AM	11:54 AM
Crew_Recorder	K. Berridge	K. Berridge
Crew_Other1	N. Dunkley	N. Dunkley
Crew_Other2	C. Reyes	C. Reyes
Crew_Other3	T. Spaulding	T. Spaulding
GPS_Device1	iPAD	iPAD
GPS_Device2	na	na
Emergent_Vegetation_percent	20	20
Submerged_Algae_percent	0	0
Submerged_Other_percent	55	55
Surface_Algae_percent	0	0
Surface_Other_percent	25	25
Location_Sample_Time	12:25 PM	12:27 PM
Location_Depth_feet	11	1.2
Location_Distance_from_Shore_feet	60	3
Location_Comments	mud	sand
Turbidity_NTU1	na	na
Turbidity_NTU2	na	na
Water_Temp_degC	na	na
Conductivity_μS*cm-1	na	na
pH	na	na
DO_percent	na	na
DO_mg*L-1	na	na
Notes	na	na

Appendix D

Fish Assemblage Data Summaries

APPENDIX D
Fish Assemblage Data Summaries

Boat Electrofishing Events

Site	ML6	ML6	ML6	ML6	ML6	ML5	ML5	ML5	ML5	ML5
Location	D	E	C	B	A	C	B	A	E	D
Date	6/25/2019	6/25/2019	6/25/2019	6/25/2019	6/25/2019	6/25/2019	6/25/2019	6/25/2019	6/25/2019	6/25/2019
Crew_Recorder	M. Silva	M. Silva	M. Silva	M. Silva	M. Silva	M. Silva	M. Silva	M. Silva	M. Silva	M. Silva
Crew_Other1	R. Fuller	R. Fuller	R. Fuller	R. Fuller	R. Fuller	R. Fuller	R. Fuller	R. Fuller	R. Fuller	R. Fuller
Crew_Other2	A. Lopez	A. Lopez	A. Lopez	A. Lopez	A. Lopez	A. Lopez	A. Lopez	A. Lopez	A. Lopez	A. Lopez
Crew_Other3	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes
Amps	4	4	4	4	4	6	6	6	6	6
Current_type	Pulsed DC	Pulsed DC	Pulsed DC	Pulsed DC	Pulsed DC	Pulsed DC	Pulsed DC	Pulsed DC	Pulsed DC	Pulsed DC
Power_percent	65	65	65	65	65	55	55	55	55	55
Power_range	na	na	na	na	na	High	High	High	High	High
Duty_Cycle	60	60	60	60	60	60	60	60	60	60
Start_Time	12:01 PM	11:40 AM	11:18 AM	11:01 AM	10:41 AM	1:04 PM	1:20 PM	1:35 PM	12:21 PM	12:45 PM
End_Time	12:10 PM	11:44 AM	11:22 AM	11:07 AM	10:46 AM	1:08 PM	1:24 PM	1:38 PM	na	12:48 PM
Duration_seconds	122	173	100	272	107	198	149	110	170	100
Distance_meters	50	50	50	50	50	50	50	50	50	50
Turbidity_NTU	4.03	na	na	na	4.08	na	na	4.14	na	na
Water_Temp_degC	21.5	na	na	na	20.5	na	na	20.8	21.0	na
Conductivity_μS*cm-1	111.6	na	na	na	112.5	na	na	92.7	106.3	na
pH	na	na	na	na	na	na	na	na	na	na
DO_percent	105.8	na	na	na	97.4	na	na	115.1	108.9	na
DO_mg*L-1	9.40	na	na	na	8.76	na	na	10.32	9.72	na
Notes	na	na	na	Several fish observed shocked but not fully knocked out in water offshore in 8-13' depth. Most fish captured in water <4' along shore.	Shocked center channel, 80 m of shoreline	Distance shocked = center channel length	Many fish (mostly bluegill) shocked but lodged in between rocks/boulders and not captured	na	Increased power for this site. Forgot to record end time.	na

Boat Electrofishing Events

Site	ML4	ML4	ML4	ML4	ML4	MRL2	MRL2	MRL2	MRL2	MRL2	MRL1
Location	E	D	C	B	A	D	E	B	C	A	E
Date	6/25/2019	6/25/2019	6/25/2019	6/25/2019	6/25/2019	6/26/2019	6/26/2019	6/26/2019	6/26/2019	6/26/2019	6/26/2019
Crew_Recorder	M. Silva	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes
Crew_Other1	R. Fuller	R. Fuller	R. Fuller	R. Fuller	R. Fuller	R. Fuller	R. Fuller	R. Fuller	R. Fuller	R. Fuller	R. Fuller
Crew_Other2	A. Lopez	A. Lopez	A. Lopez	A. Lopez	A. Lopez	A. Lopez	A. Lopez	A. Lopez	A. Lopez	A. Lopez	A. Lopez
Crew_Other3	C. Reyes	M. Silva	M. Silva	M. Silva	M. Silva	M. Silva	M. Silva	M. Silva	M. Silva	M. Silva	M. Silva
Amps	6	6	5	5	5	5	5	5	4	5	5
Current_type	Pulsed DC	Pulsed DC	Pulsed DC	Pulsed DC	Pulsed DC	Pulsed DC	Pulsed DC	Pulsed DC	Pulsed DC	Pulsed DC	Pulsed DC
Power_percent	55	55	55	55	55	55	55	60	80	60	60
Power_range	High	High	High	High	High	High	High	High	Low	High	High
Duty_Cycle	60	60	60	60	60	60	60	60	60	60	60
Start_Time	2:08 PM	2:29 PM	2:50 PM	3:30 PM	3:07 PM	8:56 AM	8:41 AM	9:22 AM	9:11 AM	9:36 AM	9:56 AM
End_Time	2:14 PM	2:36 PM	2:58 PM	3:39 PM	3:15 PM	9:03 AM	8:47 AM	9:24 AM	9:18 AM	9:42 AM	10:03 AM
Duration_seconds	145	224	186	237	250	145	225	118	179	155	222
Distance_meters	50	50	50	50	50	50	50	50	50	50	50
Turbidity_NTU	3.94	na	na	3.55	na	na	2.38	na	na	4.5	2.75
Water_Temp_degC	21.3	na	na	19.5	na	na	18.6	na	na	18.3	18.1
Conductivity_μS*cm-1	96.2	na	na	90.2	na	na	91.6	na	na	85.3	81.6
pH	na	na	na	na	na	na	na	na	na	na	na
DO_percent	109.9	na	na	103.1	na	na	115.0	na	na	100.1	92.9
DO_mg*L-1	9.78	na	na	9.48	na	na	10.76	na	na	9.41	8.78
Notes	na	na	na	na	na	10-15' deep; Fish observed, but too deep to catch.	8-10' depth; fish observed but too deep to catch.	6-8' depth	At 43 seconds, settings changed to 60% power/high range. 10-16' depth; fish observed but too deep to catch.	na	na

Boat Electrofishing Events

Site	MRL1	MRL1	MRL1	MRL1	ML3	ML3	ML3	ML3	ML3	ML2
Location	D	C	B	A	D	E	B	C	A	E
Date	6/26/2019	6/26/2019	6/26/2019	6/26/2019	6/26/2019	6/26/2019	6/26/2019	6/26/2019	6/26/2019	6/26/2019
Crew_Recorder	C. Reyes	C. Reyes	C. Reyes	C. Reyes	A. Lopez	A. Lopez	A. Lopez	A. Lopez	A. Lopez	A. Lopez
Crew_Other1	R. Fuller	R. Fuller	R. Fuller	R. Fuller	R. Fuller	R. Fuller	R. Fuller	R. Fuller	R. Fuller	R. Fuller
Crew_Other2	A. Lopez	A. Lopez	A. Lopez	A. Lopez	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes
Crew_Other3	M. Silva	M. Silva	M. Silva	M. Silva	M. Silva	M. Silva	M. Silva	M. Silva	M. Silva	M. Silva
Amps	5	5	4	4	4	5	4	4	5	4.5
Current_type	Pulsed DC	Pulsed DC	Pulsed DC	Pulsed DC	Pulsed DC	Pulsed DC	Pulsed DC	Pulsed DC	Pulsed DC	Pulsed DC
Power_percent	60	na	60	60	60	60	60	60	60	60
Power_range	High	na	High	High	High	High	High	High	High	High
Duty_Cycle	60	60	60	60	60	60	60	60	60	60
Start_Time	10:14 AM	10:33 AM	10:50 AM	11:08 AM	12:12 PM	11:58 AM	12:38 PM	12:24 PM	12:58 PM	1:48 PM
End_Time	10:21 AM	10:37 AM	10:56 AM	11:12 AM	12:16 PM	12:03 PM	12:42 PM	12:31 PM	1:03 PM	1:56 PM
Duration_seconds	168	144	211	150	128	105	140	168	169	129
Distance_meters	50	50	50	50	50	50	50	50	50	50
Turbidity_NTU	na	na	na	2.61	na	2.57	na	na	2.1	2.55
Water_Temp_degC	na	na	na	18.5	na	19.3	na	na	19.0	19.4
Conductivity_μS*cm-1	na	na	na	82.2	na	92.4	na	na	87.4	78.4
pH	na	na	na	na	na	na	na	na	na	na
DO_percent	na	na	na	88.2	na	100.6	na	na	98.9	103.7
DO_mg*L-1	na	na	na	8.29	na	9.30	na	na	9.16	9.55
Notes	na	na	Water quality captured in MRL1a; Efishing site in MRL1b due to public - not safe to efish MRL1a	na	na	na	na	na	na	na

Boat Electrofishing Events

Site	ML2	ML2	ML2	ML2	ML1	ML1	ML1	ML1	ML1	LT2	LT2
Location	D	C	B	A	E	D	C	B	A	B	A
Date	6/26/2019	6/26/2019	6/26/2019	6/26/2019	6/26/2019	6/26/2019	6/26/2019	6/26/2019	6/26/2019	6/27/2019	6/27/2019
Crew_Recorder	A. Lopez	A. Lopez	A. Lopez	A. Lopez	A. Lopez	A. Lopez	A. Lopez	A. Lopez	A. Lopez	A. Lopez	A. Lopez
Crew_Other1	R. Fuller	R. Fuller	R. Fuller	R. Fuller	R. Fuller	R. Fuller	R. Fuller	R. Fuller	R. Fuller	R. Fuller	R. Fuller
Crew_Other2	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes
Crew_Other3	M. Silva	M. Silva	M. Silva	M. Silva	M. Silva	M. Silva	M. Silva	M. Silva	M. Silva	M. Silva	M. Silva
Amps	4.5	4.5	4.5	na	4.5	4.5	4	4	4.5	8	6
Current_type	Pulsed DC	Pulsed DC	Pulsed DC	Pulsed DC	Pulsed DC	Pulsed DC	Pulsed DC	Pulsed DC	Pulsed DC	Pulsed DC	Pulsed DC
Power_percent	60	60	60	60	60	60	60	60	60	40	20
Power_range	High	High	High	High	High	High	High	High	High	High	High
Duty_Cycle	60	60	60	60	60	60	60	60	60	60	60
Start_Time	2:06 PM	2:23 PM	2:40 PM	2:58 PM	4:14 PM	4:27 PM	4:45 PM	3:57 PM	3:15 PM	9:28 AM	9:03 AM
End_Time	2:11 PM	2:30 PM	2:46 PM	3:03 PM	4:19 PM	4:33 PM	4:50 PM	4:00 PM	3:25 PM	9:34 AM	9:10 AM
Duration_seconds	162	137	137	105	137	142	140	82	170	186	232
Distance_meters	50	50	50	50	50	50	50	50	50	50	50
Turbidity_NTU	na	na	na	1.87	na	1.8	na	na	2.04	na	2.99
Water_Temp_degC	na	na	na	19.0	na	19.3	na	na	18.8	na	17.7
Conductivity_μS*cm-1	na	na	na	81.7	na	82.6	na	na	85.2	na	260.0
pH	na	na	na	na	na	na	na	na	na	na	na
DO_percent	na	na	na	94.0	na	96.6	na	na	96.0	na	91.9
DO_mg*L-1	na	na	na	8.74	na	8.93	na	na	8.95	na	8.75
Notes	na	na	na	na	na	na	na	na	na	Switched to 40% high range	Switched to 20% high range

Boat Electrofishing Events

Site	LT2	LT2	LT2	LT1	LT1	LT1	LT1	LT1	ML1	ML1	ML1
Location	D	C	E	A	B	E	D	C	A	B	C
Date	6/27/2019	6/27/2019	6/27/2019	6/27/2019	6/27/2019	6/27/2019	6/27/2019	6/27/2019	10/8/2019	10/8/2019	10/8/2019
Crew_Recorder	A. Lopez	A. Lopez	A. Lopez	A. Lopez	A. Lopez	A. Lopez	A. Lopez	A. Lopez	A. Lopez	A. Lopez	A. Lopez
Crew_Other1	R. Fuller	R. Fuller	R. Fuller	R. Fuller	R. Fuller	R. Fuller	R. Fuller	R. Fuller	C. Reyes	C. Reyes	C. Reyes
Crew_Other2	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Turner	C. Turner	C. Turner
Crew_Other3	M. Silva	M. Silva	M. Silva	M. Silva	M. Silva	M. Silva	M. Silva	M. Silva	R. Fuller	R. Fuller	R. Fuller
Amps	8	8	8	8	8	8.5	8	8	4	5	5
Current_type	Pulsed DC	Pulsed DC	Pulsed DC	Pulsed DC	Pulsed DC	Pulsed DC	Pulsed DC	Pulsed DC	Pulsed DC	Pulsed DC	Pulsed DC
Power_percent	60	60	60	60	60	60	60	60	75	75	75
Power_range	Low	Low	Low	Low	Low	Low	Low	Low	High	High	High
Duty_Cycle	60	60	60	60	60	60	60	60	60	60	60
Start_Time	10:07 AM	9:47 AM	10:25 AM	10:37 AM	11:15 AM	10:56 AM	11:45 AM	11:25 AM	11:41 AM	11:34 AM	11:55 AM
End_Time	10:15 AM	9:54 AM	10:27 AM	10:41 AM	11:18 AM	10:59 AM	11:48 AM	11:28 AM	11:46 AM	11:37 AM	12:03 PM
Duration_seconds	280	175	110	160	148	116	99	140	120	98	163
Distance_meters	50	50	50	50	50	50	50	50	50	50	50
Turbidity_NTU	na	na	3.41	na	na	3.38	3.12	na	na	2.41	na
Water_Temp_degC	na	na	19.2	na	na	17.1	20.5	na	na	13.4	na
Conductivity_μS*cm-1	na	na	232.0	na	na	260.0	223.0	na	na	92.1	na
pH	na	na	na	na	na	na	na	na	na	8.55	na
DO_percent	na	na	87.4	na	na	85.1	91.0	na	na	88.3	na
DO_mg*L-1	na	na	8.08	na	na	8.18	8.23	na	na	9.23	na
Notes	Heavy lily pad cover, difficult to shock and net fish	Switched to 60% low range	na	na	na	na	na	na	na	Rainbow trout found by bubble curtain	na

Boat Electrofishing Events

Site	ML1	ML1	ML2	ML2	ML2	ML2	ML2	ML3	ML3	ML3
Location	D	E	A	B	D	C	E	A	B	C
Date	10/8/2019	10/8/2019	10/8/2019	10/8/2019	10/8/2019	10/8/2019	10/8/2019	10/7/2019	10/7/2019	10/7/2019
Crew_Recorder	A. Lopez	A. Lopez	A. Lopez	A. Lopez	A. Lopez	A. Lopez	A. Lopez	A. Lopez	A. Lopez	A. Lopez
Crew_Other1	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes
Crew_Other2	C. Turner	C. Turner	C. Turner	C. Turner	C. Turner	C. Turner	C. Turner	C. Turner	C. Turner	C. Turner
Crew_Other3	R. Fuller	R. Fuller	R. Fuller	R. Fuller	R. Fuller	R. Fuller	R. Fuller	R. Fuller	R. Fuller	R. Fuller
Amps	5	5	5	5	5	5	4	5	4	4
Current_type	Pulsed DC	Pulsed DC	Pulsed DC	Pulsed DC	Pulsed DC	Pulsed DC	Pulsed DC	Pulsed DC	Pulsed DC	Pulsed DC
Power_percent	75	75	75	75	75	75	75	55	55	55
Power_range	High	High	High	High	High	High	High	High	High	High
Duty_Cycle	60	60	60	60	60	60	60	60	60	60
Start_Time	12:15 PM	12:31 PM	1:18 PM	1:42 PM	2:35 PM	1:57 PM	2:18 PM	3:32 PM	3:13 PM	2:57 PM
End_Time	12:21 PM	12:36 PM	1:28 PM	1:48 PM	2:45 PM	2:07 PM	2:23 PM	3:38 PM	3:17 PM	3:01 PM
Duration_seconds	162	120	179	137	170	137	93	124	124	101
Distance_meters	50	50	50	50	50	50	50	50	50	50
Turbidity_NTU	na	3.72	3.86	na	2.50	na	na	4.37	na	na
Water_Temp_degC	na	13.9	14.3	na	13.9	na	na	14.7	na	na
Conductivity_μS*cm-1	na	95.8	94.3	na	98.8	na	na	102.3	na	na
pH	na	7.89	8.68	na	8.75	na	na	8.48	na	na
DO_percent	na	79.2	91.8	na	93.6	na	na	92	na	na
DO_mg*L-1	na	8.15	9.40	na	9.65	na	na	9.34	na	na
Notes	na	na	Survey section divided into two parts	na	na	na	na	na	na	na

Boat Electrofishing Events

Site	ML3	ML3	MRL1	MRL1	MRL1	MRL1	MRL1	MRL1	MRL2	MRL2	MRL2
Location	D	E	A	B	C	D	E	A	B	C	
Date	10/7/2019	10/7/2019	10/8/2019	10/8/2019	10/8/2019	10/8/2019	10/8/2019	10/8/2019	10/8/2019	10/8/2019	10/8/2019
Crew_Recorder	A. Lopez	A. Lopez	A. Lopez	A. Lopez	A. Lopez	A. Lopez	A. Lopez	A. Lopez	A. Lopez	A. Lopez	A. Lopez
Crew_Other1	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes
Crew_Other2	C. Turner	C. Turner	C. Turner	C. Turner	C. Turner	C. Turner	C. Turner	C. Turner	C. Turner	C. Turner	C. Turner
Crew_Other3	R. Fuller	R. Fuller	R. Fuller	R. Fuller	R. Fuller	R. Fuller	R. Fuller	R. Fuller	R. Fuller	R. Fuller	R. Fuller
Amps	4	5	6	6	7	7	7	7	7	7	7
Current_type	Pulsed DC	Pulsed DC	Pulsed DC	Pulsed DC	Pulsed DC	Pulsed DC	Pulsed DC	Pulsed DC	Pulsed DC	Pulsed DC	Pulsed DC
Power_percent	55	55	75	75	75	75	75	75	75	75	75
Power_range	High	High	High	High	High	High	High	High	High	High	High
Duty_Cycle	60	60	60	60	60	60	60	60	60	60	60
Start_Time	2:45 PM	2:34 PM	10:50 AM	10:35 AM	10:26 AM	10:13 AM	9:51 AM	9:32 AM	9:21 AM	9:13 AM	
End_Time	2:50 PM	2:39 PM	10:57 AM	10:41 AM	10:31 AM	10:19 AM	10:01 AM	9:41 AM	9:25 AM	9:17 AM	
Duration_seconds	131	120	195	162	150	153	234	152	108	104	
Distance_meters	50	50	50	50	50	50	50	50	50	50	
Turbidity_NTU	na	3.70	3.68	na	na	na	3.32	2.96	na	na	
Water_Temp_degC	na	13.9	13.0	na	na	na	12.7	12.6	na	na	
Conductivity_μS*cm-1	na	103.5	93.0	na	na	na	93.9	97.5	na	na	
pH	na	8.17	9.40	na	na	na	8.51	7.98	na	na	
DO_percent	na	85.9	107.7	na	na	na	86.1	76.7	na	na	
DO_mg*L-1	na	8.94	11.37	na	na	na	9.15	8.16	na	na	
Notes	na	na	Very dense submerged aquatic vegetation; Water quality measured out on the lake on 10/8/2019 at 12 ft deep - Turbidity: 1.42 NTU, pH: 8.20, DO: 83.5%, 8.55mg/L, Temp: 57.8 deg F, Conductivity: 86.4 μS*cm-1	na	na	Surface algae bloom near boat docks; Unknown sucker had damaged mouth - photo taken on C. Turner's phone	na	Surface algae bloom and submerged aquatic vegetation created very poor in-water visibility	na	Shocked only at sheet pile. 3 non-adjacent lengths; No fish caught	

Boat Electrofishing Events

Site	MRL2	MRL2	ML4	ML4	ML4	ML4	ML4	ML5	ML5	ML5
Location	D	E	A	B	C	D	E	A	B	C
Date	10/8/2019	10/8/2019	10/7/2019	10/7/2019	10/7/2019	10/7/2019	10/7/2019	10/7/2019	10/7/2019	10/7/2019
Crew_Recorder	A. Lopez	A. Lopez	A. Lopez	A. Lopez	A. Lopez	A. Lopez	A. Lopez	A. Lopez	A. Lopez	A. Lopez
Crew_Other1	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes
Crew_Other2	C. Turner	C. Turner	C. Turner	C. Turner	C. Turner	C. Turner	C. Turner	C. Turner	C. Turner	C. Turner
Crew_Other3	R. Fuller	R. Fuller	R. Fuller	R. Fuller	R. Fuller	R. Fuller	R. Fuller	R. Fuller	R. Fuller	R. Fuller
Amps	7	7	4	4	4	6	6	6	6	6
Current_type	Pulsed DC	Pulsed DC	Pulsed DC	Pulsed DC	Pulsed DC	Pulsed DC	Pulsed DC	Pulsed DC	Pulsed DC	Pulsed DC
Power_percent	75	75	55	55	55	55	55	55	55	55
Power_range	High	High	High	High	High	High	High	High	High	High
Duty_Cycle	60	60	60	60	60	60	60	60	60	60
Start_Time	8:59 AM	8:49 AM	1:16 PM	12:58 PM	12:44 PM	12:29 PM	12:12 PM	11:49 AM	11:34 AM	11:25 AM
End_Time	9:06 AM	8:53 AM	1:20 PM	1:03 PM	12:51 PM	12:35 PM	12:18 PM	11:52 AM	11:40 AM	11:31 AM
Duration_seconds	138	1016	92	168	181	148	157	111	159	157
Distance_meters	50	50	50	50	50	50	50	50	50	50
Turbidity_NTU	na	4.36	6.55	na	na	na	3.67	6.60	na	na
Water_Temp_degC	na	12.5	12.9	na	na	na	13.7	13.1	na	na
Conductivity_μS*cm-1	na	104.6	105.6	na	na	na	109.8	101.5	na	na
pH	na	8.18	8.06	na	na	na	7.77	9.31	na	na
DO_percent	na	83.4	86.0	na	na	na	78.4	100.2	na	na
DO_mg*L-1	na	8.89	9.13	na	na	na	8.30	10.54	na	na
Notes	Shocked only at sheet pile walls, 3 non-adjacent lengths	na	Shocked along a sheet pile	na	na	na	na	Shocked along sheet pile wall; surface algae present	na	na

Boat Electrofishing Events

Site	ML5	ML5	ML6	ML6	ML6	ML6	ML6	LT2	LT2	LT2
Location	D	E	E	A	B	C	D	A	B	C
Date	10/7/2019	10/7/2019	10/7/2019	10/7/2019	10/7/2019	10/7/2019	10/7/2019	10/9/2019	10/9/2019	10/9/2019
Crew_Recorder	A. Lopez	A. Lopez	A. Lopez	A. Lopez	A. Lopez	A. Lopez	A. Lopez	A. Lopez	A. Lopez	A. Lopez
Crew_Other1	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes
Crew_Other2	C. Turner	C. Turner	C. Turner	C. Turner	C. Turner	C. Turner	C. Turner	C. Turner	C. Turner	C. Turner
Crew_Other3	R. Fuller	R. Fuller	R. Fuller	R. Fuller	R. Fuller	R. Fuller	R. Fuller	R. Fuller	R. Fuller	R. Fuller
Amps	6	6	8	8	8	8	8	7	6	6
Current_type	Pulsed DC	Pulsed DC	Pulsed DC	Pulsed DC	Pulsed DC	Pulsed DC	Pulsed DC	Pulsed DC	Pulsed DC	Pulsed DC
Power_percent	55	55	55	55	55	55	55	30	30	30
Power_range	High	High	High	High	High	High	High	High	High	High
Duty_Cycle	60	60	60	60	60	60	60	60	60	60
Start_Time	11:10 AM	10:55 AM	10:20 AM	9:10 AM	9:38 AM	9:54 AM	10:02 AM	8:50 AM	9:05 AM	9:16 AM
End_Time	11:19 AM	11:02 AM	10:26 AM	9:20 AM	9:45 AM	9:59 AM	10:10 AM	8:56 AM	9:10 AM	9:23 AM
Duration_seconds	154	173	123	202	148	70	119	206	135	145
Distance_meters	50	50	50	50	50	50	50	50	50	50
Turbidity_NTU	na	6.36	4.20	7.05	na	na	na	3.12	na	na
Water_Temp_degC	na	12.6	12.6	11.9	na	na	na	10.4	na	na
Conductivity_μS*cm-1	na	127.3	135.6	1456.6	na	na	na	320.0	na	na
pH	na	8.62	8.24	7.20	na	na	na	7.49	na	na
DO_percent	na	84.0	83.9	77.6	na	na	na	89.9	na	na
DO_mg*L-1	na	8.92	8.94	8.39	na	na	na	10.03	na	na
Notes	Surface algae bloom, poor in-water visibility	Thick submerged aquatic vegetation and surface algae bloom; 3 bluegill not measured	na	na	Surface algae bloom impaired in-water visibility	Surface algae bloom	na	na	na	na

Boat Electrofishing Events

Site	LT2	LT2	LT1	LT1	LT1	LT1	LT1
Location	D	E	A	C	D	B	E
Date	10/9/2019	10/9/2019	10/9/2019	10/9/2019	10/9/2019	10/9/2019	10/9/2019
Crew_Recorder	A. Lopez	A. Lopez	A. Lopez	A. Lopez	A. Lopez	A. Lopez	A. Lopez
Crew_Other1	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes
Crew_Other2	C. Turner	C. Turner	C. Turner	C. Turner	C. Turner	C. Turner	C. Turner
Crew_Other3	R. Fuller	R. Fuller	R. Fuller	R. Fuller	R. Fuller	R. Fuller	R. Fuller
Amps	6	6	6	5	5	6	6
Current_type	Pulsed DC	Pulsed DC	Pulsed DC	Pulsed DC	Pulsed DC	Pulsed DC	Pulsed DC
Power_percent	30	30	30	30	30	30	30
Power_range	High	High	High	High	High	High	High
Duty_Cycle	60	60	60	60	60	60	60
Start_Time	9:34 AM	9:53 AM	10:06 AM	10:57 AM	11:17 AM	10:43 AM	10:32 AM
End_Time	9:41 AM	9:58 AM	10:13 AM	11:05 AM	11:23 AM	10:48 AM	10:36 AM
Duration_seconds	189	164	191	204	130	170	112
Distance_meters	50	50	50	50	50	50	50
Turbidity_NTU	na	4.23	5.0	na	2.68	na	3.93
Water_Temp_degC	na	11.4	52.9	na	12.4	na	10.3
Conductivity_μS*cm-1	na	302.0	288.0	na	280.0	na	273.0
pH	na	7.52	8.08	na	8.50	na	7.47
DO_percent	na	81.1	95.5	na	101.4	na	73.3
DO_mg*L-1	na	8.84	10.39	na	10.80	na	8.25
Notes	One Bullfrog	na	na	na	na	na	na

Boat Electrofishing Fish Catch

Site	Location	Date	Species Code	Total Length (mm)	Weight (g)
ML6	D	6/25/2019	Bluegill	163	100.6
ML6	D	6/25/2019	Bluegill	150	75.4
ML6	D	6/25/2019	Bluegill	83	12.5
ML6	D	6/25/2019	Bluegill	169	97.3
ML6	D	6/25/2019	Bluegill	121	32.3
ML6	D	6/25/2019	Largemouth Bass	311	385.7
ML6	E	6/25/2019	Bluegill	151	67.6
ML6	E	6/25/2019	Bluegill	157	78.8
ML6	E	6/25/2019	Bluegill	134	52.2
ML6	E	6/25/2019	Bluegill	168	103.0
ML6	E	6/25/2019	Bluegill	135	52.2
ML6	E	6/25/2019	Bluegill	79	9.8
ML6	E	6/25/2019	Bluegill	161	91.3
ML6	E	6/25/2019	Bluegill	164	87.5
ML6	E	6/25/2019	Bluegill	185	168.4
ML6	E	6/25/2019	Bluegill	143	59.6
ML6	E	6/25/2019	Bluegill	na	na
ML6	E	6/25/2019	Goldfish	222	217.7
ML6	E	6/25/2019	Largemouth Bass	168	53.8
ML6	E	6/25/2019	Brown Bullhead	272	254.7
ML6	C	6/25/2019	Largemouth Bass	246	185.4
ML6	C	6/25/2019	Largemouth Bass	122	18.3
ML6	C	6/25/2019	Largemouth Bass	163	50.4
ML6	C	6/25/2019	Largemouth Bass	112	15.3
ML6	C	6/25/2019	Bluegill	151	70.2
ML6	C	6/25/2019	Bluegill	150	65.6
ML6	B	6/25/2019	Largemouth Bass	116	17.4
ML6	B	6/25/2019	Largemouth Bass	104	15.3
ML6	B	6/25/2019	Largemouth Bass	163	47.2
ML6	B	6/25/2019	Bluegill	156	71.8
ML6	B	6/25/2019	Bluegill	157	78.5
ML6	B	6/25/2019	Bluegill	82	12.4
ML6	B	6/25/2019	Bluegill	154	75.4
ML6	B	6/25/2019	Bluegill	154	82.5
ML6	B	6/25/2019	Bluegill	165	94.4
ML6	B	6/25/2019	Bluegill	127	39.3
ML6	B	6/25/2019	Tahoe Sucker	293	228.2
ML6	B	6/25/2019	Brown Bullhead	203	119.6
ML6	A	6/25/2019	Largemouth Bass	235	226.5
ML6	A	6/25/2019	Largemouth Bass	148	41.7
ML6	A	6/25/2019	Largemouth Bass	109	16.9
ML6	A	6/25/2019	Bluegill	132	48.2
ML6	A	6/25/2019	Bluegill	168	110.2
ML6	A	6/25/2019	Bluegill	150	92.3

Site	Location	Date	Species Code	Total Length (mm)	Weight (g)
ML6	A	6/25/2019	Bluegill	136	64.5
ML6	A	6/25/2019	Bluegill	146	79.1
ML6	A	6/25/2019	Bluegill	151	85.3
ML6	A	6/25/2019	Bluegill	84	13.9
ML6	A	6/25/2019	Brown Bullhead	195	94.5
ML6	A	6/25/2019	Brown Bullhead	274	251.1
ML5	C	6/25/2019	Bluegill	137	47.2
ML5	C	6/25/2019	Bluegill	137	43.6
ML5	C	6/25/2019	Bluegill	112	26.5
ML5	C	6/25/2019	Largemouth Bass	148	32.3
ML5	C	6/25/2019	Largemouth Bass	355	537.9
ML5	C	6/25/2019	Largemouth Bass	162	45.7
ML5	C	6/25/2019	Largemouth Bass	498	2200.0
ML5	C	6/25/2019	Brown Bullhead	193	106.9
ML5	C	6/25/2019	Brown Bullhead	162	64.8
ML5	C	6/25/2019	Brown Bullhead	187	91.8
ML5	C	6/25/2019	Brown Bullhead	194	102.7
ML5	C	6/25/2019	Tahoe Sucker	197	85.5
ML5	B	6/25/2019	Bluegill	140	41.4
ML5	B	6/25/2019	Largemouth Bass	111	15.2
ML5	B	6/25/2019	Largemouth Bass	284	287.1
ML5	B	6/25/2019	Largemouth Bass	480	2100.0
ML5	B	6/25/2019	Tahoe Sucker	149	34.3
ML5	B	6/25/2019	Tahoe Sucker	241	147.9
ML5	B	6/25/2019	Black Crappie	129	25.7
ML5	A	6/25/2019	Largemouth Bass	104	10.6
ML5	A	6/25/2019	Largemouth Bass	103	10.9
ML5	A	6/25/2019	Largemouth Bass	152	40.8
ML5	A	6/25/2019	Largemouth Bass	424	1200.0
ML5	A	6/25/2019	Bluegill	119	29.0
ML5	A	6/25/2019	Bluegill	127	36.1
ML5	A	6/25/2019	Tahoe Sucker	250	168.6
ML5	A	6/25/2019	Tahoe Sucker	316	414.2
ML5	A	6/25/2019	Tahoe Sucker	301	262.4
ML5	E	6/25/2019	Bluegill	127	40.9
ML5	E	6/25/2019	Bluegill	159	85.5
ML5	E	6/25/2019	Bluegill	155	75.5
ML5	E	6/25/2019	Bluegill	150	71.7
ML5	E	6/25/2019	Bluegill	158	81.2
ML5	E	6/25/2019	Bluegill	150	70.8
ML5	E	6/25/2019	Bluegill	163	93.2
ML5	E	6/25/2019	Bluegill	148	66.7
ML5	E	6/25/2019	Bluegill	147	62.3
ML5	E	6/25/2019	Bluegill	151	67.5

Boat Electrofishing Fish Catch

[illegible][illegible]

Boat Electrofishing Fish Catch

Site	Location	Date	Species Code	Total Length (mm)	Weight (g)
ML4	D	6/25/2019	Tahoe Sucker	312	319.9
ML4	D	6/25/2019	Brown Bullhead	190	98.6
ML4	D	6/25/2019	Largemouth Bass	319	445.8
ML4	D	6/25/2019	Largemouth Bass	350	596.6
ML4	D	6/25/2019	Largemouth Bass	425	1200.0
ML4	C	6/25/2019	Largemouth Bass	198	105.4
ML4	C	6/25/2019	Largemouth Bass	144	33.5
ML4	C	6/25/2019	Brown Bullhead	172	63.6
ML4	C	6/25/2019	Bluegill	126	37.7
ML4	C	6/25/2019	Bluegill	138	54.8
ML4	C	6/25/2019	Bluegill	124	34.5
ML4	C	6/25/2019	Bluegill	140	50.7
ML4	C	6/25/2019	Bluegill	126	40.2
ML4	C	6/25/2019	Bluegill	129	38.4
ML4	C	6/25/2019	Bluegill	145	54.2
ML4	C	6/25/2019	Bluegill	65	6.0
ML4	C	6/25/2019	Bluegill	143	56.6
ML4	C	6/25/2019	Bluegill	146	58.9
ML4	C	6/25/2019	Bluegill	na	na
ML4	C	6/25/2019	Bluegill	na	na
ML4	C	6/25/2019	Bluegill	na	na
ML4	C	6/25/2019	Tahoe Sucker	208	93.7
ML4	B	6/25/2019	Bluegill	130	38.3
ML4	B	6/25/2019	Bluegill	145	60.1
ML4	B	6/25/2019	Bluegill	170	93.2
ML4	B	6/25/2019	Bluegill	139	48.2
ML4	B	6/25/2019	Bluegill	123	33.3
ML4	B	6/25/2019	Bluegill	132	47.4
ML4	B	6/25/2019	Bluegill	150	59.1
ML4	B	6/25/2019	Bluegill	114	27.5
ML4	B	6/25/2019	Bluegill	154	68.5
ML4	B	6/25/2019	Bluegill	163	87.1
ML4	B	6/25/2019	Bluegill	na	na
ML4	B	6/25/2019	Bluegill	na	na
ML4	B	6/25/2019	Bluegill	na	na
ML4	B	6/25/2019	Bluegill	na	na
ML4	B	6/25/2019	Bluegill	na	na
ML4	B	6/25/2019	Bluegill	na	na
ML4	B	6/25/2019	Bluegill	na	na
ML4	B	6/25/2019	Bluegill	na	na
ML4	B	6/25/2019	Bluegill	na	na

Site	Location	Date	Species Code	Total Length (mm)	Weight (g)
ML4	B	6/25/2019	Bluegill	na	na
ML4	B	6/25/2019	Bluegill	na	na
ML4	B	6/25/2019	Bluegill	na	na
ML4	B	6/25/2019	Bluegill	na	na
ML4	B	6/25/2019	Bluegill	na	na
ML4	B	6/25/2019	Bluegill	na	na
ML4	B	6/25/2019	Bluegill	na	na
ML4	B	6/25/2019	Largemouth Bass	138	21.7
ML4	B	6/25/2019	Largemouth Bass	280	315.9
ML4	B	6/25/2019	Largemouth Bass	115	15.7
ML4	B	6/25/2019	Largemouth Bass	116	12.2
ML4	B	6/25/2019	Largemouth Bass	490	2400.0
ML4	B	6/25/2019	Tahoe Sucker	271	202.5
ML4	A	6/25/2019	Bluegill	144	56.0
ML4	A	6/25/2019	Bluegill	135	42.1
ML4	A	6/25/2019	Bluegill	143	53.1
ML4	A	6/25/2019	Largemouth Bass	158	39.5
ML4	A	6/25/2019	Largemouth Bass	204	104.6
ML4	A	6/25/2019	Largemouth Bass	214	121.7
ML4	A	6/25/2019	Largemouth Bass	119	15.2
ML4	A	6/25/2019	Largemouth Bass	106	12.2
ML4	A	6/25/2019	Largemouth Bass	362	784.5
ML4	A	6/25/2019	Brown Bullhead	158	55.0
ML4	A	6/25/2019	Brown Bullhead	195	98.2
ML4	A	6/25/2019	Brown Bullhead	185	84.3
ML4	A	6/25/2019	Brown Bullhead	204	105.9
ML4	A	6/25/2019	Brown Bullhead	198	113.6
ML4	A	6/25/2019	Brown Bullhead	172	63.4
ML4	A	6/25/2019	Brown Bullhead	209	139.4
ML4	A	6/25/2019	Brown Bullhead	161	56.9
ML4	A	6/25/2019	Brown Bullhead	320	487.4
ML4	A	6/25/2019	Brown Bullhead	194	112.5
ML4	A	6/25/2019	Brown Bullhead	na	na
ML4	A	6/25/2019	Goldfish	245	306.1
ML4	A	6/25/2019	Goldfish	249	343.3
MRL2	D	6/26/2019	Largemouth Bass	341	616.7
MRL2	D	6/26/2019	Largemouth Bass	252	233.6
MRL2	D	6/26/2019	Largemouth Bass	322	535.3
MRL2	D	6/26/2019	Largemouth Bass	377	792.8
MRL2	E	6/26/2019	Bluegill	170	110.7
MRL2	E	6/26/2019	Bluegill	176	128.3
MRL2	E	6/26/2019	Bluegill	150	68.0
MRL2	E	6/26/2019	Bluegill	146	60.5
MRL2	E	6/26/2019	Bluegill	172	113.2

Boat Electrofishing Fish Catch

Site	Location	Date	Species Code	Total Length (mm)	Weight (g)
MRL2	E	6/26/2019	Bluegill	167	114.2
MRL2	E	6/26/2019	Bluegill	168	105.9
MRL2	E	6/26/2019	Largemouth Bass	345	609.1
MRL2	E	6/26/2019	Largemouth Bass	299	370.5
MRL2	E	6/26/2019	Largemouth Bass	230	156.5
MRL2	E	6/26/2019	Largemouth Bass	237	194.1
MRL2	E	6/26/2019	Largemouth Bass	254	234.4
MRL2	E	6/26/2019	Largemouth Bass	329	582.5
MRL2	E	6/26/2019	Largemouth Bass	380	945.2
MRL2	E	6/26/2019	Largemouth Bass	401	983.5
MRL2	B	6/26/2019	Largemouth Bass	292	334.8
MRL2	B	6/26/2019	Largemouth Bass	239	207.1
MRL2	B	6/26/2019	Largemouth Bass	315	514.2
MRL2	B	6/26/2019	Largemouth Bass	257	242.3
MRL2	B	6/26/2019	Largemouth Bass	263	258.4
MRL2	C	6/26/2019	Largemouth Bass	393	976.4
MRL2	C	6/26/2019	Largemouth Bass	368	703.8
MRL2	A	6/26/2019	Goldfish	185	133.9
MRL2	A	6/26/2019	Goldfish	235	262.4
MRL2	A	6/26/2019	Tahoe Sucker	219	121.9
MRL2	A	6/26/2019	Tahoe Sucker	229	143.6
MRL2	A	6/26/2019	Largemouth Bass	285	335.6
MRL2	A	6/26/2019	Largemouth Bass	390	1000.0
MRL2	A	6/26/2019	Largemouth Bass	409	1100.0
MRL2	A	6/26/2019	Bluegill	124	28.9
MRL2	A	6/26/2019	Bluegill	85	7.9
MRL2	A	6/26/2019	Bluegill	146	57.3
MRL2	A	6/26/2019	Bluegill	129	40.4
MRL2	A	6/26/2019	Bluegill	124	37.6
MRL2	A	6/26/2019	Brown Bullhead	153	51.3
MRL2	A	6/26/2019	Brown Bullhead	170	61.8
MRL2	A	6/26/2019	Brown Bullhead	163	64.1
MRL2	A	6/26/2019	Brown Bullhead	147	42.0
MRL2	A	6/26/2019	Brown Bullhead	180	83.2
MRL2	A	6/26/2019	Brown Bullhead	318	497.9
MRL1	E	6/26/2019	Bluegill	95	11.6
MRL1	E	6/26/2019	Bluegill	140	53.2
MRL1	E	6/26/2019	Bluegill	100	17.7
MRL1	E	6/26/2019	Bluegill	118	25.2
MRL1	E	6/26/2019	Bluegill	100	19.3
MRL1	E	6/26/2019	Brown Bullhead	159	55.0
MRL1	E	6/26/2019	Brown Bullhead	178	76.4
MRL1	E	6/26/2019	Brown Bullhead	311	424.7
MRL1	E	6/26/2019	Brown Bullhead	270	306.7

Site	Location	Date	Species Code	Total Length (mm)	Weight (g)
MRL1	E	6/26/2019	Brown Bullhead	189	100.8
MRL1	E	6/26/2019	Largemouth Bass	199	114.4
MRL1	E	6/26/2019	Largemouth Bass	239	201.7
MRL1	E	6/26/2019	Largemouth Bass	304	405.4
MRL1	E	6/26/2019	Largemouth Bass	418	1300.0
MRL1	E	6/26/2019	Largemouth Bass	334	597.8
MRL1	E	6/26/2019	Largemouth Bass	383	1018.3
MRL1	E	6/26/2019	Largemouth Bass	372	722.0
MRL1	E	6/26/2019	Tahoe Sucker	180	73.7
MRL1	E	6/26/2019	Tahoe Sucker	150	37.5
MRL1	E	6/26/2019	Goldfish	225	233.5
MRL1	E	6/26/2019	Goldfish	219	235.2
MRL1	D	6/26/2019	Bluegill	128	34.0
MRL1	D	6/26/2019	Largemouth Bass	309	404.1
MRL1	D	6/26/2019	Largemouth Bass	234	202.3
MRL1	D	6/26/2019	Largemouth Bass	291	351.7
MRL1	D	6/26/2019	Largemouth Bass	264	259.8
MRL1	D	6/26/2019	Goldfish	199	178.1
MRL1	D	6/26/2019	Goldfish	209	195.8
MRL1	D	6/26/2019	Brown Bullhead	155	44.2
MRL1	D	6/26/2019	Brown Bullhead	168	73.7
MRL1	D	6/26/2019	Brown Bullhead	192	99.5
MRL1	D	6/26/2019	Brown Bullhead	246	223.1
MRL1	C	6/26/2019	Largemouth Bass	254	230.9
MRL1	C	6/26/2019	Largemouth Bass	364	703.5
MRL1	C	6/26/2019	Largemouth Bass	363	738.4
MRL1	C	6/26/2019	Largemouth Bass	300	455.7
MRL1	C	6/26/2019	Largemouth Bass	425	1215.5
MRL1	C	6/26/2019	Largemouth Bass	297	269.7
MRL1	C	6/26/2019	Largemouth Bass	261	266.7
MRL1	C	6/26/2019	Largemouth Bass	292	346.0
MRL1	C	6/26/2019	Largemouth Bass	314	542.8
MRL1	C	6/26/2019	Bluegill	62	1.5
MRL1	B	6/26/2019	Largemouth Bass	308	432.5
MRL1	B	6/26/2019	Largemouth Bass	336	723.5
MRL1	B	6/26/2019	Largemouth Bass	425	1400.0
MRL1	B	6/26/2019	Largemouth Bass	366	764.5
MRL1	B	6/26/2019	Largemouth Bass	315	512.5
MRL1	B	6/26/2019	Largemouth Bass	284	305.2
MRL1	B	6/26/2019	Largemouth Bass	187	113.7
MRL1	B	6/26/2019	Largemouth Bass	244	225.8
MRL1	B	6/26/2019	Largemouth Bass	346	575.9
MRL1	B	6/26/2019	Largemouth Bass	391	907.7
MRL1	B	6/26/2019	Bluegill	115	28.7

Boat Electrofishing Fish Catch

Site	Location	Date	Species Code	Total Length (mm)	Weight (g)
MRL1	B	6/26/2019	Bluegill	110	20.5
MRL1	B	6/26/2019	Brown Bullhead	303	381.3
MRL1	B	6/26/2019	Tahoe Sucker	132	24.3
MRL1	A	6/26/2019	Bluegill	114	22.7
MRL1	A	6/26/2019	Bluegill	103	14.2
MRL1	A	6/26/2019	Bluegill	192	96.6
MRL1	A	6/26/2019	Bluegill	98	13.7
MRL1	A	6/26/2019	Bluegill	155	64.8
MRL1	A	6/26/2019	Bluegill	117	27.2
MRL1	A	6/26/2019	Bluegill	94	14.4
MRL1	A	6/26/2019	Brown Bullhead	158	51.8
MRL1	A	6/26/2019	Brown Bullhead	185	89.5
MRL1	A	6/26/2019	Largemouth Bass	370	747.8
MRL1	A	6/26/2019	Largemouth Bass	384	1018.2
MRL1	A	6/26/2019	Largemouth Bass	450	1600.0
MRL1	A	6/26/2019	Largemouth Bass	294	421.7
MRL1	A	6/26/2019	Largemouth Bass	121	17.3
MRL1	A	6/26/2019	NOT RECORDED	70	3.3
ML3	D	6/26/2019	Bluegill	149	64.9
ML3	D	6/26/2019	Bluegill	57	3.5
ML3	D	6/26/2019	Bluegill	166	98.9
ML3	D	6/26/2019	Bluegill	135	36.1
ML3	D	6/26/2019	Bluegill	132	41.9
ML3	D	6/26/2019	Bluegill	101	18.1
ML3	D	6/26/2019	Bluegill	146	65.9
ML3	D	6/26/2019	Bluegill	154	68.2
ML3	D	6/26/2019	Bluegill	160	75.0
ML3	D	6/26/2019	Bluegill	152	73.2
ML3	D	6/26/2019	Bluegill	na	na
ML3	D	6/26/2019	Bluegill	na	na
ML3	D	6/26/2019	Bluegill	na	na
ML3	D	6/26/2019	Bluegill	na	na
ML3	D	6/26/2019	Largemouth Bass	185	87.8
ML3	D	6/26/2019	Largemouth Bass	192	81.9
ML3	D	6/26/2019	Largemouth Bass	202	110.0
ML3	D	6/26/2019	Largemouth Bass	120	19.5
ML3	E	6/26/2019	Largemouth Bass	137	30.7
ML3	E	6/26/2019	Largemouth Bass	162	45.6
ML3	E	6/26/2019	Largemouth Bass	120	17.4
ML3	E	6/26/2019	Largemouth Bass	370	786.0
ML3	E	6/26/2019	Largemouth Bass	308	329.0
ML3	E	6/26/2019	Bluegill	127	34.5
ML3	E	6/26/2019	Bluegill	116	30.1

Site	Location	Date	Species Code	Total Length (mm)	Weight (g)
ML3	E	6/26/2019	Bluegill	106	22.0
ML3	E	6/26/2019	Bluegill	148	72.0
ML3	E	6/26/2019	Bluegill	166	86.7
ML3	E	6/26/2019	Bluegill	137	48.9
ML3	E	6/26/2019	Bluegill	132	47.1
ML3	E	6/26/2019	Bluegill	137	48.5
ML3	E	6/26/2019	Bluegill	157	76.2
ML3	E	6/26/2019	Bluegill	71	6.7
ML3	E	6/26/2019	Brown Bullhead	315	480.0
ML3	B	6/26/2019	Largemouth Bass	150	36.5
ML3	B	6/26/2019	Largemouth Bass	129	28.5
ML3	B	6/26/2019	Bluegill	116	28.1
ML3	B	6/26/2019	Bluegill	136	46.6
ML3	B	6/26/2019	Bluegill	61	3.8
ML3	B	6/26/2019	Bluegill	73	5.2
ML3	B	6/26/2019	Bluegill	77	6.4
ML3	B	6/26/2019	Bluegill	135	48.1
ML3	B	6/26/2019	Bluegill	61	3.7
ML3	B	6/26/2019	Bluegill	120	32.4
ML3	B	6/26/2019	Bluegill	64	3.8
ML3	B	6/26/2019	Brown Bullhead	202	125.3
ML3	B	6/26/2019	Brown Bullhead	197	105.4
ML3	B	6/26/2019	Brown Bullhead	200	105.4
ML3	B	6/26/2019	Brown Bullhead	262	191.6
ML3	B	6/26/2019	Brown Bullhead	200	123.1
ML3	B	6/26/2019	Brown Bullhead	141	37.7
ML3	B	6/26/2019	Brown Bullhead	192	94.4
ML3	B	6/26/2019	Brown Bullhead	206	128.7
ML3	B	6/26/2019	Brown Bullhead	223	157.4
ML3	B	6/26/2019	Tahoe Sucker	162	43.3
ML3	C	6/26/2019	Largemouth Bass	155	40.2
ML3	C	6/26/2019	Largemouth Bass	133	25.2
ML3	C	6/26/2019	Largemouth Bass	119	16.7
ML3	C	6/26/2019	Largemouth Bass	192	82.4
ML3	C	6/26/2019	Largemouth Bass	341	485.0
ML3	C	6/26/2019	Largemouth Bass	123	20.7
ML3	C	6/26/2019	Bluegill	66	5.5
ML3	C	6/26/2019	Bluegill	170	97.2
ML3	C	6/26/2019	Bluegill	131	40.6
ML3	C	6/26/2019	Bluegill	166	87.2
ML3	C	6/26/2019	Bluegill	166	95.5
ML3	C	6/26/2019	Bluegill	159	84.8
ML3	C	6/26/2019	Bluegill	161	83.4
ML3	C	6/26/2019	Bluegill	131	42.9

Boat Electrofishing Fish Catch

Site	Location	Date	Species Code	Total Length (mm)	Weight (g)
ML3	C	6/26/2019	Bluegill	55	2.8
ML3	C	6/26/2019	Bluegill	134	44.5
ML3	C	6/26/2019	Bluegill	na	na
ML3	C	6/26/2019	Bluegill	na	na
ML3	C	6/26/2019	Bluegill	na	na
ML3	C	6/26/2019	Bluegill	na	na
ML3	C	6/26/2019	Bluegill	na	na
ML3	C	6/26/2019	Bluegill	na	na
ML3	C	6/26/2019	Bluegill	na	na
ML3	A	6/26/2019	Largemouth Bass	152	32.9
ML3	A	6/26/2019	Largemouth Bass	146	29.9
ML3	A	6/26/2019	Largemouth Bass	165	52.0
ML3	A	6/26/2019	Largemouth Bass	141	30.6
ML3	A	6/26/2019	Largemouth Bass	175	62.8
ML3	A	6/26/2019	Largemouth Bass	151	37.9
ML3	A	6/26/2019	Largemouth Bass	148	37.1
ML3	A	6/26/2019	Largemouth Bass	150	33.5
ML3	A	6/26/2019	Brown Bullhead	190	92.6
ML3	A	6/26/2019	Brown Bullhead	180	76.7
ML3	A	6/26/2019	Brown Bullhead	163	62.6
ML3	A	6/26/2019	Brown Bullhead	133	33.8
ML3	A	6/26/2019	Brown Bullhead	135	33.2
ML3	A	6/26/2019	Brown Bullhead	236	160.0
ML3	A	6/26/2019	Brown Bullhead	187	97.8
ML3	A	6/26/2019	Brown Bullhead	200	118.3
ML3	A	6/26/2019	Brown Bullhead	150	49.9
ML3	A	6/26/2019	Brown Bullhead	156	56.2
ML3	A	6/26/2019	Bluegill	71	5.4
ML3	A	6/26/2019	Bluegill	127	36.1
ML3	A	6/26/2019	Bluegill	116	27.2
ML3	A	6/26/2019	Bluegill	61	7.5
ML3	A	6/26/2019	Tui Chub	131	23.0
ML3	A	6/26/2019	Mountain Sucker	296	231.0
ML3	A	6/26/2019	Tahoe Sucker	196	86.0
ML2	E	6/26/2019	Largemouth Bass	153	41.2
ML2	E	6/26/2019	Largemouth Bass	102	10.1
ML2	E	6/26/2019	Largemouth Bass	247	190.2
ML2	E	6/26/2019	Largemouth Bass	162	53.0
ML2	E	6/26/2019	Largemouth Bass	112	13.2
ML2	E	6/26/2019	Largemouth Bass	364	603.3
ML2	E	6/26/2019	Bluegill	141	41.6
ML2	E	6/26/2019	Bluegill	130	43.1
ML2	E	6/26/2019	Bluegill	126	34.0

Site	Location	Date	Species Code	Total Length (mm)	Weight (g)
ML2	E	6/26/2019	Brown Bullhead	155	49.9
ML2	D	6/26/2019	Largemouth Bass	155	41.0
ML2	D	6/26/2019	Bluegill	150	75.3
ML2	D	6/26/2019	Bluegill	173	112.0
ML2	D	6/26/2019	Bluegill	142	553.3
ML2	D	6/26/2019	Bluegill	145	51.2
ML2	D	6/26/2019	Bluegill	171	98.7
ML2	D	6/26/2019	Bluegill	165	92.5
ML2	D	6/26/2019	Bluegill	65	5.5
ML2	D	6/26/2019	Black Crappie	336	616.0
ML2	D	6/26/2019	Tahoe Sucker	335	432.0
ML2	C	6/26/2019	Largemouth Bass	260	246.2
ML2	C	6/26/2019	Largemouth Bass	161	44.0
ML2	C	6/26/2019	Largemouth Bass	229	159.0
ML2	C	6/26/2019	Largemouth Bass	192	97.1
ML2	C	6/26/2019	Largemouth Bass	120	18.5
ML2	C	6/26/2019	Largemouth Bass	162	58.1
ML2	C	6/26/2019	Largemouth Bass	422	1300.0
ML2	C	6/26/2019	Brown Bullhead	177	84.2
ML2	C	6/26/2019	Brown Bullhead	157	59.3
ML2	C	6/26/2019	Brown Bullhead	173	72.1
ML2	C	6/26/2019	Brown Bullhead	202	105.6
ML2	C	6/26/2019	Brown Bullhead	144	38.1
ML2	C	6/26/2019	Brown Bullhead	195	113.5
ML2	C	6/26/2019	Bluegill	175	130.0
ML2	C	6/26/2019	Bluegill	81	9.1
ML2	C	6/26/2019	Bluegill	61	4.0
ML2	C	6/26/2019	Bluegill	65	4.7
ML2	C	6/26/2019	Bluegill	117	31.9
ML2	C	6/26/2019	Tahoe Sucker	272	213.2
ML2	C	6/26/2019	Tahoe Sucker	296	262.0
ML2	C	6/26/2019	Tahoe Sucker	214	104.6
ML2	B	6/26/2019	Largemouth Bass	318	415.7
ML2	B	6/26/2019	Largemouth Bass	170	54.3
ML2	B	6/26/2019	Largemouth Bass	135	23.9
ML2	B	6/26/2019	Bluegill	125	33.9
ML2	B	6/26/2019	Bluegill	106	24.6
ML2	B	6/26/2019	Bluegill	160	86.0
ML2	B	6/26/2019	Bluegill	150	61.3
ML2	B	6/26/2019	Bluegill	129	38.2
ML2	B	6/26/2019	Bluegill	139	45.7
ML2	B	6/26/2019	Bluegill	140	51.8
ML2	B	6/26/2019	Bluegill	136	42.6
ML2	B	6/26/2019	Bluegill	126	34.5

Boat Electrofishing Fish Catch

Site	Location	Date	Species Code	Total Length (mm)	Weight (g)
ML2	B	6/26/2019	Bluegill	66	5.2
ML2	B	6/26/2019	Bluegill	na	na
ML2	B	6/26/2019	Bluegill	na	na
ML2	B	6/26/2019	Bluegill	na	na
ML2	B	6/26/2019	Brown Bullhead	152	52.0
ML2	B	6/26/2019	Brown Bullhead	190	98.3
ML2	B	6/26/2019	Brown Bullhead	186	86.7
ML2	B	6/26/2019	Brown Bullhead	210	139.0
ML2	B	6/26/2019	Brown Bullhead	186	89.2
ML2	B	6/26/2019	Brown Bullhead	151	51.0
ML2	B	6/26/2019	Tahoe Sucker	176	58.2
ML2	A	6/26/2019	Largemouth Bass	164	54.0
ML2	A	6/26/2019	Largemouth Bass	445	1600.0
ML2	A	6/26/2019	Largemouth Bass	388	943.0
ML2	A	6/26/2019	Largemouth Bass	226	169.8
ML2	A	6/26/2019	Largemouth Bass	301	394.0
ML2	A	6/26/2019	Bluegill	132	49.2
ML2	A	6/26/2019	Bluegill	145	56.3
ML2	A	6/26/2019	Bluegill	135	39.9
ML1	E	6/26/2019	Bluegill	135	43.7
ML1	E	6/26/2019	Bluegill	117	25.3
ML1	E	6/26/2019	Bluegill	119	25.8
ML1	E	6/26/2019	Bluegill	126	35.7
ML1	E	6/26/2019	Bluegill	122	31.1
ML1	E	6/26/2019	Bluegill	141	52.0
ML1	E	6/26/2019	Bluegill	139	56.7
ML1	E	6/26/2019	Bluegill	114	24.2
ML1	E	6/26/2019	Bluegill	127	36.4
ML1	E	6/26/2019	Bluegill	119	27.2
ML1	E	6/26/2019	Bluegill	na	na
ML1	E	6/26/2019	Largemouth Bass	267	292.5
ML1	E	6/26/2019	Largemouth Bass	125	18.5
ML1	E	6/26/2019	Largemouth Bass	108	13.1
ML1	E	6/26/2019	Largemouth Bass	449	1800.0
ML1	E	6/26/2019	Brown Bullhead	148	40.5
ML1	D	6/26/2019	Largemouth Bass	175	66.6
ML1	D	6/26/2019	Largemouth Bass	95	8.8
ML1	D	6/26/2019	Bluegill	109	23.2
ML1	D	6/26/2019	Bluegill	130	43.7
ML1	D	6/26/2019	Bluegill	192	174.4
ML1	D	6/26/2019	Bluegill	127	33.7
ML1	D	6/26/2019	Bluegill	139	53.2
ML1	D	6/26/2019	Bluegill	122	30.1
ML1	D	6/26/2019	Bluegill	69	6.0

Site	Location	Date	Species Code	Total Length (mm)	Weight (g)
ML1	D	6/26/2019	Bluegill	54	2.2
ML1	D	6/26/2019	Bluegill	67	5.2
ML1	D	6/26/2019	Brown Bullhead	204	102.2
ML1	D	6/26/2019	Brown Bullhead	230	181.9
ML1	D	6/26/2019	Brown Bullhead	151	39.7
ML1	D	6/26/2019	Brown Bullhead	210	119.5
ML1	D	6/26/2019	Brown Bullhead	142	40.1
ML1	D	6/26/2019	Brown Bullhead	185	82.4
ML1	D	6/26/2019	Brown Bullhead	127	22.5
ML1	D	6/26/2019	Brown Bullhead	146	43.4
ML1	D	6/26/2019	Brown Bullhead	137	32.7
ML1	D	6/26/2019	Brown Bullhead	131	31.0
ML1	D	6/26/2019	Brown Bullhead	na	na
ML1	D	6/26/2019	Goldfish	152	72.5
ML1	D	6/26/2019	Lahontan Redside	81	5.5
ML1	C	6/26/2019	Largemouth Bass	152	39.9
ML1	C	6/26/2019	Largemouth Bass	168	61.4
ML1	C	6/26/2019	Largemouth Bass	91	10.6
ML1	C	6/26/2019	Largemouth Bass	156	43.5
ML1	C	6/26/2019	Largemouth Bass	154	51.7
ML1	C	6/26/2019	Largemouth Bass	160	48.6
ML1	C	6/26/2019	Largemouth Bass	178	66.4
ML1	C	6/26/2019	Largemouth Bass	87	10.7
ML1	C	6/26/2019	Largemouth Bass	148	31.5
ML1	C	6/26/2019	Largemouth Bass	133	29.2
ML1	C	6/26/2019	Bluegill	106	24.3
ML1	C	6/26/2019	Bluegill	121	35.2
ML1	C	6/26/2019	Bluegill	130	35.2
ML1	C	6/26/2019	Tahoe Sucker	218	112.0
ML1	C	6/26/2019	Tahoe Sucker	159	44.7
ML1	C	6/26/2019	Brown Bullhead	171	69.2
ML1	C	6/26/2019	Brown Bullhead	160	55.7
ML1	C	6/26/2019	Lahontan Redside	87	na
ML1	B	6/26/2019	Bluegill	150	72.1
ML1	B	6/26/2019	Bluegill	162	84.1
ML1	B	6/26/2019	Bluegill	151	68.2
ML1	B	6/26/2019	Bluegill	150	59.3
ML1	B	6/26/2019	Rainbow Trout	226	98.6
ML1	A	6/26/2019	Largemouth Bass	155	44.2
ML1	A	6/26/2019	Largemouth Bass	235	175.8
ML1	A	6/26/2019	Largemouth Bass	251	217.2
ML1	A	6/26/2019	Largemouth Bass	165	60.0
ML1	A	6/26/2019	Largemouth Bass	174	69.1
ML1	A	6/26/2019	Largemouth Bass	157	45.5

Boat Electrofishing Fish Catch

Site	Location	Date	Species Code	Total Length (mm)	Weight (g)
ML1	A	6/26/2019	Largemouth Bass	189	92.7
ML1	A	6/26/2019	Largemouth Bass	187	99.2
ML1	A	6/26/2019	Largemouth Bass	165	61.2
ML1	A	6/26/2019	Largemouth Bass	200	124.8
ML1	A	6/26/2019	Largemouth Bass	na	na
ML1	A	6/26/2019	Largemouth Bass	na	na
ML1	A	6/26/2019	Bluegill	93	13.9
ML1	A	6/26/2019	Bluegill	135	47.4
ML1	A	6/26/2019	Bluegill	124	35.6
ML1	A	6/26/2019	Bluegill	121	36.0
ML1	A	6/26/2019	Bluegill	135	49.8
ML1	A	6/26/2019	Brown Bullhead	180	86.3
ML1	A	6/26/2019	Brown Bullhead	191	102.7
ML1	A	6/26/2019	Brown Bullhead	196	105.3
ML1	A	6/26/2019	Lahontan Redside	66	4.1
ML1	A	6/26/2019	Tahoe Sucker	238	141.7
ML1	A	6/26/2019	Tahoe Sucker	166	53.1
ML1	A	6/26/2019	Tahoe Sucker	221	122.2
ML1	A	6/26/2019	Goldfish	160	81.8
LT2	B	6/27/2019	Goldfish	180	102.7
LT2	B	6/27/2019	Goldfish	163	82.8
LT2	B	6/27/2019	Goldfish	165	85.1
LT2	B	6/27/2019	Goldfish	155	67.4
LT2	B	6/27/2019	Bluegill	146	53.3
LT2	B	6/27/2019	Bluegill	75	6.2
LT2	B	6/27/2019	Bluegill	87	9.1
LT2	B	6/27/2019	Bluegill	85	10.1
LT2	B	6/27/2019	Bluegill	74	7.4
LT2	B	6/27/2019	Bluegill	66	5.1
LT2	B	6/27/2019	Bluegill	141	47.2
LT2	B	6/27/2019	Bluegill	111	21.5
LT2	B	6/27/2019	Bluegill	87	11.4
LT2	B	6/27/2019	Brown Bullhead	130	27.7
LT2	B	6/27/2019	Brown Bullhead	260	222.8
LT2	B	6/27/2019	Brown Bullhead	135	28.3
LT2	A	6/27/2019	Goldfish	165	88.7
LT2	A	6/27/2019	Goldfish	161	73.6
LT2	A	6/27/2019	Goldfish	140	51.7
LT2	A	6/27/2019	Goldfish	115	28.0
LT2	A	6/27/2019	Goldfish	154	68.9
LT2	A	6/27/2019	Goldfish	151	66.3
LT2	A	6/27/2019	Goldfish	134	42.6
LT2	A	6/27/2019	Goldfish	137	45.1
LT2	A	6/27/2019	Goldfish	157	67.6

Site	Location	Date	Species Code	Total Length (mm)	Weight (g)
LT2	A	6/27/2019	Goldfish	133	38.3
LT2	A	6/27/2019	Goldfish	na	na
LT2	A	6/27/2019	Goldfish	na	na
LT2	A	6/27/2019	Largemouth Bass	240	165.5
LT2	A	6/27/2019	Largemouth Bass	147	31.5
LT2	A	6/27/2019	Largemouth Bass	142	29.9
LT2	A	6/27/2019	Largemouth Bass	91	7.9
LT2	A	6/27/2019	Largemouth Bass	87	7.5
LT2	A	6/27/2019	Largemouth Bass	115	15.3
LT2	A	6/27/2019	Largemouth Bass	240	158.3
LT2	A	6/27/2019	Largemouth Bass	162	51.7
LT2	A	6/27/2019	Largemouth Bass	233	167.7
LT2	A	6/27/2019	Largemouth Bass	185	61.6
LT2	A	6/27/2019	Largemouth Bass	na	na
LT2	A	6/27/2019	Largemouth Bass	na	na
LT2	A	6/27/2019	Largemouth Bass	na	na
LT2	A	6/27/2019	Largemouth Bass	na	na
LT2	A	6/27/2019	Brown Bullhead	150	44.8
LT2	A	6/27/2019	Brown Bullhead	140	35.5
LT2	A	6/27/2019	Brown Bullhead	125	22.8
LT2	A	6/27/2019	Brown Bullhead	92	7.4
LT2	A	6/27/2019	Bluegill	115	25.2
LT2	A	6/27/2019	Bluegill	125	32.3
LT2	A	6/27/2019	Bluegill	82	8.2
LT2	A	6/27/2019	Bluegill	109	19.8
LT2	A	6/27/2019	Bluegill	117	27.9
LT2	A	6/27/2019	Bluegill	85	10.6
LT2	A	6/27/2019	Bluegill	87	10.3
LT2	A	6/27/2019	Bluegill	133	na
LT2	A	6/27/2019	Bluegill	80	9.4
LT2	A	6/27/2019	Bluegill	140	49.2
LT2	A	6/27/2019	Bluegill	na	na
LT2	A	6/27/2019	Bluegill	na	na
LT2	D	6/27/2019	Largemouth Bass	300	437.3
LT2	D	6/27/2019	Largemouth Bass	342	603.2
LT2	D	6/27/2019	Largemouth Bass	315	442.7
LT2	D	6/27/2019	Largemouth Bass	173	46.6
LT2	D	6/27/2019	Largemouth Bass	340	536.1
LT2	D	6/27/2019	Bluegill	105	18.2
LT2	D	6/27/2019	Bluegill	66	5.4
LT2	D	6/27/2019	Bluegill	116	26.2
LT2	D	6/27/2019	Brown Bullhead	140	38.2
LT2	D	6/27/2019	Brown Bullhead	185	87.8
LT2	D	6/27/2019	Goldfish	185	114.1

Boat Electrofishing Fish Catch

Site	Location	Date	Species Code	Total Length (mm)	Weight (g)
LT2	D	6/27/2019	Goldfish	153	65.9
LT2	D	6/27/2019	Goldfish	147	50.9
LT2	C	6/27/2019	Largemouth Bass	462	1800.0
LT2	C	6/27/2019	Largemouth Bass	390	875.1
LT2	C	6/27/2019	Largemouth Bass	415	1074.8
LT2	C	6/27/2019	Largemouth Bass	180	64.0
LT2	C	6/27/2019	Largemouth Bass	290	295.8
LT2	C	6/27/2019	Largemouth Bass	325	503.9
LT2	C	6/27/2019	Largemouth Bass	375	808.7
LT2	C	6/27/2019	Goldfish	174	87.9
LT2	C	6/27/2019	Goldfish	140	46.9
LT2	C	6/27/2019	Bluegill	76	7.7
LT2	C	6/27/2019	Bluegill	144	54.9
LT2	C	6/27/2019	Bluegill	131	38.7
LT2	C	6/27/2019	Bluegill	144	53.1
LT2	C	6/27/2019	Bluegill	151	56.2
LT2	C	6/27/2019	Bluegill	120	27.0
LT2	C	6/27/2019	Golden Shiner	176	51.1
LT2	C	6/27/2019	Golden Shiner	195	78.7
LT2	C	6/27/2019	Golden Shiner	186	57.6
LT2	E	6/27/2019	Largemouth Bass	351	645.8
LT2	E	6/27/2019	Largemouth Bass	420	1100.0
LT2	E	6/27/2019	Largemouth Bass	296	352.4
LT2	E	6/27/2019	Largemouth Bass	420	1224.7
LT2	E	6/27/2019	Bluegill	137	46.6
LT2	E	6/27/2019	Goldfish	171	93.5
LT1	A	6/27/2019	Largemouth Bass	161	49.7
LT1	A	6/27/2019	Largemouth Bass	105	7.8
LT1	A	6/27/2019	Largemouth Bass	395	983.7
LT1	A	6/27/2019	Brown Bullhead	161	61.7
LT1	A	6/27/2019	Brown Bullhead	155	45.4
LT1	A	6/27/2019	Brown Bullhead	154	41.8
LT1	A	6/27/2019	Goldfish	165	89.1
LT1	A	6/27/2019	Goldfish	151	69.9
LT1	A	6/27/2019	Goldfish	149	61.1
LT1	A	6/27/2019	Goldfish	125	30.4
LT1	A	6/27/2019	Goldfish	183	110.7
LT1	A	6/27/2019	Bluegill	95	8.0
LT1	A	6/27/2019	Bluegill	121	31.9
LT1	B	6/27/2019	Largemouth Bass	225	156.1
LT1	B	6/27/2019	Largemouth Bass	268	295.4
LT1	B	6/27/2019	Bluegill	147	65.2
LT1	B	6/27/2019	Bluegill	79	8.0
LT1	B	6/27/2019	Goldfish	193	138.6

Site	Location	Date	Species Code	Total Length (mm)	Weight (g)
LT1	B	6/27/2019	Goldfish	170	97.2
LT1	B	6/27/2019	Goldfish	246	317.5
LT1	B	6/27/2019	Goldfish	167	na
LT1	B	6/27/2019	Brown Bullhead	151	44.4
LT1	E	6/27/2019	Largemouth Bass	196	89.6
LT1	E	6/27/2019	Largemouth Bass	249	179.7
LT1	E	6/27/2019	Largemouth Bass	265	223.0
LT1	E	6/27/2019	Golden Shiner	210	105.7
LT1	E	6/27/2019	Tui Chub	251	146.3
LT1	E	6/27/2019	Goldfish	141	51.8
LT1	E	6/27/2019	Goldfish	139	51.4
LT1	D	6/27/2019	Goldfish	295	900.0
LT1	D	6/27/2019	Goldfish	157	72.4
LT1	D	6/27/2019	Largemouth Bass	438	1400.0
LT1	D	6/27/2019	Largemouth Bass	421	1400.0
LT1	D	6/27/2019	Brown Bullhead	150	43.7
LT1	D	6/27/2019	Brown Bullhead	137	33.0
LT1	D	6/27/2019	Bluegill	171	87.4
LT1	D	6/27/2019	Bluegill	72	6.3
LT1	D	6/27/2019	Golden Shiner	177	58.1
LT1	D	6/27/2019	Golden Shiner	132	24.5
LT1	C	6/27/2019	Brown Bullhead	140	37.3
LT1	C	6/27/2019	Brown Bullhead	140	33.9
LT1	C	6/27/2019	Brown Bullhead	140	34.5
LT1	C	6/27/2019	Brown Bullhead	147	40.4
LT1	C	6/27/2019	Brown Bullhead	155	48.8
LT1	C	6/27/2019	Brown Bullhead	140	33.4
LT1	C	6/27/2019	Bluegill	147	52.4
LT1	C	6/27/2019	Goldfish	176	115.1
LT1	C	6/27/2019	Goldfish	170	86.7
LT1	C	6/27/2019	Goldfish	171	82.9
LT1	C	6/27/2019	Goldfish	175	88.2
LT1	C	6/27/2019	Goldfish	155	145.0
LT1	C	6/27/2019	Largemouth Bass	315	420.7
ML1	A	10/8/2019	Bluegill	142	5035.0
ML1	A	10/8/2019	Bluegill	140	51.5
ML1	A	10/8/2019	Bluegill	147	60.5
ML1	A	10/8/2019	Bluegill	156	70.5
ML1	A	10/8/2019	Bluegill	132	47.0
ML1	A	10/8/2019	Bluegill	130	39.5
ML1	A	10/8/2019	Bluegill	105	23.5
ML1	A	10/8/2019	Bluegill	144	52.0
ML1	A	10/8/2019	Bluegill	150	56.5
ML1	A	10/8/2019	Bluegill	27	0.8

Boat Electrofishing Fish Catch

Site	Location	Date	Species Code	Total Length (mm)	Weight (g)
ML1	A	10/8/2019	Bluegill	na	na
ML1	A	10/8/2019	Brown Bullhead	207	128.5
ML1	A	10/8/2019	Brown Bullhead	189	91.5
ML1	A	10/8/2019	Brown Bullhead	162	50.5
ML1	A	10/8/2019	Largemouth Bass	190	101.5
ML1	A	10/8/2019	Largemouth Bass	49	3.0
ML1	A	10/8/2019	Largemouth Bass	55	3.0
ML1	A	10/8/2019	Largemouth Bass	57	3.0
ML1	A	10/8/2019	Largemouth Bass	53	2.5
ML1	B	10/8/2019	Rainbow Trout	230	100.5
ML1	C	10/8/2019	Largemouth Bass	270	292.6
ML1	C	10/8/2019	Largemouth Bass	93	11.9
ML1	C	10/8/2019	Largemouth Bass	204	113.5
ML1	C	10/8/2019	Largemouth Bass	370	740.0
ML1	C	10/8/2019	Largemouth Bass	165	60.3
ML1	C	10/8/2019	Bluegill	160	71.5
ML1	C	10/8/2019	Bluegill	140	51.0
ML1	C	10/8/2019	Bluegill	150	60.3
ML1	C	10/8/2019	Bluegill	142	53.7
ML1	C	10/8/2019	Bluegill	129	39.5
ML1	C	10/8/2019	Bluegill	126	38.7
ML1	C	10/8/2019	Bluegill	139	48.2
ML1	C	10/8/2019	Bluegill	132	38.5
ML1	C	10/8/2019	Bluegill	128	335.3
ML1	C	10/8/2019	Bluegill	132	45.7
ML1	C	10/8/2019	Bluegill	na	na
ML1	C	10/8/2019	Black Crappie	207	112.5
ML1	C	10/8/2019	Black Crappie	296	514.0
ML1	C	10/8/2019	Black Crappie	328	663.0
ML1	C	10/8/2019	Black Crappie	266	359.5
ML1	C	10/8/2019	Black Crappie	258	331.7
ML1	C	10/8/2019	Black Crappie	227	198.5
ML1	C	10/8/2019	Black Crappie	245	280.5
ML1	C	10/8/2019	Black Crappie	313	594.0
ML1	C	10/8/2019	Black Crappie	200	110.0
ML1	C	10/8/2019	Black Crappie	250	287.5
ML1	C	10/8/2019	Black Crappie	na	na
ML1	C	10/8/2019	Black Crappie	na	na
ML1	C	10/8/2019	Black Crappie	na	na
ML1	C	10/8/2019	Black Crappie	na	na
ML1	C	10/8/2019	Tahoe Sucker	255	186.5
ML1	D	10/8/2019	Bluegill	135	45.8
ML1	D	10/8/2019	Bluegill	140	51.9
ML1	D	10/8/2019	Bluegill	128	39.7

Site	Location	Date	Species Code	Total Length (mm)	Weight (g)
ML1	D	10/8/2019	Bluegill	170	97.4
ML1	D	10/8/2019	Bluegill	158	77.3
ML1	D	10/8/2019	Bluegill	127	43.5
ML1	D	10/8/2019	Bluegill	130	44.4
ML1	D	10/8/2019	Bluegill	142	56.3
ML1	D	10/8/2019	Bluegill	130	41.2
ML1	D	10/8/2019	Bluegill	135	49.5
ML1	D	10/8/2019	Bluegill	na	na
ML1	D	10/8/2019	Bluegill	na	na
ML1	D	10/8/2019	Bluegill	na	na
ML1	D	10/8/2019	Bluegill	na	na
ML1	D	10/8/2019	Bluegill	na	na
ML1	D	10/8/2019	Largemouth Bass	338	582.3
ML1	D	10/8/2019	Largemouth Bass	278	375.4
ML1	D	10/8/2019	Largemouth Bass	135	24.1
ML1	D	10/8/2019	Largemouth Bass	57	2.5
ML1	D	10/8/2019	Brown Bullhead	192	91.1
ML1	D	10/8/2019	Tui Chub	155	39.3
ML1	E	10/8/2019	Bluegill	150	58.2
ML1	E	10/8/2019	Bluegill	149	58.6
ML1	E	10/8/2019	Bluegill	155	62.8
ML1	E	10/8/2019	Bluegill	118	31.3
ML1	E	10/8/2019	Bluegill	148	54.5
ML1	E	10/8/2019	Bluegill	154	59.9
ML1	E	10/8/2019	Bluegill	133	40.6
ML1	E	10/8/2019	Bluegill	131	39.8
ML1	E	10/8/2019	Bluegill	131	39.7
ML1	E	10/8/2019	Largemouth Bass	121	18.5
ML1	E	10/8/2019	Largemouth Bass	128	23.5
ML1	E	10/8/2019	Largemouth Bass	331	589.0
ML1	E	10/8/2019	Largemouth Bass	125	21.3
ML1	E	10/8/2019	Largemouth Bass	61	4.7
ML1	E	10/8/2019	Largemouth Bass	60	4.3
ML1	E	10/8/2019	Rainbow Trout	402	602.0
ML2	A	10/8/2019	Bluegill	130	38.4
ML2	A	10/8/2019	Bluegill	128	37.0
ML2	A	10/8/2019	Bluegill	135	44.0
ML2	A	10/8/2019	Bluegill	128	35.0
ML2	A	10/8/2019	Bluegill	140	47.0
ML2	A	10/8/2019	Bluegill	133	40.0
ML2	A	10/8/2019	Bluegill	142	47.0
ML2	A	10/8/2019	Bluegill	155	68.0

Boat Electrofishing Fish Catch

Site	Location	Date	Species Code	Total Length (mm)	Weight (g)
ML2	A	10/8/2019	Bluegill	135	37.3
ML2	A	10/8/2019	Bluegill	119	28.0
ML2	A	10/8/2019	Bluegill	na	na
ML2	A	10/8/2019	Bluegill	na	na
ML2	A	10/8/2019	Bluegill	na	na
ML2	A	10/8/2019	Bluegill	na	na
ML2	A	10/8/2019	Bluegill	na	na
ML2	A	10/8/2019	Bluegill	na	na
ML2	A	10/8/2019	Bluegill	na	na
ML2	A	10/8/2019	Bluegill	na	na
ML2	A	10/8/2019	Bluegill	na	na
ML2	A	10/8/2019	Bluegill	na	na
ML2	A	10/8/2019	Bluegill	na	na
ML2	A	10/8/2019	Largemouth Bass	197	92.0
ML2	A	10/8/2019	Largemouth Bass	242	198.0
ML2	A	10/8/2019	Largemouth Bass	172	53.5
ML2	A	10/8/2019	Largemouth Bass	183	72.0
ML2	A	10/8/2019	Black Crappie	290	411.1
ML2	A	10/8/2019	Black Crappie	282	398.5
ML2	A	10/8/2019	Black Crappie	373	926.0
ML2	A	10/8/2019	Black Crappie	330	555.0
ML2	A	10/8/2019	Black Crappie	292	472.0
ML2	A	10/8/2019	Black Crappie	295	440.0
ML2	A	10/8/2019	Black Crappie	283	420.0
ML2	A	10/8/2019	Black Crappie	294	460.0
ML2	A	10/8/2019	Black Crappie	327	645.0
ML2	A	10/8/2019	Black Crappie	230	208.0
ML2	A	10/8/2019	Black Crappie	na	na
ML2	A	10/8/2019	Black Crappie	na	na
ML2	A	10/8/2019	Black Crappie	na	na
ML2	A	10/8/2019	Brown Bullhead	245	192.0
ML2	A	10/8/2019	Brown Bullhead	279	270.0
ML2	A	10/8/2019	Brown Bullhead	225	140.0
ML2	A	10/8/2019	Brown Bullhead	270	235.0
ML2	A	10/8/2019	Goldfish	263	440.0
ML2	A	10/8/2019	Lahontan Redside	85	7.0
ML2	B	10/8/2019	Bluegill	161	75.0
ML2	B	10/8/2019	Bluegill	133	42.0
ML2	B	10/8/2019	Bluegill	149	60.0
ML2	B	10/8/2019	Bluegill	152	59.0
ML2	B	10/8/2019	Bluegill	148	56.0
ML2	B	10/8/2019	Bluegill	151	62.5
ML2	B	10/8/2019	Bluegill	152	57.0
ML2	B	10/8/2019	Bluegill	145	54.0

Site	Location	Date	Species Code	Total Length (mm)	Weight (g)
ML2	B	10/8/2019	Bluegill	144	50.0
ML2	B	10/8/2019	Bluegill	147	58.0
ML2	B	10/8/2019	Bluegill	na	na
ML2	B	10/8/2019	Bluegill	na	na
ML2	B	10/8/2019	Bluegill	na	na
ML2	B	10/8/2019	Bluegill	na	na
ML2	B	10/8/2019	Bluegill	na	na
ML2	B	10/8/2019	Goldfish	221	266.0
ML2	B	10/8/2019	Goldfish	269	425.0
ML2	B	10/8/2019	Goldfish	235	294.0
ML2	B	10/8/2019	Goldfish	246	324.0
ML2	B	10/8/2019	Goldfish	285	644.0
ML2	B	10/8/2019	Largemouth Bass	163	48.0
ML2	B	10/8/2019	Largemouth Bass	54	4.0
ML2	D	10/8/2019	Bluegill	157	71.0
ML2	D	10/8/2019	Bluegill	130	40.4
ML2	D	10/8/2019	Bluegill	142	61.0
ML2	D	10/8/2019	Bluegill	155	68.0
ML2	D	10/8/2019	Bluegill	132	49.0
ML2	D	10/8/2019	Bluegill	135	48.0
ML2	D	10/8/2019	Bluegill	142	57.0
ML2	D	10/8/2019	Bluegill	142	52.0
ML2	D	10/8/2019	Bluegill	171	100.0
ML2	D	10/8/2019	Bluegill	136	46.5
ML2	D	10/8/2019	Bluegill	na	na
ML2	D	10/8/2019	Bluegill	na	na
ML2	D	10/8/2019	Bluegill	na	na
ML2	D	10/8/2019	Bluegill	na	na
ML2	D	10/8/2019	Bluegill	na	na
ML2	D	10/8/2019	Bluegill	na	na
ML2	D	10/8/2019	Bluegill	na	na
ML2	D	10/8/2019	Bluegill	na	na
ML2	D	10/8/2019	Bluegill	na	na
ML2	D	10/8/2019	Bluegill	na	na
ML2	D	10/8/2019	Bluegill	na	na
ML2	D	10/8/2019	Bluegill	na	na
ML2	D	10/8/2019	Largemouth Bass	336	650.0
ML2	D	10/8/2019	Largemouth Bass	297	430.0
ML2	D	10/8/2019	Largemouth Bass	159	54.0
ML2	D	10/8/2019	Largemouth Bass	150	39.0
ML2	D	10/8/2019	Largemouth Bass	47	7.0
ML2	D	10/8/2019	Largemouth Bass	304	356.0
ML2	D	10/8/2019	Brown Bullhead	219	116.0
ML2	D	10/8/2019	Brown Bullhead	235	175.0
ML2	D	10/8/2019	Brown Bullhead	215	131.0

Boat Electrofishing Fish Catch

Site	Location	Date	Species Code	Total Length (mm)	Weight (g)
ML2	D	10/8/2019	Brown Bullhead	224	141.0
ML2	D	10/8/2019	Brown Bullhead	243	182.0
ML2	D	10/8/2019	Brown Bullhead	231	179.5
ML2	D	10/8/2019	Brown Bullhead	245	180.0
ML2	D	10/8/2019	Brown Bullhead	250	199.0
ML2	D	10/8/2019	Brown Bullhead	235	160.0
ML2	D	10/8/2019	Black Crappie	271	375.0
ML2	D	10/8/2019	Black Crappie	275	365.0
ML2	D	10/8/2019	Black Crappie	150	47.0
ML2	D	10/8/2019	Black Crappie	286	444.0
ML2	D	10/8/2019	Black Crappie	272	330.0
ML2	D	10/8/2019	Black Crappie	172	77.0
ML2	D	10/8/2019	Goldfish	265	465.0
ML2	C	10/8/2019	Bluegill	138	53.0
ML2	C	10/8/2019	Bluegill	163	76.0
ML2	C	10/8/2019	Bluegill	136	45.0
ML2	C	10/8/2019	Bluegill	130	47.0
ML2	C	10/8/2019	Bluegill	145	58.0
ML2	C	10/8/2019	Bluegill	131	41.0
ML2	C	10/8/2019	Bluegill	155	75.0
ML2	C	10/8/2019	Bluegill	141	53.0
ML2	C	10/8/2019	Bluegill	151	66.0
ML2	C	10/8/2019	Bluegill	138	47.0
ML2	C	10/8/2019	Bluegill	na	na
ML2	C	10/8/2019	Bluegill	na	na
ML2	C	10/8/2019	Bluegill	na	na
ML2	C	10/8/2019	Bluegill	na	na
ML2	C	10/8/2019	Bluegill	na	na
ML2	C	10/8/2019	Bluegill	na	na
ML2	C	10/8/2019	Largemouth Bass	52	2.5
ML2	C	10/8/2019	Largemouth Bass	50	4.0
ML2	C	10/8/2019	Largemouth Bass	158	42.0
ML2	C	10/8/2019	Largemouth Bass	121	23.0
ML2	C	10/8/2019	Largemouth Bass	355	716.0
ML2	C	10/8/2019	Largemouth Bass	48	4.0
ML2	C	10/8/2019	Largemouth Bass	57	5.0
ML2	C	10/8/2019	Largemouth Bass	49	5.0
ML2	C	10/8/2019	Black Crappie	314	580.0
ML2	C	10/8/2019	Black Crappie	172	69.0
ML2	C	10/8/2019	Black Crappie	234	na
ML2	C	10/8/2019	Brown Bullhead	190	91.0
ML2	E	10/8/2019	Bluegill	151	59.0
ML2	E	10/8/2019	Bluegill	147	61.5
ML2	E	10/8/2019	Bluegill	126	36.5
ML2	E	10/8/2019	Bluegill	160	73.0

[illegible]

Boat Electrofishing Fish Catch

Site	Location	Date	Species Code	Total Length (mm)	Weight (g)
ML3	B	10/7/2019	Bluegill	na	na
ML3	B	10/7/2019	Bluegill	na	na
ML3	B	10/7/2019	Bluegill	na	na
ML3	B	10/7/2019	Bluegill	na	na
ML3	B	10/7/2019	Brown Bullhead	208	116.7
ML3	B	10/7/2019	Largemouth Bass	165	47.7
ML3	C	10/7/2019	Bluegill	146	62.3
ML3	C	10/7/2019	Bluegill	143	52.2
ML3	C	10/7/2019	Bluegill	141	46.7
ML3	C	10/7/2019	Bluegill	140	50.6
ML3	C	10/7/2019	Bluegill	161	73.6
ML3	C	10/7/2019	Bluegill	163	79.2
ML3	C	10/7/2019	Bluegill	152	66.1
ML3	C	10/7/2019	Bluegill	140	46.7
ML3	C	10/7/2019	Bluegill	143	54.6
ML3	C	10/7/2019	Bluegill	137	49.3
ML3	C	10/7/2019	Largemouth Bass	228	146.2
ML3	C	10/7/2019	Largemouth Bass	145	40.3
ML3	C	10/7/2019	Largemouth Bass	182	62.5
ML3	C	10/7/2019	Tahoe Sucker	277	158.6
ML3	C	10/7/2019	Brown Bullhead	200	101.1
ML3	D	10/7/2019	Bluegill	165	74.7
ML3	D	10/7/2019	Bluegill	147	56.2
ML3	D	10/7/2019	Bluegill	152	65.3
ML3	D	10/7/2019	Bluegill	143	57.5
ML3	D	10/7/2019	Bluegill	125	35.1
ML3	D	10/7/2019	Bluegill	140	51.1
ML3	D	10/7/2019	Bluegill	145	57.4
ML3	D	10/7/2019	Bluegill	146	62.0
ML3	D	10/7/2019	Largemouth Bass	174	61.4
ML3	D	10/7/2019	Largemouth Bass	50	1.5
ML3	E	10/7/2019	Bluegill	140	50.2
ML3	E	10/7/2019	Bluegill	150	61.1
ML3	E	10/7/2019	Bluegill	163	81.4
ML3	E	10/7/2019	Bluegill	171	96.7
ML3	E	10/7/2019	Bluegill	156	65.4
ML3	E	10/7/2019	Bluegill	148	63.6
ML3	E	10/7/2019	Bluegill	130	42.6
ML3	E	10/7/2019	Bluegill	137	44.7
ML3	E	10/7/2019	Bluegill	164	78.4
ML3	E	10/7/2019	Bluegill	143	54.1
ML3	E	10/7/2019	Bluegill	na	na
ML3	E	10/7/2019	Bluegill	na	na
ML3	E	10/7/2019	Bluegill	na	na

Site	Location	Date	Species Code	Total Length (mm)	Weight (g)
ML3	E	10/7/2019	Bluegill	na	na
ML3	E	10/7/2019	Bluegill	na	na
ML3	E	10/7/2019	Bluegill	na	na
ML3	E	10/7/2019	Bluegill	na	na
ML3	E	10/7/2019	Largemouth Bass	57	1.5
ML3	E	10/7/2019	Brown Bullhead	325	582.0
MRL1	A	10/8/2019	Largemouth Bass	374	833.6
MRL1	A	10/8/2019	Largemouth Bass	241	173.6
MRL1	A	10/8/2019	Largemouth Bass	195	105.1
MRL1	A	10/8/2019	Largemouth Bass	177	60.6
MRL1	A	10/8/2019	Largemouth Bass	289	316.5
MRL1	A	10/8/2019	Largemouth Bass	50	1.9
MRL1	A	10/8/2019	Brown Bullhead	193	86.4
MRL1	A	10/8/2019	Brown Bullhead	186	78.9
MRL1	A	10/8/2019	Brown Bullhead	193	83.9
MRL1	A	10/8/2019	Brown Bullhead	171	63.0
MRL1	A	10/8/2019	Bluegill	153	69.6
MRL1	A	10/8/2019	Bluegill	175	112.3
MRL1	A	10/8/2019	Bluegill	134	43.3
MRL1	B	10/8/2019	Bluegill	168	83.0
MRL1	B	10/8/2019	Bluegill	176	110.4
MRL1	B	10/8/2019	Bluegill	162	81.6
MRL1	B	10/8/2019	Bluegill	148	59.9
MRL1	B	10/8/2019	Largemouth Bass	51	3.9
MRL1	B	10/8/2019	Largemouth Bass	343	706.9
MRL1	B	10/8/2019	Largemouth Bass	76	4.6
MRL1	B	10/8/2019	Largemouth Bass	145	34.8
MRL1	B	10/8/2019	Largemouth Bass	49	2.4
MRL1	B	10/8/2019	Brown Bullhead	195	91.6
MRL1	B	10/8/2019	Brown Bullhead	146	41.4
MRL1	C	10/8/2019	Largemouth Bass	275	317.5
MRL1	C	10/8/2019	Largemouth Bass	292	353.6
MRL1	C	10/8/2019	Largemouth Bass	330	605.4
MRL1	C	10/8/2019	Largemouth Bass	56	2.1
MRL1	C	10/8/2019	Largemouth Bass	64	3.4
MRL1	C	10/8/2019	Bluegill	148	60.7
MRL1	D	10/8/2019	Largemouth Bass	42	0.9
MRL1	D	10/8/2019	Largemouth Bass	295	420.6
MRL1	D	10/8/2019	Brown Bullhead	220	134.3
MRL1	D	10/8/2019	Brown Bullhead	207	106.3
MRL1	D	10/8/2019	Tahoe Sucker	325	326.6
MRL1	D	10/8/2019	Unknown Sucker	254	157.2
MRL1	D	10/8/2019	Bluegill	183	127.8
MRL1	E	10/8/2019	Brown Bullhead	242	173.5

Boat Electrofishing Fish Catch

Site	Location	Date	Species Code	Total Length (mm)	Weight (g)
MRL1	E	10/8/2019	Brown Bullhead	182	68.8
MRL1	E	10/8/2019	Brown Bullhead	175	62.6
MRL1	E	10/8/2019	Brown Bullhead	207	105.4
MRL1	E	10/8/2019	Brown Bullhead	203	101.1
MRL1	E	10/8/2019	Largemouth Bass	112	14.6
MRL1	E	10/8/2019	Largemouth Bass	62	3.5
MRL1	E	10/8/2019	Largemouth Bass	54	3.2
MRL1	E	10/8/2019	Largemouth Bass	100	11.2
MRL1	E	10/8/2019	Largemouth Bass	54	1.3
MRL1	E	10/8/2019	Largemouth Bass	48	1.2
MRL1	E	10/8/2019	Largemouth Bass	143	32.5
MRL1	E	10/8/2019	Largemouth Bass	152	41.9
MRL1	E	10/8/2019	Largemouth Bass	137	24.6
MRL1	E	10/8/2019	Largemouth Bass	56	3.0
MRL1	E	10/8/2019	Largemouth Bass	na	na
MRL1	E	10/8/2019	Largemouth Bass	na	na
MRL1	E	10/8/2019	Largemouth Bass	na	na
MRL2	A	10/8/2019	Largemouth Bass	278	351.3
MRL2	A	10/8/2019	Largemouth Bass	387	1008.8
MRL2	A	10/8/2019	Largemouth Bass	111	15.5
MRL2	A	10/8/2019	Largemouth Bass	66	6.2
MRL2	B	10/8/2019	Bluegill	130	31.7
MRL2	B	10/8/2019	Bluegill	174	117.8
MRL2	B	10/8/2019	Largemouth Bass	44	1.4
MRL2	D	10/8/2019	Bluegill	117	15.7
MRL2	D	10/8/2019	Bluegill	183	114.5
MRL2	D	10/8/2019	Bluegill	125	27.2
MRL2	D	10/8/2019	Bluegill	135	40.8
MRL2	D	10/8/2019	Bluegill	148	54.2
MRL2	D	10/8/2019	Largemouth Bass	296	392.1
MRL2	D	10/8/2019	Largemouth Bass	131	24.8
MRL2	D	10/8/2019	Largemouth Bass	113	16.5
MRL2	D	10/8/2019	Largemouth Bass	52	2.0
MRL2	D	10/8/2019	Black Crappie	187	90.4
MRL2	D	10/8/2019	Black Crappie	162	61.4
MRL2	E	10/8/2019	Bluegill	130	29.4
MRL2	E	10/8/2019	Bluegill	147	50.7
MRL2	E	10/8/2019	Largemouth Bass	142	31.6
MRL2	E	10/8/2019	Largemouth Bass	54	1.7
MRL2	E	10/8/2019	Largemouth Bass	55	1.2
MRL2	E	10/8/2019	Largemouth Bass	53	1.5
MRL2	E	10/8/2019	Largemouth Bass	48	1.2
MRL2	E	10/8/2019	Largemouth Bass	93	7.8
ML4	A	10/7/2019	Bluegill	174	81.7

[illegible]

Boat Electrofishing Fish Catch

Site	Location	Date	Species Code	Total Length (mm)	Weight (g)
ML4	C	10/7/2019	Bluegill	na	na
ML4	C	10/7/2019	Largemouth Bass	61	2.2
ML4	C	10/7/2019	Largemouth Bass	52	1.8
ML4	C	10/7/2019	Largemouth Bass	144	29.5
ML4	C	10/7/2019	Largemouth Bass	56	2.0
ML4	D	10/7/2019	Bluegill	143	46.2
ML4	D	10/7/2019	Bluegill	155	62.0
ML4	D	10/7/2019	Bluegill	135	39.1
ML4	D	10/7/2019	Bluegill	153	54.1
ML4	D	10/7/2019	Bluegill	158	65.6
ML4	D	10/7/2019	Bluegill	134	40.6
ML4	D	10/7/2019	Bluegill	148	49.6
ML4	D	10/7/2019	Bluegill	158	66.6
ML4	D	10/7/2019	Bluegill	137	44.1
ML4	D	10/7/2019	Largemouth Bass	194	87.2
ML4	D	10/7/2019	Largemouth Bass	181	55.3
ML4	D	10/7/2019	Largemouth Bass	164	48.8
ML4	D	10/7/2019	Largemouth Bass	160	48.0
ML4	D	10/7/2019	Largemouth Bass	173	55.4
ML4	D	10/7/2019	Largemouth Bass	164	47.1
ML4	D	10/7/2019	Largemouth Bass	128	25.3
ML4	D	10/7/2019	Largemouth Bass	184	73.1
ML4	D	10/7/2019	Largemouth Bass	163	45.8
ML4	D	10/7/2019	Largemouth Bass	161	47.4
ML4	D	10/7/2019	Brown Bullhead	226	153.2
ML4	D	10/7/2019	Brown Bullhead	240	164.8
ML4	E	10/7/2019	Bluegill	145	54.7
ML4	E	10/7/2019	Bluegill	148	59.1
ML4	E	10/7/2019	Bluegill	156	57.2
ML4	E	10/7/2019	Bluegill	171	93.4
ML4	E	10/7/2019	Bluegill	146	57.1
ML4	E	10/7/2019	Bluegill	143	42.0
ML4	E	10/7/2019	Bluegill	132	40.3
ML4	E	10/7/2019	Bluegill	152	63.6
ML4	E	10/7/2019	Bluegill	167	78.9
ML4	E	10/7/2019	Bluegill	138	45.0
ML4	E	10/7/2019	Bluegill	na	na
ML4	E	10/7/2019	Largemouth Bass	48	1.1
ML4	E	10/7/2019	Brown Bullhead	269	255.8
ML4	E	10/7/2019	Brown Bullhead	198	100.6
ML4	E	10/7/2019	Brown Bullhead	206	101.5
ML4	E	10/7/2019	Brown Bullhead	333	557.2
ML5	A	10/7/2019	Bluegill	153	67.4
ML5	A	10/7/2019	Bluegill	138	44.6

Site	Location	Date	Species Code	Total Length (mm)	Weight (g)
ML5	A	10/7/2019	Largemouth Bass	79	5.3
ML5	A	10/7/2019	Largemouth Bass	62	2.9
ML5	A	10/7/2019	Rainbow Trout	174	42.5
ML5	B	10/7/2019	Bluegill	137	49.6
ML5	B	10/7/2019	Bluegill	145	56.0
ML5	B	10/7/2019	Bluegill	140	46.8
ML5	B	10/7/2019	Bluegill	141	56.3
ML5	B	10/7/2019	Bluegill	137	45.8
ML5	B	10/7/2019	Bluegill	155	66.3
ML5	B	10/7/2019	Bluegill	155	70.7
ML5	B	10/7/2019	Bluegill	152	64.5
ML5	B	10/7/2019	Goldfish	270	421.3
ML5	C	10/7/2019	Bluegill	150	60.0
ML5	C	10/7/2019	Bluegill	140	43.9
ML5	C	10/7/2019	Bluegill	150	64.9
ML5	C	10/7/2019	Bluegill	144	51.5
ML5	C	10/7/2019	Bluegill	158	81.4
ML5	C	10/7/2019	Largemouth Bass	211	106.4
ML5	C	10/7/2019	Brown Bullhead	235	190.6
ML5	D	10/7/2019	Bluegill	155	66.7
ML5	D	10/7/2019	Bluegill	158	63.4
ML5	D	10/7/2019	Bluegill	177	107.1
ML5	D	10/7/2019	Bluegill	149	62.7
ML5	D	10/7/2019	Bluegill	37	2.1
ML5	D	10/7/2019	Bluegill	141	50.5
ML5	D	10/7/2019	Bluegill	168	82.1
ML5	D	10/7/2019	Largemouth Bass	51	4.1
ML5	D	10/7/2019	Largemouth Bass	300	355.6
ML5	D	10/7/2019	Largemouth Bass	161	70.9
ML5	D	10/7/2019	Largemouth Bass	397	788.5
ML5	D	10/7/2019	Largemouth Bass	48	2.5
ML5	D	10/7/2019	Tui Chub	245	149.9
ML5	E	10/7/2019	Bluegill	160	73.5
ML5	E	10/7/2019	Bluegill	110	21.4
ML5	E	10/7/2019	Bluegill	99	14.5
ML5	E	10/7/2019	Bluegill	156	68.1
ML5	E	10/7/2019	Bluegill	182	112.4
ML5	E	10/7/2019	Bluegill	na	na
ML5	E	10/7/2019	Bluegill	na	na
ML5	E	10/7/2019	Bluegill	na	na
ML5	E	10/7/2019	Largemouth Bass	418	1084.3
ML5	E	10/7/2019	Largemouth Bass	214	115.2
ML5	E	10/7/2019	Largemouth Bass	160	41.9
ML5	E	10/7/2019	Black Crappie	182	80.3

Boat Electrofishing Fish Catch

Site	Location	Date	Species Code	Total Length (mm)	Weight (g)
ML5	E	10/7/2019	Black Crappie	220	136.1
ML6	E	10/7/2019	Bluegill	146	57.7
ML6	E	10/7/2019	Bluegill	92	15.9
ML6	E	10/7/2019	Bluegill	163	84.7
ML6	E	10/7/2019	Bluegill	146	55.0
ML6	E	10/7/2019	Bluegill	97	15.5
ML6	E	10/7/2019	Largemouth Bass	190	83.5
ML6	E	10/7/2019	Largemouth Bass	80	5.7
ML6	E	10/7/2019	Largemouth Bass	178	71.0
ML6	E	10/7/2019	Largemouth Bass	38	0.8
ML6	E	10/7/2019	Largemouth Bass	50	1.4
ML6	E	10/7/2019	Largemouth Bass	80	7.3
ML6	E	10/7/2019	Black Bullhead	210	124.0
ML6	E	10/7/2019	Black Bullhead	235	170.4
ML6	E	10/7/2019	Black Bullhead	243	190.2
ML6	A	10/7/2019	Bluegill	154	55.7
ML6	A	10/7/2019	Bluegill	164	71.9
ML6	A	10/7/2019	Bluegill	152	59.5
ML6	A	10/7/2019	Bluegill	141	54.4
ML6	A	10/7/2019	Largemouth Bass	171	62.2
ML6	A	10/7/2019	Largemouth Bass	198	84.3
ML6	A	10/7/2019	Largemouth Bass	233	172.8
ML6	A	10/7/2019	Largemouth Bass	51	2.3
ML6	A	10/7/2019	Largemouth Bass	44	2.8
ML6	A	10/7/2019	Black Bullhead	257	228.8
ML6	B	10/7/2019	Bluegill	138	42.6
ML6	B	10/7/2019	Bluegill	169	82.5
ML6	B	10/7/2019	Bluegill	105	16.6
ML6	B	10/7/2019	Bluegill	163	70.6
ML6	B	10/7/2019	Bluegill	146	51.4
ML6	B	10/7/2019	Bluegill	92	11.8
ML6	B	10/7/2019	Bluegill	117	24.6
ML6	B	10/7/2019	Bluegill	158	67.9
ML6	B	10/7/2019	Bluegill	105	17.3
ML6	B	10/7/2019	Bluegill	147	56.2
ML6	B	10/7/2019	Bluegill	na	na
ML6	B	10/7/2019	Bluegill	na	na
ML6	B	10/7/2019	Bluegill	na	na
ML6	B	10/7/2019	Largemouth Bass	145	35.7
ML6	B	10/7/2019	Largemouth Bass	62	4.2
ML6	B	10/7/2019	Largemouth Bass	43	2.0
ML6	B	10/7/2019	Largemouth Bass	57	3.1
ML6	C	10/7/2019	Bluegill	30	0.5
ML6	C	10/7/2019	Bluegill	30	0.5

Site	Location	Date	Species Code	Total Length (mm)	Weight (g)
ML6	C	10/7/2019	Bluegill	130	39.5
ML6	C	10/7/2019	Bluegill	28	0.3
ML6	C	10/7/2019	Largemouth Bass	60	2.8
ML6	C	10/7/2019	Largemouth Bass	64	3.0
ML6	C	10/7/2019	Largemouth Bass	163	50.7
ML6	C	10/7/2019	Largemouth Bass	185	75.2
ML6	D	10/7/2019	Bluegill	115	25.6
ML6	D	10/7/2019	Bluegill	162	78.3
ML6	D	10/7/2019	Bluegill	166	90.5
ML6	D	10/7/2019	Bluegill	89	11.2
ML6	D	10/7/2019	Bluegill	102	18.5
ML6	D	10/7/2019	Bluegill	154	65.8
ML6	D	10/7/2019	Bluegill	64	4.5
ML6	D	10/7/2019	Bluegill	155	70.0
ML6	D	10/7/2019	Bluegill	146	61.8
ML6	D	10/7/2019	Bluegill	58	3.5
ML6	D	10/7/2019	Largemouth Bass	275	280.2
ML6	D	10/7/2019	Largemouth Bass	171	56.2
ML6	D	10/7/2019	Largemouth Bass	145	57.9
ML6	D	10/7/2019	Largemouth Bass	83	7.4
ML6	D	10/7/2019	Largemouth Bass	66	3.7
ML6	D	10/7/2019	Largemouth Bass	72	4.0
ML6	D	10/7/2019	Largemouth Bass	62	2.6
ML6	D	10/7/2019	Largemouth Bass	51	1.7
ML6	D	10/7/2019	Largemouth Bass	43	1.5
ML6	D	10/7/2019	Largemouth Bass	55	2.6
LT2	A	10/9/2019	Brown Bullhead	131	21.5
LT2	A	10/9/2019	Brown Bullhead	152	31.5
LT2	A	10/9/2019	Bluegill	143	46.4
LT2	A	10/9/2019	Bluegill	157	50.3
LT2	A	10/9/2019	Bluegill	105	14.1
LT2	A	10/9/2019	Bluegill	140	42.5
LT2	A	10/9/2019	Bluegill	68	4.1
LT2	A	10/9/2019	Bluegill	134	37.5
LT2	A	10/9/2019	Bluegill	142	47.1
LT2	A	10/9/2019	Bluegill	129	35.2
LT2	A	10/9/2019	Bluegill	132	40.4
LT2	A	10/9/2019	Bluegill	125	31.4
LT2	A	10/9/2019	Largemouth Bass	279	312.4
LT2	A	10/9/2019	Largemouth Bass	178	62.0
LT2	A	10/9/2019	Largemouth Bass	363	730.6
LT2	A	10/9/2019	Largemouth Bass	371	757.4
LT2	B	10/9/2019	Largemouth Bass	154	41.8
LT2	B	10/9/2019	Largemouth Bass	129	23.8

Boat Electrofishing Fish Catch

[illegible]

Site	Location	Date	Species Code	Total Length (mm)	Weight (g)
LT2	C	10/9/2019	Goldfish	215	198.2
LT2	C	10/9/2019	Goldfish	264	380.5
LT2	C	10/9/2019	Goldfish	196	143.2
LT2	C	10/9/2019	Goldfish	310	762.9
LT2	C	10/9/2019	Goldfish	198	154.0
LT2	D	10/9/2019	Bluegill	139	38.5
LT2	D	10/9/2019	Bluegill	141	43.8
LT2	D	10/9/2019	Bluegill	128	30.5
LT2	D	10/9/2019	Bluegill	130	32.3
LT2	D	10/9/2019	Bluegill	140	44.7
LT2	D	10/9/2019	Bluegill	123	30.0
LT2	D	10/9/2019	Bluegill	149	55.2
LT2	D	10/9/2019	Bluegill	120	26.2
LT2	D	10/9/2019	Bluegill	148	60.0
LT2	D	10/9/2019	Bluegill	148	57.9
LT2	D	10/9/2019	Brown Bullhead	154	37.6
LT2	D	10/9/2019	Brown Bullhead	160	48.0
LT2	D	10/9/2019	Brown Bullhead	145	32.2
LT2	D	10/9/2019	Goldfish	200	152.4
LT2	D	10/9/2019	Goldfish	190	136.5
LT2	D	10/9/2019	Goldfish	192	137.2
LT2	D	10/9/2019	Goldfish	186	130.6
LT2	D	10/9/2019	Goldfish	195	150.1
LT2	D	10/9/2019	Goldfish	200	162.5
LT2	D	10/9/2019	Largemouth Bass	56	4.0
LT2	E	10/9/2019	Bluegill	130	35.7
LT2	E	10/9/2019	Bluegill	140	43.2
LT2	E	10/9/2019	Bluegill	120	25.0
LT2	E	10/9/2019	Bluegill	154	54.6
LT2	E	10/9/2019	Bluegill	113	20.3
LT2	E	10/9/2019	Bluegill	89	8.7
LT2	E	10/9/2019	Largemouth Bass	159	42.7
LT2	E	10/9/2019	Brown Bullhead	151	39.0
LT2	E	10/9/2019	Goldfish	265	337.3
LT1	A	10/9/2019	Bluegill	112	26.0
LT1	A	10/9/2019	Bluegill	136	39.2
LT1	A	10/9/2019	Bluegill	150	61.1
LT1	A	10/9/2019	Bluegill	110	19.4
LT1	A	10/9/2019	Bluegill	141	51.0
LT1	A	10/9/2019	Bluegill	159	71.4
LT1	A	10/9/2019	Bluegill	132	40.0
LT1	A	10/9/2019	Brown Bullhead	172	57.2
LT1	A	10/9/2019	Brown Bullhead	159	45.6
LT1	A	10/9/2019	Brown Bullhead	134	24.2

Boat Electrofishing Fish Catch

Site	Location	Date	Species Code	Total Length (mm)	Weight (g)
LT1	A	10/9/2019	Brown Bullhead	146	36.1
LT1	A	10/9/2019	Brown Bullhead	152	42.8
LT1	A	10/9/2019	Brown Bullhead	162	49.8
LT1	A	10/9/2019	Brown Bullhead	158	49.0
LT1	A	10/9/2019	Largemouth Bass	254	247.1
LT1	A	10/9/2019	Largemouth Bass	397	1056.8
LT1	A	10/9/2019	Largemouth Bass	404	980.5
LT1	A	10/9/2019	Goldfish	200	148.2
LT1	A	10/9/2019	Goldfish	183	120.6
LT1	A	10/9/2019	Goldfish	263	363.5
LT1	A	10/9/2019	Goldfish	265	354.8
LT1	A	10/9/2019	Goldfish	180	117.1
LT1	C	10/9/2019	Bluegill	138	38.4
LT1	C	10/9/2019	Bluegill	152	52.5
LT1	C	10/9/2019	Bluegill	141	47.8
LT1	C	10/9/2019	Bluegill	160	76.7
LT1	C	10/9/2019	Bluegill	136	45.8
LT1	C	10/9/2019	Bluegill	122	28.3
LT1	C	10/9/2019	Bluegill	122	32.0
LT1	C	10/9/2019	Bluegill	141	47.4
LT1	C	10/9/2019	Bluegill	152	67.5
LT1	C	10/9/2019	Bluegill	148	53.4
LT1	C	10/9/2019	Bluegill	na	na
LT1	C	10/9/2019	Bluegill	na	na
LT1	C	10/9/2019	Largemouth Bass	222	130.4
LT1	C	10/9/2019	Largemouth Bass	52	5.0
LT1	C	10/9/2019	Largemouth Bass	137	36.4
LT1	C	10/9/2019	Largemouth Bass	462	1744.1
LT1	C	10/9/2019	Largemouth Bass	170	68.3
LT1	C	10/9/2019	Brown Bullhead	140	33.7
LT1	C	10/9/2019	Brown Bullhead	142	35.9
LT1	C	10/9/2019	Brown Bullhead	165	59.9
LT1	C	10/9/2019	Brown Bullhead	153	44.4
LT1	C	10/9/2019	Brown Bullhead	156	45.6
LT1	C	10/9/2019	Brown Bullhead	150	41.5
LT1	C	10/9/2019	Brown Bullhead	146	35.8
LT1	C	10/9/2019	Brown Bullhead	135	29.1
LT1	C	10/9/2019	Brown Bullhead	150	35.5
LT1	C	10/9/2019	Brown Bullhead	145	39.9
LT1	C	10/9/2019	Goldfish	181	14.1
LT1	C	10/9/2019	Goldfish	186	125.8
LT1	C	10/9/2019	Goldfish	182	121.7
LT1	C	10/9/2019	Goldfish	171	92.9
LT1	C	10/9/2019	Goldfish	200	145.5

Site	Location	Date	Species Code	Total Length (mm)	Weight (g)
LT1	D	10/9/2019	Bluegill	119	28.4
LT1	D	10/9/2019	Bluegill	130	36.2
LT1	D	10/9/2019	Bluegill	118	25.7
LT1	D	10/9/2019	Bluegill	126	33.2
LT1	D	10/9/2019	Bluegill	130	38.6
LT1	D	10/9/2019	Bluegill	138	45.6
LT1	D	10/9/2019	Bluegill	116	28.5
LT1	D	10/9/2019	Bluegill	116	26.1
LT1	D	10/9/2019	Bluegill	118	25.5
LT1	D	10/9/2019	Bluegill	120	30.2
LT1	D	10/9/2019	Bluegill	na	na
LT1	D	10/9/2019	Bluegill	na	na
LT1	D	10/9/2019	Bluegill	na	na
LT1	D	10/9/2019	Bluegill	na	na
LT1	D	10/9/2019	Bluegill	na	na
LT1	D	10/9/2019	Bluegill	na	na
LT1	D	10/9/2019	Brown Bullhead	149	37.2
LT1	D	10/9/2019	Brown Bullhead	150	39.3
LT1	D	10/9/2019	Brown Bullhead	150	39.7
LT1	D	10/9/2019	Brown Bullhead	135	30.5
LT1	D	10/9/2019	Brown Bullhead	142	36.0
LT1	D	10/9/2019	Goldfish	178	121.7
LT1	D	10/9/2019	Goldfish	184	119.2
LT1	D	10/9/2019	Goldfish	180	122.2
LT1	D	10/9/2019	Goldfish	178	128.0
LT1	D	10/9/2019	Goldfish	198	154.0
LT1	D	10/9/2019	Goldfish	180	121.7
LT1	B	10/9/2019	Bluegill	143	47.0
LT1	B	10/9/2019	Bluegill	132	32.0
LT1	B	10/9/2019	Bluegill	157	57.9
LT1	B	10/9/2019	Bluegill	39	0.7
LT1	B	10/9/2019	Bluegill	148	49.1
LT1	B	10/9/2019	Bluegill	140	41.3
LT1	B	10/9/2019	Bluegill	152	52.7
LT1	B	10/9/2019	Bluegill	120	26.0
LT1	B	10/9/2019	Bluegill	120	24.6
LT1	B	10/9/2019	Goldfish	189	126.5
LT1	B	10/9/2019	Goldfish	181	111.7
LT1	B	10/9/2019	Goldfish	194	147.1
LT1	B	10/9/2019	Goldfish	183	118.2
LT1	B	10/9/2019	Brown Bullhead	156	43.9
LT1	B	10/9/2019	Brown Bullhead	147	35.5
LT1	B	10/9/2019	Brown Bullhead	155	40.8
LT1	B	10/9/2019	Brown Bullhead	171	52.6

Boat Electrofishing Fish Catch

Site	Location	Date	Species Code	Total Length (mm)	Weight (g)
LT1	B	10/9/2019	Largemouth Bass	224	130.6
LT1	B	10/9/2019	Largemouth Bass	42	2.4
LT1	E	10/9/2019	Brown Bullhead	163	48.8
LT1	E	10/9/2019	Brown Bullhead	147	35.0
LT1	E	10/9/2019	Bluegill	138	38.2
LT1	E	10/9/2019	Bluegill	118	23.2
LT1	E	10/9/2019	Bluegill	105	16.0
LT1	E	10/9/2019	Bluegill	130	31.8
LT1	E	10/9/2019	Bluegill	40	1.5
LT1	E	10/9/2019	Black Crappie	139	35.8
LT1	E	10/9/2019	Black Crappie	148	39.8
LT1	E	10/9/2019	Golden Shiner	193	64.2
LT1	E	10/9/2019	Largemouth Bass	52	2.5
LT1	E	10/9/2019	Largemouth Bass	249	200.6

Otter Trawl Events

Site	ML2	ML2	ML2	ML2	ML2	ML1	ML1	ML1	ML1	ML1
Location	T1	T2	T3	T4	T5	T1	T2	T3	T4	T5
Date	6/19/2019	6/19/2019	6/19/2019	6/19/2019	6/19/2019	6/20/2019	6/20/2019	6/20/2019	6/20/2019	6/20/2019
Start_Depth_ft	8	14.4	12.3	17.8	11.7	16	15.5	12.8	10	11.5
End_Depth_ft	11.7	26.4	16.8	14.5	19.9	18	25.5	16.2	18	21.9
Start_Time	2:11 PM	2:36 PM	2:52 PM	3:13 PM	4:01 PM	9:08 AM	9:33 AM	9:54 AM	10:38 AM	11:06 AM
End_Time	2:19 PM	2:42 PM	3:00 PM	3:22 PM	4:07 PM	9:17 AM	9:40 AM	9:57 AM	10:40 AM	11:10 AM
Trawl_Distance_m	340.5	288.2	433.5	481.4	261.7	509.4	360.5	130.6	134	197
Crew_Recorder	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	M. Silva	C. Reyes	C. Reyes	C. Reyes	C. Reyes
Crew_Other1	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge
Crew_Other2	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley
Crew_Other3	M. Silva	M. Silva	M. Silva	M. Silva	M. Silva	C. Reyes	M. Silva	M. Silva	M. Silva	M. Silva
Turbidity_NTU	2.12	2.05	1.86	2.27	3.14	2.31	na	na	2.37	2.38
Water_Temp_degC	21.3	21.3	21.4	21.5	21.4	20.1	na	na	20.2	20.7
Conductivity_μS*cm-1	na	na	na	na	na	na	na	na	na	na
pH	na	na	na	na	na	na	na	na	na	na
DO_percent	na	na	na	na	na	na	na	na	na	na
DO_mg*L-1	na	na	na	na	na	8.96	na	na	8.83	8.67
Notes	YSI not able to stabilize DO	No fish caught - trawl may not have sampled on the bottom due to depths over 15'. YSI not able to stabilize DO.	Trawl not on bottom past 15' deep. YSI not able to stabilize DO.	Sucker was too large to weigh with scale. Trawl not on bottom past 15' deep. YSI not able to stabilize DO.	No fish caught. Trawl not on bottom past 15' deep. YSI not able to stabilize DO.	No fish captured - trawl possibly fouled by SAV	50' of lead line out to attempt to capture benthic fishes but minimize SAV fouling.	Lahontan Redside mortality due to processing	na	na

Otter Trawl Events

Site	ML1	ML1	ML2	ML1/ML2	ML1/ML2	ML1/ML2	ML2
Location	T1	T2	T3	T4	T5	T6	T7
Date	10/14/2019	10/15/2019	10/15/2019	10/15/2019	10/15/2019	10/15/2019	10/16/2019
Start_Depth_ft	36	21.5	na	11.4	15.0	11.0	16.5
End_Depth_ft	na	na	21.5	na	na	14.0	22.5
Start_Time	3:33 PM	8:25 AM	8:51 AM	9:20 AM	9:54 AM	10:18 AM	8:49 AM
End_Time	3:40 PM	8:30 AM	8:54 AM	9:33 AM	10:04 AM	10:29 AM	8:58 AM
Trawl_Distance_m	375.2	143.4	134.2	511	326.5	419	290.9
Crew_Recorder	N. Dunkley	T. Spaulding	K. Berridge	T. Spaulding	T. Spaulding	T. Spaulding	T. Spaulding
Crew_Other1	K. Berridge	K. Berridge	N. Dunkley	K. Berridge	K. Berridge	K. Berridge	K. Berridge
Crew_Other2	C. Reyes	N. Dunkley	C. Reyes	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley
Crew_Other3	C. Turner	C. Reyes	T. Spaulding	C. Reyes	C. Reyes	C. Reyes	C. Reyes
Turbidity_NTU	na	2.26	2.40	4.06	2.51	3.10	3.42
Water_Temp_degC	na	11.4	11.2	11.3	11.4	11.3	11.2
Conductivity_μS*cm-1	na	97.8	103.0	106.1	102.3	na	100.8
pH	na	8.15	8.37	8.31	8.30	8.30	8.30
DO_percent	na	82.9	84.5	84.7	84.3	85.8	84.0
DO_mg*L-1	na	9.07	9.27	9.27	9.23	9.40	9.22
Notes	End depth not determined; water quality not recorded	na	Depth finder (Lowrance) not working accurately	Net twisted, bad sample	na	na	First test using 100' leader ropes; Vegetation occluded opening - not a good sample; required too much time to clear - fish health impacted

Otter Trawl Fish Catch

Site	Location	Date	Start_Time	Species_code	Total Length (mm)	Weight (g)
ML2	T1	6/19/2019	2:11 PM	Bluegill	97	na
ML2	T1	6/19/2019	2:11 PM	Bluegill	26	na
ML2	T1	6/19/2019	2:11 PM	Bluegill	96	na
ML2	T1	6/19/2019	2:11 PM	Bluegill	114	na
ML2	T1	6/19/2019	2:11 PM	Bluegill	31	na
ML2	T1	6/19/2019	2:11 PM	Bluegill	25	na
ML2	T1	6/19/2019	2:11 PM	Bluegill	124	na
ML2	T1	6/19/2019	2:11 PM	Bluegill	110	na
ML2	T1	6/19/2019	2:11 PM	Bluegill	25	na
ML2	T1	6/19/2019	2:11 PM	Bluegill	103	na
ML2	T1	6/19/2019	2:11 PM	Bluegill	na	na
ML2	T1	6/19/2019	2:11 PM	Bluegill	na	na
ML2	T1	6/19/2019	2:11 PM	Bluegill	na	na
ML2	T1	6/19/2019	2:11 PM	Bluegill	na	na
ML2	T1	6/19/2019	2:11 PM	Bluegill	na	na
ML2	T1	6/19/2019	2:11 PM	Bluegill	na	na
ML2	T1	6/19/2019	2:11 PM	Largemouth Bass	126	na
ML2	T3	6/19/2019	2:52 PM	Largemouth Bass	135	na
ML2	T3	6/19/2019	2:52 PM	Largemouth Bass	159	na
ML2	T4	6/19/2019	3:13 PM	Bluegill	132	na
ML2	T4	6/19/2019	3:13 PM	Bluegill	139	na
ML2	T4	6/19/2019	3:13 PM	Bluegill	34	na
ML2	T4	6/19/2019	3:13 PM	Bluegill	41	na
ML2	T4	6/19/2019	3:13 PM	Bluegill	62	na
ML2	T4	6/19/2019	3:13 PM	Bluegill	52	na
ML2	T4	6/19/2019	3:13 PM	Bluegill	52	na
ML2	T4	6/19/2019	3:13 PM	Bluegill	110	na
ML2	T4	6/19/2019	3:13 PM	Bluegill	123	na
ML2	T4	6/19/2019	3:13 PM	Bluegill	24	na
ML2	T4	6/19/2019	3:13 PM	Black Crappie	159	na

Otter Trawl Fish Catch

Site	Location	Date	Start_Time	Species_code	Total Length (mm)	Weight (g)
ML2	T4	6/19/2019	3:13 PM	Brown Bullhead	190	na
ML2	T4	6/19/2019	3:13 PM	Tahoe Sucker	277	200+
ML1	T2	6/20/2019	9:33 AM	Bluegill	26	na
ML1	T3	6/20/2019	9:54 AM	Lahontan Redside	71	na
ML1	T3	6/20/2019	9:54 AM	Bluegill	57	na
ML1	T3	6/20/2019	9:54 AM	Bluegill	56	na
ML1	T3	6/20/2019	9:54 AM	Bluegill	54	na
ML1	T3	6/20/2019	9:54 AM	Bluegill	135	na
ML1	T3	6/20/2019	9:54 AM	Bluegill	52	na
ML1	T3	6/20/2019	9:54 AM	Bluegill	82	na
ML1	T3	6/20/2019	9:54 AM	Bluegill	80	na
ML1	T3	6/20/2019	9:54 AM	Bluegill	67	na
ML1	T3	6/20/2019	9:54 AM	Bluegill	64	na
ML1	T3	6/20/2019	9:54 AM	Bluegill	na	na
ML1	T3	6/20/2019	9:54 AM	Bluegill	na	na
ML1	T4	6/20/2019	10:38 AM	Bluegill	134	na
ML1	T4	6/20/2019	10:38 AM	Bluegill	99	na
ML1	T4	6/20/2019	10:38 AM	Bluegill	54	na
ML1	T4	6/20/2019	10:38 AM	Bluegill	55	na
ML1	T4	6/20/2019	10:38 AM	Bluegill	138	na
ML1	T4	6/20/2019	10:38 AM	Bluegill	129	na
ML1	T4	6/20/2019	10:38 AM	Bluegill	60	na
ML1	T4	6/20/2019	10:38 AM	Bluegill	110	na
ML1	T4	6/20/2019	10:38 AM	Bluegill	61	na
ML1	T4	6/20/2019	10:38 AM	Bluegill	100	na
ML1	T4	6/20/2019	10:38 AM	Bluegill	na	na
ML1	T4	6/20/2019	10:38 AM	Bluegill	na	na
ML1	T4	6/20/2019	10:38 AM	Spotted Bass	81	na
ML1	T4	6/20/2019	10:38 AM	Lahontan Redside	78	na
ML1	T5	6/20/2019	11:06 AM	Bluegill	148	na

Otter Trawl Fish Catch

Site	Location	Date	Start_Time	Species_code	Total Length (mm)	Weight (g)
ML1	T5	6/20/2019	11:06 AM	Bluegill	121	na
ML1	T5	6/20/2019	11:06 AM	Bluegill	134	na
ML1	T5	6/20/2019	11:06 AM	Bluegill	133	na
ML1	T5	6/20/2019	11:06 AM	Bluegill	114	na
ML1	T5	6/20/2019	11:06 AM	Bluegill	122	na
ML1	T1	10/14/2019	3:33 PM	Bluegill	125	33.7
ML1	T1	10/14/2019	3:33 PM	Bluegill	137	43.2
ML1	T1	10/14/2019	3:33 PM	Bluegill	25	1.0
ML1	T1	10/14/2019	3:33 PM	Bluegill	25	1.0
ML1	T1	10/14/2019	3:33 PM	Bluegill	24	1.0
ML1	T1	10/14/2019	3:33 PM	Bluegill	27	1.0
ML1	T1	10/14/2019	3:33 PM	Bluegill	113	26.2
ML1	T1	10/14/2019	3:33 PM	Bluegill	92	15.3
ML1	T1	10/14/2019	3:33 PM	Bluegill	126	37.5
ML1	T1	10/14/2019	3:33 PM	Bluegill	127	36.3
ML1	T1	10/14/2019	3:33 PM	Bluegill	na	na
ML1	T1	10/14/2019	3:33 PM	Brown Bullhead	200	98.7
ML1	T2	10/15/2019	8:25 AM	Black Crappie	295	475.0
ML1	T2	10/15/2019	8:25 AM	Black Crappie	280	398.0
ML1	T2	10/15/2019	8:25 AM	Black Crappie	185	82.0
ML1	T2	10/15/2019	8:25 AM	Bluegill	103	19.9
ML1	T2	10/15/2019	8:25 AM	Bluegill	115	27.6
ML1	T2	10/15/2019	8:25 AM	Bluegill	122	32.0
ML1	T2	10/15/2019	8:25 AM	Brown Bullhead	170	60.1
ML2	T3	10/15/2019	8:51 AM	Bluegill	96	14.8
ML2	T3	10/15/2019	8:51 AM	Bluegill	129	39.0
ML2	T3	10/15/2019	8:51 AM	Bluegill	24	na
ML2	T3	10/15/2019	8:51 AM	Bluegill	120	30.6
ML2	T3	10/15/2019	8:51 AM	Bluegill	96	15.1
ML2	T3	10/15/2019	8:51 AM	Bluegill	139	45.4

Otter Trawl Fish Catch

Site	Location	Date	Start_Time	Species_code	Total Length (mm)	Weight (g)
ML2	T3	10/15/2019	8:51 AM	Bluegill	93	14.0
ML2	T3	10/15/2019	8:51 AM	Bluegill	20	1.0
ML2	T3	10/15/2019	8:51 AM	Bluegill	22	1.0
ML2	T3	10/15/2019	8:51 AM	Bluegill	23	1.0
ML2	T3	10/15/2019	8:51 AM	Bluegill	na	na
ML2	T3	10/15/2019	8:51 AM	Bluegill	na	na
ML2	T3	10/15/2019	8:51 AM	Bluegill	na	na
ML2	T3	10/15/2019	8:51 AM	Bluegill	na	na
ML2	T3	10/15/2019	8:51 AM	Bluegill	na	na
ML2	T3	10/15/2019	8:51 AM	Bluegill	na	na
ML2	T3	10/15/2019	8:51 AM	Bluegill	na	na
ML2	T3	10/15/2019	8:51 AM	Bluegill	na	na
ML2	T3	10/15/2019	8:51 AM	Bluegill	na	na
ML2	T3	10/15/2019	8:51 AM	Bluegill	na	na
ML2	T3	10/15/2019	8:51 AM	Bluegill	na	na
ML2	T3	10/15/2019	8:51 AM	Largemouth Bass	52	1.8
ML2	T3	10/15/2019	8:51 AM	Largemouth Bass	57	3.5
ML2	T3	10/15/2019	8:51 AM	Brown Bullhead	223	142.5
ML2	T3	10/15/2019	8:51 AM	Brown Bullhead	269	na
ML2	T3	10/15/2019	8:51 AM	Black Crappie	50	2.5
ML1/ML2	T4	10/15/2019	9:20 AM	Black Crappie	235	230.7
ML1/ML2	T4	10/15/2019	9:20 AM	Largemouth Bass	273	298.4
ML1/ML2	T4	10/15/2019	9:20 AM	Bluegill	155	73.0
ML1/ML2	T4	10/15/2019	9:20 AM	Bluegill	118	29.0
ML1/ML2	T5	10/15/2019	9:54 AM	Bluegill	126	30.0
ML1/ML2	T5	10/15/2019	9:54 AM	Bluegill	24	na
ML1/ML2	T5	10/15/2019	9:54 AM	Bluegill	17	na
ML1/ML2	T5	10/15/2019	9:54 AM	Bluegill	18	na
ML1/ML2	T5	10/15/2019	9:54 AM	Bluegill	130	37.6
ML1/ML2	T5	10/15/2019	9:54 AM	Bluegill	21	na
ML1/ML2	T6	10/15/2019	10:18 AM	Bluegill	157	73.1

Otter Trawl Fish Catch

Site	Location	Date	Start_Time	Species_code	Total Length (mm)	Weight (g)
ML1/ML2	T6	10/15/2019	10:18 AM	Bluegill	18	na
ML1/ML2	T6	10/15/2019	10:18 AM	Bluegill	19	na
ML1/ML2	T6	10/15/2019	10:18 AM	Bluegill	149	54.8
ML2	T7	10/16/2019	8:49 AM	Bluegill	93	12.0
ML2	T7	10/16/2019	8:49 AM	Bluegill	44	2.2
ML2	T7	10/16/2019	8:49 AM	Bluegill	95	16.2
ML2	T7	10/16/2019	8:49 AM	Bluegill	104	19.6
ML2	T7	10/16/2019	8:49 AM	Bluegill	24	na
ML2	T7	10/16/2019	8:49 AM	Bluegill	96	na

Minnow Trapping Events

Site	ML1	ML1	ML1	ML1	ML1	ML2	ML2	ML2	ML2	ML2
Location	A	B	C	D	E	A	B	C	D	E
Set_Date	6/17/2019	6/17/2019	6/17/2019	6/17/2019	6/17/2019	6/17/2019	6/17/2019	6/17/2019	6/17/2019	6/17/2019
Set_Time	4:15 PM	4:18 PM	4:22 PM	4:25 PM	4:30 PM	4:12 PM	4:00 PM	3:57 PM	3:54 PM	4:04 PM
Check_Date	6/18/2019	6/18/2019	6/18/2019	6/18/2019	6/18/2019	6/18/2019	6/18/2019	6/18/2019	6/18/2019	6/18/2019
Check_Time	12:17 PM	12:19 PM	12:23 PM	12:27 PM	12:30 PM	12:13 PM	11:54 AM	11:51 AM	11:48 AM	11:57 AM
Crew_Recorder	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge
Crew_Other1	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley
Crew_Other2	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes
Crew_Other3	M. Silva	M. Silva	M. Silva	M. Silva	M. Silva	M. Silva	M. Silva	M. Silva	M. Silva	M. Silva
Trap_Depth_ft	2.0	4.0	4.0	2.0	5.0	3.0	4.0	4.0	6.0	4.0
Turbidity_NTU	2.64	2.24	1.66	2.11	2.81	1.88	2.07	1.72	2.02	1.9
Water_Temp_degC	20.3	19.9	20.6	20.4	20.0	20.1	20.0	20.1	19.9	20.1
Conductivity_μS*cm-1	na	na	na	na	na	na	na	na	na	na
pH	na	na	na	na	na	na	na	na	na	na
DO_percent	na	na	na	na	na	na	na	na	na	na
DO_mg*L-1	9.72	9.75	8.84	9.71	9.38	9.98	8.85	8.97	8.77	9.11
Notes	No fish	No fish	No fish; 4 signal crawdads	No fish	na	No fish; 1 signal crawdad	No fish; 1 signal crawdad	No fish	No fish	na

Minnow Trapping Events

Site	ML3	ML3	ML3	ML3	ML3	ML4	ML4	ML4	ML4	ML4
Location	A	B	C	D	E	A	B	C	D	E
Set_Date	6/17/2019	6/17/2019	6/17/2019	6/17/2019	6/17/2019	6/16/2019	6/16/2019	6/16/2019	6/16/2019	6/16/2019
Set_Time	3:48 PM	3:41 PM	3:38 PM	3:31 PM	3:26 PM	6:15 PM	6:09 PM	5:55 PM	6:01 PM	5:49 PM
Check_Date	6/18/2019	6/18/2019	6/18/2019	6/18/2019	6/18/2019	6/17/2019	6/17/2019	6/17/2019	6/17/2019	6/17/2019
Check_Time	11:42 AM	11:37 AM	11:34 AM	11:27 AM	11:23 AM	3:15 PM	3:10 PM	2:57 PM	3:01 PM	2:52 PM
Crew_Recorder	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge
Crew_Other1	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley
Crew_Other2	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes
Crew_Other3	M. Silva	M. Silva	M. Silva	M. Silva	M. Silva	M. Silva	M. Silva	M. Silva	M. Silva	M. Silva
Trap_Depth_ft	10.0	1.5	2.0	4.0	2.0	5.0	5.0	1.5	1.5	2.5
Turbidity_NTU	1.91	2.05	3.16	2.8	3.31	4.59	24.2	3.17	2.9	2.49
Water_Temp_degC	20.0	20.4	20.3	21.0	19.9	20.9	20.3	20.6	21.7	21.0
Conductivity_μS*cm-1	na	na	na	na	na	na	na	na	na	na
pH	na	na	na	na	na	na	na	na	na	na
DO_percent	na	na	na	na	na	na	na	na	na	na
DO_mg*L-1	9.03	9.11	8.97	9.03	9.03	8.91	9.36	11.14	9.54	10.14
Notes	No fish	No fish	No fish	No fish	No fish	Rocky, bouldery, substrate; 2 bullfrog tadpoles; No fish	Turbidity high from algae particles in water at sample location	No fish	No fish	No fish

Minnow Trapping Events

Site	ML5	ML5	ML5	ML5	ML5	ML6	ML6	ML6	ML6	ML6
Location	A	B	C	D	E	A	B	C	D	E
Set_Date	6/16/2019	6/16/2019	6/16/2019	6/16/2019	6/16/2019	6/16/2019	6/16/2019	6/16/2019	6/16/2019	6/16/2019
Set_Time	5:35 PM	5:28 PM	5:24 PM	5:17 PM	5:12 PM	4:35 PM	4:41 PM	4:50 PM	5:00 PM	5:09 PM
Check_Date	6/17/2019	6/17/2019	6/17/2019	6/17/2019	6/17/2019	6/17/2019	6/17/2019	6/17/2019	6/17/2019	6/17/2019
Check_Time	2:35 PM	2:30 PM	2:29 PM	2:21 PM	2:15 PM	1:41 PM	1:47 PM	1:54 PM	2:00 PM	2:05 PM
Crew_Recorder	M. Silva	M. Silva	M. Silva	M. Silva	M. Silva	C. Reyes	C. Reyes	M. Silva	M. Silva	M. Silva
Crew_Other1	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge
Crew_Other2	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley
Crew_Other3	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	M. Silva	M. Silva	C. Reyes	C. Reyes	C. Reyes
Trap_Depth_ft	6.0	2.0	2.0	3.0	4.0	3.0	7.5	4.0	2.0	7.0
Turbidity_NTU	2.1	2.67	2.42	2.64	na	3.89	4.62	2.78	2.77	3.22
Water_Temp_degC	20.3	19.9	20.1	20.7	21.3	21.5	21.7	21.6	21.4	21.7
Conductivity_μS*cm-1	na	na	na	na	na	na	na	na	na	na
pH	na	na	na	na	na	na	na	na	na	na
DO_percent	na	na	na	na	na	na	na	na	na	na
DO_mg*L-1	9.89	9.57	9.47	10.51	10.59	9.22	9.85	9.99	10.05	10.38
Notes	Deployed in thick SAV; No fish	No fish	No fish	No fish	No fish	Weather - overcast, winds 5-10 mph, ~73F; No fish	No fish; 2 crawfish captured	No fish	No fish	No fish

Minnow Trapping Events

Site	MRL2	MRL2	MRL2	MRL2	MRL2	MRL1	MRL1	MRL1	MRL1
Location	A	B	C	D	E	A	B	C	D
Set_Date	6/18/2019	6/18/2019	6/18/2019	6/18/2019	6/18/2019	6/18/2019	6/18/2019	6/18/2019	6/18/2019
Set_Time	2:00 PM	1:50 PM	1:45 PM	1:33 PM	1:13 PM	3:06 PM	2:58 PM	2:55 PM	2:43 PM
Check_Date	6/19/2019	6/19/2019	6/19/2019	6/19/2019	6/19/2019	6/19/2019	6/19/2019	6/19/2019	6/19/2019
Check_Time	1:11 PM	1:06 PM	1:05 PM	1:02 PM	12:58 PM	1:31 PM	1:26 PM	1:25 PM	1:21 PM
Crew_Recorder	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley
Crew_Other1	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge
Crew_Other2	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes
Crew_Other3	M. Silva	M. Silva	M. Silva	M. Silva	M. Silva	M. Silva	M. Silva	M. Silva	M. Silva
Trap_Depth_ft	4.0	5.0	9.0	9.0	6.5	4.5	3.0	4.0	5.0
Turbidity_NTU	3.46	na	na	na	3.51	2.91	na	na	na
Water_Temp_degC	20.3	na	na	na	21.9	20.9	na	na	na
Conductivity_μS*cm-1	na	na	na	na	na	na	na	na	na
pH	na	na	na	na	na	na	na	na	na
DO_percent	na	na	na	na	na	na	na	na	na
DO_mg*L-1	na	na	na	na	na	na	na	na	na
Notes	Trap set in vegetation; No fish; YSI not working - no DO	No fish	No fish	No fish	No fish; YSI not working - no DO	No fish; YSI not working - no DO	No fish	Overhanging willows, woody structure in water - increased habitat complexity	na

Site	MRL1	LT2	LT2	LT2	LT2	LT2	LT1	LT1	LT1
Location	E	A	B	C	D	E	A	E	B
Set_Date	6/18/2019	6/19/2019	6/19/2019	6/19/2019	6/19/2019	6/19/2019	6/19/2019	6/19/2019	6/19/2019
Set_Time	2:32 PM	9:10 AM	9:24 AM	9:35 AM	9:46 AM	10:00 AM	10:35 AM	10:45 AM	10:54 AM
Check_Date	6/19/2019	6/20/2019	6/20/2019	6/20/2019	6/20/2019	6/20/2019	6/20/2019	6/20/2019	6/20/2019
Check_Time	1:17 PM	11:55 AM	12:00 PM	12:04 PM	12:07 PM	12:11 PM	12:16 PM	12:22 PM	12:28 PM
Crew_Recorder	N. Dunkley	K. Berridge	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes
Crew_Other1	K. Berridge	N. Dunkley	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge
Crew_Other2	C. Reyes	C. Reyes	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley
Crew_Other3	M. Silva	M. Silva	M. Silva	M. Silva	M. Silva	M. Silva	M. Silva	M. Silva	M. Silva
Trap_Depth_ft	4.0	1.0	3.0	3.0	4.5	3.0	4.0	3.0	3.0
Turbidity_NTU	2.5	3.08	na	na	na	3.3	2.66	na	na
Water_Temp_degC	20.9	22.8	na	na	na	22.6	23.0	na	na
Conductivity_μS*cm-1	na	na	na	na	na	na	na	na	na
pH	na	na	na	na	na	na	na	na	na
DO_percent	na	na	na	na	na	na	na	na	na
DO_mg*L-1	na	8.39	na	na	na	9.13	10.74	na	na
Notes	No fish; YSI not working - no DO	No fish	Trap set in vegetation, next to a log; No fish	No fish	Trap set in lily pads	No fish	No fish	No fish	No fish

Minnow Trapping Events

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Minnow Trapping Events

Site	ML3	ML3	ML3	ML2	ML2	ML2	ML2	ML2	ML1
Location	D	E	A	D	C	E	B	A	A
Set_Date	10/14/2019	10/14/2019	10/14/2019	10/14/2019	10/14/2019	10/14/2019	10/14/2019	10/14/2019	10/14/2019
Set_Time	2:34 PM	2:31 PM	2:47 PM	2:53 PM	2:55 PM	2:59 PM	3:03 PM	3:06 PM	3:08 PM
Check_Date	10/15/2019	10/15/2019	10/15/2019	10/15/2019	10/15/2019	10/15/2019	10/15/2019	10/15/2019	10/15/2019
Check_Time	12:08 PM	12:05 PM	12:41 PM	1:36 PM	1:46 PM	1:56 PM	2:00 PM	2:14 PM	2:28 PM
Crew_Recorder	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley
Crew_Other1	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge
Crew_Other2	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes
Crew_Other3	C. Turner	C. Turner	C. Turner	C. Turner	C. Turner	C. Turner	C. Turner	C. Turner	C. Turner
Trap_Depth_ft	2.0	2.0	5.0	6.0	4.0	3.0	4.0	3.0	3.0
Turbidity_NTU	na	na	3.35	na	na	na	na	3.06	na
Water_Temp_degC	na	na	12.0	na	na	na	na	12.2	na
Conductivity_μS*cm-1	na	na	107.4	na	na	na	na	107.6	na
pH	na	na	7.80	na	na	na	na	8.34	na
DO_percent	na	na	8.72	na	na	na	na	9.49	na
DO_mg*L-1	na	na	80.5	na	na	na	na	88.6	na
Notes	No fish	No fish	No fish	No fish	No fish	No fish; One crayfish	No fish; One crayfish	No fish	No fish

Minnow Trapping Events

Site	ML1	ML1	ML1	ML1	ML6	ML6	ML6	ML6	ML6
Location	B	C	D	E	A	B	C	D	E
Set_Date	10/14/2019	10/14/2019	10/14/2019	10/14/2019	10/13/2019	10/13/2019	10/13/2019	10/13/2019	10/13/2019
Set_Time	3:10 PM	3:12 PM	3:14 PM	3:17 PM	2:22 PM	2:27 PM	2:35 PM	2:39 PM	2:44 PM
Check_Date	10/15/2019	10/15/2019	10/15/2019	10/15/2019	10/14/2019	10/14/2019	10/14/2019	10/14/2019	10/14/2019
Check_Time	2:31 PM	2:41 PM	2:46 PM	2:57 PM	11:15 AM	11:24 AM	11:35 AM	11:39 AM	11:53 AM
Crew_Recorder	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	C. Turner	C. Turner	C. Turner	C. Turner	C. Turner
Crew_Other1	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge
Crew_Other2	C. Reyes	C. Reyes	C. Reyes	C. Reyes	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley
Crew_Other3	C. Turner	C. Turner	C. Turner	C. Turner	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes
Trap_Depth_ft	2.5	4.0	6.0	5.0	6.0	4.0	3.5	3.5	6.0
Turbidity_NTU	na	na	na	3.37	na	na	na	na	7.61
Water_Temp_degC	na	na	na	12.6	na	na	na	na	11.7
Conductivity_μS*cm-1	na	na	na	106.9	na	na	na	na	139.0
pH	na	na	na	8.41	na	na	na	na	7.95
DO_percent	na	na	na	9.37	na	na	na	na	8.52
DO_mg*L-1	na	na	na	88.2	na	na	na	na	78.5
Notes	No fish	No fish	No fish	No fish	No fish	Set under dok walkway; No fish; One crayfish	No fish	No fish	No fish

Minnow Trapping Events

Site	ML5	ML5	ML5	ML5	ML5	MRL1	MRL1	MRL1	MRL1	MRL1
Location	A	B	C	D	E	A	B	C	D	E
Set_Date	10/13/2019	10/13/2019	10/13/2019	10/13/2019	10/13/2019	10/13/2019	10/13/2019	10/13/2019	10/13/2019	10/13/2019
Set_Time	3:10 PM	3:05 PM	3:02 PM	2:57 PM	2:52 PM	1:54 PM	1:51 PM	1:48 PM	1:45 PM	1:38 PM
Check_Date	10/14/2019	10/14/2019	10/14/2019	10/14/2019	10/14/2019	10/14/2019	10/14/2019	10/14/2019	10/14/2019	10/14/2019
Check_Time	12:44 PM	12:36 PM	12:32 PM	12:20 PM	12:07 PM	10:21 AM	10:17 AM	10:12 AM	10:05 AM	9:55 AM
Crew_Recorder	C. Turner	C. Turner	C. Turner	C. Turner	C. Turner	C. Turner	C. Turner	C. Turner	C. Turner	C. Turner
Crew_Other1	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge
Crew_Other2	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley
Crew_Other3	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes
Trap_Depth_ft	10.0	5.0	4.5	3.0	7.0	2.5	2.5	2.5	3.0	6.5
Turbidity_NTU	3.60	na	na	na	na	2.95	na	na	na	na
Water_Temp_degC	11.7	na	na	na	na	10.7	na	na	na	na
Conductivity_μS*cm-1	113.3	na	na	na	na	94.6	na	na	na	na
pH	8.77	na	na	na	na	8.62	na	na	na	na
DO_percent	9.85	na	na	na	na	9.27	na	na	na	na
DO_mg*L-1	90.4	na	na	na	na	83.1	na	na	na	na
Notes	No fish	No fish; One crayfish	No fish; One crayfish	No fish; One crayfish	No fish	No fish	No fish; One crayfish	No fish; One crayfish	No fish	No fish

Minnow Trapping Events

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Minnow Trapping Events

Site	LT2	LT1	LT1	LT1	LT1	LT1
Location	E	D	A	E	B	C
Set_Date	10/16/2019	10/16/2019	10/16/2019	10/16/2019	10/16/2019	10/16/2019
Set_Time	11:21 AM	11:28 AM	11:50 AM	12:07 PM	12:14 PM	12:22 PM
Check_Date	10/17/2019	10/17/2019	10/17/2019	10/17/2019	10/17/2019	10/17/2019
Check_Time	8:42 AM	8:53 AM	8:44 AM	8:47 AM	8:49 AM	8:51 AM
Crew_Recorder	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge	K. Berridge
Crew_Other1	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley	N. Dunkley
Crew_Other2	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes	C. Reyes
Crew_Other3	T. Spaulding	T. Spaulding	T. Spaulding	T. Spaulding	T. Spaulding	T. Spaulding
Trap_Depth_ft	2.0	2.0	3.0	2.0	1.0	2.0
Turbidity_NTU	4.12	3.51	na	na	na	na
Water_Temp_degC	10.1	10.6	na	na	na	na
Conductivity_μS*cm-1	297	294	na	na	na	na
pH	7.27	8.18	na	na	na	na
DO_percent	7.67	10.79	na	na	na	na
DO_mg*L-1	68.0	97.0	na	na	na	na
Notes	No fish	No fish	No fish; two bullfrog tadpoles	Location change - original site inaccessible due to vegetation; No fish	No fish	No fish

Minnow Trap Catch

Site	Location	Set Date	Species Code	Total Length (mm)	Weight (g)
ML1	E	6/17/2019	Bluegill	92	11.5
ML2	E	6/17/2019	Bluegill	60	3.0
ML4	B	6/16/2019	Bluegill	69	na
MRL1	D	6/18/2019	Bluegill	56	na
LT2	D	6/19/2019	Bluegill	52	na
LT2	D	6/19/2019	Bluegill	59	na