Annual Monitoring of Compensation and Offset Measures 2019

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EXECUTIVE SUMMARY

New Gold Inc. owns the Rainy River Mine (RRM), located in western Ontario in the Township of Chapple and District of Rainy River, approximately 65 km northwest of Fort Frances, and approximately 420 km west of Thunder Bay. The RRM is located within the Pinewood River watershed. The Pinewood River flows past the RRM and drains into the Rainy River approximately 37 km downstream.

As part of RRM's comprehensive environmental monitoring program, annual performance monitoring for constructed fish habitat is conducted as outlined in the Compensation Plan for Metal and Diamond Mining Effluent Regulations (MDMER)[1] Schedule 2 Amendment Waterbodies (Compensation Plan) and the Offset Plan for *Fisheries Act* Section 35(2)(b) Authorization 15-HCAA-00039 (Offset Plan). This monitoring is comprised of fish community surveys, fish habitat surveys, and associated reporting. Fish community and fish habitat surveys were conducted at two different Compensation Plan watercourses: 1) West Creek Diversion (Stockpile Pond, Stockpile diversion channel, West Creek Pond, and West Creek diversion channel); and 2) Clark Creek Diversion (Clark Creek Pond and Clark Creek diversion channel). Fish community and fish habitat surveys were also conducted at and one Offset Plan watercourse: Teeple Pond and its Outlet Channel.

Watercourse connectivity to permit the passage of fish was excellent for West Creek Pond, West Creek diversion channel, Clark Creek Pond, Clark Creek diversion channel, and Teeple Pond and its Outlet. In contrast, Stockpile Pond was disconnected from the rest of the Compensation Plan watercourses as the Stockpile diversion channel was found to have dry sections during both the high- and low-flow surveys thereby isolating the fish community within the pond. Pond depths were very stable for West Creek, Clark Creek, and Teeple Ponds, providing deep refuge areas for resident fish. Stockpile Pond water levels fluctuated greatly throughout the year which resulted in Stockpile Pond diversion channel partially running dry during the high-flow spring freshet survey and completely dry during the mid-summer low-flow survey. These water level fluctuations also caused the pond to become quite shallow (<50 cm) in September. Pond levels increased from that point and should provide adequate overwintering habitat for the isolated fish community in 2019/2020.

Fish habitat was excellent for all pond and diversion channel habitat with high levels of riparian coverage and numerous boulder and woody debris piles providing cover for the resident

[1] Formerly the Metal Mining Effluent Regulations (MMER)

fish community. Instream habitat features and all shorelines were stable with a diverse array of vegetation found around and within the watercourses.

Fish species diversity ranged from 4 to 14 unique species among the watercourses, with Stockpile and West Creek Ponds along with the West Creek diversion channel achieving the success criterion (species diversity of nine or more) with 11, 14, and 14 unique species respectively. Clark Creek Pond, Clark Creek diversion channel, and Teeple Pond and its outlet did not achieve the target number of species. Interestingly, the Clark Creek and Teeple systems are connected and have a similar number of species. The presence of multiple age classes including young of the year found at every watercourse indicated adequate spawning and rearing habitat for species present. Fish abundance was high in all watercourses. Of note, Stockpile diversion channel was completely dry during the summer fish survey and therefore no fish were present.

Based on the findings of the 2019 RRM Compensation and Offset Annual Performance surveys conducted in May and July 2019, Clark Creek Pond and Teeple Pond achieved success for all prescribed criteria. The other watercourses (Stockpile Pond, Stockpile diversion channel, West Creek Pond, West Creek diversion channel, Clark Creek diversion channel, and Teeple Pond outlet) underperformed to varying degrees. Many of these shortfalls may well be alleviated with improvement to Stockpile Pond water levels which requires sufficient pond levels as to maintain full connectivity with downstream watercourses during both high and low-flow scenarios. A dye tracing study was conducted in Stockpile Pond by RRM personnel in 2019, however results were inconclusive and water losses from the pond remain unaccounted for. RRM has undertaken a geotechnical investigation of the Stockpile Pond Dam which is currently ongoing. Determination of the source of these losses and ameliorating Stockpile Pond water levels should remain a priority. Diversion channel shortfalls were mostly due to the requirement to fulfil both electrofishing and minnow trap catch targets. Not all of the species present within these channels are readily captured utilizing minnow traps and thus the minnow trap results might underrepresent true fish abundance.

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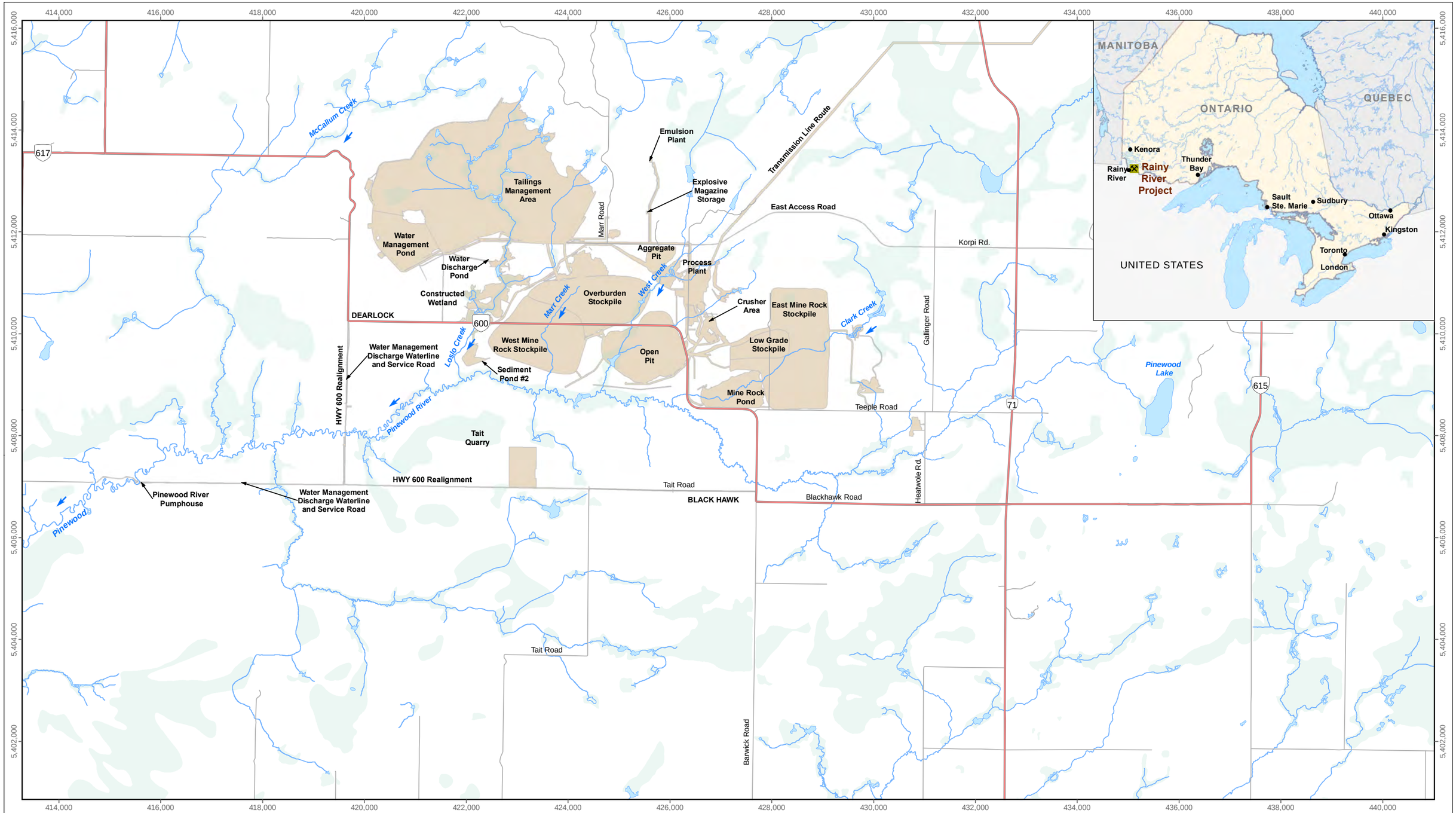
1.1 Site Description

New Gold Inc. owns the Rainy River Mine (RRM), located in western Ontario in the Township of Chapple and District of Rainy River, approximately 65 km northwest of Fort Frances and approximately 420 km west of Thunder Bay (Figure 1.1). The RRM is located within the Pinewood River watershed. The Pinewood River flows past the RRM and drains into the Rainy River approximately 37 km downstream.

Earliest exploration of the Rainy River Project (RRP) began in 1967. Rainy River Resources Ltd. acquired the project in 2005 and began conducting baseline studies in 2008. The RRP was acquired by New Gold Inc. in 2013 and an Environmental Assessment (EA) report was submitted in 2014 (AMEC 2014). Site construction began following provincial and federal EA approvals in 2015. In 2017, site construction was largely completed, and the project transitioned to an operational mine which includes an open pit mine, ore storage facilities, a process plant, a Tailings Management Area (TMA), watercourse diversions, site drainage works, a fuel tank farm, explosives manufacturing facilities, explosives storage facilities, and plans for future underground operation. The RRM was officially commissioned in September 2017.

1.2 Objectives

The annual monitoring of the Compensation and Offset measures includes two components; annual monitoring of fish and fish habitat and associated annual reporting. For both components, the scope includes prescribed monitoring of habitat and fish community endpoints as per Fisheries and Oceans Canada (DFO) Compensation and Offsetting requirements. Accordingly, the scope includes monitoring of fish and fish habitat in stream and pond environments. The objective of this report is to summarize the results of the 2019 RRM Compensation and Offset Measures Monitoring Program fish community and fish habitat surveys and to determine if they meet DFO success criteria (Table 1.1).



LEGEND

Mine Infrastructure

0 1 2 4
km

N
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Map Projection: UTM Zone 15 NAD 1983
Data Source: Reproduced under licence from Her Majesty the Queen in Right of Canada, Department of Natural Resources Canada. All rights reserved.

Location and Layout, Rainy River Project

Date: December 2019
Project : 197202.0033

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Figure 1.1

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Table 1.1: Compensation Plan and Offset Plan Monitoring and Success Criteria

Attribute	Monitoring Requirements	Success Criteria	Report Schedule[a]
Physical Function of Compensation Measures	Water level gauges with an automated water level logger will be used to monitor water levels in the constructed ponds for 5 years following construction.[b]	Water levels are consistent with those specified in the design and the diversion channels and ponds allow for passage of fish.	Annual Monitoring Reports due to DFO on or before December 31 (2019, 2020, 2021, and 2022).
	Water depth measurements of the pond area will be conducted once per year during the monitoring period (5 years) to confirm refuge areas are maintained.[b]		
	Water level data from ponds will be used to evaluate frequency and duration of flows in the discharge channel. Water depth and velocity measurements in the discharge channel will be taken in pools, flats, and riffles during at least one low flow period and high flow period each year (for 5 years). This data will be used to assess the channel conditions for fish passage (spring freshet recommended for high flow measurement).		
	Fish presence within the diversion channels will be monitored once per summer during the monitoring period (5 years) to assess fish access to the diversion channels.		
Stability of Habitat Structures	Observations will be made once per year during the monitoring period, during low flow for best visibility to confirm that constructed features are in place and functional.	Constructed habitat features remain in place, shorelines and graded offset features are stable and not eroding (greater than 80% of features are considered stable). Riparian vegetation cover and plantings achieve 80% coverage of area, and or survival of planted stock.	
	Stability of the features and general condition will be assessed by mapping and photo documenting the perimeter of the ponds and the diversion channels once per year. Consistent vantage points will be used to provide between year comparisons.		
	Riparian vegetation cover and planting success will be monitored annually by estimating the percent cover of herbaceous ground cover and the percent survival of planted stock (shrubs).		
Fish Species Presence, Life Cycle Usage, and Abundance	Fish sampling will be conducted annually during the summer for 5 years.	Minimum of 9 species of fish present in each of the 2 diversion areas (Clark Creek Diversion and West Creek Diversion) and Teeple Pond and Outlet. Multiple year classes including young of the year fish are present in the compensation features (Clark Creek and West Creek Diversions) and offset measures (Teeple Pond and Outlet). Overall Catch-per-Unit-Effort (CPUE) for all species combined, for at least two of the following capture methods (electrofishing, minnow traps, and seine nets); Minnow Trap CPUE ≥ 2 fish per trap hour Seine Net CPUE ≥ 16 fish per 15 m net pull Electrofishing CPUE ≥ 44 fish per 1,000 seconds	
	Minimum fishing effort per pond: minnow traps (1,500 trap hours), seine nets (10 individual [15 m] net hauls), and electrofishing (10,000 seconds). Additional effort and methods may be used to confirm larger bodied species and species presence.		
	Minimum fishing effort per diversion channel: minnow traps (250 trap hours), electrofishing (1,000 seconds). Additional effort and methods may be used to confirm larger bodied species, species presence, and species movement throughout the channel.		

[a] Annual reports are due 2019, 2020, 2021, and 2022 for the Schedule 2 Compensation Plan (Clark Creek Diversion and West Creek Diversion), but only during 2019 and 2020 for the Offset Plan (Teeple Pond and Teeple Pond Outlet).
[b] Data collected by RRM and provided to Minnow for annual reports.

2 METHODS

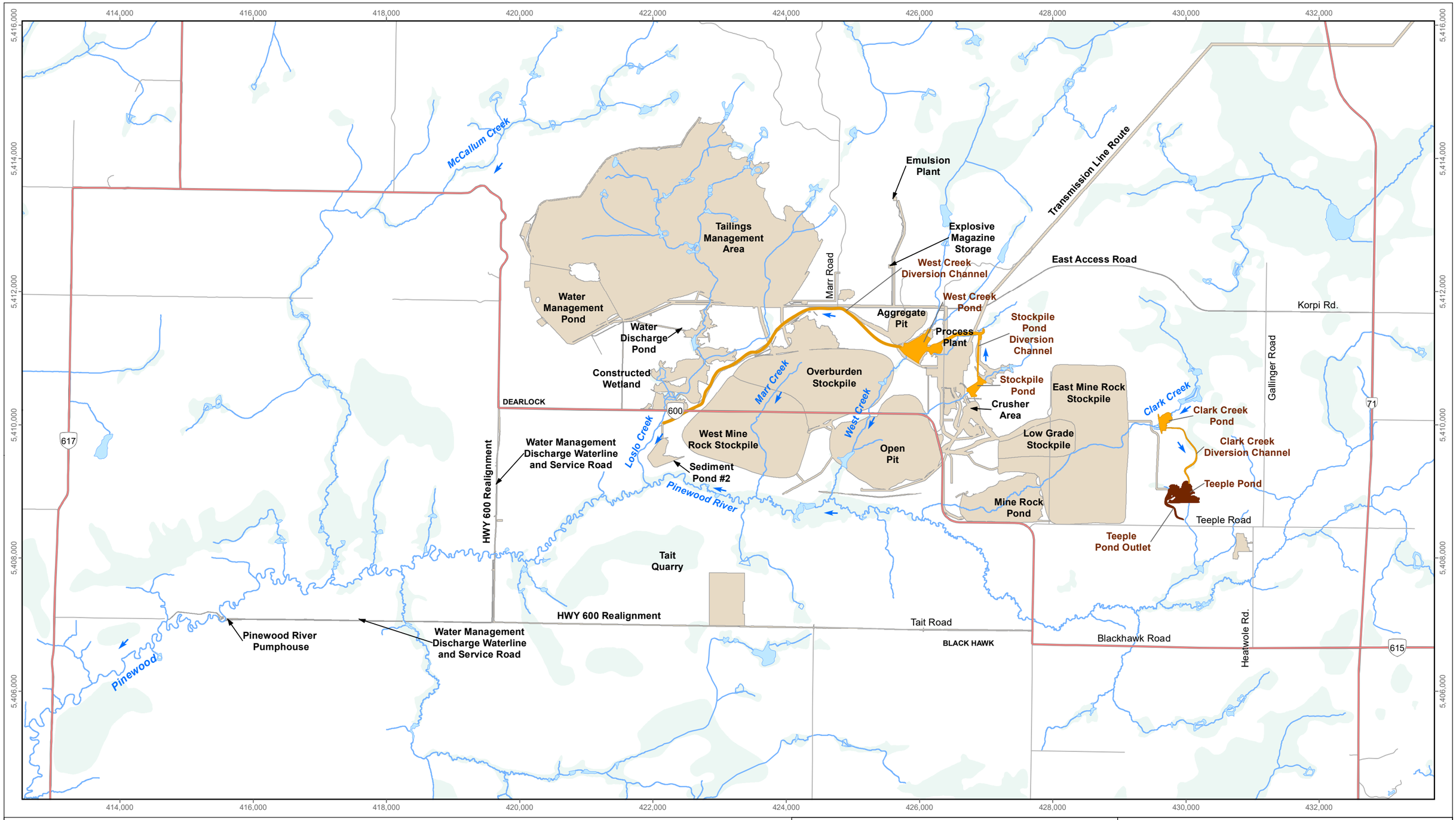
2.1 Compensation and Offset Plan Annual Monitoring Overview

The RRM Compensation and Offset Measures Monitoring Program was conducted over two surveys conducted from May 15th to 17th and July 16th to 23rd, 2019. These surveys focused on fish habitat and fish community assessments, targeting the Compensation and Offset measures (i.e. the constructed ponds and streams; Figure 2.1), these constructed features were created in response to lost/altered habitat due to mine site construction. Construction of the Compensation and Offset measures was completed in 2017 and 2016 respectively. The spring survey focused on habitat and flow connectivity within stream features while the mid-summer survey focused on habitat and fish communities in both stream and pond compensation features.

The Compensation measures include two different watercourses: 1) West Creek Diversion (Stockpile Pond, Stockpile Pond diversion channel, West Creek Pond, and West Creek diversion channel); and 2) Clark Creek Diversion (Clark Creek Pond and Clark Creek diversion channel; Figure 2.1), whereas the Offset measures are comprised of Teeple Pond and its Outlet Channel (Figure 2.1). Construction of the Clark Creek Pond was completed in early 2016 and construction of the Clark Creek diversion channel was completed by late 2016. The Stockpile Pond and diversion channel were constructed by early 2016, whereas the West Creek Pond and Diversion Channel construction was completed by late 2017. Annual monitoring for Compensation features is to be completed until 2022 (AMEC 2017). Construction of Teeple Pond was completed in early 2016 and construction of the Teeple Pond outlet channel was completed between the fall of 2015 and early winter 2016. Annual monitoring for Offset measures is to be completed until 2021 (AMEC 2015). Within each of the watercourses, the fish habitat and fish communities were assessed utilizing the following methods.

2.1.1 Stream Flow Measurements

At each flow monitoring location, water velocity and depth were measured at even increments along a wetted channel cross-sectional width. At each measurement point, water depth was measured to the nearest centimeter using a meter stick (depth ≤ 1.0 m), and water velocity was measured with a Flo-Mate Model 2000 portable velocity meter (Marsh-McBirney Ltd., Frederick, MD). Flow measurements targeted pool, riffle, and run/flat areas, and were taken at multiple locations to be representative of the entire compensation feature. These measurements were taken during a high-flow period (spring freshet) and a low-flow period (mid-summer).



LEGEND

- Compensation Plan Monitoring Area
- Offset Plan Monitoring Area
- Mine Infrastructure

0 0.75 1.5 3 km

N W E S

Map Projection: UTM Zone 15 NAD 1983

Compensation and Offset Monitoring Areas

Date: December 2019
Project: 197202.0033

minnow environmental inc.

Figure 2.1

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2.1.2 Pond Depth Measurements

Solinst 3001 LT Levelogger Edge, M10 water level loggers were installed at each pond by Wood (Formerly AMEC Foster Wheeler). Pond depth and temperature data were recorded every 15 minutes and were compensated with the Solinst 3001 Barologger Edge. RRM environment department staff download the data quarterly; the latest download was collected between November 26th and 28th, 2019.

2.1.3 Fish Habitat Assessment

Habitat surveys of constructed features (e.g., boulder and woody debris piles) in stream and pond habitats were completed during the mid-summer survey facilitated by low water levels. Photo-documentation and field observations of riparian vegetation was completed during this period to estimate the percent cover of herbaceous ground cover around the perimeter of ponds and diversion channels.

2.1.4 Fish Community Assessment

Fish communities of the stream habitat were assessed using the following collection methods[2]; backpack electrofishing and overnight minnow trapping which targeted different microhabitats (pools, riffles, undercut banks, etc.) until the prescribed fishing effort was attained for each stream (Table 1.1). Backpack electrofishing units were adjusted to appropriate voltage and duty cycle settings based on water conductivity and temperature to minimize the risk of harm to fish. Minnow traps were baited with dry cat food, placed in the preferred habitats of local species (Scott and Crossman 1998), and checked daily.

Fish collection methods applied in pond habitats included backpack electrofishing, seine netting, and overnight minnow trapping targeting higher use habitat of local species (Scott and Crossman 1998; Table 1.1). All captured fish were handled with care, identified to species, and enumerated. A subset of up to 40 fish were measured for fork and total length using electronic calipers (to the nearest 0.01 mm) or an appropriately sized measuring board, and for total body weight using a Scout Pro analytical balance (Model PSE-123) or an appropriately-sized Pesola spring scale. The presence of any external lesions, tumours, parasites, or other abnormalities was also noted following standardized procedures. All captured fish were released near the location of capture, with fish measurements recorded on waterproof field data collection sheets.

[2] Electrofishing and to a lesser extent seine netting are considered more quantitative methods for determination of species abundance compared to minnow trapping. This is because many species are not effectively captured by minnow trapping (Jackson and Harvey 1997). Therefore, results will be presented in the following order; electrofishing, seine netting, and minnow trapping.

2.2 Data Analysis

Stream flow, pond level, and other habitat data from each area were compared to DFO requirements (Table 1.1). Fish capture and measurement data from each area were used to calculate Catch-Per-Unit-Effort (CPUE; by gear type), length histograms to show size and inferred age distribution of fish populations, and number of species for comparison to DFO requirements.

3 COMPENSATION PLAN ANNUAL MONITORING

3.1 Physical Conditions and Vegetation

3.1.1 Diversion Channels

The Stockpile Pond diversion channel had an average depth and flow velocity of 17.0 cm and 0.04 m/s respectively for the spring survey, but the stream channel was dry for approximately 25 m downstream of Stockpile Pond (Table 3.1, Appendix Table A.1). The diversion channel was entirely dry during the summer survey therefore no measurements were taken (Table 3.1, Appendix Photo A.1).

The West Creek diversion channel was separated into two sections, one from West Creek Pond to the Haul Road (i.e. upstream section), and one downstream of the Haul Road to the confluence with Loslo Creek (Figure 2.1). Average depth and flow velocity for the upstream portion of the diversion channel were 24.5 cm and 0.139 m/s respectively during the spring survey and 21.0 cm and 0.121 m/s respectively during the summer survey (Table 3.1, Appendix Tables A.2 and A.6). Average depth and flow velocity for the downstream section of the channel were 23.3 cm and 0.027 m/s respectively during the spring survey and 24.5 cm and 0.037 m/s respectively during the summer survey (Table 3.1, Appendix Tables A.3 and A.7).

Clark Creek diversion channel had an average depth and flow velocity of 20.9 cm and 0.011 m/s respectively during the spring survey and 25.3 cm and 0.009 m/s respectively during the summer survey (Table 3.1, Appendix Tables A.4 and A.8).

Stockpile Pond Diversion never achieved full connectivity between Stockpile Pond (upstream) and West Creek Pond (downstream) during the spring freshet or the mid-summer surveys. In contrast, both West Creek Diversion and Clark Creek Diversion Channels achieved full connectivity during spring and summer surveys.

The Stockpile Pond diversion channel had extensive riparian vegetation that generally consisted of sedges (*Carex* sp.) and grasses. However, due to the lack of water during the July survey, only a low density of cattails (*Typha* sp.) was observed (Appendix Photo A.1). The West Creek diversion channel had extensive (> 90%) riparian vegetation consisting of sedges, grasses, and cattails (Appendix Photo A.2 and A.3). Submergent macrophytes primarily included arrowhead (*Sagittaria* sp.), burreed (*Sparganium* sp.), hornwort (*Ceratophyllum* sp.), and pondweed (*Potamogeton* sp.) which occurred in deeper pool habitat, especially adjacent to the confluence with Loslo Creek (Appendix Photo A.2 and A.3). Clark Creek diversion channel had riparian vegetation cover greater than 90%, primarily consisting of grasses, sedges, and other common forbs. In addition, extensive beds of cattails were present throughout the entire

Table 3.1: Stream Depth and Flow Measurements, RRM 2019

a) High-Flow Survey (May 2019)

Waterbody		Monitoring Station	Station Depth (cm)		Area Depth (cm)		Station Flow (m/s)		Area Flow (m/s)	
			Mean	SD	Mean	SD	Mean	SD	Mean	SD
Compensation Plan Features (upstream to downstream)	Stockpile Pond Diversion Channel	SPDC-Culvert	11.0	7.4	17.0	7.8	0.0280	0.042	0.038	0.043
		SPDC-01	20.2	10.1			0.0050	0.010		
		SPDC-02	9.0	0.8			0.1813	0.192		
		SPDC-03	10.8	5.3			0.0110	0.010		
		SPDC-04	24.2	12.9			0.0032	0.004		
		SPDC-05	27.0	10.4			0.0002	0.0004		
	West Creek Diversion Channel (upstream of haul road)	WCDC-A1	13.4	6.6	24.5	13.9	0.148	0.194	0.139	0.093
		WCDC-A2	29.3	13.8			0.057	0.108		
		WCDC-A3	18.0	7.2			0.391	0.221		
		WCDC-A4	45.7	24.5			0.034	0.028		
		WCDC-A5	7.3	6.7			0.253	0.213		
		WCDC-A6	19.4	7.5			0.085	0.048		
		WCDC-A7	38.7	31.3			0.002	0.003		
	West Creek Diversion Channel (downstream of haul road)	WCDC-01	12.4	5.7	23.3	16.0	0.009	0.012	0.027	0.052
		WCDC-02	11.0	2.2			0.050	0.112		
		WCDC-03	31.6	19.3			0.006	0.009		
		WCDC-04	7.2	3.7			0.066	0.068		
		WCDC-05	30.6	11.0			0.009	0.007		
		WCDC-06	34.0	6.3			0.025	0.031		
		WCDC-07	8.4	1.5			0.063	0.067		
		WCDC-08	47.0	16.2			0.012	0.013		
		WCDC-09	27.6	4.4			0.006	0.007		
	Clark Creek Diversion Channel	CCDC-01	46.8	20.9	20.9	11.8	0	0	0.011	0.016
		CCDC-02	10.7	7.7			0.005	0.009		
		CCDC-03	9.0	4.6			0.052	0.071		
		CCDC-04	6.3	4.7			0.011	0.016		
		CCDC-05	15.8	8.3			0.001	0.002		
		CCDC-06	37.0	24.3			0	0		
Offset Plan Feature	Teeple Pond Outlet	TPDD-01	57.0	14.7	26.8	7.7	0.0003	0.0008	0.011	0.012
		TPDD-02	24.8	7.0			0.0060	0.0058		
		TPDD-03	6.2	4.3			0.0335	0.0365		
		TPDD-04	19.4	5.0			0.0026	0.0032		

Table 3.1: Stream Depth and Flow Measurements, RRM 2019

b) Low-Flow Survey (July 2019)

Waterbody		Monitoring Station	Station Depth (cm)		Area Depth (cm)		Station Flow (m/s)		Area Flow (m/s)	
			Mean	SD	Mean	SD	Mean	SD	Mean	SD
Compensation Plan Features (upstream to downstream)	Stockpile Pond Diversion Channel[a]	SPDC-Culvert	-	-	-	-	-	-	-	-
		SPDC-01	-	-			-	-		
		SPDC-02	-	-			-	-		
		SPDC-03	-	-			-	-		
		SPDC-04	-	-			-	-		
		SPDC-05	-	-			-	-		
	West Creek Diversion Channel (upstream of haul road)	WCDC-A1	16.7	6.6	21.0	8.0	0.128	0.052	0.121	0.108
		WCDC-A2	27.5	16.2			0.055	0.109		
		WCDC-A3	16.9	5.0			0.177	0.168		
		WCDC-A4	24.1	2.7			0.136	0.176		
		WCDC-A5	11.5	2.8			0.259	0.171		
		WCDC-A6	15.7	10.9			0.083	0.070		
		WCDC-A7	34.3	11.5			0.012	0.013		
	West Creek Diversion Channel (downstream of haul road)	WCDC-01	12.6	2.6	24.5	8.0	0.043	0.025	0.037	0.042
		WCDC-02	22.4	4.7			0.079	0.103		
		WCDC-03	36.9	10.6			0.026	0.020		
		WCDC-04	34.3	4.5			0.049	0.057		
		WCDC-05	78.3	2.7			0.006	0.005		
		WCDC-06	37.6	7.0			0.073	0.102		
		WCDC-07	47.3	11.8			0.033	0.037		
		WCDC-08	57.6	10.8			0.016	0.014		
		WCDC-09	41.4	17.3			0.013	0.012		
	Clark Creek Diversion Channel	CCDC-01	38.3	8.6	25.3	5.1	0.0002	0.0004	0.009	0.007
		CCDC-02	49.6	3.7			0.001	0.003		
		CCDC-03	6.8	1.0			0.049	0.037		
		CCDC-04	11.9	3.6			0.002	0.002		
		CCDC-05	25.6	11.3			0.001	0.001		
		CCDC-06	19.8	2.3			0	0		
Offset Plan Feature	Teeple Pond Outlet	TPDD-01	68.0	1.7	26.5	2.6	0.010	0.0129	0.007	0.006
		TPDD-02	8.4	0.8			0.009	0.0090		
		TPDD-03	19.3	7.0			0	0		
		TPDD-04	10.2	0.8			0.009	0.0042		

Note: "-" indicates no measurement taken.

[a] Stockpile Pond Diversion Channel was dry during the July survey.

diversion channel, with a mix of arrowhead, burreed, and hornwort in deeper pool habitat (Appendix Photo A.4).

All diversion channels had vegetation cover greater than 80%, which consisted of cattail, sedges, as well as sweet gale (*Myrica gale*), bog laurel (*Kalmia polifolia*), and speckled alder (*Alnus incana*; Appendix Photos A.1 to A.4). Of note, Stockpile Pond diversion channel was dry for approximately 25 m downstream of Stockpile Pond during the spring freshet survey and was completely dry during the mid-summer survey (Appendix Photo A.1). Diversion channels were surrounded by forested areas which primarily included trembling aspen (*Populus tremuloides*) and black spruce (*Picea* mariana; Appendix Photos A.1 to A.4). Numerous boulder and woody debris piles were found throughout all diversion channels providing excellent cover for resident fish (Appendix Photos A.1 to A.5).

3.1.2 Ponds

Stockpile Pond depths ranged from 0.3 to 2.7 m from April 1 to November 26, 2019 (Figure 3.1). These depths were only plotted from approximately April 1, 2019 onwards as very low water levels and ice formation made earlier data unreliable. West Creek Pond water levels fluctuated around the 1 m mark ranging from 0.8 to 1.3 m from January 1 to November 26, 2019 (Figure 3.1). Clark Pond water depths were generally greater than 1.5 m and ranged from 1.4 to 1.9 m from January 1 to November 26, 2019 (Figure 3.1).

Overall, West Creek Pond and Clark Pond water levels were very stable and provided adequate refuge areas throughout the year regardless of precipitation values (Figure 3.1, Appendix Figure A.8). Stockpile Pond water levels were highly variable with minimum values observed in September 2019 (approximately 0.3 m) despite higher than average precipitation from July to November 2019 (Appendix Figure A.8). The pond depth has since increased to greater than 2.0 m, thus providing overwintering habitat for resident fish (Figure 3.1). Due to the unreliable level measurements (negative values), the transducer is assumed to have frozen from January 1st to March 31st, 2019.

Stockpile Pond had extensive vegetation cover (>90%) around the perimeter of the pond which included aspen, black spruce, willow (*Salix* sp.), grasses, sedges, and other forbs (Appendix Photo A.5). Emergent macrophytes included bulrush (*Scirpus* sp.) and were primarily located in the shallow margins of the pond, whereas submergent macrophytes primarily included arrowhead, burreed, and pondweed which were found throughout the pond (Appendix Photo A.5). Stockpile Pond water levels were low during the mid-summer survey and therefore sections of the pond bed were exposed (Appendix Photo A.5). Vegetation covered over 90% of West Creek Pond's perimeter (Appendix Photo A.6) and primarily consisted of arrowhead, cattail, grasses, and sedges with surrounding forested areas consisting of trembling aspen and

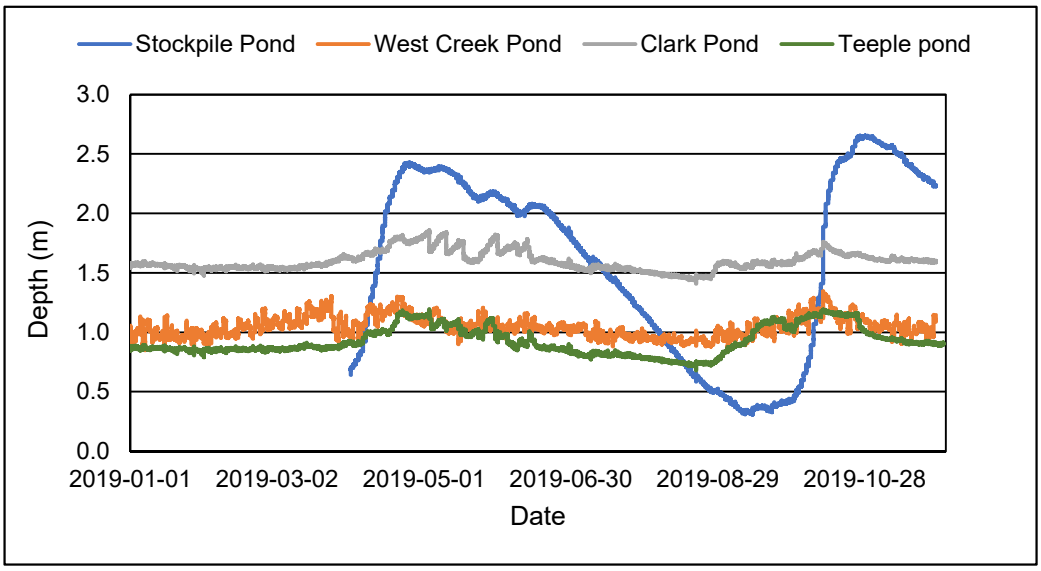


Figure 3.1: Compensation and Offset Pond Depths, RRM 2019

black spruce (Appendix Photo A.6). Submergent aquatic macrophytes were found throughout the pond and primarily consisted of burreed, pondweed, and sparse pond lily. Clark Pond was primarily lined with cattails, sedges, grasses, leatherleaf, and other forb species (Appendix Photo A.7), vegetation covered much of the perimeter (> 90%). Submergent macrophytes present within the pond included burreed, pondlily, and hornwort which were present throughout the pond most notably in areas less than 1 m deep (Appendix Photo A.7).

All Compensation Ponds had excellent vegetation cover (> 90%), which primarily consisted of arrowhead, cattails, willow, grasses, sedges, and forbs. Surrounding forested areas were dominated by trembling aspen and black spruce while submergent macrophytes were predominantly burreed, pondweed, hornwort, and pond lily (Appendix Photos A.5 to A.7). Numerous boulder and woody debris piles were observed within each pond which provided resident fish with excellent cover.

3.2 Fish Community

As part of the DFO requirements for the Compensation Plan features, prescribed success criteria for the resident fish communities must be met for each of the associated stream and pond habitats. Briefly, they consist of minimum values for species diversity[3], abundance (catch-per-unit-effort; CPUE), and presence of multiple age classes (Table 1.1).

3.2.1 Diversion Channels

A total of 675 fish representing 14 species were captured at West Creek Diversion Channel, including brown bullhead (*Ameiurus nebulosus*), eastern blacknose dace (*Rhinichthys atratulus*), blackside darter (*Percina maculate*), brassy minnow (*Hybognathus hankinsoni*), brook stickleback (*Culaea inconstans*), central mudminnow (*Umbra limi*), common shiner (*Luxilus cornutus*), creek chub (*Semotilus atromaculatus*), johnny darter (*Etheostoma nigrum*), fathead minnow (*Pimephales promelas*), finescale dace (*Chrosomus neogaeus*), golden shiner (*Notemigonus crysoleucas*), northern redbelly dace (*Chrosomus eos*), and white sucker (*Catostomus* commersonii; Table 3.2; Appendix Table A.14). Fishing CPUE for West Creek Diversion Channel were 183 fish captured per 1,000 seconds of electrofishing effort and 1.19 fish captured per minnow trap hour (Table 3.3; Appendix Tables A.10 to A.12). Multiple age classes of several fish species were observed during the survey (Appendix Figure A.1).

A total of 171 fish representing four species were captured at the Clark Creek Diversion Channel, including blacknose dace, brook stickleback, central mudminnow, and finescale dace

[3] Diversity is considered one of the stronger indicators of system health. It is noted that CPUE targets might not be achievable for all species present due to the less quantitative nature of minnow trapping. Therefore, catch and CPUE data are considered most reliable (quantitative) in the order: 1) electrofishing; 2) seining; 3) minnow trapping.

Table 3.2: Species Presence During Compensation and Offset Plan Annual Monitoring, RRM 2019

	Waterbody	Brown Bullhead	Blacknose Dace	Blackside Darter	Brassy Minnow	Brook Stickleback	Central Mudminnow	Common Shiner	Creek Chub
Stream Habitat	West Creek Diversion Channel	✓	✓	✓	✓	✓	✓	✓	✓
	Clark Creek Diversion Channel	-	✓	-	-	✓	✓	-	-
	Teeple Outlet	-	✓	-	✓	✓	✓	-	-
Pond Habitat	Stockpile Pond	✓	✓	-	✓	✓	✓	✓	✓
	West Creek Pond	✓	✓	-	✓	✓	✓	✓	✓
	Clark Creek Pond	-	✓	-	✓	✓	✓	-	-
	Teeple Pond	-	-	-	✓	✓	✓	-	-

	Waterbody	Johnny Darter	Fathead Minnow	Finescale Dace	Golden Shiner	Northern Redbelly Dace	Pearl Dace	White Sucker	YOY Cyprinid	Total Species Present[a]
Stream Habitat	West Creek Diversion Channel	✓	✓	✓	✓	✓	-	✓	✓	14
	Clark Creek Diversion Channel	-	-	✓	-	-	-	-	-	4
	Teeple Outlet	-	-	-	-	-	-	-	✓	4
Pond Habitat	Stockpile Pond	-	-	✓	✓	✓	-	✓	✓	11
	West Creek Pond	✓	✓	✓	✓	✓	✓	✓	✓	14
	Clark Creek Pond	-	-	✓	-	✓	-	-	✓	6
	Teeple Pond	-	✓	✓	-	✓	-	-	✓	6

Denotes waterbody achieved diversity success criterion of ≥ 9 species.

Notes: ✓ indicates species is present. "-" indicates species is not present.

[a] Does not include YOY Cyprinid.

Table 3.3: Fish Capture Summary During Compensation and Offset Annual Monitoring, RRM 2019

a) Stream Features

Waterbody	Electrofishing			Minnow Trap		
	Total Effort[a]	Total Catch	Total CPUE[b]	Total Effort[a]	Total Catch	Total CPUE[b]
West Creek Diversion Channel	1,050	192	0.18	406	483	11.67
Clark Creek Diversion Channel	1,175	81	0.69	286	90	4.51
Teeple Pond Outlet	1,008	132	0.13	261	3	0.67

b) Pond Features

Waterbody	Electrofishing			Seine Net			Minnow Trap		
	Total Effort[a]	Total Catch	Total CPUE[b]	Total Effort[a]	Total Catch	Total CPUE[b]	Total Effort[a]	Total Catch	Total CPUE[b]
Stockpile Pond	10,127	968	0.10	975	7,394	7,616	1,768	323	3.16
West Creek Pond	10,001	384	0.04	1,000	4,505	5,103	1,708	2,270	20.36
Clark Creek Pond	10,136	1,100	0.11	1,100	13,650	12,975	1,769	691	6.22
Teeple Pond	10,042	764	0.08	1,325	9,778	7,844	1,788	328	2.40

[a] Effort defined as minnow trap = total trap hours, electrofishing = total seconds, and seine net = total m^2 seined.

[b] CPUE defined as minnow trap = number of fish per trap hour, electrofishing = number of fish per second, and seine net = number of fish per m^2.

(Table 3.2; Appendix Table A.15). Fishing CPUE for the Clark Creek Diversion Channel were 69 fish captured per 1,000 seconds of electrofishing effort and 0.31 fish captured per minnow trap hour (Table 3.3; Appendix Tables A.10 to A.12). Multiple age classes of several fish species were observed during the survey (Appendix Figure A.2).

Overall, the West Creek Diversion Channel achieved DFO success criteria for electrofishing CPUE, species diversity, and use by multiple age classes (including young of the year; Scott and Crossman 1998) but not minnow trap CPUE (Table 3.4, Appendix Figure A.1, Appendix Tables A.10 to A.12, A.14). Clark Creek Diversion Channel achieved DFO success criteria for electrofishing CPUE and use by multiple age classes but not minnow trap CPUE and species diversity (Table 3.4, Appendix Figure A.2, Appendix Tables A.10 to A.12, A.15). The Stockpile Pond Diversion Channel was dry during the summer fish survey and therefore did not achieve any success criteria.

Consideration of monitoring data collected in previous years indicated that, in 2018, the Stockpile Pond diversion channel achieved success for species diversity and multiple age class use but not for abundance (CPUE) for either electrofishing or minnow trapping. Stockpile Pond diversion channel was dry during the 2019 survey therefore no temporal comparisons are possible (Table 3.4). Fishing results for the West Creek diversion channel were similar in 2018 and 2019, and achieved success for species diversity, electrofishing CPUE, and multiple age class use, but not for minnow trap CPUE (Table 3.4). Results for the Clark Creek Pond diversion channel were also similar in 2018 and 2019, with the notable difference being that electrofishing CPUE was achieved in 2019 but not 2018 (Table 3.4).

3.2.2 Ponds

A total of 8,685 fish representing 11 species were captured at Stockpile Pond including brown bullhead, blacknose dace, brassy minnow, brook stickleback, central mudminnow, common shiner, creek chub, finescale dace, golden shiner, northern redbelly, and white sucker (Table 3.2; Appendix Table A.16) Fishing CPUE for Stockpile Pond were 96 fish captured per 1,000 seconds of electrofishing effort, 739 fish captured per 15 m seine net haul, and 0.18 fish captured per minnow trap hour (Table 3.3; Appendix Tables A.10 to A.13). Multiple age classes including young of the year were observed at the pond during the survey (Appendix Figure A.3).

A total of 7,159 fish representing 14 species were captured at West Creek Pond, including brown bullhead, eastern blacknose dace, brassy minnow, brook stickleback, central mudminnow, common shiner, creek chub, johnny darter, fathead minnow, finescale dace, golden shiner, northern redbelly dace, pearl dace (*Margariscus margarita*), and white sucker (Table 3.2; Appendix Table A.17). Fishing CPUE for West Creek Pond were 38 fish captured per 1,000 seconds of electrofishing effort, 451 fish captured per 15 m seine net haul, and 1.33 fish

Table 3.4: Compensation and Offset Annual Monitoring Results Compared to DFO Success Criteria

a) Stream Features

Waterbody	DFO Success Criteria											
	Diversity[a]				Electrofishing				Minnow Trap			
	2017[b]	2018[b]	2019	Target	2017[b]	2018[b]	2019	Target	2017[b]	2018[b]	2019	Target
Stockpile Pond Diversion Channel	-	12	-	≥ 9 fish species	-	30.7	-	≥ 44 fish per 1,000 seconds	-	0.42	-	≥ 2 fish per trap hour
West Creek Diversion Channel	-	12	14		-	86	183		-	0.35	1.19	
Clark Creek Diversion Channel	-	7	4		-	16	69		-	0.06	0.31	
Teeple Pond Outlet	7	6	4		26	42	131		0.32	0.05	0.01	

b) Pond Features

Waterbody	DFO Success Criteria															
	Diversity[a]				Electrofishing				Seine Net				Minnow Trap			
	2017[b]	2018[b]	2019	Target	2017[b]	2018[b]	2019	Target	2017[b]	2018[b]	2019	Target	2017[b]	2018[b]	2019	Target
Stockpile Pond	-	12	11	≥ 9 fish species	-	5	96	≥ 44 fish per 1,000 seconds	-	538	739	≥ 16 fish per 15 m net pull	-	1.01	0.18	≥ 2 fish per trap hour
West Creek Pond	-	12	14		-	2	38		-	255	451		-	1.73	1.33	
Clark Creek Pond	-	7	6		-	4	109		-	172	1,365		-	1.02	0.39	
Teeple Pond	7	9[c]	6		6	5	76		216	98	978		0.50	1.83	0.18	

Denotes value achieved success criterion.

Notes: "-" denotes no data available (i.e. before Compensation Plan habitat construction, or no water present [Stockpile Pond Diversion Channel]).

[a] Total species count does not include young-of-year Cyprinid.

[b] Previous studies conducted by Wood (Wood 2018ab).

[c] Species diversity includes inferred presence of common shiner previously encountered in low abundance during the 2017 studies (Wood 2018).

captured per minnow trap hour (Table 3.3; Appendix Tables A.10 to A.13). As with Stockpile Pond, multiple age classes of various species were observed at the pond during the survey (Appendix Figure A.4).

A total of 15,441 fish representing 6 species were captured at Clark Pond, including eastern blacknose dace, brassy minnow, brook stickleback, central mudminnow, finescale dace, and northern redbelly dace (Table 3.2, Appendix Table A.18). Fishing CPUE for Clark Pond were 109 fish captured per 1,000 seconds of electrofishing effort, 1,365 fish captured per 15 m seine net haul, and 0.39 fish captured per minnow trap hour (Table 3.3; Appendix Tables A.10 to A.13). As with the other two ponds, multiple age classes including young of the year for various species were observed at the pond during the summer survey (Appendix Figure A.5).

Overall, Stockpile Pond achieved success criteria for species diversity, electrofishing and seine net CPUE, and use by multiple age classes. The only criterion not met was minnow trap CPUE (Table 3.4, Appendix Figure A.3, Appendix Tables A.10 to A.13). West Creek Pond achieved success criteria for seine net CPUE, species diversity, and use by multiple age classes but not minnow trap and electrofishing CPUE (Table 3.4, Appendix Figure A.4, Appendix Tables A.10 to A.13). Finally, Clark Pond achieved success criteria for electrofishing and seine net CPUE, as well as multiple age class use but not for minnow trap CPUE or species diversity (Table 3.4, Appendix Figure A.5, Appendix Tables A.10 to A.13).

Consideration of monitoring data collected in previous years indicated that Stockpile Pond achieved similar success results in, with the exception of much higher electrofishing CPUE in 2019 than in 2018 (Table 3.4). Like Stockpile Pond, West Creek Pond achieved comparable success results in 2018 and 2019, however once again electrofishing CPUE was much greater in 2019 than 2018 (Table 3.4). Clark Creek Pond had similar species diversity in 2018 and 2019, but much higher CPUE results for both electrofishing and seine netting in 2019 (Table 3.4). Lower minnow trapping results were observed in 2019 across all ponds (Table 3.4), which may be related to the nonspecific and semi-quantitative nature of this method (e.g., Jackson and Harvey 1997).

4 OFFSET PLAN ANNUAL MONITORING

4.1 Physical Conditions and Vegetation

4.1.1 Teeple Pond Outlet

The Teeple Pond Outlet channel had an average depth and flow velocity of 26.8 cm and 0.011 m/s respectively during the spring survey and 26.5 cm and 0.007 m/s respectively during the summer survey (Table 3.1, Appendix Tables A.5 and A.9).

Teeple Pond Outlet had extensive riparian vegetation cover (> 90%). Riparian vegetation primarily consisted of cattail, grasses, sedges, and speckled alder (Appendix Photo A.8). Submergent macrophytes primarily consisted of burreed and hornwort and were generally found in the deeper pool habitat, with greatest densities near the end of the watercourse (Appendix Photo A.8). Teeple Pond Outlet is surrounded by forested area which primarily included trembling aspen and black spruce (Appendix Photo A.8). Numerous boulder and woody debris piles were found throughout the watercourse providing excellent cover for the resident fish community; however, the generally shallow depths found within the channel provided less abundant pool habitat when compared with the Compensation Plan diversion channels (Appendix Photo A.8).

4.1.2 Teeple Pond

Teeple Pond depths fluctuated around 1 m ranging from 0.7 to 1.2 m from January 1st to November 29th, 2019 (Figure 3.1).

Teeple Pond was primarily lined with cattails, sedges, grasses, leatherleaf, and other forb species (Appendix Photo A.9), which covered much of the perimeter (> 90%). Submergent macrophytes present within the pond included burreed, pondlily, and hornwort which were present throughout the pond most notably in areas less than 1 m deep (Appendix Photo A.9). Boulder and woody debris piles were located throughout the pond and provide excellent cover for the resident fish community. Of note, an active beaver lodge was present within the pond during the summer survey.

A Reconyx PC800 Hyperfire Professional Semi-Covert Camera was installed in 2017 at the edge of the tree line near Teeple Pond outlet. It was positioned to capture conditions using time lapse photo series. Appendix Photos A.10 to A.12 contains a photo record for 2019 and illustrates water level and vegetation growth conditions in the Teeple Pond and outlet fan.

4.2 Fish Community

4.2.1 Teeple Pond Outlet

A total of 135 fish representing 4 species were captured at Teeple Pond Outlet, including eastern blacknose dace, brassy minnow, brook stickleback, and central mudminnow (Table 3.2). Fishing CPUE for Teeple Pond Outlet were 131 fish captured per 1,000 seconds of electrofishing effort and 0.01 fish captured per minnow trap hour (Table 3.3; Appendix Tables A.10 to A.12). Multiple age classes of various species were observed in the outlet channel during the summer survey (Appendix Figure A.6).

Overall, Teeple Pond Outlet achieved success criteria for electrofishing CPUE and use by multiple age classes but not minnow trap CPUE nor overall species diversity, this is unsurprising with the very low minnow trap CPUE values (Table 3.4, Appendix Figure A.6, Appendix Tables A.10 to A.12, A.19).

Teeple Pond outlet has been sampled for three years now (2017, 2018, and 2019) with comparable results among years (Table 3.4). In 2019, Teeple Pond outlet had higher electrofishing CPUE but lower species diversity and minnow trap CPUE when compared to previous years (Table 3.4).

4.2.2 Teeple Pond

A total of 10,870 fish representing 6 species were captured at Teeple Pond, including brassy minnow, brook stickleback, central mudminnow, fathead minnow, finescale dace, and northern redbelly dace (Table 3.2). Fishing CPUE for Teeple Pond were 76 fish captured per 1,000 seconds of electrofishing effort, 978 fish captured per 15 m seine net haul, and 0.18 fish captured per minnow trap hour (Table 3.3; Appendix Table A.10 to A.13). Multiple age classes of various species were observed within the pond (Appendix Figure A.7).

Overall, Teeple Pond achieved success criteria for electrofishing and seine net CPUE, as well use by multiple age classes but not minnow trap CPUE nor overall species diversity (Table 3.4, Appendix Figure A.7, Appendix Tables A.10 to A.13, A.20).

Comparing 2019 survey results with previous studies (2017, 2018; Wood 2018b), electrofishing and seine net CPUE were higher in 2019 compared to previous years, whereas species diversity and minnow trap CPUE were lower (Table 3.4).

5 CONCLUSIONS

5.1 Compensation Plan Annual Monitoring

All Compensation Plan habitat had extensive riparian vegetation cover (> 80%) along watercourse perimeters with numerous boulder and woody debris piles found throughout all diversion channel and pond habitats.

Compensation Plan habitat attained full connectivity between upstream features and the Pinewood River via Loslo Creek except for Stockpile Pond which was disconnected from the rest of the West Creek Diversion Compensation habitat due to the Stockpile Pond diversion channel having extensive dry sections during both the high-flow (spring freshet) and low-flow (mid-summer) surveys. This lack of connectivity isolates the fish community within the pond and does not satisfy the requirement for watercourse connectivity for the passage of fish. A supplementary geotechnical study is underway by RRM to address potential water loss within the pond.

Regarding fish species diversity and multiple year class presence, West Creek diversion channel as well as Stockpile Pond and West Creek Pond achieved the minimum number of species, but both Clark Creek diversion and Clark Creek Pond did not. All Compensation features achieved success criteria for the presence of multiple year classes including young of the year for multiple species, indicating adequate habitat for spawning and rearing of resident fish community.

Although all diversion channel habitat easily achieved the success criterion for backpack electrofishing CPUE, the success criterion for minnow trap CPUE was not attained for any, therefore no Compensation Plan creek habitat achieved the success criterion for fish abundance, which requires both fishing methods to achieve minimum CPUE values. Both Stockpile and Clark Creek Ponds achieved the minimum success criteria for fish abundance with both ponds achieving adequate electrofishing and seine netting CPUE criteria. West Creek Pond achieved the seine net CPUE success criterion but was just short of achieving the electrofishing and minnow trap criteria. Of note, none of the Compensation Plan habitat achieved the success criterion for minnow trap CPUE. This is likely due to nonspecific and semi-quantitative nature of this method and the fact that many species will not be captured utilizing this method regardless of their presence (Jackson and Harvey 1997). Therefore, electrofishing and to a lesser extent seine netting results are considered to provide better (more quantitative) CPUE data than minnow trapping.

Although several of the Compensation Plan habitats did not achieve minimum success criteria for fish abundance and presence, they still provided excellent fish habitat that supported abundant and diverse communities of fish. The primary underperformance of the West Creek Diversion

system is that the Stockpile Pond is disconnected from the downstream portions of the Compensation habitat. This will need to be addressed if the system is to function as designed and thus pass required success criteria.

Year two (2019) of the Compensation Plan annual performance monitoring indicated similar conditions to the previous year for the Compensation Plan habitat with a few notable differences. These differences were most pronounced in Stockpile Pond diversion channel which was dry during the 2019 survey but not in 2018. Species diversity for the compensation features were broadly similar between years, however electrofishing and seine net CPUE were generally much greater in 2019 compared to 2018 while the opposite was observed for minnow trap CPUE. This temporal variability in CPUE can be attributable to weather at the time of study, locations chosen for gear deployment, the use of overnight versus daytime sets, and inter-annual climatic factors (e.g., wet years versus dry years).

5.2 Offset Plan Annual Monitoring

Both Teeple Pond and the Teeple Pond Outlet had riparian vegetation cover greater than 80% along the habitat perimeters with frequent boulder and woody debris habitat present throughout. There was sufficient connectivity between Teeple Pond and Teeple Pond Outlet to allow the passage of fish during both high- and low-flow surveys. Teeple Pond achieved fish abundance success criteria for both electrofishing and seine net CPUE but not for species diversity. The Teeple Pond Outlet achieved success criteria for electrofishing but not minnow trapping and therefore it did not achieve overall success for fish abundance. Much like Teeple Pond and the connected Clark Pond and Clark Creek diversion, the Teeple Pond Outlet did not achieve species diversity success criteria.

Teeple Pond had adequate fish abundance and the presence of multiple year classes including young of the year for several species indicating sufficient habitat for spawning and rearing within the system. Teeple Pond Outlet failed to achieve success criteria for both fish abundance and diversity but was utilized by multiple year classes of several species. Overall, Offset Plan habitat had large numbers of fish comprised of several different species but ultimately did not achieve the success criterion for fish diversity for both pond and creek habitat and fish abundance within the creek habitat.

Year three (2019) of the annual performance monitoring indicated similar conditions to previous years for the Offset Plan habitat with one notable difference - electrofishing CPUE in 2019 was much greater than in previous years. However, slightly lower species diversity in 2019 does not mean that previously captured species were not present. As with the Compensation habitat, temporal variability in CPUE can be attributed to weather at the time of study, locations chosen

for gear deployment, the use of overnight versus daytime sets, and inter-annual climatic factors (e.g., wet years versus dry years).

5.3 Closure and Recommendations

Based on the findings of the 2019 RRM Compensation and Offset Annual Performance surveys conducted in May and July 2019, Clark Creek Pond and Teeple Pond achieved success for all prescribed criteria with the other watercourses underperforming to varying degrees. Many of these shortfalls may well be alleviated with improvement to Stockpile Pond water levels which, in 2019, were insufficient to maintain full connectivity with downstream watercourses during both high- and low-flow scenarios. Diversion channel shortfalls were mostly due to the requirement to fulfil both minnow trap and electrofishing catch requirements. Not all species present within these channels are easily captured utilizing minnow traps and thus minnow trap results might underrepresent true fish abundance. The fish species diversity criterion was not achieved for the Clark-Teeple system; however, this could possibly be due to underrepresentation of minnow trap adverse species as previously mentioned.

Considering the preceding conclusions, it is recommended that:

- RRM staff continue to manage beaver activity within the Compensation and Offset diversion channels and inflowing tributaries to maintain connectivity;
- RRM continues efforts to determine why Stockpile Pond water levels remain below designed specifications; and
- The Reconyx PC800 Hyperfire Professional Semi-Covert Camera at Teeple Pond should be relocated to an adequate site at Stockpile Pond to help identify water loss sources within the pond.

6 REFERENCES

AMEC. 2014. Rainy River Project: Final Environmental Assessment Report (Environmental Impact Statement) Version 2. January 2014.

AMEC. 2015. Rainy River Project: Offset Plan for Fisheries Act Section 35(2)(b) Authorization. May 2015.

AMEC. 2017a. Rainy River Project: Compensation Plan for MMER Schedule 2 Amendment Waterbodies. January 2017.

AMEC. 2017b. Offset Plan for Fisheries Act Section 35(2)(b) Authorization 2017 Annual Monitoring Report. December 2017.

Jackson, D.A. and Harvey H.H. 1997. Qualitative and Quantitative Sampling of Lake Fish Communities. Canadian Journal of Fisheries and Aquatic Sciences, 1997. 54(12): 2807-2813

Scott, W.B. and Crossman, E.J. 1998. Freshwater Fishes of Canada. Galt House Publications, Oakville, Ontario.

Wood. 2018a. 2018 Annual Monitoring Report – Schedule 2 MDMER Fish Habitat Compensation Plan. December 2017.

Wood. 2018b. 2018 Annual Monitoring Report – Offset Plan for Fisheries Act Section 35(2)(b) Authorization. December 2018.

APPENDIX A
DETAILED SURVEY DATA

Stockpile Pond Diversion Channel May 2019

Stockpile Pond Diversion Channel July 2019

Stockpile Diversion Channel (dry area) May 2019

Stockpile Diversion Channel (dry area) July 2019

Appendix Photo A.1: Stockpile Pond Diversion Channel Habitat, RRM 2019

West Creek Diversion Channel May 2019

West Creek Diversion Channel July 2019

West Creek Diversion Channel May 2019

West Creek Diversion Channel July 2019

Appendix Photo A.2: West Creek Diversion Channel Habitat Upstream of Haul Road, RRM 2019

West Creek Diversion Channel May 2019

West Creek Diversion Channel July 2019

West Creek Diversion Channel May 2019

West Creek Diversion Channel July 2019

Appendix Photo A.3: West Creek Diversion Channel Habitat Downstream of Haul Road, RRM 2019

Clark Creek Diversion Channel May 2019

Clark Creek Diversion Channel July 2019

Clark Creek Diversion Channel May 2019

Clark Creek Diversion Channel July 2019

Appendix Photo A.4: Clark Creek Diversion Channel Habitat, RRM 2019

Stockpile Pond July 2019

Stockpile Pond July 2019

Stockpile Pond July 2019

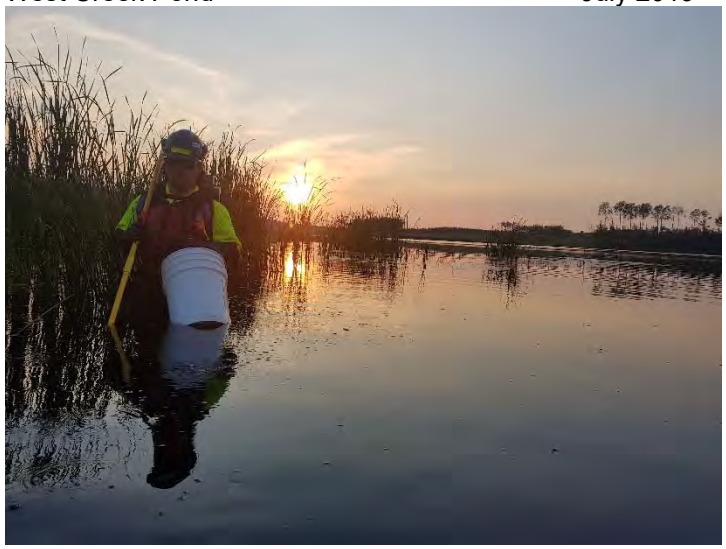
Stockpile Pond July 2019

Appendix Photo A.5: Stockpile Pond Habitat, RRM 2019

West Creek Pond May 2019

West Creek Pond July 2019

West Creek Pond July 2019



Appendix Photo A.6: West Creek Pond Habitat, RRM 2019

Clark Pond May 2019

Clark Pond July 2019

Clark Pond July 2019

Clark Pond Seine Net Haul July 2019

Appendix Photo A.7: Clark Pond Habitat, RRM 2019

Teeple Pond Outlet May 2019

Teeple Pond Outlet July 2019

Teeple Pond Outlet May 2019

Teeple Pond Outlet July 2019

Appendix Photo A.8: Teeple Pond Outlet Channel Habitat, RRM 2019

Teeple Pond July 2019

Teeple Pond July 2019

Teeple Pond July 2019

Teeple Pond July 2019

Appendix Photo A.9: Teeple Pond Habitat, RRM 2019

Teeple Pond (Frozen) April 14, 2019

Teeple Pond (Thaw) April 22, 2019

Teeple Pond May 9, 2019

Teeple Pond May 31, 2019

Appendix Photo A.10: Teeple Pond Photographs Collected by RRM Environmental Staff, RRM 2019

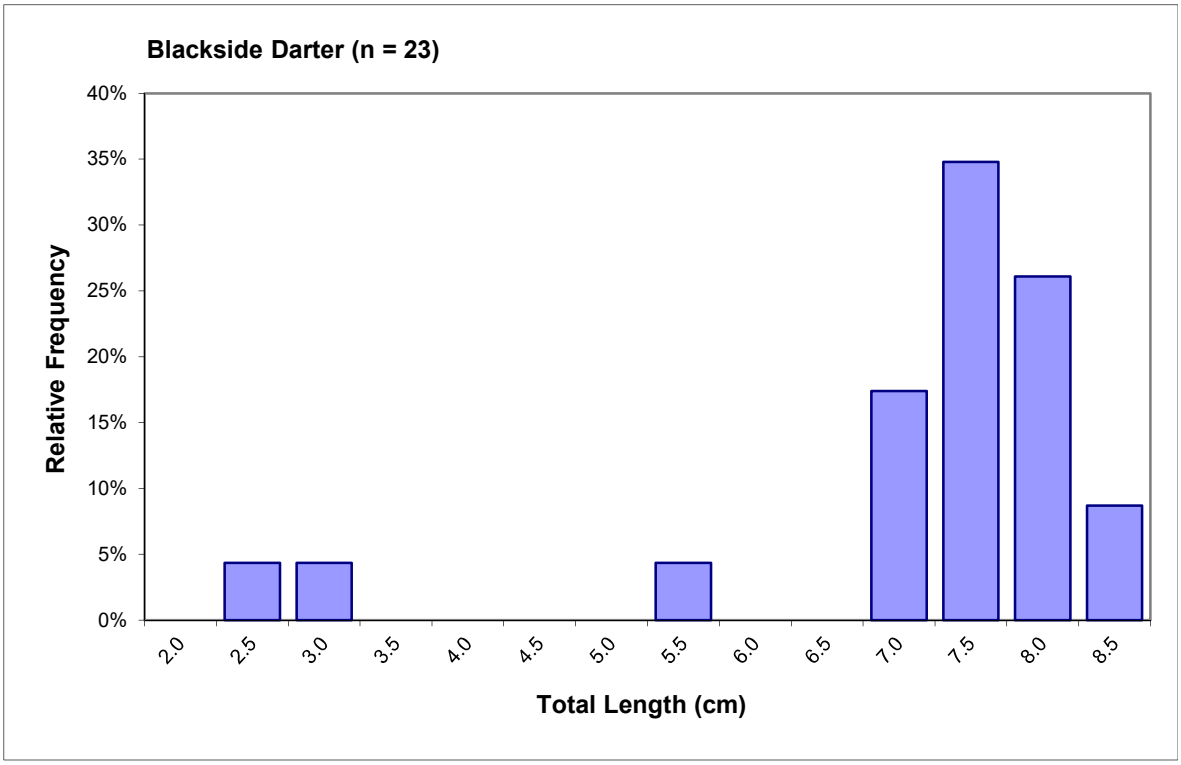
Teeple Pond June 3, 2019

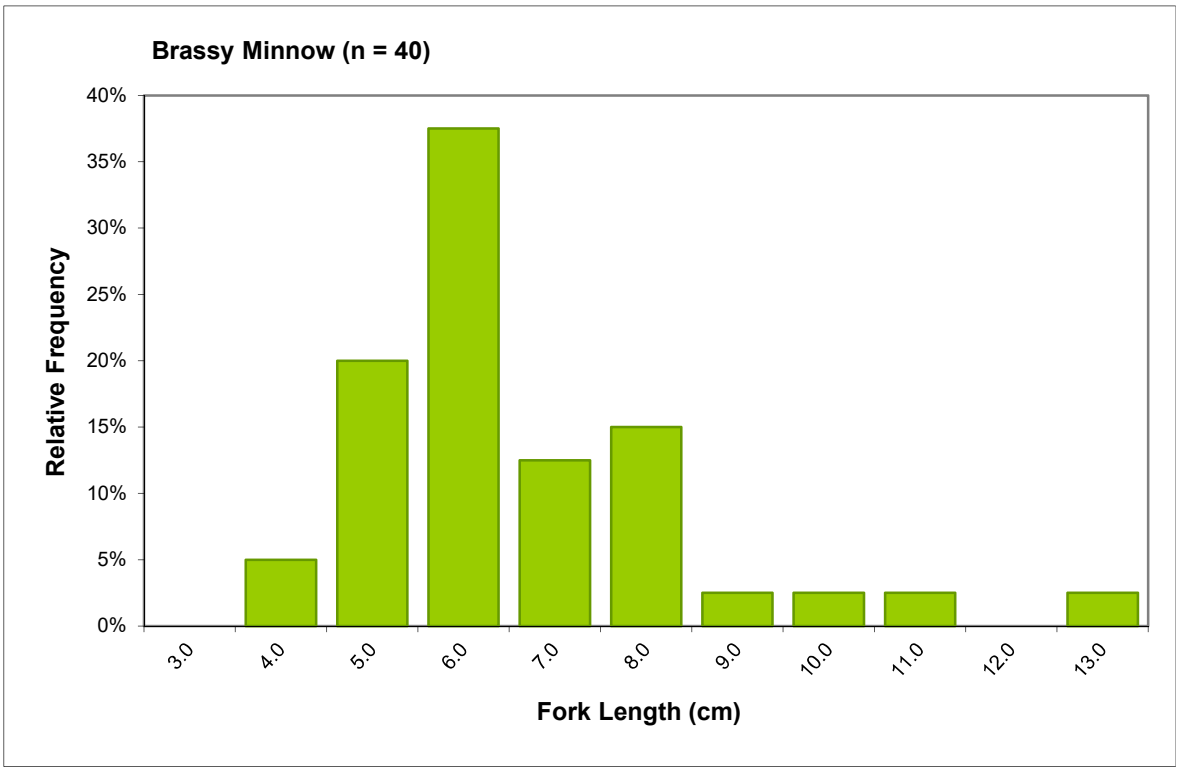
Teeple Pond June 9, 2019

Teeple Pond August 27, 2019

Teeple Pond September 18, 2019

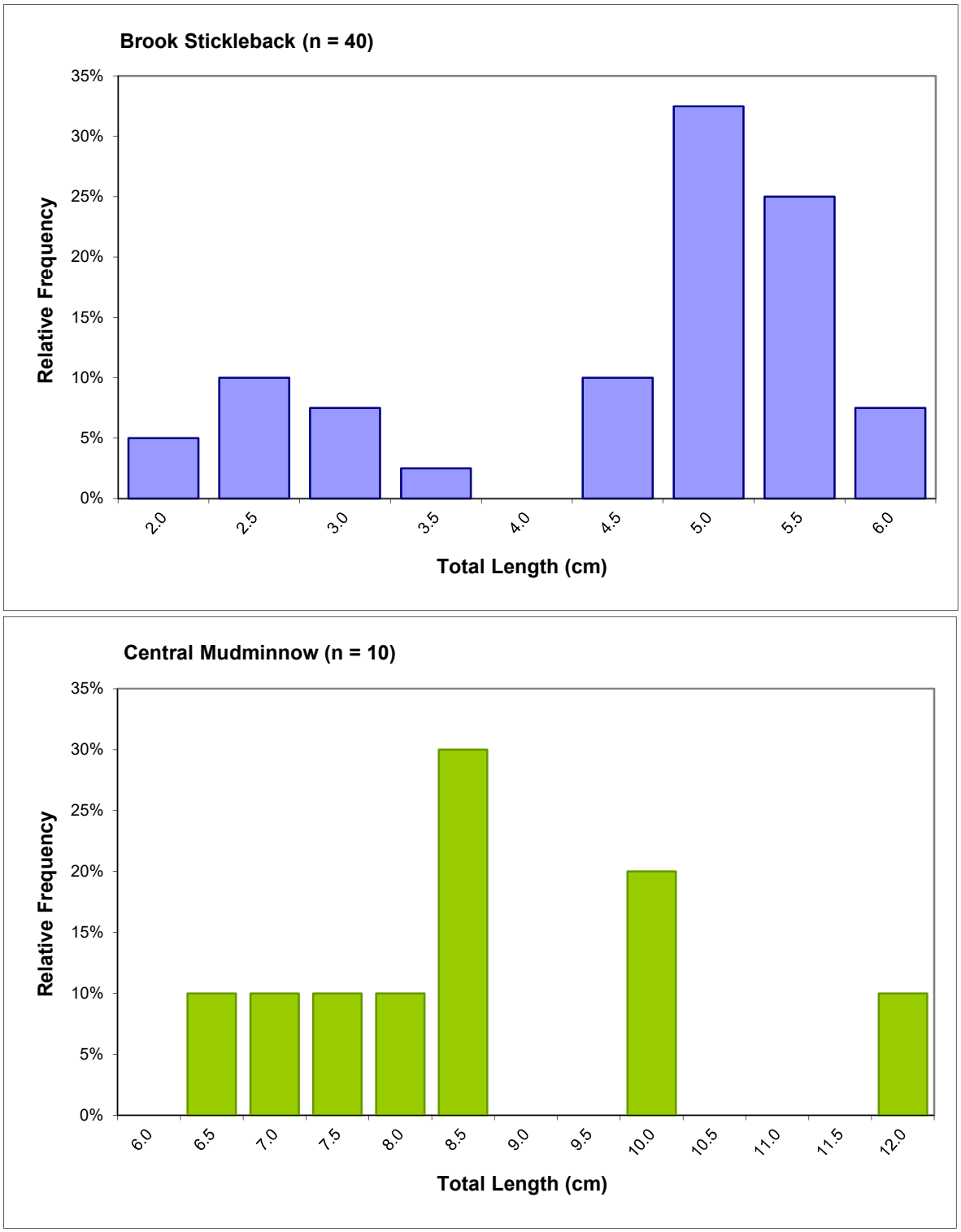
Appendix Photo A.11: Teeple Pond Photographs Collected by RRM Environmental Staff, RRM 2019





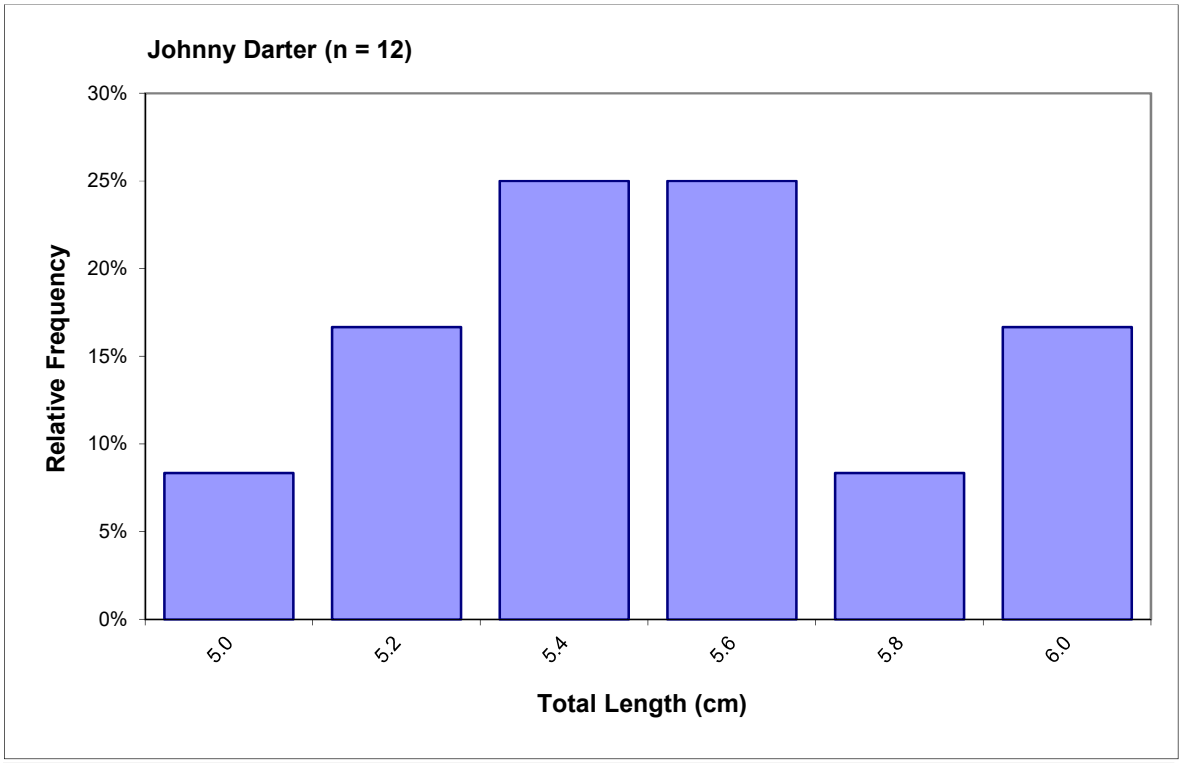
Appendix Figure A.1: Length-frequency Distributions for Fish Collected at West Creek Diversion, RRM 2019

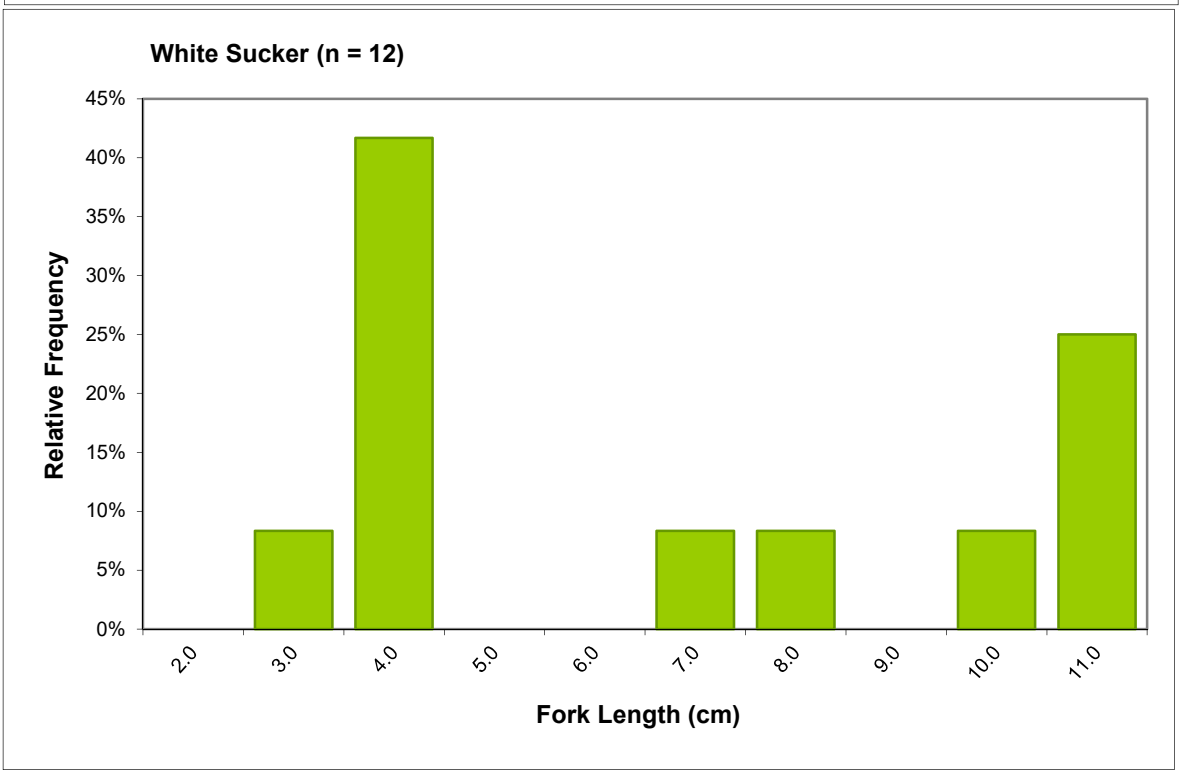
Note: Blacknose dace (n=1), brown bullhead (n=1), creek chub (n=1), finescale dace (n=1), golden shiner (n=1) not plotted due to low capture numbers.



Appendix Figure A.1: Length-frequency Distributions for Fish Collected at West Creek Diversion, RRM 2019

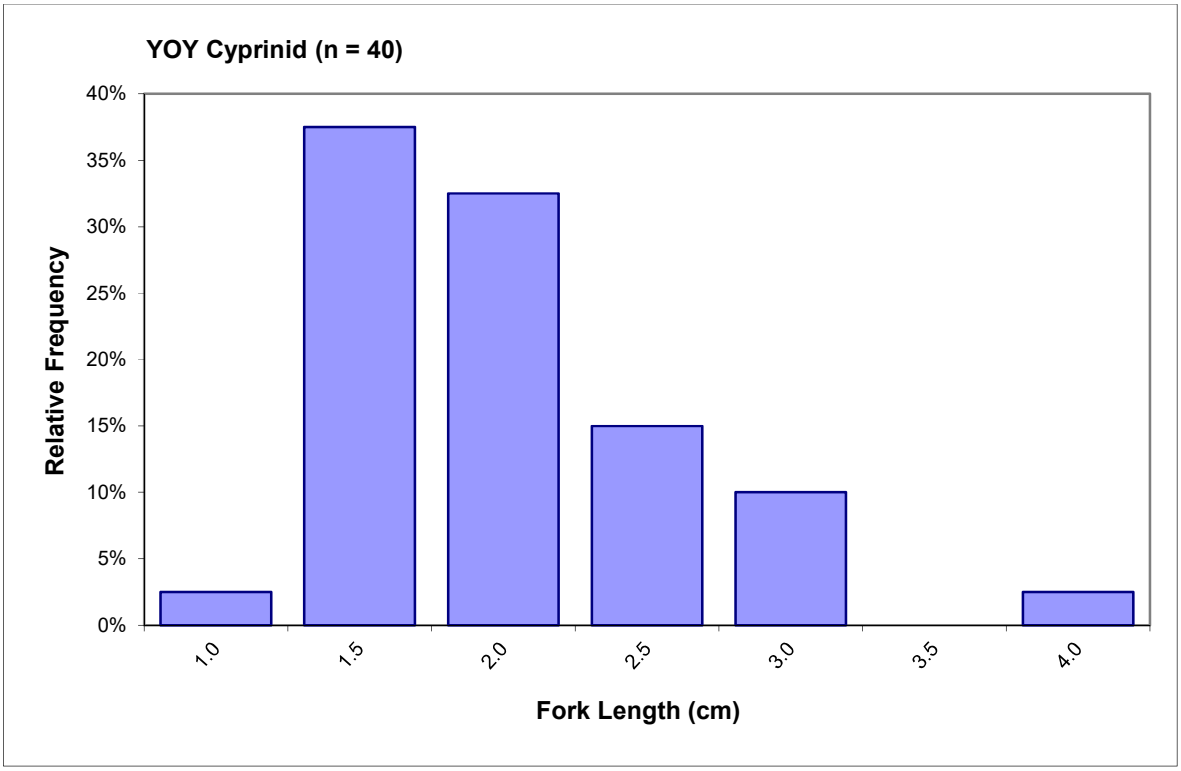
Note: Blacknose dace (n=1), brown bullhead (n=1), creek chub (n=1), finescale dace (n=1), golden shiner (n=1) not plotted due to low capture numbers.





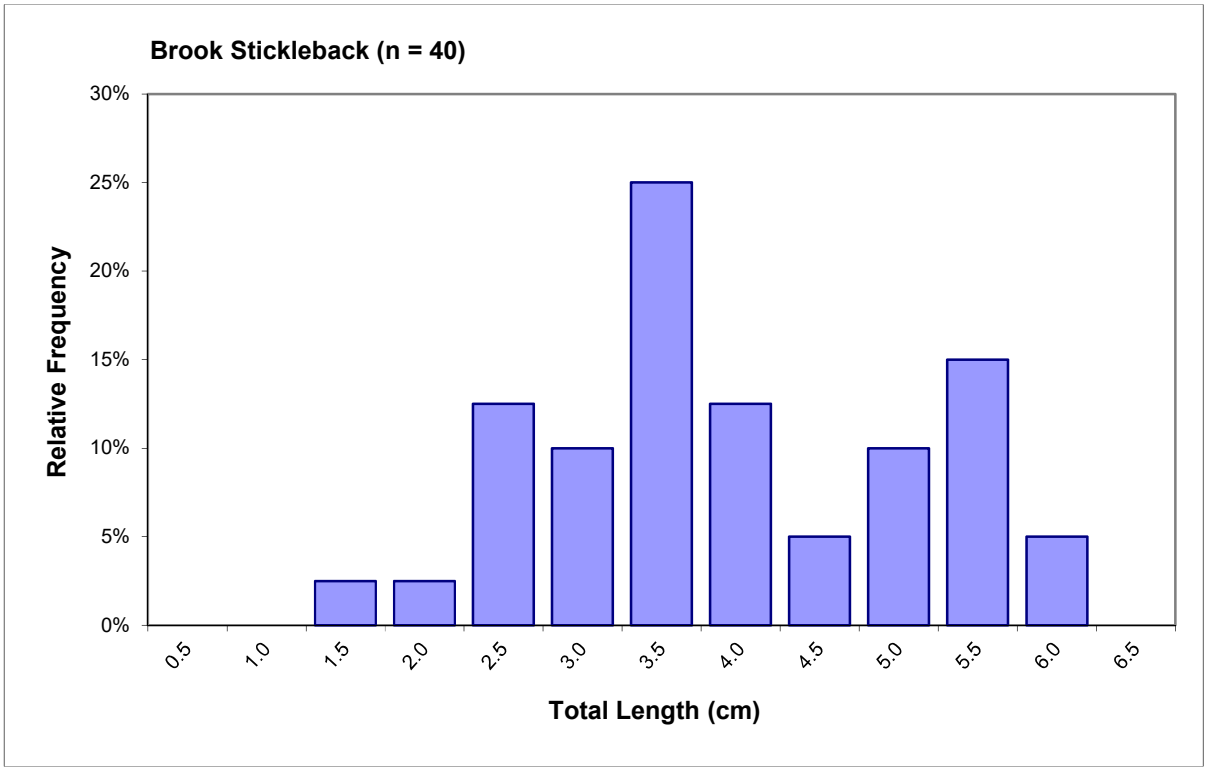
Appendix Figure A.1: Length-frequency Distributions for Fish Collected at West Creek Diversion, RRM 2019

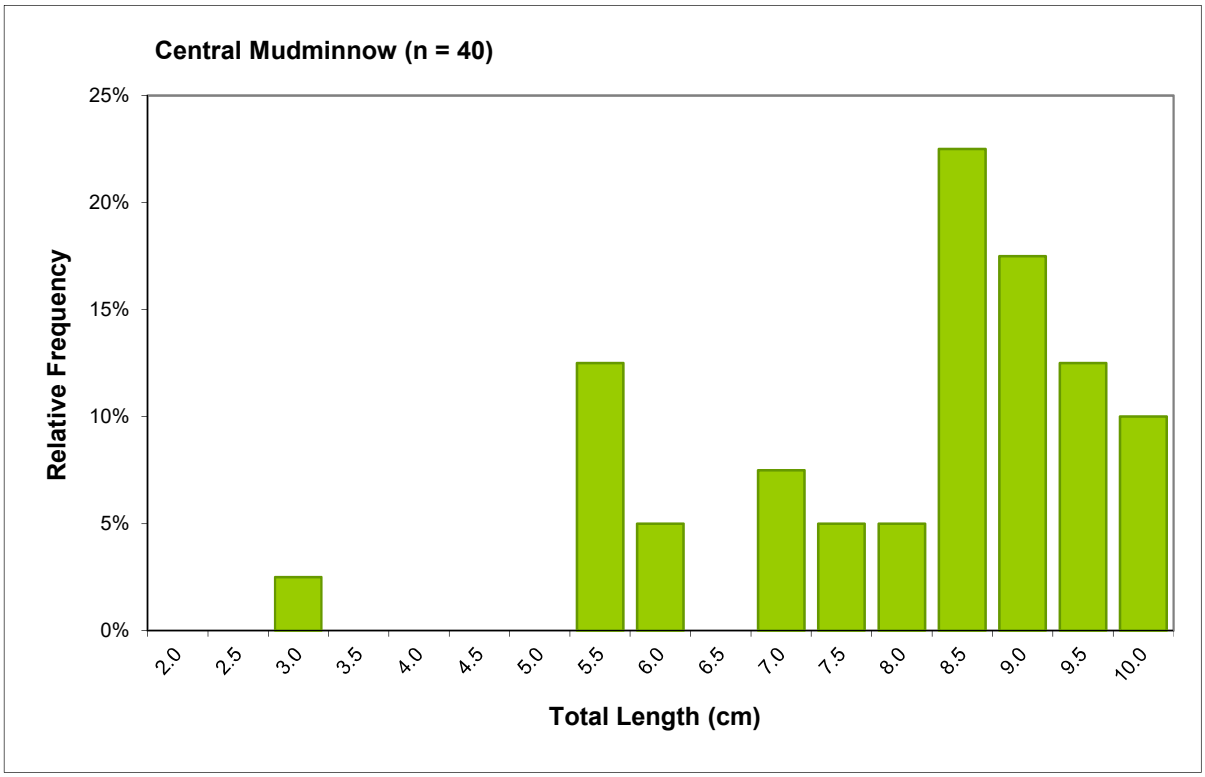
Note: Blacknose dace (n=1), brown bullhead (n=1), creek chub (n=1), finescale dace (n=1), golden shiner (n=1) not plotted due to low capture numbers.



Appendix Figure A.1: Length-frequency Distributions for Fish Collected at West Creek Diversion, RRM 2019

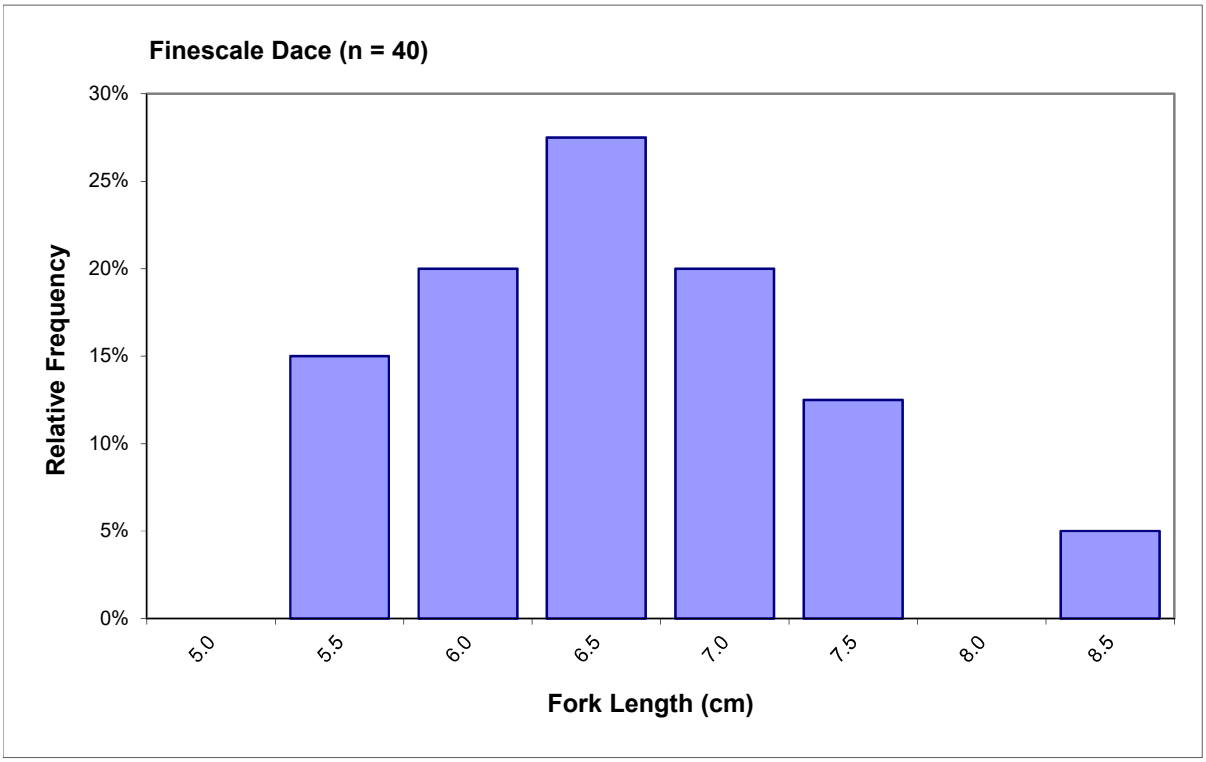
Note: Blacknose dace (n=1), brown bullhead (n=1), creek chub (n=1), finescale dace (n=1), golden shiner (n=1) not plotted due to low capture numbers.





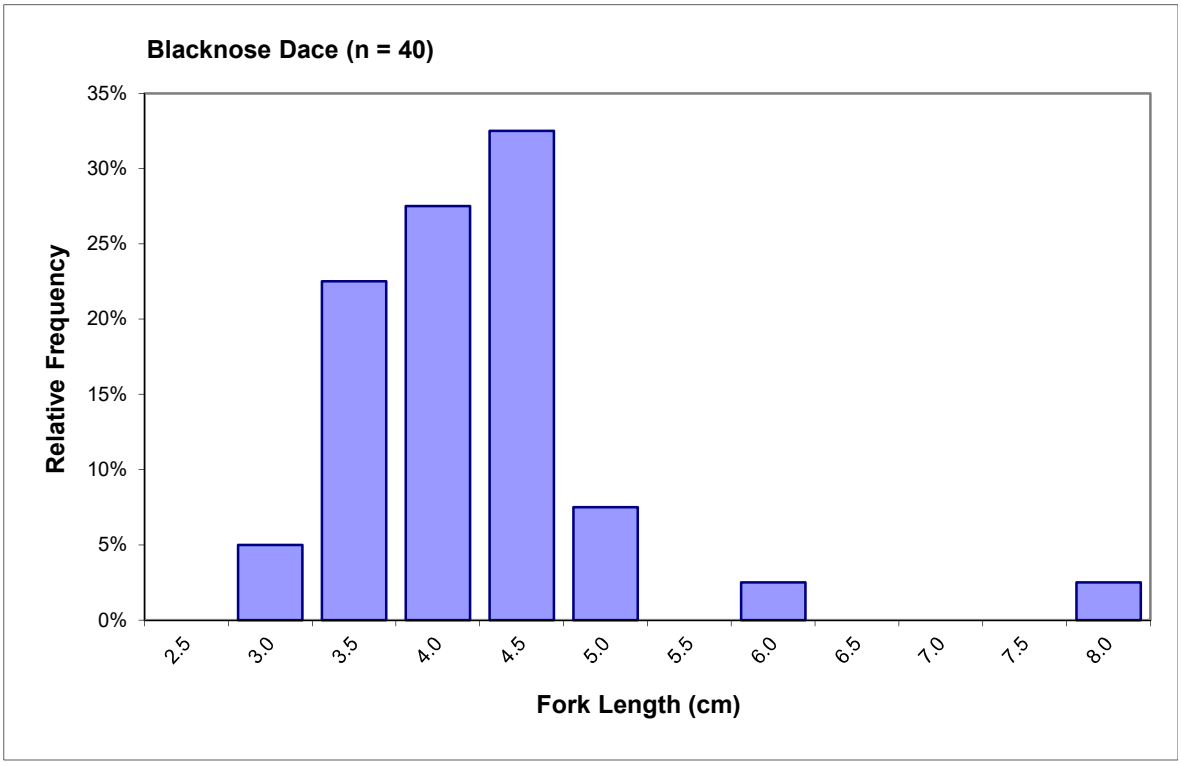
Appendix Figure A.2: Length-frequency Distributions for Fish Collected at Clark Creek Diversion Channel, RRM 2019

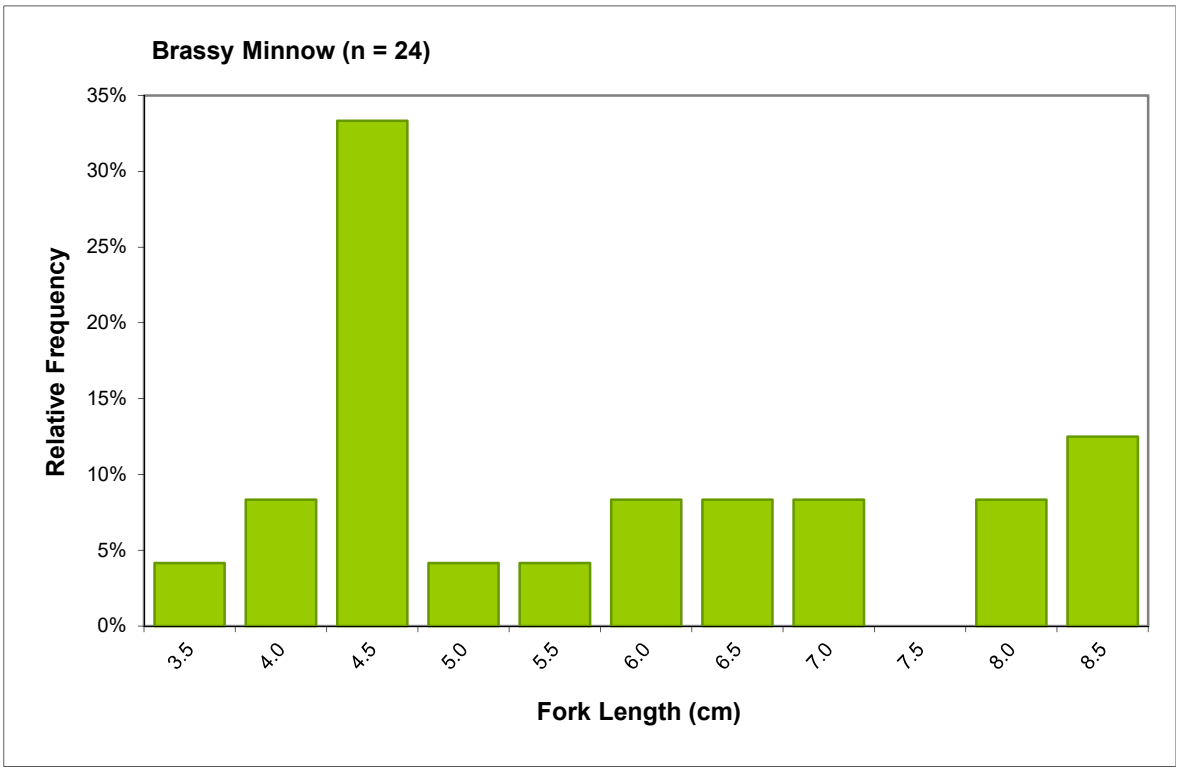
Note: Blacknose dace (n=2) not plotted due to low capture numbers.



Appendix Figure A.2: Length-frequency Distributions for Fish Collected at Clark Creek Diversion Channel, RRM 2019

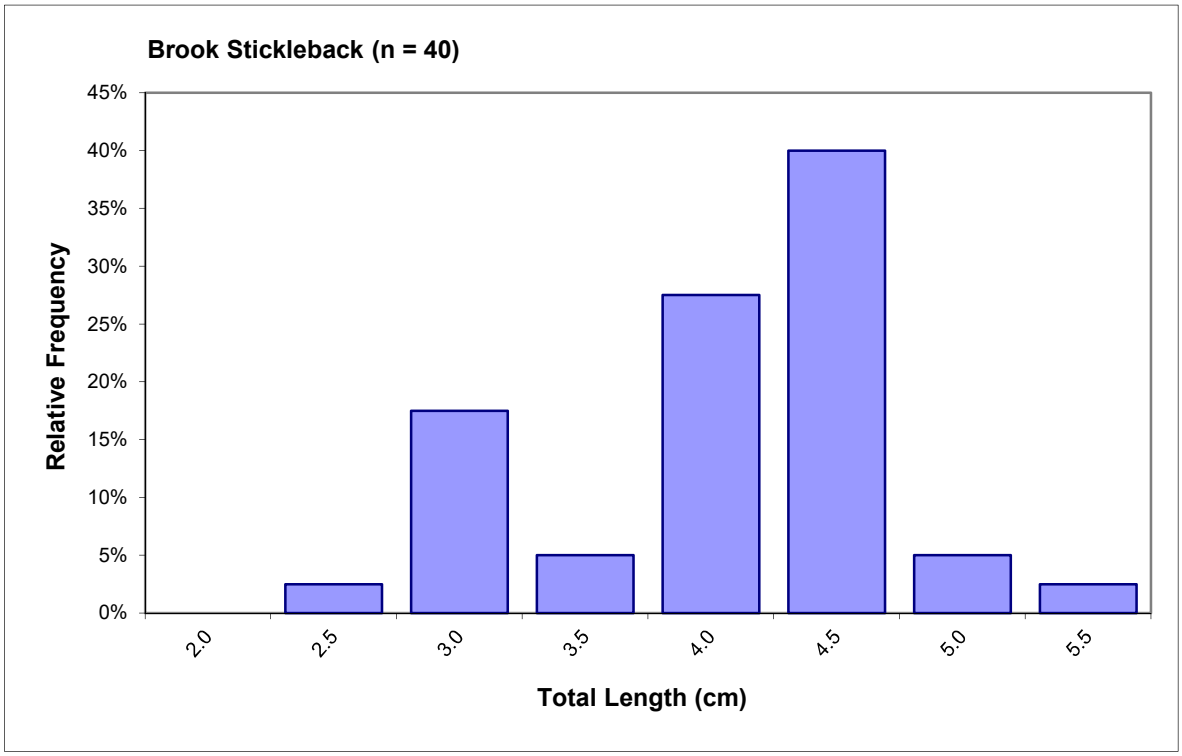
Note: Blacknose dace (n=2) not plotted due to low capture numbers.

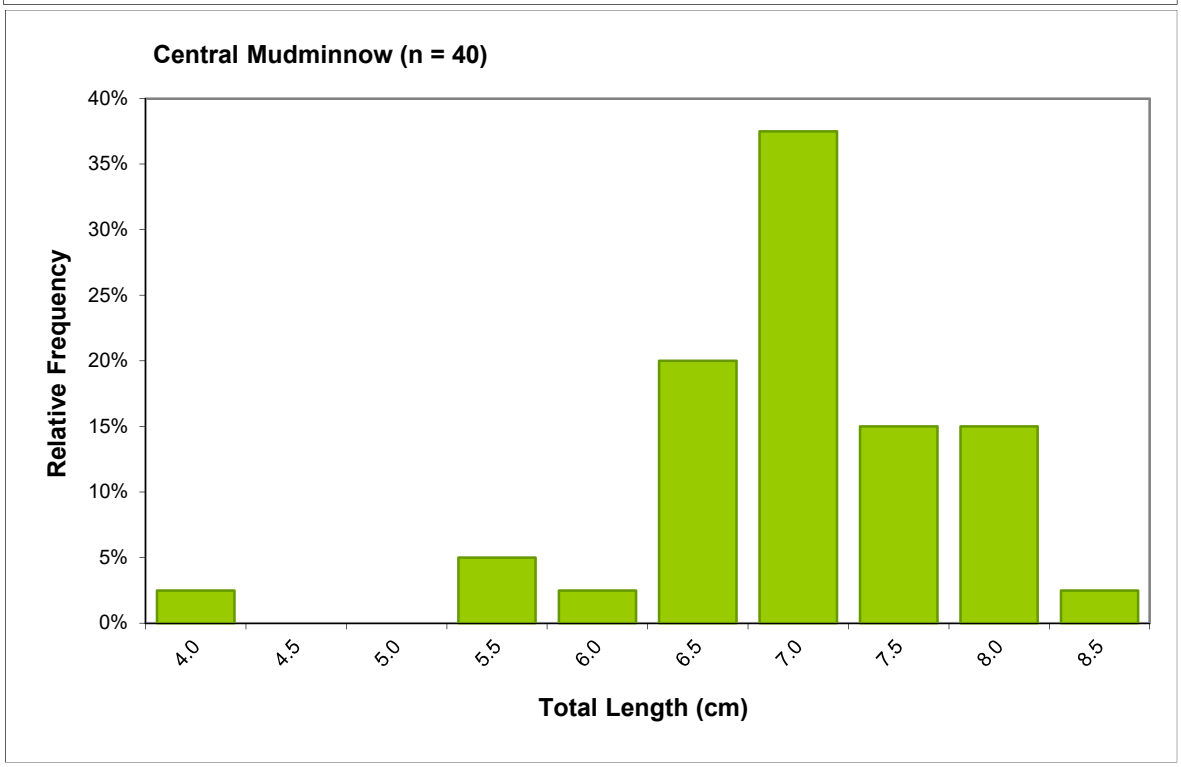




Appendix Figure A.3: Length-frequency Distributions for Fish Collected at Stockpile Pond, RRM 2019

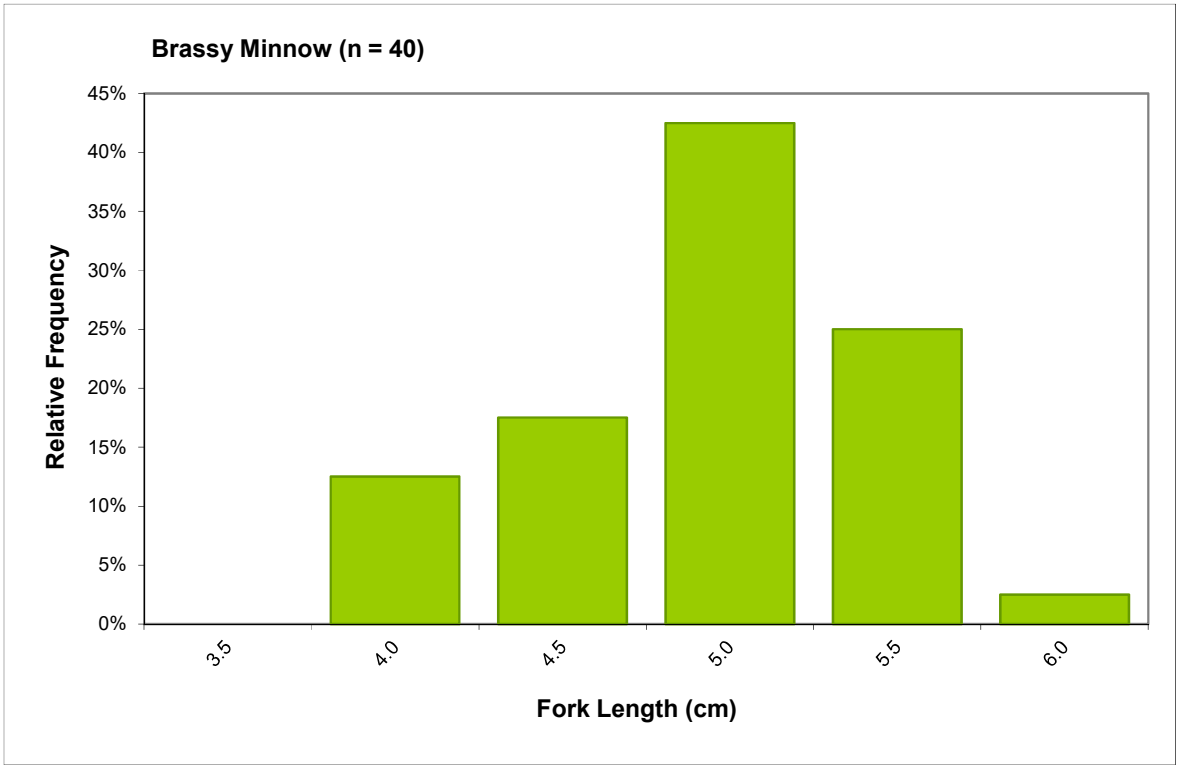
Note: Brown bullhead (n=2), common shiner (n=3), fathead minnow (n=1), finescale dace (n=3), golden shiner (n=7), white sucker (n=1) not plotted due to low capture numbers or minimal variation in lengths.





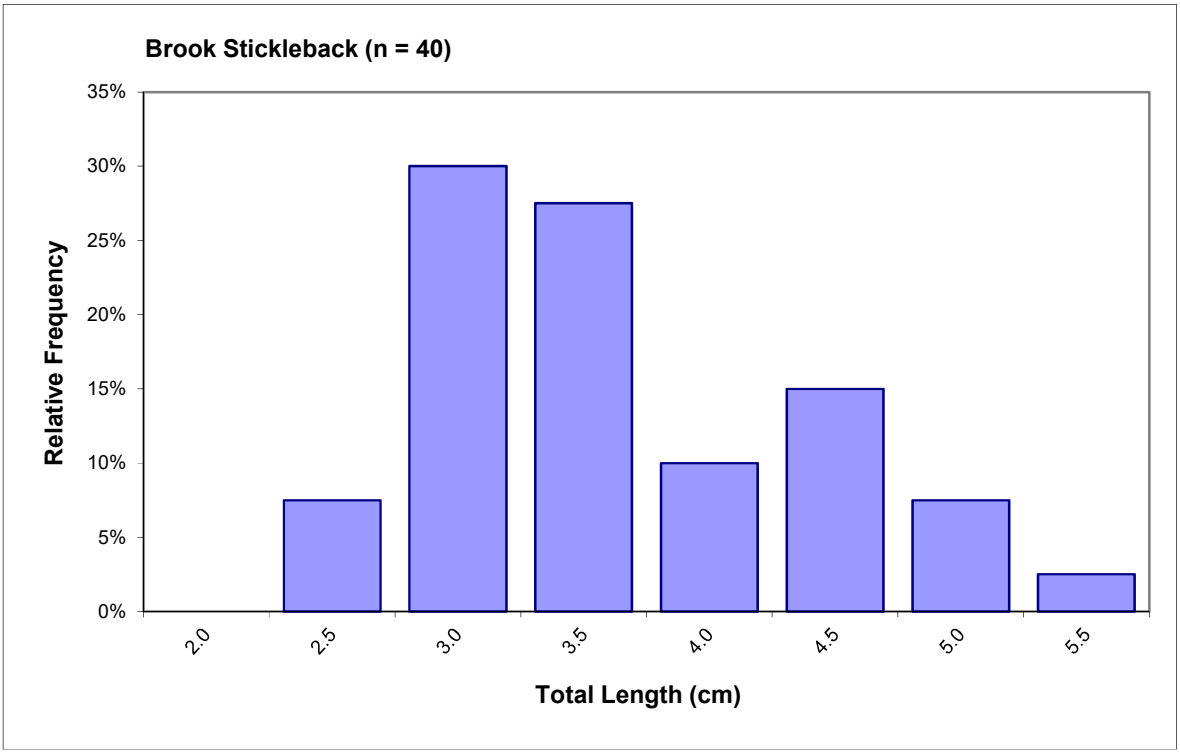
Appendix Figure A.3: Length-frequency Distributions for Fish Collected at Stockpile Pond, RRM 2019

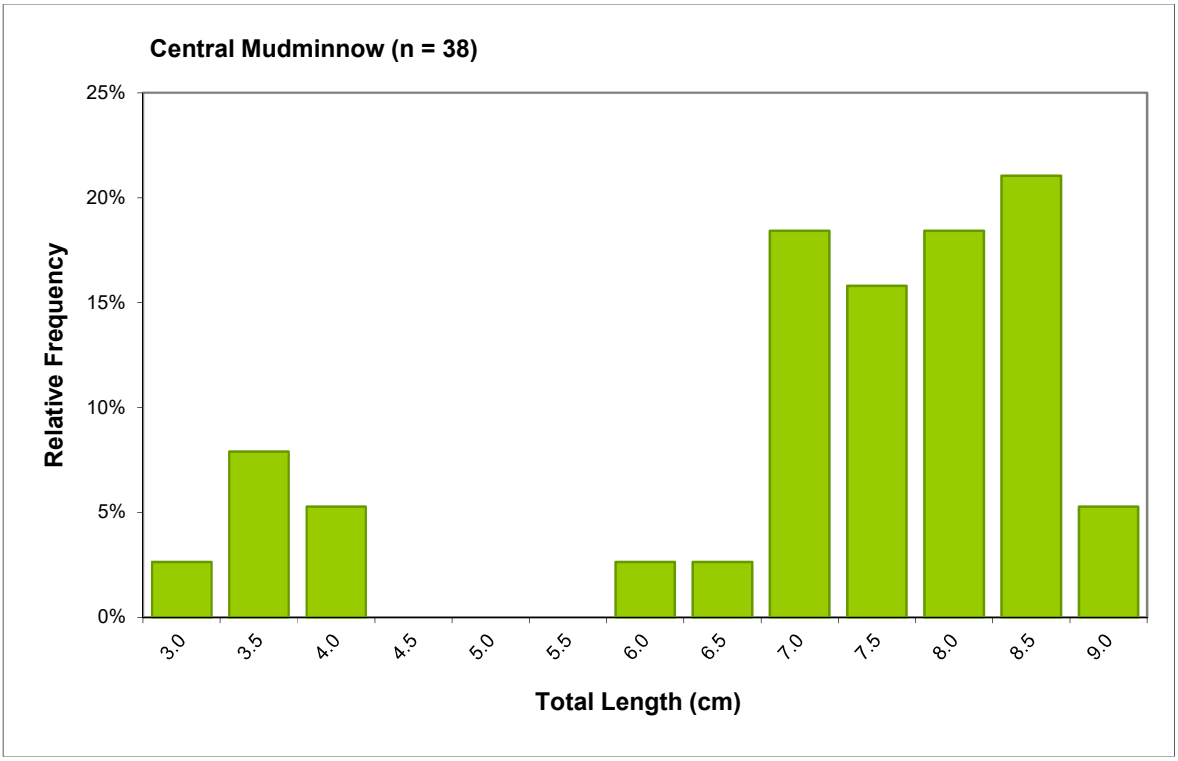
Note: Brown bullhead (n=2), common shiner (n=3), fathead minnow (n=1), finescale dace (n=3), golden shiner (n=7), white sucker (n=1) not plotted due to low capture numbers or minimal variation in lengths.



Appendix Figure A.4: Length-frequency Distributions for Fish Collected at West Creek Pond, RRM 2019

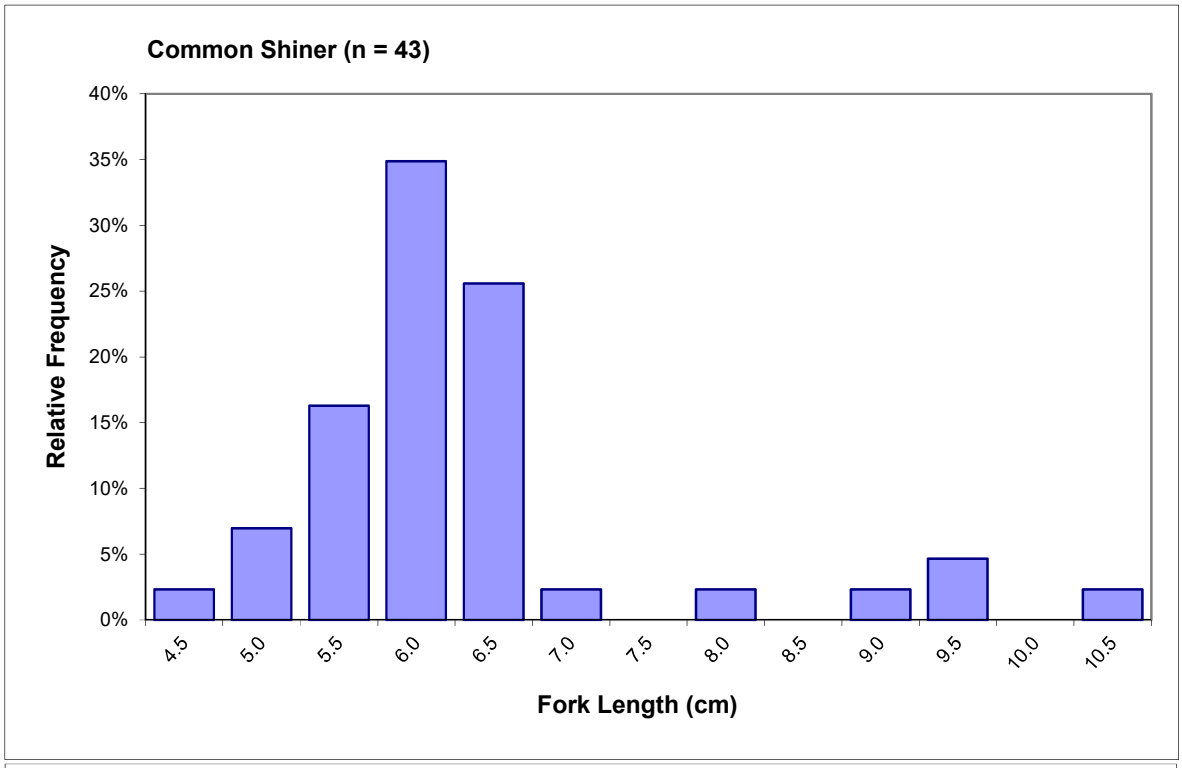
Note: Brown bullhead (n=2), golden shiner (n=1) not plotted due to low capture numbers.

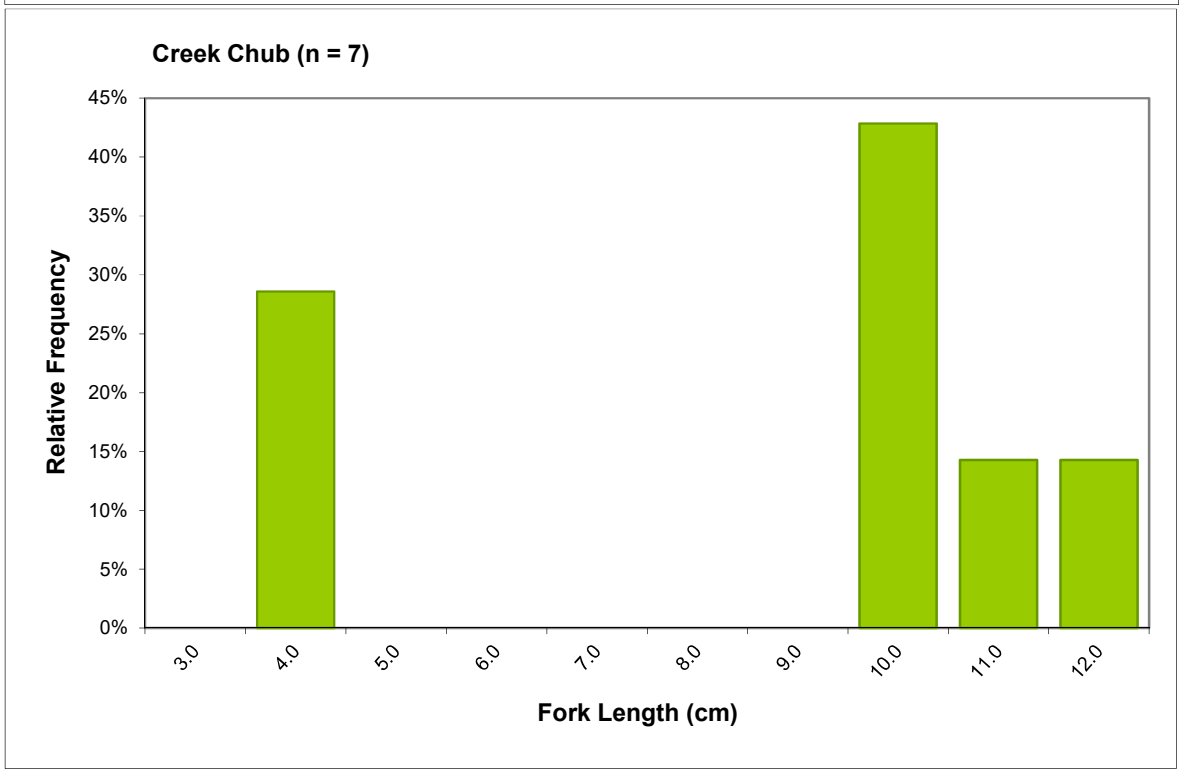




Appendix Figure A.4: Length-frequency Distributions for Fish Collected at West Creek Pond, RRM 2019

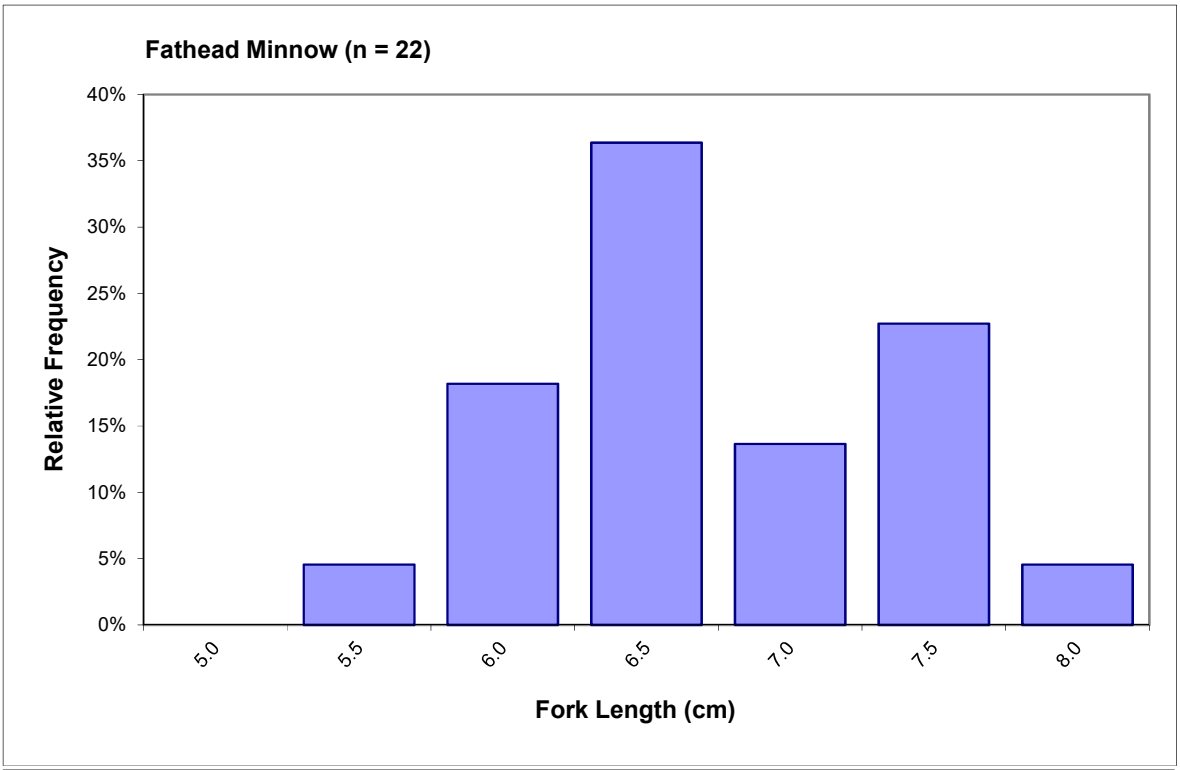
Note: Brown bullhead (n=2), golden shiner (n=1) not plotted due to low capture numbers.

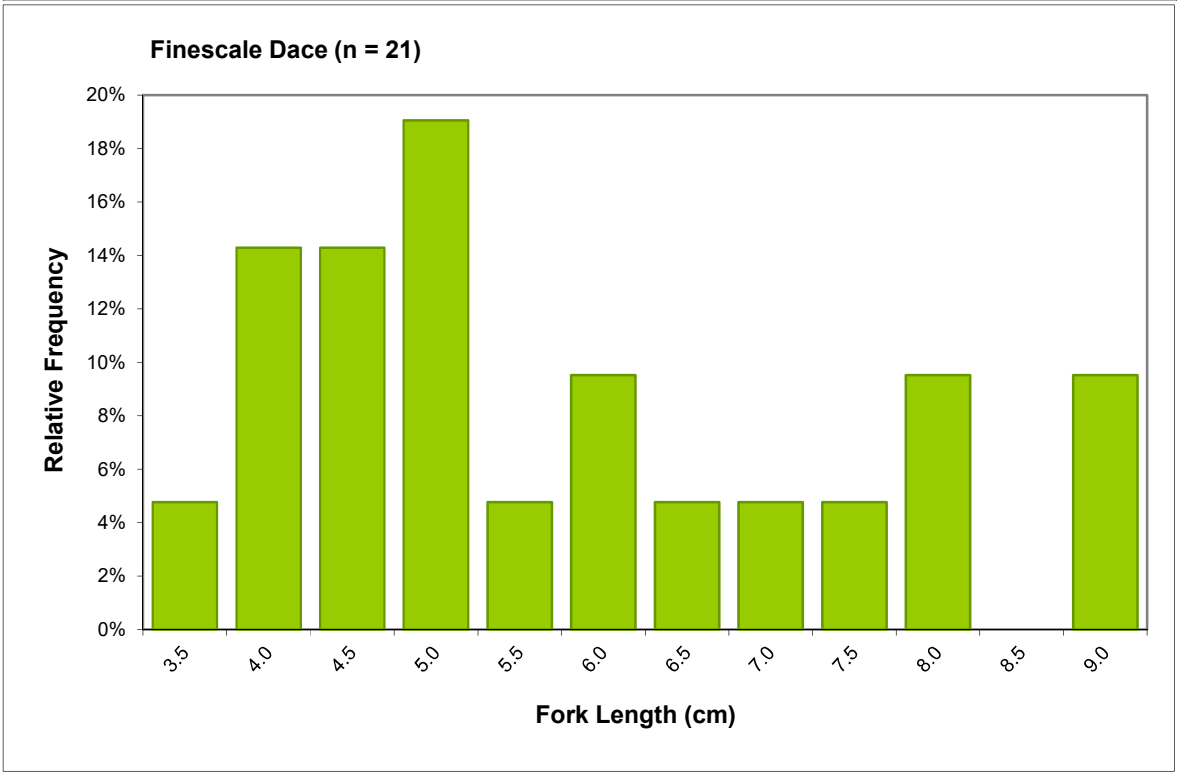




Appendix Figure A.4: Length-frequency Distributions for Fish Collected at West Creek Pond, RRM 2019

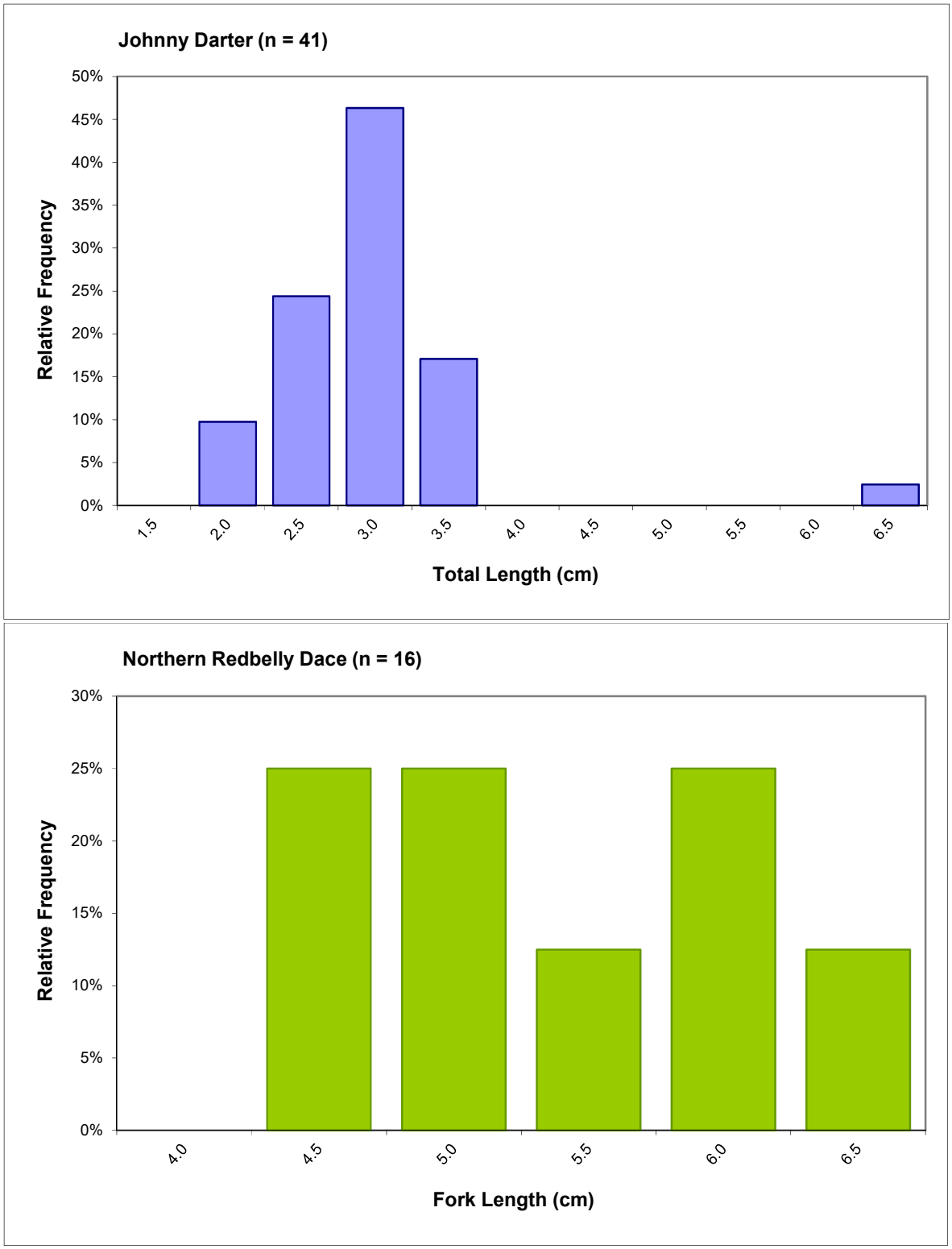
Note: Brown bullhead (n=2), golden shiner (n=1) not plotted due to low capture numbers.





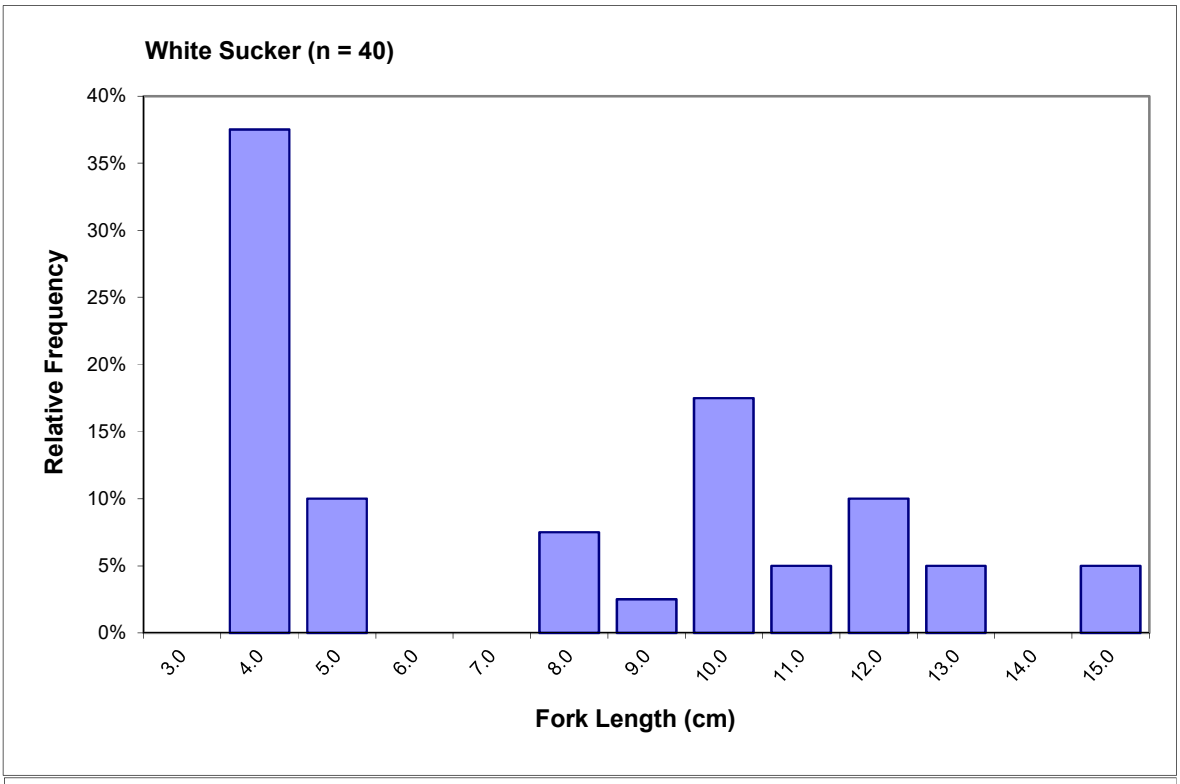
Appendix Figure A.4: Length-frequency Distributions for Fish Collected at West Creek Pond, RRM 2019

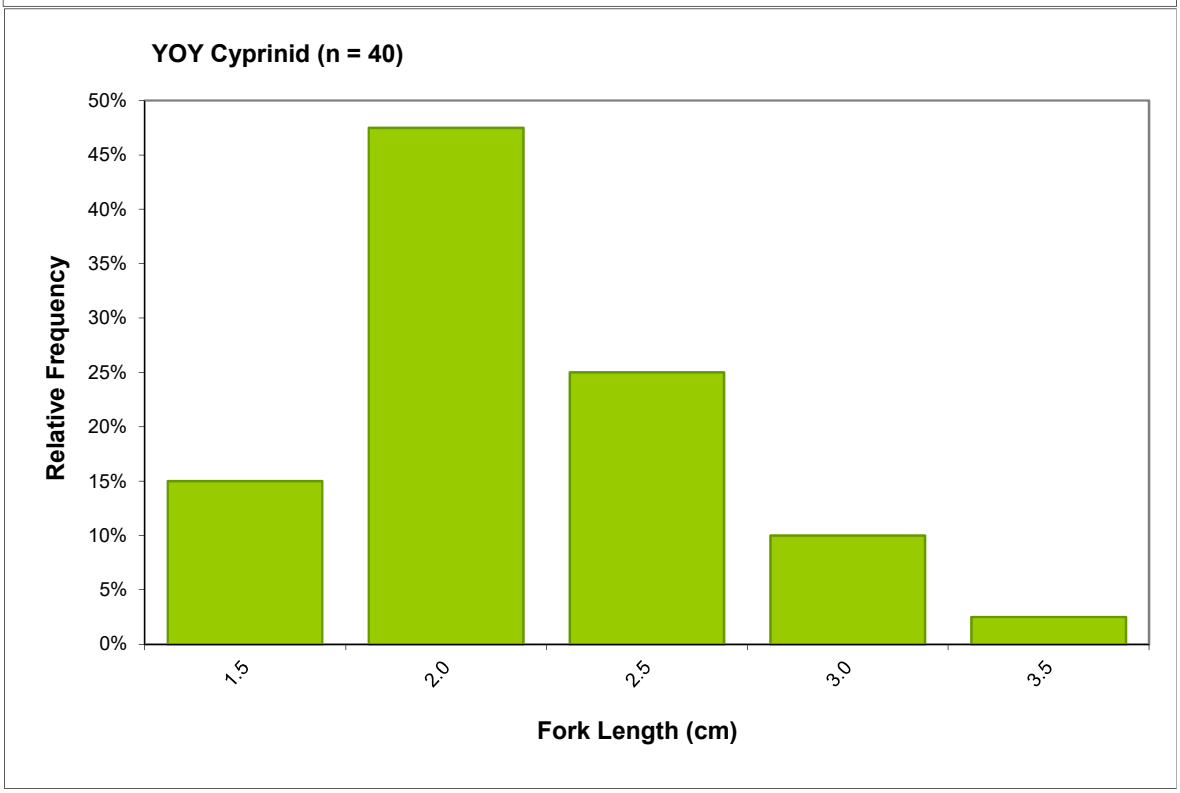
Note: Brown bullhead (n=2), golden shiner (n=1) not plotted due to low capture numbers.



Appendix Figure A.4: Length-frequency Distributions for Fish Collected at West Creek Pond, RRM 2019

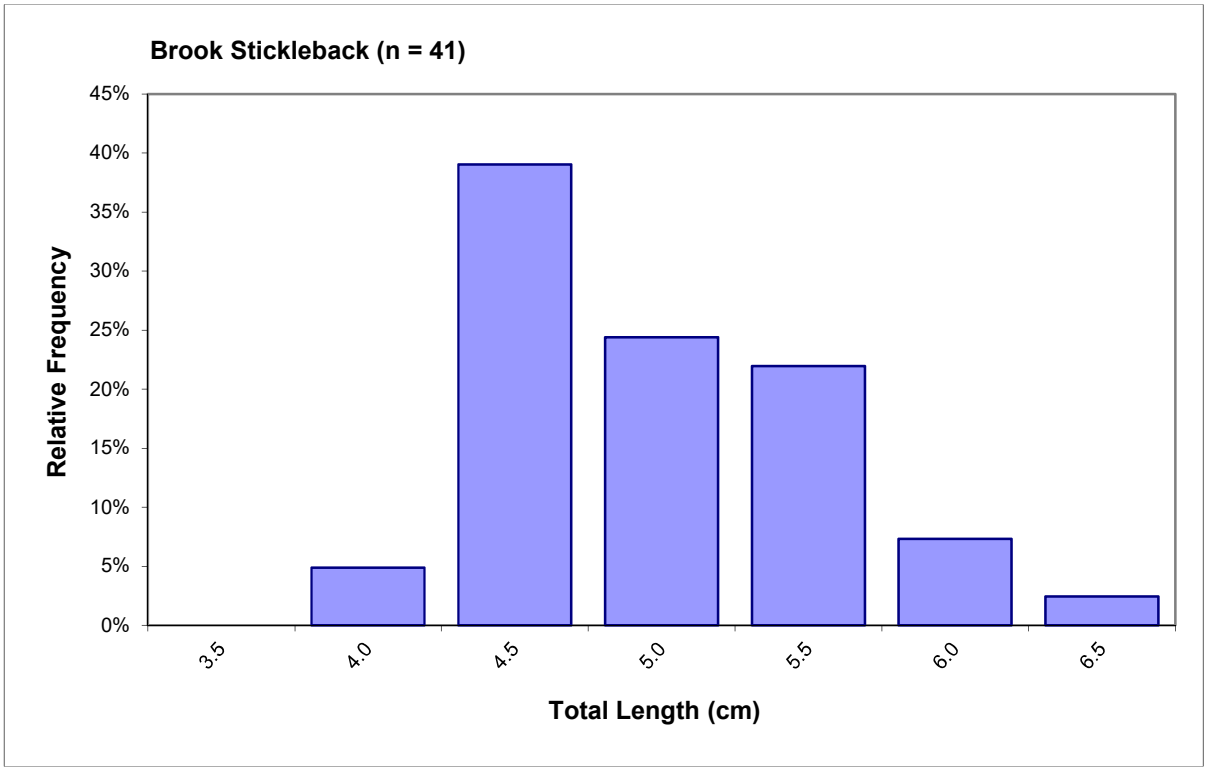
Note: Brown bullhead (n=2), golden shiner (n=1) not plotted due to low capture numbers.

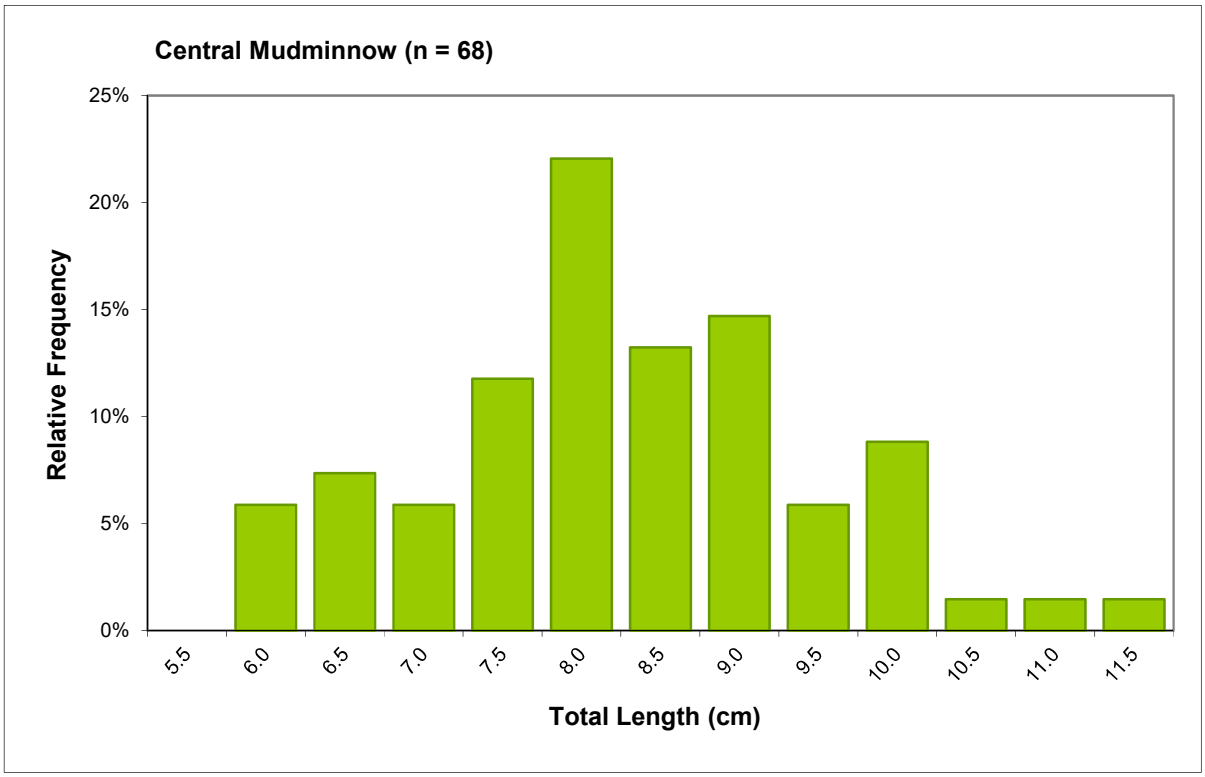




Appendix Figure A.4: Length-frequency Distributions for Fish Collected at West Creek Pond, RRM 2019

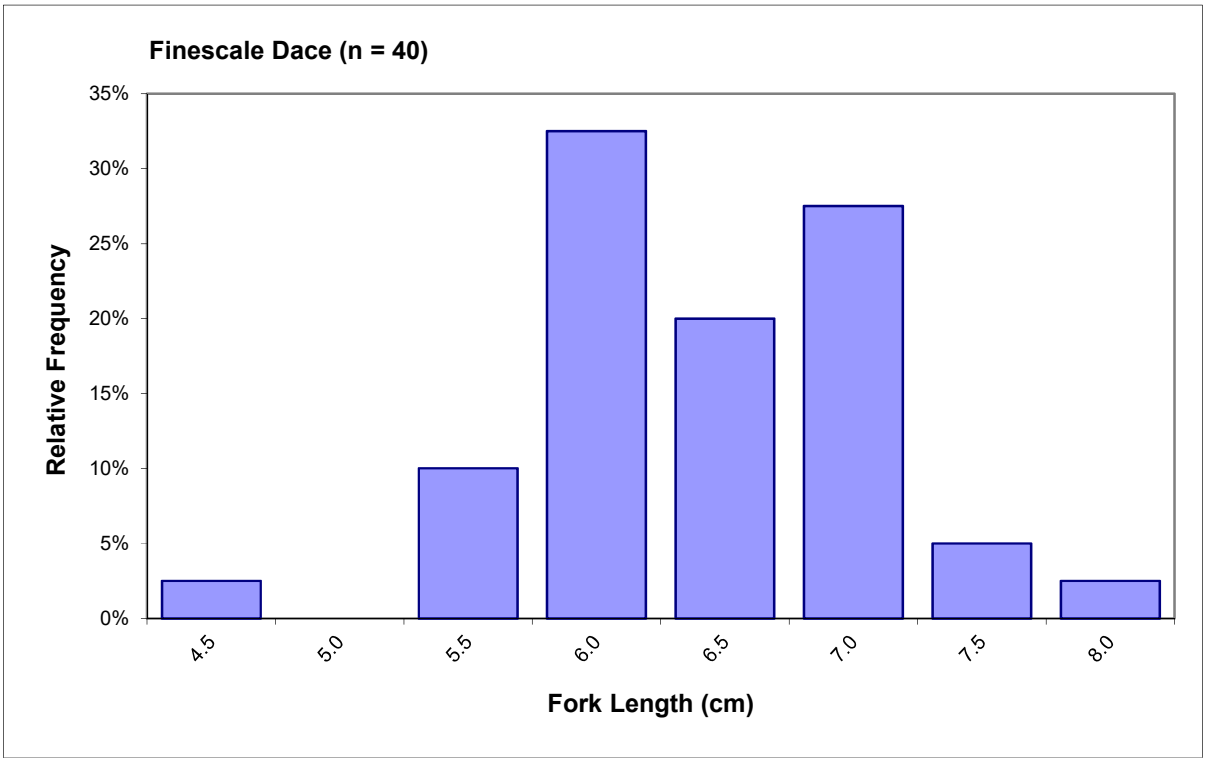
Note: Brown bullhead (n=2), golden shiner (n=1) not plotted due to low capture numbers.





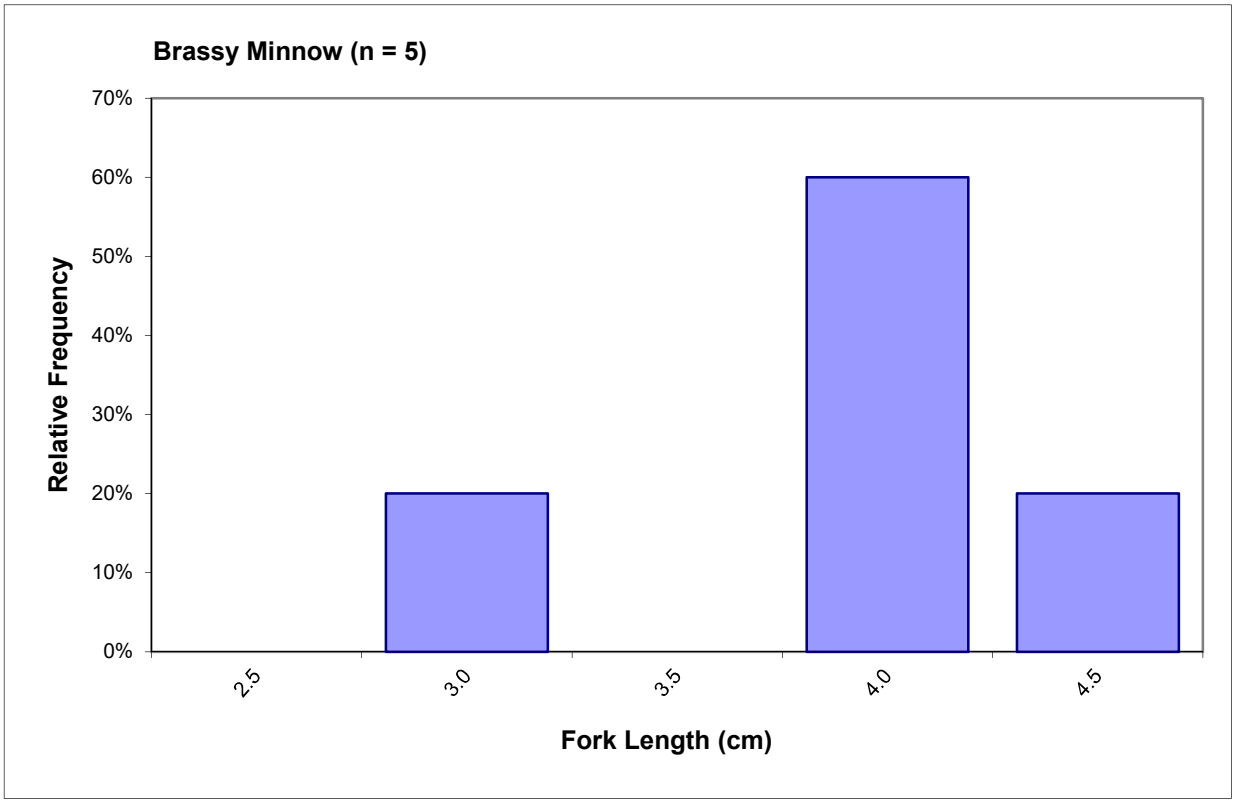
Appendix Figure A.5: Length-frequency Distributions for Fish Collected at Clark Pond, RRM 2019

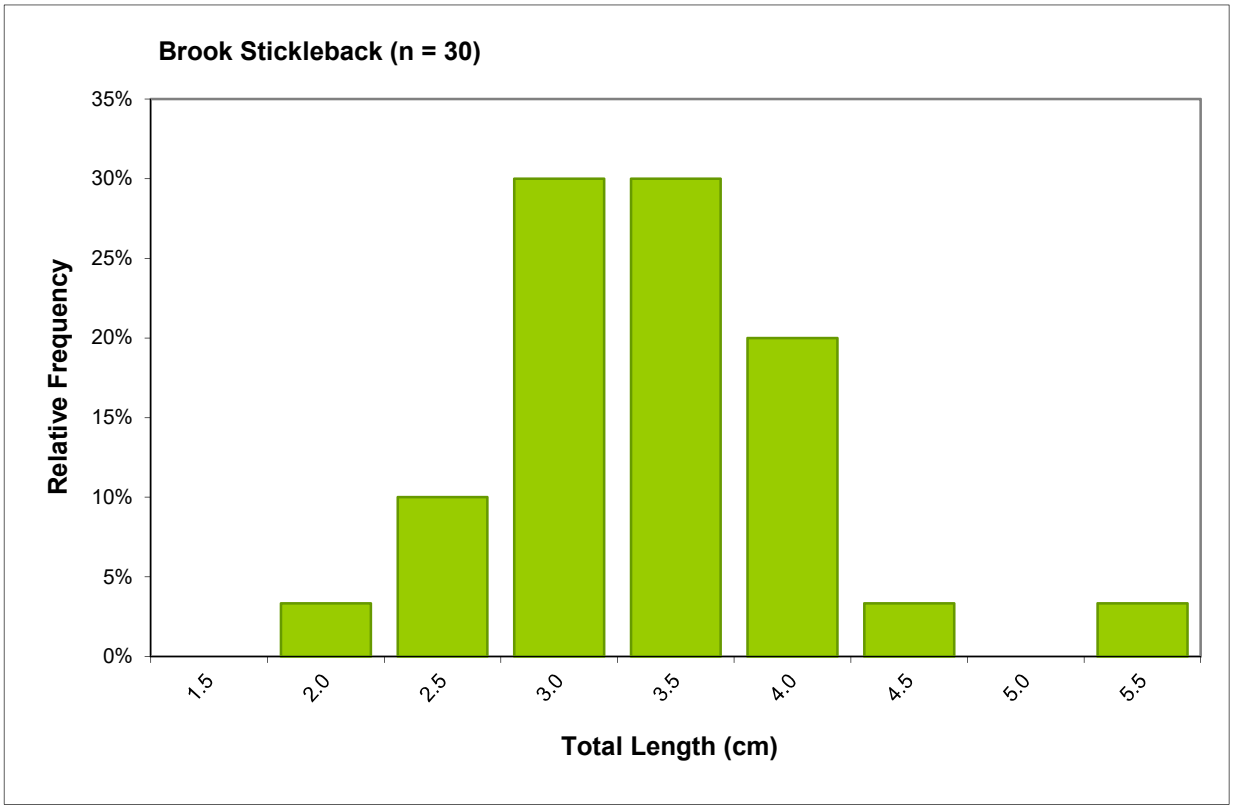
Note: Brassy minnow (n=1) not plotted due to low capture numbers.



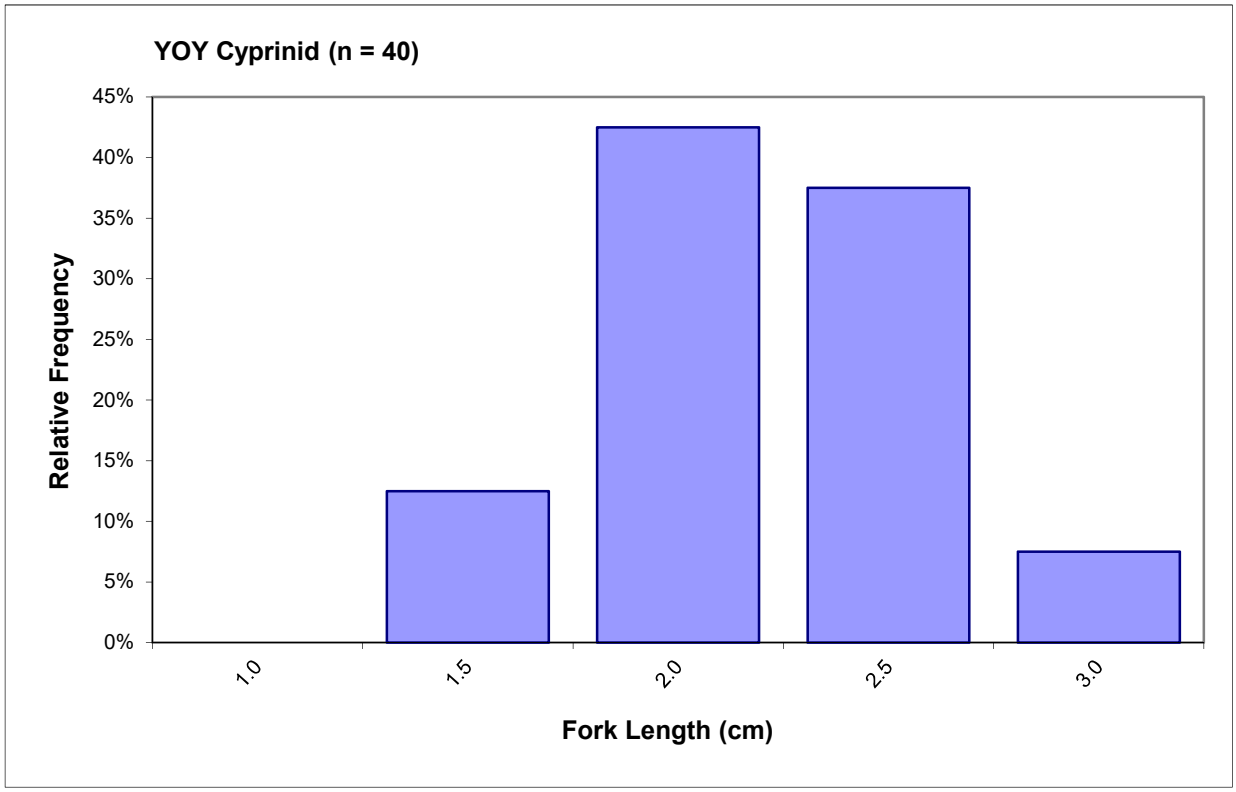
Appendix Figure A.5: Length-frequency Distributions for Fish Collected at Clark Pond, RRM 2019

Note: Brassy minnow (n=1) not plotted due to low capture numbers.

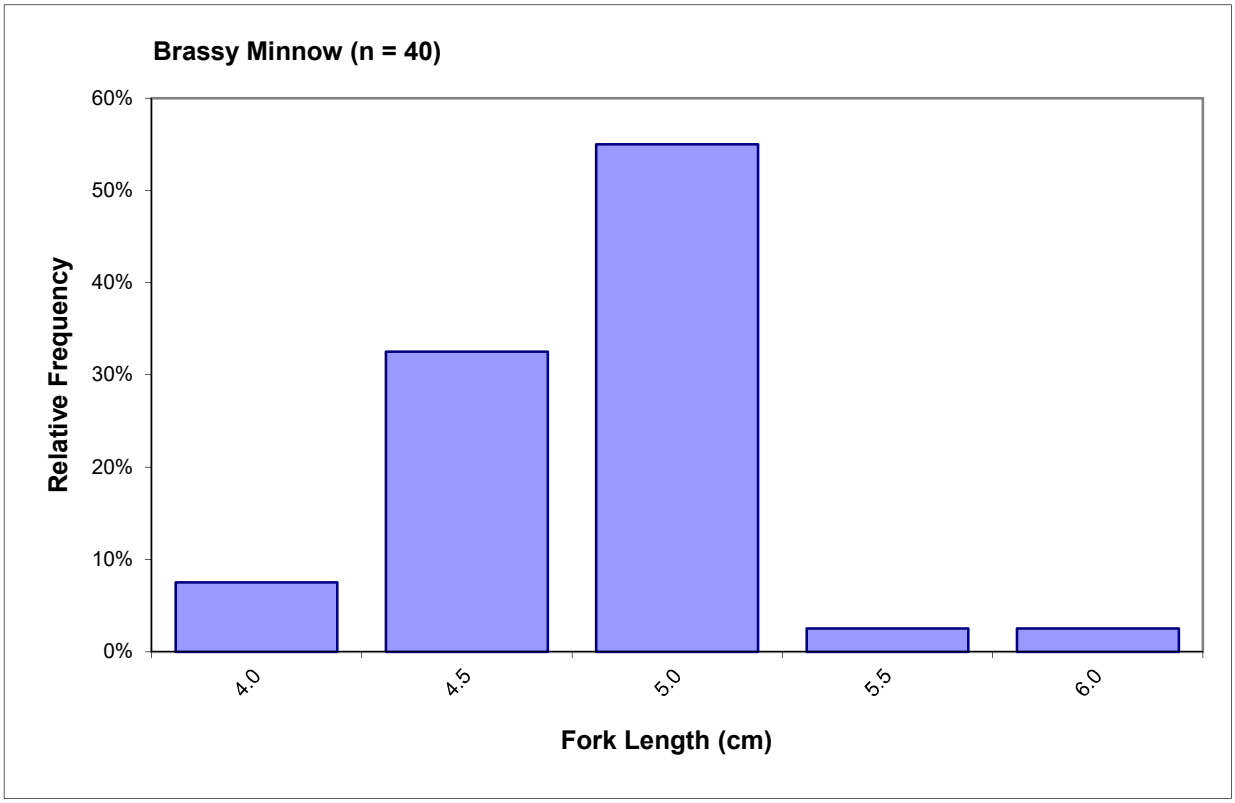


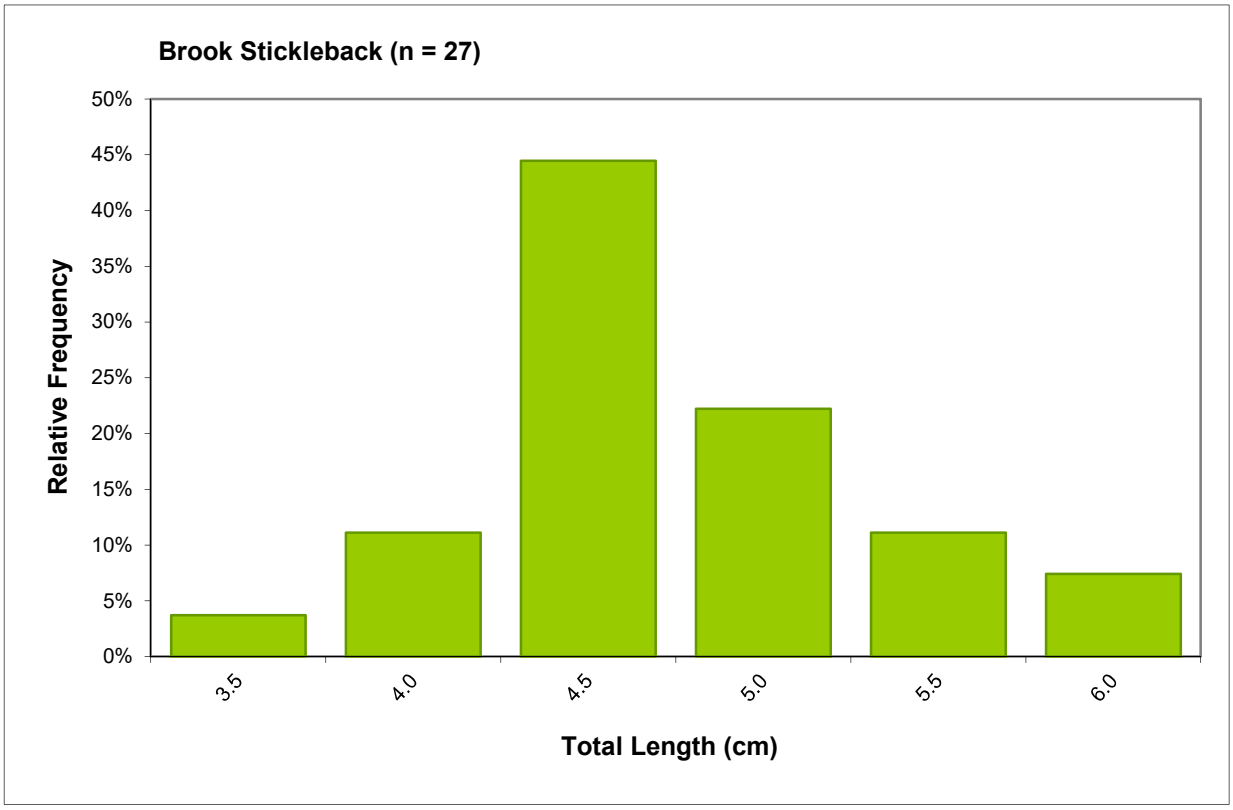


Appendix Figure A.6: Length-frequency Distributions for Fish Collected at Teeple Pond Outlet, RRM 2019

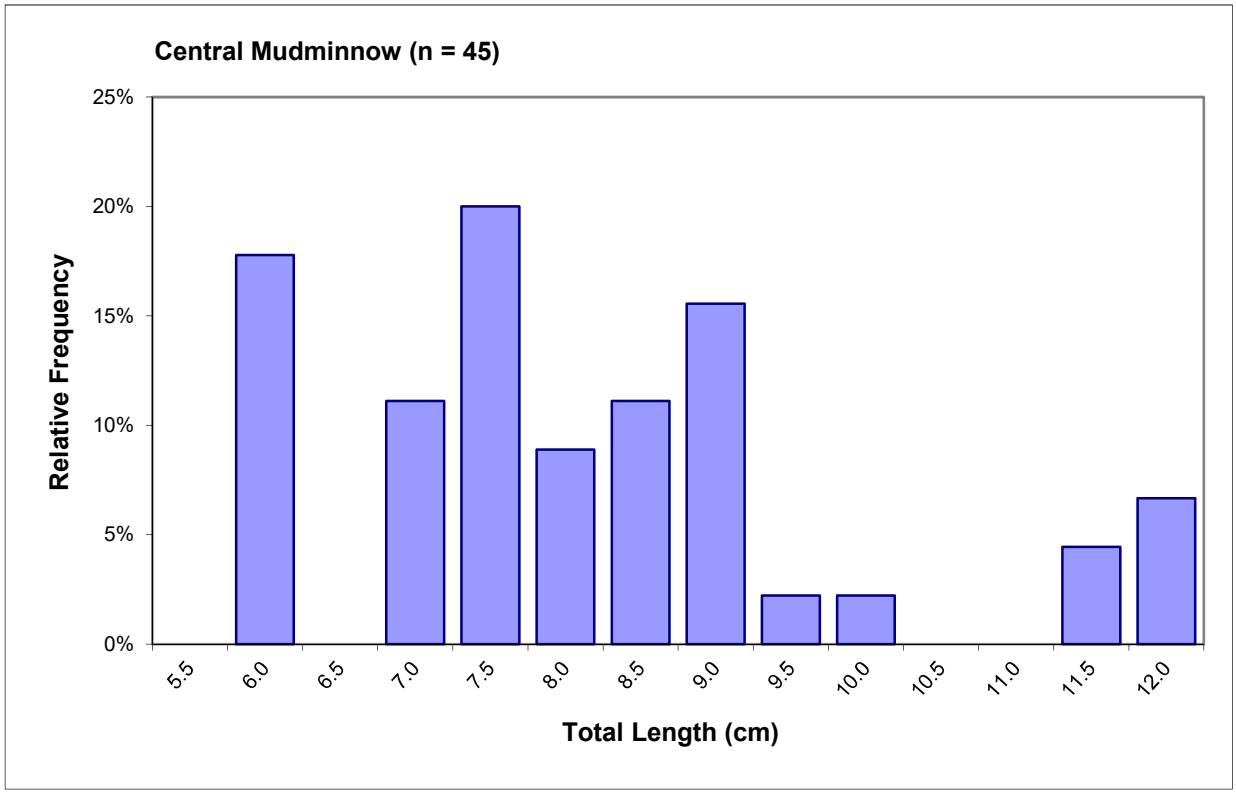


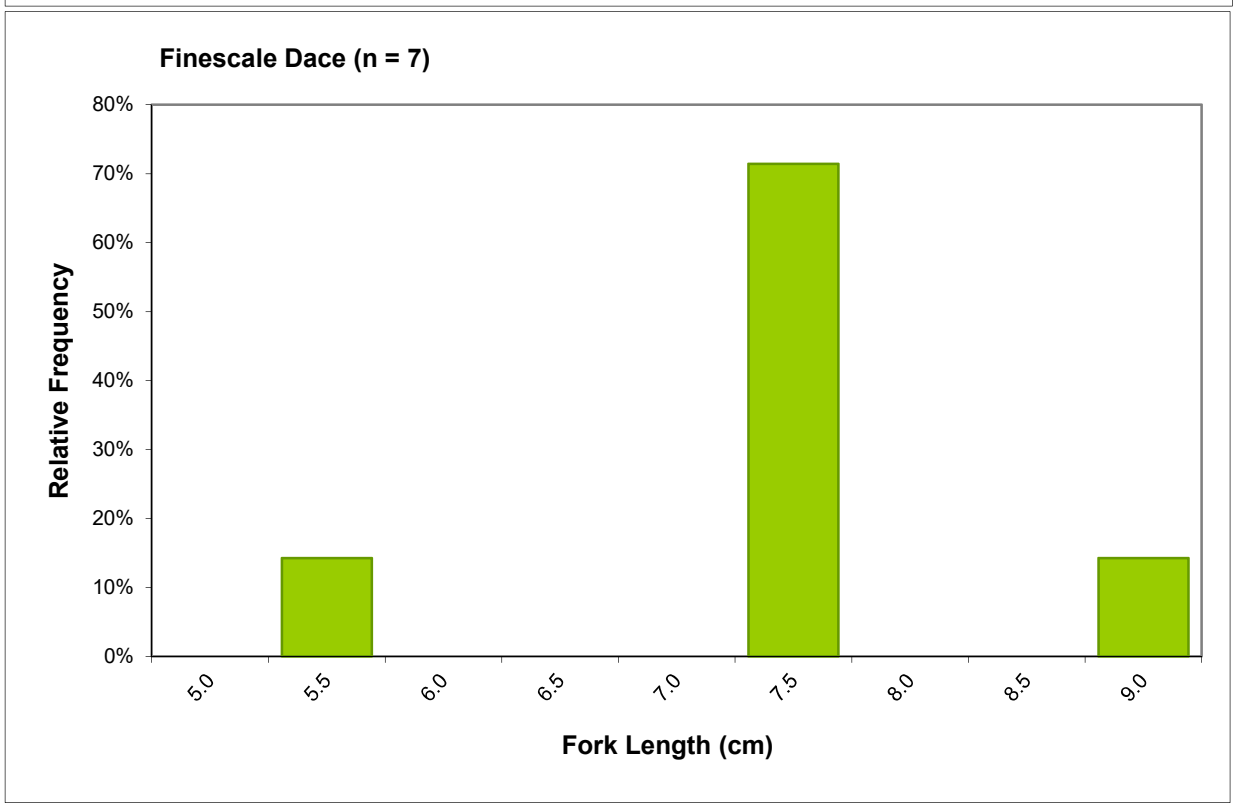
Appendix Figure A.6: Length-frequency Distributions for Fish Collected at Teeple Pond Outlet, RRM 2019



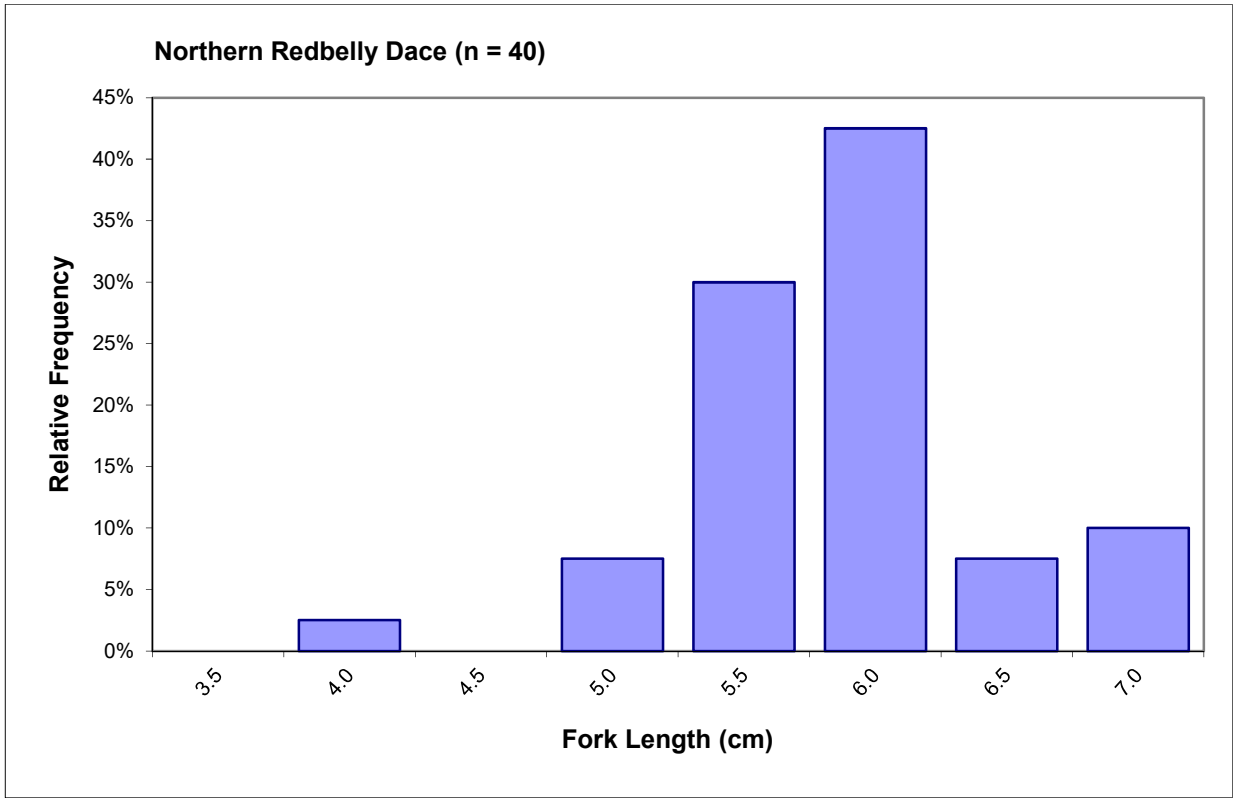


Appendix Figure A.7: Length-frequency Distributions for Fish Collected at Teeple Pond, RRM 2019

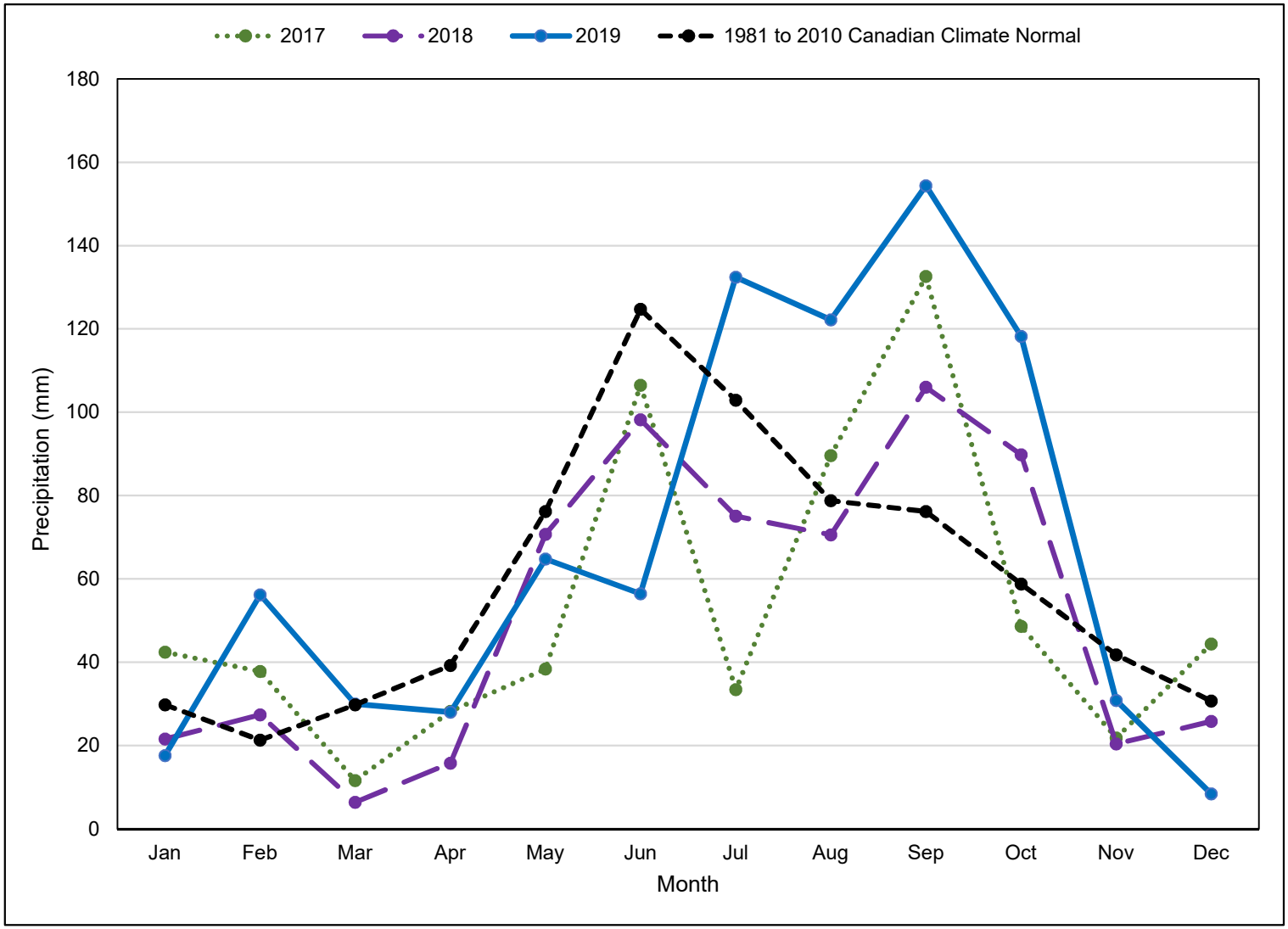




Appendix Figure A.7: Length-frequency Distributions for Fish Collected at Teeple Pond, RRM 2019



Appendix Figure A.7: Length-frequency Distributions for Fish Collected at Teeple Pond, RRM 2019



Appendix Figure A.8: Precipitation Values Measured in the Vicinity of Rainy River Mine

Table A.1: High-Flow Channel Depth and Velocity Data Associated with Stockpile Pond Diversion Channel, RRM May 2019

Station	Measurement	Channel Interval						
		1	2	3	4	5	6	mean
SPDC-Culvert	Distance from shore (m)	0.5	1	1.5	2	2.5	-	-
	Depth (cm)	5.0	10.0	20.0	17.0	3.0	-	11.0
	Velocity (m/s)	0	0.03	0.099	0.011	0	-	0.0280
SPDC-01	Distance from shore (m)	1	2	3	4	5	6	-
	Depth (cm)	23.0	20.0	30.0	31.0	11.0	6.0	20.2
	Velocity (m/s)	0	0	0.005	0.025	0	0	0.0050
SPDC-02	Distance from shore (m)	0.2	0.4	0.6	0.8	-	-	-
	Depth (cm)	8.0	9.0	10.0	9.0	-	-	9.0
	Velocity (m/s)	0.033	0.321	0.371	0	-	-	0.1813
SPDC-03	Distance from shore (m)	0.25	0.5	0.75	1	1.5	-	-
	Depth (cm)	8.0	13.0	16.0	14.0	3.0	-	10.8
	Velocity (m/s)	0.006	0.019	0.023	0.007	0	-	0.0110
SPDC-04	Distance from shore (m)	0.35	0.7	1.05	1.4	1.75	2.1	-
	Depth (cm)	16.0	35.0	40.0	31.0	15.0	8.0	24.2
	Velocity (m/s)	0	0.011	0.005	0	0.003	0	0.0032
SPDC-05	Distance from shore (m)	0.4	0.8	1.2	1.6	2	-	-
	Depth (cm)	20.0	35.0	40.0	25.0	15.0	-	27.0
	Velocity (m/s)	0	0	0	0.001	0	-	0.0002

Note: "-" indicates no measurement taken.

Table A.2: High-Flow Channel Depth and Velocity Data Associated with West Creek Diversion Channel Upstream of Haul Road, RRM May 2019

Station	Measurement	Channel Interval					
		1	2	3	4	5	mean
WCDC-01	Distance from shore (m)	0.8	1.6	2.4	3.2	4	-
	Depth (cm)	15	19	15	8	5	12.4
	Velocity (m/s)	0.021	0.023	0	0	0	0.009
WCDC-02	Distance from shore (m)	0.6	1.2	1.8	2.4	3	-
	Depth (cm)	10	10	10	10	15	11.0
	Velocity (m/s)	0	0	0	0	0.25	0.050
WCDC-03	Distance from shore (m)	0.55	1.1	1.65	2.2	2.75	-
	Depth (cm)	22	51	52	25	8	31.6
	Velocity (m/s)	0	0.018	0.013	0	0	0.006
WCDC-04	Distance from shore (m)	0.25	0.5	0.75	1	1.25	-
	Depth (cm)	8	11	10	5	2	7.2
	Velocity (m/s)	0	0.162	0.086	0.084	0	0.066
WCDC-05	Distance from shore (m)	0.4	0.8	1.2	1.6	2	-
	Depth (cm)	29	38	38	36	12	30.6
	Velocity (m/s)	0.021	0.005	0.008	0.004	0.008	0.009
WCDC-06	Distance from shore (m)	0.3	0.6	0.9	1.2	1.5	-
	Depth (cm)	23	37	36	39	35	34.0
	Velocity (m/s)	0.059	0.059	0.007	0	0	0.025
WCDC-07	Distance from shore (m)	0.3	0.6	0.9	1.2	1.8	-
	Depth (cm)	8	10	10	7	7	8.4
	Velocity (m/s)	0.002	0.07	0.162	0.079	0	0.063
WCDC-08	Distance from shore (m)	0.5	1	1.5	2	2.5	-
	Depth (cm)	20	50	60	59	46	47.0
	Velocity (m/s)	0	0.008	0.034	0.009	0.009	0.012
WCDC-09	Distance from shore (m)	0.95	1.9	2.85	3.8	4.75	-
	Depth (cm)	20	30	28	31	29	27.6
	Velocity (m/s)	0	0.001	0.001	0.015	0.011	0.006

Note: "-" indicates no measurement taken.

Table A.3: High-Flow Channel Depth and Velocity Data Associated with West Creek Diversion Channel Downstream of Haul Road, RRM May 2019

Station	Measurement	Channel Interval						
		1	2	3	4	5	6	mean
WCDC-A1	Distance from shore (m)	0.6	1.2	1.8	2.4	3	-	-
	Depth (cm)	6	11	24	14	12	-	13.4
	Velocity (m/s)	0.028	0.209	0.463	0.029	0.012	-	0.148
WCDC-A2	Distance from shore (m)	0.65	1.3	1.95	2.6	3.25	-	-
	Depth (cm)	17	46	35	19	-	-	29.3
	Velocity (m/s)	0	0.219	0.007	0	-	-	0.057
WCDC-A3	Distance from shore (m)	0.21	0.42	0.63	0.84	1.05	-	-
	Depth (cm)	10	25	23	14	-	-	18.0
	Velocity (m/s)	0.124	0.512	0.622	0.304	-	-	0.391
WCDC-A4	Distance from shore (m)	0.55	1.1	1.65	2.2	2.75	3.3	-
	Depth (cm)	44	71	74	49	21	15	45.7
	Velocity (m/s)	0.023	0.056	0.078	0.026	0.022	0	0.034
WCDC-A5	Distance from shore (m)	0.4	0.8	1.2	1.6	2	2.4	-
	Depth (cm)	2	7	20	8	5	2	7.3
	Velocity (m/s)	0	0.48	0.466	0.3	0.274	0	0.253
WCDC-A6	Distance from shore (m)	1	2	3	4	5	-	-
	Depth (cm)	15	13	31	23	15	-	19.4
	Velocity (m/s)	0.09	0.056	0.166	0.055	0.056	-	0.085
WCDC-A7	Distance from shore (m)	1	2	3	4	5	6	-
	Depth (cm)	23	80	75	30	20	4	38.7
	Velocity (m/s)	0.002	0.006	0.005	0	0.001	0	0.002

Note: "-" indicates no measurement taken.

Table A.4: High-Flow Channel Depth and Velocity Data Associated with Clark Creek Diversion Channel, RRM May 2019

Station	Measurement	Channel Interval						
		1	2	3	4	5	6	mean
CCDC-01	Distance from shore (m)	1.35	2.7	4.05	5.4	6.75	8.1	-
	Depth (cm)	48.0	68.0	64.0	57.0	29.0	15.0	46.8
	Velocity (m/s)	0	0	0	0	0	0	0
CCDC-02	Distance from shore (m)	0.95	1.9	2.85	3.8	4.75	5.7	-
	Depth (cm)	5.0	17.0	21.0	14.0	5.0	2.0	10.7
	Velocity (m/s)	0	0	0.023	0.004	0	0	0.005
CCDC-03	Distance from shore (m)	0.2	0.5	0.8	-	-	-	-
	Depth (cm)	5.0	14.0	8.0	-	-	-	9.0
	Velocity (m/s)	0.007	0.133	0.015	-	-	-	0.052
CCDC-04	Distance from shore (m)	0.55	1.1	1.65	2.2	2.75	3.3	-
	Depth (cm)	15.0	8.0	4.0	5.0	4.0	2.0	6.3
	Velocity (m/s)	0.04	0.001	0.002	0.022	0.002	0	0.011
CCDC-05	Distance from shore (m)	2	4	6	8	10	-	-
	Depth (cm)	20.0	10.0	18.0	26.0	5.0	-	15.8
	Velocity (m/s)	0	0	0	0.005	0	-	0.001
CCDC-06	Distance from shore (m)	3	6	9	12	15	18	-
	Depth (cm)	27.0	60.0	60.0	54.0	18.0	3.0	37.0
	Velocity (m/s)	0	0	0	0	0	0	0

Note: "-" indicates no measurement taken.

Table A.5: High-Flow Channel Depth and Velocity Data Associated with Teeple Pond Outlet Channel, RRM May 2019

Station	Measurement	Channel Interval						
		1	2	3	4	5	6	mean
TPDD-01	Distance from shore (m)	1	2	3	4	5	6	-
	Depth (cm)	47.0	70.0	74.0	62.0	54.0	35.0	57.0
	Velocity (m/s)	0	0.002	0	0	0	0	0.000333
TPDD-02	Distance from shore (m)	0.3	0.6	0.9	1.2	1.5	-	-
	Depth (cm)	19.0	34.0	29.0	25.0	17.0	-	24.8
	Velocity (m/s)	0.002	0.002	0.006	0.016	0.004	-	0.006
TPDD-03	Distance from shore (m)	0.25	0.5	0.75	1	1.25	1.5	-
	Depth (cm)	11.0	12.0	3.0	4.0	5.0	2.0	6.2
	Velocity (m/s)	0.098	0.026	0	0.047	0.03	0	0.0335
TPDD-04	Distance from shore (m)	0.45	0.9	1.35	1.8	2.25	-	-
	Depth (cm)	12.0	21.0	25.0	22.0	17.0	-	19.4
	Velocity (m/s)	0	0.007	0	0.001	0.005	-	0.0026

Note: "-" indicates no measurement taken.

Table A.6: Low-Flow Channel Depth and Velocity Data Associated with West Creek Diversion Channel Upstream of Haul Road, RRM July 2019

Station	Measurement	Channel Interval					
		1	2	3	4	5	mean
WCDC-01	Distance from shore (m)	1	2	3	4	5	-
	Depth (cm)	13.0	9.5	10.5	17.0	13.0	12.6
	Velocity (m/s)	0.008	0.068	0.017	0.059	0.062	0.043
WCDC-02	Distance from shore (m)	0.6	1.2	1.8	2.6	3.1	-
	Depth (cm)	17.0	27.0	27.0	24.5	16.5	22.4
	Velocity (m/s)	0.114	0.267	0.012	0	0	0.079
	Distance from shore (m)	0.8	1.2	1.8	2.6	3.2	-
	Depth (cm)	28.5	29.5	52.0	47.5	27.0	36.9
	Velocity (m/s)	0.01	0.029	0.058	0.031	0	0.026
WCDC-04	Distance from shore (m)	0.5	1	1.5	2	2.5	-
	Depth (cm)	26.0	37.0	37.5	38.0	33.0	34.3
	Velocity (m/s)	0	0.149	0.076	0.007	0.011	0.049
WCDC-05	Distance from shore (m)	0.4	0.8	1.2	1.6	2	-
	Depth (cm)	76.0	77.0	83.0	76.0	79.5	78.3
	Velocity (m/s)	0.007	0.01	0.014	0.001	0	0.006
WCDC-06	Distance from shore (m)	0.4	0.8	1.2	1.6	1.8	-
	Depth (cm)	31.5	38.0	46.0	44.5	28.0	37.6
	Velocity (m/s)	0	0.031	0.272	0.056	0.005	0.073
WCDC-07	Distance from shore (m)	0.8	1.6	2.4	3.2	4	-
	Depth (cm)	37.0	57.5	63.5	46.0	32.5	47.3
	Velocity (m/s)	0.056	0.094	0.016	0	0	0.033
WCDC-08	Distance from shore (m)	0.8	1.6	2.4	3.2	4	-
	Depth (cm)	44.5	67.0	69.5	62.0	45.0	57.6
	Velocity (m/s)	0.001	0.039	0.016	0.02	0.004	0.016
WCDC-09	Distance from shore (m)	1	2	3	4	5	-
	Depth (cm)	18.0	31.0	67.0	54.0	37.0	41.4
	Velocity (m/s)	0	0	0.009	0.029	0.026	0.013

Note: "-" indicates no measurement taken.

Table A.7: Low-Flow Channel Depth and Velocity Data Associated with West Creek Diversion Channel Downstream of Haul Road, RRM July 2019

Station	Measurement	Channel Interval						
		1	2	3	4	5	6	mean
WCDC-A1	Distance from shore (m)	0.6	1.2	1.8	2.4	3	-	-
	Depth (cm)	12.0	15.0	16.5	28.0	12.0	-	16.7
	Velocity (m/s)	0.117	0.088	0.087	0.214	0.132	-	0.128
WCDC-A2	Distance from shore (m)	0.8	1.6	2.4	3.2	-	-	-
	Depth (cm)	12.5	37.5	45.0	15.0	-	-	27.5
	Velocity (m/s)	0	0.219	0.002	0	-	-	0.055
WCDC-A3	Distance from shore (m)	0.3	0.6	0.9	1.2	-	-	-
	Depth (cm)	10.0	21.5	19.5	16.5	-	-	16.9
	Velocity (m/s)	0.035	0.387	0.237	0.048	-	-	0.177
WCDC-A4	Distance from shore (m)	0.75	1.5	2.25	3	3.75	-	-
	Depth (cm)	20.0	27.0	24.5	26.0	23.0	-	24.1
	Velocity (m/s)	0	0.023	0.301	0.354	0	-	0.136
WCDC-A5	Distance from shore (m)	0.8	1.6	2	-	-	-	-
	Depth (cm)	8.5	12.0	14.0	-	-	-	11.5
	Velocity (m/s)	0.063	0.336	0.377	-	-	-	0.259
WCDC-A6	Distance from shore (m)	0.8	1.6	2.4	3.2	4	-	-
	Depth (cm)	13.0	10.0	16.0	34.0	5.5	-	15.7
	Velocity (m/s)	0.056	0.059	0.062	0.206	0.033	-	0.083
WCDC-A7	Distance from shore (m)	1	2	3	4	5	6	-
	Depth (cm)	25.5	35.0	47.0	49.5	26.0	23.0	34.3
	Velocity (m/s)	0.002	0	0.029	0.022	0.018	0.001	0.012

Note: "-" indicates no measurement taken.

Table A.8: Low-Flow Channel Depth and Velocity Data Associated with Clark Creek Diversion Channel, RRM July 2019

Station	Measurement	Channel Interval						
		1	2	3	4	5	6	mean
CCDC-01	Distance from shore (m)	1.3	2.8	4	5.5	6.8	8	-
	Depth (cm)	29.0	38.0	39.0	48.0	47.5	28.0	38.3
	Velocity (m/s)	0	0.001	0	0	0	0	0.0002
CCDC-02	Distance from shore (m)	0.9	1.8	2.7	3.6	4.5	5.4	-
	Depth (cm)	44.0	48.0	55.0	49.0	51.5	50.0	49.6
	Velocity (m/s)	0	0.007	0	0	0	0	0.0012
CCDC-03	Distance from shore (m)	0.1	0.2	0.5	-	-	-	-
	Depth (cm)	6.0	6.5	8.0	-	-	-	6.8
	Velocity (m/s)	0.034	0.091	0.022	-	-	-	0.0490
CCDC-04	Distance from shore (m)	0.3	0.6	0.9	-	-	-	-
	Depth (cm)	12.8	15.0	8.0	-	-	-	11.9
	Velocity (m/s)	0.002	0.004	0	-	-	-	0.0020
CCDC-05	Distance from shore (m)	2	4	6	8	10	-	-
	Depth (cm)	14.0	22.0	30.0	43.0	19.0	-	25.6
	Velocity (m/s)	0.001	0	0.001	0.003	0.001	-	0.0012
CCDC-06	Distance from shore (m)	1	3	5	-	-	-	-
	Depth (cm)	17.5	20.0	22.0	-	-	-	19.8
	Velocity (m/s)	0	0	0	-	-	-	0

Note: "-" indicates no measurement taken.

Table A.9: Low-Flow Channel Depth and Velocity Data Associated with Teeple Pond Outlet Channel, RRM July 2019

Station	Measurement	Channel Interval						
		1	2	3	4	5	6	mean
TPDD-01	Distance from shore (m)	2	4	6	-	-	-	-
	Depth (cm)	67	70	67	-	-	-	68
	Velocity (m/s)	0.005	0.001	0.025	-	-	-	0.010333
TPDD-02	Distance from shore (m)	0.4	0.8	1.2	-	-	-	-
	Depth (cm)	8.8	9	7.5	-	-	-	8.433333
	Velocity (m/s)	0.004	0.019	0.003	-	-	-	0.008667
TPDD-03	Distance from shore (m)	0.3	0.6	1.2	-	-	-	-
	Depth (cm)	21.5	25	11.5	-	-	-	19.33333
	Velocity (m/s)	0	0	0	-	-	-	0
TPDD-04	Distance from shore (m)	0.3	0.6	0.9	-	-	-	-
	Depth (cm)	11	9.5	10	-	-	-	10.16667
	Velocity (m/s)	0.008	0.014	0.006	-	-	-	0.009333

Note: "-" indicates no measurement taken.

Table A.11: Detailed Minnow Trap Data for Pond Habitat, RRM July 2019

Waterbody	Minnow Trap ID	UTM (NAD 83, 15U)		Set Date	Lift Date	Set Time	Lift Time	Traps (#)	Effort (hrs)	Brown Bullhead			Blacknose Dace			Brassy Minnow			Brook Stickleback		
		Easting	Northing							Catch	Mortality	CPUE	Catch	Mortality	CPUE	Catch	Mortality	CPUE	Catch	Mortality	CPUE
Stockpile Creek Pond	SP-MT-01	427069	5410658	20-Jul-19	21-Jul-19	17:20	16:55	6	142	0	0	0.00	1	0	0.01	0	0	0.00	10	0	0.07
	SP-MT-02	427056	5410668	20-Jul-19	21-Jul-19	17:32	16:45	6	139	0	0	0.00	2	0	0.01	2	0	0.01	16	0	0.11
	SP-MT-03	427033	5410682	20-Jul-19	21-Jul-19	17:36	16:30	6	137	0	0	0.00	2	0	0.01	1	0	0.01	7	0	0.05
	SP-MT-04	427017	5410694	20-Jul-19	21-Jul-19	17:44	16:20	6	136	0	0	0.00	1	0	0.01	0	0	0.00	4	0	0.03
	SP-MT-05	426990	5410716	20-Jul-19	21-Jul-19	17:54	16:15	6	134	0	0	0.00	1	0	0.01	1	0	0.01	12	0	0.09
	SP-MT-06	426985	5410734	20-Jul-19	21-Jul-19	17:15	16:05	7	160	0	0	0.00	15	0	0.09	1	0	0.01	12	0	0.08
	SP-MT-07	427068	5410659	21-Jul-19	22-Jul-19	17:00	12:40	6	118	1	0	0.01	5	0	0.04	0	0	0.00	7	0	0.06
	SP-MT-08	427050	5410669	21-Jul-19	22-Jul-19	17:45	12:35	6	113	0	0	0.00	1	0	0.01	1	0	0.01	12	0	0.11
	SP-MT-09	427035	5410683	21-Jul-19	22-Jul-19	16:35	12:25	6	119	0	0	0.00	11	0	0.09	0	0	0.00	5	0	0.04
	SP-MT-10	427017	5410694	21-Jul-19	22-Jul-19	16:25	12:20	6	119	0	0	0.00	2	0	0.02	0	0	0.00	9	0	0.08
	SP-MT-11	426992	5410718	21-Jul-19	22-Jul-19	16:20	12:15	6	119	0	0	0.00	10	0	0.08	0	0	0.00	12	0	0.10
	SP-MT-12	426987	5410734	21-Jul-19	22-Jul-19	16:15	12:10	7	139	0	0	0.00	23	0	0.16	0	0	0.00	5	0	0.04
	SP-MT-13	427036	5410789	21-Jul-19	22-Jul-19	18:10	13:25	5	96	1	0	0.01	1	0	0.01	0	0	0.00	4	0	0.04
	SP-MT-14	427062	5410785	21-Jul-19	22-Jul-19	18:20	13:32	5	96	0	0	0.00	12	0	0.13	0	0	0.00	11	0	0.11
								Total	**1768**	**2**	**0**	**0.00**	**87**	**0**	**0.05**	**6**	**0**	**0.00**	**126**	**0**	**0.07**
West Creek Pond	WP-MT-01	425886	5410988	17-Jul-19	18-Jul-19	17:45	11:40	4	72	0	0	0.00	0	0	0.00	132	0	1.84	4	0	0.06
	WP-MT-02	425886	5410983	17-Jul-19	18-Jul-19	17:50	11:50	4	72	0	0	0.00	0	0	0.00	153	0	2.13	4	0	0.06
	WP-MT-03	425943	5410971	17-Jul-19	18-Jul-19	17:45	12:20	4	74	1	0	0.01	0	0	0.00	112	0	1.51	7	0	0.09
	WP-MT-04	425974	5410951	17-Jul-19	18-Jul-19	17:50	12:30	4	75	0	0	0.00	0	0	0.00	121	0	1.62	1	0	0.01
	WP-MT-05	425886	5410988	18-Jul-19	19-Jul-19	12:20	14:15	4	104	0	0	0.00	1	0	0.01	158	0	1.52	9	0	0.09
	WP-MT-06	425909	5410983	18-Jul-19	19-Jul-19	12:55	14:15	4	101	0	0	0.00	0	0	0.00	33	0	0.33	28	0	0.28
	WP-MT-07	425943	5410971	18-Jul-19	19-Jul-19	12:00	15:10	4	109	0	0	0.00	2	0	0.02	77	0	0.71	8	0	0.07
	WP-MT-08	425974	5410951	18-Jul-19	19-Jul-19	11:50	15:15	4	110	0	0	0.00	0	0	0.00	40	0	0.36	12	0	0.11
	WP-MT-09	425902	5410884	19-Jul-19	20-Jul-19	15:00	15:17	4	97	0	0	0.00	0	0	0.00	121	0	1.25	15	0	0.15
	WP-MT-10	425908	5410892	19-Jul-19	20-Jul-19	15:10	15:30	4	97	0	0	0.00	0	0	0.00	81	0	0.83	29	0	0.30
	WP-MT-11	425940	5410974	19-Jul-19	20-Jul-19	15:25	15:45	4	97	0	0	0.00	1	0	0.01	38	0	0.39	7	0	0.07
	WP-MT-12	425957	5410967	19-Jul-19	20-Jul-19	15:30	15:55	4	98	0	0	0.00	0	0	0.00	20	0	0.20	5	0	0.05
	WP-MT-13	425940	5410974	20-Jul-19	21-Jul-19	15:50	17:45	4	104	0	0	0.00	0	0	0.00	0	0	0.00	1	0	0.01
	WP-MT-14	425957	5410967	20-Jul-19	21-Jul-19	15:57	17:50	4	104	0	0	0.00	0	0	0.00	33	5	0.32	14	2	0.14
	WP-MT-15	425902	5410884	20-Jul-19	21-Jul-19	15:20	17:10	4	103	0	0	0.00	0	0	0.00	67	7	0.65	18	5	0.17
	WP-MT-16	425908	5410982	20-Jul-19	21-Jul-19	15:35	17:15	4	103	0	0	0.00	0	0	0.00	71	0	0.69	35	0	0.34
	WP-MT-17	425816	5411044	20-Jul-19	21-Jul-19	16:20	15:43	4	94	0	0	0.00	0	0	0.00	130	30	1.39	37	7	0.40
	WP-MT-18	425864	5411001	20-Jul-19	21-Jul-19	16:20	16:10	4	95	0	0	0.00	0	0	0.00	265	20	2.78	25	5	0.26
								Total	**1708**	**1**	**0**	**0.00**	**4**	**0**	**0.00**	**1652**	**62**	**0.97**	**259**	**19**	**0.15**

Note: Catch-per-unit-effort (CPUE) = # of fish / effort, expressed as # of fish per hr.

Table A.11: Detailed Minnow Trap Data for Pond Habitat, RRM July 2019

Waterbody	Minnow Trap ID	UTM (NAD 83, 15U)		Set Date	Lift Date	Set Time	Lift Time	Traps (#)	Effort (hrs)	Brown Bullhead			Blacknose Dace			Brassy Minnow			Brook Stickleback		
		Easting	Northing							Catch	Mortality	CPUE	Catch	Mortality	CPUE	Catch	Mortality	CPUE	Catch	Mortality	CPUE
Clark Creek Pond	CP-MT-01	429627	5409964	16-Jul-19	17-Jul-19	15:21	12:30	5	106	0	0	0.00	0	0	0.00	1	0	0.01	9	0	0.09
	CP-MT-02	429632	5409922	17-Jul-19	18-Jul-19	12:40	13:47	2	50	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	CP-MT-03	429629	5409959	17-Jul-19	18-Jul-19	12:45	13:40	5	125	0	0	0.00	0	0	0.00	0	0	0.00	8	0	0.06
	CP-MT-04	429608	5410040	17-Jul-19	18-Jul-19	12:50	12:35	5	119	0	0	0.00	0	0	0.00	0	0	0.00	30	0	0.25
	CP-MT-05	429598	5410091	17-Jul-19	18-Jul-19	13:05	13:15	5	121	0	0	0.00	0	0	0.00	0	0	0.00	35	1	0.29
	CP-MT-06	429600	5410079	17-Jul-19	18-Jul-19	13:10	12:00	5	114	0	0	0.00	0	0	0.00	0	0	0.00	5	0	0.04
	CP-MT-07	429597	5410081	18-Jul-19	19-Jul-19	12:30	9:41	5	106	0	0	0.00	0	0	0.00	1	0	0.01	13	1	0.12
	CP-MT-08	429612	5409993	18-Jul-19	19-Jul-19	13:25	9:45	5	102	0	0	0.00	0	0	0.00	0	0	0.00	9	1	0.09
	CP-MT-09	429629	5409959	18-Jul-19	19-Jul-19	13:45	9:45	5	100	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	CP-MT-10	429608	5410040	18-Jul-19	19-Jul-19	12:37	9:40	5	105	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	CP-MT-11	429631	5409922	18-Jul-19	19-Jul-19	13:50	9:30	5	98	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	CP-MT-12	429632	5409930	19-Jul-19	20-Jul-19	9:30	14:00	2	57	0	0	0.00	0	0	0.00	1	0	0.02	8	0	0.14
	CP-MT-13	429631	5409915	19-Jul-19	20-Jul-19	9:30	14:05	5	143	0	0	0.00	0	0	0.00	6	0	0.04	8	0	0.06
	CP-MT-14	429618	5409986	19-Jul-19	20-Jul-19	9:30	13:45	5	141	0	0	0.00	0	0	0.00	0	0	0.00	8	0	0.06
	CP-MT-15	429624	5409957	19-Jul-19	20-Jul-19	9:30	13:55	5	142	0	0	0.00	0	0	0.00	0	0	0.00	17	0	0.12
	CP-MT-16	429610	5410037	19-Jul-19	20-Jul-19	9:30	13:37	5	141	0	0	0.00	0	0	0.00	3	0	0.02	15	0	0.11
								Total	**1769**	**0**	**0**	**0.00**	**0**	**0**	**0.00**	**12**	**0**	**0.01**	**165**	**3**	**0.09**
Teeple Creek Pond	TP-MT-01	430125	5408846	16-Jul-19	17-Jul-19	16:15	10:00	2	35	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	TP-MT-02	430141	5408845	16-Jul-19	17-Jul-19	16:18	10:10	2	36	0	0	0.00	0	0	0.00	0	0	0.00	1	0	0.03
	TP-MT-03	430148	5408843	16-Jul-19	17-Jul-19	16:20	9:55	2	35	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	TP-MT-04	430162	5408846	16-Jul-19	17-Jul-19	16:22	9:50	1	17	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	TP-MT-05	430148	5408843	17-Jul-19	18-Jul-19	10:15	14:05	3	83	0	0	0.00	0	0	0.00	0	0	0.00	4	0	0.05
	TP-MT-06	430162	5408846	17-Jul-19	18-Jul-19	10:15	14:00	4	111	0	0	0.00	0	0	0.00	0	0	0.00	2	0	0.02
	TP-MT-07	430072	5408843	17-Jul-19	18-Jul-19	10:20	13:50	4	110	0	0	0.00	0	0	0.00	0	0	0.00	4	0	0.04
	TP-MT-08	430017	5408843	17-Jul-19	18-Jul-19	10:23	13:55	4	110	0	0	0.00	0	0	0.00	0	0	0.00	7	0	0.06
	TP-MT-09	429975	5408845	17-Jul-19	18-Jul-19	10:30	13:45	4	109	0	0	0.00	0	0	0.00	0	0	0.00	4	0	0.04
	TP-MT-10	429909	5408839	17-Jul-19	18-Jul-19	10:35	13:40	4	108	0	0	0.00	0	0	0.00	0	0	0.00	3	0	0.03
	TP-MT-11	430148	5408843	18-Jul-19	20-Jul-19	14:15	11:17	3	135	0	0	0.00	0	0	0.00	1	0	0.01	2	0	0.01
	TP-MT-12	430162	5408846	18-Jul-19	20-Jul-19	14:20	11:19	4	180	0	0	0.00	0	0	0.00	2	0	0.01	0	0	0.00
	TP-MT-13	430072	5408843	18-Jul-19	20-Jul-19	14:10	11:10	4	180	0	0	0.00	0	0	0.00	2	0	0.01	5	0	0.03
	TP-MT-14	430017	5408843	18-Jul-19	20-Jul-19	14:05	11:00	4	180	0	0	0.00	0	0	0.00	0	0	0.00	8	0	0.04
	TP-MT-15	429975	5408845	18-Jul-19	20-Jul-19	14:05	10:53	4	179	0	0	0.00	0	0	0.00	35	0	0.20	5	0	0.03
	TP-MT-16	429904	5408839	18-Jul-19	20-Jul-19	14:10	10:45	4	178	0	0	0.00	0	0	0.00	7	0	0.04	5	0	0.03
								Total	**1788**	**0**	**0**	**0.00**	**0**	**0**	**0.00**	**47**	**0**	**0.03**	**50**	**0**	**0.03**

Note: Catch-per-unit-effort (CPUE) = # of fish / effort, expressed as # of fish per hr.

Table A.11: Detailed Minnow Trap Data for Pond Habitat, RRM July 2019

Waterbody	Minnow Trap ID	UTM (NAD 83, 15U)		Set Date	Lift Date	Set Time	Lift Time	Traps (#)	Effort (hrs)	Central Mudminnow			Common Shiner			Creek Chub			Fathead Minnow		
		Easting	Northing							Catch	Mortality	CPUE	Catch	Mortality	CPUE	Catch	Mortality	CPUE	Catch	Mortality	CPUE
Stockpile Creek Pond	SP-MT-01	427069	5410658	20-Jul-19	21-Jul-19	17:20	16:55	6	142	1	0	0.01	0	0	0.00	4	0	0.03	0	0	0.00
	SP-MT-02	427056	5410668	20-Jul-19	21-Jul-19	17:32	16:45	6	139	0	0	0.00	0	0	0.00	6	0	0.04	0	0	0.00
	SP-MT-03	427033	5410682	20-Jul-19	21-Jul-19	17:36	16:30	6	137	0	0	0.00	1	0	0.01	9	0	0.07	0	0	0.00
	SP-MT-04	427017	5410694	20-Jul-19	21-Jul-19	17:44	16:20	6	136	0	0	0.00	2	0	0.01	11	0	0.08	0	0	0.00
	SP-MT-05	426990	5410716	20-Jul-19	21-Jul-19	17:54	16:15	6	134	2	0	0.01	0	0	0.00	2	0	0.01	0	0	0.00
	SP-MT-06	426985	5410734	20-Jul-19	21-Jul-19	17:15	16:05	7	160	7	0	0.04	0	0	0.00	0	0	0.00	0	0	0.00
	SP-MT-07	427068	5410659	21-Jul-19	22-Jul-19	17:00	12:40	6	118	5	0	0.04	0	0	0.00	4	0	0.03	0	0	0.00
	SP-MT-08	427050	5410669	21-Jul-19	22-Jul-19	17:45	12:35	6	113	0	0	0.00	0	0	0.00	2	0	0.02	0	0	0.00
	SP-MT-09	427035	5410683	21-Jul-19	22-Jul-19	16:35	12:25	6	119	0	0	0.00	1	0	0.01	2	0	0.02	0	0	0.00
	SP-MT-10	427017	5410694	21-Jul-19	22-Jul-19	16:25	12:20	6	119	3	0	0.03	0	0	0.00	3	0	0.03	0	0	0.00
	SP-MT-11	426992	5410718	21-Jul-19	22-Jul-19	16:20	12:15	6	119	0	0	0.00	0	0	0.00	6	0	0.05	0	0	0.00
	SP-MT-12	426987	5410734	21-Jul-19	22-Jul-19	16:15	12:10	7	139	1	0	0.01	0	0	0.00	3	0	0.02	0	0	0.00
	SP-MT-13	427036	5410789	21-Jul-19	22-Jul-19	18:10	13:25	5	96	0	0	0.00	0	0	0.00	1	0	0.01	0	0	0.00
	SP-MT-14	427062	5410785	21-Jul-19	22-Jul-19	18:20	13:32	5	96	0	0	0.00	0	0	0.00	14	0	0.15	0	0	0.00
								Total	**1768**	**19**	**0**	**0.01**	**4**	**0**	**0.00**	**67**	**0**	**0.04**	**0**	**0**	**0.00**
West Creek Pond	WP-MT-01	425886	5410988	17-Jul-19	18-Jul-19	17:45	11:40	4	72	1	0	0.01	11	0	0.15	0	0	0.00	4	0	0.06
	WP-MT-02	425886	5410983	17-Jul-19	18-Jul-19	17:50	11:50	4	72	0	0	0.00	0	0	0.00	1	0	0.01	0	0	0.00
	WP-MT-03	425943	5410971	17-Jul-19	18-Jul-19	17:45	12:20	4	74	0	0	0.00	3	0	0.04	6	0	0.08	3	0	0.04
	WP-MT-04	425974	5410951	17-Jul-19	18-Jul-19	17:50	12:30	4	75	0	0	0.00	23	0	0.31	2	0	0.03	2	0	0.03
	WP-MT-05	425886	5410988	18-Jul-19	19-Jul-19	12:20	14:15	4	104	0	0	0.00	27	0	0.26	1	0	0.01	1	0	0.01
	WP-MT-06	425909	5410983	18-Jul-19	19-Jul-19	12:55	14:15	4	101	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	WP-MT-07	425943	5410971	18-Jul-19	19-Jul-19	12:00	15:10	4	109	0	0	0.00	1	0	0.01	3	0	0.03	4	0	0.04
	WP-MT-08	425974	5410951	18-Jul-19	19-Jul-19	11:50	15:15	4	110	0	0	0.00	13	0	0.12	0	0	0.00	0	0	0.00
	WP-MT-09	425902	5410884	19-Jul-19	20-Jul-19	15:00	15:17	4	97	1	0	0.01	6	0	0.06	1	0	0.01	2	0	0.02
	WP-MT-10	425908	5410892	19-Jul-19	20-Jul-19	15:10	15:30	4	97	0	0	0.00	5	0	0.05	0	0	0.00	0	0	0.00
	WP-MT-11	425940	5410974	19-Jul-19	20-Jul-19	15:25	15:45	4	97	0	0	0.00	0	0	0.00	1	0	0.01	0	0	0.00
	WP-MT-12	425957	5410967	19-Jul-19	20-Jul-19	15:30	15:55	4	98	0	0	0.00	2	0	0.02	2	0	0.02	1	0	0.01
	WP-MT-13	425940	5410974	20-Jul-19	21-Jul-19	15:50	17:45	4	104	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	WP-MT-14	425957	5410967	20-Jul-19	21-Jul-19	15:57	17:50	4	104	0	0	0.00	4	0	0.04	0	0	0.00	0	0	0.00
	WP-MT-15	425902	5410884	20-Jul-19	21-Jul-19	15:20	17:10	4	103	0	0	0.00	5	0	0.05	0	0	0.00	2	0	0.02
	WP-MT-16	425908	5410982	20-Jul-19	21-Jul-19	15:35	17:15	4	103	0	0	0.00	53	0	0.52	1	0	0.01	3	0	0.03
	WP-MT-17	425816	5411044	20-Jul-19	21-Jul-19	16:20	15:43	4	94	0	0	0.00	8	0	0.09	0	0	0.00	6	0	0.06
	WP-MT-18	425864	5411001	20-Jul-19	21-Jul-19	16:20	16:10	4	95	0	0	0.00	16	0	0.17	1	0	0.01	3	0	0.03
								Total	**1708**	**2**	**0**	**0.00**	**177**	**0**	**0.10**	**19**	**0**	**0.01**	**31**	**0**	**0.02**

Note: Catch-per-unit-effort (CPUE) = # of fish / effort, expressed as # of fish per hr.

Table A.11: Detailed Minnow Trap Data for Pond Habitat, RRM July 2019

Waterbody	Minnow Trap ID	UTM (NAD 83, 15U)		Set Date	Lift Date	Set Time	Lift Time	Traps (#)	Effort (hrs)	Central Mudminnow			Common Shiner			Creek Chub			Fathead Minnow		
		Easting	Northing							Catch	Mortality	CPUE	Catch	Mortality	CPUE	Catch	Mortality	CPUE	Catch	Mortality	CPUE
Clark Creek Pond	CP-MT-01	429627	5409964	16-Jul-19	17-Jul-19	15:21	12:30	5	106	2	0	0.02	0	0	0.00	0	0	0.00	0	0	0.00
	CP-MT-02	429632	5409922	17-Jul-19	18-Jul-19	12:40	13:47	2	50	1	0	0.02	0	0	0.00	0	0	0.00	0	0	0.00
	CP-MT-03	429629	5409959	17-Jul-19	18-Jul-19	12:45	13:40	5	125	3	0	0.02	0	0	0.00	0	0	0.00	0	0	0.00
	CP-MT-04	429608	5410040	17-Jul-19	18-Jul-19	12:50	12:35	5	119	3	0	0.03	0	0	0.00	0	0	0.00	0	0	0.00
	CP-MT-05	429598	5410091	17-Jul-19	18-Jul-19	13:05	13:15	5	121	6	0	0.05	0	0	0.00	0	0	0.00	0	0	0.00
	CP-MT-06	429600	5410079	17-Jul-19	18-Jul-19	13:10	12:00	5	114	5	0	0.04	0	0	0.00	0	0	0.00	0	0	0.00
	CP-MT-07	429597	5410081	18-Jul-19	19-Jul-19	12:30	9:41	5	106	2	0	0.02	0	0	0.00	0	0	0.00	0	0	0.00
	CP-MT-08	429612	5409993	18-Jul-19	19-Jul-19	13:25	9:45	5	102	4	0	0.04	0	0	0.00	0	0	0.00	0	0	0.00
	CP-MT-09	429629	5409959	18-Jul-19	19-Jul-19	13:45	9:45	5	100	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	CP-MT-10	429608	5410040	18-Jul-19	19-Jul-19	12:37	9:40	5	105	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	CP-MT-11	429631	5409922	18-Jul-19	19-Jul-19	13:50	9:30	5	98	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	CP-MT-12	429632	5409930	19-Jul-19	20-Jul-19	9:30	14:00	2	57	2	0	0.04	0	0	0.00	0	0	0.00	0	0	0.00
	CP-MT-13	429631	5409915	19-Jul-19	20-Jul-19	9:30	14:05	5	143	5	0	0.03	0	0	0.00	0	0	0.00	0	0	0.00
	CP-MT-14	429618	5409986	19-Jul-19	20-Jul-19	9:30	13:45	5	141	6	0	0.04	0	0	0.00	0	0	0.00	0	0	0.00
	CP-MT-15	429624	5409957	19-Jul-19	20-Jul-19	9:30	13:55	5	142	2	0	0.01	0	0	0.00	0	0	0.00	0	0	0.00
	CP-MT-16	429610	5410037	19-Jul-19	20-Jul-19	9:30	13:37	5	141	3	0	0.02	0	0	0.00	0	0	0.00	0	0	0.00
								Total	**1769**	**44**	**0**	**0.02**	**0**	**0**	**0.00**	**0**	**0**	**0.00**	**0**	**0**	**0.00**
Teeple Creek Pond	TP-MT-01	430125	5408846	16-Jul-19	17-Jul-19	16:15	10:00	2	35	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	TP-MT-02	430141	5408845	16-Jul-19	17-Jul-19	16:18	10:10	2	36	1	0	0.03	0	0	0.00	0	0	0.00	0	0	0.00
	TP-MT-03	430148	5408843	16-Jul-19	17-Jul-19	16:20	9:55	2	35	3	0	0.09	0	0	0.00	0	0	0.00	0	0	0.00
	TP-MT-04	430162	5408846	16-Jul-19	17-Jul-19	16:22	9:50	1	17	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	TP-MT-05	430148	5408843	17-Jul-19	18-Jul-19	10:15	14:05	3	83	4	0	0.05	0	0	0.00	0	0	0.00	0	0	0.00
	TP-MT-06	430162	5408846	17-Jul-19	18-Jul-19	10:15	14:00	4	111	6	0	0.05	0	0	0.00	0	0	0.00	0	0	0.00
	TP-MT-07	430072	5408843	17-Jul-19	18-Jul-19	10:20	13:50	4	110	7	0	0.06	0	0	0.00	0	0	0.00	0	0	0.00
	TP-MT-08	430017	5408843	17-Jul-19	18-Jul-19	10:23	13:55	4	110	2	0	0.02	0	0	0.00	0	0	0.00	0	0	0.00
	TP-MT-09	429975	5408845	17-Jul-19	18-Jul-19	10:30	13:45	4	109	6	0	0.06	0	0	0.00	0	0	0.00	0	0	0.00
	TP-MT-10	429909	5408839	17-Jul-19	18-Jul-19	10:35	13:40	4	108	5	0	0.05	0	0	0.00	0	0	0.00	0	0	0.00
	TP-MT-11	430148	5408843	18-Jul-19	20-Jul-19	14:15	11:17	3	135	4	0	0.03	0	0	0.00	0	0	0.00	0	0	0.00
	TP-MT-12	430162	5408846	18-Jul-19	20-Jul-19	14:20	11:19	4	180	7	0	0.04	0	0	0.00	0	0	0.00	0	0	0.00
	TP-MT-13	430072	5408843	18-Jul-19	20-Jul-19	14:10	11:10	4	180	7	0	0.04	0	0	0.00	0	0	0.00	0	0	0.00
	TP-MT-14	430017	5408843	18-Jul-19	20-Jul-19	14:05	11:00	4	180	1	0	0.01	0	0	0.00	0	0	0.00	0	0	0.00
	TP-MT-15	429975	5408845	18-Jul-19	20-Jul-19	14:05	10:53	4	179	5	0	0.03	0	0	0.00	0	0	0.00	0	0	0.00
	TP-MT-16	429904	5408839	18-Jul-19	20-Jul-19	14:10	10:45	4	178	5	0	0.03	0	0	0.00	0	0	0.00	0	0	0.00
								Total	**1788**	**63**	**0**	**0.04**	**0**	**0**	**0.00**	**0**	**0**	**0.00**	**0**	**0**	**0.00**

Note: Catch-per-unit-effort (CPUE) = # of fish / effort, expressed as # of fish per hr.

Table A.11: Detailed Minnow Trap Data for Pond Habitat, RRM July 2019

Waterbody	Minnow Trap ID	UTM (NAD 83, 15U)		Set Date	Lift Date	Set Time	Lift Time	Traps (#)	Effort (hrs)	Finescale Dace			Northern Redbelly Dace			Pearl Dace			White Sucker		
		Easting	Northing							Catch	Mortality	CPUE	Catch	Mortality	CPUE	Catch	Mortality	CPUE	Catch	Mortality	CPUE
Stockpile Creek Pond	SP-MT-01	427069	5410658	20-Jul-19	21-Jul-19	17:20	16:55	6	142	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	SP-MT-02	427056	5410668	20-Jul-19	21-Jul-19	17:32	16:45	6	139	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	SP-MT-03	427033	5410682	20-Jul-19	21-Jul-19	17:36	16:30	6	137	1	0	0.01	1	0	0.01	0	0	0.00	0	0	0.00
	SP-MT-04	427017	5410694	20-Jul-19	21-Jul-19	17:44	16:20	6	136	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	SP-MT-05	426990	5410716	20-Jul-19	21-Jul-19	17:54	16:15	6	134	1	0	0.01	0	0	0.00	0	0	0.00	0	0	0.00
	SP-MT-06	426985	5410734	20-Jul-19	21-Jul-19	17:15	16:05	7	160	6	0	0.04	2	0	0.01	0	0	0.00	0	0	0.00
	SP-MT-07	427068	5410659	21-Jul-19	22-Jul-19	17:00	12:40	6	118	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	SP-MT-08	427050	5410669	21-Jul-19	22-Jul-19	17:45	12:35	6	113	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	SP-MT-09	427035	5410683	21-Jul-19	22-Jul-19	16:35	12:25	6	119	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	SP-MT-10	427017	5410694	21-Jul-19	22-Jul-19	16:25	12:20	6	119	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	SP-MT-11	426992	5410718	21-Jul-19	22-Jul-19	16:20	12:15	6	119	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	SP-MT-12	426987	5410734	21-Jul-19	22-Jul-19	16:15	12:10	7	139	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	SP-MT-13	427036	5410789	21-Jul-19	22-Jul-19	18:10	13:25	5	96	1	0	0.01	0	0	0.00	0	0	0.00	0	0	0.00
	SP-MT-14	427062	5410785	21-Jul-19	22-Jul-19	18:20	13:32	5	96	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
								Total	**1768**	**9**	**0**	**0.01**	**3**	**0**	**0.00**	**0**	**0**	**0.00**	**0**	**0**	**0.00**
West Creek Pond	WP-MT-01	425886	5410988	17-Jul-19	18-Jul-19	17:45	11:40	4	72	0	0	0.00	14	0	0.20	2	0	0.03	1	0	0.01
	WP-MT-02	425886	5410983	17-Jul-19	18-Jul-19	17:50	11:50	4	72	0	0	0.00	9	0	0.13	1	0	0.01	0	0	0.00
	WP-MT-03	425943	5410971	17-Jul-19	18-Jul-19	17:45	12:20	4	74	0	0	0.00	1	0	0.01	2	0	0.03	0	0	0.00
	WP-MT-04	425974	5410951	17-Jul-19	18-Jul-19	17:50	12:30	4	75	0	0	0.00	1	0	0.01	1	0	0.01	0	0	0.00
	WP-MT-05	425886	5410988	18-Jul-19	19-Jul-19	12:20	14:15	4	104	1	0	0.01	0	0	0.00	0	0	0.00	0	0	0.00
	WP-MT-06	425909	5410983	18-Jul-19	19-Jul-19	12:55	14:15	4	101	46	0	0.45	0	0	0.00	0	0	0.00	0	0	0.00
	WP-MT-07	425943	5410971	18-Jul-19	19-Jul-19	12:00	15:10	4	109	4	0	0.04	4	0	0.04	0	0	0.00	1	0	0.01
	WP-MT-08	425974	5410951	18-Jul-19	19-Jul-19	11:50	15:15	4	110	14	0	0.13	0	0	0.00	0	0	0.00	0	0	0.00
	WP-MT-09	425902	5410884	19-Jul-19	20-Jul-19	15:00	15:17	4	97	0	0	0.00	1	0	0.01	0	0	0.00	0	0	0.00
	WP-MT-10	425908	5410892	19-Jul-19	20-Jul-19	15:10	15:30	4	97	1	0	0.01	1	0	0.01	0	0	0.00	0	0	0.00
	WP-MT-11	425940	5410974	19-Jul-19	20-Jul-19	15:25	15:45	4	97	0	0	0.00	1	0	0.01	0	0	0.00	1	0	0.01
	WP-MT-12	425957	5410967	19-Jul-19	20-Jul-19	15:30	15:55	4	98	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	WP-MT-13	425940	5410974	20-Jul-19	21-Jul-19	15:50	17:45	4	104	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	WP-MT-14	425957	5410967	20-Jul-19	21-Jul-19	15:57	17:50	4	104	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	WP-MT-15	425902	5410884	20-Jul-19	21-Jul-19	15:20	17:10	4	103	0	0	0.00	1	0	0.01	0	0	0.00	0	0	0.00
	WP-MT-16	425908	5410982	20-Jul-19	21-Jul-19	15:35	17:15	4	103	0	0	0.00	3	0	0.03	0	0	0.00	0	0	0.00
	WP-MT-17	425816	5411044	20-Jul-19	21-Jul-19	16:20	15:43	4	94	2	0	0.02	10	0	0.11	0	0	0.00	0	0	0.00
	WP-MT-18	425864	5411001	20-Jul-19	21-Jul-19	16:20	16:10	4	95	0	0	0.00	1	0	0.01	0	0	0.00	1	0	0.01
								Total	**1708**	**68**	**0**	**0.04**	**47**	**0**	**0.03**	**6**	**0**	**0.00**	**4**	**0**	**0.00**

Note: Catch-per-unit-effort (CPUE) = # of fish / effort, expressed as # of fish per hr.

Table A.11: Detailed Minnow Trap Data for Pond Habitat, RRM July 2019

Waterbody	Minnow Trap ID	UTM (NAD 83, 15U)		Set Date	Lift Date	Set Time	Lift Time	Traps (#)	Effort (hrs)	Finescale Dace			Northern Redbelly Dace			Pearl Dace			White Sucker		
		Easting	Northing							Catch	Mortality	CPUE	Catch	Mortality	CPUE	Catch	Mortality	CPUE	Catch	Mortality	CPUE
Clark Creek Pond	CP-MT-01	429627	5409964	16-Jul-19	17-Jul-19	15:21	12:30	5	106	48	0	0.45	0	0	0.00	0	0	0.00	0	0	0.00
	CP-MT-02	429632	5409922	17-Jul-19	18-Jul-19	12:40	13:47	2	50	1	0	0.02	0	0	0.00	0	0	0.00	0	0	0.00
	CP-MT-03	429629	5409959	17-Jul-19	18-Jul-19	12:45	13:40	5	125	4	0	0.03	0	0	0.00	0	0	0.00	0	0	0.00
	CP-MT-04	429608	5410040	17-Jul-19	18-Jul-19	12:50	12:35	5	119	75	0	0.63	0	0	0.00	0	0	0.00	0	0	0.00
	CP-MT-05	429598	5410091	17-Jul-19	18-Jul-19	13:05	13:15	5	121	15	1	0.12	0	0	0.00	0	0	0.00	0	0	0.00
	CP-MT-06	429600	5410079	17-Jul-19	18-Jul-19	13:10	12:00	5	114	148	0	1.30	0	0	0.00	0	0	0.00	0	0	0.00
	CP-MT-07	429597	5410081	18-Jul-19	19-Jul-19	12:30	9:41	5	106	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	CP-MT-08	429612	5409993	18-Jul-19	19-Jul-19	13:25	9:45	5	102	5	0	0.05	0	0	0.00	0	0	0.00	0	0	0.00
	CP-MT-09	429629	5409959	18-Jul-19	19-Jul-19	13:45	9:45	5	100	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	CP-MT-10	429608	5410040	18-Jul-19	19-Jul-19	12:37	9:40	5	105	75	0	0.71	0	0	0.00	0	0	0.00	0	0	0.00
	CP-MT-11	429631	5409922	18-Jul-19	19-Jul-19	13:50	9:30	5	98	63	0	0.64	0	0	0.00	0	0	0.00	0	0	0.00
	CP-MT-12	429632	5409930	19-Jul-19	20-Jul-19	9:30	14:00	2	57	9	0	0.16	0	0	0.00	0	0	0.00	0	0	0.00
	CP-MT-13	429631	5409915	19-Jul-19	20-Jul-19	9:30	14:05	5	143	9	0	0.06	2	0	0.01	0	0	0.00	0	0	0.00
	CP-MT-14	429618	5409986	19-Jul-19	20-Jul-19	9:30	13:45	5	141	4	0	0.03	0	0	0.00	0	0	0.00	0	0	0.00
	CP-MT-15	429624	5409957	19-Jul-19	20-Jul-19	9:30	13:55	5	142	4	0	0.03	0	0	0.00	0	0	0.00	0	0	0.00
	CP-MT-16	429610	5410037	19-Jul-19	20-Jul-19	9:30	13:37	5	141	4	0	0.03	4	0	0.03	0	0	0.00	0	0	0.00
								Total	**1769**	**464**	**1**	**0.26**	**6**	**0**	**0.00**	**0**	**0**	**0.00**	**0**	**0**	**0.00**
Teeple Creek Pond	TP-MT-01	430125	5408846	16-Jul-19	17-Jul-19	16:15	10:00	2	35	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	TP-MT-02	430141	5408845	16-Jul-19	17-Jul-19	16:18	10:10	2	36	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	TP-MT-03	430148	5408843	16-Jul-19	17-Jul-19	16:20	9:55	2	35	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	TP-MT-04	430162	5408846	16-Jul-19	17-Jul-19	16:22	9:50	1	17	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	TP-MT-05	430148	5408843	17-Jul-19	18-Jul-19	10:15	14:05	3	83	1	0	0.01	1	0	0.01	0	0	0.00	0	0	0.00
	TP-MT-06	430162	5408846	17-Jul-19	18-Jul-19	10:15	14:00	4	111	0	0	0.00	2	0	0.02	0	0	0.00	0	0	0.00
	TP-MT-07	430072	5408843	17-Jul-19	18-Jul-19	10:20	13:50	4	110	9	0	0.08	0	0	0.00	0	0	0.00	0	0	0.00
	TP-MT-08	430017	5408843	17-Jul-19	18-Jul-19	10:23	13:55	4	110	5	0	0.05	1	0	0.01	0	0	0.00	0	0	0.00
	TP-MT-09	429975	5408845	17-Jul-19	18-Jul-19	10:30	13:45	4	109	14	0	0.13	0	0	0.00	0	0	0.00	0	0	0.00
	TP-MT-10	429909	5408839	17-Jul-19	18-Jul-19	10:35	13:40	4	108	30	0	0.28	0	0	0.00	0	0	0.00	0	0	0.00
	TP-MT-11	430148	5408843	18-Jul-19	20-Jul-19	14:15	11:17	3	135	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	TP-MT-12	430162	5408846	18-Jul-19	20-Jul-19	14:20	11:19	4	180	7	0	0.04	0	0	0.00	0	0	0.00	0	0	0.00
	TP-MT-13	430072	5408843	18-Jul-19	20-Jul-19	14:10	11:10	4	180	1	0	0.01	3	0	0.02	0	0	0.00	0	0	0.00
	TP-MT-14	430017	5408843	18-Jul-19	20-Jul-19	14:05	11:00	4	180	1	0	0.01	1	0	0.01	0	0	0.00	0	0	0.00
	TP-MT-15	429975	5408845	18-Jul-19	20-Jul-19	14:05	10:53	4	179	0	0	0.00	15	0	0.08	0	0	0.00	0	0	0.00
	TP-MT-16	429904	5408839	18-Jul-19	20-Jul-19	14:10	10:45	4	178	14	0	0.08	63	0	0.35	0	0	0.00	0	0	0.00
								Total	**1788**	**82**	**0**	**0.05**	**86**	**0**	**0.05**	**0**	**0**	**0.00**	**0**	**0**	**0.00**

Note: Catch-per-unit-effort (CPUE) = # of fish / effort, expressed as # of fish per hr.

Appendix Table A.10: Detailed Minnow Trap Data for Creek Habitat, RRM July 2019

Waterbody	Minnow Trap ID	UTM (NAD 83, 15U)		Set Date	Lift Date	Set Time	Lift Time	Traps (#)	Effort (hrs)	Brown Bullhead			Blacknose Dace			Blackside Darter			Brassy Minnow			Brook Stickleback		
		Easting	Northing							Catch	Mortality	CPUE	Catch	Mortality	CPUE	Catch	Mortality	CPUE	Catch	Mortality	CPUE	Catch	Mortality	CPUE
West Creek Diversion Channel	WCD-MT-01	422146	5410006	16-Jul-19	17-Jul-19	13:25	14:20	1	25	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00	5	0	0.20
	WCD-MT-02	422157	5410012	16-Jul-19	17-Jul-19	13:27	14:25	1	25	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00	3	0	0.12
	WCD-MT-03	422171	5410018	16-Jul-19	17-Jul-19	13:28	14:30	1	25	0	0	0.00	0	0	0.00	2	0	0.08	0	0	0.00	7	0	0.28
	WCD-MT-04	422189	5410026	16-Jul-19	17-Jul-19	13:30	14:27	1	25	1	0	0.04	0	0	0.00	12	0	0.48	0	0	0.00	1	0	0.04
	WCD-MT-05	422233	5410033	16-Jul-19	17-Jul-19	13:33	14:25	1	25	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	WCD-MT-06	422319	5410100	16-Jul-19	17-Jul-19	13:36	14:22	1	25	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	WCD-MT-07	422410	5410145	16-Jul-19	17-Jul-19	13:40	15:20	1	26	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	WCD-MT-08	422519	5410200	16-Jul-19	17-Jul-19	13:43	15:30	1	26	0	0	0.00	0	0	0.00	4	0	0.16	0	0	0.00	2	0	0.08
	WCD-MT-09	423722	5411184	16-Jul-19	17-Jul-19	13:25	14:30	2	50	0	0	0.00	0	0	0.00	1	0	0.02	108	0	2.15	3	0	0.06
	WCD-MT-10	423602	5411093	16-Jul-19	17-Jul-19	13:35	14:45	2	50	0	0	0.00	1	0	0.02	0	0	0.00	1	0	0.02	2	0	0.04
	WCD-MT-11	423369	5410998	16-Jul-19	17-Jul-19	13:40	15:00	2	51	0	0	0.00	2	0	0.04	0	0	0.00	26	0	0.51	15	0	0.30
	WCD-MT-12	423129	5410684	16-Jul-19	17-Jul-19	13:45	16:45	2	54	0	0	0.00	3	0	0.06	0	0	0.00	90	0	1.67	4	0	0.07
								Total	**406**	**1**	**0**	**0.002**	**6**	**0**	**0.01**	**19**	**0**	**0.05**	**225**	**0**	**0.55**	**42**	**0**	**0.10**
Clark Creek Diversion Channel	CCD-MT-01	430002	5409157	16-Jul-19	17-Jul-19	15:43	11:02	1	19	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	CCD-MT-02	429988	5409214	16-Jul-19	17-Jul-19	15:50	10:59	1	19	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00	2	0	0.10
	CCD-MT-03	429966	5409295	16-Jul-19	17-Jul-19	15:52	10:47	1	19	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00	7	0	0.37
	CCD-MT-04	429973	5409316	16-Jul-19	17-Jul-19	15:53	10:45	1	19	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00	3	0	0.16
	CCD-MT-05	430007	5409352	16-Jul-19	17-Jul-19	15:55	10:56	1	19	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	CCD-MT-06	430040	5409377	16-Jul-19	17-Jul-19	15:57	10:49	1	19	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00	1	0	0.05
	CCD-MT-07	430088	5409409	16-Jul-19	17-Jul-19	16:00	10:25	1	18	0	0	0.00	1	0	0.05	0	0	0.00	0	0	0.00	0	0	0.00
	CCD-MT-08	430117	5409433	16-Jul-19	17-Jul-19	16:03	10:15	1	18	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	CCD-MT-09	430144	5409478	16-Jul-19	17-Jul-19	16:07	10:10	2	36	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	CCD-MT-10	430156	5409556	16-Jul-19	17-Jul-19	16:10	9:59	2	36	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	CCD-MT-11	430128	5409631	16-Jul-19	17-Jul-19	16:15	9:45	2	35	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00	1	0	0.03
	CCD-MT-12	430099	5409687	16-Jul-19	17-Jul-19	16:18	6:20	2	28	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00	1	0	0.04
								Total	**286**	**0**	**0**	**0.00**	**1**	**0**	**0.00**	**0**	**0**	**0.00**	**0**	**0**	**0.00**	**15**	**0**	**0.05**
Teeple Pond Outlet	TCD-MT-01	429962	5408576	16-Jul-19	17-Jul-19	15:20	7:48	1	16	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	TCD-MT-02	429951	5408583	16-Jul-19	17-Jul-19	15:25	7:48	2	33	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	TCD-MT-03	429941	5408588	16-Jul-19	17-Jul-19	15:30	7:55	2	33	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	TCD-MT-04	429909	5408593	16-Jul-19	17-Jul-19	15:35	8:00	2	33	0	0	0.00	1	0	0.03	0	0	0.00	0	0	0.00	0	0	0.00
	TCD-MT-05	429868	5408617	16-Jul-19	17-Jul-19	15:45	8:05	2	33	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	TCD-MT-06	429838	5408689	16-Jul-19	17-Jul-19	15:50	8:08	2	33	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00	1	0	0.03
	TCD-MT-07	42806	5408760	16-Jul-19	17-Jul-19	15:55	8:10	2	33	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	TCD-MT-08	429765	5408773	16-Jul-19	17-Jul-19	16:00	8:15	2	33	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	TCD-MT-09	429748	5408946	16-Jul-19	17-Jul-19	16:03	8:17	1	16	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
								Total	**261**	**0**	**0**	**0.00**	**1**	**0**	**0.00**	**0**	**0**	**0.00**	**0**	**0**	**0.00**	**1**	**0**	**0.00**

Appendix Table A.10: Detailed Minnow Trap Data for Creek Habitat, RRM July 2019

Waterbody	Minnow Trap ID	UTM (NAD 83, 15U)		Set Date	Lift Date	Set Time	Lift Time	Traps (#)	Effort (hrs)	Central Mudminnow			Common Shiner			Creek Chub			Johnny Darter			Fathead Minnow		
		Easting	Northing							Catch	Mortality	CPUE	Catch	Mortality	CPUE	Catch	Mortality	CPUE	Catch	Mortality	CPUE	Catch	Mortality	CPUE
West Creek Diversion Channel	WCD-MT-01	422146	5410006	16-Jul-19	17-Jul-19	13:25	14:20	1	25	1	0	0.04	0	0	0.00	2	0	0.08	0	0	0.00	0	0	0.00
	WCD-MT-02	422157	5410012	16-Jul-19	17-Jul-19	13:27	14:25	1	25	0	0	0.00	0	0	0.00	1	0	0.04	0	0	0.00	0	0	0.00
	WCD-MT-03	422171	5410018	16-Jul-19	17-Jul-19	13:28	14:30	1	25	2	0	0.08	0	0	0.00	3	0	0.12	0	0	0.00	0	0	0.00
	WCD-MT-04	422189	5410026	16-Jul-19	17-Jul-19	13:30	14:27	1	25	0	0	0.00	0	0	0.00	5	0	0.20	0	0	0.00	1	0	0.04
	WCD-MT-05	422233	5410033	16-Jul-19	17-Jul-19	13:33	14:25	1	25	2	0	0.08	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	WCD-MT-06	422319	5410100	16-Jul-19	17-Jul-19	13:36	14:22	1	25	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	WCD-MT-07	422410	5410145	16-Jul-19	17-Jul-19	13:40	15:20	1	26	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	WCD-MT-08	422519	5410200	16-Jul-19	17-Jul-19	13:43	15:30	1	26	0	0	0.00	0	0	0.00	47	0	1.82	9	0	0.35	1	0	0.04
	WCD-MT-09	423722	5411184	16-Jul-19	17-Jul-19	13:25	14:30	2	50	1	0	0.02	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	WCD-MT-10	423602	5411093	16-Jul-19	17-Jul-19	13:35	14:45	2	50	2	0	0.04	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	WCD-MT-11	423369	5410998	16-Jul-19	17-Jul-19	13:40	15:00	2	51	4	0	0.08	0	0	0.00	0	0	0.00	2	0	0.04	0	0	0.00
	WCD-MT-12	423129	5410684	16-Jul-19	17-Jul-19	13:45	16:45	2	54	1	0	0.02	0	0	0.00	0	0	0.00	2	0	0.04	2	0	0.04
								Total	**406**	**13**	**0**	**0.03**	**0**	**0**	**0.00**	**58**	**0**	**0.14**	**13**	**0**	**0.03**	**4**	**0**	**0.01**
Clark Creek Diversion Channel	CCD-MT-01	430002	5409157	16-Jul-19	17-Jul-19	15:43	11:02	1	19	2	0	0.10	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	CCD-MT-02	429988	5409214	16-Jul-19	17-Jul-19	15:50	10:59	1	19	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	CCD-MT-03	429966	5409295	16-Jul-19	17-Jul-19	15:52	10:47	1	19	1	0	0.05	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	CCD-MT-04	429973	5409316	16-Jul-19	17-Jul-19	15:53	10:45	1	19	1	0	0.05	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	CCD-MT-05	430007	5409352	16-Jul-19	17-Jul-19	15:55	10:56	1	19	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	CCD-MT-06	430040	5409377	16-Jul-19	17-Jul-19	15:57	10:49	1	19	2	0	0.11	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	CCD-MT-07	430088	5409409	16-Jul-19	17-Jul-19	16:00	10:25	1	18	14	0	0.76	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	CCD-MT-08	430117	5409433	16-Jul-19	17-Jul-19	16:03	10:15	1	18	5	0	0.27	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	CCD-MT-09	430144	5409478	16-Jul-19	17-Jul-19	16:07	10:10	2	36	1	0	0.03	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	CCD-MT-10	430156	5409556	16-Jul-19	17-Jul-19	16:10	9:59	2	36	3	0	0.08	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	CCD-MT-11	430128	5409631	16-Jul-19	17-Jul-19	16:15	9:45	2	35	2	0	0.06	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	CCD-MT-12	430099	5409687	16-Jul-19	17-Jul-19	16:18	6:20	2	28	4	0	0.14	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
								Total	**286**	**35**	**0**	**0.12**	**0**	**0**	**0.00**	**0**	**0**	**0.00**	**0**	**0**	**0.00**	**0**	**0**	**0.00**
Teeple Pond Outlet	TCD-MT-01	429962	5408576	16-Jul-19	17-Jul-19	15:20	7:48	1	16	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	TCD-MT-02	429951	5408583	16-Jul-19	17-Jul-19	15:25	7:48	2	33	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	TCD-MT-03	429941	5408588	16-Jul-19	17-Jul-19	15:30	7:55	2	33	1	0	0.03	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	TCD-MT-04	429909	5408593	16-Jul-19	17-Jul-19	15:35	8:00	2	33	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	TCD-MT-05	429868	5408617	16-Jul-19	17-Jul-19	15:45	8:05	2	33	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	TCD-MT-06	429838	5408689	16-Jul-19	17-Jul-19	15:50	8:08	2	33	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	TCD-MT-07	42806	5408760	16-Jul-19	17-Jul-19	15:55	8:10	2	33	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	TCD-MT-08	429765	5408773	16-Jul-19	17-Jul-19	16:00	8:15	2	33	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	TCD-MT-09	429748	5408946	16-Jul-19	17-Jul-19	16:03	8:17	1	16	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
								Total	**261**	**1**	**0**	**0.00**	**0**	**0**	**0.00**	**0**	**0**	**0.00**	**0**	**0**	**0.00**	**0**	**0**	**0.00**

Appendix Table A.10: Detailed Minnow Trap Data for Creek Habitat, RRM July 2019

Waterbody	Minnow Trap ID	UTM (NAD 83, 15U)		Set Date	Lift Date	Set Time	Lift Time	Traps (#)	Effort (hrs)	Finescale Dace			Northern Redbelly Dace			Pearl Dace			White Sucker		
		Easting	Northing							Catch	Mortality	CPUE	Catch	Mortality	CPUE	Catch	Mortality	CPUE	Catch	Mortality	CPUE
West Creek Diversion Channel	WCD-MT-01	422146	5410006	16-Jul-19	17-Jul-19	13:25	14:20	1	25	1	0	0.04	0	0	0.00	0	0	0.00	0	0	0.00
	WCD-MT-02	422157	5410012	16-Jul-19	17-Jul-19	13:27	14:25	1	25	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	WCD-MT-03	422171	5410018	16-Jul-19	17-Jul-19	13:28	14:30	1	25	1	0	0.04	0	0	0.00	0	0	0.00	2	0	0.08
	WCD-MT-04	422189	5410026	16-Jul-19	17-Jul-19	13:30	14:27	1	25	0	0	0.00	0	0	0.00	0	0	0.00	1	0	0.04
	WCD-MT-05	422233	5410033	16-Jul-19	17-Jul-19	13:33	14:25	1	25	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	WCD-MT-06	422319	5410100	16-Jul-19	17-Jul-19	13:36	14:22	1	25	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	WCD-MT-07	422410	5410145	16-Jul-19	17-Jul-19	13:40	15:20	1	26	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	WCD-MT-08	422519	5410200	16-Jul-19	17-Jul-19	13:43	15:30	1	26	0	0	0.00	0	0	0.00	0	0	0.00	1	0	0.04
	WCD-MT-09	423722	5411184	16-Jul-19	17-Jul-19	13:25	14:30	2	50	2	0	0.04	0	0	0.00	0	0	0.00	2	0	0.04
	WCD-MT-10	423602	5411093	16-Jul-19	17-Jul-19	13:35	14:45	2	50	0	0	0.00	0	0	0.00	0	0	0.00	2	0	0.04
	WCD-MT-11	423369	5410998	16-Jul-19	17-Jul-19	13:40	15:00	2	51	16	0	0.32	25	0	0.49	0	0	0.00	3	0	0.06
	WCD-MT-12	423129	5410684	16-Jul-19	17-Jul-19	13:45	16:45	2	54	35	0	0.65	11	0	0.20	0	0	0.00	0	0	0.00
								Total	**406**	**55**	**0**	**0.14**	**36**	**0**	**0.09**	**0**	**0**	**0.00**	**11**	**0**	**0.03**
Clark Creek Diversion Channel	CCD-MT-01	430002	5409157	16-Jul-19	17-Jul-19	15:43	11:02	1	19	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	CCD-MT-02	429988	5409214	16-Jul-19	17-Jul-19	15:50	10:59	1	19	20	0	1.04	0	0	0.00	0	0	0.00	0	0	0.00
	CCD-MT-03	429966	5409295	16-Jul-19	17-Jul-19	15:52	10:47	1	19	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	CCD-MT-04	429973	5409316	16-Jul-19	17-Jul-19	15:53	10:45	1	19	8	0	0.42	0	0	0.00	0	0	0.00	0	0	0.00
	CCD-MT-05	430007	5409352	16-Jul-19	17-Jul-19	15:55	10:56	1	19	11	0	0.58	0	0	0.00	0	0	0.00	0	0	0.00
	CCD-MT-06	430040	5409377	16-Jul-19	17-Jul-19	15:57	10:49	1	19	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	CCD-MT-07	430088	5409409	16-Jul-19	17-Jul-19	16:00	10:25	1	18	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	CCD-MT-08	430117	5409433	16-Jul-19	17-Jul-19	16:03	10:15	1	18	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	CCD-MT-09	430144	5409478	16-Jul-19	17-Jul-19	16:07	10:10	2	36	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	CCD-MT-10	430156	5409556	16-Jul-19	17-Jul-19	16:10	9:59	2	36	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	CCD-MT-11	430128	5409631	16-Jul-19	17-Jul-19	16:15	9:45	2	35	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	CCD-MT-12	430099	5409687	16-Jul-19	17-Jul-19	16:18	6:20	2	28	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
								Total	**286**	**39**	**0**	**0.14**	**0**	**0**	**0.00**	**0**	**0**	**0.00**	**0**	**0**	**0.00**
Teeple Pond Outlet	TCD-MT-01	429962	5408576	16-Jul-19	17-Jul-19	15:20	7:48	1	16	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	TCD-MT-02	429951	5408583	16-Jul-19	17-Jul-19	15:25	7:48	2	33	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	TCD-MT-03	429941	5408588	16-Jul-19	17-Jul-19	15:30	7:55	2	33	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	TCD-MT-04	429909	5408593	16-Jul-19	17-Jul-19	15:35	8:00	2	33	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	TCD-MT-05	429868	5408617	16-Jul-19	17-Jul-19	15:45	8:05	2	33	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	TCD-MT-06	429838	5408689	16-Jul-19	17-Jul-19	15:50	8:08	2	33	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	TCD-MT-07	42806	5408760	16-Jul-19	17-Jul-19	15:55	8:10	2	33	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	TCD-MT-08	429765	5408773	16-Jul-19	17-Jul-19	16:00	8:15	2	33	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	TCD-MT-09	429748	5408946	16-Jul-19	17-Jul-19	16:03	8:17	1	16	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
								Total	**261**	**0**	**0**	**0.00**	**0**	**0**	**0.00**	**0**	**0**	**0.00**	**0**	**0**	**0.00**

Appendix Table A.12: Detailed Electrofishing Catch Results, RRM July 2019

Habitat	Station	UTM (NAD 15U)		Date	Length of Run (m)	Output Voltage (V)	Cycle Frequency (Hz)	Pass	Effort (sec)	Blacknose Dace	Brassy Minnow	Brook Stickleback	Central Mudminnow	Common Shiner	Creek Chub	Finescale Dace	Golden Shiner	Johnny Darter	Northern Redbelly Dace	White Sucker	YOY Cyprinid
		Easting	Northing																		
Compensation Habitat	West Creek Diversion	425351	5411408	18-Jul-19	800	500	45	1	550	0	0	15	0	0	0	0	0	0	0	0	45
				20-Jul-19		500	45	2	500	0	3	21	1	16	0	1	2	1	0	7	80
								Total	**1,050**	**0**	**3**	**36**	**1**	**16**	**0**	**1**	**2**	**1**	**0**	**7**	**125**
	Clark Creek Diversion	430002	5409157	18-Jul-19	500	600	45	1	1,175	0	0	36	16	0	0	29	0	0	0	0	0
								Total	**1,175**	**0**	**0**	**36**	**16**	**0**	**0**	**29**	**0**	**0**	**0**	**0**	**0**
	Stockpile Creek Pond	427069	5410658	20-Jul-19	400	600	45	1	780	17	13	15	8	0	0	0	0	0	0	0	134
								2	335	2	6	10	10	0	0	0	0	0	0	0	80
								3	3,004	1	0	9	57	0	0	0	0	0	0	0	80
								4	4,001	23	16	60	17	0	0	0	0	0	0	0	273
								5	2,007	15	0	3	17	0	0	0	0	0	0	0	102
								Total	**10,127**	**58**	**35**	**97**	**109**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**669**
	West Creek Pond	425886	5410988	23-Jul-19	850	500	45	1	1,360	5	41	11	8	0	0	0	0	0	2	7	100
								2	4,734	0	37	36	17	0	1	0	0	0	0	2	53
								3	3,907	0	33	0	0	0	0	0	0	0	0	7	24
								Total	**10,001**	**5**	**111**	**47**	**25**	**0**	**1**	**0**	**0**	**0**	**2**	**16**	**177**
	Clark Creek Pond	429627	5409964	22-Jul-19	800	500	45	1	2,640	0	3	55	46	0	0	0	0	0	0	0	450
								2	3,100	0	2	30	34	0	0	2	0	0	3	0	100
								3	1,200	5	0	20	45	0	0	7	0	0	0	0	67
								4	3,196	0	0	43	119	0	0	0	0	0	3	0	75
								Total	**10,136**	**5**	**5**	**148**	**244**	**0**	**0**	**0**	**0**	**0**	**6**	**0**	**692**
Offset Habitat	Teeple Pond Outlet	430125	5408846	18-Jul-19	400	600	45	1	1,008	0	4	0	0	0	0	0	0	0	0	0	128
								Total	**1,008**	**0**	**4**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**128**
	Teeple Creek Pond	429962	5408576	21-Jul-19	900	500	45	1	2,430	0	0	16	59	0	0	0	0	0	0	0	420
								2	3,070	0	0	6	45	0	0	0	0	0	0	0	72
								3	2,200	0	0	15	9	0	0	0	0	0	0	0	50
								4	2,342	0	2	13	10	0	0	0	0	0	0	0	47
								Total	**10,042**	**0**	**2**	**50**	**123**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**589**

Appendix Table A.13: Detailed Seine Net Catch Results, RRM July 2019

Waterbody	Seine Net ID	UTM (NAD 83, 15U)		Date	Area Seined (m^2)	Blacknose Dace			Brassy Minnow			Brook Stickleback			Central Mudminnow			Common Shiner		
		Easting	Northing			Catch	Mortality	CPUE[a]	Catch	Mortality	CPUE[a]	Catch	Mortality	CPUE[a]	Catch	Mortality	CPUE[a]	Catch	Mortality	CPUE[a]
Stockpile Pond	SP-SN-01	426973	5410726	20-Jul-2019	75.0	1.00	0	1.33	4.00	0	5.33	10.0	0	13.3	0	0	0	0	0	0
	SP-SN-02	426979	5410720	20-Jul-2019	100	2.00	0	2.00	2.00	0	2.00	5.00	0	5.00	0	0	0	0	0	0
	SP-SN-03	426988	5410714	21-Jul-2019	100	0	0	0	1.00	0	1.00	0	0	0	0	0	0	0	0	0
	SP-SN-04	426969	5410725	21-Jul-2019	100	0	0	0	0	0	0	3.00	0	3.00	0	0	0	0	0	0
	SP-SN-05	426986	5410716	21-Jul-2019	100	3.00	0	3.00	0	0	0	4.00	0	4.00	0	0	0	0	0	0
	SP-SN-06	427059	5410662	21-Jul-2019	100	4.00	0	4.00	0	0	0	7.00	0	7.00	0	0	0	0	0	0
	SP-SN-07	427034	5410799	21-Jul-2019	100	4.00	0	4.00	6.00	0	6.00	25.0	0	25.0	0	0	0	0	0	0
	SP-SN-08	427048	5410792	21-Jul-2019	100	1.00	0	1.00	9.00	0	9.00	50.0	0	50.0	0	0	0	0	0	0
	SP-SN-09	427068	5410770	21-Jul-2019	100	20.0	0	20.0	1.00	0	1.00	40.0	0	40.0	0	0	0	1.00	0	1.00
	SP-SN-10	427035	5410802	21-Jul-2019	100	25.0	0	25.0	30.0	0	30.0	0	0	0	0	0	0	0	0	0
				Total	**975**	**60.0**	**0**	**6.03**	**53.0**	**0**	**5.43**	**144**	**0**	**14.7**	**0**	**0**	**0**	**1.00**	**0**	**0**
West Pond	WP-SN-01	425714	5411141	19-Jul-2019	100	0	0	0	22.0	0	22.0	26.0	0	26.0	0	0	0	0	0	0
	WP-SN-02	425725	5411121	19-Jul-2019	100	5.00	0	5.00	0	0	0	0	0	0	0	0	0	0	0	0
	WP-SN-03	425735	5411111	19-Jul-2019	75.0	0	0	0	20.0	0	26.7	30.0	0	40.0	0	0	0	0	0	0
	WP-SN-04	425746	5411100	19-Jul-2019	75.0	0	0	0	30.0	0	40.0	50.0	0	66.7	0	0	0	0	0	0
	WP-SN-05	425927	5410968	20-Jul-2019	100	1.00	0	1.00	21.0	0	21.0	100	0	100	0	0	0	2.00	0	2.00
	WP-SN-06	425929	5410967	20-Jul-2019	150	4.00	0	2.67	0	0	0	25.0	0	16.7	0	0	0	5.00	0	3.33
	WP-SN-07	425912	5410976	20-Jul-2019	100	4.00	0	4.00	0	0	0	35.0	0	35.0	0	0	0	0	0	0
	WP-SN-08	425924	5410970	20-Jul-2019	100	4.00	0	4.00	15.0	0	15.0	100	0	100	0	0	0	0	0	0
	WP-SN-09	425912	5410976	20-Jul-2019	100	10.0	0	10.0	0	0	0	82.0	0	82.0	0	0	0	0	0	0
	WP-SN-10	425589	5410989	20-Jul-2019	100	4.00	0	4.00	1.00	0	1.00	35.0	0	35.0	0	0	0	1.00	0	1.00
				Total	**1,000**	**32.0**	**0**	**3.07**	**109**	**0**	**12.6**	**483**	**0**	**50.1**	**0**	**0**	**0**	**8.00**	**0**	**0.63**
Clark Pond	CP-SN-01	429617	5410217	18-Jul-2019	200	0	0	0	0	0	0	100	0	50.0	0	0	0	0	0	0
	CP-SN-02	429620	5410023	18-Jul-2019	100	0	0	0	50.0	0	50.0	50.0	0	50.0	0	0	0	0	0	0
	CP-SN-03	429620	5410023	18-Jul-2019	100	0	0	0	0	0	0	200	0	200	0	0	0	0	0	0
	CP-SN-04	429630	5409924	18-Jul-2019	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	CP-SN-05	429632	5409929	19-Jul-2019	100	0	0	0	0	0	0	50.0	0	50.0	0	0	0	0	0	0
	CP-SN-06	429627	5409957	19-Jul-2019	100	0	0	0	50.0	0	50.0	50.0	0	50.0	0	0	0	0	0	0
	CP-SN-07	429625	5409972	19-Jul-2019	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	CP-SN-08	429621	5409986	19-Jul-2019	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	CP-SN-09	429615	5410014	19-Jul-2019	100	0	0	0	0	0	0	100	0	100	0	0	0	0	0	0
	CP-SN-10	429614	5410027	19-Jul-2019	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				Total	**1,100**	**0**	**0**	**0**	**100**	**0**	**10.0**	**550**	**0**	**50.0**	**0**	**0**	**0**	**0**	**0**	**0**
Teeple Pond	TP-SN-01	430175	5408851	18-Jul-2019	375	0	0	0	0	0	0	60.0	0	16.0	0	0	0	0	0	0
	TP-SN-02	430155	5408847	18-Jul-2019	100	0	0	0	0	0	0	40.0	0	40.0	0	0	0	0	0	0
	TP-SN-03	429912	5408884	18-Jul-2019	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TP-SN-04	429840	5408856	18-Jul-2019	100	0	0	0	0	0	0	50.0	0	50.0	2.00	0	2.00	0	0	0
	TP-SN-05	429911	5408852	18-Jul-2019	150	0	0	0	0	0	0	20.0	0	13.3	20.0	0	13.3	0	0	0
	TP-SN-06	429912	5408884	18-Jul-2019	100	0	0	0	0	0	0	20.0	0	20.0	0	0	0	0	0	0
	TP-SN-07	429890	5408892	18-Jul-2019	100	0	0	0	0	0	0	50.0	0	50.0	0	0	0	0	0	0
	TP-SN-08	429878	5408890	18-Jul-2019	100	0	0	0	30.0	0	30.0	40.0	0	40.0	0	0	0	0	0	0
	TP-SN-09	429888	5408862	18-Jul-2019	100	0	0	0	0	0	0	100	0	100	0	0	0	0	0	0
	TP-SN-10	429916	5408843	18-Jul-2019	100	0	0	0	20.0	0	20.0	20.0	0	20.0	0	0	0	0	0	0
				Total	**1,325**	**0**	**0**	**0**	**50.0**	**0**	**5.00**	**400**	**0**	**34.9**	**22.0**	**0**	**1.53**	**0**	**0**	**0**

[a] Catch per unit effort (CPUE) calculated as the number of fish caught per /100m^2 of area seined.

Appendix Table A.13: Detailed Seine Net Catch Results, RRM July 2019

Waterbody	Seine Net ID	UTM (NAD 83, 15U)		Date	Area Seined (m^2)	Creek Chub			Fathead Minnow			Finescale Dace			Golden Shiner			Johnny Darter		
		Easting	Northing			Catch	Mortality	CPUE[a]	Catch	Mortality	CPUE[a]	Catch	Mortality	CPUE[a]	Catch	Mortality	CPUE[a]	Catch	Mortality	CPUE[a]
Stockpile Pond	SP-SN-01	426973	5410726	20-Jul-2019	75.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	SP-SN-02	426979	5410720	20-Jul-2019	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	SP-SN-03	426988	5410714	21-Jul-2019	100	3.00	0	3.00	0	0	0	0	0	0	5.00	0	5.00	0	0	0
	SP-SN-04	426969	5410725	21-Jul-2019	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	SP-SN-05	426986	5410716	21-Jul-2019	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	SP-SN-06	427059	5410662	21-Jul-2019	100	1.00	0	1.00	0	0	0	0	0	0	0	0	0	0	0	0
	SP-SN-07	427034	5410799	21-Jul-2019	100	9.00	0	9.00	0	0	0	0	0	0	0	0	0	0	0	0
	SP-SN-08	427048	5410792	21-Jul-2019	100	3.00	0	3.00	0	0	0	1.00	0	1.00	0	0	0	0	0	0
	SP-SN-09	427068	5410770	21-Jul-2019	100	3.00	0	3.00	0	0	0	0	0	0	0	0	0	0	0	0
	SP-SN-10	427035	5410802	21-Jul-2019	100	9.00	0	9.00	0	0	0	0	0	0	1.00	0	1.00	0	0	0
				Total	**975**	**28.0**	**0**	**2.80**	**0**	**0**	**0**	**1.00**	**0**	**0**	**6.00**	**0**	**6.00**	**0**	**0**	**0**
West Pond	WP-SN-01	425714	5411141	19-Jul-2019	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	WP-SN-02	425725	5411121	19-Jul-2019	100	0	0	0	0	0	0	3.00	0	3.00	0	0	0	1.00	0	1.00
	WP-SN-03	425735	5411111	19-Jul-2019	75.0	0	0	0	0	0	0	5.00	0	6.67	0	0	0	0	0	0
	WP-SN-04	425746	5411100	19-Jul-2019	75.0	0	0	0	0	0	0	50.0	0	66.7	0	0	0	0	0	0
	WP-SN-05	425927	5410968	20-Jul-2019	100	0	0	0	0	0	0	0	0	0	1.00	0	1.00	21.0	0	21.0
	WP-SN-06	425929	5410967	20-Jul-2019	150	0	0	0	0	0	0	1.00	0	0.67	0	0	0	2.00	0	1.33
	WP-SN-07	425912	5410976	20-Jul-2019	100	0	0	0	0	0	0	2.00	0	2.00	0	0	0	1.00	0	1.00
	WP-SN-08	425924	5410970	20-Jul-2019	100	0	0	0	0	0	0	0	0	0	0	0	0	15.0	0	15.0
	WP-SN-09	425912	5410976	20-Jul-2019	100	0	0	0	0	0	0	2.00	0	2.00	0	0	0	12.0	0	12.0
	WP-SN-10	425589	5410989	20-Jul-2019	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				Total	**1,000**	**0**	**0**	**0**	**0**	**0**	**0**	**63.0**	**0**	**8.10**	**1.00**	**0**	**1.00**	**52.0**	**0**	**5.13**
Clark Pond	CP-SN-01	429617	5410217	18-Jul-2019	200	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	CP-SN-02	429620	5410023	18-Jul-2019	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	CP-SN-03	429620	5410023	18-Jul-2019	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	CP-SN-04	429630	5409924	18-Jul-2019	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	CP-SN-05	429632	5409929	19-Jul-2019	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	CP-SN-06	429627	5409957	19-Jul-2019	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	CP-SN-07	429625	5409972	19-Jul-2019	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	CP-SN-08	429621	5409986	19-Jul-2019	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	CP-SN-09	429615	5410014	19-Jul-2019	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	CP-SN-10	429614	5410027	19-Jul-2019	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				Total	**1,100**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
Teeple Pond	TP-SN-01	430175	5408851	18-Jul-2019	375	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TP-SN-02	430155	5408847	18-Jul-2019	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TP-SN-03	429912	5408884	18-Jul-2019	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TP-SN-04	429840	5408856	18-Jul-2019	100	0	0	0	1.00	0	1.00	10.0	0	10.0	0	0	0	0	0	0
	TP-SN-05	429911	5408852	18-Jul-2019	150	0	0	0	0	0	0	10.0	0	6.67	0	0	0	0	0	0
	TP-SN-06	429912	5408884	18-Jul-2019	100	0	0	0	0	0	0	20.0	0	20.0	0	0	0	0	0	0
	TP-SN-07	429890	5408892	18-Jul-2019	100	0	0	0	0	0	0	15.0	0	15.0	0	0	0	0	0	0
	TP-SN-08	429878	5408890	18-Jul-2019	100	0	0	0	0	0	0	40.0	0	40.0	0	0	0	0	0	0
	TP-SN-09	429888	5408862	18-Jul-2019	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	TP-SN-10	429916	5408843	18-Jul-2019	100	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
				Total	**1,325**	**0**	**0**	**0**	**1.00**	**0**	**0**	**95.0**	**0**	**9.17**	**0**	**0**	**0**	**0**	**0**	**0**

[a] Catch per unit effort (CPUE) calculated as the number of fish caught per /100m^2 of area seined.

Appendix Table A.13: Detailed Seine Net Catch Results, RRM July 2019

Waterbody	Seine Net ID	UTM (NAD 83, 15U)		Date	Area Seined (m^2)	Northern Redbelly Dace			White Sucker			YOY Cyprinid			YOY Stickleback		
		Easting	Northing			Catch	Mortality	CPUE[a]	Catch	Mortality	CPUE[a]	Catch	Mortality	CPUE[a]	Catch	Mortality	CPUE[a]
Stockpile Pond	SP-SN-01	426973	5410726	20-Jul-2019	75.0	0	0	0	0	0	0	650	0	867	0	0	0
	SP-SN-02	426979	5410720	20-Jul-2019	100	0	0	0	0	0	0	900	150	900	0	0	0
	SP-SN-03	426988	5410714	21-Jul-2019	100	0	0	0	0	0	0	600	100	600	0	0	0
	SP-SN-04	426969	5410725	21-Jul-2019	100	0	0	0	0	0	0	100	0	100	0	0	0
	SP-SN-05	426986	5410716	21-Jul-2019	100	0	0	0	0	0	0	1,000	0	1,000	0	0	0
	SP-SN-06	427059	5410662	21-Jul-2019	100	0	0	0	0	0	0	750	0	750	0	0	0
	SP-SN-07	427034	5410799	21-Jul-2019	100	0	0	0	0	0	0	800	50.0	800	0	0	0
	SP-SN-08	427048	5410792	21-Jul-2019	100	0	0	0	1.00	0	1.00	1,200	200	1,200	0	0	0
	SP-SN-09	427068	5410770	21-Jul-2019	100	0	0	0	0	0	0	600	0	600	0	0	0
	SP-SN-10	427035	5410802	21-Jul-2019	100	0	0	0	0	0	0	500	0	500	0	0	0
				Total	**975**	**0**	**0**	**0**	**1.00**	**0**	**0**	**7,100**	**500**	**732**	**0**	**0**	**0**
West Pond	WP-SN-01	425714	5411141	19-Jul-2019	100	0	0	0	5.00	0	5.00	500	0	500	0	0	0
	WP-SN-02	425725	5411121	19-Jul-2019	100	0	0	0	0	0	0	200	0	200	0	0	0
	WP-SN-03	425735	5411111	19-Jul-2019	75.0	0	0	0	0	0	0	800	400	1,067	0	0	0
	WP-SN-04	425746	5411100	19-Jul-2019	75.0	0	0	0	5.00	0	6.67	900	400	1,200	0	0	0
	WP-SN-05	425927	5410968	20-Jul-2019	100	0	0	0	5.00	0	5.00	300	0	300	0	0	0
	WP-SN-06	425929	5410967	20-Jul-2019	150	0	0	0	0	0	0	60.0	0	40.0	0	0	0
	WP-SN-07	425912	5410976	20-Jul-2019	100	0	0	0	0	0	0	40.0	0	40.0	0	0	0
	WP-SN-08	425924	5410970	20-Jul-2019	100	0	0	0	1.00	0	1.00	98.0	0	98.0	0	0	0
	WP-SN-09	425912	5410976	20-Jul-2019	100	0	0	0	2.00	0	2.00	330	0	330	0	0	0
	WP-SN-10	425589	5410989	20-Jul-2019	100	0	0	0	1.00	0	1.00	510	0	510	0	0	0
				Total	**1,000**	**0**	**0**	**0**	**19.0**	**0**	**2.07**	**3,738**	**800**	**428**	**0**	**0**	**0**
Clark Pond	CP-SN-01	429617	5410217	18-Jul-2019	200	250	0	125	0	0	0	1,000	100	500	0	0	0
	CP-SN-02	429620	5410023	18-Jul-2019	100	0	0	0	0	0	0	600	50.0	600	0	0	0
	CP-SN-03	429620	5410023	18-Jul-2019	100	0	0	0	0	0	0	500	0	500	0	0	0
	CP-SN-04	429630	5409924	18-Jul-2019	100	0	0	0	0	0	0	2,000	0	2,000	500	0	500
	CP-SN-05	429632	5409929	19-Jul-2019	100	0	0	0	0	0	0	1,000	100	1,000	0	0	0
	CP-SN-06	429627	5409957	19-Jul-2019	100	0	0	0	0	0	0	1,000	100	1,000	250	0	250
	CP-SN-07	429625	5409972	19-Jul-2019	100	0	0	0	0	0	0	2,000	100	2,000	300	20.0	300
	CP-SN-08	429621	5409986	19-Jul-2019	100	0	0	0	0	0	0	1,500	200	1,500	0	0	0
	CP-SN-09	429615	5410014	19-Jul-2019	100	0	0	0	0	0	0	1,200	0	1,200	0	0	0
	CP-SN-10	429614	5410027	19-Jul-2019	100	0	0	0	0	0	0	900	0	900	0	0	0
				Total	**1,100**	**250**	**0**	**12.5**	**0**	**0**	**0**	**11,700**	**650**	**1,120**	**1,050**	**20.0**	**105**
Teeple Pond	TP-SN-01	430175	5408851	18-Jul-2019	375	0	0	0	0	0	0	1,500	500	400	600	200	160
	TP-SN-02	430155	5408847	18-Jul-2019	100	0	0	0	0	0	0	600	20.0	600	0	0	0
	TP-SN-03	429912	5408884	18-Jul-2019	100	0	0	0	0	0	0	500	0	500	0	0	0
	TP-SN-04	429840	5408856	18-Jul-2019	100	0	0	0	0	0	0	600	0	600	0	0	0
	TP-SN-05	429911	5408852	18-Jul-2019	150	0	0	0	0	0	0	1,000	100	667	0	0	0
	TP-SN-06	429912	5408884	18-Jul-2019	100	0	0	0	0	0	0	1,000	0	1,000	0	0	0
	TP-SN-07	429890	5408892	18-Jul-2019	100	0	0	0	0	0	0	1,000	0	1,000	250	0	250
	TP-SN-08	429878	5408890	18-Jul-2019	100	0	0	0	0	0	0	750	0	750	0	0	0
	TP-SN-09	429888	5408862	18-Jul-2019	100	10.0	0	10.0	0	0	0	600	0	600	0	0	0
	TP-SN-10	429916	5408843	18-Jul-2019	100	0	0	0	0	0	0	600	0	600	200	0	200
				Total	**1,325**	**10.0**	**0**	**1.00**	**0**	**0**	**0**	**8,150**	**620**	**672**	**1,050**	**200**	**61.0**

[a] Catch per unit effort (CPUE) calculated as the number of fish caught per /100m^2 of area seined.

Appendix Table A.14: Detailed Fish Measurements for West Creek Diversion, RRM July 2019

Processing Date	Fish Species	Fish ID	Total Length (cm)	Fork Length (cm)	Body Weight (g)	Abnormalities	Fate (M) Mortality (R) Released
18-Jul-19	Blacknose Dace	WCD-BND-01	3.4	3.2	0.388	None	R
17-Jul-19	Blackside Darter	WCD-BSD-01	7.5	-	4.513	None	R
17-Jul-19	Blackside Darter	WCD-BSD-02	7.8	-	5.036	None	R
17-Jul-19	Blackside Darter	WCD-BSD-03	7.7	-	4.162	None	R
17-Jul-19	Blackside Darter	WCD-BSD-04	7.6	-	4.372	None	R
17-Jul-19	Blackside Darter	WCD-BSD-05	7.5	-	2.356	None	R
17-Jul-19	Blackside Darter	WCD-BSD-06	7.1	-	3.620	None	R
17-Jul-19	Blackside Darter	WCD-BSD-07	8.2	-	5.825	None	R
17-Jul-19	Blackside Darter	WCD-BSD-08	7.8	-	4.423	None	R
17-Jul-19	Blackside Darter	WCD-BSD-09	8.1	-	5.440	None	R
17-Jul-19	Blackside Darter	WCD-BSD-10	7.4	-	4.344	None	R
17-Jul-19	Blackside Darter	WCD-BSD-11	7.8	-	4.663	None	R
17-Jul-19	Blackside Darter	WCD-BSD-12	7.7	-	4.525	None	R
17-Jul-19	Blackside Darter	WCD-BSD-13	6.6	-	2.840	None	R
17-Jul-19	Blackside Darter	WCD-BSD-14	7.4	-	4.254	None	R
17-Jul-19	Blackside Darter	WCD-BSD-15	7.3	-	3.979	None	R
17-Jul-19	Blackside Darter	WCD-BSD-16	7.2	-	3.838	None	R
17-Jul-19	Blackside Darter	WCD-BSD-17	7.0	-	3.479	None	R
17-Jul-19	Blackside Darter	WCD-BSD-18	7.2	-	3.798	None	R
17-Jul-19	Blackside Darter	WCD-BSD-19	6.9	-	3.184	None	R
17-Jul-19	Blackside Darter	WCD-BSD-20	6.9	-	3.149	None	R
18-Jul-19	Blackside Darter	WCD-BSD-21	2.2	-	0.063	None	R
18-Jul-19	Blackside Darter	WCD-BSD-22	2.8	-	0.106	None	R
18-Jul-19	Blackside Darter	WCD-BSD-23	5.4	-	1.415	None	R
17-Jul-19	Brassy Minnow	WCD-BM-01	8.4	7.9	5.653	None	R
17-Jul-19	Brassy Minnow	WCD-BM-02	3.7	3.4	0.469	None	R
17-Jul-19	Brassy Minnow	WCD-BM-03	4.1	3.8	0.758	None	R
17-Jul-19	Brassy Minnow	WCD-BM-04	6.5	6.0	2.319	None	R
17-Jul-19	Brassy Minnow	WCD-BM-05	4.8	4.5	1.280	None	R
17-Jul-19	Brassy Minnow	WCD-BM-06	4.6	4.3	0.986	None	R
17-Jul-19	Brassy Minnow	WCD-BM-07	8.3	7.8	5.465	None	R
17-Jul-19	Brassy Minnow	WCD-BM-08	5.5	5.1	1.533	None	R
17-Jul-19	Brassy Minnow	WCD-BM-09	4.6	4.4	1.226	None	R
17-Jul-19	Brassy Minnow	WCD-BM-10	5.2	4.9	1.183	None	R
17-Jul-19	Brassy Minnow	WCD-BM-11	6.7	6.4	2.937	None	R
17-Jul-19	Brassy Minnow	WCD-BM-12	7.2	6.7	3.560	None	R
17-Jul-19	Brassy Minnow	WCD-BM-13	4.8	4.5	0.994	None	R
17-Jul-19	Brassy Minnow	WCD-BM-14	6.7	6.3	2.989	None	R
17-Jul-19	Brassy Minnow	WCD-BM-15	7.0	6.5	3.423	None	R
17-Jul-19	Brassy Minnow	WCD-BM-16	5.1	4.6	1.415	None	R
17-Jul-19	Brassy Minnow	WCD-BM-17	7.7	7.2	4.045	None	R
17-Jul-19	Brassy Minnow	WCD-BM-18	5.7	5.4	1.882	None	R
17-Jul-19	Brassy Minnow	WCD-BM-19	5.4	5.1	1.809	None	R
17-Jul-19	Brassy Minnow	WCD-BM-20	7.2	6.8	3.625	None	R
17-Jul-19	Brassy Minnow	WCD-BM-21	6.1	5.7	1.645	None	R
17-Jul-19	Brassy Minnow	WCD-BM-22	5.5	5.1	1.813	None	R
17-Jul-19	Brassy Minnow	WCD-BM-23	4.8	4.5	1.045	None	R
17-Jul-19	Brassy Minnow	WCD-BM-24	8.1	7.6	5.002	None	R
17-Jul-19	Brassy Minnow	WCD-BM-25	5.7	5.4	1.984	None	R
17-Jul-19	Brassy Minnow	WCD-BM-26	6.1	5.6	2.324	None	R
17-Jul-19	Brassy Minnow	WCD-BM-27	8.9	8.6	6.755	None	R
17-Jul-19	Brassy Minnow	WCD-BM-28	5.6	5.2	1.814	None	R
17-Jul-19	Brassy Minnow	WCD-BM-29	5.7	5.3	1.943	None	R
17-Jul-19	Brassy Minnow	WCD-BM-30	5.0	4.6	1.272	None	R
17-Jul-19	Brassy Minnow	WCD-BM-31	5.6	5.2	1.734	None	R
17-Jul-19	Brassy Minnow	WCD-BM-32	7.7	7.2	5.104	None	R
17-Jul-19	Brassy Minnow	WCD-BM-33	9.7	9.2	9.171	None	R

Appendix Table A.14: Detailed Fish Measurements for West Creek Diversion, RRM July 2019

Processing Date	Fish Species	Fish ID	Total Length (cm)	Fork Length (cm)	Body Weight (g)	Abnormalities	Fate (M) Mortality (R) Released
17-Jul-19	Brassy Minnow	WCD-BM-34	8.1	7.6	5.663	None	R
17-Jul-19	Brassy Minnow	WCD-BM-35	5.6	5.4	1.751	None	R
17-Jul-19	Brassy Minnow	WCD-BM-36	5.6	5.4	1.786	None	R
17-Jul-19	Brassy Minnow	WCD-BM-37	5.6	5.2	1.900	None	R
17-Jul-19	Brassy Minnow	WCD-BM-38	10.5	10.1	12.025	None	R
17-Jul-19	Brassy Minnow	WCD-BM-39	6.4	5.8	2.673	None	R
17-Jul-19	Brassy Minnow	WCD-BM-40	13.1	12.9	26.935	None	R
17-Jul-19	Brook Stickleback	WCD-BSB-01	4.5	-	0.750	None	R
17-Jul-19	Brook Stickleback	WCD-BSB-02	4.7	-	0.835	None	R
17-Jul-19	Brook Stickleback	WCD-BSB-03	4.8	-	0.888	None	R
17-Jul-19	Brook Stickleback	WCD-BSB-04	3.0	-	0.230	None	R
17-Jul-19	Brook Stickleback	WCD-BSB-05	4.2	-	0.656	None	R
17-Jul-19	Brook Stickleback	WCD-BSB-06	5.1	-	1.115	None	R
17-Jul-19	Brook Stickleback	WCD-BSB-07	4.6	-	0.997	None	R
17-Jul-19	Brook Stickleback	WCD-BSB-08	5.2	-	1.065	None	R
17-Jul-19	Brook Stickleback	WCD-BSB-09	5.0	-	1.282	None	R
17-Jul-19	Brook Stickleback	WCD-BSB-10	4.7	-	1.245	None	R
17-Jul-19	Brook Stickleback	WCD-BSB-11	5.1	-	1.300	None	R
17-Jul-19	Brook Stickleback	WCD-BSB-12	5.2	-	1.450	None	R
17-Jul-19	Brook Stickleback	WCD-BSB-13	4.6	-	0.918	None	R
17-Jul-19	Brook Stickleback	WCD-BSB-14	6.0	-	2.188	None	R
17-Jul-19	Brook Stickleback	WCD-BSB-15	5.1	-	1.157	None	R
17-Jul-19	Brook Stickleback	WCD-BSB-16	5.5	-	1.416	None	R
17-Jul-19	Brook Stickleback	WCD-BSB-17	5.4	-	1.572	None	R
17-Jul-19	Brook Stickleback	WCD-BSB-18	4.9	-	1.314	None	R
17-Jul-19	Brook Stickleback	WCD-BSB-19	5.0	-	1.223	None	R
17-Jul-19	Brook Stickleback	WCD-BSB-20	5.6	-	1.607	None	R
17-Jul-19	Brook Stickleback	WCD-BSB-21	5.9	-	1.788	None	R
17-Jul-19	Brook Stickleback	WCD-BSB-22	4.6	-	0.699	None	R
17-Jul-19	Brook Stickleback	WCD-BSB-23	4.5	-	1.510	None	R
17-Jul-19	Brook Stickleback	WCD-BSB-24	4.4	-	0.830	None	R
17-Jul-19	Brook Stickleback	WCD-BSB-25	4.6	-	1.073	None	R
17-Jul-19	Brook Stickleback	WCD-BSB-26	5.3	-	1.786	None	R
17-Jul-19	Brook Stickleback	WCD-BSB-27	5.1	-	1.305	None	R
17-Jul-19	Brook Stickleback	WCD-BSB-28	4.6	-	1.045	None	R
17-Jul-19	Brook Stickleback	WCD-BSB-29	5.0	-	1.057	None	R
17-Jul-19	Brook Stickleback	WCD-BSB-30	4.9	-	1.653	None	R
17-Jul-19	Brook Stickleback	WCD-BSB-31	5.4	-	1.443	None	R
18-Jul-19	Brook Stickleback	WCD-BSB-32	2.9	-	0.164	None	R
18-Jul-19	Brook Stickleback	WCD-BSB-33	2.2	-	0.105	None	R
18-Jul-19	Brook Stickleback	WCD-BSB-34	2.2	-	0.108	None	R
18-Jul-19	Brook Stickleback	WCD-BSB-35	2.0	-	0.086	None	R
18-Jul-19	Brook Stickleback	WCD-BSB-36	2.0	-	0.092	None	R
18-Jul-19	Brook Stickleback	WCD-BSB-37	2.2	-	0.138	None	R
18-Jul-19	Brook Stickleback	WCD-BSB-38	3.2	-	0.357	None	R
18-Jul-19	Brook Stickleback	WCD-BSB-39	2.9	-	0.200	None	R
18-Jul-19	Brook Stickleback	WCD-BSB-40	2.3	-	0.107	None	R
17-Jul-19	Brown Bullhead	WCD-BBH-01	9.1	8.9	9.769	None	R
17-Jul-19	Central Mudminnow	WCD-CMM-01	9.9	-	10.424	None	R
17-Jul-19	Central Mudminnow	WCD-CMM-02	8.5	-	7.868	None	R
17-Jul-19	Central Mudminnow	WCD-CMM-03	8.2	-	6.573	None	R
17-Jul-19	Central Mudminnow	WCD-CMM-04	9.9	-	10.125	None	R
17-Jul-19	Central Mudminnow	WCD-CMM-05	11.6	-	18.135	None	R
17-Jul-19	Central Mudminnow	WCD-CMM-06	7.6	-	5.231	None	R
17-Jul-19	Central Mudminnow	WCD-CMM-07	6.6	-	2.800	None	R
17-Jul-19	Central Mudminnow	WCD-CMM-08	6.1	-	2.299	None	R
17-Jul-19	Central Mudminnow	WCD-CMM-09	8.4	-	5.818	None	R
17-Jul-19	Central Mudminnow	WCD-CMM-10	7.1	-	4.477	None	R

Appendix Table A.14: Detailed Fish Measurements for West Creek Diversion, RRM July 2019

Processing Date	Fish Species	Fish ID	Total Length (cm)	Fork Length (cm)	Body Weight (g)	Abnormalities	Fate (M) Mortality (R) Released
17-Jul-19	Creek Chub	WCD-CC-01	10.0	9.9	9.805	None	R
17-Jul-19	Fathead Minnow	WCD-FHM-01	8.2	-	6.200	None	R
17-Jul-19	Fathead Minnow	WCD-FHM-02	7.9	7.4	4.899	None	R
17-Jul-19	Fathead Minnow	WCD-FHM-03	7.8	7.3	4.360	None	R
17-Jul-19	Finescale Dace	WCD-FSD-01	5.5	5.1	1.523	None	R
18-Jul-19	Golden Shiner	WCD-GS-01	5.6	5.2	1.786	None	R
17-Jul-19	Johnny Darter	WCD-JD-01	5.0	-	1.055	None	R
17-Jul-19	Johnny Darter	WCD-JD-02	5.8	-	1.805	None	R
17-Jul-19	Johnny Darter	WCD-JD-03	5.2	-	1.206	None	R
17-Jul-19	Johnny Darter	WCD-JD-04	5.2	-	1.367	None	R
17-Jul-19	Johnny Darter	WCD-JD-05	5.4	-	1.322	None	R
17-Jul-19	Johnny Darter	WCD-JD-06	5.6	-	1.765	None	R
17-Jul-19	Johnny Darter	WCD-JD-07	5.6	-	1.677	None	R
17-Jul-19	Johnny Darter	WCD-JD-08	5.4	-	1.571	None	R
17-Jul-19	Johnny Darter	WCD-JD-09	5.4	-	1.389	None	R
17-Jul-19	Johnny Darter	WCD-JD-10	5.6	-	1.495	None	R
17-Jul-19	Johnny Darter	WCD-JD-11	6.0	-	2.138	None	R
17-Jul-19	Johnny Darter	WCD-JD-12	5.9	-	1.956	None	R
17-Jul-19	White Sucker	WCD-WS-01	10.6	10.0	11.544	None	R
17-Jul-19	White Sucker	WCD-WS-02	10.9	10.1	13.316	None	R
17-Jul-19	White Sucker	WCD-WS-03	11.0	10.5	12.967	None	R
17-Jul-19	White Sucker	WCD-WS-04	7.7	7.2	4.516	None	R
17-Jul-19	White Sucker	WCD-WS-05	11.4	10.5	12.932	None	R
17-Jul-19	White Sucker	WCD-WS-06	7.2	6.8	3.575	None	R
18-Jul-19	White Sucker	WCD-WS-07	4.0	3.8	0.293	None	R
18-Jul-19	White Sucker	WCD-WS-08	3.8	3.6	0.282	None	R
18-Jul-19	White Sucker	WCD-WS-09	3.1	2.9	0.242	None	R
18-Jul-19	White Sucker	WCD-WS-10	3.3	3.2	0.333	None	R
18-Jul-19	White Sucker	WCD-WS-11	3.4	3.2	0.341	None	R
18-Jul-19	White Sucker	WCD-WS-12	3.9	3.7	0.565	None	R
18-Jul-19	YOY Cyprinid	WCD-YOY-01	1.9	1.8	0.038	None	R
18-Jul-19	YOY Cyprinid	WCD-YOY-02	2.9	2.8	0.238	None	R
18-Jul-19	YOY Cyprinid	WCD-YOY-03	2.9	2.8	0.245	None	R
18-Jul-19	YOY Cyprinid	WCD-YOY-04	1.6	1.5	0.050	None	R
18-Jul-19	YOY Cyprinid	WCD-YOY-05	2.1	2.2	0.075	None	R
18-Jul-19	YOY Cyprinid	WCD-YOY-06	1.6	1.5	0.046	None	R
18-Jul-19	YOY Cyprinid	WCD-YOY-07	1.8	1.7	0.030	None	R
18-Jul-19	YOY Cyprinid	WCD-YOY-08	1.8	1.7	0.030	None	R
18-Jul-19	YOY Cyprinid	WCD-YOY-09	1.6	1.5	0.024	None	R
18-Jul-19	YOY Cyprinid	WCD-YOY-10	2.2	2.1	0.101	None	R
18-Jul-19	YOY Cyprinid	WCD-YOY-11	1.8	1.7	0.047	None	R
18-Jul-19	YOY Cyprinid	WCD-YOY-12	1.9	1.8	0.076	None	R
18-Jul-19	YOY Cyprinid	WCD-YOY-13	1.8	1.7	0.052	None	R
18-Jul-19	YOY Cyprinid	WCD-YOY-14	1.4	1.3	0.019	None	R
18-Jul-19	YOY Cyprinid	WCD-YOY-15	1.6	1.5	0.033	None	R
18-Jul-19	YOY Cyprinid	WCD-YOY-16	2.4	2.3	0.107	None	R
18-Jul-19	YOY Cyprinid	WCD-YOY-17	1.6	1.5	0.052	None	R
18-Jul-19	YOY Cyprinid	WCD-YOY-18	1.7	1.6	0.045	None	R
18-Jul-19	YOY Cyprinid	WCD-YOY-19	2.3	2.1	0.065	None	R
18-Jul-19	YOY Cyprinid	WCD-YOY-20	3.9	3.7	0.343	None	R
18-Jul-19	YOY Cyprinid	WCD-YOY-21	1.5	1.4	0.031	None	R
18-Jul-19	YOY Cyprinid	WCD-YOY-22	2.9	2.7	0.217	None	R
18-Jul-19	YOY Cyprinid	WCD-YOY-23	1.6	1.5	0.049	None	R
18-Jul-19	YOY Cyprinid	WCD-YOY-24	2.2	2.1	0.089	None	R
18-Jul-19	YOY Cyprinid	WCD-YOY-25	1.6	1.5	0.027	None	R
18-Jul-19	YOY Cyprinid	WCD-YOY-26	2.3	2.2	0.125	None	R
18-Jul-19	YOY Cyprinid	WCD-YOY-27	1.6	1.5	0.030	None	R
18-Jul-19	YOY Cyprinid	WCD-YOY-28	2.0	1.9	0.074	None	R
18-Jul-19	YOY Cyprinid	WCD-YOY-29	1.1	1.0	0.010	None	R

Appendix Table A.14: Detailed Fish Measurements for West Creek Diversion, RRM July 2019

Processing Date	Fish Species	Fish ID	Total Length (cm)	Fork Length (cm)	Body Weight (g)	Abnormalities	Fate (M) Mortality (R) Released
18-Jul-19	YOY Cyprinid	WCD-YOY-30	2.0	1.9	0.059	None	R
18-Jul-19	YOY Cyprinid	WCD-YOY-31	2.0	1.9	0.047	None	R
18-Jul-19	YOY Cyprinid	WCD-YOY-32	2.7	2.6	0.146	None	R
18-Jul-19	YOY Cyprinid	WCD-YOY-33	2.1	2.0	0.092	None	R
18-Jul-19	YOY Cyprinid	WCD-YOY-34	1.6	1.5	0.024	None	R
18-Jul-19	YOY Cyprinid	WCD-YOY-35	1.6	1.5	0.024	None	R
18-Jul-19	YOY Cyprinid	WCD-YOY-36	1.9	1.8	0.044	None	R
18-Jul-19	YOY Cyprinid	WCD-YOY-37	1.8	1.7	0.047	None	R
18-Jul-19	YOY Cyprinid	WCD-YOY-38	1.6	1.5	0.040	None	R
18-Jul-19	YOY Cyprinid	WCD-YOY-39	1.6	1.5	0.027	None	R
18-Jul-19	YOY Cyprinid	WCD-YOY-40	1.5	1.4	0.020	None	R

Note: "-" indicates no measurement taken.

Appendix Table A.15: Detailed Fish Measurements for Clark Creek Diversion, RRM July 2019

Processing Date	Fish Species	Fish ID	Total Length (cm)	Fork Length (cm)	Body Weight (g)	Abnormalities	Fate (M) Mortality (R) Released
17-Jul-19	Blacknose Dace	CCD-BND-01	2	1.9	0.099	None	R
17-Jul-19	Blacknose Dace	CCD-BND-02	6.6	6.2	-	None	R
17-Jul-19	Brook Stickleback	CCD-BSB-01	1.4	-	0.023	None	R
17-Jul-19	Brook Stickleback	CCD-BSB-02	4.3	-	0.775	None	R
17-Jul-19	Brook Stickleback	CCD-BSB-03	4.6	-	0.948	None	R
17-Jul-19	Brook Stickleback	CCD-BSB-04	5.7	-	1.381	None	R
17-Jul-19	Brook Stickleback	CCD-BSB-05	5.2	-	1.423	None	R
17-Jul-19	Brook Stickleback	CCD-BSB-06	5.1	-	1.295	None	R
17-Jul-19	Brook Stickleback	CCD-BSB-07	5	-	1.122	None	R
17-Jul-19	Brook Stickleback	CCD-BSB-08	6	-	1.845	None	R
17-Jul-19	Brook Stickleback	CCD-BSB-09	5.2	-	1.524	None	R
17-Jul-19	Brook Stickleback	CCD-BSB-10	4.9	-	0.968	None	R
17-Jul-19	Brook Stickleback	CCD-BSB-11	5.1	-	1.038	None	R
17-Jul-19	Brook Stickleback	CCD-BSB-12	5.1	-	1.209	None	R
17-Jul-19	Brook Stickleback	CCD-BSB-13	5	-	0.951	None	R
18-Jul-19	Brook Stickleback	CCD-BSB-14	5.1	-	1.126	None	R
18-Jul-19	Brook Stickleback	CCD-BSB-15	2.3	-	0.121	None	R
18-Jul-19	Brook Stickleback	CCD-BSB-16	3.4	-	0.366	None	R
18-Jul-19	Brook Stickleback	CCD-BSB-17	3.7	-	0.458	None	R
18-Jul-19	Brook Stickleback	CCD-BSB-18	3.1	-	0.326	None	R
18-Jul-19	Brook Stickleback	CCD-BSB-19	3.5	-	0.39	None	R
18-Jul-19	Brook Stickleback	CCD-BSB-20	3.6	-	0.474	None	R
18-Jul-19	Brook Stickleback	CCD-BSB-21	4	-	0.625	None	R
18-Jul-19	Brook Stickleback	CCD-BSB-22	3.6	-	0.512	None	R
18-Jul-19	Brook Stickleback	CCD-BSB-23	2.2	-	0.096	None	R
18-Jul-19	Brook Stickleback	CCD-BSB-24	3.1	-	0.271	None	R
18-Jul-19	Brook Stickleback	CCD-BSB-25	2.1	-	0.086	None	R
18-Jul-19	Brook Stickleback	CCD-BSB-26	3.2	-	0.16	None	R
18-Jul-19	Brook Stickleback	CCD-BSB-27	2.2	-	0.103	None	R
18-Jul-19	Brook Stickleback	CCD-BSB-28	3.2	-	0.326	None	R
18-Jul-19	Brook Stickleback	CCD-BSB-29	3.4	-	0.334	None	R
18-Jul-19	Brook Stickleback	CCD-BSB-30	4.1	-	0.642	None	R
18-Jul-19	Brook Stickleback	CCD-BSB-31	1.8	-	0.065	None	R
18-Jul-19	Brook Stickleback	CCD-BSB-32	2.9	-	0.216	None	R
18-Jul-19	Brook Stickleback	CCD-BSB-33	2.3	-	0.078	None	R
18-Jul-19	Brook Stickleback	CCD-BSB-34	3.1	-	0.271	None	R
18-Jul-19	Brook Stickleback	CCD-BSB-35	4	-	0.591	None	R
18-Jul-19	Brook Stickleback	CCD-BSB-36	2.8	-	0.241	None	R
18-Jul-19	Brook Stickleback	CCD-BSB-37	3.2	-	0.359	None	R
18-Jul-19	Brook Stickleback	CCD-BSB-38	2.8	-	0.188	None	R
18-Jul-19	Brook Stickleback	CCD-BSB-39	2.9	-	0.288	None	R
18-Jul-19	Brook Stickleback	CCD-BSB-40	3.2	-	0.289	None	R
17-Jul-19	Central Mudminnow	CCD-CMM-01	9.3	-	8.377	None	R
17-Jul-19	Central Mudminnow	CCD-CMM-02	6.8	-	3.503	None	R
17-Jul-19	Central Mudminnow	CCD-CMM-03	8.7	-	7.26	None	R
17-Jul-19	Central Mudminnow	CCD-CMM-04	9.2	-	8.006	None	R
17-Jul-19	Central Mudminnow	CCD-CMM-05	8.6	-	6.949	None	R
17-Jul-19	Central Mudminnow	CCD-CMM-06	8.5	-	6.847	None	R
17-Jul-19	Central Mudminnow	CCD-CMM-07	9.5	-	8.008	None	R
17-Jul-19	Central Mudminnow	CCD-CMM-08	8.8	-	7.936	None	R
17-Jul-19	Central Mudminnow	CCD-CMM-09	8.1	-	5.976	lump under chin	R
17-Jul-19	Central Mudminnow	CCD-CMM-10	9.6	-	9.688	None	R
17-Jul-19	Central Mudminnow	CCD-CMM-11	8.3	-	7.46	None	R
17-Jul-19	Central Mudminnow	CCD-CMM-12	5.7	-	2.309	None	R
17-Jul-19	Central Mudminnow	CCD-CMM-13	7.7	-	5.385	None	R

Appendix Table A.15: Detailed Fish Measurements for Clark Creek Diversion, RRM July 2019

Processing Date	Fish Species	Fish ID	Total Length (cm)	Fork Length (cm)	Body Weight (g)	Abnormalities	Fate (M) Mortality (R) Released
17-Jul-19	Central Mudminnow	CCD-CMM-14	9.6	-	9.49	None	R
17-Jul-19	Central Mudminnow	CCD-CMM-15	9.1	-	9.164	None	R
17-Jul-19	Central Mudminnow	CCD-CMM-16	8.4	-	5.889	None	R
17-Jul-19	Central Mudminnow	CCD-CMM-17	5.3	-	1.617	None	R
17-Jul-19	Central Mudminnow	CCD-CMM-18	8.6	-	5.309	None	R
17-Jul-19	Central Mudminnow	CCD-CMM-19	9.8	-	8.717	None	R
17-Jul-19	Central Mudminnow	CCD-CMM-20	5.5	-	1.716	None	R
17-Jul-19	Central Mudminnow	CCD-CMM-21	8.8	-	6.907	None	R
17-Jul-19	Central Mudminnow	CCD-CMM-22	8.1	-	5.18	None	R
17-Jul-19	Central Mudminnow	CCD-CMM-23	8.1	-	6.297	None	R
17-Jul-19	Central Mudminnow	CCD-CMM-24	8.5	-	7.509	None	R
17-Jul-19	Central Mudminnow	CCD-CMM-25	9.2	-	8.306	None	R
17-Jul-19	Central Mudminnow	CCD-CMM-26	8.3	-	6.557	None	R
17-Jul-19	Central Mudminnow	CCD-CMM-27	9.6	-	8.795	None	R
17-Jul-19	Central Mudminnow	CCD-CMM-28	6.9	-	3.492	None	R
17-Jul-19	Central Mudminnow	CCD-CMM-29	7.3	-	3.715	None	R
17-Jul-19	Central Mudminnow	CCD-CMM-30	5.5	-	1.911	None	R
17-Jul-19	Central Mudminnow	CCD-CMM-31	8.9	-	7.353	None	R
17-Jul-19	Central Mudminnow	CCD-CMM-32	8.2	-	5.96	None	R
17-Jul-19	Central Mudminnow	CCD-CMM-33	5.5	-	1.842	None	R
17-Jul-19	Central Mudminnow	CCD-CMM-34	5.7	-	2.11	None	R
17-Jul-19	Central Mudminnow	CCD-CMM-35	6.6	-	3.163	None	R
18-Jul-19	Central Mudminnow	CCD-CMM-36	8.7	-	5.627	None	R
18-Jul-19	Central Mudminnow	CCD-CMM-37	5.1	-	1.42	None	R
18-Jul-19	Central Mudminnow	CCD-CMM-38	2.6	-	0.126	None	R
18-Jul-19	Central Mudminnow	CCD-CMM-39	7.5	-	4.975	None	R
18-Jul-19	Central Mudminnow	CCD-CMM-40	8	-	6.047	None	R
17-Jul-19	Finescale Dace	CCD-FSD-01	7.2	6.8	4.322	None	R
17-Jul-19	Finescale Dace	CCD-FSD-02	6.9	6.5	3.136	None	R
17-Jul-19	Finescale Dace	CCD-FSD-03	6.1	5.7	1.921	None	R
17-Jul-19	Finescale Dace	CCD-FSD-04	6.8	6.5	3.383	None	R
17-Jul-19	Finescale Dace	CCD-FSD-05	6.9	6.5	3.159	None	R
17-Jul-19	Finescale Dace	CCD-FSD-06	6.3	5.9	2.507	None	R
17-Jul-19	Finescale Dace	CCD-FSD-07	7.7	7.3	4.603	None	R
17-Jul-19	Finescale Dace	CCD-FSD-08	6.5	6.2	3.185	None	R
17-Jul-19	Finescale Dace	CCD-FSD-09	7.3	7	3.875	None	R
17-Jul-19	Finescale Dace	CCD-FSD-10	6.6	6.2	2.967	None	R
17-Jul-19	Finescale Dace	CCD-FSD-11	6.9	6.5	3.22	None	R
17-Jul-19	Finescale Dace	CCD-FSD-12	6.7	6.2	3.447	None	R
17-Jul-19	Finescale Dace	CCD-FSD-13	7.6	7.1	4.792	None	R
17-Jul-19	Finescale Dace	CCD-FSD-14	7	6.6	3.638	None	R
17-Jul-19	Finescale Dace	CCD-FSD-15	6.3	5.8	2.112	None	R
17-Jul-19	Finescale Dace	CCD-FSD-16	7.2	6.7	3.742	None	R
17-Jul-19	Finescale Dace	CCD-FSD-17	6.7	6.4	3.475	None	R
17-Jul-19	Finescale Dace	CCD-FSD-18	7.5	7.1	4.615	None	R
17-Jul-19	Finescale Dace	CCD-FSD-19	8.6	8.1	6.971	None	R
17-Jul-19	Finescale Dace	CCD-FSD-20	8.7	8.2	7.4	None	R
17-Jul-19	Finescale Dace	CCD-FSD-21	7.6	7.3	5.265	None	R
17-Jul-19	Finescale Dace	CCD-FSD-22	5.9	5.5	1.85	damaged caudal	R
17-Jul-19	Finescale Dace	CCD-FSD-23	5.8	5.4	2.254	None	R
17-Jul-19	Finescale Dace	CCD-FSD-24	6.1	5.5	2.62	None	R
17-Jul-19	Finescale Dace	CCD-FSD-25	6.6	6.1	2.162	None	R
17-Jul-19	Finescale Dace	CCD-FSD-26	7.1	6.6	3.677	None	R
17-Jul-19	Finescale Dace	CCD-FSD-27	6.6	6.2	3.245	None	R
17-Jul-19	Finescale Dace	CCD-FSD-28	6.3	5.8	2.347	None	R

Appendix Table A.15: Detailed Fish Measurements for Clark Creek Diversion, RRM July 2019

Processing Date	Fish Species	Fish ID	Total Length (cm)	Fork Length (cm)	Body Weight (g)	Abnormalities	Fate (M) Mortality (R) Released
17-Jul-19	Finescale Dace	CCD-FSD-29	6.4	6	2.312	None	R
17-Jul-19	Finescale Dace	CCD-FSD-30	6.8	6.4	3.148	None	R
17-Jul-19	Finescale Dace	CCD-FSD-31	6.4	5.9	2.516	None	R
17-Jul-19	Finescale Dace	CCD-FSD-32	5.5	5.2	2.06	None	R
17-Jul-19	Finescale Dace	CCD-FSD-33	6.3	5.9	2.054	None	R
17-Jul-19	Finescale Dace	CCD-FSD-34	6.9	6.6	3.02	None	R
17-Jul-19	Finescale Dace	CCD-FSD-35	7.1	6.6	3.53	None	R
17-Jul-19	Finescale Dace	CCD-FSD-36	8	7.5	5.217	None	R
17-Jul-19	Finescale Dace	CCD-FSD-37	7.3	6.8	3.658	None	R
17-Jul-19	Finescale Dace	CCD-FSD-38	6.1	5.8	2.399	None	R
17-Jul-19	Finescale Dace	CCD-FSD-39	5.7	5.4	1.999	None	R
17-Jul-19	Finescale Dace	CCD-FSD-40	5.6	5.3	1.675	None	R

Note: "-" indicates no measurement taken.

Appendix Table A.16: Detailed Fish Measurements for Stockpile Pond, RRM July 2019

Processing Date	Fish Species	Fish ID	Total Length (cm)	Fork Length (cm)	Body Weight (g)	Abnormalities	Fate (M) Mortality (R) Released
22-Jul-19	Brown Bullhead	SP-BBH-01	13.8	13.5	35.702	None	R
22-Jul-19	Brown Bullhead	SP-BBH-02	11.8	11.5	22.342	None	R
21-Jul-19	Blacknose Dace	SP-BND-01	3.8	3.5	0.568	None	R
21-Jul-19	Blacknose Dace	SP-BND-02	3.6	3.4	0.473	None	R
21-Jul-19	Blacknose Dace	SP-BND-03	3.7	3.5	0.480	None	R
21-Jul-19	Blacknose Dace	SP-BND-04	4.0	3.8	0.699	None	R
21-Jul-19	Blacknose Dace	SP-BND-05	3.8	3.5	0.688	None	R
21-Jul-19	Blacknose Dace	SP-BND-06	3.0	2.8	0.374	None	R
21-Jul-19	Blacknose Dace	SP-BND-07	4.5	4.3	0.900	None	R
21-Jul-19	Blacknose Dace	SP-BND-08	4.2	3.9	0.798	None	R
21-Jul-19	Blacknose Dace	SP-BND-09	4.4	4.1	0.897	None	R
21-Jul-19	Blacknose Dace	SP-BND-10	4.6	4.4	1.259	None	R
21-Jul-19	Blacknose Dace	SP-BND-11	3.4	3.2	0.462	None	R
21-Jul-19	Blacknose Dace	SP-BND-12	4.0	3.8	0.700	None	R
21-Jul-19	Blacknose Dace	SP-BND-13	4.1	3.9	0.789	None	R
21-Jul-19	Blacknose Dace	SP-BND-14	3.9	3.7	0.734	None	R
21-Jul-19	Blacknose Dace	SP-BND-15	3.8	3.8	0.750	None	R
21-Jul-19	Blacknose Dace	SP-BND-16	4.2	4.0	0.934	None	R
21-Jul-19	Blacknose Dace	SP-BND-17	4.1	4.0	0.698	None	R
21-Jul-19	Blacknose Dace	SP-BND-18	3.6	3.5	0.500	None	R
21-Jul-19	Blacknose Dace	SP-BND-19	4.4	4.1	0.893	None	R
21-Jul-19	Blacknose Dace	SP-BND-20	4.1	4.0	0.702	None	R
21-Jul-19	Blacknose Dace	SP-BND-21	4.2	3.9	0.932	None	R
21-Jul-19	Blacknose Dace	SP-BND-22	3.9	3.8	0.548	None	R
21-Jul-19	Blacknose Dace	SP-BND-23	6.4	5.9	1.692	None	R
21-Jul-19	Blacknose Dace	SP-BND-24	4.4	4.1	0.807	None	R
21-Jul-19	Blacknose Dace	SP-BND-25	3.6	3.4	0.453	None	R
21-Jul-19	Blacknose Dace	SP-BND-26	4.6	4.2	0.844	None	R
21-Jul-19	Blacknose Dace	SP-BND-27	3.5	3.4	0.460	None	R
21-Jul-19	Blacknose Dace	SP-BND-28	4.5	4.2	0.824	None	R
21-Jul-19	Blacknose Dace	SP-BND-29	4.5	4.3	0.951	None	R
21-Jul-19	Blacknose Dace	SP-BND-30	8.5	8.0	6.460	None	R
21-Jul-19	Blacknose Dace	SP-BND-31	4.5	4.2	0.970	None	R
21-Jul-19	Blacknose Dace	SP-BND-32	4.9	4.7	1.120	None	R
21-Jul-19	Blacknose Dace	SP-BND-33	4.9	4.6	1.143	None	R
21-Jul-19	Blacknose Dace	SP-BND-34	4.5	4.3	0.851	None	R
21-Jul-19	Blacknose Dace	SP-BND-35	4.5	4.2	1.102	None	R
21-Jul-19	Blacknose Dace	SP-BND-36	4.5	4.2	0.772	None	R
21-Jul-19	Blacknose Dace	SP-BND-37	4.9	4.7	1.042	None	R
21-Jul-19	Blacknose Dace	SP-BND-38	3.1	2.9	0.312	None	R
21-Jul-19	Blacknose Dace	SP-BND-39	4.5	4.2	0.867	None	R
21-Jul-19	Blacknose Dace	SP-BND-40	3.2	3.1	0.350	None	R
21-Jul-19	Brassy Minnow	SP-BM-01	8.4	7.7	5.864	None	R
21-Jul-19	Brassy Minnow	SP-BM-02	3.7	3.5	0.615	None	R
21-Jul-19	Brassy Minnow	SP-BM-03	6.0	5.3	2.553	None	R
21-Jul-19	Brassy Minnow	SP-BM-04	7.0	6.5	4.043	None	R
21-Jul-19	Brassy Minnow	SP-BM-05	4.6	4.4	0.986	None	R
21-Jul-19	Brassy Minnow	SP-BM-06	4.4	4.2	0.960	None	R
21-Jul-19	Brassy Minnow	SP-BM-07	4.5	4.3	0.962	None	R
21-Jul-19	Brassy Minnow	SP-BM-08	4.0	3.8	0.780	None	R
21-Jul-19	Brassy Minnow	SP-BM-09	4.3	4.1	0.967	None	R
21-Jul-19	Brassy Minnow	SP-BM-10	4.5	4.3	0.986	None	R
21-Jul-19	Brassy Minnow	SP-BM-11	5.0	4.7	1.168	None	R
21-Jul-19	Brassy Minnow	SP-BM-12	4.3	4.0	0.947	None	R
21-Jul-19	Brassy Minnow	SP-BM-13	4.5	4.3	0.888	None	R
21-Jul-19	Brassy Minnow	SP-BM-14	4.4	4.1	0.778	None	R

Appendix Table A.16: Detailed Fish Measurements for Stockpile Pond, RRM July 2019

Processing Date	Fish Species	Fish ID	Total Length (cm)	Fork Length (cm)	Body Weight (g)	Abnormalities	Fate (M) Mortality (R) Released
21-Jul-19	Brassy Minnow	SP-BM-15	8.8	8.2	6.583	None	R
21-Jul-19	Brassy Minnow	SP-BM-16	6.1	5.6	0.687	None	R
21-Jul-19	Brassy Minnow	SP-BM-17	4.3	4.1	0.852	None	R
21-Jul-19	Brassy Minnow	SP-BM-18	7.0	6.5	3.430	None	R
21-Jul-19	Brassy Minnow	SP-BM-19	8.8	8.2	6.472	None	R
21-Jul-19	Brassy Minnow	SP-BM-20	7.2	6.8	3.520	None	R
21-Jul-19	Brassy Minnow	SP-BM-21	8.9	8.4	7.023	None	R
21-Jul-19	Brassy Minnow	SP-BM-22	7.5	7.0	4.500	None	R
21-Jul-19	Brassy Minnow	SP-BM-23	8.2	7.9	5.910	None	R
21-Jul-19	Brassy Minnow	SP-BM-24	6.3	5.9	2.673	None	R
21-Jul-19	Brook Stickleback	SP-BSB-01	3.8	-	0.612	None	R
21-Jul-19	Brook Stickleback	SP-BSB-02	3.0	-	0.245	None	R
21-Jul-19	Brook Stickleback	SP-BSB-03	2.9	-	0.255	None	R
21-Jul-19	Brook Stickleback	SP-BSB-04	3.8	-	0.609	None	R
21-Jul-19	Brook Stickleback	SP-BSB-05	3.9	-	0.559	None	R
21-Jul-19	Brook Stickleback	SP-BSB-06	3.9	-	0.570	None	R
21-Jul-19	Brook Stickleback	SP-BSB-07	2.7	-	0.221	None	R
21-Jul-19	Brook Stickleback	SP-BSB-08	3.3	-	0.404	None	R
21-Jul-19	Brook Stickleback	SP-BSB-09	3.9	-	0.709	None	R
21-Jul-19	Brook Stickleback	SP-BSB-10	2.9	-	0.237	None	R
21-Jul-19	Brook Stickleback	SP-BSB-11	2.6	-	0.166	None	R
21-Jul-19	Brook Stickleback	SP-BSB-12	2.9	-	0.227	None	R
21-Jul-19	Brook Stickleback	SP-BSB-13	3.2	-	0.307	None	R
21-Jul-19	Brook Stickleback	SP-BSB-14	2.3	-	0.145	None	R
21-Jul-19	Brook Stickleback	SP-BSB-15	3.0	-	0.309	None	R
21-Jul-19	Brook Stickleback	SP-BSB-16	3.9	-	0.621	None	R
21-Jul-19	Brook Stickleback	SP-BSB-17	3.7	-	0.562	None	R
21-Jul-19	Brook Stickleback	SP-BSB-18	3.7	-	0.572	None	R
21-Jul-19	Brook Stickleback	SP-BSB-19	5.5	-	1.850	None	R
21-Jul-19	Brook Stickleback	SP-BSB-20	3.6	-	0.511	None	R
21-Jul-19	Brook Stickleback	SP-BSB-21	4.7	-	0.877	None	R
21-Jul-19	Brook Stickleback	SP-BSB-22	4.5	-	0.858	None	R
21-Jul-19	Brook Stickleback	SP-BSB-23	4.7	-	0.866	None	R
21-Jul-19	Brook Stickleback	SP-BSB-24	4.4	-	0.788	None	R
21-Jul-19	Brook Stickleback	SP-BSB-25	4.5	-	0.955	None	R
21-Jul-19	Brook Stickleback	SP-BSB-26	4.5	-	0.799	None	R
21-Jul-19	Brook Stickleback	SP-BSB-27	4.0	-	0.690	None	R
21-Jul-19	Brook Stickleback	SP-BSB-28	4.5	-	0.763	None	R
21-Jul-19	Brook Stickleback	SP-BSB-29	4.3	-	0.755	None	R
21-Jul-19	Brook Stickleback	SP-BSB-30	4.5	-	0.913	None	R
21-Jul-19	Brook Stickleback	SP-BSB-31	4.3	-	0.917	None	R
21-Jul-19	Brook Stickleback	SP-BSB-32	4.4	-	0.916	None	R
21-Jul-19	Brook Stickleback	SP-BSB-33	4.0	-	0.628	None	R
21-Jul-19	Brook Stickleback	SP-BSB-34	4.3	-	0.883	None	R
21-Jul-19	Brook Stickleback	SP-BSB-35	4.1	-	0.620	None	R
21-Jul-19	Brook Stickleback	SP-BSB-36	4.1	-	0.643	None	R
21-Jul-19	Brook Stickleback	SP-BSB-37	4.2	-	0.718	None	R
21-Jul-19	Brook Stickleback	SP-BSB-38	4.4	-	0.736	None	R
21-Jul-19	Brook Stickleback	SP-BSB-39	4.2	-	0.672	None	R
21-Jul-19	Brook Stickleback	SP-BSB-40	4.3	-	0.680	None	R
21-Jul-19	Central Mudminnow	SP-CMM-01	6.6	-	3.320	None	R
21-Jul-19	Central Mudminnow	SP-CMM-02	7.9	-	5.579	None	R
21-Jul-19	Central Mudminnow	SP-CMM-03	7.2	-	3.843	None	R
21-Jul-19	Central Mudminnow	SP-CMM-04	6.9	-	3.850	None	R
21-Jul-19	Central Mudminnow	SP-CMM-05	6.8	-	3.846	None	R
21-Jul-19	Central Mudminnow	SP-CMM-06	7.3	-	3.930	None	R

Appendix Table A.16: Detailed Fish Measurements for Stockpile Pond, RRM July 2019

Processing Date	Fish Species	Fish ID	Total Length (cm)	Fork Length (cm)	Body Weight (g)	Abnormalities	Fate (M) Mortality (R) Released
21-Jul-19	Central Mudminnow	SP-CMM-07	6.7	-	3.224	None	R
21-Jul-19	Central Mudminnow	SP-CMM-08	7.3	-	4.124	None	R
21-Jul-19	Central Mudminnow	SP-CMM-09	6.2	-	2.557	None	R
22-Jul-19	Central Mudminnow	SP-CMM-10	7.0	-	3.818	None	R
22-Jul-19	Central Mudminnow	SP-CMM-11	6.9	-	3.674	None	R
22-Jul-19	Central Mudminnow	SP-CMM-12	7.1	-	3.688	None	R
22-Jul-19	Central Mudminnow	SP-CMM-13	7.7	-	4.388	None	R
22-Jul-19	Central Mudminnow	SP-CMM-14	7.8	-	4.524	None	R
22-Jul-19	Central Mudminnow	SP-CMM-15	5.9	-	2.244	None	R
22-Jul-19	Central Mudminnow	SP-CMM-16	7.9	-	4.112	None	R
22-Jul-19	Central Mudminnow	SP-CMM-17	7.0	-	3.998	None	R
22-Jul-19	Central Mudminnow	SP-CMM-18	6.2	-	3.097	None	R
22-Jul-19	Central Mudminnow	SP-CMM-19	7.2	-	3.627	None	R
23-Jul-19	Central Mudminnow	SP-CMM-20	7.0	-	4.704	None	R
23-Jul-19	Central Mudminnow	SP-CMM-21	6.7	-	3.562	None	R
23-Jul-19	Central Mudminnow	SP-CMM-22	6.6	-	3.116	None	R
23-Jul-19	Central Mudminnow	SP-CMM-23	6.9	-	3.599	None	R
23-Jul-19	Central Mudminnow	SP-CMM-24	6.9	-	3.622	None	R
23-Jul-19	Central Mudminnow	SP-CMM-25	6.5	-	2.975	None	R
23-Jul-19	Central Mudminnow	SP-CMM-26	6.7	-	3.570	None	R
23-Jul-19	Central Mudminnow	SP-CMM-27	7.6	-	4.828	None	R
23-Jul-19	Central Mudminnow	SP-CMM-28	6.4	-	3.021	None	R
23-Jul-19	Central Mudminnow	SP-CMM-29	7.0	-	3.722	None	R
23-Jul-19	Central Mudminnow	SP-CMM-30	6.5	-	3.162	None	R
23-Jul-19	Central Mudminnow	SP-CMM-31	6.5	-	2.978	None	R
23-Jul-19	Central Mudminnow	SP-CMM-32	7.3	-	4.662	None	R
23-Jul-19	Central Mudminnow	SP-CMM-33	6.8	-	3.512	None	R
23-Jul-19	Central Mudminnow	SP-CMM-34	5.5	-	1.782	None	R
23-Jul-19	Central Mudminnow	SP-CMM-35	6.3	-	2.846	None	R
23-Jul-19	Central Mudminnow	SP-CMM-36	7.6	-	4.849	None	R
23-Jul-19	Central Mudminnow	SP-CMM-37	6.1	-	2.795	None	R
23-Jul-19	Central Mudminnow	SP-CMM-38	8.2	-	5.945	None	R
23-Jul-19	Central Mudminnow	SP-CMM-39	4.0	-	0.661	None	R
23-Jul-19	Central Mudminnow	SP-CMM-40	5.5	-	1.845	None	R
21-Jul-19	Creek Chub	SP-CC-01	18.2	17.4	49.230	None	R
21-Jul-19	Creek Chub	SP-CC-02	11.8	11.2	17.148	None	R
21-Jul-19	Creek Chub	SP-CC-03	13.6	12.8	24.813	None	R
21-Jul-19	Creek Chub	SP-CC-04	12.7	11.9	22.000	None	R
21-Jul-19	Creek Chub	SP-CC-05	13.5	12.9	24.539	None	R
21-Jul-19	Creek Chub	SP-CC-06	10.6	10.0	14.650	None	R
21-Jul-19	Creek Chub	SP-CC-07	12.3	11.6	21.010	None	R
21-Jul-19	Creek Chub	SP-CC-08	14.9	14.1	37.042	None	R
21-Jul-19	Creek Chub	SP-CC-09	11.6	10.9	14.088	None	R
21-Jul-19	Creek Chub	SP-CC-10	10.1	9.5	9.433	None	R
21-Jul-19	Creek Chub	SP-CC-11	10.4	9.6	10.873	None	R
21-Jul-19	Creek Chub	SP-CC-12	8.4	7.9	6.318	None	R
21-Jul-19	Creek Chub	SP-CC-13	10.0	9.4	10.337	None	R
21-Jul-19	Creek Chub	SP-CC-14	7.7	7.2	5.196	None	R
21-Jul-19	Creek Chub	SP-CC-15	6.7	6.3	3.121	None	R
21-Jul-19	Creek Chub	SP-CC-16	8.0	7.6	6.240	None	R
21-Jul-19	Creek Chub	SP-CC-17	10.2	9.6	10.266	None	R
21-Jul-19	Creek Chub	SP-CC-18	9.0	8.5	7.425	None	R
21-Jul-19	Creek Chub	SP-CC-19	10.7	10.0	14.843	None	R
21-Jul-19	Creek Chub	SP-CC-20	10.2	9.5	11.058	None	R
21-Jul-19	Creek Chub	SP-CC-21	7.9	7.5	5.429	None	R
21-Jul-19	Creek Chub	SP-CC-22	8.8	8.4	7.699	None	R

Appendix Table A.16: Detailed Fish Measurements for Stockpile Pond, RRM July 2019

Processing Date	Fish Species	Fish ID	Total Length (cm)	Fork Length (cm)	Body Weight (g)	Abnormalities	Fate (M) Mortality (R) Released
21-Jul-19	Creek Chub	SP-CC-23	10.6	10.0	12.999	None	R
21-Jul-19	Creek Chub	SP-CC-24	13.5	12.6	27.154	None	R
21-Jul-19	Creek Chub	SP-CC-25	11.2	10.4	13.932	None	R
21-Jul-19	Creek Chub	SP-CC-26	13.6	12.9	27.223	None	R
21-Jul-19	Creek Chub	SP-CC-27	12.7	11.9	20.822	None	R
21-Jul-19	Creek Chub	SP-CC-28	13.6	12.7	25.705	None	R
21-Jul-19	Creek Chub	SP-CC-29	13.3	12.4	24.855	None	R
21-Jul-19	Creek Chub	SP-CC-30	9.6	8.9	9.023	None	R
21-Jul-19	Creek Chub	SP-CC-31	10.8	10.0	11.510	None	R
21-Jul-19	Creek Chub	SP-CC-32	10.9	10.0	12.080	None	R
21-Jul-19	Creek Chub	SP-CC-33	12.2	11.4	15.899	None	R
21-Jul-19	Creek Chub	SP-CC-34	11.2	10.5	12.042	None	R
21-Jul-19	Creek Chub	SP-CC-35	12.0	11.3	16.165	None	R
21-Jul-19	Creek Chub	SP-CC-36	11.8	11.0	15.908	None	R
21-Jul-19	Creek Chub	SP-CC-37	10.4	9.8	10.426	None	R
21-Jul-19	Creek Chub	SP-CC-38	11.8	11.0	14.478	None	R
21-Jul-19	Creek Chub	SP-CC-39	11.4	10.6	15.499	None	R
21-Jul-19	Creek Chub	SP-CC-40	11.0	10.4	13.169	None	R
21-Jul-19	Common Shiner	SP-CS-01	9.0	8.4	6.992	None	R
21-Jul-19	Common Shiner	SP-CS-02	7.3	6.7	3.097	None	R
22-Jul-19	Common Shiner	SP-CS-03	10.1	9.1	9.111	None	R
22-Jul-19	Fathead Minnow	SP-FHM-01	7.4	6.9	4.673	None	R
21-Jul-19	Finescale Dace	SP-FSD-01	7.1	6.6	3.417	None	R
21-Jul-19	Finescale Dace	SP-FSD-02	7.1	6.7	3.573	None	R
22-Jul-19	Finescale Dace	SP-FSD-03	5.8	5.4	1.745	None	R
21-Jul-19	Golden Shiner	SP-GS-01	9.9	9.0	10.657	None	R
21-Jul-19	Golden Shiner	SP-GS-02	11.9	11.0	16.548	None	R
21-Jul-19	Golden Shiner	SP-GS-03	10.4	9.5	10.243	None	R
21-Jul-19	Golden Shiner	SP-GS-04	12.0	11.0	18.285	None	R
21-Jul-19	Golden Shiner	SP-GS-05	7.3	6.7	3.401	None	R
21-Jul-19	Golden Shiner	SP-GS-06	6.6	6.4	2.949	None	R
21-Jul-19	Golden Shiner	SP-GS-07	8.3	7.4	5.554	None	R
21-Jul-19	Northern Redbelly Dace	SP-NRB-01	5.3	4.8	1.201	None	R
21-Jul-19	Northern Redbelly Dace	SP-NRB-02	5.9	5.6	2.119	None	R
21-Jul-19	Northern Redbelly Dace	SP-NRB-03	5.3	5.0	1.509	None	R
21-Jul-19	Northern Redbelly Dace	SP-NRB-04	5.0	4.8	1.290	None	R
21-Jul-19	Northern Redbelly Dace	SP-NRB-05	4.7	4.5	0.968	None	R
21-Jul-19	Northern Redbelly Dace	SP-NRB-06	5.7	5.2	1.832	None	R
21-Jul-19	Northern Redbelly Dace	SP-NRB-07	4.8	4.6	1.033	None	R
21-Jul-19	White Sucker	SP-WS-01	13.8	13.0	24.553	None	R
21-Jul-19	YOY	SP-YOY-01	3.6	3.5	0.399	None	R
21-Jul-19	YOY	SP-YOY-02	3.0	2.9	0.185	None	R
21-Jul-19	YOY	SP-YOY-03	2.2	2.1	0.098	None	R
21-Jul-19	YOY	SP-YOY-04	2.5	2.4	0.152	None	R
21-Jul-19	YOY	SP-YOY-05	2.5	2.5	0.157	None	R
21-Jul-19	YOY	SP-YOY-06	3.0	3.9	0.244	None	R
21-Jul-19	YOY	SP-YOY-07	1.6	1.5	0.030	None	R
21-Jul-19	YOY	SP-YOY-08	2.1	2.0	0.087	None	R
21-Jul-19	YOY	SP-YOY-09	2.5	2.4	0.133	None	R
21-Jul-19	YOY	SP-YOY-10	2.6	2.5	0.144	None	R
21-Jul-19	YOY	SP-YOY-11	3.1	3.0	0.250	None	R
21-Jul-19	YOY	SP-YOY-12	2.2	2.1	0.081	None	R
21-Jul-19	YOY	SP-YOY-13	2.3	2.2	0.114	None	R
21-Jul-19	YOY	SP-YOY-14	2.2	2.1	0.071	None	R
21-Jul-19	YOY	SP-YOY-15	2.2	2.1	0.249	None	R
21-Jul-19	YOY	SP-YOY-16	2.5	2.4	0.071	None	R

Appendix Table A.16: Detailed Fish Measurements for Stockpile Pond, RRM July 2019

Processing Date	Fish Species	Fish ID	Total Length (cm)	Fork Length (cm)	Body Weight (g)	Abnormalities	Fate (M) Mortality (R) Released
21-Jul-19	YOY	SP-YOY-17	3.1	3.0	0.145	None	R
21-Jul-19	YOY	SP-YOY-18	1.9	1.8	0.065	None	R
21-Jul-19	YOY	SP-YOY-19	2.9	2.8	0.138	None	R
21-Jul-19	YOY	SP-YOY-20	2.1	2.0	0.085	None	R
21-Jul-19	YOY	SP-YOY-21	2.8	2.7	0.196	None	R
21-Jul-19	YOY	SP-YOY-22	2.7	2.6	0.168	None	R
21-Jul-19	YOY	SP-YOY-23	2.7	2.6	0.161	None	R
21-Jul-19	YOY	SP-YOY-24	2.5	2.4	0.116	None	R
21-Jul-19	YOY	SP-YOY-25	2.8	2.7	0.172	None	R
21-Jul-19	YOY	SP-YOY-26	2.1	2.0	0.096	None	R
21-Jul-19	YOY	SP-YOY-27	1.9	1.8	0.072	None	R
21-Jul-19	YOY	SP-YOY-28	3.0	2.9	0.211	None	R
21-Jul-19	YOY	SP-YOY-29	2.1	2.0	0.066	None	R
21-Jul-19	YOY	SP-YOY-30	2.1	2.0	0.069	None	R
21-Jul-19	YOY	SP-YOY-31	2.4	2.3	0.098	None	R
21-Jul-19	YOY	SP-YOY-32	1.6	1.5	0.045	None	R
21-Jul-19	YOY	SP-YOY-33	1.9	1.8	0.068	None	R
21-Jul-19	YOY	SP-YOY-34	2.7	2.0	0.163	None	R
21-Jul-19	YOY	SP-YOY-35	2.4	2.3	0.108	None	R
21-Jul-19	YOY	SP-YOY-36	3.6	3.5	0.468	None	R
21-Jul-19	YOY	SP-YOY-37	3.4	3.3	0.328	None	R
21-Jul-19	YOY	SP-YOY-38	3.5	3.4	0.351	None	R
21-Jul-19	YOY	SP-YOY-39	3.3	3.2	0.400	None	R
21-Jul-19	YOY	SP-YOY-40	1.8	1.7	0.055	None	R

Note: "-" indicates no measurement taken.

Appendix Table A.17: Detailed Fish Measurements for West Creek Pond, RRM July 2019

Processing Date	Fish Species	Fish ID	Total Length (cm)	Fork Length (cm)	Body Weight (g)	Abnormalities	Fate (M) Mortality (R) Released
19-Jul-19	Blacknose Dace	WCP-BND-01	3.7	3.5	0.595	None	R
19-Jul-19	Blacknose Dace	WCP-BND-02	3.8	3.7	0.644	None	R
19-Jul-19	Blacknose Dace	WCP-BND-03	4.0	3.9	0.717	None	R
19-Jul-19	Blacknose Dace	WCP-BND-04	4.2	4.0	0.754	None	R
19-Jul-19	Blacknose Dace	WCP-BND-05	2.8	2.7	0.236	None	R
20-Jul-19	Blacknose Dace	WCP-BND-06	3.6	3.4	0.442	None	R
20-Jul-19	Blacknose Dace	WCP-BND-07	3.9	3.6	0.588	None	R
20-Jul-19	Blacknose Dace	WCP-BND-08	3.1	2.9	0.277	None	R
20-Jul-19	Blacknose Dace	WCP-BND-09	3.3	3.1	0.383	None	R
20-Jul-19	Blacknose Dace	WCP-BND-10	2.9	2.7	0.228	None	R
20-Jul-19	Blacknose Dace	WCP-BND-11	2.9	2.7	0.248	None	R
19-Jul-19	Brassy Minnow	WCP-BM-01	5.4	5.2	1.797	None	R
19-Jul-19	Brassy Minnow	WCP-BM-02	5.6	5.4	1.804	None	R
19-Jul-19	Brassy Minnow	WCP-BM-03	6.0	5.6	2.150	None	R
19-Jul-19	Brassy Minnow	WCP-BM-04	5.1	4.8	1.373	None	R
19-Jul-19	Brassy Minnow	WCP-BM-05	5.1	4.8	1.869	None	R
19-Jul-19	Brassy Minnow	WCP-BM-06	5.7	5.3	1.748	None	R
19-Jul-19	Brassy Minnow	WCP-BM-07	5.4	4.9	1.204	None	R
19-Jul-19	Brassy Minnow	WCP-BM-08	5.2	4.9	1.321	None	R
19-Jul-19	Brassy Minnow	WCP-BM-09	4.7	4.3	1.021	None	R
19-Jul-19	Brassy Minnow	WCP-BM-10	4.9	4.6	1.276	None	R
19-Jul-19	Brassy Minnow	WCP-BM-11	4.8	4.5	1.095	None	R
19-Jul-19	Brassy Minnow	WCP-BM-12	4.5	4.2	0.872	None	R
19-Jul-19	Brassy Minnow	WCP-BM-13	5.9	5.5	2.085	None	R
19-Jul-19	Brassy Minnow	WCP-BM-14	5.3	5.0	1.753	None	R
19-Jul-19	Brassy Minnow	WCP-BM-15	4.9	4.6	1.043	None	R
19-Jul-19	Brassy Minnow	WCP-BM-16	5.2	4.7	1.297	None	R
19-Jul-19	Brassy Minnow	WCP-BM-17	5.2	4.8	1.502	None	R
19-Jul-19	Brassy Minnow	WCP-BM-18	5.6	5.3	1.902	None	R
19-Jul-19	Brassy Minnow	WCP-BM-19	5.6	5.3	1.803	None	R
19-Jul-19	Brassy Minnow	WCP-BM-20	5.2	4.9	1.359	None	R
19-Jul-19	Brassy Minnow	WCP-BM-21	3.8	3.6	0.582	None	R
19-Jul-19	Brassy Minnow	WCP-BM-22	5.1	4.8	1.427	None	R
19-Jul-19	Brassy Minnow	WCP-BM-23	3.8	3.6	0.618	None	R
19-Jul-19	Brassy Minnow	WCP-BM-24	5.3	4.9	0.523	None	R
19-Jul-19	Brassy Minnow	WCP-BM-25	4.0	3.8	0.690	None	R
19-Jul-19	Brassy Minnow	WCP-BM-26	4.4	4.2	0.844	None	R
19-Jul-19	Brassy Minnow	WCP-BM-27	4.3	4.1	0.791	None	R
19-Jul-19	Brassy Minnow	WCP-BM-28	4.4	4.2	0.845	None	R
19-Jul-19	Brassy Minnow	WCP-BM-29	4.0	3.9	0.597	None	R
19-Jul-19	Brassy Minnow	WCP-BM-30	4.4	4.2	0.935	None	R
19-Jul-19	Brassy Minnow	WCP-BM-31	3.9	3.7	0.705	None	R
19-Jul-19	Brassy Minnow	WCP-BM-32	5.1	4.8	1.453	None	R
19-Jul-19	Brassy Minnow	WCP-BM-33	5.0	4.7	1.497	None	R
19-Jul-19	Brassy Minnow	WCP-BM-34	5.2	4.8	1.455	None	R
19-Jul-19	Brassy Minnow	WCP-BM-35	5.1	4.7	1.481	None	R
19-Jul-19	Brassy Minnow	WCP-BM-36	5.5	5.1	1.588	None	R
19-Jul-19	Brassy Minnow	WCP-BM-37	5.0	4.6	1.260	None	R
19-Jul-19	Brassy Minnow	WCP-BM-38	5.6	5.2	1.853	None	R
19-Jul-19	Brassy Minnow	WCP-BM-39	5.6	5.2	1.921	None	R
19-Jul-19	Brassy Minnow	WCP-BM-40	5.4	5.1	1.475	None	R
19-Jul-19	Brook Stickleback	WCP-BSB-01	3.2	-	0.329	None	R
19-Jul-19	Brook Stickleback	WCP-BSB-02	5.2	-	1.126	None	R
19-Jul-19	Brook Stickleback	WCP-BSB-03	4.4	-	0.739	None	R
19-Jul-19	Brook Stickleback	WCP-BSB-04	5.0	-	1.015	None	R
19-Jul-19	Brook Stickleback	WCP-BSB-05	4.5	-	0.789	None	R
19-Jul-19	Brook Stickleback	WCP-BSB-06	2.9	-	0.269	None	R
19-Jul-19	Brook Stickleback	WCP-BSB-07	3.2	-	0.344	None	R

Appendix Table A.17: Detailed Fish Measurements for West Creek Pond, RRM July 2019

Processing Date	Fish Species	Fish ID	Total Length (cm)	Fork Length (cm)	Body Weight (g)	Abnormalities	Fate (M) Mortality (R) Released
19-Jul-19	Brook Stickleback	WCP-BSB-08	2.9	-	0.222	None	R
19-Jul-19	Brook Stickleback	WCP-BSB-09	3.3	-	0.399	None	R
19-Jul-19	Brook Stickleback	WCP-BSB-10	2.7	-	0.198	None	R
19-Jul-19	Brook Stickleback	WCP-BSB-11	2.7	-	0.214	None	R
19-Jul-19	Brook Stickleback	WCP-BSB-12	3.3	-	0.398	None	R
19-Jul-19	Brook Stickleback	WCP-BSB-13	2.9	-	0.280	None	R
19-Jul-19	Brook Stickleback	WCP-BSB-14	2.8	-	0.263	None	R
19-Jul-19	Brook Stickleback	WCP-BSB-15	4.5	-	0.778	None	R
19-Jul-19	Brook Stickleback	WCP-BSB-16	2.4	-	0.148	None	R
19-Jul-19	Brook Stickleback	WCP-BSB-17	2.3	-	0.131	None	R
19-Jul-19	Brook Stickleback	WCP-BSB-18	2.9	-	0.237	None	R
19-Jul-19	Brook Stickleback	WCP-BSB-19	3.4	-	0.398	None	R
19-Jul-19	Brook Stickleback	WCP-BSB-20	2.9	-	0.262	None	R
19-Jul-19	Brook Stickleback	WCP-BSB-21	3.1	-	0.255	None	R
19-Jul-19	Brook Stickleback	WCP-BSB-22	3.5	-	0.410	None	R
19-Jul-19	Brook Stickleback	WCP-BSB-23	3.4	-	0.348	None	R
19-Jul-19	Brook Stickleback	WCP-BSB-24	2.7	-	0.215	None	R
19-Jul-19	Brook Stickleback	WCP-BSB-25	2.1	-	0.128	None	R
19-Jul-19	Brook Stickleback	WCP-BSB-26	3.2	-	0.360	None	R
19-Jul-19	Brook Stickleback	WCP-BSB-28	4.1	-	0.743	None	R
19-Jul-19	Brook Stickleback	WCP-BSB-29	2.9	-	0.364	None	R
19-Jul-19	Brook Stickleback	WCP-BSB-30	3.6	-	0.570	None	R
19-Jul-19	Brook Stickleback	WCP-BSB-31	4.1	-	0.601	None	R
19-Jul-19	Brook Stickleback	WCP-BSB-32	4.0	-	0.674	None	R
19-Jul-19	Brook Stickleback	WCP-BSB-33	4.1	-	0.605	None	R
19-Jul-19	Brook Stickleback	WCP-BSB-34	3.3	-	0.409	None	R
19-Jul-19	Brook Stickleback	WCP-BSB-35	4.7	-	1.360	None	R
19-Jul-19	Brook Stickleback	WCP-BSB-36	2.9	-	0.300	None	R
19-Jul-19	Brook Stickleback	WCP-BSB-37	3.6	-	0.470	None	R
19-Jul-19	Brook Stickleback	WCP-BSB-38	3.1	-	0.332	None	R
19-Jul-19	Brook Stickleback	WCP-BSB-39	3.0	-	0.305	None	R
19-Jul-19	Brook Stickleback	WCP-BSB-40	4.0	-	0.499	None	R
19-Jul-19	Brook Stickleback	WCP-BSB-41	4.7	-	1.037	None	R
23-Jul-19	Brown Bullhead	WCP-BBH-01	13.5	13.3	38.343	None	R
23-Jul-19	Brown Bullhead	WCP-BBH-02	12.7	12.4	27.783	None	R
20-Jul-19	Central Mudminnow	WCP-CMM-01	7.6	-	4.628	None	R
23-Jul-19	Central Mudminnow	WCP-CMM-02	7.3	-	4.471	None	R
23-Jul-19	Central Mudminnow	WCP-CMM-03	8.0	-	6.170	None	R
23-Jul-19	Central Mudminnow	WCP-CMM-04	7.0	-	4.059	None	R
23-Jul-19	Central Mudminnow	WCP-CMM-05	8.2	-	6.609	None	R
23-Jul-19	Central Mudminnow	WCP-CMM-06	6.8	-	3.336	None	R
23-Jul-19	Central Mudminnow	WCP-CMM-07	7.8	-	5.060	None	R
23-Jul-19	Central Mudminnow	WCP-CMM-08	7.5	-	5.034	None	R
23-Jul-19	Central Mudminnow	WCP-CMM-09	7.0	-	4.015	None	R
23-Jul-19	Central Mudminnow	WCP-CMM-10	6.7	-	3.812	None	R
23-Jul-19	Central Mudminnow	WCP-CMM-11	8.3	-	6.044	None	R
23-Jul-19	Central Mudminnow	WCP-CMM-12	6.9	-	3.101	None	R
23-Jul-19	Central Mudminnow	WCP-CMM-13	7.0	-	4.216	None	R
23-Jul-19	Central Mudminnow	WCP-CMM-14	3.5	-	0.674	None	R
23-Jul-19	Central Mudminnow	WCP-CMM-15	8.1	-	5.164	None	R
23-Jul-19	Central Mudminnow	WCP-CMM-16	8.1	-	5.131	None	R
23-Jul-19	Central Mudminnow	WCP-CMM-17	8.1	-	6.215	None	R
23-Jul-19	Central Mudminnow	WCP-CMM-18	3.1	-	0.362	None	R
23-Jul-19	Central Mudminnow	WCP-CMM-19	8.2	-	5.682	None	R
23-Jul-19	Central Mudminnow	WCP-CMM-20	5.8	-	1.862	None	R
23-Jul-19	Central Mudminnow	WCP-CMM-21	3.4	-	0.555	None	R
23-Jul-19	Central Mudminnow	WCP-CMM-22	3.0	-	0.330	None	R
23-Jul-19	Central Mudminnow	WCP-CMM-23	8.3	-	5.393	None	R

Appendix Table A.17: Detailed Fish Measurements for West Creek Pond, RRM July 2019

Processing Date	Fish Species	Fish ID	Total Length (cm)	Fork Length (cm)	Body Weight (g)	Abnormalities	Fate (M) Mortality (R) Released
23-Jul-19	Central Mudminnow	WCP-CMM-24	8.1	-	5.672	None	R
23-Jul-19	Central Mudminnow	WCP-CMM-25	8.9	-	6.912	None	R
23-Jul-19	Central Mudminnow	WCP-CMM-26	7.9	-	4.799	None	R
23-Jul-19	Central Mudminnow	WCP-CMM-27	8.6	-	6.559	None	R
23-Jul-19	Central Mudminnow	WCP-CMM-28	6.2	-	2.413	None	R
23-Jul-19	Central Mudminnow	WCP-CMM-29	3.8	-	0.642	None	R
23-Jul-19	Central Mudminnow	WCP-CMM-30	7.3	-	5.332	None	R
23-Jul-19	Central Mudminnow	WCP-CMM-31	7.6	-	5.147	None	R
23-Jul-19	Central Mudminnow	WCP-CMM-32	3.7	-	0.602	None	R
23-Jul-19	Central Mudminnow	WCP-CMM-33	7.9	-	4.844	None	R
23-Jul-19	Central Mudminnow	WCP-CMM-34	6.7	-	3.829	None	R
23-Jul-19	Central Mudminnow	WCP-CMM-35	7.4	-	4.386	None	R
23-Jul-19	Central Mudminnow	WCP-CMM-36	7.5	-	4.211	None	R
23-Jul-19	Central Mudminnow	WCP-CMM-37	7.8	-	5.432	None	R
23-Jul-19	Central Mudminnow	WCP-CMM-38	7.2	-	4.072	None	R
19-Jul-19	Common Shiner	WCP-CS-01	10.1	9.0	8.309	None	R
19-Jul-19	Common Shiner	WCP-CS-02	7.0	6.5	3.157	None	R
19-Jul-19	Common Shiner	WCP-CS-03	5.8	5.5	1.920	None	R
19-Jul-19	Common Shiner	WCP-CS-04	6.2	5.8	2.160	None	R
19-Jul-19	Common Shiner	WCP-CS-05	6.0	5.6	2.012	None	R
19-Jul-19	Common Shiner	WCP-CS-06	6.5	6.0	2.376	None	R
19-Jul-19	Common Shiner	WCP-CS-07	6.5	6.0	2.676	None	R
19-Jul-19	Common Shiner	WCP-CS-08	6.6	6.1	2.456	None	R
19-Jul-19	Common Shiner	WCP-CS-09	6.7	6.4	2.171	None	R
19-Jul-19	Common Shiner	WCP-CS-10	6.2	5.8	2.213	None	R
19-Jul-19	Common Shiner	WCP-CS-11	6.6	6.2	2.257	None	R
19-Jul-19	Common Shiner	WCP-CS-12	6.8	6.4	2.960	None	R
19-Jul-19	Common Shiner	WCP-CS-13	6.7	6.4	2.457	None	R
19-Jul-19	Common Shiner	WCP-CS-14	6.7	6.2	2.260	None	R
19-Jul-19	Common Shiner	WCP-CS-15	6.6	6.1	2.570	None	R
19-Jul-19	Common Shiner	WCP-CS-16	8.1	7.6	4.834	None	R
20-Jul-19	Common Shiner	WCP-CS-17	5.8	5.4	1.653	None	R
20-Jul-19	Common Shiner	WCP-CS-18	6.5	6.0	2.280	None	R
20-Jul-19	Common Shiner	WCP-CS-19	6.2	5.8	2.360	None	R
20-Jul-19	Common Shiner	WCP-CS-20	5.9	5.5	1.560	None	R
20-Jul-19	Common Shiner	WCP-CS-21	5.0	5.4	1.223	None	R
20-Jul-19	Common Shiner	WCP-CS-22	6.0	5.3	2.089	None	R
20-Jul-19	Common Shiner	WCP-CS-23	5.9	5.6	2.006	None	R
20-Jul-19	Common Shiner	WCP-CS-24	5.1	4.8	1.376	None	R
20-Jul-19	Common Shiner	WCP-CS-25	5.9	5.4	1.850	None	R
20-Jul-19	Common Shiner	WCP-CS-26	5.4	5.0	1.843	None	R
20-Jul-19	Common Shiner	WCP-CS-27	6.3	5.9	2.499	None	R
20-Jul-19	Common Shiner	WCP-CS-28	6.4	5.9	2.428	None	R
20-Jul-19	Common Shiner	WCP-CS-29	5.9	5.5	2.539	None	R
20-Jul-19	Common Shiner	WCP-CS-30	6.5	6.1	2.336	None	R
20-Jul-19	Common Shiner	WCP-CS-31	6.1	5.8	1.945	None	R
20-Jul-19	Common Shiner	WCP-CS-32	6.1	5.8	1.831	None	R
20-Jul-19	Common Shiner	WCP-CS-33	6.2	5.8	1.968	None	R
20-Jul-19	Common Shiner	WCP-CS-34	6.4	6.1	2.438	None	R
20-Jul-19	Common Shiner	WCP-CS-35	5.1	4.7	1.413	None	R
20-Jul-19	Common Shiner	WCP-CS-36	4.8	4.5	1.222	None	R
20-Jul-19	Common Shiner	WCP-CS-37	6.4	6.0	2.387	None	R
20-Jul-19	Common Shiner	WCP-CS-38	11.0	10.3	13.032	None	R
20-Jul-19	Common Shiner	WCP-CS-39	7.0	6.6	3.898	None	R
20-Jul-19	Common Shiner	WCP-CS-40	9.7	9.2	8.725	None	R
20-Jul-19	Common Shiner	WCP-CS-41	6.1	5.6	1.932	None	R
20-Jul-19	Common Shiner	WCP-CS-42	11.0	9.5	10.278	None	R
21-Jul-19	Common Shiner	WCP-CS-43	6.5	6.2	2.642	None	R

Appendix Table A.17: Detailed Fish Measurements for West Creek Pond, RRM July 2019

Processing Date	Fish Species	Fish ID	Total Length (cm)	Fork Length (cm)	Body Weight (g)	Abnormalities	Fate (M) Mortality (R) Released
20-Jul-19	Creek Chub	WCP-CC-01	10.7	10.2	14.378	None	R
20-Jul-19	Creek Chub	WCP-CC-02	11.7	11.1	15.702	None	R
20-Jul-19	Creek Chub	WCP-CC-03	10.6	9.9	11.493	None	R
20-Jul-19	Creek Chub	WCP-CC-04	10.6	9.9	11.470	None	R
20-Jul-19	Creek Chub	WCP-CC-05	10.2	9.6	9.471	None	R
20-Jul-19	Creek Chub	WCP-CC-06	4.1	3.9	0.761	None	R
20-Jul-19	Creek Chub	WCP-CC-07	4.0	3.7	0.631	None	R
20-Jul-19	Fathead Minnow	WCP-FHM-01	6.0	5.6	1.888	None	R
20-Jul-19	Fathead Minnow	WCP-FHM-02	7.0	6.5	3.798	None	R
20-Jul-19	Fathead Minnow	WCP-FHM-03	6.3	5.9	2.315	None	R
20-Jul-19	Fathead Minnow	WCP-FHM-04	6.7	6.4	3.624	None	R
20-Jul-19	Fathead Minnow	WCP-FHM-05	7.1	6.6	3.633	None	R
21-Jul-19	Fathead Minnow	WCP-FHM-06	6.2	5.8	2.297	None	R
21-Jul-19	Fathead Minnow	WCP-FHM-07	6.6	6.1	3.468	None	R
21-Jul-19	Fathead Minnow	WCP-FHM-08	7.9	7.5	4.972	None	R
21-Jul-19	Fathead Minnow	WCP-FHM-09	6.1	5.7	2.571	None	R
21-Jul-19	Fathead Minnow	WCP-FHM-10	7.5	7.1	3.593	None	R
21-Jul-19	Fathead Minnow	WCP-FHM-11	6.7	6.2	3.329	None	R
21-Jul-19	Fathead Minnow	WCP-FHM-12	7.7	7.3	4.967	None	R
21-Jul-19	Fathead Minnow	WCP-FHM-13	6.7	6.2	1.683	None	R
23-Jul-19	Fathead Minnow	WCP-FHM-14	7.7	7.3	5.131	None	R
23-Jul-19	Fathead Minnow	WCP-FHM-15	8.2	7.7	5.517	None	R
23-Jul-19	Fathead Minnow	WCP-FHM-16	6.6	6.2	3.006	None	R
23-Jul-19	Fathead Minnow	WCP-FHM-17	7.2	6.7	4.688	None	R
23-Jul-19	Fathead Minnow	WCP-FHM-18	6.8	6.4	3.520	None	R
23-Jul-19	Fathead Minnow	WCP-FHM-19	7.9	7.4	5.847	None	R
23-Jul-19	Fathead Minnow	WCP-FHM-20	7.1	6.6	3.048	None	R
23-Jul-19	Fathead Minnow	WCP-FHM-21	5.6	5.3	1.857	None	R
23-Jul-19	Fathead Minnow	WCP-FHM-22	6.8	6.5	2.750	None	R
19-Jul-19	Finescale Dace	WCP-FSD-01	4.1	3.8	0.604	None	R
19-Jul-19	Finescale Dace	WCP-FSD-02	4.0	3.8	0.610	None	R
19-Jul-19	Finescale Dace	WCP-FSD-03	4.6	4.4	1.103	None	R
19-Jul-19	Finescale Dace	WCP-FSD-01	6.8	6.4	2.658	None	R
19-Jul-19	Finescale Dace	WCP-FSD-02	9.1	8.6	7.022	None	R
19-Jul-19	Finescale Dace	WCP-FSD-03	8.3	7.9	5.428	None	R
19-Jul-19	Finescale Dace	WCP-FSD-04	8.2	7.8	4.703	None	R
19-Jul-19	Finescale Dace	WCP-FSD-05	9.1	8.7	7.482	None	R
20-Jul-19	Finescale Dace	WCP-FSD-06	7.3	6.9	5.424	None	R
20-Jul-19	Finescale Dace	WCP-FSD-07	7.6	7.2	4.029	None	R
20-Jul-19	Finescale Dace	WCP-FSD-08	4.8	4.5	1.805	None	R
20-Jul-19	Finescale Dace	WCP-FSD-09	5.1	4.7	1.371	None	R
20-Jul-19	Finescale Dace	WCP-FSD-10	5.2	4.9	1.521	None	R
20-Jul-19	Finescale Dace	WCP-FSD-11	5.3	5.0	1.450	None	R
20-Jul-19	Finescale Dace	WCP-FSD-12	6.1	5.7	3.522	None	R
20-Jul-19	Finescale Dace	WCP-FSD-13	5.5	4.6	1.048	None	R
20-Jul-19	Finescale Dace	WCP-FSD-14	5.6	5.3	1.636	None	R
20-Jul-19	Finescale Dace	WCP-FSD-15	4.6	4.3	0.972	None	R
20-Jul-19	Finescale Dace	WCP-FSD-16	6.1	5.9	1.965	None	R
20-Jul-19	Finescale Dace	WCP-FSD-17	4.1	3.9	0.395	None	R
20-Jul-19	Finescale Dace	WCP-FSD-18	3.7	3.5	0.591	None	R
20-Jul-19	Golden Shiner	WCP-GS-01	6.5	5.9	2.403	None	R
19-Jul-19	Johnny Darter	WCP-JD-01	6.1	-	2.148	None	R
20-Jul-19	Johnny Darter	WCP-JD-02	2.7	-	0.091	None	R
20-Jul-19	Johnny Darter	WCP-JD-03	2.6	-	0.083	None	R
20-Jul-19	Johnny Darter	WCP-JD-04	3.1	-	0.182	None	R
20-Jul-19	Johnny Darter	WCP-JD-05	3.5	-	0.281	None	R
20-Jul-19	Johnny Darter	WCP-JD-06	2.4	-	0.079	None	R
20-Jul-19	Johnny Darter	WCP-JD-07	3.0	-	0.180	None	R

Appendix Table A.17: Detailed Fish Measurements for West Creek Pond, RRM July 2019

Processing Date	Fish Species	Fish ID	Total Length (cm)	Fork Length (cm)	Body Weight (g)	Abnormalities	Fate (M) Mortality (R) Released
20-Jul-19	Johnny Darter	WCP-JD-08	2.4	-	0.075	None	R
20-Jul-19	Johnny Darter	WCP-JD-09	2.6	-	0.101	None	R
20-Jul-19	Johnny Darter	WCP-JD-10	3.0	-	0.225	None	R
20-Jul-19	Johnny Darter	WCP-JD-11	2.6	-	0.132	None	R
20-Jul-19	Johnny Darter	WCP-JD-12	2.5	-	0.123	None	R
20-Jul-19	Johnny Darter	WCP-JD-13	2.4	-	0.104	None	R
20-Jul-19	Johnny Darter	WCP-JD-14	2.4	-	0.079	None	R
20-Jul-19	Johnny Darter	WCP-JD-15	3.0	-	0.192	None	R
20-Jul-19	Johnny Darter	WCP-JD-16	2.8	-	0.177	None	R
20-Jul-19	Johnny Darter	WCP-JD-17	2.7	-	0.161	None	R
20-Jul-19	Johnny Darter	WCP-JD-18	2.6	-	0.162	None	R
20-Jul-19	Johnny Darter	WCP-JD-19	3.3	-	0.305	None	R
20-Jul-19	Johnny Darter	WCP-JD-20	2.0	-	0.067	None	R
20-Jul-19	Johnny Darter	WCP-JD-21	3.1	-	0.185	None	R
20-Jul-19	Johnny Darter	WCP-JD-22	3.1	-	0.220	None	R
20-Jul-19	Johnny Darter	WCP-JD-23	2.0	-	0.045	None	R
20-Jul-19	Johnny Darter	WCP-JD-24	2.8	-	0.156	None	R
20-Jul-19	Johnny Darter	WCP-JD-25	2.9	-	0.191	None	R
20-Jul-19	Johnny Darter	WCP-JD-26	2.9	-	0.293	None	R
20-Jul-19	Johnny Darter	WCP-JD-27	2.9	-	0.236	None	R
20-Jul-19	Johnny Darter	WCP-JD-28	2.1	-	0.053	None	R
20-Jul-19	Johnny Darter	WCP-JD-29	2.4	-	0.114	None	R
20-Jul-19	Johnny Darter	WCP-JD-30	1.9	-	0.061	None	R
20-Jul-19	Johnny Darter	WCP-JD-31	2.0	-	0.069	None	R
20-Jul-19	Johnny Darter	WCP-JD-32	2.5	-	0.106	None	R
20-Jul-19	Johnny Darter	WCP-JD-33	2.3	-	0.094	None	R
20-Jul-19	Johnny Darter	WCP-JD-34	3.1	-	0.213	None	R
20-Jul-19	Johnny Darter	WCP-JD-35	2.1	-	0.054	None	R
20-Jul-19	Johnny Darter	WCP-JD-36	2.7	-	0.159	None	R
20-Jul-19	Johnny Darter	WCP-JD-37	2.7	-	0.180	None	R
20-Jul-19	Johnny Darter	WCP-JD-38	3.2	-	0.295	None	R
20-Jul-19	Johnny Darter	WCP-JD-39	2.6	-	0.156	None	R
20-Jul-19	Johnny Darter	WCP-JD-40	3.0	-	0.224	None	R
20-Jul-19	Johnny Darter	WCP-JD-41	2.7	-	0.154	None	R
20-Jul-19	Northern Redbelly Dace	WCP-NRB-01	4.7	4.4	0.969	None	R
20-Jul-19	Northern Redbelly Dace	WCP-NRB-02	4.9	4.5	1.035	None	R
20-Jul-19	Northern Redbelly Dace	WCP-NRB-03	5.3	5.0	1.149	None	R
20-Jul-19	Northern Redbelly Dace	WCP-NRB-04	5.2	5.0	1.011	None	R
21-Jul-19	Northern Redbelly Dace	WCP-NRB-05	5.9	5.6	1.495	None	R
21-Jul-19	Northern Redbelly Dace	WCP-NRB-06	5.7	5.4	1.841	None	R
21-Jul-19	Northern Redbelly Dace	WCP-NRB-07	6.2	5.8	2.123	None	R
21-Jul-19	Northern Redbelly Dace	WCP-NRB-08	4.9	4.6	1.134	None	R
21-Jul-19	Northern Redbelly Dace	WCP-NRB-09	6.2	5.8	2.139	None	R
21-Jul-19	Northern Redbelly Dace	WCP-NRB-10	4.8	4.4	0.975	None	R
21-Jul-19	Northern Redbelly Dace	WCP-NRB-11	6.2	5.8	2.127	None	R
21-Jul-19	Northern Redbelly Dace	WCP-NRB-12	4.7	4.5	1.204	None	R
21-Jul-19	Northern Redbelly Dace	WCP-NRB-13	5.1	4.8	1.309	None	R
21-Jul-19	Northern Redbelly Dace	WCP-NRB-14	7.0	6.5	3.589	None	R
21-Jul-19	Northern Redbelly Dace	WCP-NRB-15	5.7	5.4	1.738	None	R
23-Jul-19	Northern Redbelly Dace	WCP-NRB-16	7.0	6.5	3.319	None	R
19-Jul-19	White sucker	WCP-WS-01	3.9	3.7	0.502	black spot	R
19-Jul-19	White sucker	WCP-WS-03	4.0	3.8	0.645	None	R
19-Jul-19	White sucker	WCP-WS-03	3.3	3.2	0.335	None	R
19-Jul-19	White sucker	WCP-WS-04	4.4	4.2	0.844	None	R
19-Jul-19	White sucker	WCP-WS-05	4.3	4.2	0.701	None	R
19-Jul-19	White sucker	WCP-WS-06	4.2	4.1	0.775	None	R
19-Jul-19	White sucker	WCP-WS-07	3.3	3.2	0.314	None	R
19-Jul-19	White sucker	WCP-WS-08	12.5	11.6	19.871	None	R

Appendix Table A.17: Detailed Fish Measurements for West Creek Pond, RRM July 2019

Processing Date	Fish Species	Fish ID	Total Length (cm)	Fork Length (cm)	Body Weight (g)	Abnormalities	Fate (M) Mortality (R) Released
19-Jul-19	White sucker	WCP-WS-09	11.1	10.4	12.757	None	R
19-Jul-19	White sucker	WCP-WS-10	8.1	7.6	5.314	None	R
19-Jul-19	White sucker	WCP-WS-11	4.1	3.9	0.491	None	R
20-Jul-19	White sucker	WCP-WS-12	3.6	3.4	0.504	None	R
20-Jul-19	White sucker	WCP-WS-13	4.2	3.9	0.561	None	R
20-Jul-19	White sucker	WCP-WS-14	4.0	3.8	0.640	None	R
20-Jul-19	White sucker	WCP-WS-15	4.2	3.9	0.646	None	R
20-Jul-19	White sucker	WCP-WS-16	8.0	7.7	4.432	None	R
20-Jul-19	White sucker	WCP-WS-17	4.2	4.0	0.758	None	R
20-Jul-19	White sucker	WCP-WS-18	3.9	3.7	0.633	None	R
20-Jul-19	White sucker	WCP-WS-19	3.4	3.1	0.401	None	R
20-Jul-19	White sucker	WCP-WS-20	4.3	4.1	0.641	None	R
20-Jul-19	White sucker	WCP-WS-21	3.6	3.4	0.457	None	R
20-Jul-19	White sucker	WCP-WS-22	3.6	3.4	0.461	None	R
21-Jul-19	White sucker	WCP-WS-23	9.9	9.3	9.243	None	R
23-Jul-19	White sucker	WCP-WS-24	9.7	9.1	8.183	None	R
23-Jul-19	White sucker	WCP-WS-25	4.3	4.0	0.769	None	R
23-Jul-19	White sucker	WCP-WS-26	12.7	12.1	20.342	None	R
23-Jul-19	White sucker	WCP-WS-27	15.2	14.3	35.735	None	R
23-Jul-19	White sucker	WCP-WS-28	12.7	12.0	20.753	None	R
23-Jul-19	White sucker	WCP-WS-29	9.8	9.2	9.325	None	R
23-Jul-19	White sucker	WCP-WS-30	8.7	8.3	6.971	None	R
23-Jul-19	White sucker	WCP-WS-31	10.3	9.7	11.389	None	R
23-Jul-19	White sucker	WCP-WS-32	13.7	13.0	28.369	None	R
23-Jul-19	White sucker	WCP-WS-33	16.2	15.0	40.209	None	R
23-Jul-19	White sucker	WCP-WS-34	10.7	10.0	13.134	None	R
23-Jul-19	White sucker	WCP-WS-35	10.6	10.0	12.250	None	R
23-Jul-19	White sucker	WCP-WS-36	11.1	10.6	15.044	None	R
23-Jul-19	White sucker	WCP-WS-37	12.1	11.4	17.169	None	R
23-Jul-19	White sucker	WCP-WS-38	11.8	11.1	16.146	None	R
23-Jul-19	White sucker	WCP-WS-39	10.2	9.5	10.928	None	R
23-Jul-19	White sucker	WCP-WS-40	8.4	8.0	6.500	None	R
23-Jul-19	White sucker	WCP-WS-41	21.8	-	102.229	None	R
19-Jul-19	YOY	WCP-YOY-01	2.0	1.9	0.058	None	R
19-Jul-19	YOY	WCP-YOY-02	2.4	2.3	0.078	None	R
19-Jul-19	YOY	WCP-YOY-03	2.4	2.3	0.095	None	R
19-Jul-19	YOY	WCP-YOY-04	2.0	1.9	0.062	None	R
19-Jul-19	YOY	WCP-YOY-05	2.2	2.1	0.088	None	R
19-Jul-19	YOY	WCP-YOY-06	2.3	2.2	0.092	None	R
19-Jul-19	YOY	WCP-YOY-07	2.3	2.2	0.112	None	R
19-Jul-19	YOY	WCP-YOY-08	2.4	2.3	0.085	None	R
19-Jul-19	YOY	WCP-YOY-09	2.1	2.0	0.050	None	R
19-Jul-19	YOY	WCP-YOY-10	2.1	2.0	0.046	None	R
19-Jul-19	YOY	WCP-YOY-11	3.2	3.1	0.068	None	R
19-Jul-19	YOY	WCP-YOY-12	2.1	2.0	0.056	None	R
19-Jul-19	YOY	WCP-YOY-13	1.9	1.8	0.043	None	R
19-Jul-19	YOY	WCP-YOY-14	1.9	1.8	0.045	None	R
19-Jul-19	YOY	WCP-YOY-15	1.6	1.5	0.038	None	R
19-Jul-19	YOY	WCP-YOY-16	1.9	1.8	0.027	None	R
19-Jul-19	YOY	WCP-YOY-17	1.6	1.5	0.031	None	R
19-Jul-19	YOY	WCP-YOY-18	2.1	2.0	0.029	None	R
19-Jul-19	YOY	WCP-YOY-19	1.6	1.5	0.030	None	R
19-Jul-19	YOY	WCP-YOY-20	2.3	2.2	0.110	None	R
19-Jul-19	YOY	WCP-YOY-21	2.2	2.1	0.086	None	R
19-Jul-19	YOY	WCP-YOY-22	2.1	2.0	0.064	None	R
19-Jul-19	YOY	WCP-YOY-23	2.9	2.8	0.127	None	R
19-Jul-19	YOY	WCP-YOY-24	3.1	3.0	0.130	None	R
19-Jul-19	YOY	WCP-YOY-25	2.1	2.0	0.059	None	R

Appendix Table A.17: Detailed Fish Measurements for West Creek Pond, RRM July 2019

Processing Date	Fish Species	Fish ID	Total Length (cm)	Fork Length (cm)	Body Weight (g)	Abnormalities	Fate (M) Mortality (R) Released
19-Jul-19	YOY	WCP-YOY-26	1.6	1.5	0.024	None	R
19-Jul-19	YOY	WCP-YOY-27	2.6	2.5	0.134	None	R
19-Jul-19	YOY	WCP-YOY-28	2.1	2.0	0.062	None	R
19-Jul-19	YOY	WCP-YOY-29	2.1	2.0	0.082	None	R
19-Jul-19	YOY	WCP-YOY-30	1.6	1.5	0.021	None	R
19-Jul-19	YOY	WCP-YOY-31	1.9	1.8	0.058	None	R
19-Jul-19	YOY	WCP-YOY-32	1.6	1.5	0.018	None	R
19-Jul-19	YOY	WCP-YOY-33	1.9	1.8	0.042	None	R
19-Jul-19	YOY	WCP-YOY-34	3.1	3.0	0.271	None	R
19-Jul-19	YOY	WCP-YOY-35	2.9	2.8	0.205	None	R
19-Jul-19	YOY	WCP-YOY-36	2.1	2.0	0.085	None	R
19-Jul-19	YOY	WCP-YOY-37	2.0	1.9	0.072	None	R
19-Jul-19	YOY	WCP-YOY-38	2.5	2.4	0.125	None	R
19-Jul-19	YOY	WCP-YOY-39	2.1	2.0	0.092	None	R
19-Jul-19	YOY	WCP-YOY-40	2.2	2.0	0.100	None	R

Note: "-" indicates no measurement taken.

Appendix Table A.18: Detailed Fish Measurements for Clark Pond, RRM July 2019

Processing Date	Fish Species	Fish ID	Total Length (cm)	Fork Length (cm)	Body Weight (g)	Abnormalities	Fate (M) Mortality (R) Released
17-Jul-19	Brassy Minnow	CP-BM-01	11.1	10.5	13.55	None	R
17-Jul-19	Brook Stickleback	CP-BSB-01	4.4	-	0.931	None	R
17-Jul-19	Brook Stickleback	CP-BSB-02	5	-	0.971	None	R
17-Jul-19	Brook Stickleback	CP-BSB-03	5.1	-	1.334	None	R
17-Jul-19	Brook Stickleback	CP-BSB-04	5.6	-	1.556	None	R
17-Jul-19	Brook Stickleback	CP-BSB-05	5.5	-	1.6	None	R
17-Jul-19	Brook Stickleback	CP-BSB-06	4.4	-	1.572	None	R
18-Jul-19	Brook Stickleback	CP-BSB-07	4.7	-	0.969	parasite	R
18-Jul-19	Brook Stickleback	CP-BSB-08	5.4	-	1.575	fat	R
18-Jul-19	Brook Stickleback	CP-BSB-09	5.1	-	1.312	full eggs	R
18-Jul-19	Brook Stickleback	CP-BSB-10	5.2	-	1.42	None	R
18-Jul-19	Brook Stickleback	CP-BSB-11	4.4	-	0.761	None	R
18-Jul-19	Brook Stickleback	CP-BSB-12	4.5	-	0.869	None	R
18-Jul-19	Brook Stickleback	CP-BSB-13	5	-	1.13	None	R
18-Jul-19	Brook Stickleback	CP-BSB-14	5.7	-	1.675	None	R
18-Jul-19	Brook Stickleback	CP-BSB-15	4.4	-	0.93	None	R
18-Jul-19	Brook Stickleback	CP-BSB-16	4.9	-	1.25	None	R
18-Jul-19	Brook Stickleback	CP-BSB-17	4.6	-	0.91	tumor right side	R
18-Jul-19	Brook Stickleback	CP-BSB-18	4.1	-	0.726	None	R
18-Jul-19	Brook Stickleback	CP-BSB-19	5.2	-	1.506	None	R
18-Jul-19	Brook Stickleback	CP-BSB-20	5.6	-	1.401	None	R
18-Jul-19	Brook Stickleback	CP-BSB-21	4.2	-	0.805	None	R
18-Jul-19	Brook Stickleback	CP-BSB-22	4.3	-	0.765	None	R
18-Jul-19	Brook Stickleback	CP-BSB-23	4.9	-	1.23	None	R
18-Jul-19	Brook Stickleback	CP-BSB-24	5.3	-	1.245	None	R
18-Jul-19	Brook Stickleback	CP-BSB-25	5.2	-	1.255	None	R
18-Jul-19	Brook Stickleback	CP-BSB-26	4.1	-	0.675	None	R
18-Jul-19	Brook Stickleback	CP-BSB-27	4.4	-	0.935	None	R
18-Jul-19	Brook Stickleback	CP-BSB-28	3.8	-	0.66	None	R
18-Jul-19	Brook Stickleback	CP-BSB-29	4.5	-	0.92	None	R
18-Jul-19	Brook Stickleback	CP-BSB-30	4.5	-	0.845	None	R
18-Jul-19	Brook Stickleback	CP-BSB-31	4.6	-	1.03	None	R
18-Jul-19	Brook Stickleback	CP-BSB-32	4	-	0.665	None	R
18-Jul-19	Brook Stickleback	CP-BSB-33	5.5	-	1.467	None	R
18-Jul-19	Brook Stickleback	CP-BSB-34	4.6	-	1.055	None	R
18-Jul-19	Brook Stickleback	CP-BSB-35	4.7	-	0.927	None	R
18-Jul-19	Brook Stickleback	CP-BSB-36	4.6	-	0.998	None	R
18-Jul-19	Brook Stickleback	CP-BSB-37	4.2	-	0.725	None	R
18-Jul-19	Brook Stickleback	CP-BSB-38	4.1	-	0.751	None	R
18-Jul-19	Brook Stickleback	CP-BSB-39	4.4	-	0.857	None	R
18-Jul-19	Brook Stickleback	CP-BSB-40	4.3	-	0.802	None	R
18-Jul-19	Brook Stickleback	CP-BSB-41	6.4	-	2.329	None	R
17-Jul-19	Central Mudminnow	CP-CMM-01	7.6	-	5.415	None	R
18-Jul-19	Central Mudminnow	CP-CMM-02	8	-	5.457	parasite	R
18-Jul-19	Central Mudminnow	CP-CMM-03	8.2	-	5.818	parasite	R
18-Jul-19	Central Mudminnow	CP-CMM-04	7.8	-	5.656	parasite	R
18-Jul-19	Central Mudminnow	CP-CMM-05	7.1	-	3.765	parasite	R
18-Jul-19	Central Mudminnow	CP-CMM-06	6.2	-	2.85	parasite	R
18-Jul-19	Central Mudminnow	CP-CMM-07	9.1	-	8.46	None	R
18-Jul-19	Central Mudminnow	CP-CMM-08	8.7	-	6.586	None	R
18-Jul-19	Central Mudminnow	CP-CMM-09	9.1	-	8.675	None	R
18-Jul-19	Central Mudminnow	CP-CMM-10	9.9	-	11.452	None	R
18-Jul-19	Central Mudminnow	CP-CMM-11	7.2	-	4.805	None	R
18-Jul-19	Central Mudminnow	CP-CMM-12	7	-	3.924	None	R
18-Jul-19	Central Mudminnow	CP-CMM-13	7.7	-	5.103	None	R

Appendix Table A.18: Detailed Fish Measurements for Clark Pond, RRM July 2019

Processing Date	Fish Species	Fish ID	Total Length (cm)	Fork Length (cm)	Body Weight (g)	Abnormalities	Fate (M) Mortality (R) Released
18-Jul-19	Central Mudminnow	CP-CMM-14	7.8	-	5.66	None	R
18-Jul-19	Central Mudminnow	CP-CMM-15	7.9	-	5.935	None	R
18-Jul-19	Central Mudminnow	CP-CMM-16	8.6	-	6.773	None	R
18-Jul-19	Central Mudminnow	CP-CMM-17	8.2	-	6.279	None	R
18-Jul-19	Central Mudminnow	CP-CMM-18	9.6	-	8.304	None	R
18-Jul-19	Central Mudminnow	CP-CMM-19	5.7	-	2.113	None	R
18-Jul-19	Central Mudminnow	CP-CMM-20	7.7	-	5.305	None	R
18-Jul-19	Central Mudminnow	CP-CMM-21	8.8	-	7.334	None	R
19-Jul-19	Central Mudminnow	CP-CMM-22	8.8	-	7.871	None	R
19-Jul-19	Central Mudminnow	CP-CMM-23	8.7	-	8.355	None	R
19-Jul-19	Central Mudminnow	CP-CMM-24	6.2	-	2.844	None	R
19-Jul-19	Central Mudminnow	CP-CMM-25	8.4	-	6.144	None	R
19-Jul-19	Central Mudminnow	CP-CMM-26	10.9	-	12.413	None	R
19-Jul-19	Central Mudminnow	CP-CMM-27	9.6	-	9.565	None	R
19-Jul-19	Central Mudminnow	CP-CMM-28	8.9	-	7.329	None	R
19-Jul-19	Central Mudminnow	CP-CMM-29	11.3	-	15.825	None	R
19-Jul-19	Central Mudminnow	CP-CMM-30	7.2	-	15.539	None	R
19-Jul-19	Central Mudminnow	CP-CMM-31	7.9	-	5.785	None	R
19-Jul-19	Central Mudminnow	CP-CMM-32	8.6	-	7	None	R
19-Jul-19	Central Mudminnow	CP-CMM-33	6.7	-	3.072	None	R
20-Jul-19	Central Mudminnow	CP-CMM-34	5.8	-	2.238	None	R
20-Jul-19	Central Mudminnow	CP-CMM-35	8.5	-	5.9	None	R
20-Jul-19	Central Mudminnow	CP-CMM-36	9.1	-	8.218	None	R
20-Jul-19	Central Mudminnow	CP-CMM-37	10.3	-	13.004	None	R
20-Jul-19	Central Mudminnow	CP-CMM-38	9.9	-	10.164	None	R
20-Jul-19	Central Mudminnow	CP-CMM-39	8.5	-	6.901	None	R
20-Jul-19	Central Mudminnow	CP-CMM-40	9	-	9.204	None	R
20-Jul-19	Central Mudminnow	CP-CMM-41	8.5	-	6.688	None	R
20-Jul-19	Central Mudminnow	CP-CMM-42	9.1	-	9.285	None	R
20-Jul-19	Central Mudminnow	CP-CMM-43	7.8	-	4.458	None	R
20-Jul-19	Central Mudminnow	CP-CMM-44	8	-	5.612	None	R
20-Jul-19	Central Mudminnow	CP-CMM-45	8.3	-	6.014	None	R
20-Jul-19	Central Mudminnow	CP-CMM-46	8	-	5.542	None	R
20-Jul-19	Central Mudminnow	CP-CMM-47	7.6	-	5.122	None	R
20-Jul-19	Central Mudminnow	CP-CMM-48	7.5	-	5.448	None	R
20-Jul-19	Central Mudminnow	CP-CMM-49	7.5	-	3.732	None	R
20-Jul-19	Central Mudminnow	CP-CMM-50	7.4	-	4.443	None	R
20-Jul-19	Central Mudminnow	CP-CMM-51	5.9	-	2.38	None	R
20-Jul-19	Central Mudminnow	CP-CMM-52	9.8	-	10.767	None	R
20-Jul-19	Central Mudminnow	CP-CMM-53	8.7	-	8.8	None	R
23-Jul-19	Central Mudminnow	CP-CMM-54	6.8	-	3.742	None	R
23-Jul-19	Central Mudminnow	CP-CMM-55	8.3	-	6.57	None	R
23-Jul-19	Central Mudminnow	CP-CMM-56	8.1	-	6.312	None	R
23-Jul-19	Central Mudminnow	CP-CMM-57	10	-	9.88	None	R
23-Jul-19	Central Mudminnow	CP-CMM-58	7.5	-	3.646	None	R
23-Jul-19	Central Mudminnow	CP-CMM-59	6.1	-	2.708	None	R
23-Jul-19	Central Mudminnow	CP-CMM-60	8.8	-	7.759	None	R
23-Jul-19	Central Mudminnow	CP-CMM-61	7.4	-	5.311	None	R
23-Jul-19	Central Mudminnow	CP-CMM-62	5.7	-	2.567	None	R
23-Jul-19	Central Mudminnow	CP-CMM-63	6.1	-	2.668	None	R
23-Jul-19	Central Mudminnow	CP-CMM-64	6.7	-	3.555	None	R
23-Jul-19	Central Mudminnow	CP-CMM-65	7.6	-	5.112	None	R
23-Jul-19	Central Mudminnow	CP-CMM-66	7.9	-	5.59	None	R
23-Jul-19	Central Mudminnow	CP-CMM-67	6.4	-	3.36	None	R
23-Jul-19	Central Mudminnow	CP-CMM-68	7.7	-	5.325	None	R

Appendix Table A.18: Detailed Fish Measurements for Clark Pond, RRM July 2019

Processing Date	Fish Species	Fish ID	Total Length (cm)	Fork Length (cm)	Body Weight (g)	Abnormalities	Fate (M) Mortality (R) Released
17-Jul-19	Finescale Dace	CP-FSD-01	7.4	6.9	4.382	None	R
17-Jul-19	Finescale Dace	CP-FSD-02	6.3	5.9	2.73	None	R
17-Jul-19	Finescale Dace	CP-FSD-03	6.5	6.1	2.72	None	R
17-Jul-19	Finescale Dace	CP-FSD-04	5.6	5.3	1.945	None	R
17-Jul-19	Finescale Dace	CP-FSD-05	6.5	6.1	2.855	None	R
17-Jul-19	Finescale Dace	CP-FSD-06	5.7	5.4	2.24	None	R
17-Jul-19	Finescale Dace	CP-FSD-07	6.1	5.6	2.271	None	R
17-Jul-19	Finescale Dace	CP-FSD-08	5.9	5.6	2.155	None	R
17-Jul-19	Finescale Dace	CP-FSD-09	7	6.5	4.041	None	R
17-Jul-19	Finescale Dace	CP-FSD-10	7.1	6.7	3.336	None	R
17-Jul-19	Finescale Dace	CP-FSD-11	6	5.6	2.443	None	R
17-Jul-19	Finescale Dace	CP-FSD-12	6.4	5.9	2.865	None	R
17-Jul-19	Finescale Dace	CP-FSD-13	8.4	7.9	6.821	None	R
17-Jul-19	Finescale Dace	CP-FSD-14	7.7	7.4	5.452	None	R
17-Jul-19	Finescale Dace	CP-FSD-15	7.3	6.8	4.034	None	R
17-Jul-19	Finescale Dace	CP-FSD-16	5.9	5.6	2.463	None	R
17-Jul-19	Finescale Dace	CP-FSD-17	5.6	5.3	1.86	None	R
17-Jul-19	Finescale Dace	CP-FSD-18	7	6.7	3.578	None	R
17-Jul-19	Finescale Dace	CP-FSD-19	6.9	6.5	2.182	None	R
17-Jul-19	Finescale Dace	CP-FSD-20	6.2	5.8	2.282	None	R
17-Jul-19	Finescale Dace	CP-FSD-21	7.2	6.8	3.77	None	R
17-Jul-19	Finescale Dace	CP-FSD-22	6.5	6.1	2.742	None	R
17-Jul-19	Finescale Dace	CP-FSD-23	5.7	5.4	2.06	None	R
17-Jul-19	Finescale Dace	CP-FSD-24	7	6.6	3.361	None	R
17-Jul-19	Finescale Dace	CP-FSD-25	7.2	6.9	4.252	None	R
17-Jul-19	Finescale Dace	CP-FSD-26	4.7	4.5	1.198	None	R
17-Jul-19	Finescale Dace	CP-FSD-27	6.1	5.7	2.109	None	R
17-Jul-19	Finescale Dace	CP-FSD-28	6	5.7	2.407	None	R
17-Jul-19	Finescale Dace	CP-FSD-29	7.5	7.1	4.191	None	R
17-Jul-19	Finescale Dace	CP-FSD-30	7.2	6.8	3.601	None	R
17-Jul-19	Finescale Dace	CP-FSD-31	6.6	6.2	2.771	None	R
17-Jul-19	Finescale Dace	CP-FSD-32	6.9	6.5	3.207	None	R
17-Jul-19	Finescale Dace	CP-FSD-33	6.1	5.7	2.776	None	R
17-Jul-19	Finescale Dace	CP-FSD-34	7.3	6.9	4.378	None	R
17-Jul-19	Finescale Dace	CP-FSD-35	6.4	6.1	2.605	None	R
17-Jul-19	Finescale Dace	CP-FSD-36	6.1	5.8	2.347	None	R
17-Jul-19	Finescale Dace	CP-FSD-37	6.4	5.9	2.567	None	R
17-Jul-19	Finescale Dace	CP-FSD-38	7.2	6.7	3.515	None	R
17-Jul-19	Finescale Dace	CP-FSD-39	6.3	5.9	2.541	None	R
17-Jul-19	Finescale Dace	CP-FSD-40	7	6.6	3.275	None	R

Note: "-" indicates no measurement taken.

Appendix Table A.19: Detailed Fish Measurements for Teeple Pond Outlet, RRM July 2019

Processing Date	Fish Species	Fish ID	Total Length (cm)	Fork Length (cm)	Body Weight (g)	Abnormalities	Fate (M) Mortality (R) Released
18-Jul-19	Brassy Minnow	TO-BM-01	3.7	3.6	0.524	None	R
18-Jul-19	Brassy Minnow	TO-BM-02	4.2	4	0.596	None	R
18-Jul-19	Brassy Minnow	TO-BM-03	3	2.8	0.271	None	R
18-Jul-19	Brassy Minnow	TO-BM-04	4.1	4	0.716	None	R
18-Jul-19	Brassy Minnow	TO-BM-05	4.3	4.1	0.713	None	R
18-Jul-19	Brook Stickleback	TO-BSB-01	1.6	-	0.028	None	R
18-Jul-19	Brook Stickleback	TO-BSB-02	4.1	-	0.734	None	R
18-Jul-19	Brook Stickleback	TO-BSB-03	3.7	-	0.542	None	R
18-Jul-19	Brook Stickleback	TO-BSB-04	3.2	-	0.363	None	R
18-Jul-19	Brook Stickleback	TO-BSB-05	2.6	-	0.193	None	R
18-Jul-19	Brook Stickleback	TO-BSB-06	5.2	-	1.259	gill tumor	R
18-Jul-19	Brook Stickleback	TO-BSB-07	3.9	-	0.547	None	R
18-Jul-19	Brook Stickleback	TO-BSB-08	3.8	-	0.469	None	R
18-Jul-19	Brook Stickleback	TO-BSB-09	2.7	-	0.22	None	R
18-Jul-19	Brook Stickleback	TO-BSB-10	3.3	-	0.314	None	R
18-Jul-19	Brook Stickleback	TO-BSB-11	3.2	-	0.333	None	R
18-Jul-19	Brook Stickleback	TO-BSB-12	3.9	-	0.328	None	R
18-Jul-19	Brook Stickleback	TO-BSB-13	2.2	-	0.099	None	R
18-Jul-19	Brook Stickleback	TO-BSB-14	2.9	-	0.235	None	R
18-Jul-19	Brook Stickleback	TO-BSB-15	2.4	-	0.124	None	R
18-Jul-19	Brook Stickleback	TO-BSB-16	3	-	0.29	None	R
18-Jul-19	Brook Stickleback	TO-BSB-17	3	-	0.285	None	R
18-Jul-19	Brook Stickleback	TO-BSB-18	3.3	-	0.334	None	R
18-Jul-19	Brook Stickleback	TO-BSB-19	3.1	-	0.28	None	R
18-Jul-19	Brook Stickleback	TO-BSB-20	3.8	-	0.546	None	R
18-Jul-19	Brook Stickleback	TO-BSB-21	3.7	-	0.462	None	R
18-Jul-19	Brook Stickleback	TO-BSB-22	2.8	-	0.162	None	R
18-Jul-19	Brook Stickleback	TO-BSB-23	3.1	-	0.285	None	R
18-Jul-19	Brook Stickleback	TO-BSB-24	2.6	-	0.195	None	R
18-Jul-19	Brook Stickleback	TO-BSB-25	3.1	-	0.309	None	R
18-Jul-19	Brook Stickleback	TO-BSB-26	3.4	-	0.368	None	R
18-Jul-19	Brook Stickleback	TO-BSB-27	3.3	-	0.382	None	R
18-Jul-19	Brook Stickleback	TO-BSB-28	2.6	-	0.198	None	R
18-Jul-19	Brook Stickleback	TO-BSB-29	2.5	-	0.159	None	R
18-Jul-19	Brook Stickleback	TO-BSB-30	2.6	-	0.204	None	R
18-Jul-19	YOY Cyprinid	TO-YOY-01	1.5	1.4	0.024	None	R
18-Jul-19	YOY Cyprinid	TO-YOY-02	1.7	1.6	0.042	None	R
18-Jul-19	YOY Cyprinid	TO-YOY-03	2.3	2.2	0.109	None	R
18-Jul-19	YOY Cyprinid	TO-YOY-04	1.9	1.8	0.047	None	R
18-Jul-19	YOY Cyprinid	TO-YOY-05	1.9	1.8	0.065	None	R
18-Jul-19	YOY Cyprinid	TO-YOY-06	2.3	2.2	0.097	None	R
18-Jul-19	YOY Cyprinid	TO-YOY-07	1.6	1.5	0.037	None	R
18-Jul-19	YOY Cyprinid	TO-YOY-08	2.2	2.1	0.081	None	R
18-Jul-19	YOY Cyprinid	TO-YOY-09	1.7	1.6	0.031	None	R
18-Jul-19	YOY Cyprinid	TO-YOY-10	2.2	2.3	0.074	None	R
18-Jul-19	YOY Cyprinid	TO-YOY-11	1.6	1.5	0.033	None	R
18-Jul-19	YOY Cyprinid	TO-YOY-12	1.9	1.8	0.052	None	R
18-Jul-19	YOY Cyprinid	TO-YOY-13	2.8	2.7	0.173	None	R
18-Jul-19	YOY Cyprinid	TO-YOY-14	1.9	1.8	0.050	None	R
18-Jul-19	YOY Cyprinid	TO-YOY-15	2.2	2.1	0.098	None	R
18-Jul-19	YOY Cyprinid	TO-YOY-16	2.2	2.1	0.081	None	R
18-Jul-19	YOY Cyprinid	TO-YOY-17	1.9	1.8	0.05	None	R
18-Jul-19	YOY Cyprinid	TO-YOY-18	1.5	1.4	0.022	None	R
18-Jul-19	YOY Cyprinid	TO-YOY-19	2.5	2.4	0.131	None	R
18-Jul-19	YOY Cyprinid	TO-YOY-20	1.9	1.8	0.044	None	R

Appendix Table A.19: Detailed Fish Measurements for Teeple Pond Outlet, RRM July 2019

Processing Date	Fish Species	Fish ID	Total Length (cm)	Fork Length (cm)	Body Weight (g)	Abnormalities	Fate (M) Mortality (R) Released
18-Jul-19	YOY Cyprinid	TO-YOY-21	1.9	1.8	0.05	None	R
18-Jul-19	YOY Cyprinid	TO-YOY-22	2.3	2.2	0.117	None	R
18-Jul-19	YOY Cyprinid	TO-YOY-23	1.8	1.7	0.062	None	R
18-Jul-19	YOY Cyprinid	TO-YOY-24	2.2	2.1	0.078	None	R
18-Jul-19	YOY Cyprinid	TO-YOY-25	2.6	2.5	0.149	None	R
18-Jul-19	YOY Cyprinid	TO-YOY-26	3.1	3	0.302	None	R
18-Jul-19	YOY Cyprinid	TO-YOY-27	3.1	3	0.261	None	R
18-Jul-19	YOY Cyprinid	TO-YOY-28	2.5	2.4	0.159	None	R
18-Jul-19	YOY Cyprinid	TO-YOY-29	2.2	2.1	0.091	None	R
18-Jul-19	YOY Cyprinid	TO-YOY-30	2.4	2.3	0.124	None	R
18-Jul-19	YOY Cyprinid	TO-YOY-31	1.6	1.5	0.042	None	R
18-Jul-19	YOY Cyprinid	TO-YOY-32	2	1.9	0.059	None	R
18-Jul-19	YOY Cyprinid	TO-YOY-33	2.1	2	0.085	None	R
18-Jul-19	YOY Cyprinid	TO-YOY-34	2.4	2.3	0.116	None	R
18-Jul-19	YOY Cyprinid	TO-YOY-35	1.9	1.8	0.059	None	R
18-Jul-19	YOY Cyprinid	TO-YOY-36	2.3	2.2	0.095	None	R
18-Jul-19	YOY Cyprinid	TO-YOY-37	1.8	1.7	0.05	None	R
18-Jul-19	YOY Cyprinid	TO-YOY-38	1.9	1.8	0.046	None	R
18-Jul-19	YOY Cyprinid	TO-YOY-39	1.8	1.7	0.047	None	R
18-Jul-19	YOY Cyprinid	TO-YOY-40	1.9	1.8	0.54	None	R

Note: "-" indicates no measurement taken.

Appendix Table A.20: Detailed Fish Measurements for Teeple Pond, RRM July 2019

Processing Date	Fish Species	Fish ID	Total Length (cm)	Fork Length (cm)	Body Weight (g)	Abnormalities	Fate (M) Mortality (R) Released
20-Jul-19	Brassy Minnow	TP-BM-01	5.1	4.9	1.430	None	R
20-Jul-19	Brassy Minnow	TP-BM-02	5.3	5.0	1.530	None	R
20-Jul-19	Brassy Minnow	TP-BM-03	5.0	4.7	1.300	None	R
20-Jul-19	Brassy Minnow	TP-BM-04	5.2	4.9	1.310	None	R
20-Jul-19	Brassy Minnow	TP-BM-05	5.1	4.8	1.464	None	R
20-Jul-19	Brassy Minnow	TP-BM-06	4.5	4.3	1.043	None	R
20-Jul-19	Brassy Minnow	TP-BM-07	5.0	4.8	1.380	None	R
20-Jul-19	Brassy Minnow	TP-BM-08	4.4	4.0	0.780	None	R
20-Jul-19	Brassy Minnow	TP-BM-09	4.5	4.3	0.923	None	R
20-Jul-19	Brassy Minnow	TP-BM-10	5.1	4.8	1.232	None	R
20-Jul-19	Brassy Minnow	TP-BM-11	4.6	4.4	1.080	None	R
20-Jul-19	Brassy Minnow	TP-BM-12	5.3	5.0	1.472	None	R
20-Jul-19	Brassy Minnow	TP-BM-13	5.0	4.8	1.278	None	R
20-Jul-19	Brassy Minnow	TP-BM-14	4.5	4.3	1.080	None	R
20-Jul-19	Brassy Minnow	TP-BM-15	4.7	4.4	1.080	None	R
20-Jul-19	Brassy Minnow	TP-BM-16	5.3	5.0	1.405	None	R
20-Jul-19	Brassy Minnow	TP-BM-17	4.7	4.4	0.997	None	R
20-Jul-19	Brassy Minnow	TP-BM-18	4.9	4.6	1.114	None	R
20-Jul-19	Brassy Minnow	TP-BM-19	4.9	4.7	1.204	None	R
20-Jul-19	Brassy Minnow	TP-BM-20	4.9	4.7	1.033	None	R
20-Jul-19	Brassy Minnow	TP-BM-21	5.1	48.0	1.590	None	R
20-Jul-19	Brassy Minnow	TP-BM-22	4.3	4.2	0.769	None	R
20-Jul-19	Brassy Minnow	TP-BM-23	5.9	5.7	1.147	None	R
20-Jul-19	Brassy Minnow	TP-BM-24	4.6	4.5	1.090	None	R
20-Jul-19	Brassy Minnow	TP-BM-25	4.2	4.0	0.802	None	R
20-Jul-19	Brassy Minnow	TP-BM-26	4.4	4.2	0.790	None	R
20-Jul-19	Brassy Minnow	TP-BM-27	4.5	4.3	0.862	None	R
20-Jul-19	Brassy Minnow	TP-BM-28	5.3	4.9	1.321	None	R
20-Jul-19	Brassy Minnow	TP-BM-29	5.0	4.8	1.164	None	R
20-Jul-19	Brassy Minnow	TP-BM-30	4.8	4.5	1.109	None	R
20-Jul-19	Brassy Minnow	TP-BM-31	4.9	4.6	1.222	None	R
20-Jul-19	Brassy Minnow	TP-BM-32	5.5	5.2	1.661	None	R
20-Jul-19	Brassy Minnow	TP-BM-33	4.9	4.6	1.279	None	R
20-Jul-19	Brassy Minnow	TP-BM-34	4.9	4.6	1.096	None	R
20-Jul-19	Brassy Minnow	TP-BM-35	5.3	4.9	1.512	None	R
20-Jul-19	Brassy Minnow	TP-BM-36	5.3	4.9	1.500	None	R
20-Jul-19	Brassy Minnow	TP-BM-37	4.6	4.5	1.160	None	R
20-Jul-19	Brassy Minnow	TP-BM-38	4.3	4.0	0.875	None	R
20-Jul-19	Brassy Minnow	TP-BM-39	4.5	4.3	0.923	None	R
20-Jul-19	Brassy Minnow	TP-BM-40	5.2	4.9	1.480	None	R
20-Jul-19	Brook Stickleback	TP-BSB-01	5.4	-	1.250	None	R
20-Jul-19	Brook Stickleback	TP-BSB-02	4.0	-	0.574	None	R
20-Jul-19	Brook Stickleback	TP-BSB-03	5.0	-	1.132	None	R
20-Jul-19	Brook Stickleback	TP-BSB-04	3.5	-	0.425	None	R
20-Jul-19	Brook Stickleback	TP-BSB-05	4.5	-	1.011	None	R
20-Jul-19	Brook Stickleback	TP-BSB-06	4.3	-	0.774	None	R
20-Jul-19	Brook Stickleback	TP-BSB-07	4.6	-	0.892	None	R
20-Jul-19	Brook Stickleback	TP-BSB-08	4.9	-	1.074	None	R
20-Jul-19	Brook Stickleback	TP-BSB-09	4.0	-	0.582	None	R
20-Jul-19	Brook Stickleback	TP-BSB-10	4.6	-	0.954	None	R
20-Jul-19	Brook Stickleback	TP-BSB-11	4.5	-	0.823	None	R
20-Jul-19	Brook Stickleback	TP-BSB-12	5.4	-	1.372	None	R
20-Jul-19	Brook Stickleback	TP-BSB-13	4.4	-	0.750	None	R
20-Jul-19	Brook Stickleback	TP-BSB-14	5.9	-	1.275	None	R
20-Jul-19	Brook Stickleback	TP-BSB-15	4.2	-	0.713	None	R
20-Jul-19	Brook Stickleback	TP-BSB-16	4.0	-	0.667	None	R
20-Jul-19	Brook Stickleback	TP-BSB-17	6.0	-	1.938	None	R
20-Jul-19	Brook Stickleback	TP-BSB-18	4.1	-	0.866	None	R

Appendix Table A.20: Detailed Fish Measurements for Teeple Pond, RRM July 2019

Processing Date	Fish Species	Fish ID	Total Length (cm)	Fork Length (cm)	Body Weight (g)	Abnormalities	Fate (M) Mortality (R) Released
20-Jul-19	Brook Stickleback	TP-BSB-19	4.3	-	0.721	None	R
20-Jul-19	Brook Stickleback	TP-BSB-20	4.9	-	0.827	None	R
20-Jul-19	Brook Stickleback	TP-BSB-21	4.5	-	0.917	None	R
20-Jul-19	Brook Stickleback	TP-BSB-22	5.5	-	1.440	None	R
20-Jul-19	Brook Stickleback	TP-BSB-23	4.7	-	0.813	None	R
20-Jul-19	Brook Stickleback	TP-BSB-24	4.3	-	0.780	None	R
20-Jul-19	Brook Stickleback	TP-BSB-25	4.3	-	0.789	None	R
20-Jul-19	Brook Stickleback	TP-BSB-26	4.2	-	0.870	None	R
20-Jul-19	Brook Stickleback	TP-BSB-27	4.5	-	1.001	None	R
20-Jul-19	Central Mudminnow	TP-CMM-01	11.7	-	22.160	None	R
20-Jul-19	Central Mudminnow	TP-CMM-02	6.8	-	4.108	None	R
20-Jul-19	Central Mudminnow	TP-CMM-03	7.4	-	4.210	None	R
20-Jul-19	Central Mudminnow	TP-CMM-04	7.4	-	4.894	None	R
20-Jul-19	Central Mudminnow	TP-CMM-05	8.3	-	5.887	None	R
20-Jul-19	Central Mudminnow	TP-CMM-06	7.5	-	4.798	None	R
20-Jul-19	Central Mudminnow	TP-CMM-07	8.3	-	5.590	None	R
20-Jul-19	Central Mudminnow	TP-CMM-08	8.8	-	7.499	None	R
20-Jul-19	Central Mudminnow	TP-CMM-09	8.7	-	6.259	None	R
20-Jul-19	Central Mudminnow	TP-CMM-10	8.2	-	5.449	None	R
20-Jul-19	Central Mudminnow	TP-CMM-11	7.3	-	4.279	None	R
20-Jul-19	Central Mudminnow	TP-CMM-12	7.7	-	4.928	None	R
20-Jul-19	Central Mudminnow	TP-CMM-13	7.9	-	5.318	None	R
20-Jul-19	Central Mudminnow	TP-CMM-14	8.9	-	5.984	None	R
20-Jul-19	Central Mudminnow	TP-CMM-15	5.8	-	2.034	None	R
20-Jul-19	Central Mudminnow	TP-CMM-16	6.0	-	2.256	None	R
20-Jul-19	Central Mudminnow	TP-CMM-17	8.4	-	6.015	None	R
20-Jul-19	Central Mudminnow	TP-CMM-18	9.6	-	9.424	None	R
20-Jul-19	Central Mudminnow	TP-CMM-19	7.4	-	4.060	None	R
20-Jul-19	Central Mudminnow	TP-CMM-20	8.0	-	5.827	None	R
20-Jul-19	Central Mudminnow	TP-CMM-21	6.9	-	3.023	None	R
20-Jul-19	Central Mudminnow	TP-CMM-22	6.9	-	3.970	None	R
20-Jul-19	Central Mudminnow	TP-CMM-23	5.9	-	2.159	None	R
20-Jul-19	Central Mudminnow	TP-CMM-24	5.9	-	2.580	None	R
20-Jul-19	Central Mudminnow	TP-CMM-25	6.0	-	2.283	None	R
21-Jul-19	Central Mudminnow	TP-CMM-26	7.4	-	4.443	None	R
21-Jul-19	Central Mudminnow	TP-CMM-27	8.7	-	6.032	None	R
21-Jul-19	Central Mudminnow	TP-CMM-28	5.9	-	2.380	None	R
21-Jul-19	Central Mudminnow	TP-CMM-29	12.0	-	21.356	None	R
21-Jul-19	Central Mudminnow	TP-CMM-30	11.4	-	17.871	None	R
21-Jul-19	Central Mudminnow	TP-CMM-31	8.0	-	5.662	None	R
21-Jul-19	Central Mudminnow	TP-CMM-32	9.0	-	8.004	None	R
21-Jul-19	Central Mudminnow	TP-CMM-33	7.0	-	3.843	None	R
21-Jul-19	Central Mudminnow	TP-CMM-34	9.1	-	8.591	None	R
21-Jul-19	Central Mudminnow	TP-CMM-35	9.0	-	8.375	None	R
21-Jul-19	Central Mudminnow	TP-CMM-36	7.0	-	4.992	None	R
21-Jul-19	Central Mudminnow	TP-CMM-37	7.3	-	4.785	None	R
21-Jul-19	Central Mudminnow	TP-CMM-38	8.5	-	7.460	None	R
21-Jul-19	Central Mudminnow	TP-CMM-39	7.5	-	5.203	None	R
21-Jul-19	Central Mudminnow	TP-CMM-40	5.6	-	1.973	None	R

Appendix Table A.20: Detailed Fish Measurements for Teeple Pond, RRM July 2019

Processing Date	Fish Species	Fish ID	Total Length (cm)	Fork Length (cm)	Body Weight (g)	Abnormalities	Fate (M) Mortality (R) Released
21-Jul-19	Central Mudminnow	TP-CMM-41	7.4	-	4.443	None	R
21-Jul-19	Central Mudminnow	TP-CMM-42	5.9	-	2.380	None	R
21-Jul-19	Central Mudminnow	TP-CMM-43	12.0	-	21.356	None	R
21-Jul-19	Central Mudminnow	TP-CMM-44	11.4	-	17.821	None	R
21-Jul-19	Central Mudminnow	TP-CMM-45	9.0	-	8.004	None	R
20-Jul-19	Finescale Dace	TP-FSD-01	7.9	7.5	5.157	None	R
20-Jul-19	Finescale Dace	TP-FSD-02	9.5	9.0	8.932	None	R
20-Jul-19	Finescale Dace	TP-FSD-03	8.0	7.5	5.912	None	R
20-Jul-19	Finescale Dace	TP-FSD-04	7.5	7.1	4.387	None	R
20-Jul-19	Finescale Dace	TP-FSD-05	7.6	7.3	4.530	None	R
20-Jul-19	Finescale Dace	TP-FSD-06	7.8	7.4	4.360	None	R
20-Jul-19	Finescale Dace	TP-FSD-07	5.6	5.2	1.822	None	R
20-Jul-19	Northern Redbelly Dace	TP-NRB-01	5.9	5.7	1.630	None	R
20-Jul-19	Northern Redbelly Dace	TP-NRB-02	6.2	5.9	2.567	None	R
20-Jul-19	Northern Redbelly Dace	TP-NRB-03	6.3	6.0	2.259	None	R
20-Jul-19	Northern Redbelly Dace	TP-NRB-04	7.3	6.8	3.289	None	R
20-Jul-19	Northern Redbelly Dace	TP-NRB-05	5.7	5.5	1.959	None	R
20-Jul-19	Northern Redbelly Dace	TP-NRB-06	6.1	5.8	2.148	None	R
20-Jul-19	Northern Redbelly Dace	TP-NRB-07	5.5	5.3	1.801	None	R
20-Jul-19	Northern Redbelly Dace	TP-NRB-08	6.2	6.0	2.098	None	R
20-Jul-19	Northern Redbelly Dace	TP-NRB-09	5.6	5.4	1.899	None	R
20-Jul-19	Northern Redbelly Dace	TP-NRB-10	6.1	5.8	2.189	None	R
20-Jul-19	Northern Redbelly Dace	TP-NRB-11	5.6	5.4	1.728	None	R
20-Jul-19	Northern Redbelly Dace	TP-NRB-12	5.7	5.4	2.112	None	R
20-Jul-19	Northern Redbelly Dace	TP-NRB-13	5.7	5.4	2.233	None	R
20-Jul-19	Northern Redbelly Dace	TP-NRB-14	3.9	3.8	0.593	None	R
20-Jul-19	Northern Redbelly Dace	TP-NRB-15	5.9	5.6	2.093	None	R
20-Jul-19	Northern Redbelly Dace	TP-NRB-16	6.1	5.8	2.034	None	R
20-Jul-19	Northern Redbelly Dace	TP-NRB-17	5.2	5.0	1.515	None	R
20-Jul-19	Northern Redbelly Dace	TP-NRB-18	6.2	6.0	2.001	None	R
20-Jul-19	Northern Redbelly Dace	TP-NRB-19	5.1	4.8	1.438	None	R
20-Jul-19	Northern Redbelly Dace	TP-NRB-20	6.4	6.1	2.149	None	R
20-Jul-19	Northern Redbelly Dace	TP-NRB-21	5.9	5.7	1.909	None	R
20-Jul-19	Northern Redbelly Dace	TP-NRB-22	6.9	6.5	3.510	None	R
20-Jul-19	Northern Redbelly Dace	TP-NRB-23	5.9	5.8	1.872	None	R
20-Jul-19	Northern Redbelly Dace	TP-NRB-24	5.9	5.8	2.345	None	R
20-Jul-19	Northern Redbelly Dace	TP-NRB-25	5.5	5.1	1.798	None	R
20-Jul-19	Northern Redbelly Dace	TP-NRB-26	7.3	6.8	3.823	None	R
20-Jul-19	Northern Redbelly Dace	TP-NRB-27	6.5	6.1	2.408	None	R
20-Jul-19	Northern Redbelly Dace	TP-NRB-28	5.0	4.8	1.184	None	R
20-Jul-19	Northern Redbelly Dace	TP-NRB-29	5.6	5.4	1.556	None	R
20-Jul-19	Northern Redbelly Dace	TP-NRB-30	5.8	5.5	1.909	None	R
20-Jul-19	Northern Redbelly Dace	TP-NRB-31	6.1	5.8	2.373	None	R
20-Jul-19	Northern Redbelly Dace	TP-NRB-32	5.9	5.7	1.971	None	R
20-Jul-19	Northern Redbelly Dace	TP-NRB-33	5.9	5.5	2.134	None	R
20-Jul-19	Northern Redbelly Dace	TP-NRB-34	6.0	5.6	1.854	None	R
20-Jul-19	Northern Redbelly Dace	TP-NRB-35	7.0	6.6	3.960	None	R
20-Jul-19	Northern Redbelly Dace	TP-NRB-36	5.8	5.4	1.901	None	R
20-Jul-19	Northern Redbelly Dace	TP-NRB-37	5.9	5.6	2.321	None	R
20-Jul-19	Northern Redbelly Dace	TP-NRB-38	5.4	5.1	1.815	None	R
20-Jul-19	Northern Redbelly Dace	TP-NRB-39	7.0	6.6	3.050	None	R
20-Jul-19	Northern Redbelly Dace	TP-NRB-40	6.2	5.9	2.142	None	R

Note: "-" indicates no measurement taken.