



## **Annual Monitoring of Compensation and Offset Measures 2020**

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## Annual Monitoring of Compensation and Offset Measures 2020

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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)<sup>1</sup> 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) the West Creek Diversion (Stockpile Pond, Stockpile diversion channel, West Creek Pond, and West Creek diversion channel); and 2) the Clark Creek Diversion (Clark Creek Pond and Clark Creek diversion channel). Fish community and fish habitat surveys were also conducted at one Offset Plan watercourse: Teeple Pond and its Outlet Channel.

Watercourse connectivity to permit the passage of fish was excellent for 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 had dry sections during both the high- and low-flow surveys thereby isolating the fish community within the pond. Similarly, West Creek Diversion channel was also observed to have dry sections during the mid-summer low-flow survey; however, this feature was fully connected during the spring high-flow survey. Periodic drying of the West Creek Diversion Channel may be partially attributable to lower than average precipitation in 2020 (relative to average seasonal precipitation over the 1981 to 2010 period). Like 2019, pond depths were very stable for West Creek, Clark Creek, and Teeple Ponds, providing deep refuge areas for resident fish. Conversely, Stockpile Pond water levels fluctuated greatly throughout the year which resulted in the Stockpile Pond diversion channel partially running dry during the high-flow spring freshet survey and running 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. Decreased water levels within in Stockpile Pond are likely attributable to unquantified leakages

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<sup>1</sup> Formerly the Metal Mining Effluent Regulations (MMER)



within the pond. Pond levels increased from that point and should provide adequate overwintering habitat for the isolated fish community in 2020/2021.

Fish habitat was excellent for all pond and diversion channel habitat with high levels of riparian tree/shrub coverage and numerous boulder and woody debris piles providing cover for the resident 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 13 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 10, 11, and 13 unique species respectively. Clark Creek Pond, Clark Creek diversion channel, and Teeple Pond/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. Although sections of West Creek Diversion were dry during the July survey, there were still numerous deeper pools (>1m) found throughout the watercourse providing refuge for resident aquatic life during periods of low water connectivity within the channel.

Based on the findings of the 2020 RRM Compensation and Offset Annual Performance surveys conducted in May and July 2020, Clark Creek Pond achieved success for all prescribed abundance 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 2020, 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. Similar to 2019, the 2020 fish species diversity criterion was not achieved for the Clark-Teeple system; however, this could possibly be due to underrepresentation of minnow trap averse species as previously mentioned, additionally baseline data indicate that the original species assemblage was uneven with 80% of total abundance comprised of only four species. Overall, West Creek Pond and its outlet contain a large and diverse fish assemblage, while Stockpile Pond had excellent fish abundance and species diversity; however, due to inadequate water levels, the outlet is often dry and thus does not provide the required connectivity. Additionally, due to low water levels observed in July 2020, the West Creek Diversion channel had dry sections where no surface flow was observed. 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 cause of these losses and identification of options for ameliorating Stockpile Pond water levels should remain a priority.



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# 1 INTRODUCTION

## 1.1 Site Description

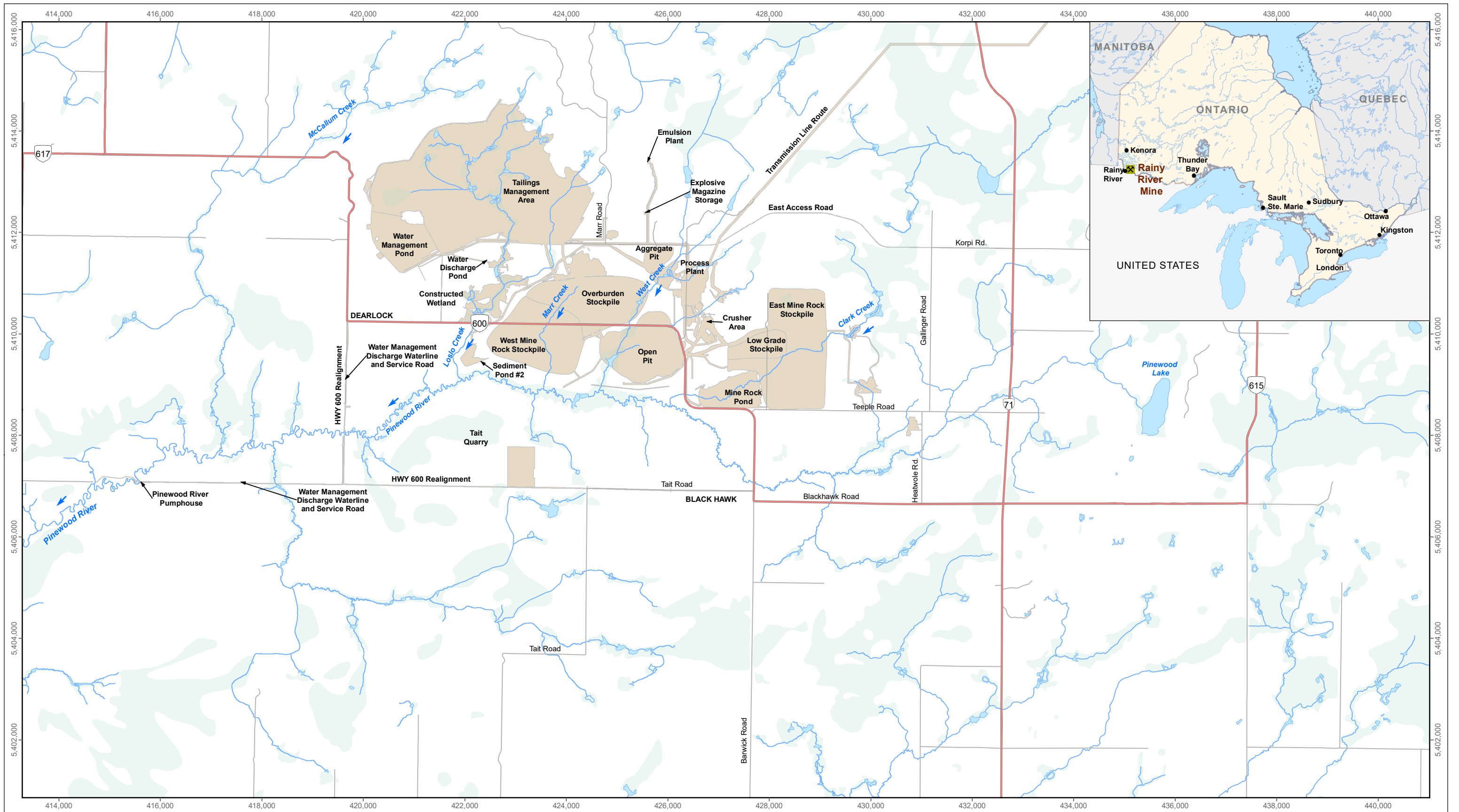
New Gold Inc. owns the Rainy River Mine (RRM), located in western Ontario in the Township of Chapple and District of Rainy River, approximately 65 km northwest of Fort Frances and approximately 420 km west of Thunder Bay (Figure 1.1). The RRM is located within the Pinewood River watershed. The Pinewood 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). Following provincial and federal EA approvals, site construction began 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, and explosives storage facilities (Figure 1.1). The RRM was officially commissioned in September 2017.

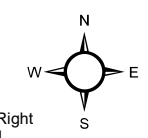
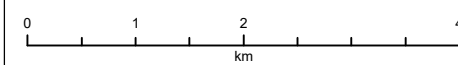
## 1.2 Objectives

The annual monitoring of the Compensation and Offset measures includes annual monitoring of fish and fish habitat and associated annual reporting. 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 2020 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



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**Location and Layout, Rainy River Mine**

Date: December 2020  
 Project : 197202.0033



**Figure 1.1**

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

Attribute	Monitoring Requirements	Success Criteria	Report Schedule <sup>a</sup>
<b>Physical Function of Compensation Measures</b>	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. <sup>b</sup>	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. <sup>b</sup>		
	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.		
<b>Stability of Habitat Structures</b>	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.	Annual Monitoring Reports due to DFO on or before December 31 (2019, 2020, 2021, and 2022).
	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).		
<b>Fish Species Presence, Life Cycle Usage, and Abundance</b>	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	Annual Monitoring Reports due to DFO on or before December 31 (2019, 2020, 2021, and 2022).
	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.		

<sup>a</sup> 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).

<sup>b</sup> 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 4<sup>th</sup> to 21<sup>st</sup> and July 15<sup>th</sup> to 24<sup>th</sup>, 2020. 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 were completed in 2016 and 2017. 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.

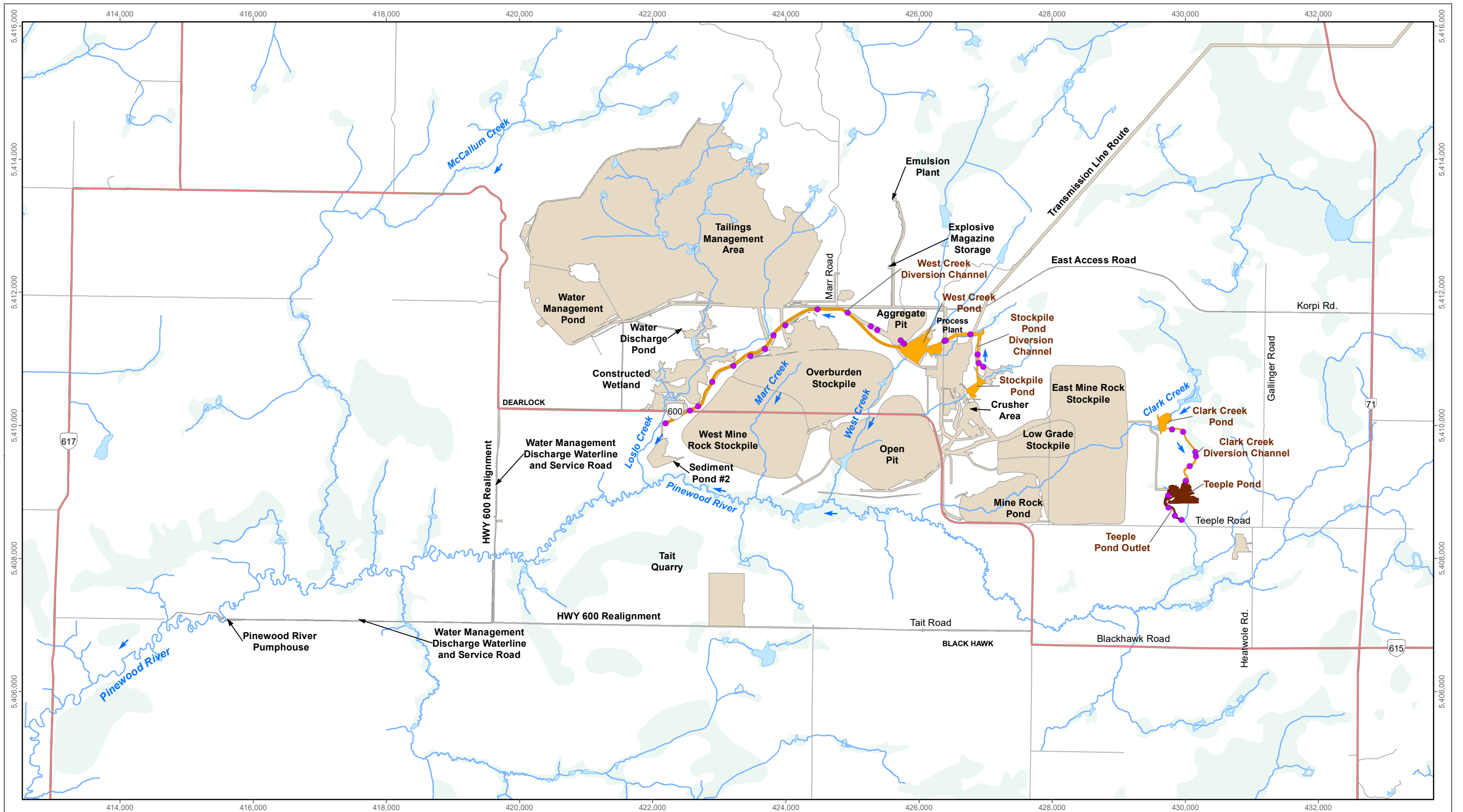
The Compensation measures include two different watercourses: 1) West Creek Diversion (Stockpile Pond, Stockpile Pond diversion channel, West Creek Pond, and West Creek diversion channel); and 2) Clark Creek Diversion (Clark Creek Pond and Clark Creek diversion channel; Figure 2.1), whereas the Offset 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

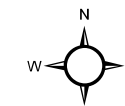
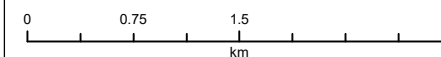
At each flow monitoring location, water velocity and depth were measured at even increments along a wetted channel cross-sectional width. At each measurement point, water depth was measured to the nearest centimeter using a meter stick (depth  $\leq$  1.0 m), and water velocity was measured with a Flo-Mate Model 2000 portable velocity meter (Marsh-McBirney Ltd., Frederick, MD). Flow measurements targeted pool, riffle, and run/flat areas of the diversion channels, 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**
- Stream Flow Station
  - Compensation Plan Monitoring Area
  - Offset Plan Monitoring Area
  - Mine Infrastructure



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**Compensation and Offset Monitoring Areas**

Date: December 2020  
 Project: 197202.0033



**Figure 2.1**

## 2.1.2 Pond Depth Measurements

Solinst 3001 LT Levellogger 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 30<sup>th</sup> and December 10<sup>th</sup>, 2020.

## 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 were 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<sup>2</sup>; 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, frequency, and duty cycle settings based on target fish size, 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 preferred 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 per species 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.

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<sup>2</sup> 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 order of effectiveness; 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 success criteria (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 on subset on up to 40 fish from each species from each watercourse, 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 10.0 cm and 0.174 m/s respectively for the spring survey (Table 3.1). Notably, the stream channel was dry along several sections including the section from the outlet to approximately 25 m downstream of Stockpile Pond during the spring survey (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., the upstream section), and one downstream of the Haul Road to the confluence with Loslo Creek (i.e., the downstream section; Figure 2.1). Average depth and flow velocity for the upstream portion of the diversion channel were 28.1 cm and 0.065 m/s respectively during the spring survey and 21.8 cm and 0.002 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 24.6 cm and 0.068 m/s respectively during the spring survey and 15.6 cm and 0.007 m/s respectively during the summer survey (Table 3.1, Appendix Tables A.3 and A.7).

The Clark Creek diversion channel had an average depth and flow velocity of 21.5 cm and 0.047 m/s respectively during the spring survey and 16.4 cm and 0.008 m/s respectively during the summer survey (Table 3.1, Appendix Tables A.4 and A.8).

The 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. However, West Creek Diversion did not achieve full connectivity during the summer survey with surface flow absent at multiple flow stations along the feature (Table 3.1). Conversely, Clark Creek Diversion maintained complete stream connectivity during the summer survey (Table 3.1).

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.) were 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



**Table 3.1: Stream Depth and Flow Measurements, RRM 2020**

a) High-Flow Survey (May 2020)

	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	-	-	10.0	5.6	-	-	0.174	0.187
		SPDC-01	3.5	2.5			0.359	0.388		
		SPDC-02	22.9	11.1			0.002	0.001		
		SPDC-03	3.7	3.2			0.161	0.173		
		SPDC-04	-	-			-	-		
		SPDC-05	-	-			-	-		
	West Creek Diversion Channel (upstream of haul road)	WCDC-A1	16.3	6.5	28.1	13.0	0.037	0.024	0.065	0.053
		WCDC-A2	19.8	9.6			0.093	0.085		
		WCDC-A3	13.3	5.7			0.232	0.159		
		WCDC-A4	49.0	23.8			0.024	0.014		
		WCDC-A5	36.2	18.9			0.032	0.038		
		WCDC-A6	14.7	7.8			0.034	0.046		
		WCDC-A7	47.5	19.0			0.003	0.003		
	West Creek Diversion Channel (downstream of haul road)	WCDC-01	10.2	5.0	24.6	9.0	0.087	0.045	0.068	0.060
		WCDC-02	5.8	1.0			0.346	0.318		
		WCDC-03	32.0	10.3			0.003	0.004		
		WCDC-04	10.8	4.4			0.084	0.071		
		WCDC-05	29.4	1.1			0.010	0.007		
		WCDC-06	35.5	11.7			-0.008	0.021		
		WCDC-07	10.3	4.3			0.078	0.065		
		WCDC-08	51.0	24.1			0.006	0.002		
		WCDC-09	36.0	19.2			0.007	0.008		
	Clark Creek Diversion Channel	CCDC-01	40.8	21.5	21.5	9.7	0.004	0.003	0.047	0.051
		CCDC-02	7.7	5.1			0.027	0.046		
		CCDC-03	6.3	5.3			0.070	0.060		
		CCDC-04	38.4	5.4			0.006	0.003		
		CCDC-05	7.0	6.0			0.173	0.189		
CCDC-06		29.0	15.1	0.003			0.002			
Offset Plan Feature	Teepie Pond Outlet	TPDD-01	21.1	20.1	12.1	10.2	0.027	0.034	0.071	0.079
		TPDD-02	19.9	14.8			0.025	0.026		
		TPDD-03	7.0	5.9			0.221	0.238		
		TPDD-04	0.2	0.1			0.011	0.016		

**Table 3.1: Stream Depth and Flow Measurements, RRM 2020**

**b) Low-Flow Survey (July 2020)**

	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 <sup>a</sup>	SPDC-Culvert	-	-	-	-	-	-	-	-
		SPDC-01	-	-			-	-		
		SPDC-02	-	-			-	-		
		SPDC-03	-	-			-	-		
		SPDC-04	-	-			-	-		
		SPDC-05	-	-			-	-		
	West Creek Diversion Channel (upstream of haul road)	WCDC-A1	23.7	10.7	21.8	10.0	0.008	0.005	0.002	0.003
		WCDC-A2	21.0	14.2			-0.002	0.005		
		WCDC-A3	6.0	0.0			0.020	0.000		
		WCDC-A4	39.0	35.1			-0.004	0.010		
		WCDC-A5	24.0	0.0			-0.005	0.000		
		WCDC-A6	-	-			-	-		
		WCDC-A7	17.0	0.0			-0.005	0.000		
	West Creek Diversion Channel (downstream of haul road)	WCDC-01	13.0	4.3	15.6	6.5	-0.004	0.010	0.007	0.003
		WCDC-02	2.0	0.0			0.057	0.000		
		WCDC-03	26.0	17.0			-0.002	0.002		
		WCDC-04	-	-			-	-		
		WCDC-05	11.0	0.0			-0.006	0.000		
		WCDC-06	15.0	0.0			-0.001	0.000		
		WCDC-07	-	-			-	-		
		WCDC-08	26.3	17.4			-0.004	0.003		
		WCDC-09	-	-			-	-		
	Clark Creek Diversion Channel	CCDC-01	39.0	14.7	16.4	6.3	0.017	0.042	0.008	0.021
		CCDC-02	6.7	4.2			0.017	0.013		
		CCDC-03	10.8	5.4			0.0004	0.006		
		CCDC-04	12.0	4.0			0.001	0.007		
		CCDC-05	15.4	5.0			0.007	0.019		
CCDC-06		14.6	4.6	0.009			0.039			
Offset Plan Feature Teepie Pond Outlet	Teepie Pond Outlet	TPDD-01	20.0	0.0	23.3	2.6	0.042	0.000	0.043	0.001
		TPDD-02	10.0	0.0			0.090	0.000		
		TPDD-03	35.0	0.0			0.042	0.000		
		TPDD-04	28.3	10.4			-0.003	0.005		

Note: "-" indicates no measurement taken due to insufficient water depth.

<sup>a</sup> Stockpile Pond Diversion Channel was dry during the July survey.

included arrowhead (*Sagittaria* sp.), burreed (*Sparganium* sp.), hornwort (*Ceratophyllum* sp.), and pondweed (*Potamogeton* sp.) which were present 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 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 intermittently dry at several sections during the spring freshet survey and the channel had no visible surface water flow during the mid-summer survey (Appendix Photo A.1). West Creek Diversion Channel maintained full connectivity during the spring survey, however several dry sections were observed in both the upstream and downstream portions during the 2020 mid-summer survey. These dry sections in July were likely a result of lower than average (1981 to 2010) precipitation occurring in the vicinity of the mine in 2020 (Figure A.8). 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<sup>3</sup> to 3.3 m from April 1 to December 2, 2020 (Figure 3.1). West Creek Pond water levels fluctuated around the 1 m mark ranging from 0.8 to 1.3 m from January 1 to December 2, 2020 (Figure 3.1). Clark Pond water depths were generally greater than 1.5 m and ranged from 1.3 to 1.8 m from January 1 to December 2, 2020 (Figure 3.1).

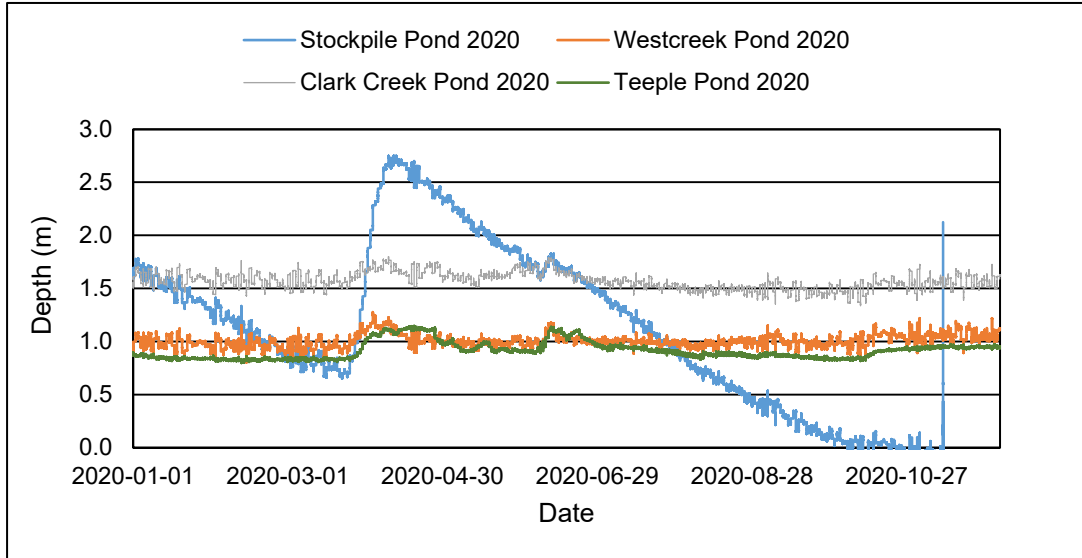
Overall, West Creek Pond and Clark Pond water levels were very stable and provided adequate refuge areas throughout the year regardless of precipitation values (Figure 3.1; Appendix Figure A.8). Stockpile Pond water levels were highly variable with minimum values observed in September 2020 (approximately 0.3 m), this same low pond level was also observed in 2019 even though 2020 average precipitation was lower than 2019 (Appendix Figure A.8).

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<sup>3</sup> Notably, the transducer at stockpile pond requires calibration or repair as negative pond levels were recorded in September and October 2020, followed by greatly increased pond levels in mid-November which were recorded at greater than 13 m, which is well above the designed containment berm height. Therefore, it is assumed that these values are a result of the Stockpile Pond transducer freezing in place, a very similar pattern was observed at this pond last year.







**Figure 3.1: Compensation and Offset Pond Depths, RRM 2020**

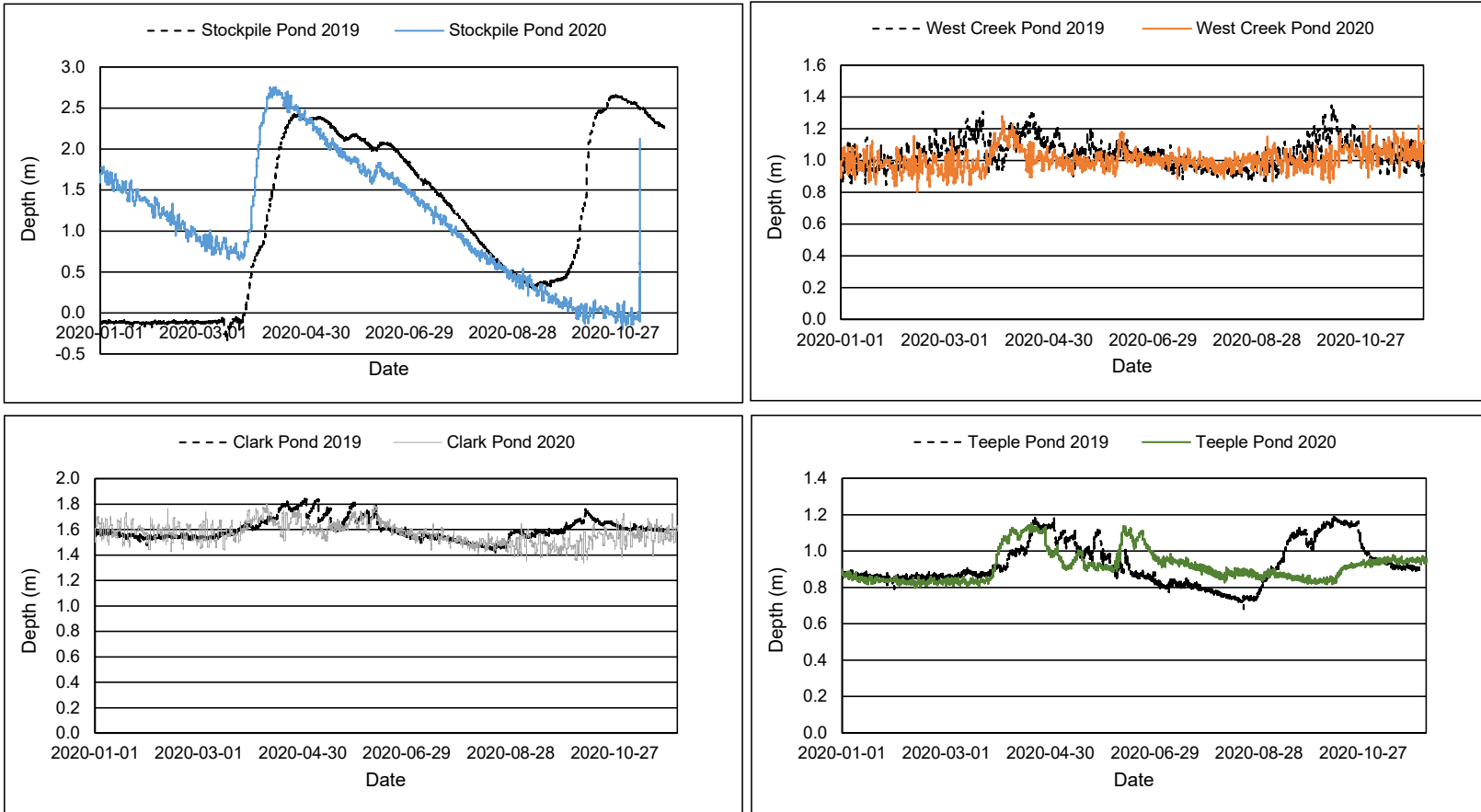
These low water levels in Stockpile Pond are likely attributable to an unquantified loss of water to the system through a seep below the dam structure along the eastern shoreline (New Gold Inc. Personal Communications). The pond depth has since increased to greater than 2.0 m, thus providing overwintering habitat for resident fish (Figure 3.1). Due to the unreliable level measurements (negative values), the transducer is assumed to have frozen in October and November 2020 (Figure 3.1). Comparing the pond levels between 2019 and 2020 show very similar levels between the two years, with the same seasonality trend observed in Stockpile Pond (Figure 3.2).

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 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.

A Reconyx PC800 Hyperfire Professional Semi-Covert Camera was installed in 2020 at the edge of Stockpile Pond outlet. It was positioned to capture pond level conditions using time lapse photo series. Appendix Photos A.10 to A.12 contains monthly (April to November) photo record for 2020 and illustrates water level and vegetation growth conditions in Stockpile Pond.





**Figure 3.2: Compensation and Offset Pond Depth Comparisons between 2019 and 2020**

## 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<sup>4</sup>, abundance (catch-per-unit-effort; CPUE), and the presence of multiple age classes (Table 1.1).

### 3.2.1 Diversion Channels

A total of 496 fish representing 13 species were captured at West Creek Diversion Channel, including (listed in order of abundance) brook stickleback (*Culaea inconstans*), creek chub (*Semotilus atromaculatus*), brassy minnow (*Hybognathus hankinsoni*), white sucker (*Catostomus commersonii*), northern redbelly dace (*Chrosomus eos*), finescale dace (*Chrosomus neogaeus*), common shiner (*Luxilus cornutus*), fathead minnow (*Pimephales promelas*), pearl dace (*Margariscus margarita*), central mudminnow (*Umbra limi*), brown bullhead (*Ameiurus nebulosus*), blackside darter (*Percina maculate*), and johnny darter (*Etheostoma nigrum*; Tables 3.2 and 3.3; Appendix Table A.14). Fish capture results for West Creek Diversion Channel were 151 fish captured per 1,000 seconds of electrofishing effort and 0.89 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 136 fish representing five species were captured at the Clark Creek Diversion Channel, including central mudminnow, finescale dace, brook stickleback, northern redbelly dace, and fathead minnow (Tables 3.2 and 3.3; Appendix Table A.15). Fish capture results for the Clark Creek Diversion Channel were 28 fish captured per 1,000 seconds of electrofishing effort and 0.23 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 for 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 use by multiple age classes but not electrofishing CPUE, 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 of the success criteria.

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<sup>4</sup> 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 2020**

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

Waterbody		Fathead Minnow	Finescale Dace	Northern Redbelly Dace	Pearl Dace	White Sucker	YOY Cyprinid	Total Species Present <sup>a</sup>
Stream Habitat	West Creek Diversion Channel	✓	✓	✓	✓	✓	✓	13
	Clark Creek Diversion Channel	✓	✓	✓	-	-	✓	5
	Teeples Outlet	-	✓	-	-	-	✓	3
Pond Habitat	Stockpile Pond	✓	✓	✓	-	✓	✓	10
	West Creek Pond	✓	✓	✓	-	✓	✓	11
	Clark Creek Pond	✓	✓	✓	-	-	✓	6
	Teeples Pond	✓	✓	✓	✓	-	✓	8

 Denotes waterbody achieved diversity success criterion of ≥ 9 species.

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

<sup>a</sup> Does not include YOY Cyprinid.

**Table 3.3: Fish Capture Summary During Compensation and Offset Annual Monitoring, RRM 2020**

**a) Stream Features**

Waterbody	Electrofishing			Minnow Trap		
	Total Effort <sup>a</sup>	Total Catch	Total CPUE <sup>b</sup>	Total Effort <sup>a</sup>	Total Catch	Total CPUE <sup>b</sup>
West Creek Diversion Channel	1,000	151	0.15	386	345	0.89
Clark Creek Diversion Channel	1,036	29	0.03	461	107	0.23
Teeples Pond Outlet	1,000	108	0.11	555	13	0.02

**b) Pond Features**

Waterbody	Electrofishing			Seine Net			Minnow Trap		
	Total Effort <sup>a</sup>	Total Catch	Total CPUE <sup>b</sup>	Total Effort <sup>a</sup>	Total Catch	Total CPUE <sup>b</sup>	Total Effort <sup>a</sup>	Total Catch	Total CPUE <sup>b</sup>
Stockpile Pond	10,119	392	0.04	2,310	3,142	1.36	1,710	997	0.58
West Creek Pond	10,023	108	0.01	2,156	2,940	1.36	3,444	1,704	0.49
Clark Creek Pond	10,037	522	0.05	1,463	4,613	3.15	2,652	772	0.29
Teeples Pond	10,049	145	0.01	2,079	3,272	1.57	2,407	953	0.40

<sup>a</sup> Effort defined as minnow trap = total trap hours, electrofishing = total seconds, and seine net = total m<sup>2</sup> seined.

<sup>b</sup> 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<sup>2</sup>.

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

**a) Stream Features**

Waterbody	DFO Success Criteria														
	Diversity <sup>a</sup>					Electrofishing					Minnow Trap				
	2017 <sup>b</sup>	2018 <sup>b</sup>	2019	2020	Target	2017 <sup>b</sup>	2018 <sup>b</sup>	2019	2020	Target	2017 <sup>b</sup>	2018 <sup>b</sup>	2019	2020	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	13		-	86	183	151		-	0.35	1.19	0.89	
Clark Creek Diversion Channel	-	7	4	5		-	16	69	28		-	0.06	0.31	0.23	
Teeple Pond Outlet	7	6	4	3		26	42	131	108		0.32	0.05	0.01	0.02	

**b) Pond Features**

Waterbody	DFO Success Criteria																			
	Diversity <sup>a</sup>					Electrofishing					Seine Net					Minnow Trap				
	2017 <sup>b</sup>	2018 <sup>b</sup>	2019	2020	Target	2017 <sup>b</sup>	2018 <sup>b</sup>	2019	2020	Target	2017 <sup>b</sup>	2018 <sup>b</sup>	2019	2020	Target	2017 <sup>b</sup>	2018 <sup>b</sup>	2019	2020	Target
Stockpile Pond	-	12	11	10	≥ 9 fish species	-	5	96	39	≥ 44 fish per 1,000 seconds	-	538	739	314	≥ 16 fish per 15 m net pull	-	1.01	0.18	0.58	≥ 2 fish per trap hour
West Creek Pond	-	12	14	11		-	2	38	11		-	255	451	294		-	1.73	1.33	0.49	
Clark Creek Pond	-	7	6	6		-	4	109	52		-	172	1,365	461		-	1.02	0.39	0.29	
Teeple Pond	7	9 <sup>c</sup>	6	8		6	5	76	14		216	98	978	327		0.50	1.83	0.18	0.40	

■ 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]).

<sup>a</sup> Total species count does not include young-of-year cyprinids.

<sup>b</sup> Previous studies conducted by Wood (Wood 2018ab).

<sup>c</sup> Species diversity includes inferred presence of common shiner previously encountered in low abundance during the 2017 studies (Wood 2018).



In consideration of all the monitoring results from 2018 to 2020, the West Creek Diversion Channel has met criteria for diversity and fish capture (by electrofishing). The Stockpile Pond Diversion Channel and Clark Creek Diversion Channel generally have not met success criteria (Table 3.4).

### 3.2.2 Ponds

A total of 4,531 fish representing 10 species were captured at Stockpile Pond including northern redbelly dace, creek chub, brown bullhead, common shiner, brassy minnow, white sucker, fathead minnow, central mudminnow, brook stickleback, and finescale dace (Tables 3.2 and 3.3; Appendix Table A.16). Fish capture results for Stockpile Pond were 39 fish captured per 1,000 seconds of electrofishing effort, 314 fish captured per 15 m seine net haul, and 0.58 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 4,752 fish representing 11 species were captured at West Creek Pond, including fathead minnow, brown bullhead, northern redbelly dace, johnny darter, creek chub, brook stickleback, brassy minnow, white sucker, finescale dace, central mudminnow, and common shiner (Tables 3.2 and 3.3; Appendix Table A.17). Fish capture results for West Creek Pond were 11 fish captured per 1,000 seconds of electrofishing effort, 294 fish captured per 15 m seine net haul, and 0.49 fish 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 5,907 fish representing 6 species were captured at Clark Pond, including brook stickleback, central mudminnow, northern redbelly dace, finescale dace, fathead minnow, and brassy minnow (Tables 3.2 and 3.3, Appendix Table A.18). Fish capture results for Clark Pond were 52 fish captured per 1,000 seconds of electrofishing effort, 461 fish captured per 15 m seine net haul, and 0.29 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, seine net CPUE, and use by multiple age classes but not for CPUE achieved by electrofishing or minnow trap (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).



In consideration of all the monitoring results from 2018 to 2020, Stockpile Pond and West Creek Pond met the monitoring criteria for diversity and at least one fishing technique (Table 3.4). Clark Creek Pond has a large abundance of fish; however, diversity is low but is consistent with baseline (Table 3.4; AMEC 2013). Similar minnow trapping results were observed in 2020 compared to 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 12.1 cm and 0.071 m/s respectively during the spring survey and 23.3 cm and 0.043 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 in the southeast section 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 are present 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 0.8 to 1.1 m from January 1<sup>st</sup> to December 2<sup>nd</sup>, 2020 (Figure 3.1). Teeple Pond water levels were very similar to those observed in 2019 (Figure 3.2).

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.

### 4.2 Fish Community

#### 4.2.1 Teeple Pond Outlet

A total of 121 fish representing 3 species were captured at Teeple Pond Outlet, including brook stickleback, central mudminnow, and finescale dace (Tables 3.2 and 3.3). Fish capture results for Teeple Pond Outlet were 108 fish captured per 1,000 seconds of electrofishing effort and



0.02 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. As with 2019, 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 four years now (2017, 2018, 2019, and 2020) with comparable results among years (Table 3.4). In consideration of all the monitoring results from 2017 to 2020, the Teeple Pond Outlet has not achieved criteria for diversity but has achieved CPUE targets for at least one method in each of the last two years (Table 3.4). Diversity targets may be unrealistic as this system has never achieved the diversity criterion in the past four years (Table 3.4). Like Clark Pond and Clark Creek Diversion (which Teeple Pond/Outlet is directly connected to), diversity is naturally low as current species richness is consistent with baseline studies (Table 3.4; AMEC 2013). Baseline studies indicate an uneven distribution of species within the Clark/Teeple system, with the vast majority of fish present being comprised of only four different species (brassy minnow, brown bullhead, finescale dace, and lake chub [*Couesius plumbeus*]) which accounted for approximately 80% of fish present within the Clark/Teeple system during baseline (AMEC 2013). It should be noted that lake chub have not been documented in any of the offset or compensation features since the start of monitoring, therefore it is possible this species was misidentified during the initial baseline survey (AMEC 2013). Some of these other species may have been present during the Offset Monitoring survey, however, if present are likely at very low abundances and therefore possibly not captured and quantified during the Offset performance monitoring surveys.

#### 4.2.2 Teeple Pond

A total of 4,370 fish representing 8 species were captured at Teeple Pond, including brook stickleback, northern redbelly dace, central mudminnow, brassy minnow, finescale dace, fathead minnow, pearl dace, and creek chub (Tables 3.2 and 3.3). Fish capture results for Teeple Pond were 14 fish captured per 1,000 seconds of electrofishing effort, 327 fish captured per 15 m seine net haul, and 0.40 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 seine net CPUE, as well use by multiple age classes but not minnow trap or electrofishing CPUE nor overall species diversity (Table 3.4, Appendix Figure A.7, Appendix Tables A.10 to A.13, A.20).



Teeple Pond has been sampled for four years now (2017, 2018, 2019, and 2020) with comparable results among years (Table 3.4). In consideration of all the monitoring results from 2017 to 2020, Teeple Pond has generally not achieved criteria for diversity but has achieved CPUE targets for at least one method in each of the last two years (Table 3.4). As mentioned previously, diversity targets may be unrealistic as this system has only achieved the diversity criterion once in the past four years despite very consistent results over time (6 to 9 species; Table 3.4). Like Clark Pond and Clark Creek Diversion (which Teeple Pond/Outlet is directly connected to), diversity is likely naturally low as current species richness is consistent with baseline studies (Table 3.4; AMEC 2013). Notably, the Clark-Teeple system is not always connected to the Pinewood River downstream of Teeple outlet. It has been noted that on occasion during low flow that surface flow downstream of the compensation feature is dry and further downstream it is not channelized, however this occurs in a field south of the mine property that is not under control of the mine.



## 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. The Stockpile Pond Dam (SPD) has not met the design criteria of accumulating enough volume to active the Stockpile Pond Diversion. Active investigation into this problem began at the end of 2019. After initial investigations, it appeared that there was a significant amount of flow bypassing below the dam. To better understand this problem, Geosyntec Consultants were retained by New Gold Inc. and tasked with completing a seepage study, which included the geophysical services offered by Willowstick. The results of this investigation concluded that flows are bypassing the dam through the soil immediately below the dam, and it is possible that a significant amount of flow is entering the deeper aquifer and bypassing into the open pit.

BGC Engineering (BGC), who is the Engineer of Record for the Stockpile Pond dams, is using this information as a guide to provide a solution. BGC has completed several test pits to confirm connection with the pond and the aquifer. Recommendations by BGC are expected in late December 2020. It is generally expected that there are two possible solution paths. The first is to cut off connection from the pond to the aquifer by constructing a liner for the pond basin. The second is to construct a cut off wall to prevent flow bypassing the dam. The actual solution will depend on the recommendations made by BGC and may include options not considered previously.

On the basis of 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 fish 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 the resident fish community.



In consideration of all the monitoring results from 2018 to 2020, the West Creek Diversion Channel has met criteria for diversity and fish capture (by electrofishing), whereas the Stockpile Pond Diversion Channel and Clark Creek Diversion Channel generally do not meet success criteria. Stockpile Pond Diversion Channel will likely meet success criteria once Stockpile Pond water levels have been corrected. Clark Creek Diversion Channel had low fish diversity; however, this is consistent with baseline data where the majority (80%) of species present were comprised of just four species. Like 2019, the success criterion for minnow trap CPUE was not attained for any diversion channel features.

Clark Creek Pond achieved the minimum success criteria for fish abundance achieving adequate electrofishing and seine netting CPUE criteria. West Creek and Clark Ponds 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 three (2020) of the Compensation Plan annual performance monitoring indicated similar conditions to the previous years for the Compensation Plan habitat with a few notable differences. These differences were most pronounced in the Stockpile Pond diversion channel which was dry during the 2019 and 2020 surveys but not in 2018. Species diversity for the compensation features were broadly similar among years, however electrofishing and seine net CPUE were generally much greater in 2019 and 2020 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). Notably, species diversity has not changed much since 2018 in Clark Creek Pond and its diversion channel. This is consistent with baseline data which indicate that approximately 80% of all fish captured were of only four species.





This indicates that other species present during baseline were at very low abundances and might not have been present but not captured during compensation monitoring.

## 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 seine net CPUE but not for electrofishing or minnow trap CPUE nor 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, however due to species present and the non-quantitative nature of minnow trapping these CPUE criteria are likely underrepresenting the number of fish present within these systems. Much like Teeple Pond and the connected Clark Pond and Clark Creek diversion, the Teeple Pond Outlet did not achieve species diversity success criteria over the past four years, however species diversity within this system are consistent with baseline data where 80% of the species present were comprised of only four species, indicating other species were present at very low abundances and thus species diversity might be underrepresented due to these factors.

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 features had large numbers of fish comprised of several different species but ultimately did not achieve the success criterion for fish diversity and fish abundance for both pond and creek habitat, however these Offset feature species diversity are consistent with baseline data.

Offset features have been sampled for four years now (2017, 2018, 2019, and 2020) with comparable results among years. In consideration of all the monitoring results from 2017 to 2020, Offset features have generally not achieved criteria for diversity but have achieved CPUE targets for at least one method in each of the last two years. Notably, species diversity targets may be unrealistic as this system has only achieved the diversity criterion once in the past four years, species diversity is likely naturally low as current species richness (which has been stable from 2017 to 2020) is consistent with baseline studies with 80% of the fish present comprised of only four species.



### 5.3 Closure and Recommendations

Based on the findings of the 2020 RRM Compensation and Offset Annual Performance surveys conducted in May and July 2020, Clark Creek Pond achieved success for all prescribed abundance 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 2020, 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. Similar to 2019, the 2020 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, additionally baseline data indicate that original species assemblage was uneven with 80% of fish species present comprised of only four species. Overall, West Creek Pond and its outlet contain a large and diverse fish assemblage, while Stockpile Pond had excellent fish abundance and species diversity, however due to inadequate water levels the outlet is often dry and thus does not provide the required connectivity.

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; and
- RRM continues efforts to determine why Stockpile Pond water levels remain below designed specifications.

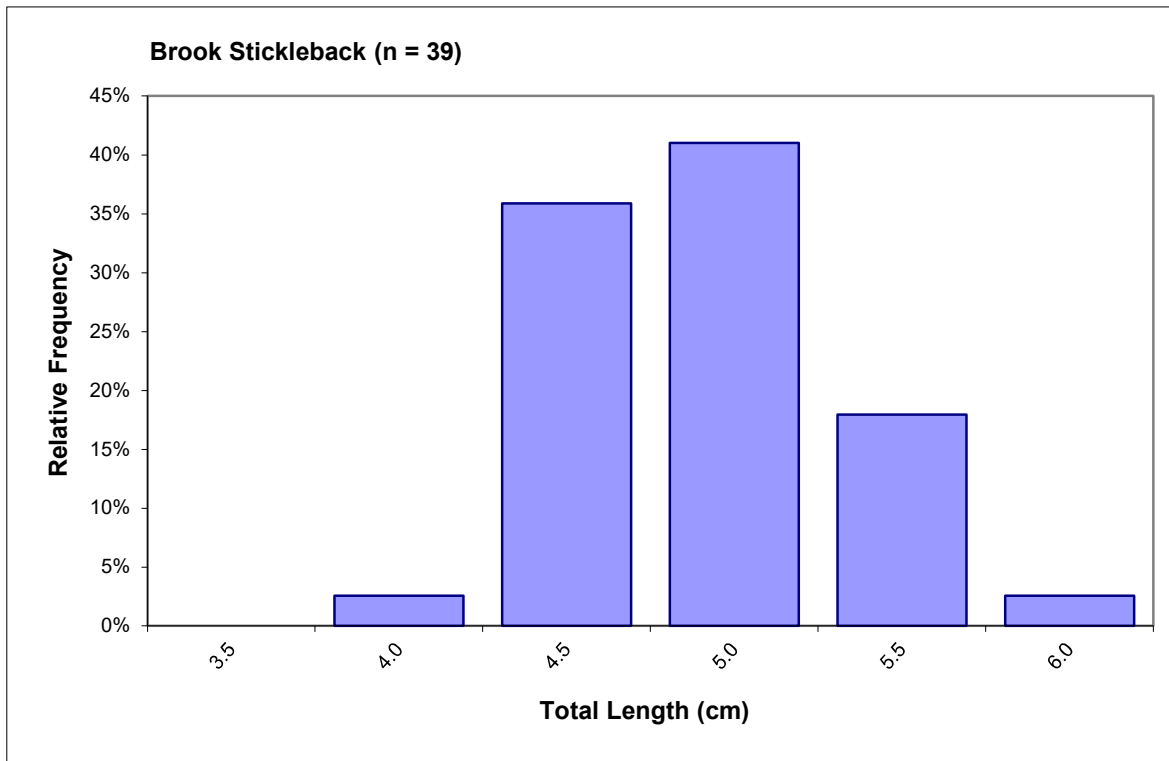
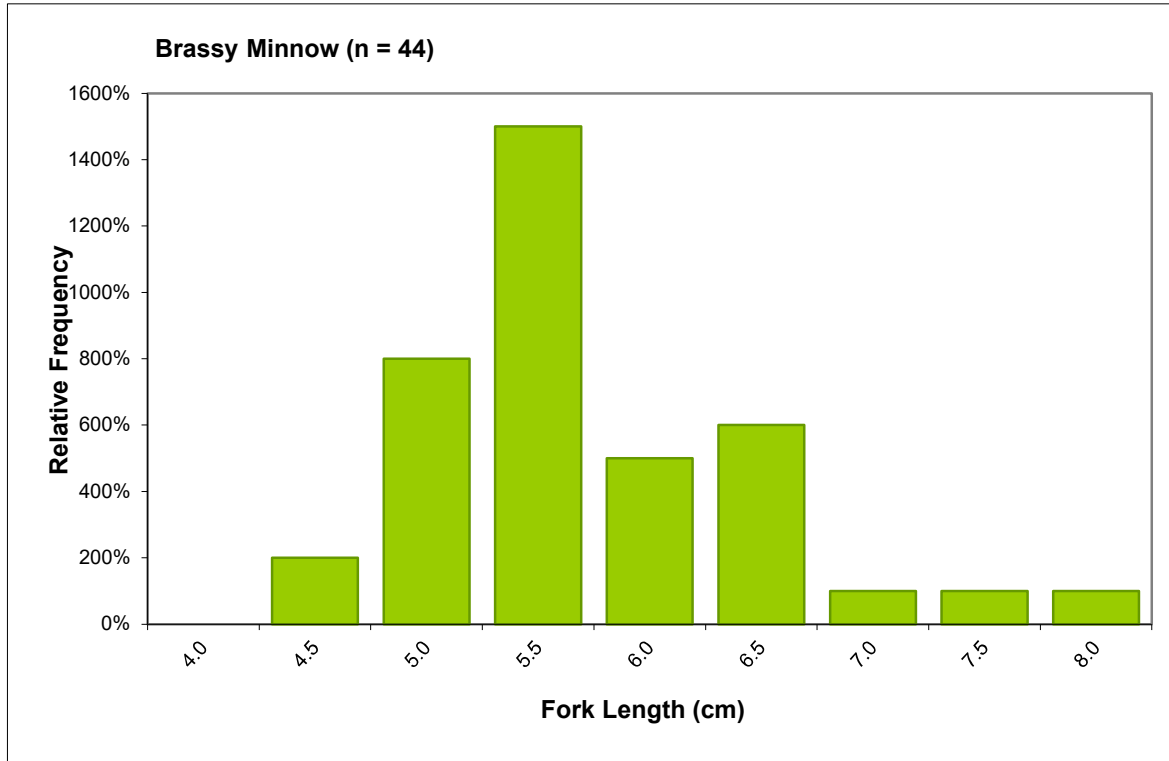


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- Wood. 2018a. 2018 Annual Monitoring Report – Schedule 2 MDMER Fish Habitat Compensation Plan. December 2017.
- Wood. 2018b. 2018 Annual Monitoring Report – Offset Plan for Fisheries Act Section 35(2)(b) Authorization. December 2018.

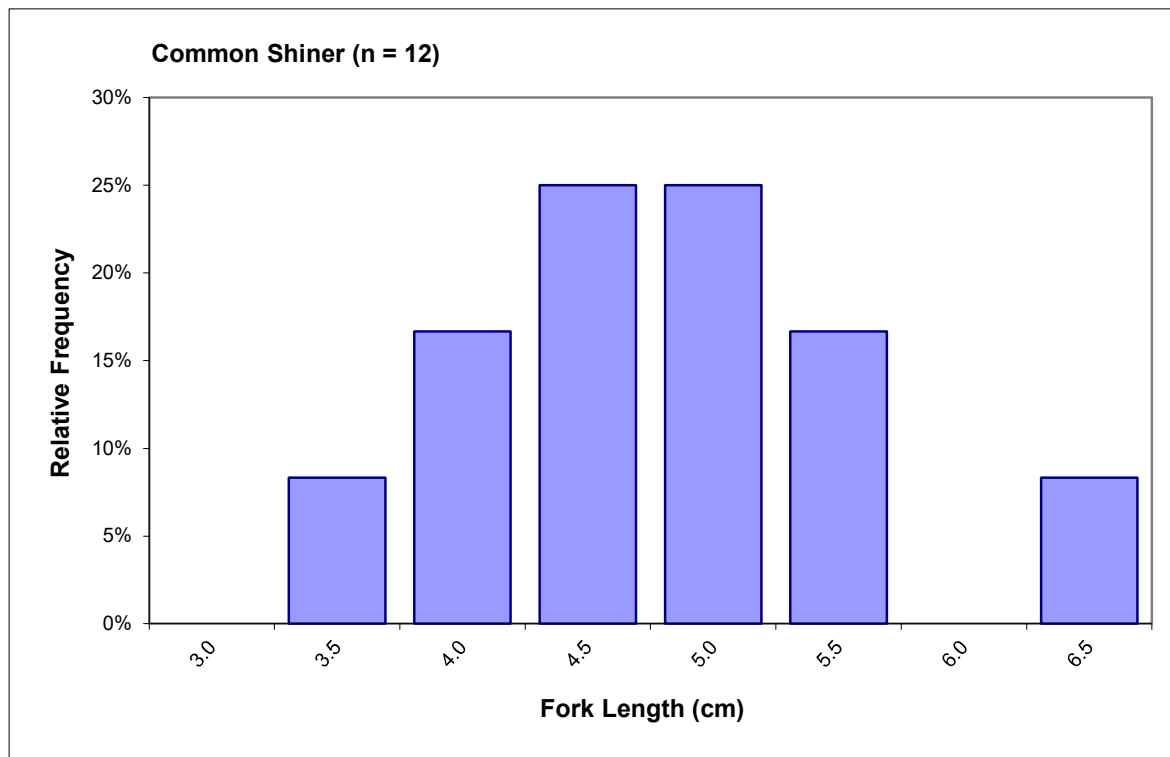
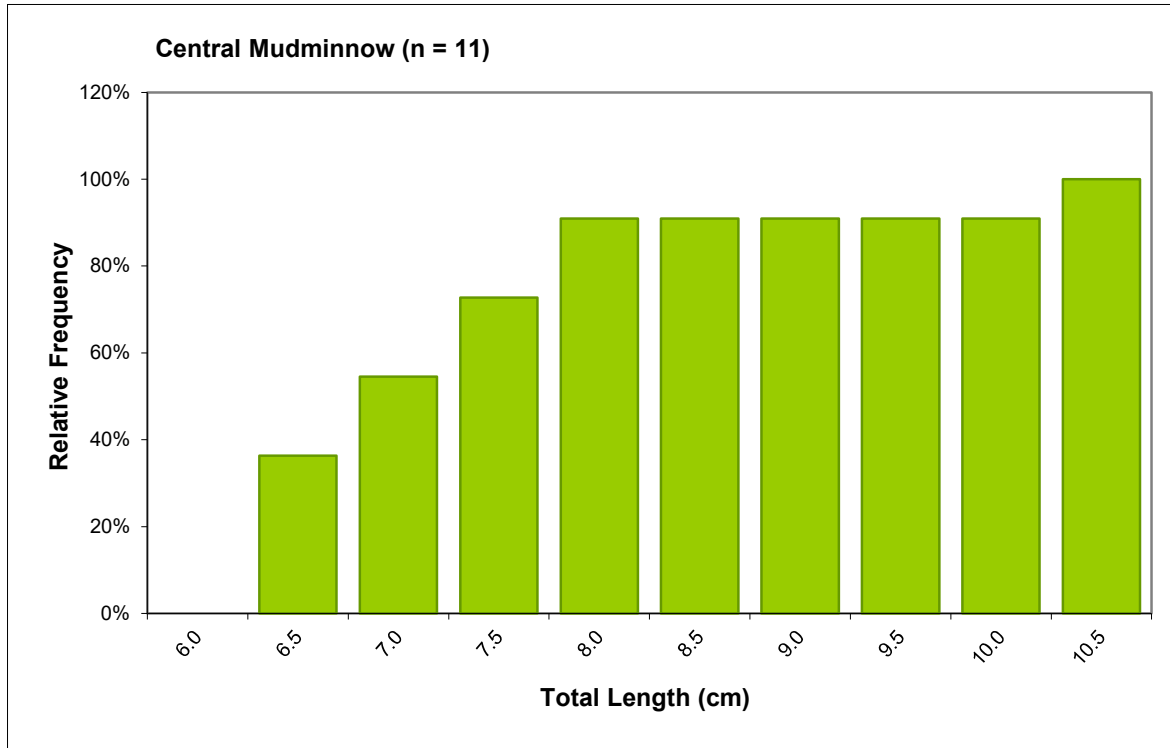


**APPENDIX A**  
**DETAILED SURVEY DATA**



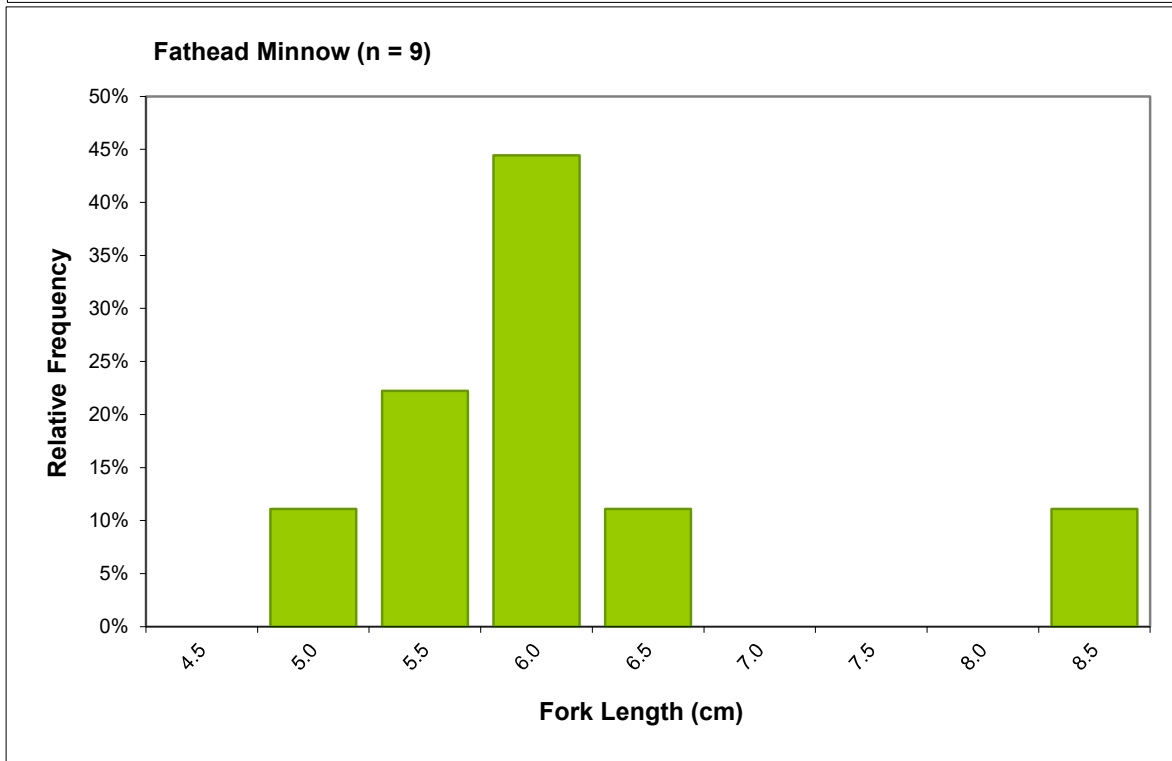
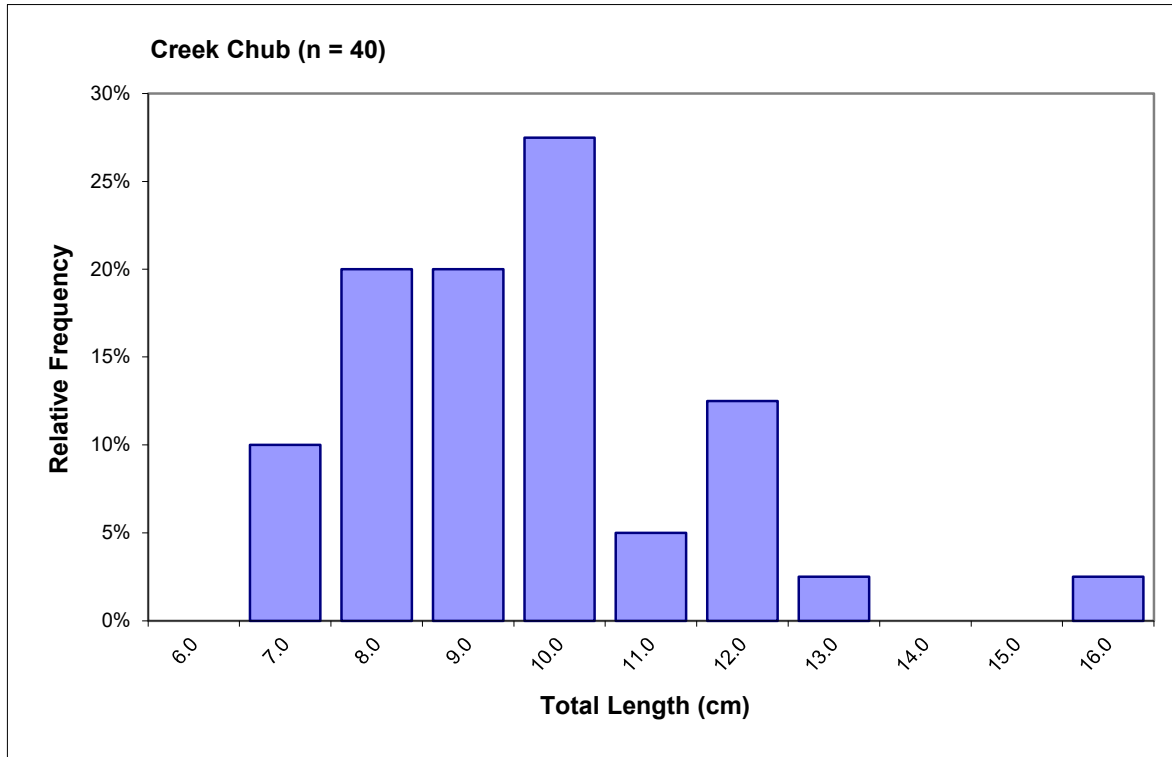
**Appendix Figure A.1: Length-frequency Distributions for Fish Collected at West Creek Diversion, RRM 2020**

Note: Blackside darter (n=2), brown bullhead (n=1), johnny darter (n=1) not plotted due to low capture numbers.



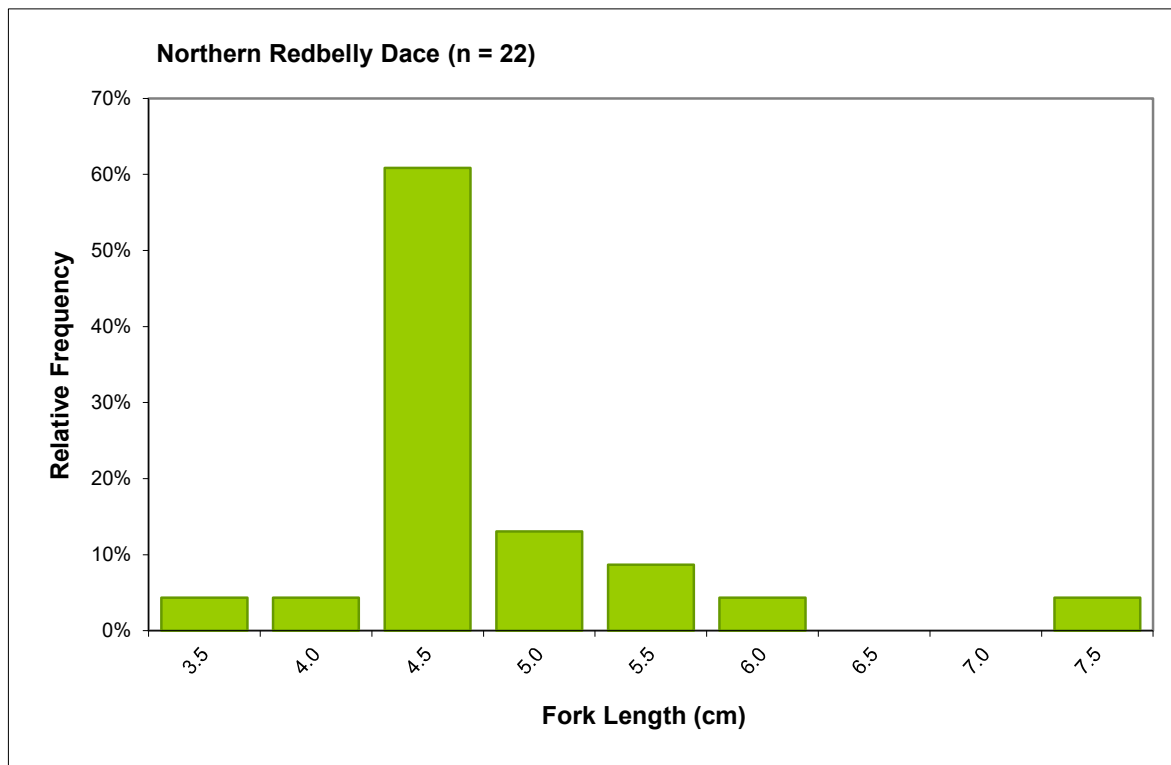
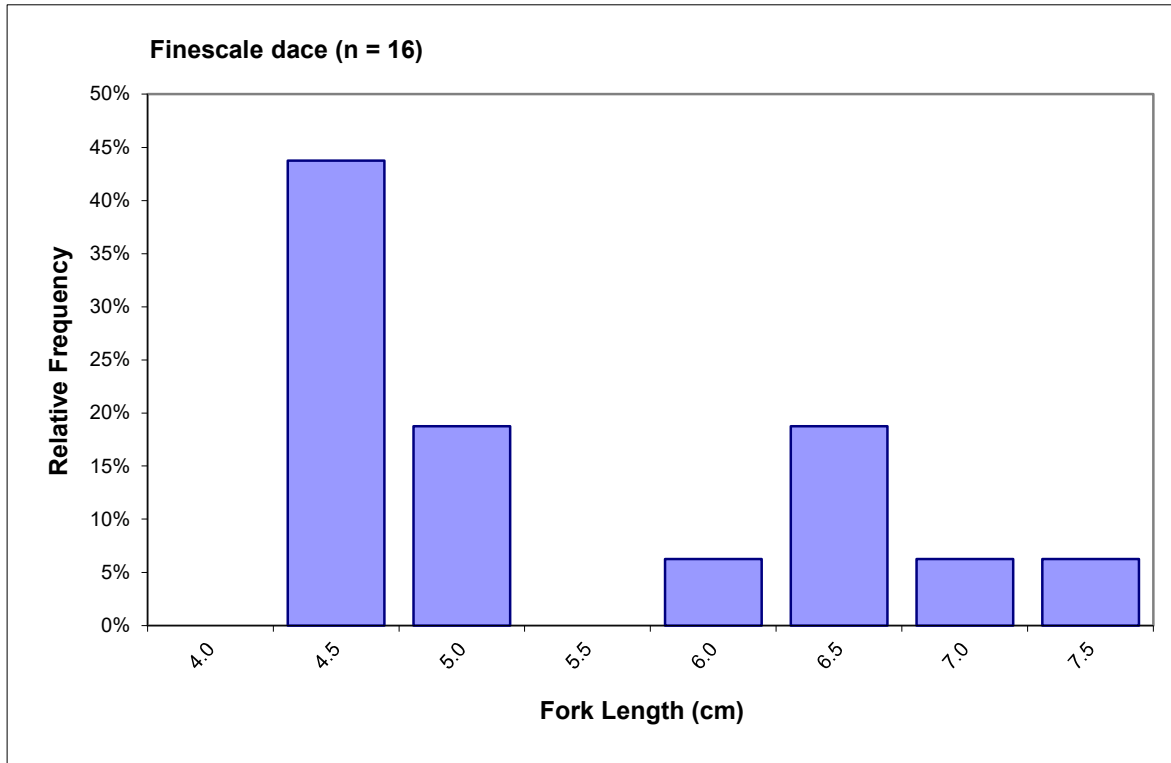
**Appendix Figure A.1: Length-frequency Distributions for Fish Collected at West Creek Diversion, RRM 2020**

Note: Blackside darter (n=2), brown bullhead (n=1), johnny darter (n=1) not plotted due to low capture numbers.



**Appendix Figure A.1: Length-frequency Distributions for Fish Collected at West Creek Diversion, RRM 2020**

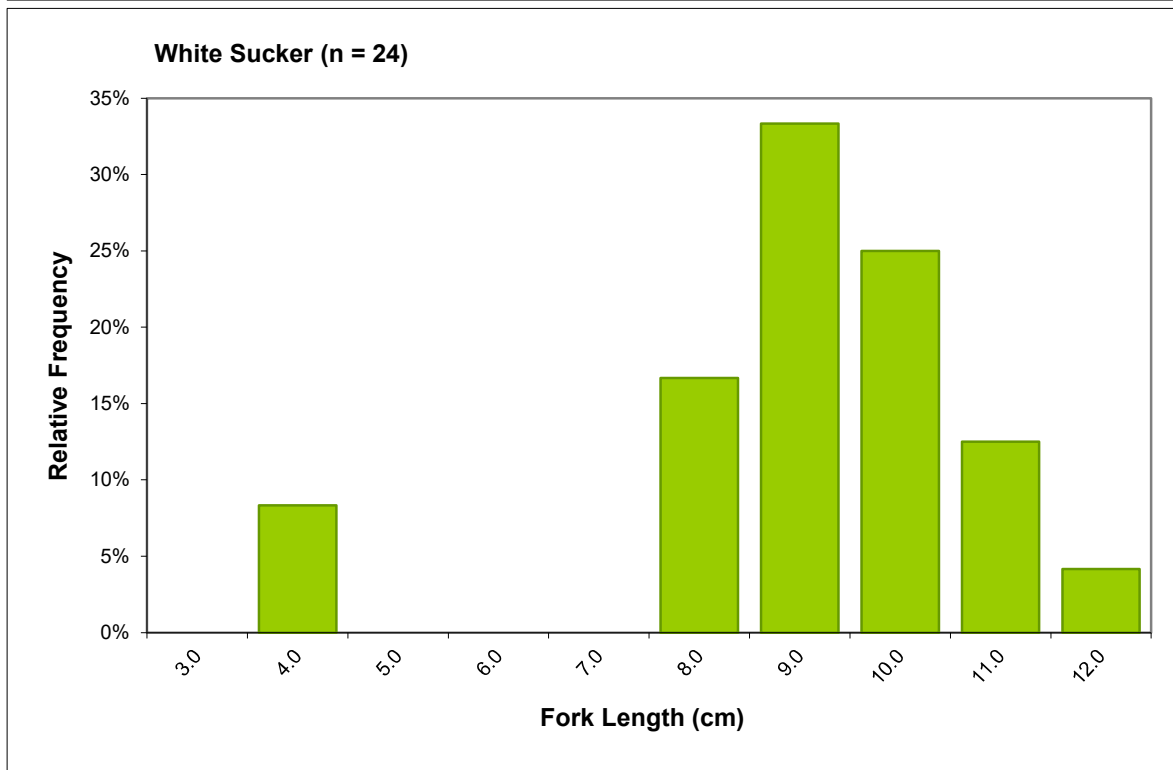
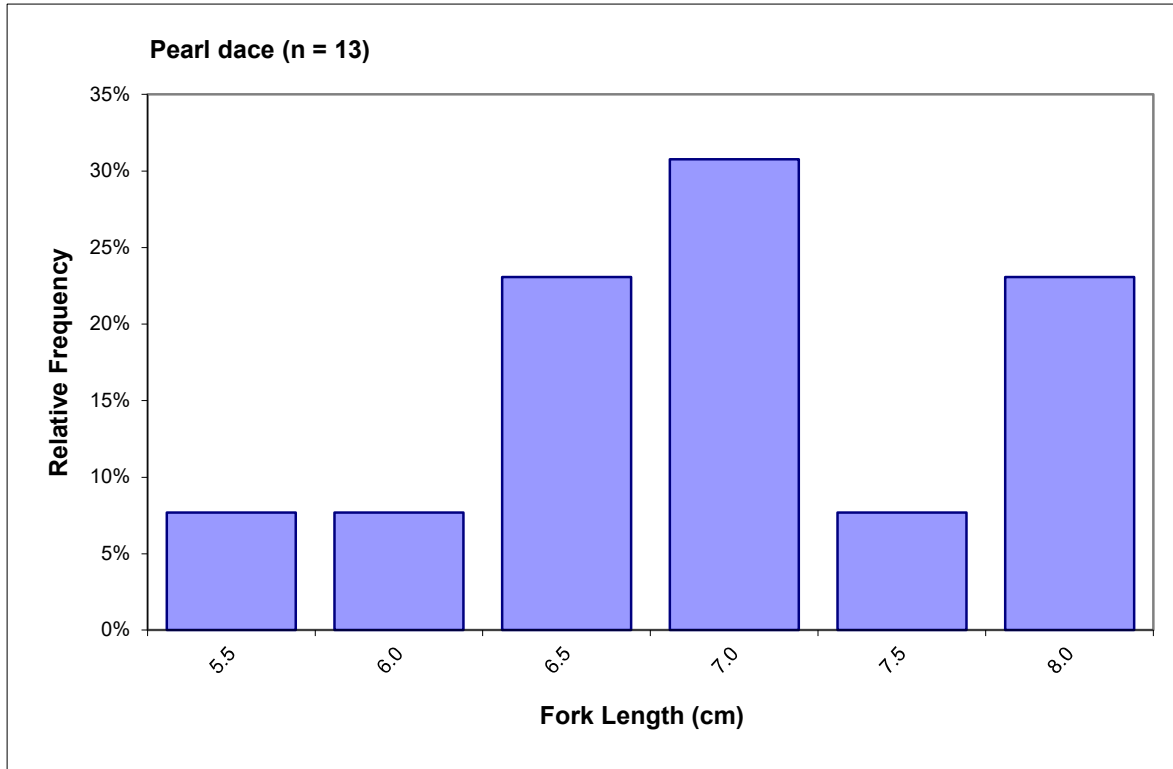
Note: Blackside darter (n=2), brown bullhead (n=1), johnny darter (n=1) not plotted due to low capture numbers.



**Appendix Figure A.1: Length-frequency Distributions for Fish Collected at West Creek Diversion, RRM 2020**

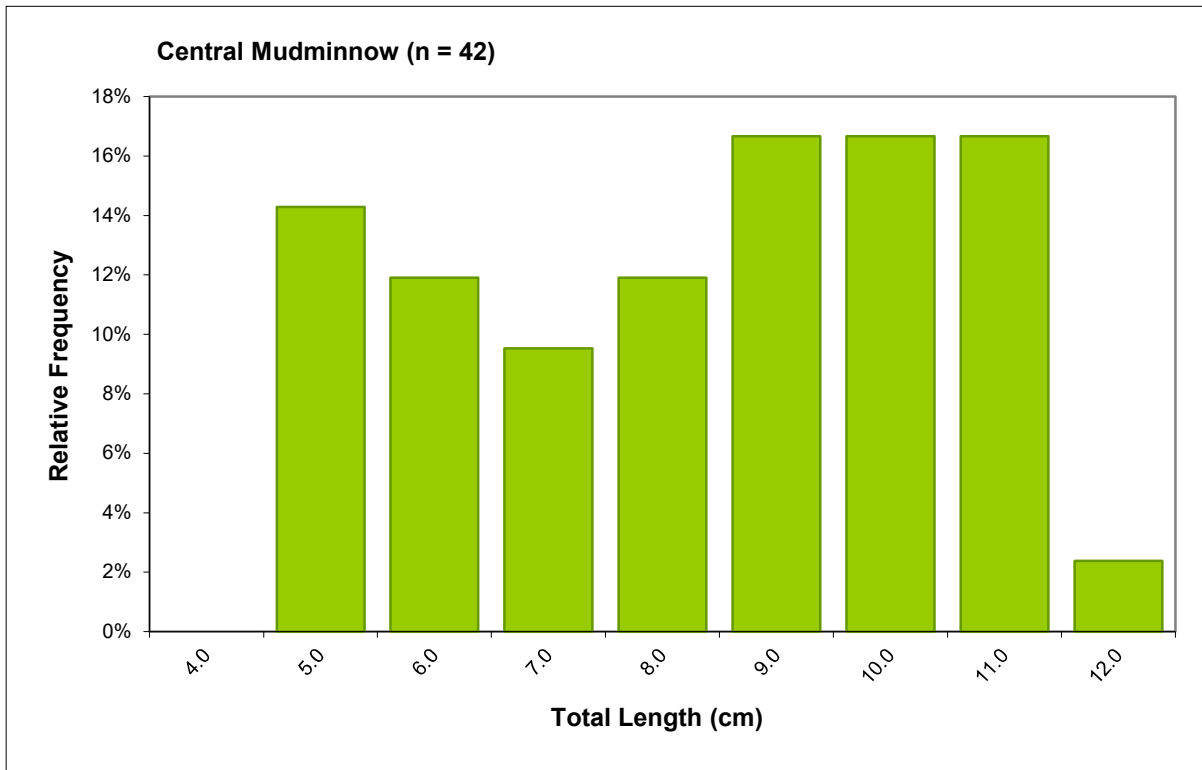
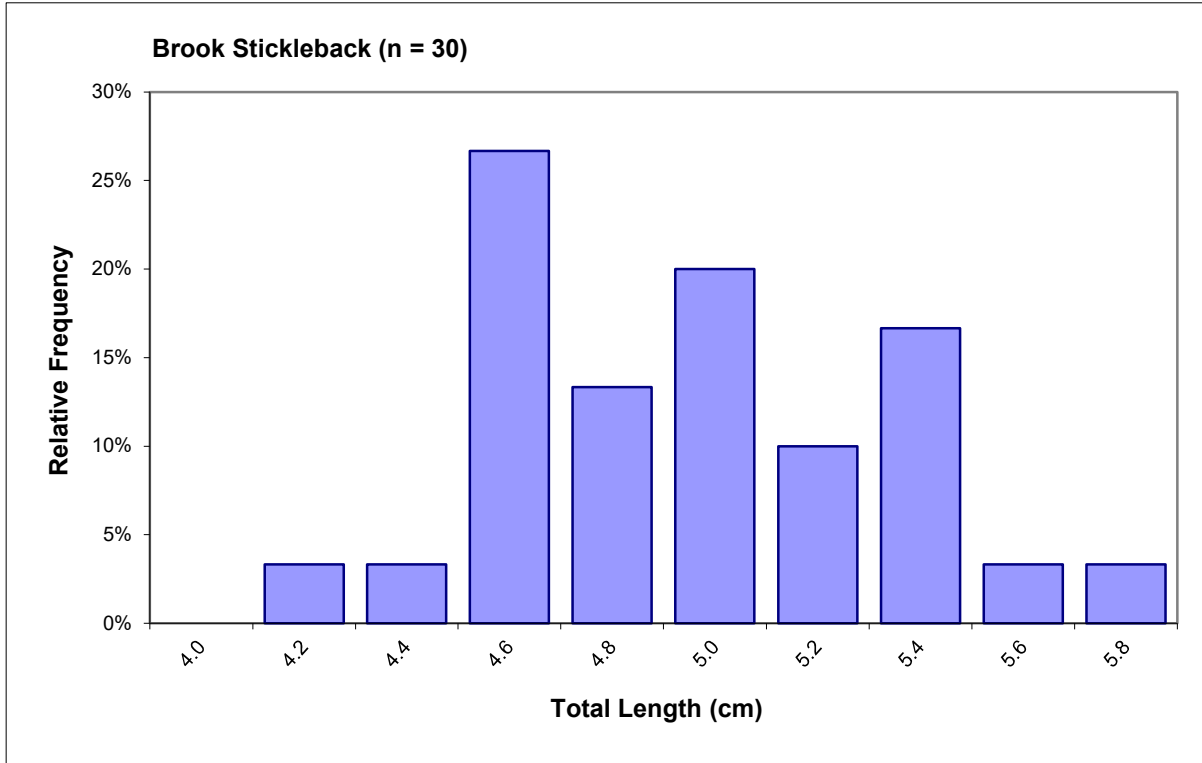
Note: Blackside darter (n=2), brown bullhead (n=1), johnny darter (n=1) not plotted due to low capture numbers.



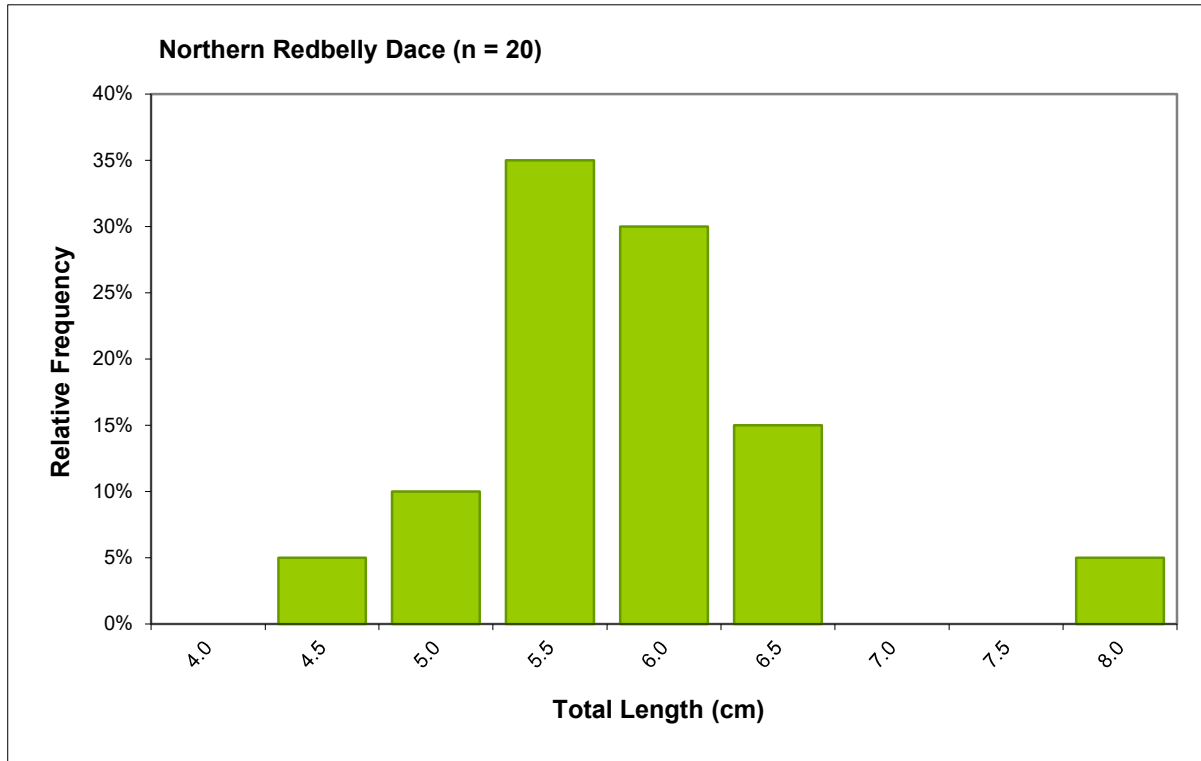
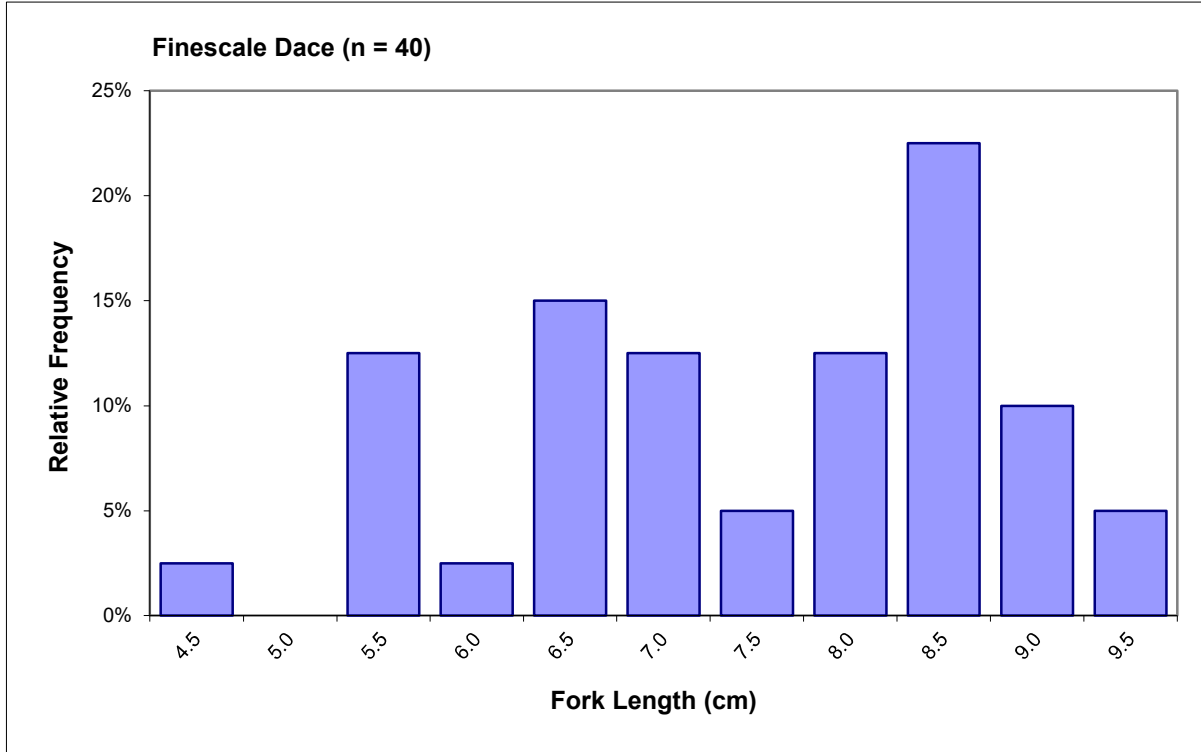


**Appendix Figure A.1: Length-frequency Distributions for Fish Collected at West Creek Diversion, RRM 2020**

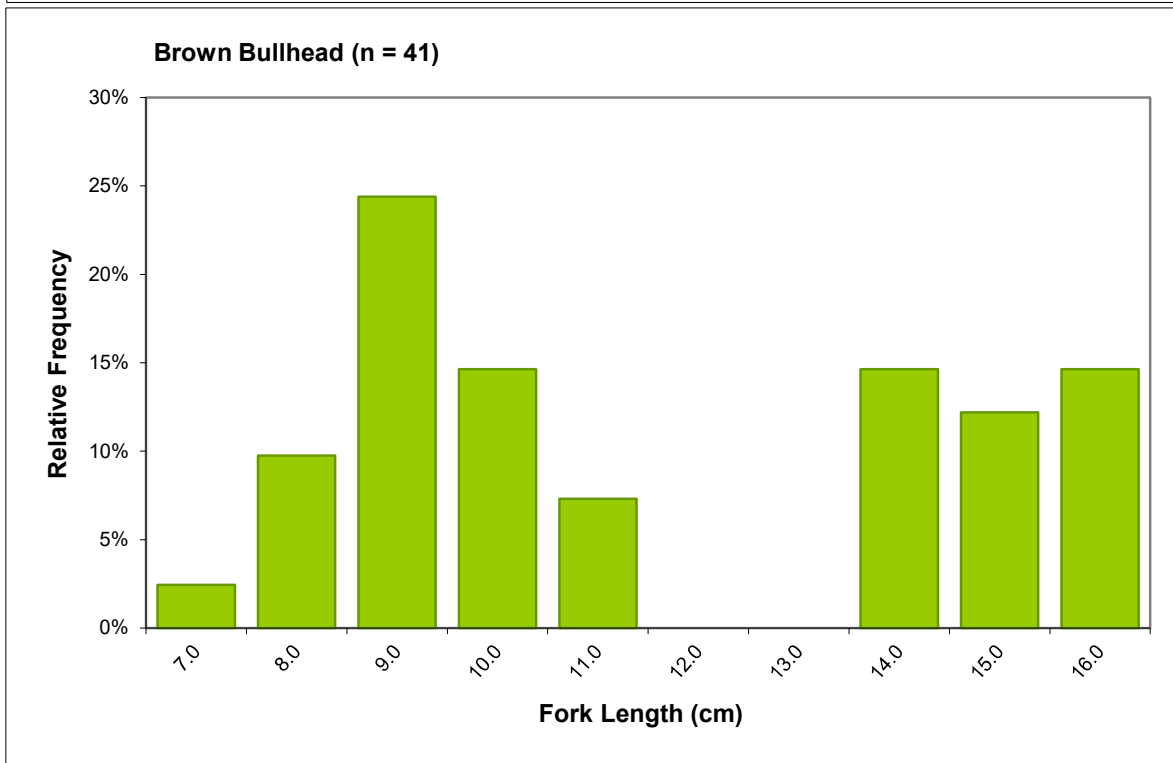
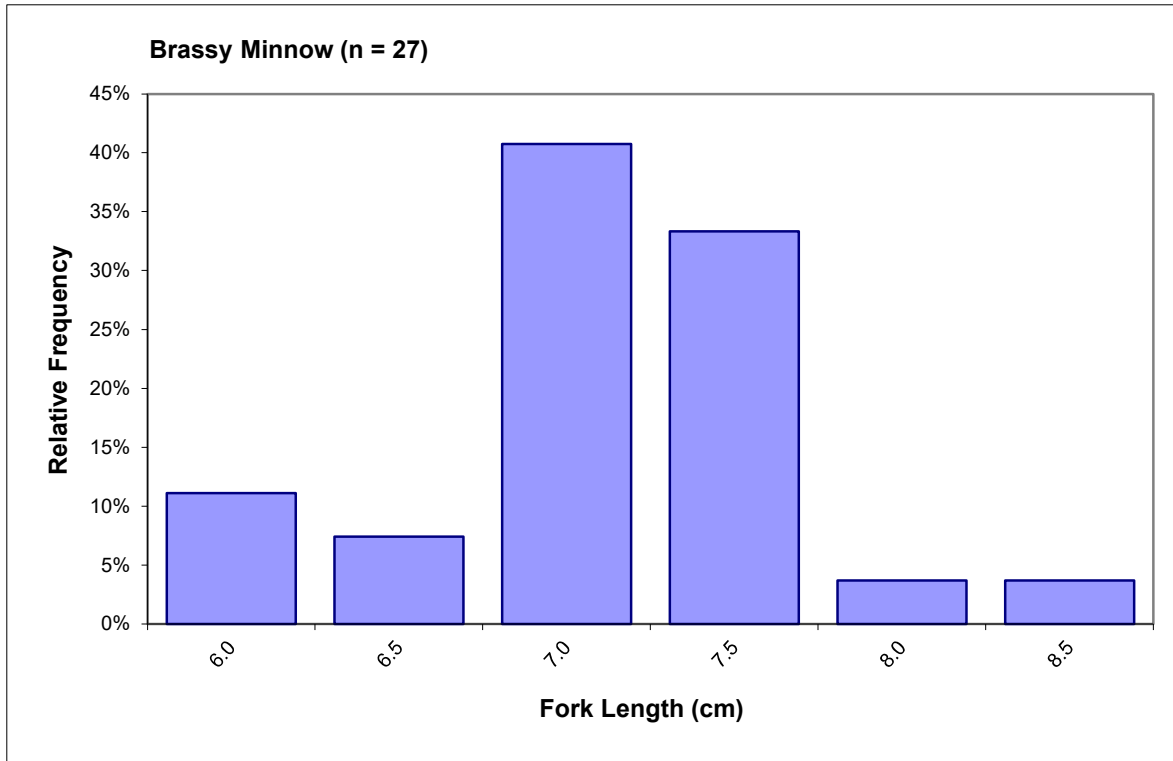
Note: Blackside darter (n=2), brown bullhead (n=1), johnny darter (n=1) not plotted due to low capture numbers.



**Appendix Figure A.2: Length-frequency Distributions for Fish Collected at Clark Creek Diversion Channel, RRM 2020**

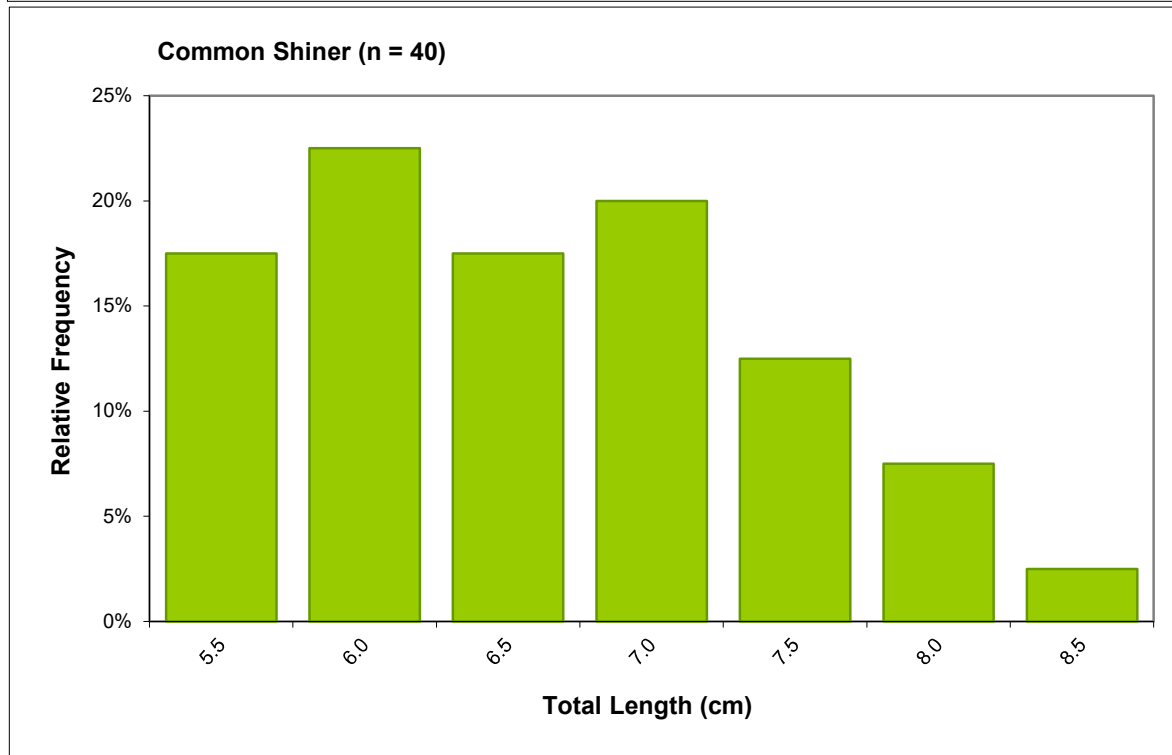
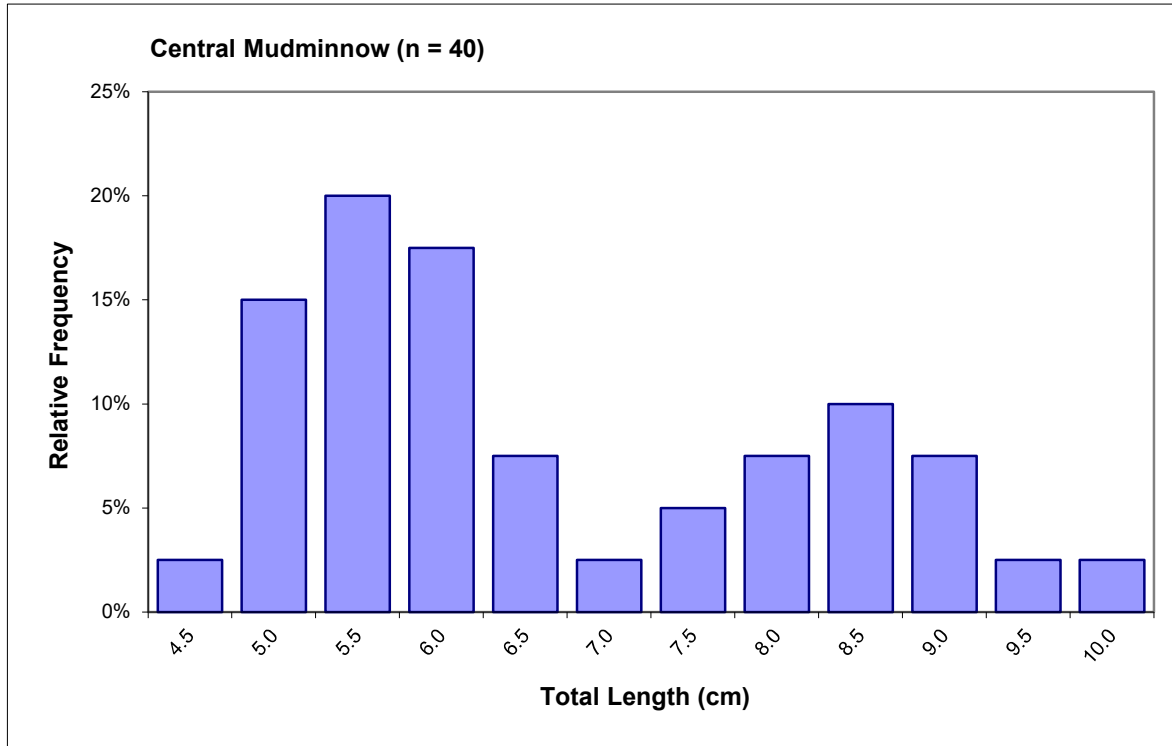


**Appendix Figure A.2: Length-frequency Distributions for Fish Collected at Clark Creek Diversion Channel, RRM 2020**



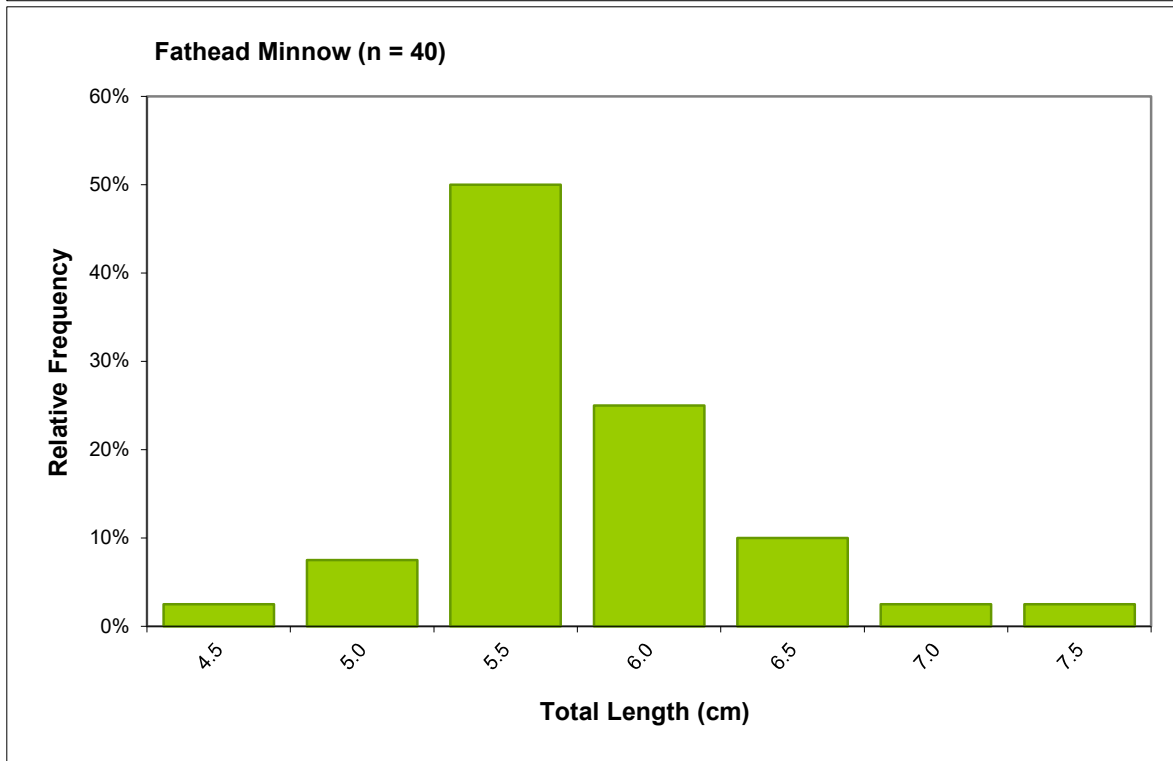
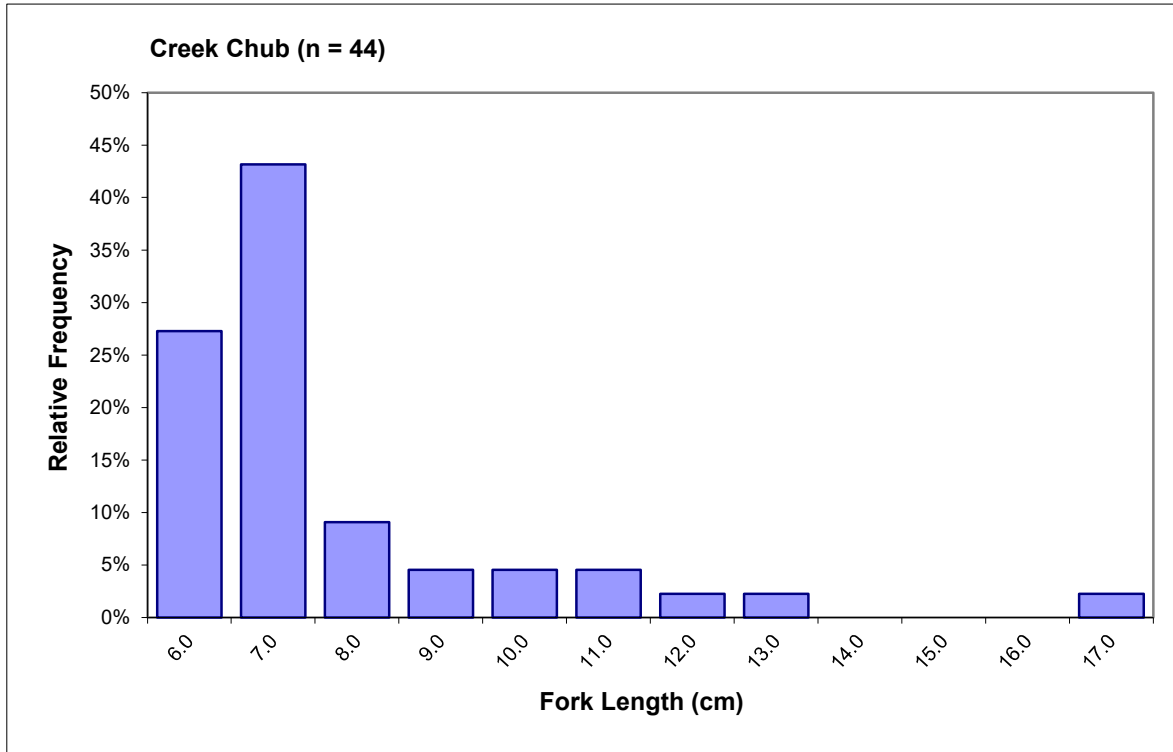
**Appendix Figure A.3: Length-frequency Distributions for Fish Collected at Stockpile Pond, RRM 2020**

Note: Brook stickleback (n=2), finescale dace (n=2) not plotted due to low capture numbers or minimal variation in lengths.



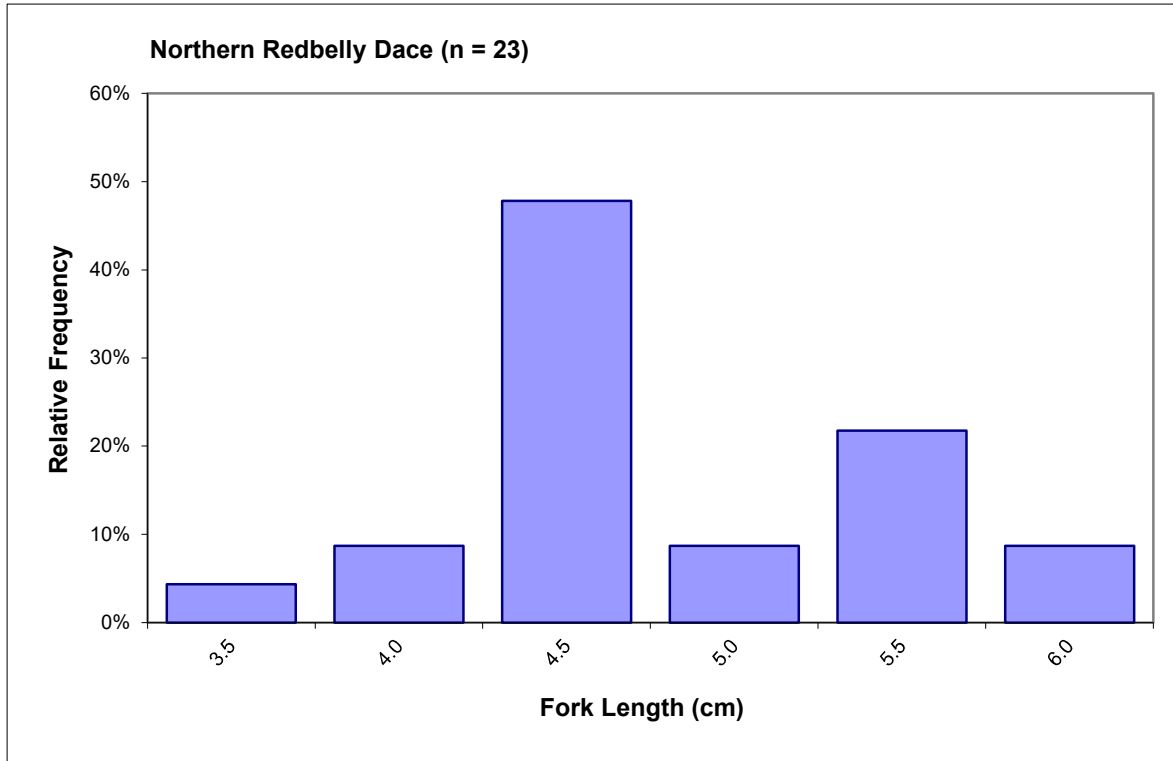
**Appendix Figure A.3: Length-frequency Distributions for Fish Collected at Stockpile Pond, RRM 2020**

Note: Brook stickleback (n=2), finescale dace (n=2) not plotted due to low capture numbers or minimal variation in lengths.



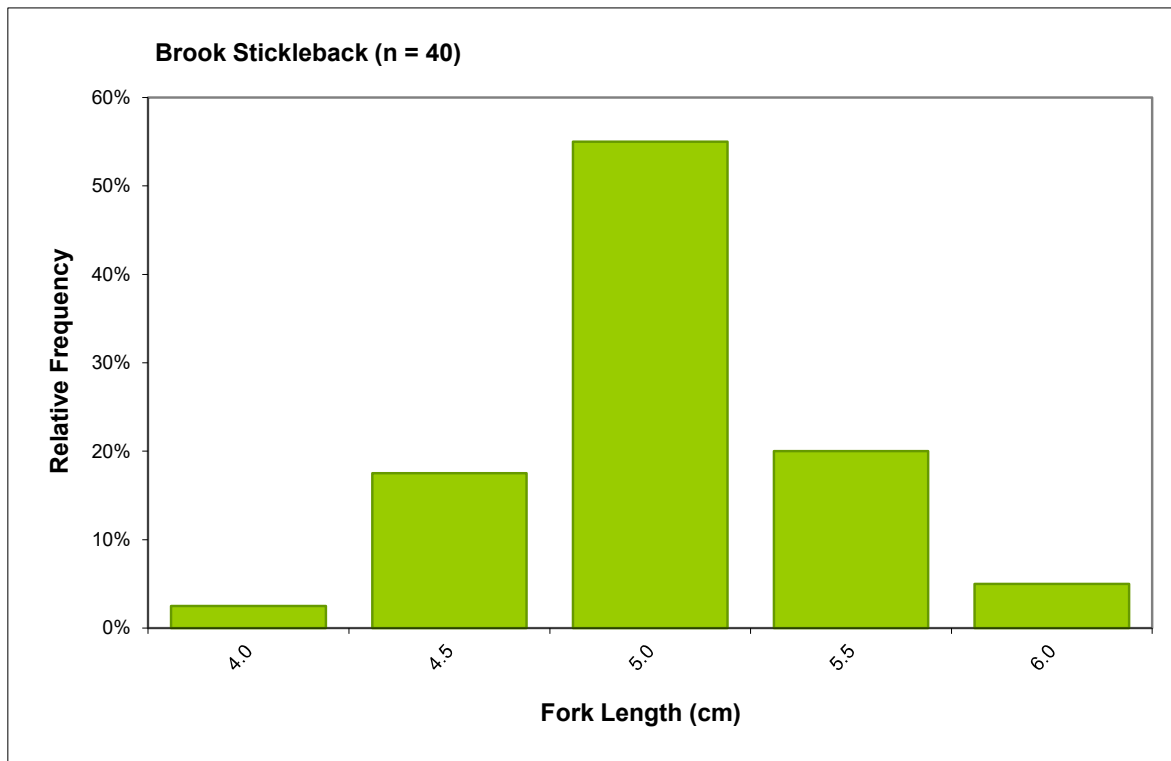
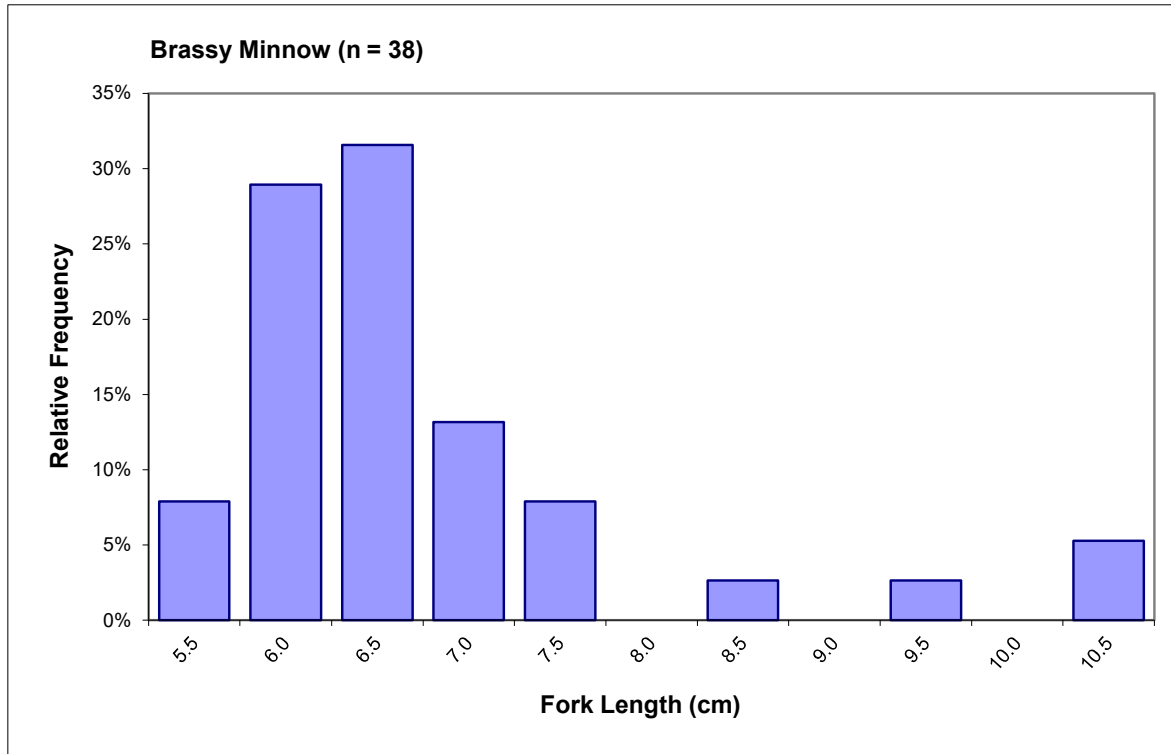
**Appendix Figure A.3: Length-frequency Distributions for Fish Collected at Stockpile Pond, RRM 2020**

Note: Brook stickleback (n=2), finescale dace (n=2) 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 2020**

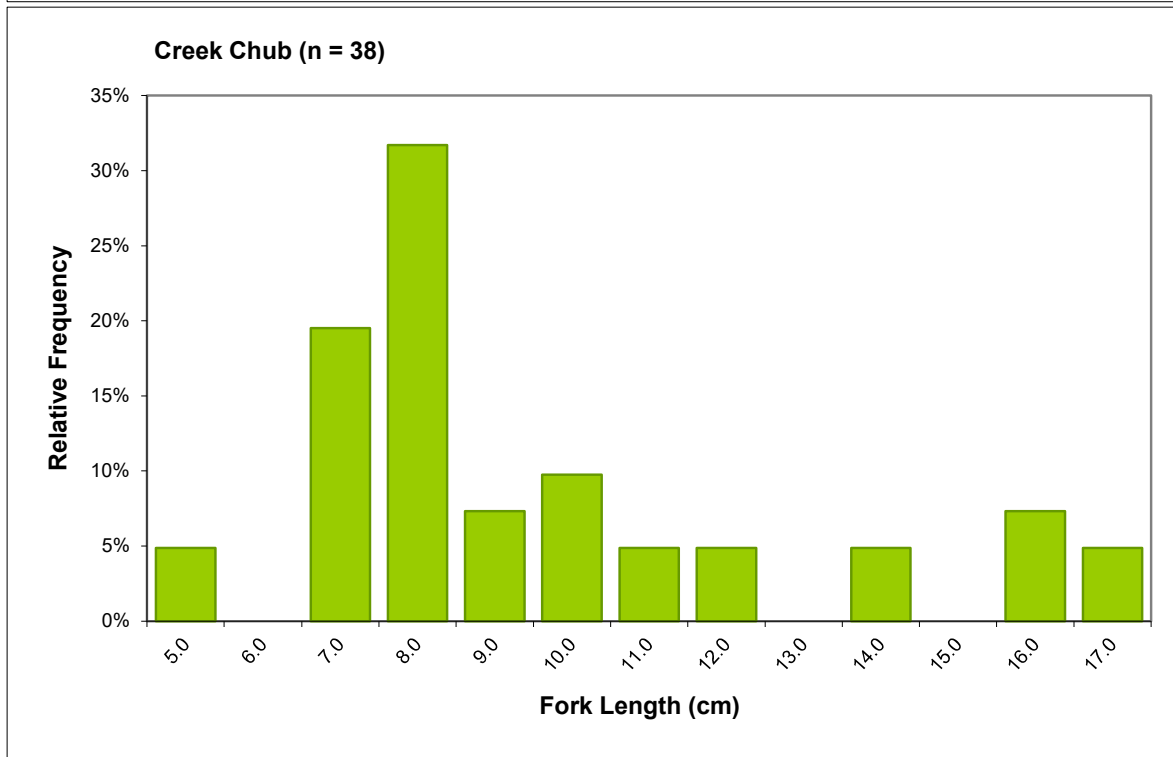
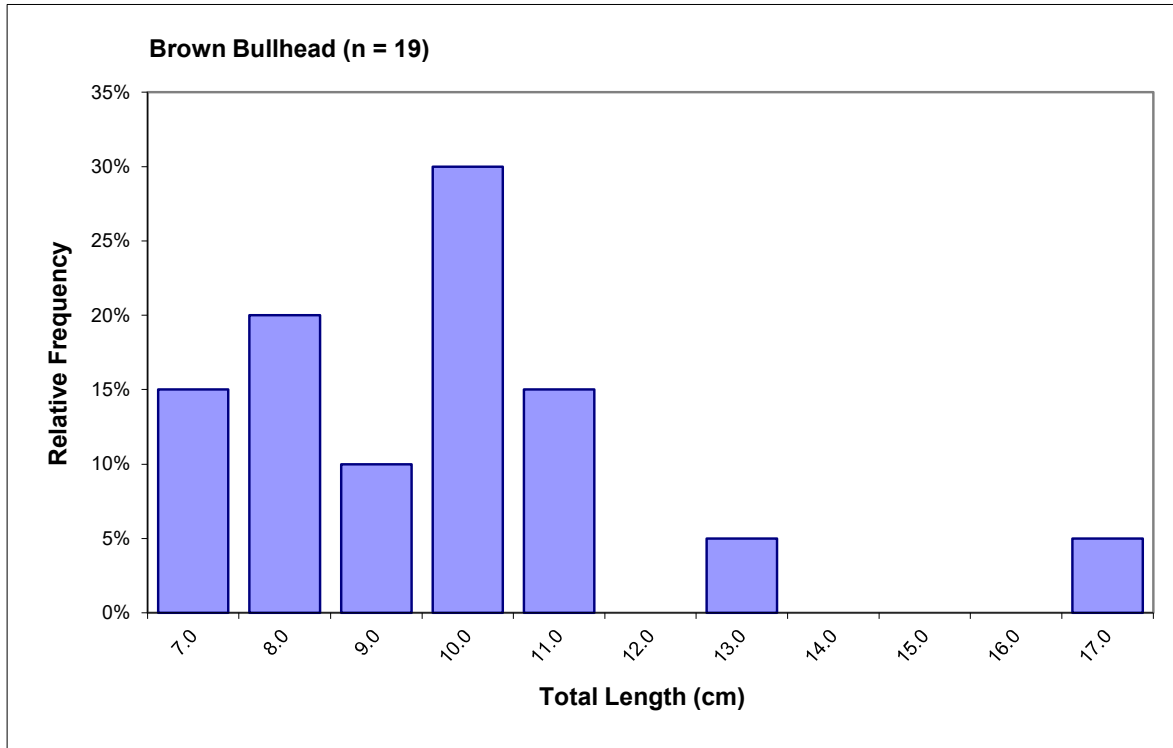
Note: Brook stickleback (n=2), finescale dace (n=2) not plotted due to low capture numbers or minimal variation in lengths.



**Appendix Figure A.4: Length-frequency Distributions for Fish Collected at West Creek Pond, RRM 2020**

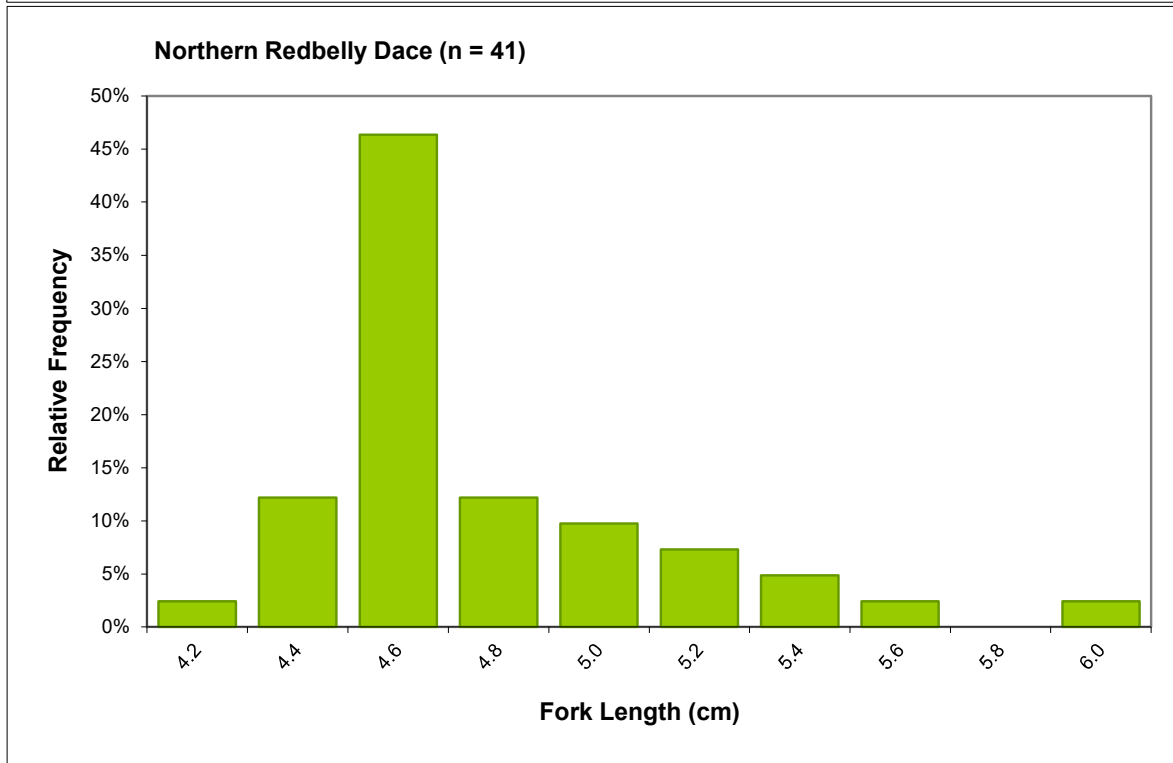
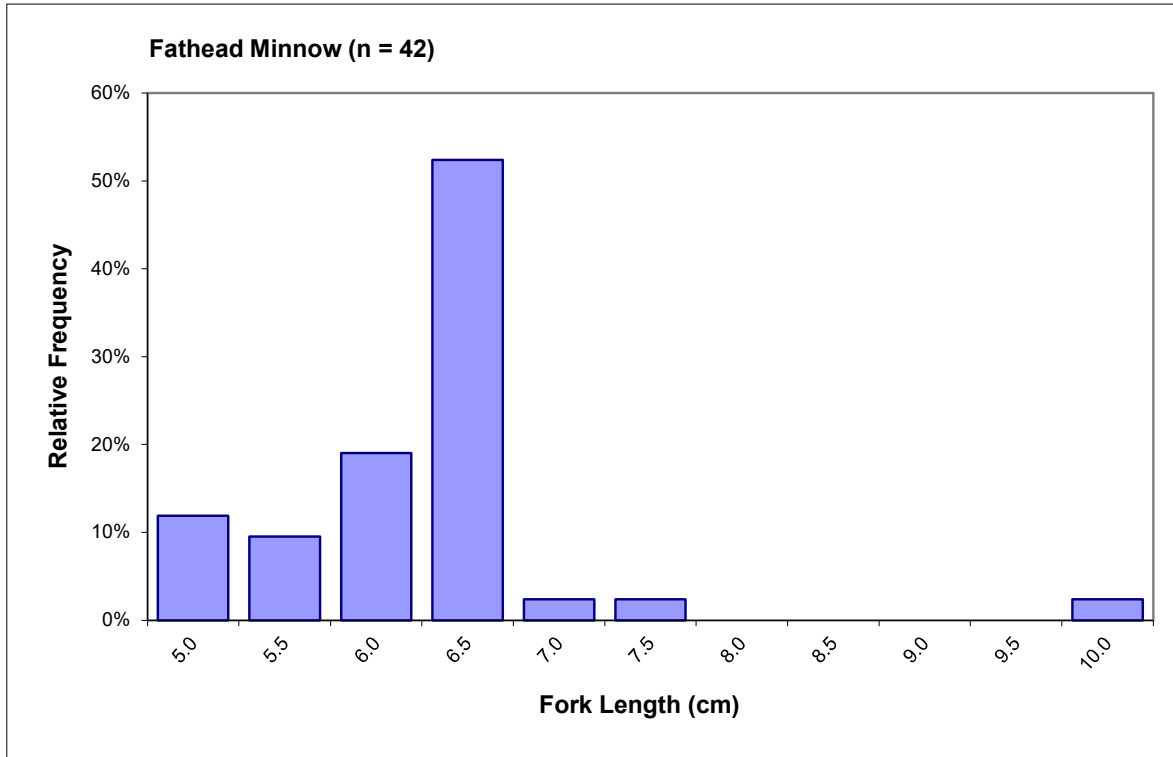
Note: Johnny darter (n=1) not plotted due to low capture numbers.





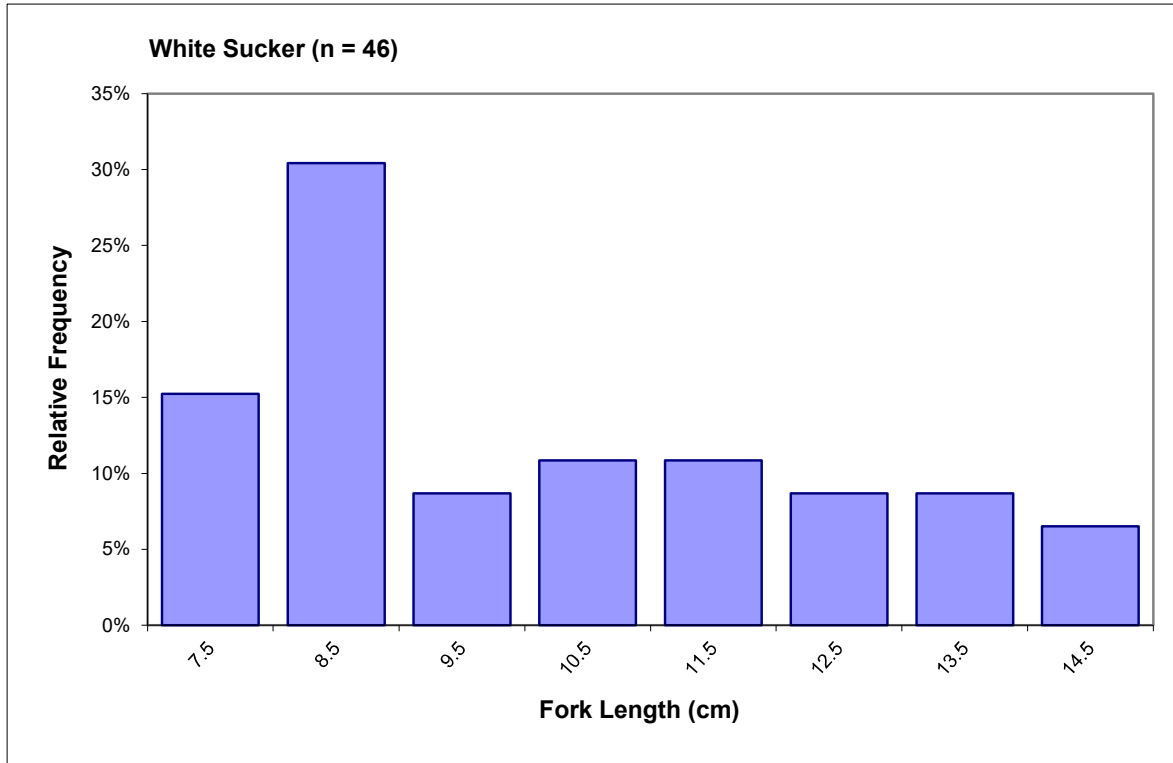
**Appendix Figure A.4: Length-frequency Distributions for Fish Collected at West Creek Pond, RRM 2020**

Note: Johnny darter (n=1) not plotted due to low capture numbers.



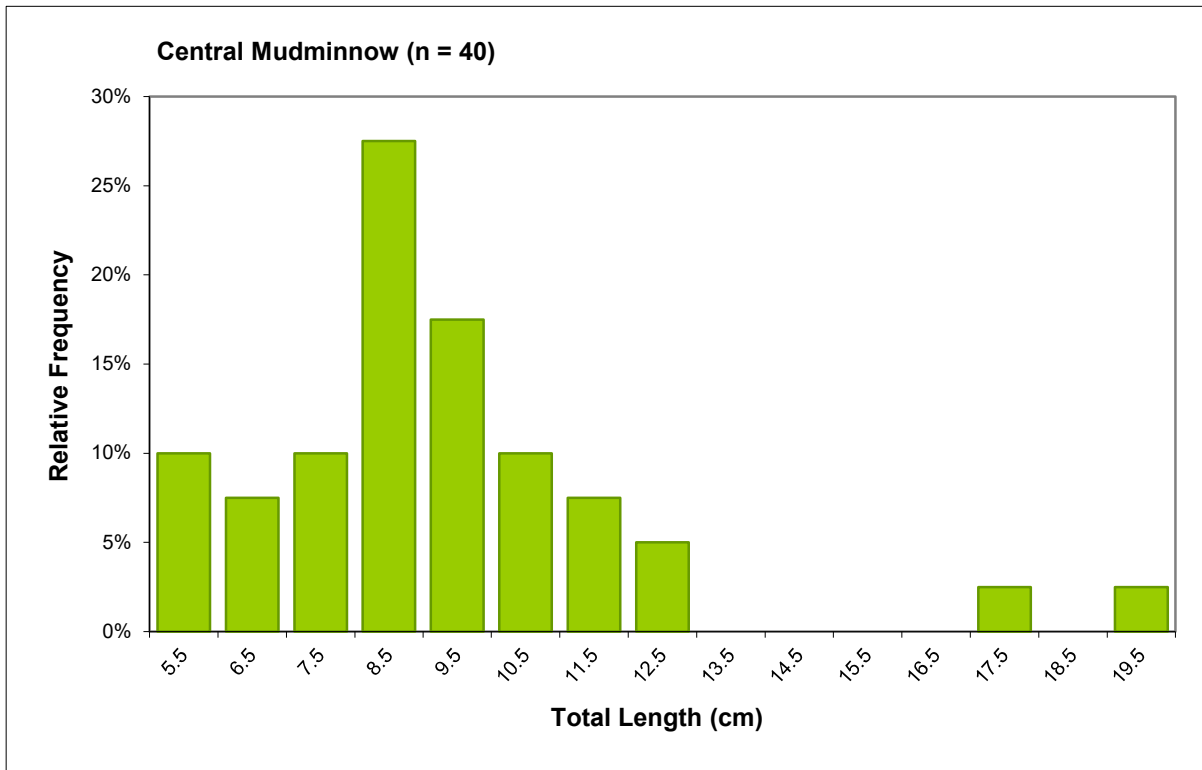
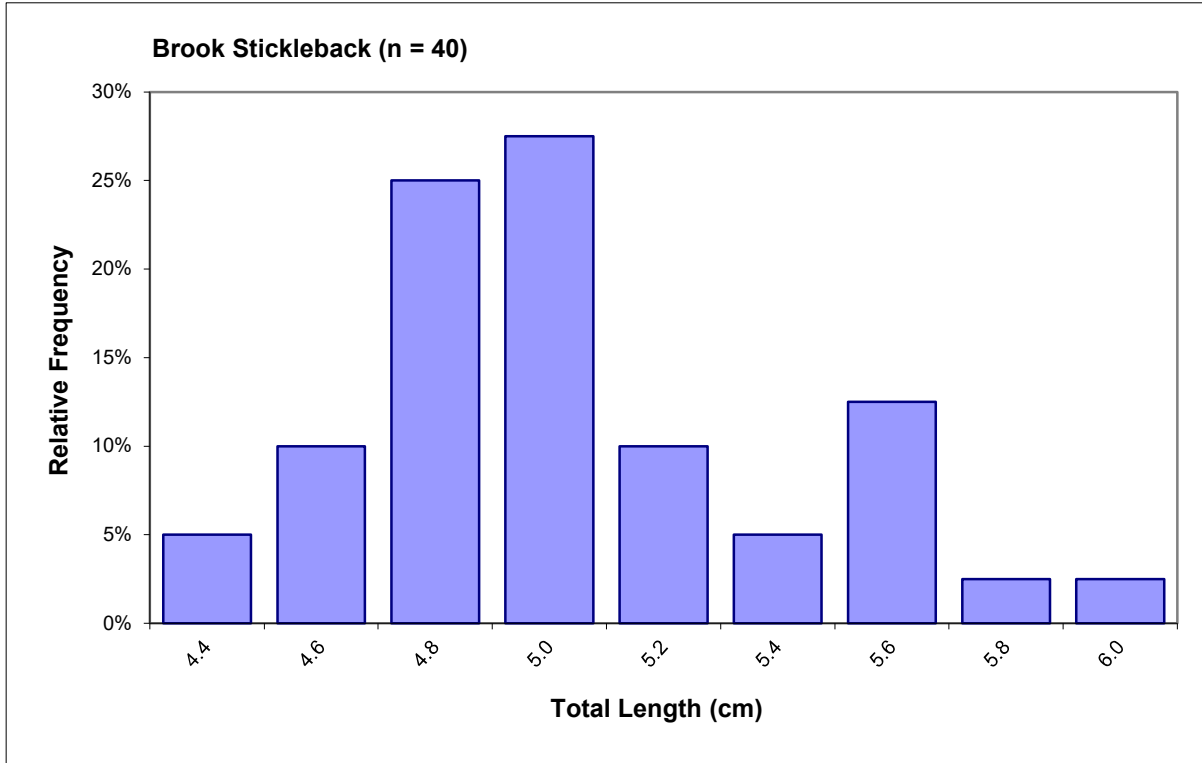
**Appendix Figure A.4: Length-frequency Distributions for Fish Collected at West Creek Pond, RRM 2020**

Note: Johnny darter (n=1) not plotted due to low capture numbers.



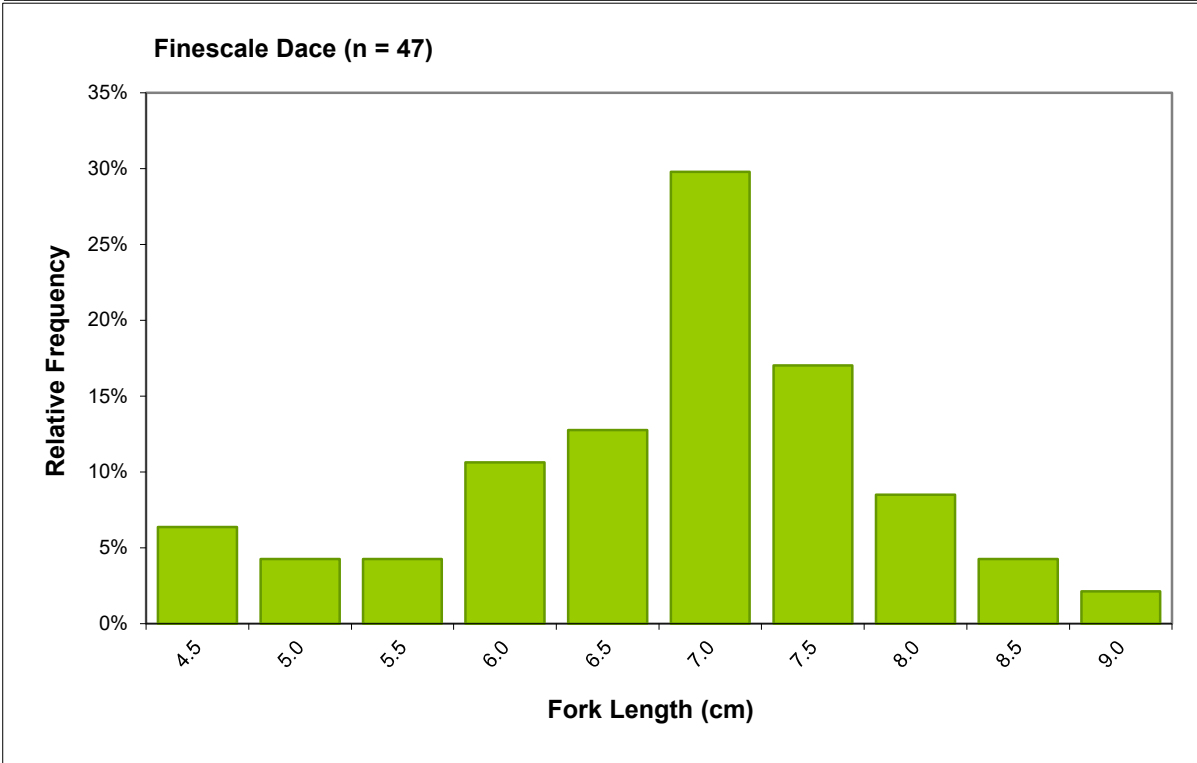
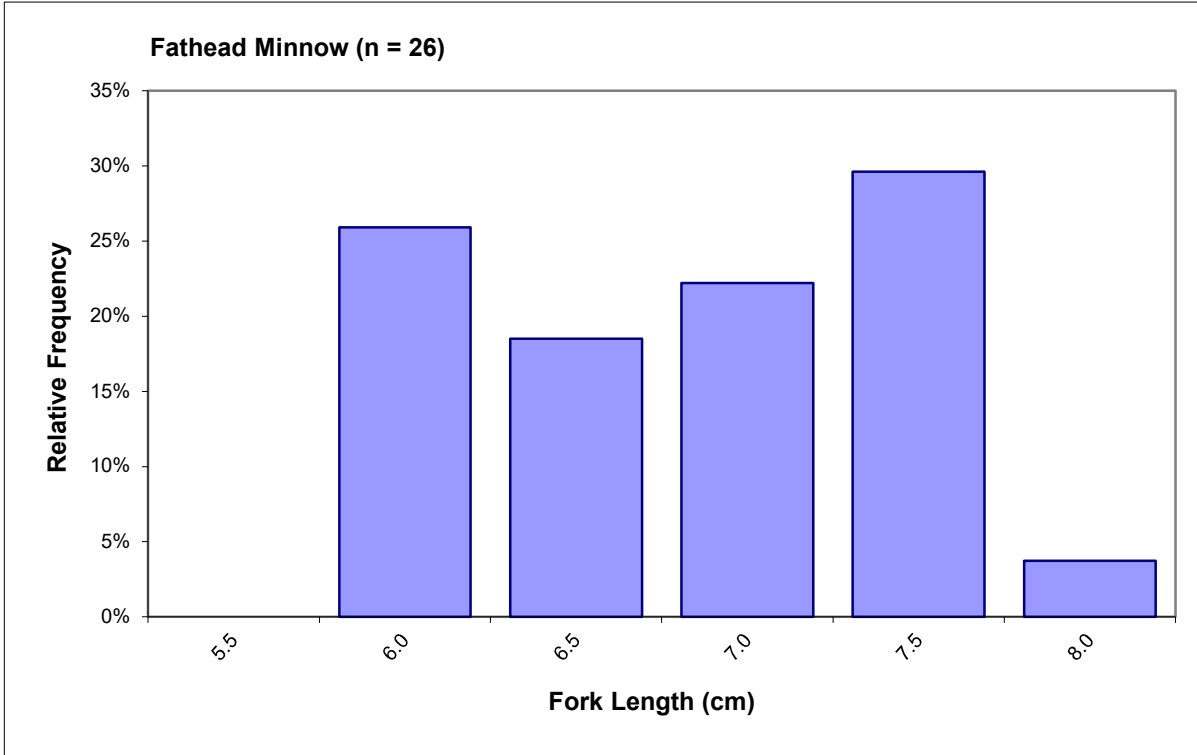
**Appendix Figure A.4: Length-frequency Distributions for Fish Collected at West Creek Pond, RRM 2020**

Note: Johnny darter (n=1) not plotted due to low capture numbers.



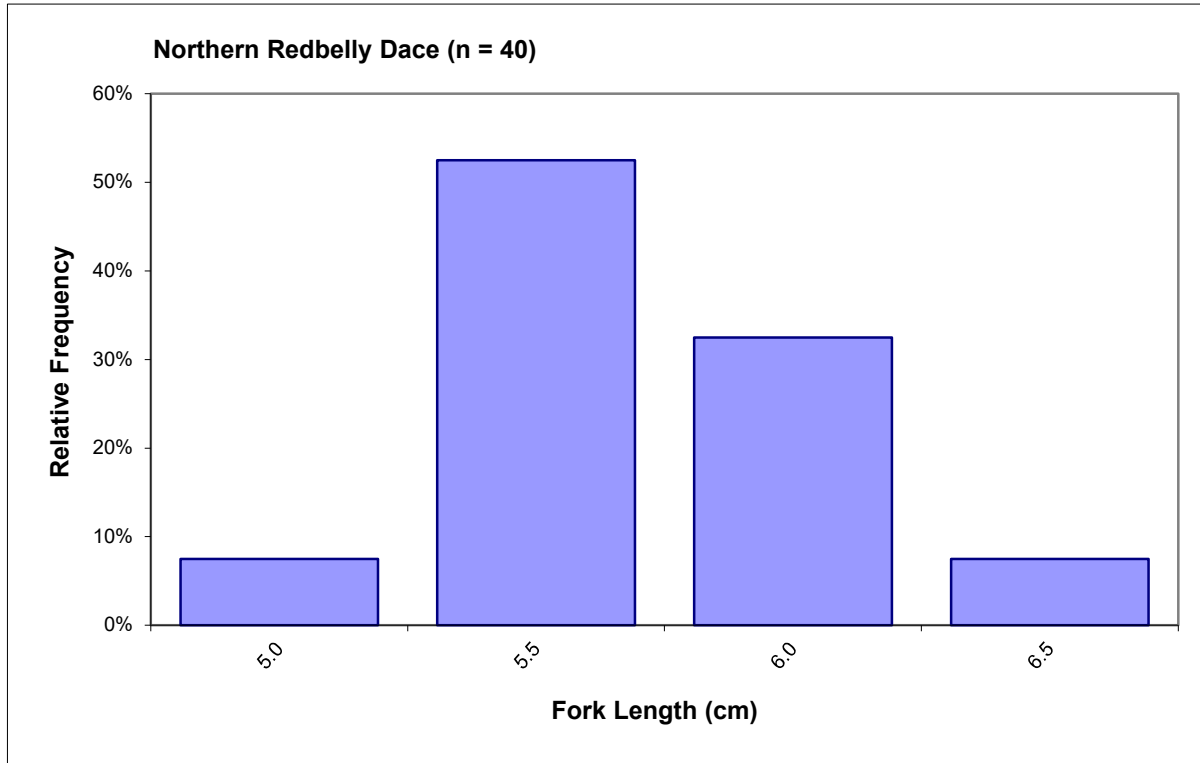
**Appendix Figure A.5: Length-frequency Distributions for Fish Collected at Clark Pond, RRM 2020**

Note: Brassy minnow (n=7) not plotted due to low capture numbers.



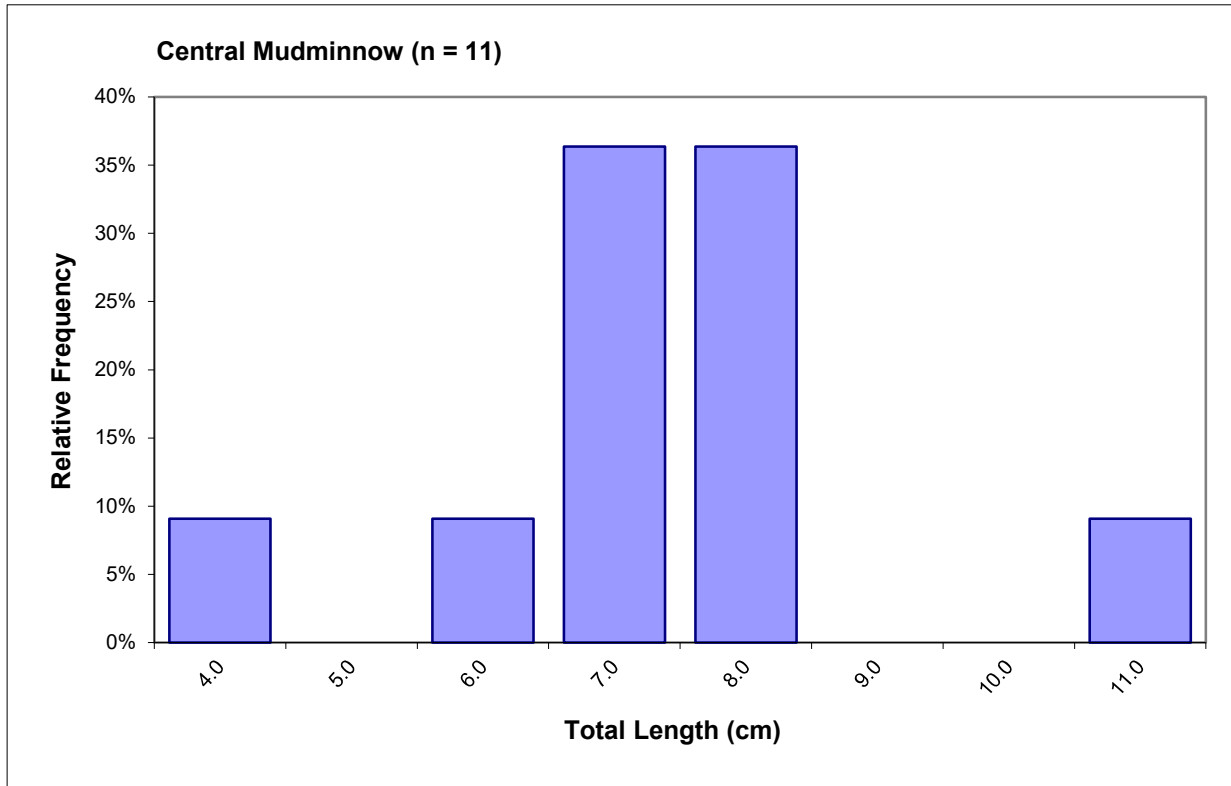
**Appendix Figure A.5: Length-frequency Distributions for Fish Collected at Clark Pond, RRM 2020**

Note: Brassy minnow (n=7) not plotted due to low capture numbers.



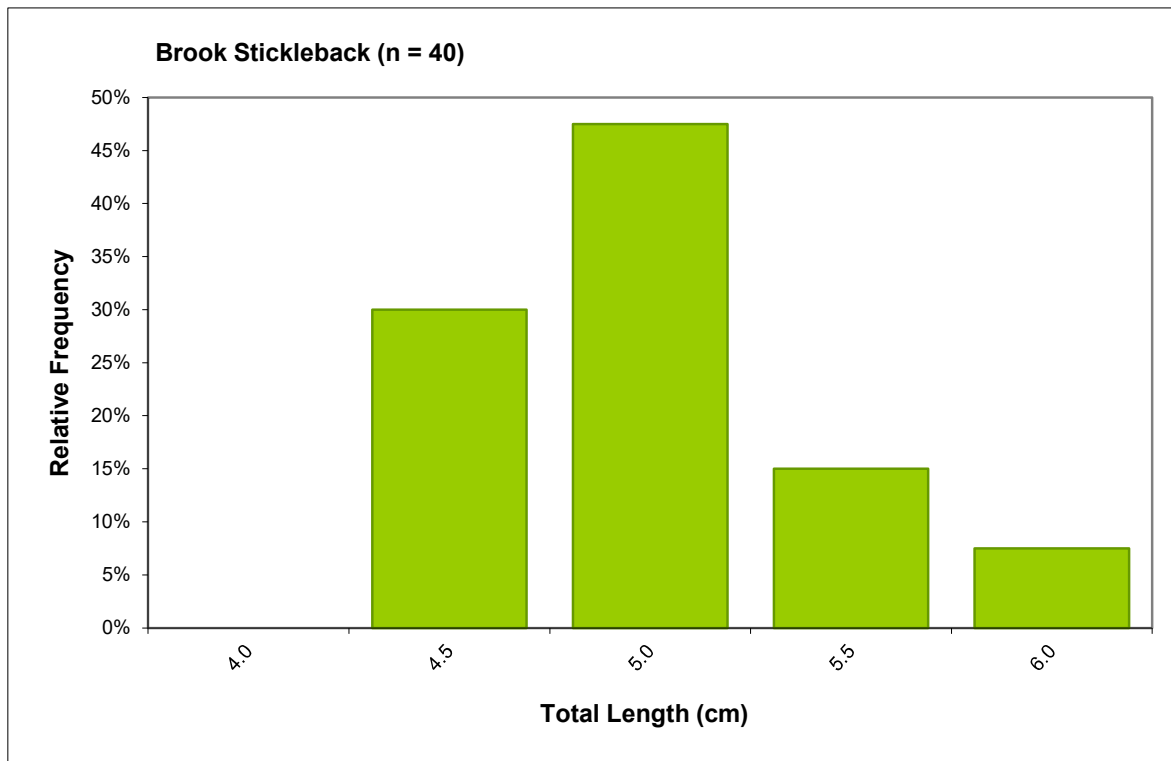
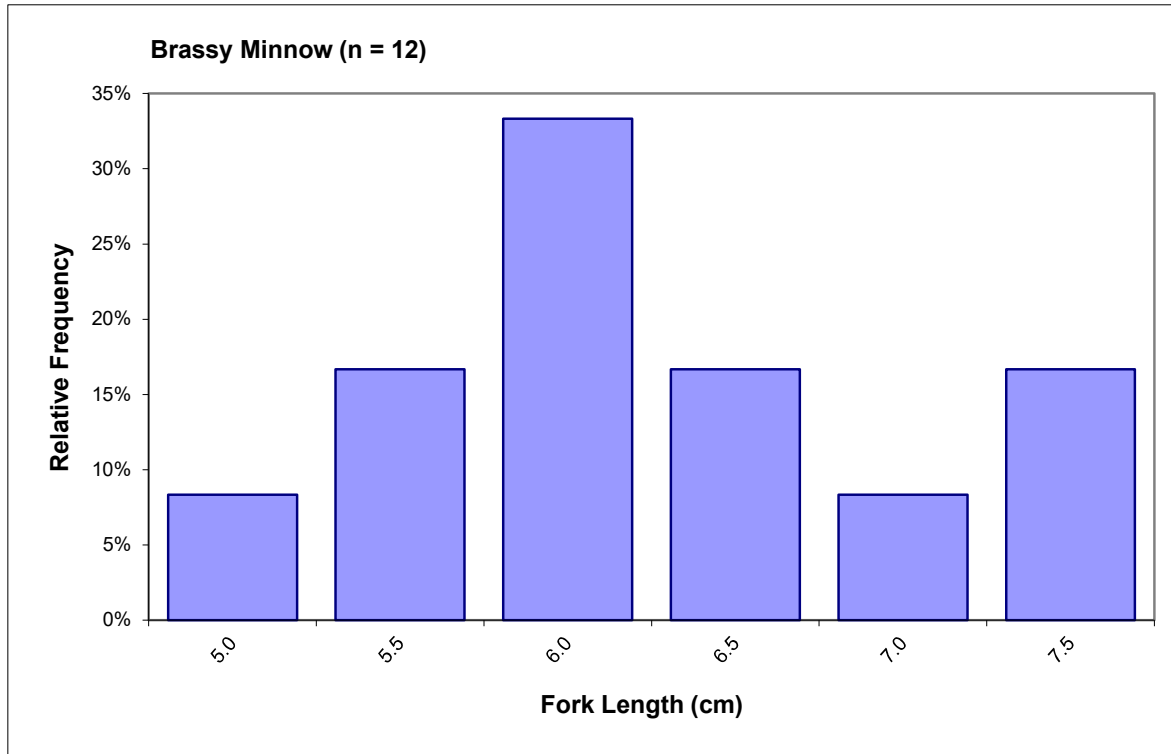
**Appendix Figure A.5: Length-frequency Distributions for Fish Collected at Clark Pond, RRM 2020**

Note: Brassy minnow (n=7) not plotted due to low capture numbers.



**Appendix Figure A.6: Length-frequency Distributions for Fish Collected at Teeple Pond Outlet, RRM 2020**

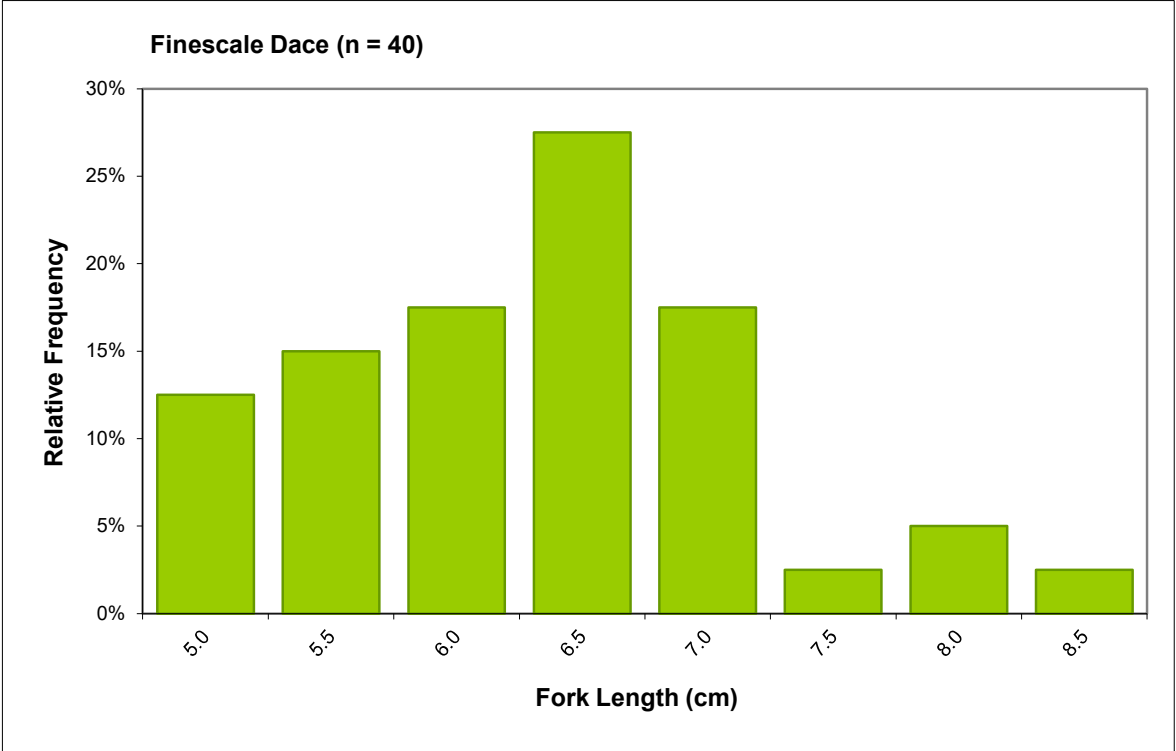
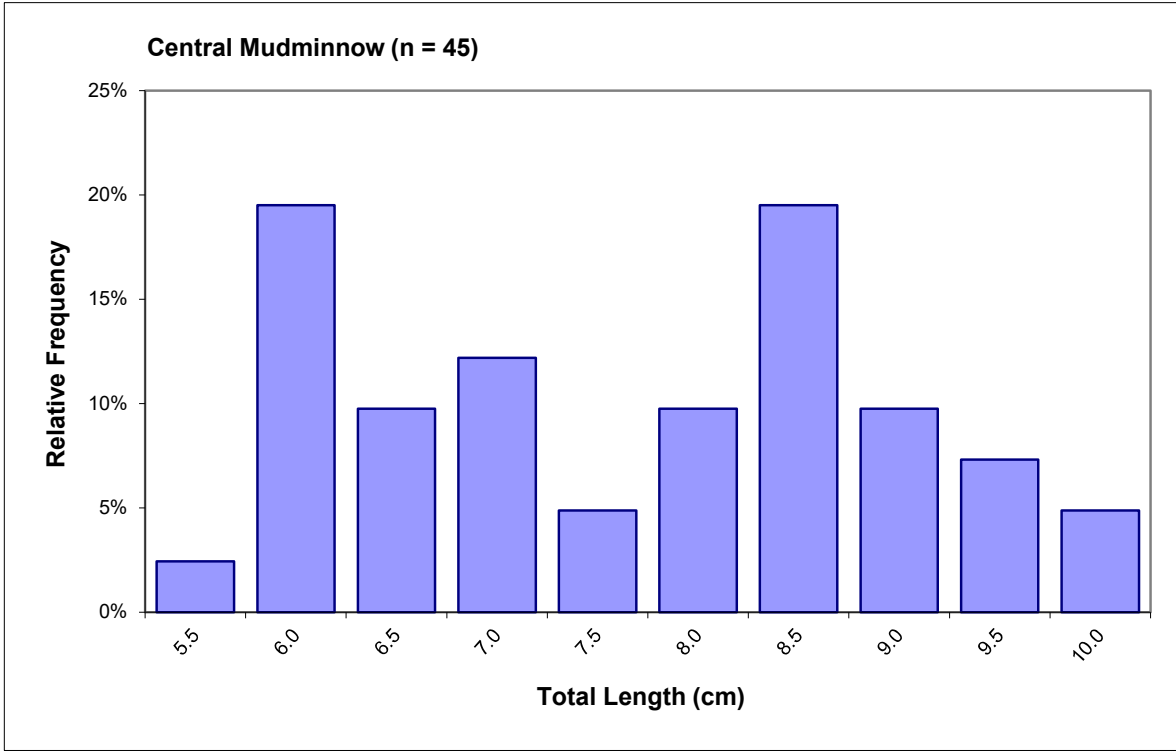
Note: Brook stickleback (n=5), finescale dace (n=2) not plotted due to low capture numbers.



**Appendix Figure A.7: Length-frequency Distributions for Fish Collected at Teeple Pond, RRM 2020**

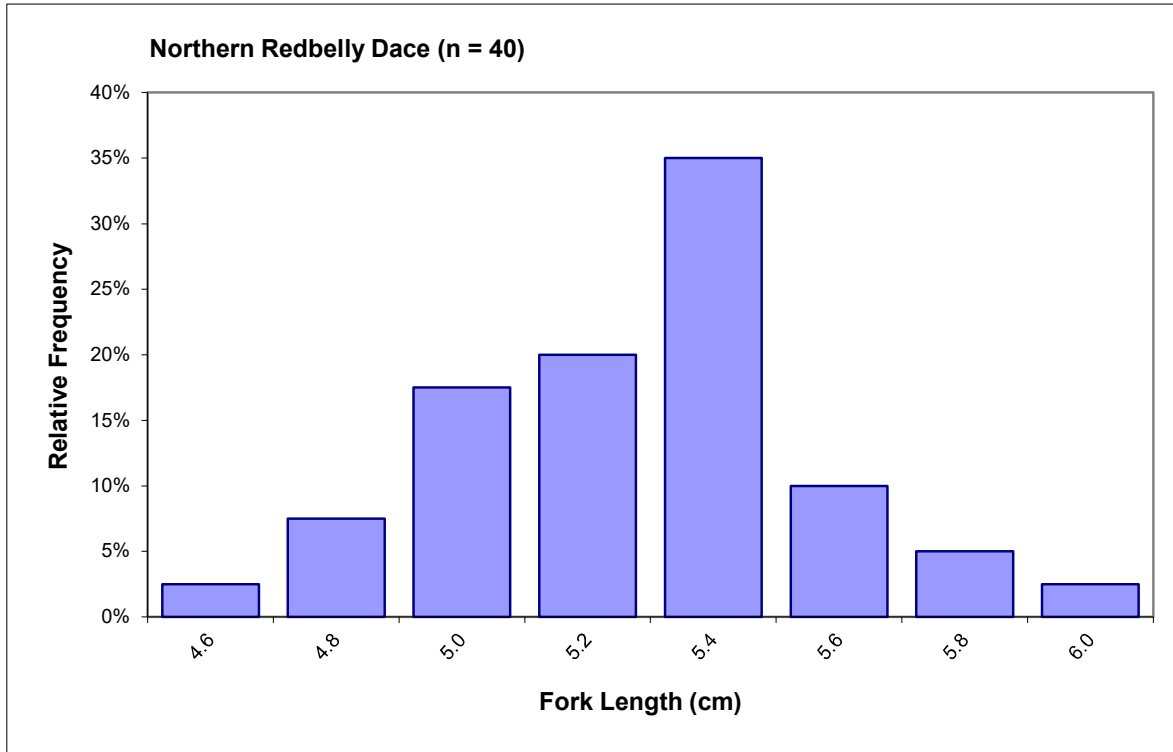
Note: Creek chub (n=1), fathead minnow (n=1), pearl dace (n=1) not plotted due to low capture numbers.





**Appendix Figure A.7: Length-frequency Distributions for Fish Collected at Teeple Pond, RRM 2020**

Note: Creek chub (n=1), fathead minnow (n=1), pearl dace (n=1) not plotted due to low capture numbers.



**Appendix Figure A.7: Length-frequency Distributions for Fish Collected at Teeple Pond, RRM 2020**

Note: Creek chub (n=1), fathead minnow (n=1), pearl dace (n=1) not plotted due to low capture numbers.

Stockpile Pond Diversion Channel (dry area) July 2020



Stockpile Pond Diversion Channel (dry area) July 2020



Stockpile Diversion Channel (dry area) July 2020



Stockpile Diversion Channel (dry area) July 2020



**Appendix Photo A.1: Stockpile Pond Diversion Channel Habitat, RRM 2020**



West Creek Diversion Channel

May 2020



West Creek Diversion Channel

May 2020



West Creek Diversion Channel

May 2020



West Creek Diversion Channel

May 2020



**Appendix Photo A.2: West Creek Diversion Channel Habitat Upstream of Haul Road, RRM 2020**



West Creek Diversion Channel May 2020



West Creek Diversion Channel May 2020



West Creek Diversion Channel May 2020



West Creek Diversion Channel May 2020



**Appendix Photo A.3: West Creek Diversion Channel Habitat Downstream of Haul Road, RRM 2020**



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 2020



Stockpile Pond

July 2020



Stockpile Pond

July 2020



Stockpile Pond

July 2020



**Appendix Photo A.5: Stockpile Pond Habitat, RRM 2020**

West Creek Pond

July 2020



West Creek Pond

July 2020



West Creek Pond

July 2020



**Appendix Photo A.6: West Creek Pond Habitat, RRM 2020**



Clark Pond

July 2020



Clark Pond

July 2020



Clark Pond

July 2020



Clark Pond Seine Net Haul

July 2020



**Appendix Photo A.7: Clark Pond Habitat, RRM 2020**



Teeple Pond Outlet

July 2020



Teeple Pond Outlet

July 2020



Teeple Pond Outlet

July 2020



Teeple Pond Outlet

July 2020



**Appendix Photo A.8: Teeple Pond Outlet Channel Habitat, RRM 2020**



Teeple Pond

July 2020



Teeple Pond

July 2020



Teeple Pond

July 2020



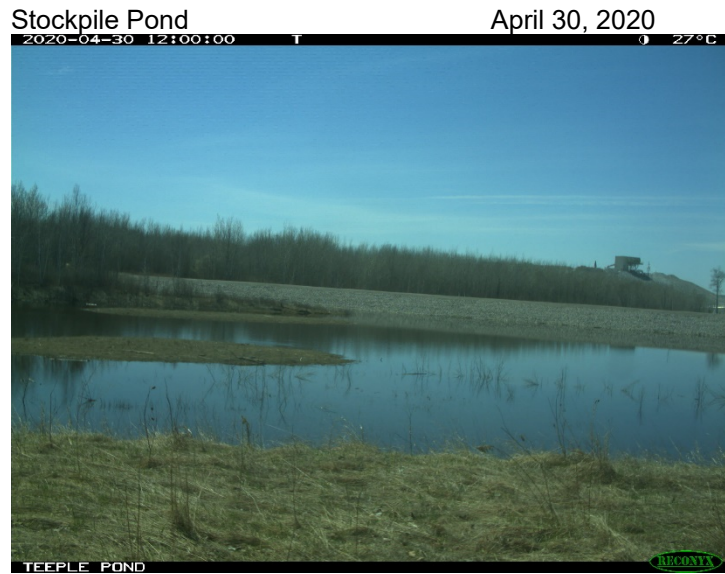
Teeple Pond

July 2020



**Appendix Photo A.9: Teeple Pond Habitat, RRM 2020**



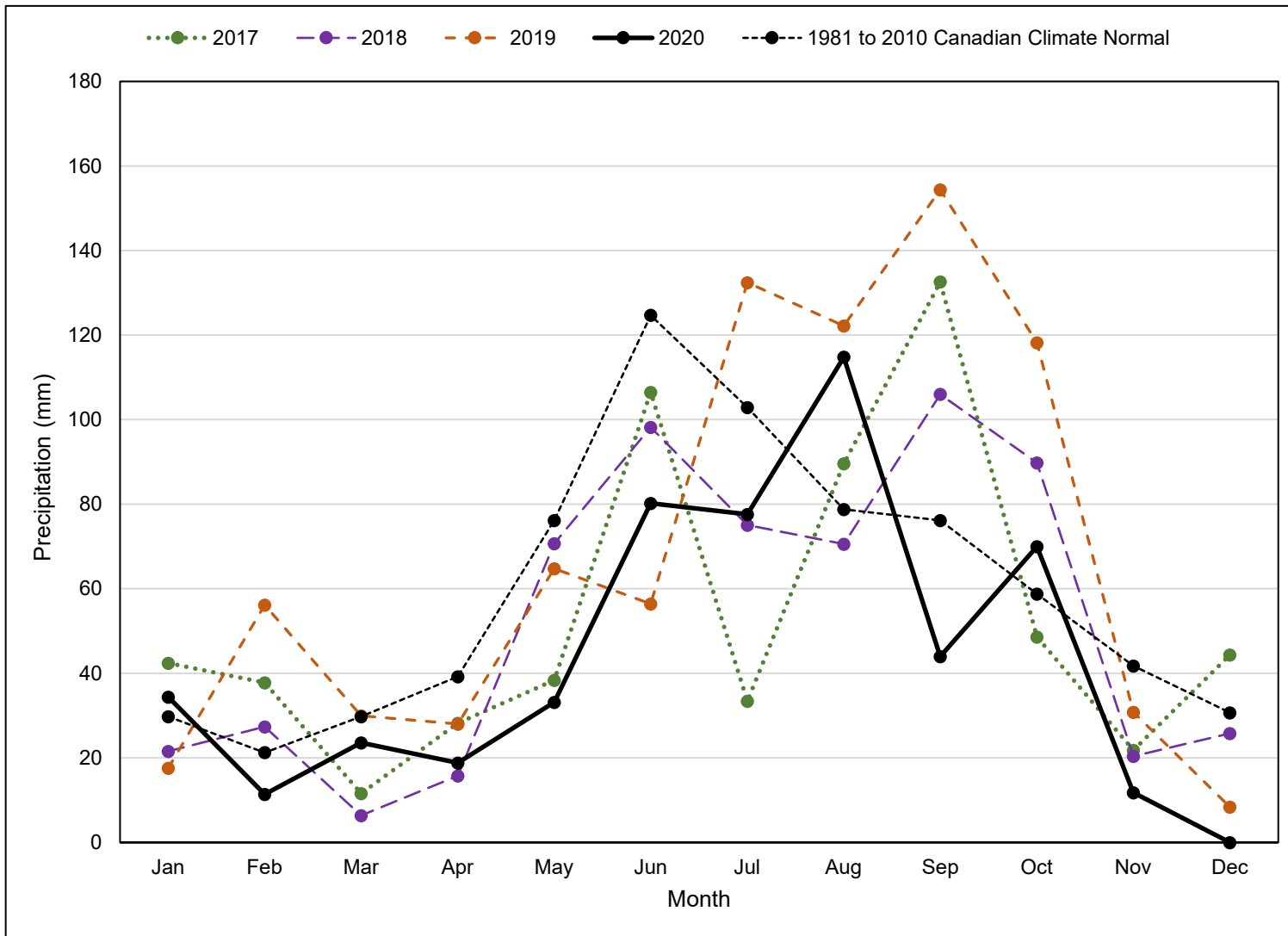


**Appendix Photo A.10: Monthly Stockpile Pond Water Level Photographs Collected by RRM Environmental Staff, RRM 2020**





**Appendix Photo A.11: Monthly Stockpile Pond Water Level Photographs Collected by RRM Environmental Staff, RRM 2020**



**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 2020**

Station	Measurement	Channel Interval							
		1	2	3	4	5	6	7	mean
SPDC-Culvert	Distance from shore (m)	No surface flow							
	Depth (cm)								
	Velocity (m/s)								
SPDC-01	Distance from shore (m)	0.15	0.3	0.45	0.6	-	-	-	-
	Depth (cm)	4.0	6.0	4.0	0.0	-	-	-	3.5
	Velocity (m/s)	0.91	0.268	0.259	0	-	-	-	0.3593
SPDC-02	Distance from shore (m)	0.9	1.8	2.7	3.6	4.5	5.4	6.3	-
	Depth (cm)	20.0	26.0	32.0	32.0	28	22	0	22.9
	Velocity (m/s)	0.002	0.002	0.004	0.000	0.002	0.001	0	0.0016
SPDC-03	Distance from shore (m)	0.2	0.4	0.6	-	-	-	-	-
	Depth (cm)	5.0	6.0	0.0	-	-	-	-	3.7
	Velocity (m/s)	0.344	0.14	0	-	-	-	-	0.1613
SPDC-04	Distance from shore (m)	No surface flow							
	Depth (cm)								
	Velocity (m/s)								
SPDC-05	Distance from shore (m)	No surface flow							
	Depth (cm)								
	Velocity (m/s)								

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 2020**

Station	Measurement	Channel Interval						
		1	2	3	4	5	6	mean
WCDC-01	Distance from shore (m)	0.25	0.5	0.75	1	1.25	1.5	-
	Depth (cm)	4	9	15	16	12	5	10.2
	Velocity (m/s)	0.024	0.066	0.094	0.125	0.148	0.064	0.087
WCDC-02	Distance from shore (m)	0.15	0.3	0.45	0.6	-	-	-
	Depth (cm)	6	7	5	5	-	-	5.8
	Velocity (m/s)	0.458	0.716	0.238	-0.03	-	-	0.346
WCDC-03	Distance from shore (m)	0.3	0.6	0.9	1.2	1.5	-	-
	Depth (cm)	22	40	42	36	20	-	32.0
	Velocity (m/s)	0	0.001	0.01	0.003	0	-	0.003
WCDC-04	Distance from shore (m)	0.15	0.3	0.45	0.6	0.75	-	-
	Depth (cm)	4	10	12	16	12	-	10.8
	Velocity (m/s)	0.019	0.004	0.172	0.107	0.116	-	0.084
WCDC-05	Distance from shore (m)	0.4	0.8	1.2	1.6	2	-	-
	Depth (cm)	30	29	29	28	31	-	29.4
	Velocity (m/s)	0.003	0.016	0.003	0.009	0.019	-	0.010
WCDC-06	Distance from shore (m)	0.3	0.6	0.9	1.2	1.5	1.8	-
	Depth (cm)	31	41	46	43	38	14	35.5
	Velocity (m/s)	-0.02	-0.023	-0.025	-0.009	0.03	0.002	-0.008
WCDC-07	Distance from shore (m)	0.25	0.5	0.75	1	1.25	1.5	-
	Depth (cm)	4	10	14	16	10	8	10.3
	Velocity (m/s)	0.028	0.025	0.035	0.182	0.131	0.064	0.078
WCDC-08	Distance from shore (m)	0.6	1.2	1.8	2.4	3	3.6	-
	Depth (cm)	26	54	78	75	53	20	51.0
	Velocity (m/s)	0.005	0.007	0.009	0.005	0.002	0.006	0.006
WCDC-09	Distance from shore (m)	0.6	1.2	1.8	2.4	3	3.6	-
	Depth (cm)	17	19	33	57	62	28	36.0
	Velocity (m/s)	0.003	0.002	0.005	0.023	0.005	0.006	0.007

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 2020**

Station	Measurement	Channel Interval							mean
		1	2	3	4	5	6	7	
WCDC-A1	Distance from shore (m)	0.75	1.5	2.25	3	3.75	4.5	-	-
	Depth (cm)	12	18	24	21	17	6	-	16.3
	Velocity (m/s)	0.038	0.059	0.052	0.007	0.055	0.008	-	0.037
WCDC-A2	Distance from shore (m)	0.3	0.6	0.9	1.2	1.5	1.8	-	-
	Depth (cm)	6	12	19	24	32	26	-	19.8
	Velocity (m/s)	0.07	0.008	0.036	0.119	0.249	0.078	-	0.093
WCDC-A3	Distance from shore (m)	0.2	0.4	0.6	0.8	1	1.2	-	-
	Depth (cm)	11	13	21	19	10	6	-	13.3
	Velocity (m/s)	0.065	0.232	0.531	0.226	0.19	0.148	-	0.232
WCDC-A4	Distance from shore (m)	0.5	1	1.5	2	2.5	3	-	-
	Depth (cm)	38	70	72	62	42	10	-	49.0
	Velocity (m/s)	0.015	0.036	0.042	0.03	0.012	0.007	-	0.024
WCDC-A5	Distance from shore (m)	0.35	0.7	1.05	1.4	1.75	2.1	-	-
	Depth (cm)	12	38	62	52	33	20	-	36.2
	Velocity (m/s)	0.005	0.043	0.102	0.031	0.006	0.004	-	0.032
WCDC-A6	Distance from shore (m)	0.8	1.6	2.4	3.2	4	4.8	5.6	-
	Depth (cm)	5	18	18	27	14	16	5	14.7
	Velocity (m/s)	0.018	0.007	0.013	0.131	0.01	0.004	0.053	0.034
WCDC-A7	Distance from shore (m)	1	2	3	4	5	6	-	-
	Depth (cm)	31	60	66	64	44	20	-	47.5
	Velocity (m/s)	0.001	0.008	0.002	0.004	0	0.002	-	0.003

Note: "-" indicates no measurement taken.

**Table A.4: High-Flow Channel Depth and Velocity Data Associated with Clark Creek Diversion Channel, RRM May 2020**

Station	Measurement	Channel Interval								mean
		1	2	3	4	5	6	7	8	
CCDC-01	Distance from shore (m)	0	1	2	3	4	5	6	7	-
	Depth (cm)	0.0	30.0	48.0	58.0	60.0	58.0	50.0	22.0	40.8
	Velocity (m/s)	0	0.008	0	0.002	0.003	0.006	0.005	0.006	0.00375
CCDC-02	Distance from shore (m)	0.4	0.8	1.2	1.6	2	2.4	2.8	-	-
	Depth (cm)	4.0	10.0	14.0	13.0	8.0	5.0	0.0	-	7.7
	Velocity (m/s)	0.001	0.01	0.024	0.127	0.027	-0.003	0	-	0.026571
CCDC-03	Distance from shore (m)	0.15	0.3	0.45	0.9	-	-	-	-	-
	Depth (cm)	6.0	13.0	6.0	0	-	-	-	-	6.3
	Velocity (m/s)	0.094	0.139	0.048	0	-	-	-	-	0.07025
CCDC-04	Distance from shore (m)	1	2	3	4	5	6	7	8	-
	Depth (cm)	26.0	42.0	42.0	42.0	37.0	41.0	38.0	39.0	38.4
	Velocity (m/s)	0.009	0.011	0.008	0.007	0.003	0.003	0.001	0.007	0.006125
CCDC-05	Distance from shore (m)	1	2	3	4	5	6	-	-	-
	Depth (cm)	0.0	10.0	14.0	12.0	6.0	0	-	-	7.0
	Velocity (m/s)	0.072	0.142	0.509	0.27	0.046	0	-	-	0.173167
CCDC-06	Distance from shore (m)	1	2	3	4	5	6	7	-	-
	Depth (cm)	18.0	35.0	39.0	41.0	40.0	30.0	0.0	-	29.0
	Velocity (m/s)	0	0.004	0.004	0.005	0.005	0.005	0	-	0.003286

Note: "-" indicates no measurement taken.

**Table A.5: High-Flow Channel Depth and Velocity Data Associated with Teeple Pond Outlet Channel, RRM May 2020**

Station	Measurement	Channel Interval							mean
		1	2	3	4	5	6	7	
TPDD-01	Distance from shore (m)	0	0.45	0.9	1.35	1.7	2.25	2.35	-
	Depth (cm)	0.0	16.0	50.0	44.0	27.0	11.0	0.0	21.1
	Velocity (m/s)	0	0.099	0.018	0.031	0.035	0.009	0	0.027429
TPDD-02	Distance from shore (m)	0	0.4	0.8	1.2	1.6	2	2.5	-
	Depth (cm)	0.0	20.0	28.0	38.0	31.0	22	0	19.9
	Velocity (m/s)	0	0.001	0.055	0.024	0.063	0.029	0	0.024571
TPDD-03	Distance from shore (m)	0	0.2	0.4	0.6	0.8	1	-	-
	Depth (cm)	0.0	10.0	14.0	11.0	7.0	0.0	-	7.0
	Velocity (m/s)	0	0.427	0.566	0.263	0.069	0	-	0.220833
TPDD-04	Distance from shore (m)	0	0.5	1	1.5	2	2.5	3	-
	Depth (cm)	0.0	0.3	0.3	0.3	0.3	0.3	0.22	0.2
	Velocity (m/s)	0	0.004	0.023	0.039	0.006	0.009	-0.007	0.010571

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 2020**

Station	Measurement	Channel Interval					
		1	2	3	4	5	mean
WCDC-01	Distance from shore (m)	0.2	1.2	0.5	-	-	-
	Depth (cm)	11.0	19.0	9.0	-	-	13.0
	Velocity (m/s)	-0.004	0.008	-0.016	-	-	-0.004
WCDC-02	Distance from shore (m)	0.4	-	-	-	-	-
	Depth (cm)	2.0	-	-	-	-	2.0
	Velocity (m/s)	0.057	-	-	-	-	0.057
WCDC-03	Distance from shore (m)	0.2	1.2	0.2	-	-	-
	Depth (cm)	16.0	50.0	12.0	-	-	26.0
	Velocity (m/s)	-0.004	0.001	-0.004	-	-	-0.002
WCDC-04	Distance from shore (m)	No surface flow					
	Depth (cm)						
	Velocity (m/s)						
WCDC-05	Distance from shore (m)	1	-	-	-	-	-
	Depth (cm)	11.0	-	-	-	-	11.0
	Velocity (m/s)	-0.006	-	-	-	-	-0.006
WCDC-06	Distance from shore (m)	0.85	-	-	-	-	-
	Depth (cm)	15.0	-	-	-	-	15.0
	Velocity (m/s)	-0.001	-	-	-	-	-0.001
WCDC-07	Distance from shore (m)	No surface flow					
	Depth (cm)						
	Velocity (m/s)						
WCDC-08	Distance from shore (m)	0.2	1.2	2.4	-	-	-
	Depth (cm)	14.0	51.0	14.0	-	-	26.3
	Velocity (m/s)	0	-0.005	-0.008	-	-	-0.004
WCDC-09	Distance from shore (m)	No surface flow					
	Depth (cm)						
	Velocity (m/s)						

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 2020**

Station	Measurement	Channel Interval						
		1	2	3	4	5	6	mean
WCDC-A1	Distance from shore (m)	0	0.7	1.4	-	-	-	-
	Depth (cm)	18.0	36.0	17.0	-	-	-	23.7
	Velocity (m/s)	0.008	0.003	0.012	-	-	-	0.008
WCDC-A2	Distance from shore (m)	0	1.2	2.4	-	-	-	-
	Depth (cm)	10.0	37.0	16.0	-	-	-	21.0
	Velocity (m/s)	0.001	-0.007	0.001	-	-	-	-0.002
WCDC-A3	Distance from shore (m)	0.25	-	-	-	-	-	-
	Depth (cm)	6.0	-	-	-	-	-	6.0
	Velocity (m/s)	0.02	-	-	-	-	-	0.020
WCDC-A4	Distance from shore (m)	0.2	1	2	2.5	-	-	-
	Depth (cm)	7.0	76.0	62.0	11.0	-	-	39.0
	Velocity (m/s)	-0.006	0.011	-0.01	-0.012	-	-	-0.004
WCDC-A5	Distance from shore (m)	0.5	-	-	-	-	-	-
	Depth (cm)	24.0	-	-	-	-	-	24.0
	Velocity (m/s)	-0.005	-	-	-	-	-	-0.005
WCDC-A6	Distance from shore (m)	No surface flow						
	Depth (cm)							
	Velocity (m/s)							
WCDC-A7	Distance from shore (m)	1.2	-	-	-	-	-	-
	Depth (cm)	17.0	-	-	-	-	-	17.0
	Velocity (m/s)	-0.005	-	-	-	-	-	-0.005

Note: "-" indicates no measurement taken.

**Table A.8: Low-Flow Channel Depth and Velocity Data Associated with Clark Creek Diversion Channel, RRM July 2020**

Station	Measurement	Channel Interval							mean
		1	2	3	4	5	6	7	
CCDC-01	Distance from shore (m)	1	2	3	4	5	6	-	-
	Depth (cm)	34.0	52.0	48.0	48.0	40.0	12.0	-	39.0
	Velocity (m/s)	0.008	0.009	0.007	0.1	-0.016	-0.005	-	0.0172
CCDC-02	Distance from shore (m)	1	1.3	1.6	-	-	-	-	-
	Depth (cm)	8.0	10.0	2.0	-	-	-	-	6.7
	Velocity (m/s)	0.023	0.025	0.002	-	-	-	-	0.0167
CCDC-03	Distance from shore (m)	1	2	3	4	5	-	-	-
	Depth (cm)	10.0	14.0	8.0	18.0	4.0	-	-	10.8
	Velocity (m/s)	0.002	0.009	-0.007	0.003	-0.005	-	-	0.0004
CCDC-04	Distance from shore (m)	1	2	3	4	5	6	7	-
	Depth (cm)	6.0	18.0	14.0	14.0	8.0	12.0	12.0	12.0
	Velocity (m/s)	0	0.003	-0.007	0.006	0.014	-0.001	-0.007	0.0011
CCDC-05	Distance from shore (m)	1	2	3	4	5	6	7	-
	Depth (cm)	12.0	10.0	24.0	20.0	16.0	12.0	14.0	15.4
	Velocity (m/s)	0.05	-0.003	0.001	-0.003	-0.003	0.002	0.002	0.0066
CCDC-06	Distance from shore (m)	1	2	3	4	5	-	-	-
	Depth (cm)	10.0	10.0	15.0	20	18	-	-	14.6
	Velocity (m/s)	0.008	0.004	0.002	-0.04	0.07	-	-	0.0088

Note: "-" indicates no measurement taken.

**Table A.9: Low-Flow Channel Depth and Velocity Data Associated with Teeple Pond Outlet Channel, RRM July 2020**

Station	Measurement	Channel Interval						mean
		1	2	3	4	5	6	
TPDD-01	Distance from shore (m)	0.75	-	-	-	-	-	-
	Depth (cm)	20	-	-	-	-	-	20
	Velocity (m/s)	0.042	-	-	-	-	-	0.042
TPDD-02	Distance from shore (m)	0.75	-	-	-	-	-	-
	Depth (cm)	10	-	-	-	-	-	10
	Velocity (m/s)	0.09	-	-	-	-	-	0.09
TPDD-03	Distance from shore (m)	0.75	-	-	-	-	-	-
	Depth (cm)	35	-	-	-	-	-	35
	Velocity (m/s)	0.042	-	-	-	-	-	0.042
TPDD-04	Distance from shore (m)	0.75	2	2.75	-	-	-	-
	Depth (cm)	25	40	20	-	-	-	28
	Velocity (m/s)	-0.002	0.002	-0.008	-	-	-	-0.0027

Note: "-" indicates no measurement taken.

Appendix Table A.10: Detailed Minnow Trap Data for Creek Habitat, RRM July 2020

Waterbody	Minnow Trap ID	UTM (NAD 83, 15U)		Set Date	Lift Date	Set Time	Lift Time	Traps (#)	Effort (hrs)	Brown Bullhead			Blackside Darter			Brassy Minnow			Brook Stickleback		
		Easting	Northing							Catch	Mortality	CPUE	Catch	Mortality	CPUE	Catch	Mortality	CPUE	Catch	Mortality	CPUE
West Creek Diversion Channel	WCD-MT-01	422549	5410216	19/Jul/20	21/Jul/20	16:13	14:56	2	93	0	0	0.00	0	0	0.00	22	0	0.24	1	0	0.01
	WCD-MT-02	422743	5410339	19/Jul/20	21/Jul/20	16:15	16:35	2	97	0	0	0.00	0	0	0.00	9	0	0.09	19	0	0.20
	WCD-MT-03	422915	5410691	19/Jul/20	21/Jul/20	16:24	17:23	2	98	0	0	0.00	0	0	0.00	0	0	0.00	18	0	0.18
	WCD-MT-04	422920	5410704	19/Jul/20	21/Jul/20	16:30	17:20	2	98	2	0	0.02	2	0	0.02	29	0	0.30	37	0	0.38
	<b>Total</b>									<b>386</b>	<b>2</b>	<b>0</b>	<b>0.005</b>	<b>2</b>	<b>0</b>	<b>0.01</b>	<b>60</b>	<b>0</b>	<b>0.16</b>	<b>75</b>	<b>0</b>
Clark Creek Diversion Channel	CCD-MT-01	429968	5409300	18/Jul/20	20/Jul/20	15:25	12:45	2	91	0	0	0.00	0	0	0.00	0	0	0.00	10	0	0.11
	CCD-MT-02	429971	5409311	18/Jul/20	20/Jul/20	15:25	13:30	2	92	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	CCD-MT-03	429975	5409315	18/Jul/20	20/Jul/20	15:27	13:38	2	92	0	0	0.00	0	0	0.00	0	0	0.00	2	0	0.02
	CCD-MT-04	429983	5409324	18/Jul/20	20/Jul/20	15:30	13:50	2	93	0	0	0.00	0	0	0.00	0	0	0.00	6	0	0.06
	CCD-MT-05	429994	5409338	18/Jul/20	20/Jul/20	15:30	13:57	2	93	0	0	0.00	0	0	0.00	0	0	0.00	12	0	0.13
<b>Total</b>									<b>461</b>	<b>0</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0</b>	<b>0.00</b>	<b>30</b>	<b>0</b>	<b>0.07</b>
Teepie Pond Outlet	TCD-MT-01	429943	5408592	19/Jul/20	21/Jul/20	9:07	11:34	5	252	0	0	0.00	0	0	0.00	0	0	0.00	1	0	0.00
	TCD-MT-02	429895	5408578	19/Jul/20	21/Jul/20	8:55	11:29	3	152	0	0	0.00	0	0	0.00	0	0	0.00	1	0	0.01
	TCD-MT-03	429868	5408618	19/Jul/20	21/Jul/20	9:00	11:24	3	151	0	0	0.00	0	0	0.00	0	0	0.00	1	0	0.01
	<b>Total</b>									<b>555</b>	<b>0</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0</b>	<b>0.00</b>	<b>3</b>	<b>0</b>



Appendix Table A.10: Detailed Minnow Trap Data for Creek Habitat, RRM July 2020

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		
		Eastings	Northing							Catch	Mortality	CPUE	Catch	Mortality	CPUE	Catch	Mortality	CPUE	Catch	Mortality	CPUE	Catch	Mortality	CPUE
West Creek Diversion Channel	WCD-MT-01	422549	5410216	19/Jul/20	21/Jul/20	16:13	14:56	2	93	0	0	0.00	0	0	0.00	34	0	0.36	0	0	0.00	1	0	0.01
	WCD-MT-02	422743	5410339	19/Jul/20	21/Jul/20	16:15	16:35	2	97	3	0	0.03	0	0	0.00	2	0	0.02	0	0	0.00	0	0	0.00
	WCD-MT-03	422915	5410691	19/Jul/20	21/Jul/20	16:24	17:23	2	98	2	0	0.02	1	0	0.01	35	0	0.36	0	0	0.00	0	0	0.00
	WCD-MT-04	422920	5410704	19/Jul/20	21/Jul/20	16:30	17:20	2	98	0	0	0.00	7	0	0.07	30	0	0.31	1	0	0.01	11	0	0.11
	<b>Total</b>									<b>386</b>	<b>5</b>	<b>0</b>	<b>0.01</b>	<b>8</b>	<b>0</b>	<b>0.02</b>	<b>101</b>	<b>0</b>	<b>0.26</b>	<b>1</b>	<b>0</b>	<b>0.00</b>	<b>12</b>	<b>0</b>
Clark Creek Diversion Channel	CCD-MT-01	429968	5409300	18/Jul/20	20/Jul/20	15:25	12:45	2	91	5	0	0.06	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	CCD-MT-02	429971	5409311	18/Jul/20	20/Jul/20	15:25	13:30	2	92	4	0	0.04	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	CCD-MT-03	429975	5409315	18/Jul/20	20/Jul/20	15:27	13:38	2	92	4	0	0.04	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	CCD-MT-04	429983	5409324	18/Jul/20	20/Jul/20	15:30	13:50	2	93	3	0	0.03	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	CCD-MT-05	429994	5409338	18/Jul/20	20/Jul/20	15:30	13:57	2	93	2	0	0.02	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
<b>Total</b>									<b>461</b>	<b>18</b>	<b>0</b>	<b>0.04</b>	<b>0</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0</b>	<b>0.00</b>
Teepie Pond Outlet	TCD-MT-01	429943	5408592	19/Jul/20	21/Jul/20	9:07	11:34	5	252	10	0	0.04	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	TCD-MT-02	429895	5408578	19/Jul/20	21/Jul/20	8:55	11:29	3	152	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	TCD-MT-03	429868	5408618	19/Jul/20	21/Jul/20	9:00	11:24	3	151	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	<b>Total</b>									<b>555</b>	<b>10</b>	<b>0</b>	<b>0.02</b>	<b>0</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0</b>

Appendix Table A.10: Detailed Minnow Trap Data for Creek Habitat, RRM July 2020

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	422549	5410216	19/Jul/20	21/Jul/20	16:13	14:56	2	93	3	0	0.03	0	0	0.00	0	0	0.00	1	0	0.01
	WCD-MT-02	422743	5410339	19/Jul/20	21/Jul/20	16:15	16:35	2	97	5	0	0.05	6	0	0.06	0	0	0.00	2	0	0.02
	WCD-MT-03	422915	5410691	19/Jul/20	21/Jul/20	16:24	17:23	2	98	5	0	0.05	8	0	0.08	0	0	0.00	4	0	0.04
	WCD-MT-04	422920	5410704	19/Jul/20	21/Jul/20	16:30	17:20	2	98	5	0	0.05	6	0	0.06	13	0	0.13	21	0	0.22
	<b>Total</b>								<b>386</b>	<b>18</b>	<b>0</b>	<b>0.05</b>	<b>20</b>	<b>0</b>	<b>0.05</b>	<b>13</b>	<b>0</b>	<b>0.03</b>	<b>28</b>	<b>0</b>	<b>0.07</b>
Clark Creek Diversion Channel	CCD-MT-01	429968	5409300	18/Jul/20	20/Jul/20	15:25	12:45	2	91	22	0	0.24	17	0	0.19	0	0	0.00	0	0	0.00
	CCD-MT-02	429971	5409311	18/Jul/20	20/Jul/20	15:25	13:30	2	92	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	CCD-MT-03	429975	5409315	18/Jul/20	20/Jul/20	15:27	13:38	2	92	0	0	0.00	2	0	0.02	0	0	0.00	0	0	0.00
	CCD-MT-04	429983	5409324	18/Jul/20	20/Jul/20	15:30	13:50	2	93	7	0	0.08	1	0	0.01	0	0	0.00	0	0	0.00
	CCD-MT-05	429994	5409338	18/Jul/20	20/Jul/20	15:30	13:57	2	93	10	0	0.11	0	0	0.00	0	0	0.00	0	0	0.00
<b>Total</b>								<b>461</b>	<b>39</b>	<b>0</b>	<b>0.08</b>	<b>20</b>	<b>0</b>	<b>0.04</b>	<b>0</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0</b>	<b>0.00</b>	
Teepie Pond Outlet	TCD-MT-01	429943	5408592	19/Jul/20	21/Jul/20	9:07	11:34	5	252	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	TCD-MT-02	429895	5408578	19/Jul/20	21/Jul/20	8:55	11:29	3	152	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	TCD-MT-03	429868	5408618	19/Jul/20	21/Jul/20	9:00	11:24	3	151	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	<b>Total</b>								<b>555</b>	<b>0</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0</b>	<b>0.00</b>

**Table A.11: Detailed Minnow Trap Data for Pond Habitat, RRM July 2020**

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	427093	5410772	22/Jul/20	24/Jul/20	16:40	12:45	5	220	82	0	0.37	0	0	0.00	0	0	0.00	0	0	0.00
	SP-MT-02	426995	5410779	22/Jul/20	24/Jul/20	16:30	12:50	5	222	68	0	0.31	0	0	0.00	0	0	0.00	0	0	0.00
	SP-MT-03	426964	5410741	22/Jul/20	24/Jul/20	16:42	13:30	5	224	39	0	0.17	0	0	0.00	0	0	0.00	1	0	0.00
	SP-MT-04	426984	5410717	22/Jul/20	24/Jul/20	16:45	12:10	5	217	23	0	0.11	0	0	0.00	1	0	0.00	0	0	0.00
	SP-MT-05	427073	5410657	22/Jul/20	24/Jul/20	16:50	8:40	5	199	6	0	0.03	0	0	0.00	0	0	0.00	0	0	0.00
	SP-MT-06	427032	5410688	22/Jul/20	24/Jul/20	16:53	11:52	5	215	6	0	0.03	0	0	0.00	0	0	0.00	0	0	0.00
	SP-MT-07	427066	5410740	22/Jul/20	24/Jul/20	16:55	9:55	5	205	44	0	0.21	0	0	0.00	0	0	0.00	0	0	0.00
	SP-MT-08	427049	5410687	22/Jul/20	24/Jul/20	17:00	10:35	5	208	40	0	0.19	0	0	0.00	1	0	0.00	0	0	0.00
	<b>Total</b>								<b>1710</b>	<b>308</b>	<b>0</b>	<b>0.18</b>	<b>0</b>	<b>0</b>	<b>0.00</b>	<b>2</b>	<b>0</b>	<b>0.00</b>	<b>1</b>	<b>0</b>	<b>0.00</b>
West Creek Pond	WP-MT-01	425949	5410956	20/Jul/20	22/Jul/20	15:26	10:50	10	434	2	0	0.00	0	0	0.00	2	0	0.00	0	0	0.00
	WP-MT-02	425916	5410976	20/Jul/20	22/Jul/20	15:28	11:35	10	441	133	0	0.30	0	0	0.00	6	0	0.01	7	0	0.02
	WP-MT-03	425847	5411020	20/Jul/20	22/Jul/20	15:33	12:50	10	453	4	0	0.01	0	0	0.00	1	0	0.00	17	0	0.04
	WP-MT-04	425807	5411042	20/Jul/20	22/Jul/20	15:37	13:35	10	460	4	0	0.01	0	0	0.00	9	0	0.02	9	0	0.02
	WP-MT-05	425771	5411071	20/Jul/20	22/Jul/20	15:41	18:11	10	505	3	0	0.01	0	0	0.00	12	0	0.02	26	0	0.05
	WP-MT-06	425718	5411271	20/Jul/20	22/Jul/20	15:48	17:36	9	448	2	0	0.00	0	0	0.00	19	0	0.04	21	0	0.05
	WP-MT-07	425916	5410976	21/Jul/20	22/Jul/20	11:00	14:45	5	139	3	0	0.02	0	0	0.00	1	0	0.01	1	0	0.01
	WP-MT-08	425718	5411271	21/Jul/20	22/Jul/20	11:45	15:50	5	140	3	0	0.02	0	0	0.00	20	0	0.14	15	0	0.11
	WP-MT-09	425807	5411042	21/Jul/20	22/Jul/20	12:55	17:25	5	143	4	0	0.03	0	0	0.00	12	0	0.08	19	0	0.13
	WP-MT-10	425771	5411071	21/Jul/20	22/Jul/20	13:40	17:45	5	140	8	0	0.06	0	0	0.00	4	0	0.03	34	0	0.24
	WP-MT-11	425949	5410956	21/Jul/20	22/Jul/20	13:45	18:00	5	141	9	0	0.06	0	0	0.00	12	0	0.08	13	0	0.09
	<b>Total</b>								<b>3444</b>	<b>175</b>	<b>0</b>	<b>0.05</b>	<b>0</b>	<b>0</b>	<b>0.00</b>	<b>98</b>	<b>0</b>	<b>0.03</b>	<b>162</b>	<b>0</b>	<b>0.05</b>

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 2020**

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	429635	5409916	18/Jul/20	19/Jul/20	14:50	14:14	5	117	0	0	0.00	0	0	0.00	1	0	0.01	4	0	0.03
	CP-MT-02	429631	5409927	18/Jul/20	19/Jul/20	14:50	14:20	5	117	0	0	0.00	0	0	0.00	0	0	0.00	6	0	0.05
	CP-MT-03	429631	5409933	18/Jul/20	20/Jul/20	14:50	8:35	5	209	0	0	0.00	0	0	0.00	0	0	0.00	15	0	0.07
	CP-MT-04	429627	5409949	18/Jul/20	20/Jul/20	14:50	8:45	5	210	0	0	0.00	0	0	0.00	1	0	0.00	33	0	0.16
	CP-MT-05	429625	5409967	18/Jul/20	20/Jul/20	14:52	9:20	5	212	0	0	0.00	0	0	0.00	0	0	0.00	23	0	0.11
	CP-MT-06	429624	5409976	18/Jul/20	20/Jul/20	14:55	9:55	5	215	0	0	0.00	0	0	0.00	5	0	0.02	56	0	0.26
	CP-MT-07	429618	5409995	18/Jul/20	20/Jul/20	14:55	10:15	5	217	0	0	0.00	0	0	0.00	0	0	0.00	13	0	0.06
	CP-MT-08	429618	5410002	18/Jul/20	20/Jul/20	14:55	10:45	5	219	0	0	0.00	0	0	0.00	0	0	0.00	59	0	0.27
	CP-MT-09	429611	5410034	18/Jul/20	20/Jul/20	15:00	11:15	5	221	0	0	0.00	0	0	0.00	0	0	0.00	36	0	0.16
	CP-MT-10	429608	5410055	18/Jul/20	20/Jul/20	15:00	11:25	5	222	0	0	0.00	0	0	0.00	0	0	0.00	20	0	0.09
	CP-MT-11	429603	5410077	18/Jul/20	20/Jul/20	15:05	11:35	5	223	0	0	0.00	0	0	0.00	0	0	0.00	3	0	0.01
	CP-MT-12	429599	5410088	18/Jul/20	20/Jul/20	15:05	11:50	5	224	0	0	0.00	0	0	0.00	0	0	0.00	13	0	0.06
	CP-MT-13	429653	5409917	22/Jul/20	23/Jul/20	9:39	9:51	1	24	0	0	0.00	0	0	0.00	0	0	0.00	1	0	0.04
	CP-MT-14	429667	5409927	22/Jul/20	23/Jul/20	9:41	9:57	1	24	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	CP-MT-15	429679	5409945	22/Jul/20	23/Jul/20	9:43	9:59	1	24	0	0	0.00	0	0	0.00	0	0	0.00	4	0	0.16
	CP-MT-16	429694	5409953	22/Jul/20	23/Jul/20	9:43	9:59	1	24	0	0	0.00	0	0	0.00	1	0	0.04	20	0	0.82
	CP-MT-17	429697	5409966	22/Jul/20	23/Jul/20	9:47	10:10	1	24	0	0	0.00	0	0	0.00	0	0	0.00	4	0	0.16
	CP-MT-18	429623	5410111	22/Jul/20	23/Jul/20	9:44	10:40	1	25	0	0	0.00	0	0	0.00	0	0	0.00	2	0	0.08
	CP-MT-19	429637	5410122	22/Jul/20	23/Jul/20	9:46	10:43	1	25	0	0	0.00	0	0	0.00	0	0	0.00	2	0	0.08
	CP-MT-20	429652	5410137	22/Jul/20	23/Jul/20	9:48	10:45	1	25	0	0	0.00	0	0	0.00	0	0	0.00	2	0	0.08
	CP-MT-21	429667	5410141	22/Jul/20	23/Jul/20	9:50	10:48	1	25	0	0	0.00	0	0	0.00	0	0	0.00	9	0	0.36
	CP-MT-22	429680	5410152	22/Jul/20	23/Jul/20	9:52	10:50	1	25	0	0	0.00	0	0	0.00	0	0	0.00	32	0	1.28
<b>Total</b>									<b>2652</b>	<b>0</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0</b>	<b>0.00</b>	<b>8</b>	<b>0</b>	<b>0.00</b>	<b>357</b>	<b>0</b>	<b>0.13</b>
Teeple Creek Pond	TP-MT-01	430192	5408846	15/Jul/20	16/Jul/20	12:00	13:10	4	101	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	TP-MT-02	429951	5408845	15/Jul/20	16/Jul/20	12:00	11:45	4	95	0	0	0.00	3	0	0.03	28	0	0.29	2	0	0.02
	TP-MT-03	429976	5408844	15/Jul/20	16/Jul/20	12:00	12:27	4	98	0	0	0.00	0	0	0.00	11	0	0.11	2	0	0.02
	TP-MT-04	430072	5408844	15/Jul/20	16/Jul/20	12:00	12:45	4	99	0	0	0.00	4	0	0.04	30	0	0.30	2	0	0.02
	TP-MT-05	430143	5408845	15/Jul/20	16/Jul/20	12:00	13:00	4	100	0	0	0.00	0	0	0.00	1	0	0.01	1	0	0.01
	TP-MT-06	429951	5408845	16/Jul/20	18/Jul/20	11:50	9:35	4	183	0	0	0.00	0	0	0.00	0	0	0.00	1	0	0.01
	TP-MT-07	429976	5408844	16/Jul/20	18/Jul/20	12:30	10:30	4	184	0	0	0.00	0	0	0.00	0	0	0.00	1	0	0.01
	TP-MT-08	430072	5408844	16/Jul/20	18/Jul/20	12:45	11:30	4	187	0	0	0.00	0	0	0.00	4	0	0.02	2	0	0.01
	TP-MT-09	430088	5408843	16/Jul/20	18/Jul/20	13:05	12:42	4	190	0	0	0.00	0	0	0.00	1	0	0.01	1	0	0.01
	TP-MT-10	430069	5408845	16/Jul/20	18/Jul/20	13:15	12:23	4	189	0	0	0.00	0	0	0.00	0	0	0.00	2	0	0.01
	TP-MT-11	430023	5408846	16/Jul/20	18/Jul/20	15:55	12:09	3	133	0	0	0.00	0	0	0.00	1	0	0.01	2	0	0.02
	TP-MT-12	429977	5408845	16/Jul/20	18/Jul/20	16:00	11:57	4	176	0	0	0.00	0	0	0.00	0	0	0.00	2	0	0.01
	TP-MT-13	429948	5408846	16/Jul/20	18/Jul/20	16:00	11:39	3	131	0	0	0.00	0	0	0.00	0	0	0.00	13	0	0.10
	TP-MT-14	429914	5408847	16/Jul/20	18/Jul/20	16:05	11:10	4	172	0	0	0.00	0	0	0.00	2	0	0.01	4	0	0.02
	TP-MT-15	429865	5408843	16/Jul/20	18/Jul/20	16:05	10:35	3	127	0	0	0.00	0	0	0.00	0	0	0.00	43	0	0.34
	TP-MT-16	430107	5408913	22/Jul/20	23/Jul/20	9:05	9:29	1	24	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	TP-MT-17	429847	5408894	22/Jul/20	23/Jul/20	8:40	8:40	1	24	0	0	0.00	0	0	0.00	0	0	0.00	2	0	0.08
	TP-MT-18	429831	5408916	22/Jul/20	23/Jul/20	8:45	8:43	1	24	0	0	0.00	0	0	0.00	0	0	0.00	2	0	0.08
	TP-MT-19	429783	5408968	22/Jul/20	23/Jul/20	8:47	8:46	1	24	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	TP-MT-20	429793	5408998	22/Jul/20	23/Jul/20	8:49	8:48	1	24	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	TP-MT-21	429789	5409012	22/Jul/20	23/Jul/20	8:50	8:50	1	24	0	0	0.00	0	0	0.00	0	0	0.00	3	0	0.13
	TP-MT-22	430168	5408887	22/Jul/20	23/Jul/20	8:47	9:10	1	24	0	0	0.00	0	0	0.00	0	0	0.00	2	0	0.08
	TP-MT-23	430169	5408867	22/Jul/20	23/Jul/20	8:50	9:11	1	24	0	0	0.00	0	0	0.00	1	0	0.04	3	0	0.12
	TP-MT-24	430151	5408883	22/Jul/20	23/Jul/20	8:54	9:20	1	24	0	0	0.00	0	0	0.00	0	0	0.00	3	0	0.12
	TP-MT-25	430150	5408897	22/Jul/20	23/Jul/20	9:00	9:26	1	24	0	0	0.00	0	0	0.00	0	0	0.00	5	0	0.20
<b>Total</b>									<b>2407</b>	<b>0</b>	<b>0</b>	<b>0.00</b>	<b>7</b>	<b>0</b>	<b>0.00</b>	<b>79</b>	<b>0</b>	<b>0.03</b>	<b>98</b>	<b>0</b>	<b>0.04</b>

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 2020**

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	427093	5410772	22/Jul/20	24/Jul/20	16:40	12:45	5	220	3	0	0.01	7	0	0.03	80	0	0.36	0	0	0.00
	SP-MT-02	426995	5410779	22/Jul/20	24/Jul/20	16:30	12:50	5	222	1	0	0.00	17	0	0.08	26	0	0.12	0	0	0.00
	SP-MT-03	426964	5410741	22/Jul/20	24/Jul/20	16:42	13:30	5	224	0	0	0.00	18	0	0.08	29	0	0.13	5	0	0.02
	SP-MT-04	426984	5410717	22/Jul/20	24/Jul/20	16:45	12:10	5	217	0	0	0.00	30	0	0.14	35	0	0.16	3	0	0.01
	SP-MT-05	427073	5410657	22/Jul/20	24/Jul/20	16:50	8:40	5	199	0	0	0.00	34	0	0.17	78	0	0.39	31	0	0.16
	SP-MT-06	427032	5410688	22/Jul/20	24/Jul/20	16:53	11:52	5	215	0	0	0.00	75	0	0.35	32	0	0.15	22	0	0.10
	SP-MT-07	427066	5410740	22/Jul/20	24/Jul/20	16:55	9:55	5	205	0	0	0.00	1	0	0.00	40	0	0.20	0	0	0.00
	SP-MT-08	427049	5410687	22/Jul/20	24/Jul/20	17:00	10:35	5	208	1	0	0.00	27	0	0.13	71	0	0.34	4	0	0.02
	<b>Total</b>								<b>1710</b>	<b>5</b>	<b>0</b>	<b>0.00</b>	<b>209</b>	<b>0</b>	<b>0.12</b>	<b>391</b>	<b>0</b>	<b>0.23</b>	<b>65</b>	<b>0</b>	<b>0.04</b>
West Creek Pond	WP-MT-01	425949	5410956	20/Jul/20	22/Jul/20	15:26	10:50	10	434	0	0	0.00	0	0	0.00	6	0	0.01	1	0	0.00
	WP-MT-02	425916	5410976	20/Jul/20	22/Jul/20	15:28	11:35	10	441	0	0	0.00	0	0	0.00	15	0	0.03	17	0	0.04
	WP-MT-03	425847	5411020	20/Jul/20	22/Jul/20	15:33	12:50	10	453	0	0	0.00	0	0	0.00	7	0	0.02	10	0	0.02
	WP-MT-04	425807	5411042	20/Jul/20	22/Jul/20	15:37	13:35	10	460	0	0	0.00	0	0	0.00	17	0	0.04	36	0	0.08
	WP-MT-05	425771	5411071	20/Jul/20	22/Jul/20	15:41	18:11	10	505	0	0	0.00	0	0	0.00	33	0	0.07	37	0	0.07
	WP-MT-06	425718	5411271	20/Jul/20	22/Jul/20	15:48	17:36	9	448	1	0	0.00	1	0	0.00	52	0	0.12	43	0	0.10
	WP-MT-07	425916	5410976	21/Jul/20	22/Jul/20	11:00	14:45	5	139	0	0	0.00	0	0	0.00	21	0	0.15	99	0	0.71
	WP-MT-08	425718	5411271	21/Jul/20	22/Jul/20	11:45	15:50	5	140	0	0	0.00	0	0	0.00	3	0	0.02	227	0	1.62
	WP-MT-09	425807	5411042	21/Jul/20	22/Jul/20	12:55	17:25	5	143	0	0	0.00	0	0	0.00	7	0	0.05	61	0	0.43
	WP-MT-10	425771	5411071	21/Jul/20	22/Jul/20	13:40	17:45	5	140	0	0	0.00	0	0	0.00	6	0	0.04	97	0	0.69
	WP-MT-11	425949	5410956	21/Jul/20	22/Jul/20	13:45	18:00	5	141	0	0	0.00	0	0	0.00	9	0	0.06	120	0	0.85
	<b>Total</b>								<b>3444</b>	<b>1</b>	<b>0</b>	<b>0.00</b>	<b>1</b>	<b>0</b>	<b>0.00</b>	<b>176</b>	<b>0</b>	<b>0.05</b>	<b>748</b>	<b>0</b>	<b>0.22</b>

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	429635	5409916	18/Jul/20	19/Jul/20	14:50	14:14	5	117	10	0	0.09	0	0	0.00	0	0	0.00	0	0	0.00			
	CP-MT-02	429631	5409927	18/Jul/20	19/Jul/20	14:50	14:20	5	117	3	0	0.03	0	0	0.00	0	0	0.00	0	0	0.00			
	CP-MT-03	429631	5409933	18/Jul/20	20/Jul/20	14:50	8:35	5	209	2	0	0.01	0	0	0.00	0	0	0.00	0	0	0.00			
	CP-MT-04	429627	5409949	18/Jul/20	20/Jul/20	14:50	8:45	5	210	5	1	0.02	0	0	0.00	0	0	0.00	5	0	0.02			
	CP-MT-05	429625	5409967	18/Jul/20	20/Jul/20	14:52	9:20	5	212	14	0	0.07	0	0	0.00	0	0	0.00	0	0	0.00			
	CP-MT-06	429624	5409976	18/Jul/20	20/Jul/20	14:55	9:55	5	215	11	0	0.05	0	0	0.00	0	0	0.00	5	0	0.02			
	CP-MT-07	429618	5409995	18/Jul/20	20/Jul/20	14:55	10:15	5	217	10	0	0.05	0	0	0.00	0	0	0.00	0	0	0.00			
	CP-MT-08	429618	5410002	18/Jul/20	20/Jul/20	14:55	10:45	5	219	9	0	0.04	0	0	0.00	0	0	0.00	4	0	0.02			
	CP-MT-09	429611	5410034	18/Jul/20	20/Jul/20	15:00	11:15	5	221	8	0	0.04	0	0	0.00	0	0	0.00	0	0	0.00			
	CP-MT-10	429608	5410055	18/Jul/20	20/Jul/20	15:00	11:25	5	222	8	0	0.04	0	0	0.00	0	0	0.00	0	0	0.00			
	CP-MT-11	429603	5410077	18/Jul/20	20/Jul/20	15:05	11:35	5	223	8	0	0.04	0	0	0.00	0	0	0.00	5	0	0.02			
	CP-MT-12	429599	5410088	18/Jul/20	20/Jul/20	15:05	11:50	5	224	7	0	0.03	0	0	0.00	0	0	0.00	4	0	0.02			
	CP-MT-13	429653	5409917	22/Jul/20	23/Jul/20	9:39	9:51	1	24	5	0	0.21	0	0	0.00	0	0	0.00	0	0	0.00			
	CP-MT-14	429667	5409927	22/Jul/20	23/Jul/20	9:41	9:57	1	24	3	0	0.12	0	0	0.00	0	0	0.00	0	0	0.00			
	CP-MT-15	429679	5409945	22/Jul/20	23/Jul/20	9:43	9:59	1	24	2	0	0.08	0	0	0.00	0	0	0.00	2	0	0.08			
	CP-MT-16	429694	5409953	22/Jul/20	23/Jul/20	9:43	9:59	1	24	2	0	0.08	0	0	0.00	0	0	0.00	1	0	0.04			
	CP-MT-17	429697	5409966	22/Jul/20	23/Jul/20	9:47	10:10	1	24	2	0	0.08	0	0	0.00	0	0	0.00	0	0	0.00			
	CP-MT-18	429623	5410111	22/Jul/20	23/Jul/20	9:44	10:40	1	25	1	0	0.04	0	0	0.00	0	0	0.00	0	0	0.00			
	CP-MT-19	429637	5410122	22/Jul/20	23/Jul/20	9:46	10:43	1	25	1	0	0.04	0	0	0.00	0	0	0.00	0	0	0.00			
	CP-MT-20	429652	5410137	22/Jul/20	23/Jul/20	9:48	10:45	1	25	2	0	0.08	0	0	0.00	0	0	0.00	0	0	0.00			
	CP-MT-21	429667	5410141	22/Jul/20	23/Jul/20	9:50	10:48	1	25	2	0	0.08	0	0	0.00	0	0	0.00	0	0	0.00			
	CP-MT-22	429680	5410152	22/Jul/20	23/Jul/20	9:52	10:50	1	25	4	0	0.16	0	0	0.00	0	0	0.00	0	0	0.00			
<b>Total</b>									<b>2652</b>	<b>119</b>	<b>1</b>	<b>0.04</b>	<b>0</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0</b>	<b>0.00</b>	<b>26</b>	<b>0</b>	<b>0.01</b>
Teeple Creek Pond	TP-MT-01	430192	5408846	15/Jul/20	16/Jul/20	12:00	13:10	4	101	6	0	0.06	0	0	0.00	0	0	0.00	0	0	0.00			
	TP-MT-02	429951	5408845	15/Jul/20	16/Jul/20	12:00	11:45	4	95	2	0	0.02	0	0	0.00	1	0	0.01	0	0	0.00			
	TP-MT-03	429976	5408844	15/Jul/20	16/Jul/20	12:00	12:27	4	98	1	0	0.01	0	0	0.00	0	0	0.00	0	0	0.00			
	TP-MT-04	430072	5408844	15/Jul/20	16/Jul/20	12:00	12:45	4	99	2	0	0.02	0	0	0.00	0	0	0.00	0	0	0.00			
	TP-MT-05	430143	5408845	15/Jul/20	16/Jul/20	12:00	13:00	4	100	8	0	0.08	0	0	0.00	0	0	0.00	0	0	0.00			
	TP-MT-06	429951	5408845	16/Jul/20	18/Jul/20	11:50	9:35	4	183	5	0	0.03	0	0	0.00	1	0	0.01	0	0	0.00			
	TP-MT-07	429976	5408844	16/Jul/20	18/Jul/20	12:30	10:30	4	184	7	0	0.04	0	0	0.00	0	0	0.00	0	0	0.00			
	TP-MT-08	430072	5408844	16/Jul/20	18/Jul/20	12:45	11:30	4	187	3	0	0.02	0	0	0.00	0	0	0.00	0	0	0.00			
	TP-MT-09	430088	5408843	16/Jul/20	18/Jul/20	13:05	12:42	4	190	3	0	0.02	0	0	0.00	0	0	0.00	0	0	0.00			
	TP-MT-10	430069	5408845	16/Jul/20	18/Jul/20	13:15	12:23	4	189	9	0	0.05	0	0	0.00	0	0	0.00	0	0	0.00			
	TP-MT-11	430023	5408846	16/Jul/20	18/Jul/20	15:55	12:09	3	133	3	0	0.02	0	0	0.00	0	0	0.00	0	0	0.00			
	TP-MT-12	429977	5408845	16/Jul/20	18/Jul/20	16:00	11:57	4	176	4	0	0.02	0	0	0.00	0	0	0.00	0	0	0.00			
	TP-MT-13	429948	5408846	16/Jul/20	18/Jul/20	16:00	11:39	3	131	10	0	0.08	0	0	0.00	0	0	0.00	0	0	0.00			
	TP-MT-14	429914	5408847	16/Jul/20	18/Jul/20	16:05	11:10	4	172	6	0	0.03	0	0	0.00	0	0	0.00	7	0	0.04			
	TP-MT-15	429865	5408843	16/Jul/20	18/Jul/20	16:05	10:35	3	127	1	0	0.01	0	0	0.00	0	0	0.00	0	0	0.00			
	TP-MT-16	430107	5408913	22/Jul/20	23/Jul/20	9:05	9:29	1	24	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00			
	TP-MT-17	429847	5408894	22/Jul/20	23/Jul/20	8:40	8:40	1	24	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00			
	TP-MT-18	429831	5408916	22/Jul/20	23/Jul/20	8:45	8:43	1	24	1	0	0.04	0	0	0.00	0	0	0.00	0	0	0.00			
	TP-MT-19	429783	5408968	22/Jul/20	23/Jul/20	8:47	8:46	1	24	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00			
	TP-MT-20	429793	5408998	22/Jul/20	23/Jul/20	8:49	8:48	1	24	1	0	0.04	0	0	0.00	0	0	0.00	0	0	0.00			
	TP-MT-21	429789	5409012	22/Jul/20	23/Jul/20	8:50	8:50	1	24	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00			
	TP-MT-22	430168	5408887	22/Jul/20	23/Jul/20	8:47	9:10	1	24	2	0	0.08	0	0	0.00	0	0	0.00	0	0	0.00			
	TP-MT-23	430169	5408867	22/Jul/20	23/Jul/20	8:50	9:11	1	24	1	0	0.04	0	0	0.00	0	0	0.00	1	0	0.04			
	TP-MT-24	430151	5408883	22/Jul/20	23/Jul/20	8:54	9:20	1	24	0	0	0.00	0	0	0.00	0	0	0.00	1	0	0.04			
	TP-MT-25	430150	5408897	22/Jul/20	23/Jul/20	9:00	9:26	1	24	2	0	0.08	0	0	0.00	0	0	0.00	0	0	0.00			
<b>Total</b>									<b>2407</b>	<b>77</b>	<b>0</b>	<b>0.03</b>	<b>0</b>	<b>0</b>	<b>0.00</b>	<b>2</b>	<b>0</b>	<b>0.00</b>	<b>9</b>	<b>0</b>	<b>0.00</b>			

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 2020**

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	427093	5410772	22/Jul/20	24/Jul/20	16:40	12:45	5	220	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	SP-MT-02	426995	5410779	22/Jul/20	24/Jul/20	16:30	12:50	5	222	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	SP-MT-03	426964	5410741	22/Jul/20	24/Jul/20	16:42	13:30	5	224	1	0	0.00	2	0	0.01	0	0	0.00	0	0	0.00
	SP-MT-04	426984	5410717	22/Jul/20	24/Jul/20	16:45	12:10	5	217	0	0	0.00	8	0	0.04	0	0	0.00	0	0	0.00
	SP-MT-05	427073	5410657	22/Jul/20	24/Jul/20	16:50	8:40	5	199	0	0	0.00	3	0	0.02	0	0	0.00	0	0	0.00
	SP-MT-06	427032	5410688	22/Jul/20	24/Jul/20	16:53	11:52	5	215	0	0	0.00	1	0	0.00	0	0	0.00	0	0	0.00
	SP-MT-07	427066	5410740	22/Jul/20	24/Jul/20	16:55	9:55	5	205	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	SP-MT-08	427049	5410687	22/Jul/20	24/Jul/20	17:00	10:35	5	208	0	0	0.00	1	0	0.00	0	0	0.00	0	0	0.00
	<b>Total</b>								<b>1710</b>	<b>1</b>	<b>0</b>	<b>0.00</b>	<b>15</b>	<b>0</b>	<b>0.01</b>	<b>0</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0</b>	<b>0.00</b>
West Creek Pond	WP-MT-01	425949	5410956	20/Jul/20	22/Jul/20	15:26	10:50	10	434	0	0	0.00	6	0	0.01	0	0	0.00	2	0	0.00
	WP-MT-02	425916	5410976	20/Jul/20	22/Jul/20	15:28	11:35	10	441	0	0	0.00	45	0	0.10	0	0	0.00	1	0	0.00
	WP-MT-03	425847	5411020	20/Jul/20	22/Jul/20	15:33	12:50	10	453	0	0	0.00	2	0	0.00	0	0	0.00	0	0	0.00
	WP-MT-04	425807	5411042	20/Jul/20	22/Jul/20	15:37	13:35	10	460	0	0	0.00	8	0	0.02	0	0	0.00	2	0	0.00
	WP-MT-05	425771	5411071	20/Jul/20	22/Jul/20	15:41	18:11	10	505	0	0	0.00	41	0	0.08	0	0	0.00	1	0	0.00
	WP-MT-06	425718	5411271	20/Jul/20	22/Jul/20	15:48	17:36	9	448	3	0	0.01	48	0	0.11	0	0	0.00	1	0	0.00
	WP-MT-07	425916	5410976	21/Jul/20	22/Jul/20	11:00	14:45	5	139	0	0	0.00	12	0	0.09	0	0	0.00	0	0	0.00
	WP-MT-08	425718	5411271	21/Jul/20	22/Jul/20	11:45	15:50	5	140	0	0	0.00	38	0	0.27	0	0	0.00	1	0	0.01
	WP-MT-09	425807	5411042	21/Jul/20	22/Jul/20	12:55	17:25	5	143	0	0	0.00	27	0	0.19	0	0	0.00	1	0	0.01
	WP-MT-10	425771	5411071	21/Jul/20	22/Jul/20	13:40	17:45	5	140	0	0	0.00	14	0	0.10	0	0	0.00	0	0	0.00
	WP-MT-11	425949	5410956	21/Jul/20	22/Jul/20	13:45	18:00	5	141	0	0	0.00	89	0	0.63	0	0	0.00	1	0	0.01
	<b>Total</b>								<b>3444</b>	<b>3</b>	<b>0</b>	<b>0.00</b>	<b>330</b>	<b>0</b>	<b>0.10</b>	<b>0</b>	<b>0</b>	<b>0.00</b>	<b>10</b>	<b>0</b>	<b>0.00</b>

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	429635	5409916	18/Jul/20	19/Jul/20	14:50	14:14	5	117	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	CP-MT-02	429631	5409927	18/Jul/20	19/Jul/20	14:50	14:20	5	117	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	CP-MT-03	429631	5409933	18/Jul/20	20/Jul/20	14:50	8:35	5	209	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	CP-MT-04	429627	5409949	18/Jul/20	20/Jul/20	14:50	8:45	5	210	10	0	0.05	18	0	0.09	0	0	0.00	0	0	0.00
	CP-MT-05	429625	5409967	18/Jul/20	20/Jul/20	14:52	9:20	5	212	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	CP-MT-06	429624	5409976	18/Jul/20	20/Jul/20	14:55	9:55	5	215	11	0	0.05	0	0	0.00	0	0	0.00	0	0	0.00
	CP-MT-07	429618	5409995	18/Jul/20	20/Jul/20	14:55	10:15	5	217	3	0	0.01	7	0	0.03	0	0	0.00	0	0	0.00
	CP-MT-08	429618	5410002	18/Jul/20	20/Jul/20	14:55	10:45	5	219	6	0	0.03	4	0	0.02	0	0	0.00	0	0	0.00
	CP-MT-09	429611	5410034	18/Jul/20	20/Jul/20	15:00	11:15	5	221	2	0	0.01	2	0	0.01	0	0	0.00	0	0	0.00
	CP-MT-10	429608	5410055	18/Jul/20	20/Jul/20	15:00	11:25	5	222	1	0	0.00	45	0	0.20	0	0	0.00	0	0	0.00
	CP-MT-11	429603	5410077	18/Jul/20	20/Jul/20	15:05	11:35	5	223	0	0	0.00	107	0	0.48	0	0	0.00	0	0	0.00
	CP-MT-12	429599	5410088	18/Jul/20	20/Jul/20	15:05	11:50	5	224	0	0	0.00	17	0	0.08	0	0	0.00	0	0	0.00
	CP-MT-13	429653	5409917	22/Jul/20	23/Jul/20	9:39	9:51	1	24	0	0	0.00	2	0	0.08	0	0	0.00	0	0	0.00
	CP-MT-14	429667	5409927	22/Jul/20	23/Jul/20	9:41	9:57	1	24	1	0	0.04	0	0	0.00	0	0	0.00	0	0	0.00
	CP-MT-15	429679	5409945	22/Jul/20	23/Jul/20	9:43	9:59	1	24	5	0	0.21	12	0	0.49	0	0	0.00	0	0	0.00
	CP-MT-16	429694	5409953	22/Jul/20	23/Jul/20	9:43	9:59	1	24	1	0	0.04	0	0	0.00	0	0	0.00	0	0	0.00
	CP-MT-17	429697	5409966	22/Jul/20	23/Jul/20	9:47	10:10	1	24	0	0	0.00	1	0	0.04	0	0	0.00	0	0	0.00
	CP-MT-18	429623	5410111	22/Jul/20	23/Jul/20	9:44	10:40	1	25	1	0	0.04	0	0	0.00	0	0	0.00	0	0	0.00
	CP-MT-19	429637	5410122	22/Jul/20	23/Jul/20	9:46	10:43	1	25	2	0	0.08	0	0	0.00	0	0	0.00	0	0	0.00
	CP-MT-20	429652	5410137	22/Jul/20	23/Jul/20	9:48	10:45	1	25	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	CP-MT-21	429667	5410141	22/Jul/20	23/Jul/20	9:50	10:48	1	25	3	0	0.12	1	0	0.04	0	0	0.00	0	0	0.00
	CP-MT-22	429680	5410152	22/Jul/20	23/Jul/20	9:52	10:50	1	25	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
<b>Total</b>									<b>2652</b>	<b>46</b>	<b>0</b>	<b>0.02</b>	<b>216</b>	<b>0</b>	<b>0.08</b>	<b>0</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0</b>	<b>0.00</b>
Teeple Creek Pond	TP-MT-01	430192	5408846	15/Jul/20	16/Jul/20	12:00	13:10	4	101	2	0	0.02	1	0	0.01	0	0	0.00	0	0	0.00
	TP-MT-02	429951	5408845	15/Jul/20	16/Jul/20	12:00	11:45	4	95	5	0	0.05	68	0	0.72	0	0	0.00	0	0	0.00
	TP-MT-03	429976	5408844	15/Jul/20	16/Jul/20	12:00	12:27	4	98	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	TP-MT-04	430072	5408844	15/Jul/20	16/Jul/20	12:00	12:45	4	99	0	0	0.00	11	0	0.11	0	0	0.00	0	0	0.00
	TP-MT-05	430143	5408845	15/Jul/20	16/Jul/20	12:00	13:00	4	100	1	0	0.01	0	0	0.00	0	0	0.00	0	0	0.00
	TP-MT-06	429951	5408845	16/Jul/20	18/Jul/20	11:50	9:35	4	183	1	0	0.01	130	0	0.71	0	0	0.00	0	0	0.00
	TP-MT-07	429976	5408844	16/Jul/20	18/Jul/20	12:30	10:30	4	184	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	TP-MT-08	430072	5408844	16/Jul/20	18/Jul/20	12:45	11:30	4	187	18	0	0.10	94	1	0.50	0	0	0.00	0	0	0.00
	TP-MT-09	430088	5408843	16/Jul/20	18/Jul/20	13:05	12:42	4	190	0	0	0.00	2	0	0.01	0	0	0.00	0	0	0.00
	TP-MT-10	430069	5408845	16/Jul/20	18/Jul/20	13:15	12:23	4	189	2	0	0.01	11	0	0.06	0	0	0.00	0	0	0.00
	TP-MT-11	430023	5408846	16/Jul/20	18/Jul/20	15:55	12:09	3	133	0	0	0.00	59	0	0.44	0	0	0.00	0	0	0.00
	TP-MT-12	429977	5408845	16/Jul/20	18/Jul/20	16:00	11:57	4	176	7	0	0.04	0	0	0.00	0	0	0.00	0	0	0.00
	TP-MT-13	429948	5408846	16/Jul/20	18/Jul/20	16:00	11:39	3	131	4	0	0.03	1	0	0.01	0	0	0.00	0	0	0.00
	TP-MT-14	429914	5408847	16/Jul/20	18/Jul/20	16:05	11:10	4	172	2	0	0.01	119	0	0.69	1	0	0.01	0	0	0.00
	TP-MT-15	429865	5408843	16/Jul/20	18/Jul/20	16:05	10:35	3	127	8	0	0.06	99	0	0.78	0	0	0.00	0	0	0.00
	TP-MT-16	430107	5408913	22/Jul/20	23/Jul/20	9:05	9:29	1	24	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	TP-MT-17	429847	5408894	22/Jul/20	23/Jul/20	8:40	8:40	1	24	2	0	0.08	1	0	0.04	0	0	0.00	0	0	0.00
	TP-MT-18	429831	5408916	22/Jul/20	23/Jul/20	8:45	8:43	1	24	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	TP-MT-19	429783	5408968	22/Jul/20	23/Jul/20	8:47	8:46	1	24	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	TP-MT-20	429793	5408998	22/Jul/20	23/Jul/20	8:49	8:48	1	24	1	0	0.04	0	0	0.00	0	0	0.00	0	0	0.00
	TP-MT-21	429789	5409012	22/Jul/20	23/Jul/20	8:50	8:50	1	24	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	TP-MT-22	430168	5408887	22/Jul/20	23/Jul/20	8:47	9:10	1	24	0	0	0.00	0	0	0.00	0	0	0.00	0	0	0.00
	TP-MT-23	430169	5408867	22/Jul/20	23/Jul/20	8:50	9:11	1	24	2	0	0.08	11	0	0.45	0	0	0.00	0	0	0.00
	TP-MT-24	430151	5408883	22/Jul/20	23/Jul/20	8:54	9:20	1	24	5	0	0.20	10	0	0.41	2	0	0.08	0	0	0.00
	TP-MT-25	430150	5408897	22/Jul/20	23/Jul/20	9:00	9:26	1	24	0	0	0.00	1	0	0.04	0	0	0.00	0	0	0.00
<b>Total</b>									<b>2407</b>	<b>60</b>	<b>0</b>	<b>0.02</b>	<b>618</b>	<b>1</b>	<b>0.26</b>	<b>3</b>	<b>0</b>	<b>0.00</b>	<b>0</b>	<b>0</b>	<b>0.00</b>

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



Appendix Table A.12: Detailed Electrofishing Catch Results, RRM July 2020

Habitat	Station	UTM (NAD 15U)		Date	Length of Run (m)	Output Voltage (V)	Cycle Frequency (Hz)	Pass	Effort (sec)	Brown Bullhead	Brook Stickleback	Central Mudminnow	Common Shiner	Creek Chub	Fathead Minnow	Finescale Dace	Johnny Darter	Northern Redbelly Dace	White Sucker	YOY Cyprinid	
		Easting	Northing																		
Compensation Habitat	West Creek Diversion	422198	5410032	21-Jul-20	500	220	60	1	100	0	0	1	0	0	0	1	0	0	0	0	
								2	200	0	1	0	2	0	0	0	0	0	0	1	10
								3	116	0	4	1	0	1	0	0	0	1	2	10	
								4	84	0	0	4	2	0	0	0	0	2	0	7	
								5	200	0	0	1	0	6	0	0	1	0	11		
								6	80	0	60	0	1	1	1	0	1	0	0		
								7	220	0	6	0	0	9	0	0	1	0	2		
	<b>Total</b>								<b>1,000</b>	<b>0</b>	<b>71</b>	<b>7</b>	<b>5</b>	<b>17</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>6</b>	<b>3</b>	<b>40</b>	
	Clark Creek Diversion	429978	5409334	21-Jul-20	500	300	60	1	1,036	0	0	25	0	0	0	1	3	0	0	0	0
								<b>Total</b>								<b>1,036</b>	<b>0</b>	<b>0</b>	<b>25</b>	<b>0</b>	<b>0</b>
	Stockpile Creek Pond	427073	5410657	24-Jul-20	1,000	300	60	1	4,563	17	0	35	0	6	10	0	0	0	4	1	73
								2	3,056	101	0	7	0	13	0	0	0	0	0	100	
								3	2,500	1	0	11	1	12	0	0	0	0	0	0	
	<b>Total</b>								<b>10,119</b>	<b>119</b>	<b>0</b>	<b>53</b>	<b>1</b>	<b>31</b>	<b>10</b>	<b>0</b>	<b>0</b>	<b>4</b>	<b>1</b>	<b>173</b>	
	West Creek Pond	425888	5410990	23-Jul-20	1,800	300	60	1	2,003	22	0	0	0	5	0	2	0	0	3	1	0
								2	2,998	0	0	0	0	3	10	0	0	1	0	0	
								3	970	1	0	1	0	0	15	0	1	0	0	0	
								4	2,000	2	1	2	0	0	9	0	0	0	8	0	
								5	2,052	2	0	0	0	0	12	0	0	1	6	0	
	<b>Total</b>								<b>10,023</b>	<b>27</b>	<b>1</b>	<b>3</b>	<b>0</b>	<b>8</b>	<b>46</b>	<b>2</b>	<b>1</b>	<b>5</b>	<b>15</b>	<b>0</b>	
Clark Creek Pond	429640	5409920	21-Jul-20	1,000	275	60	1	3,000	0	24	45	0	0	0	0	0	0	11	0	100	
							2	1,178	0	4	45	0	0	0	0	0	0	11			
							3	1,093	0	3	60	0	0	2	2	0	0	9			
							4	2,252	0	9	50	0	0	0	0	0	4	0	13		
							5	2,514	0	34	58	0	0	0	0	0	8	0	30		
<b>Total</b>								<b>10,037</b>	<b>0</b>	<b>74</b>	<b>258</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>2</b>	<b>0</b>	<b>23</b>	<b>0</b>	<b>163</b>		
Offset Habitat	Teeples Pond Outlet	430125	5408846	21-Jul-20	200	500	60	1	1,000	0	62	2	0	0	0	2	0	0	0	42	
								<b>Total</b>								<b>1,000</b>	<b>0</b>	<b>62</b>	<b>2</b>	<b>0</b>	<b>0</b>
	Teeples Creek Pond	430184	5408843	19-Jul-20	900	220	60	1	1,006	0	0	16	0	0	0	0	0	0	0	0	1
								2	1,512	0	0	13	0	0	0	0	0	0	0		
								3	3,482	0	3	12	0	0	0	0	0	11	0	0	
								4	1,535	0	10	27	0	0	0	0	0	0	0	3	
5	2,514	0	8	20	0	0	1	2	0	6	0	12									
<b>Total</b>								<b>10,049</b>	<b>0</b>	<b>21</b>	<b>88</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>0</b>	<b>17</b>	<b>0</b>	<b>16</b>		

Appendix Table A.13: Detailed Seine Net Catch Results, RRM July 2020

Waterbody	Seine Net ID	UTM (NAD 83, 15U)		Date	Area Seined (m <sup>2</sup> )	Blacknose Dace			Brassy Minnow			Brook Stickleback			Central Mudminnow			Common Shiner		
		Easting	Northing			Catch	Mortality	CPUE <sup>a</sup>	Catch	Mortality	CPUE <sup>a</sup>	Catch	Mortality	CPUE <sup>a</sup>	Catch	Mortality	CPUE <sup>a</sup>	Catch	Mortality	CPUE <sup>a</sup>
Stockpile Pond	SP-SN-01	426973	5410726	20-Jul-2019	75.0	1	0	1.3	4	0	5.3	10	0	13.3	0	0	0.0	0	0	0.0
	SP-SN-02	426979	5410720	20-Jul-2019	100	2	0	2.0	2	0	2.0	5	0	5.0	0	0	0.0	0	0	0.0
	SP-SN-03	426988	5410714	21-Jul-2019	100	0	0	0.0	1	0	1.0	0	0	0.0	0	0	0.0	0	0	0.0
	SP-SN-04	426969	5410725	21-Jul-2019	100	0	0	0.0	0	0	0.0	3	0	3.0	0	0	0.0	0	0	0.0
	SP-SN-05	426986	5410716	21-Jul-2019	100	3	0	3.0	0	0	0.0	4	0	4.0	0	0	0.0	0	0	0.0
	SP-SN-06	427059	5410662	21-Jul-2019	100	4	0	4.0	0	0	0.0	7	0	7.0	0	0	0.0	0	0	0.0
	SP-SN-07	427034	5410799	21-Jul-2019	100	4	0	4.0	6	0	6.0	25	0	25.0	0	0	0.0	0	0	0.0
	SP-SN-08	427048	5410792	21-Jul-2019	100	1	0	1.0	9	0	9.0	50	0	50.0	0	0	0.0	0	0	0.0
	SP-SN-09	427068	5410770	21-Jul-2019	100	20	0	20.0	1	0	1.0	40	0	40.0	0	0	0.0	1	0	1.0
	SP-SN-10	427035	5410802	21-Jul-2019	100	25	0	25.0	30	0	30.0	0	0	0.0	0	0	0.0	0	0	0.0
<b>Total</b>					<b>975</b>	<b>60</b>	<b>0</b>	<b>6.0</b>	<b>53</b>	<b>0</b>	<b>5.4</b>	<b>144</b>	<b>0</b>	<b>14.7</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	<b>1</b>	<b>0</b>	<b>0.1</b>
West Pond	WP-SN-01	425714	5411141	19-Jul-2019	100	0	0	0.0	22	0	22.0	26	0	26.0	0	0	0.0	0	0	0.0
	WP-SN-02	425725	5411121	19-Jul-2019	100	5	0	5.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0
	WP-SN-03	425735	5411111	19-Jul-2019	75.0	0	0	0.0	20	0	26.7	30	0	40.0	0	0	0.0	0	0	0.0
	WP-SN-04	425746	5411100	19-Jul-2019	75.0	0	0	0.0	30	0	40.0	50	0	66.7	0	0	0.0	0	0	0.0
	WP-SN-05	425927	5410968	20-Jul-2019	100	1	0	1.0	21	0	21.0	100	0	100.0	0	0	0.0	2	0	2.0
	WP-SN-06	425929	5410967	20-Jul-2019	150	4	0	2.7	0	0	0.0	25	0	16.7	0	0	0.0	5	0	3.3
	WP-SN-07	425912	5410976	20-Jul-2019	100	4	0	4.0	0	0	0.0	35	0	35.0	0	0	0.0	0	0	0.0
	WP-SN-08	425924	5410970	20-Jul-2019	100	4	0	4.0	15	0	15.0	100	0	100.0	0	0	0.0	0	0	0.0
	WP-SN-09	425912	5410976	20-Jul-2019	100	10	0	10.0	0	0	0.0	82	0	82.0	0	0	0.0	0	0	0.0
	WP-SN-10	425589	5410989	20-Jul-2019	100	4	0	4.0	1	0	1.0	35	0	35.0	0	0	0.0	1	0	1.0
<b>Total</b>					<b>1,000</b>	<b>32</b>	<b>0</b>	<b>3.1</b>	<b>109</b>	<b>0</b>	<b>12.6</b>	<b>483</b>	<b>0</b>	<b>50.1</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	<b>8</b>	<b>0</b>	<b>0.6</b>
Clark Pond	CP-SN-01	429617	5410217	18-Jul-2019	200	0	0	0.0	0	0	0.0	100	0	50.0	0	0	0.0	0	0	0.0
	CP-SN-02	429620	5410023	18-Jul-2019	100	0	0	0.0	50	0	50.0	50	0	50.0	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	200	0	200.0	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	0.0	0	0	0.0
	CP-SN-05	429632	5409929	19-Jul-2019	100	0	0	0.0	0	0	0.0	50	0	50.0	0	0	0.0	0	0	0.0
	CP-SN-06	429627	5409957	19-Jul-2019	100	0	0	0.0	50	0	50.0	50	0	50.0	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	0.0	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	0.0	0	0	0.0
	CP-SN-09	429615	5410014	19-Jul-2019	100	0	0	0.0	0	0	0.0	100	0	100.0	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	0.0	0	0	0.0
<b>Total</b>					<b>1,100</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	<b>100</b>	<b>0</b>	<b>10.0</b>	<b>550</b>	<b>0</b>	<b>50.0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>
Teeple Pond	TP-SN-01	430175	5408851	18-Jul-2019	375	0	0	0.0	0	0	0.0	60	0	16.0	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	40	0	40.0	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	0.0	0	0	0.0
	TP-SN-04	429840	5408856	18-Jul-2019	100	0	0	0.0	0	0	0.0	50	0	50.0	2	0	2.0	0	0	0.0
	TP-SN-05	429911	5408852	18-Jul-2019	150	0	0	0.0	0	0	0.0	20	0	13.3	20	0	13.3	0	0	0.0
	TP-SN-06	429912	5408884	18-Jul-2019	100	0	0	0.0	0	0	0.0	20	0	20.0	0	0	0.0	0	0	0.0
	TP-SN-07	429890	5408892	18-Jul-2019	100	0	0	0.0	0	0	0.0	50	0	50.0	0	0	0.0	0	0	0.0
	TP-SN-08	429878	5408890	18-Jul-2019	100	0	0	0.0	30	0	30.0	40	0	40.0	0	0	0.0	0	0	0.0
	TP-SN-09	429888	5408862	18-Jul-2019	100	0	0	0.0	0	0	0.0	100	0	100.0	0	0	0.0	0	0	0.0
	TP-SN-10	429916	5408843	18-Jul-2019	100	0	0	0.0	20	0	20.0	20	0	20.0	0	0	0.0	0	0	0.0
<b>Total</b>					<b>1,325</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	<b>50</b>	<b>0</b>	<b>5.0</b>	<b>400</b>	<b>0</b>	<b>34.9</b>	<b>22</b>	<b>0</b>	<b>1.5</b>	<b>0</b>	<b>0</b>	<b>0.0</b>

<sup>a</sup> Catch per unit effort (CPUE) calculated as the number of fish caught per /100m<sup>2</sup> of area seined.

Appendix Table A.13: Detailed Seine Net Catch Results, RRM July 2020

Waterbody	Seine Net ID	UTM (NAD 83, 15U)		Date	Area Seined (m <sup>2</sup> )	Creek Chub			Fathead Minnow			Finescale Dace			Golden Shiner			Johnny Darter		
		Easting	Northing			Catch	Mortality	CPUE <sup>a</sup>	Catch	Mortality	CPUE <sup>a</sup>	Catch	Mortality	CPUE <sup>a</sup>	Catch	Mortality	CPUE <sup>a</sup>	Catch	Mortality	CPUE <sup>a</sup>
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	0.0	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	0.0	0	0	0.0
	SP-SN-03	426988	5410714	21-Jul-2019	100	3	0	3.0	0	0	0.0	0	0	0.0	5	0	5.0	0	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	0.0	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	0.0	0	0	0.0
	SP-SN-06	427059	5410662	21-Jul-2019	100	1	0	1.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0
	SP-SN-07	427034	5410799	21-Jul-2019	100	9	0	9.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0
	SP-SN-08	427048	5410792	21-Jul-2019	100	3	0	3.0	0	0	0.0	1	0	1.0	0	0	0.0	0	0	0.0
	SP-SN-09	427068	5410770	21-Jul-2019	100	3	0	3.0	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0
	SP-SN-10	427035	5410802	21-Jul-2019	100	9	0	9.0	0	0	0.0	0	0	0.0	1	0	1.0	0	0	0.0
<b>Total</b>					<b>975</b>	<b>28</b>	<b>0</b>	<b>2.8</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	<b>1</b>	<b>0</b>	<b>0.1</b>	<b>6</b>	<b>0</b>	<b>6.0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>
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	0.0	0	0	0.0
	WP-SN-02	425725	5411121	19-Jul-2019	100	0	0	0.0	0	0	0.0	3	0	3.0	0	0	0.0	1	0	1.0
	WP-SN-03	425735	5411111	19-Jul-2019	75.0	0	0	0.0	0	0	0.0	5	0	6.7	0	0	0.0	0	0	0.0
	WP-SN-04	425746	5411100	19-Jul-2019	75.0	0	0	0.0	0	0	0.0	50	0	66.7	0	0	0.0	0	0	0.0
	WP-SN-05	425927	5410968	20-Jul-2019	100	0	0	0.0	0	0	0.0	0	0	0.0	1	0	1.0	21	0	21.0
	WP-SN-06	425929	5410967	20-Jul-2019	150	0	0	0.0	0	0	0.0	1	0	0.7	0	0	0.0	2	0	1.3
	WP-SN-07	425912	5410976	20-Jul-2019	100	0	0	0.0	0	0	0.0	2	0	2.0	0	0	0.0	1	0	1.0
	WP-SN-08	425924	5410970	20-Jul-2019	100	0	0	0.0	0	0	0.0	0	0	0.0	0	0	0.0	15	0	15.0
	WP-SN-09	425912	5410976	20-Jul-2019	100	0	0	0.0	0	0	0.0	2	0	2.0	0	0	0.0	12	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	0.0	0	0	0.0
<b>Total</b>					<b>1,000</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	<b>63</b>	<b>0</b>	<b>8.1</b>	<b>1</b>	<b>0</b>	<b>1.0</b>	<b>52</b>	<b>0</b>	<b>5.1</b>
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	0.0	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	0.0	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	0.0	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	0.0	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	0.0	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	0.0	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	0.0	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	0.0	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	0.0	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	0.0	0	0	0.0
<b>Total</b>					<b>1,100</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>
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	0.0	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	0.0	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	0.0	0	0	0.0
	TP-SN-04	429840	5408856	18-Jul-2019	100	0	0	0.0	1.00	0	1.0	10	0	10.0	0	0	0.0	0	0	0.0
	TP-SN-05	429911	5408852	18-Jul-2019	150	0	0	0.0	0	0	0.0	10	0	6.7	0	0	0.0	0	0	0.0
	TP-SN-06	429912	5408884	18-Jul-2019	100	0	0	0.0	0	0	0.0	20	0	20.0	0	0	0.0	0	0	0.0
	TP-SN-07	429890	5408892	18-Jul-2019	100	0	0	0.0	0	0	0.0	15	0	15.0	0	0	0.0	0	0	0.0
	TP-SN-08	429878	5408890	18-Jul-2019	100	0	0	0.0	0	0	0.0	40	0	40.0	0	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	0.0	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	0.0	0	0	0.0
<b>Total</b>					<b>1,325</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	<b>1.00</b>	<b>0</b>	<b>0.1</b>	<b>95</b>	<b>0</b>	<b>9.2</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>

<sup>a</sup> Catch per unit effort (CPUE) calculated as the number of fish caught per /100m<sup>2</sup> of area seined.

Appendix Table A.13: Detailed Seine Net Catch Results, RRM July 2020

Waterbody	Seine Net ID	UTM (NAD 83, 15U)		Date	Area Seined (m <sup>2</sup> )	Northern Redbelly Dace			White Sucker			YOY Cyprinid			YOY Stickleback		
		Easting	Northing			Catch	Mortality	CPUE <sup>a</sup>	Catch	Mortality	CPUE <sup>a</sup>	Catch	Mortality	CPUE <sup>a</sup>	Catch	Mortality	CPUE <sup>a</sup>
Stockpile Pond	SP-SN-01	426973	5410726	20-Jul-2019	75.0	0	0	0.0	0	0	0.0	650	0	866.7	0	0	0.0
	SP-SN-02	426979	5410720	20-Jul-2019	100	0	0	0.0	0	0	0.0	900	150	900.0	0	0	0.0
	SP-SN-03	426988	5410714	21-Jul-2019	100	0	0	0.0	0	0	0.0	600	100	600.0	0	0	0.0
	SP-SN-04	426969	5410725	21-Jul-2019	100	0	0	0.0	0	0	0.0	100	0	100.0	0	0	0.0
	SP-SN-05	426986	5410716	21-Jul-2019	100	0	0	0.0	0	0	0.0	1,000	0	1,000.0	0	0	0.0
	SP-SN-06	427059	5410662	21-Jul-2019	100	0	0	0.0	0	0	0.0	750	0	750.0	0	0	0.0
	SP-SN-07	427034	5410799	21-Jul-2019	100	0	0	0.0	0	0	0.0	800	50	800.0	0	0	0.0
	SP-SN-08	427048	5410792	21-Jul-2019	100	0	0	0.0	1	0	1.0	1,200	200	1,200.0	0	0	0.0
	SP-SN-09	427068	5410770	21-Jul-2019	100	0	0	0.0	0	0	0.0	600	0	600.0	0	0	0.0
	SP-SN-10	427035	5410802	21-Jul-2019	100	0	0	0.0	0	0	0.0	500	0	500.0	0	0	0.0
	<b>Total</b>				<b>975</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	<b>1</b>	<b>0</b>	<b>0.1</b>	<b>7,100</b>	<b>500</b>	<b>731.7</b>	<b>0</b>	<b>0</b>	<b>0.0</b>
West Pond	WP-SN-01	425714	5411141	19-Jul-2019	100	0	0	0.0	5	0	5.0	500	0	500.0	0	0	0.0
	WP-SN-02	425725	5411121	19-Jul-2019	100	0	0	0.0	0	0	0.0	200	0	200.0	0	0	0.0
	WP-SN-03	425735	5411111	19-Jul-2019	75.0	0	0	0.0	0	0	0.0	800	400	1,066.7	0	0	0.0
	WP-SN-04	425746	5411100	19-Jul-2019	75.0	0	0	0.0	5	0	6.7	900	400	1,200.0	0	0	0.0
	WP-SN-05	425927	5410968	20-Jul-2019	100	0	0	0.0	5	0	5.0	300	0	300.0	0	0	0.0
	WP-SN-06	425929	5410967	20-Jul-2019	150	0	0	0.0	0	0	0.0	60	0	40.0	0	0	0.0
	WP-SN-07	425912	5410976	20-Jul-2019	100	0	0	0.0	0	0	0.0	40	0	40.0	0	0	0.0
	WP-SN-08	425924	5410970	20-Jul-2019	100	0	0	0.0	1	0	1.0	98	0	98.0	0	0	0.0
	WP-SN-09	425912	5410976	20-Jul-2019	100	0	0	0.0	2	0	2.0	330	0	330.0	0	0	0.0
	WP-SN-10	425589	5410989	20-Jul-2019	100	0	0	0.0	1	0	1.0	510	0	510.0	0	0	0.0
	<b>Total</b>				<b>1,000</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	<b>19</b>	<b>0</b>	<b>2.1</b>	<b>3,738</b>	<b>800</b>	<b>428.5</b>	<b>0</b>	<b>0</b>	<b>0.0</b>
Clark Pond	CP-SN-01	429617	5410217	18-Jul-2019	200	250	0	125.0	0	0	0.0	1,000	100	500.0	0	0	0.0
	CP-SN-02	429620	5410023	18-Jul-2019	100	0	0	0.0	0	0	0.0	600	50	600.0	0	0	0.0
	CP-SN-03	429620	5410023	18-Jul-2019	100	0	0	0.0	0	0	0.0	500	0	500.0	0	0	0.0
	CP-SN-04	429630	5409924	18-Jul-2019	100	0	0	0.0	0	0	0.0	2,000	0	2,000.0	500	0	500.0
	CP-SN-05	429632	5409929	19-Jul-2019	100	0	0	0.0	0	0	0.0	1,000	100	1,000.0	0	0	0.0
	CP-SN-06	429627	5409957	19-Jul-2019	100	0	0	0.0	0	0	0.0	1,000	100	1,000.0	250	0	250.0
	CP-SN-07	429625	5409972	19-Jul-2019	100	0	0	0.0	0	0	0.0	2,000	100	2,000.0	300	20	300.0
	CP-SN-08	429621	5409986	19-Jul-2019	100	0	0	0.0	0	0	0.0	1,500	200	1,500.0	0	0	0.0
	CP-SN-09	429615	5410014	19-Jul-2019	100	0	0	0.0	0	0	0.0	1,200	0	1,200.0	0	0	0.0
	CP-SN-10	429614	5410027	19-Jul-2019	100	0	0	0.0	0	0	0.0	900	0	900.0	0	0	0.0
	<b>Total</b>				<b>1,100</b>	<b>250</b>	<b>0</b>	<b>12.5</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	<b>11,700</b>	<b>650</b>	<b>1,120.0</b>	<b>1,050</b>	<b>20</b>	<b>105.0</b>
Teeple Pond	TP-SN-01	430175	5408851	18-Jul-2019	375	0	0	0.0	0	0	0.0	1,500	500	400.0	600	200	160.0
	TP-SN-02	430155	5408847	18-Jul-2019	100	0	0	0.0	0	0	0.0	600	20	600.0	0	0	0.0
	TP-SN-03	429912	5408884	18-Jul-2019	100	0	0	0.0	0	0	0.0	500	0	500.0	0	0	0.0
	TP-SN-04	429840	5408856	18-Jul-2019	100	0	0	0.0	0	0	0.0	600	0	600.0	0	0	0.0
	TP-SN-05	429911	5408852	18-Jul-2019	150	0	0	0.0	0	0	0.0	1,000	100	666.7	0	0	0.0
	TP-SN-06	429912	5408884	18-Jul-2019	100	0	0	0.0	0	0	0.0	1,000	0	1,000.0	0	0	0.0
	TP-SN-07	429890	5408892	18-Jul-2019	100	0	0	0.0	0	0	0.0	1,000	0	1,000.0	250	0	250.0
	TP-SN-08	429878	5408890	18-Jul-2019	100	0	0	0.0	0	0	0.0	750	0	750.0	0	0	0.0
	TP-SN-09	429888	5408862	18-Jul-2019	100	10	0	10.0	0	0	0.0	600	0	600.0	0	0	0.0
	TP-SN-10	429916	5408843	18-Jul-2019	100	0	0	0.0	0	0	0.0	600	0	600.0	200	0	200.0
	<b>Total</b>				<b>1,325</b>	<b>10</b>	<b>0</b>	<b>1.0</b>	<b>0</b>	<b>0</b>	<b>0.0</b>	<b>8,150</b>	<b>620</b>	<b>671.7</b>	<b>1,050</b>	<b>200</b>	<b>61.0</b>

<sup>a</sup> Catch per unit effort (CPUE) calculated as the number of fish caught per /100m<sup>2</sup> of area seined.

**Appendix Table A.14: Detailed Fish Measurements for West Creek Diversion, RRM July 2020**

Processing Date	Fish Species	Fish ID	Total Length (cm)	Fork Length (cm)	Body Weight (g)	Abnormalities	Fate (M) Mortality (R) Released
21-Jul-20	Blackside Darter	WCD-BSD-01	7.7	-	6.238	None	R
21-Jul-20	Blackside Darter	WCD-BSD-02	6.9	-	3.673	None	R
21-Jul-20	Brassy Minnow	WCD-BM-01	7.4	7.0	3.510	None	R
21-Jul-20	Brassy Minnow	WCD-BM-02	7.1	6.9	3.453	None	R
21-Jul-20	Brassy Minnow	WCD-BM-03	6.1	5.8	2.188	None	R
21-Jul-20	Brassy Minnow	WCD-BM-04	7.3	6.9	3.818	None	R
21-Jul-20	Brassy Minnow	WCD-BM-05	7.3	6.9	3.884	None	R
21-Jul-20	Brassy Minnow	WCD-BM-06	7.0	6.6	3.414	None	R
21-Jul-20	Brassy Minnow	WCD-BM-07	6.3	5.9	2.525	None	R
21-Jul-20	Brassy Minnow	WCD-BM-08	7.6	7.3	4.496	injured gill	R
21-Jul-20	Brassy Minnow	WCD-BM-09	6.4	6.1	2.317	None	R
21-Jul-20	Brassy Minnow	WCD-BM-10	5.9	5.6	2.158	None	R
21-Jul-20	Brassy Minnow	WCD-BM-11	7.5	7.2	3.402	None	R
21-Jul-20	Brassy Minnow	WCD-BM-12	6.4	6.1	2.460	None	R
21-Jul-20	Brassy Minnow	WCD-BM-13	5.5	5.2	2.256	None	R
21-Jul-20	Brassy Minnow	WCD-BM-14	6.4	6.0	2.341	None	R
21-Jul-20	Brassy Minnow	WCD-BM-15	7.5	7.2	4.134	None	R
21-Jul-20	Brassy Minnow	WCD-BM-16	7.3	6.9	3.628	None	R
21-Jul-20	Brassy Minnow	WCD-BM-17	6.1	5.8	2.382	None	R
21-Jul-20	Brassy Minnow	WCD-BM-18	6.4	5.9	2.585	None	R
21-Jul-20	Brassy Minnow	WCD-BM-19	6.3	6.0	2.325	None	R
21-Jul-20	Brassy Minnow	WCD-BM-20	6.6	6.3	-	None	R
21-Jul-20	Brassy Minnow	WCD-BM-21	6.9	6.5	3.052	None	R
21-Jul-20	Brassy Minnow	WCD-BM-22	6.2	5.7	2.305	None	R
21-Jul-20	Brassy Minnow	WCD-BM-23	5.4	5.0	2.212	None	R
21-Jul-20	Brassy Minnow	WCD-BM-24	7.5	7.0	3.947	None	R
21-Jul-20	Brassy Minnow	WCD-BM-25	8.1	7.7	5.042	None	R
21-Jul-20	Brassy Minnow	WCD-BM-26	7.5	7.3	4.357	None	R
21-Jul-20	Brassy Minnow	WCD-BM-27	6.9	6.6	3.335	None	R
21-Jul-20	Brassy Minnow	WCD-BM-28	4.9	4.6	1.410	None	R
21-Jul-20	Brassy Minnow	WCD-BM-29	7.1	6.7	3.514	None	R
21-Jul-20	Brassy Minnow	WCD-BM-30	6.2	5.9	2.345	None	R
21-Jul-20	Brassy Minnow	WCD-BM-31	7.1	6.7	3.732	None	R
21-Jul-20	Brassy Minnow	WCD-BM-32	4.7	4.4	1.878	None	R
21-Jul-20	Brassy Minnow	WCD-BM-33	5.8	5.4	1.753	None	R
21-Jul-20	Brassy Minnow	WCD-BM-34	5.0	4.6	1.303	None	R
21-Jul-20	Brassy Minnow	WCD-BM-35	5.9	5.5	1.877	None	R
21-Jul-20	Brassy Minnow	WCD-BM-36	4.7	4.4	1.055	None	R
21-Jul-20	Brassy Minnow	WCD-BM-37	4.8	4.4	1.125	None	R
21-Jul-20	Brassy Minnow	WCD-BM-38	6.1	5.6	2.324	None	R
21-Jul-20	Brassy Minnow	WCD-BM-39	5.5	5.1	1.609	None	R
21-Jul-20	Brassy Minnow	WCD-BM-40	4.6	4.3	0.800	None	R
21-Jul-20	Brassy Minnow	WCD-BM-41	5.5	5.3	1.457	None	R
21-Jul-20	Brassy Minnow	WCD-BM-42	6.5	6.2	2.245	None	R
21-Jul-20	Brassy Minnow	WCD-BM-43	6.6	6.2	2.364	None	R
21-Jul-20	Brassy Minnow	WCD-BM-44	5.6	5.3	1.568	None	R

**Appendix Table A.14: Detailed Fish Measurements for West Creek Diversion, RRM July 2020**

Processing Date	Fish Species	Fish ID	Total Length (cm)	Fork Length (cm)	Body Weight (g)	Abnormalities	Fate (M) Mortality (R) Released
21-Jul-20	Brook Stickleback	WCD-BSB-01	4.7	-	1.234	None	R
21-Jul-20	Brook Stickleback	WCD-BSB-02	4.1	-	6.678	None	R
21-Jul-20	Brook Stickleback	WCD-BSB-03	4.2	-	0.702	None	R
21-Jul-20	Brook Stickleback	WCD-BSB-04	5.1	-	1.058	None	R
21-Jul-20	Brook Stickleback	WCD-BSB-05	5.2	-	1.404	None	R
21-Jul-20	Brook Stickleback	WCD-BSB-06	5.2	-	1.578	None	R
21-Jul-20	Brook Stickleback	WCD-BSB-07	5.1	-	1.373	None	R
21-Jul-20	Brook Stickleback	WCD-BSB-08	4.4	-	0.806	None	R
21-Jul-20	Brook Stickleback	WCD-BSB-09	5.8	-	1.156	None	R
21-Jul-20	Brook Stickleback	WCD-BSB-10	4.4	-	0.845	None	R
21-Jul-20	Brook Stickleback	WCD-BSB-11	4.4	-	0.808	None	R
21-Jul-20	Brook Stickleback	WCD-BSB-12	4.4	-	0.878	None	R
21-Jul-20	Brook Stickleback	WCD-BSB-13	4.6	-	0.978	None	R
21-Jul-20	Brook Stickleback	WCD-BSB-14	5.1	-	1.442	None	R
21-Jul-20	Brook Stickleback	WCD-BSB-15	3.8	-	0.660	None	R
21-Jul-20	Brook Stickleback	WCD-BSB-16	4.8	-	1.332	None	R
21-Jul-20	Brook Stickleback	WCD-BSB-17	4.6	-	1.308	None	R
21-Jul-20	Brook Stickleback	WCD-BSB-18	5.1	-	1.244	None	R
21-Jul-20	Brook Stickleback	WCD-BSB-19	4.2	-	0.955	None	R
21-Jul-20	Brook Stickleback	WCD-BSB-20	4.6	-	1.307	None	R
21-Jul-20	Brook Stickleback	WCD-BSB-21	4.6	-	0.918	None	R
21-Jul-20	Brook Stickleback	WCD-BSB-22	4.5	-	0.876	None	R
21-Jul-20	Brook Stickleback	WCD-BSB-23	4.6	-	0.981	None	R
21-Jul-20	Brook Stickleback	WCD-BSB-24	4.6	-	0.976	None	R
21-Jul-20	Brook Stickleback	WCD-BSB-25	4.9	-	1.249	None	R
21-Jul-20	Brook Stickleback	WCD-BSB-26	4.9	-	1.135	None	R
21-Jul-20	Brook Stickleback	WCD-BSB-27	4.5	-	0.950	None	R
21-Jul-20	Brook Stickleback	WCD-BSB-28	4.3	-	0.962	None	R
21-Jul-20	Brook Stickleback	WCD-BSB-29	5.1	-	1.388	None	R
21-Jul-20	Brook Stickleback	WCD-BSB-30	4.5	-	0.862	None	R
21-Jul-20	Brook Stickleback	WCD-BSB-31	5.0	-	1.267	None	R
21-Jul-20	Brook Stickleback	WCD-BSB-32	4.6	-	0.992	None	R
21-Jul-20	Brook Stickleback	WCD-BSB-33	4.3	-	0.767	None	R
21-Jul-20	Brook Stickleback	WCD-BSB-34	4.6	-	1.088	None	R
21-Jul-20	Brook Stickleback	WCD-BSB-35	4.8	-	1.199	None	R
21-Jul-20	Brook Stickleback	WCD-BSB-36	4.9	-	1.116	None	R
21-Jul-20	Brook Stickleback	WCD-BSB-37	4.1	-	0.673	None	R
21-Jul-20	Brook Stickleback	WCD-BSB-38	4.5	-	0.908	None	R
21-Jul-20	Brook Stickleback	WCD-BSB-39	4.8	-	1.076	None	R
21-Jul-20	Brown Bullhead	WCD-BB-01	9.0	-	8.758	None	R
21-Jul-20	Central Mudminnow	WCD-CMM-01	6.5	-	3.303	None	R
21-Jul-20	Central Mudminnow	WCD-CMM-02	6.7	-	3.630	None	R
21-Jul-20	Central Mudminnow	WCD-CMM-03	7.5	-	4.857	None	R
21-Jul-20	Central Mudminnow	WCD-CMM-04	6.3	-	3.302	None	R
21-Jul-20	Central Mudminnow	WCD-CMM-05	7.6	-	5.368	None	R
22-Jul-20	Central Mudminnow	WCD-CMM-06	6.2	-	2.939	None	R
22-Jul-20	Central Mudminnow	WCD-CMM-07	10.5	-	12.828	None	R
22-Jul-20	Central Mudminnow	WCD-CMM-08	6.4	-	3.209	None	R
22-Jul-20	Central Mudminnow	WCD-CMM-09	6.9	-	3.985	None	R
22-Jul-20	Central Mudminnow	WCD-CMM-10	7.4	-	4.341	None	R
22-Jul-20	Central Mudminnow	WCD-CMM-11	8.0	-	5.0	None	R
21-Jul-20	Common Shiner	WCD-CS-01	7.1	6.5	3.248	None	R
21-Jul-20	Common Shiner	WCD-CS-02	5.5	5.0	1.568	None	R
21-Jul-20	Common Shiner	WCD-CS-03	5.7	5.4	1.861	None	R
21-Jul-20	Common Shiner	WCD-CS-04	4.9	4.5	1.039	None	R
21-Jul-20	Common Shiner	WCD-CS-05	4.7	4.4	1.029	None	R
21-Jul-20	Common Shiner	WCD-CS-06	4.9	4.6	1.075	None	R
21-Jul-20	Common Shiner	WCD-CS-07	4.8	4.4	0.943	None	R
21-Jul-20	Common Shiner	WCD-CS-08	5.6	5.1	1.679	None	R
22-Jul-20	Common Shiner	WCD-CS-09	4.8	4.6	0.720	None	R
22-Jul-20	Common Shiner	WCD-CS-10	4.0	3.7	0.670	None	R
22-Jul-20	Common Shiner	WCD-CS-11	4.1	3.6	0.492	None	R
22-Jul-20	Common Shiner	WCD-CS-12	3.7	3.4	0.417	None	R

**Appendix Table A.14: Detailed Fish Measurements for West Creek Diversion, RRM July 2020**

Processing Date	Fish Species	Fish ID	Total Length (cm)	Fork Length (cm)	Body Weight (g)	Abnormalities	Fate (M) Mortality (R) Released
21-Jul-20	Creek Chub	WCD-CC-01	12.5	11.7	17.225	None	R
21-Jul-20	Creek Chub	WCD-CC-02	8.3	8.1	5.352	None	R
21-Jul-20	Creek Chub	WCD-CC-03	10.3	9.9	9.948	None	R
21-Jul-20	Creek Chub	WCD-CC-04	8.4	7.9	5.562	None	R
21-Jul-20	Creek Chub	WCD-CC-05	10.1	9.7	10.353	None	R
21-Jul-20	Creek Chub	WCD-CC-06	10.7	10.1	12.686	None	R
21-Jul-20	Creek Chub	WCD-CC-07	9.7	9.4	9.534	None	R
21-Jul-20	Creek Chub	WCD-CC-08	8.9	8.5	4.762	None	R
21-Jul-20	Creek Chub	WCD-CC-09	11.9	11.3	15.568	None	R
21-Jul-20	Creek Chub	WCD-CC-10	8.7	8.1	6.286	None	R
21-Jul-20	Creek Chub	WCD-CC-11	13.0	12.4	20.690	None	R
21-Jul-20	Creek Chub	WCD-CC-12	11.8	11.3	15.859	tear in caudal	R
21-Jul-20	Creek Chub	WCD-CC-13	10.1	9.5	11.363	damaged caudal	R
21-Jul-20	Creek Chub	WCD-CC-14	11.1	10.7	13.876	None	R
21-Jul-20	Creek Chub	WCD-CC-15	7.7	7.3	4.430	None	R
21-Jul-20	Creek Chub	WCD-CC-16	10.4	9.8	12.846	None	R
21-Jul-20	Creek Chub	WCD-CC-17	8.8	8.2	6.431	None	R
21-Jul-20	Creek Chub	WCD-CC-18	9.6	9.1	8.612	None	R
21-Jul-20	Creek Chub	WCD-CC-19	7.2	6.8	3.863	None	R
21-Jul-20	Creek Chub	WCD-CC-20	9.9	9.5	10.768	None	R
21-Jul-20	Creek Chub	WCD-CC-21	8.2	7.8	5.054	None	R
21-Jul-20	Creek Chub	WCD-CC-22	9.5	9.0	8.212	None	R
21-Jul-20	Creek Chub	WCD-CC-23	8.6	8.3	6.483	None	R
21-Jul-20	Creek Chub	WCD-CC-24	7.5	7.0	4.084	None	R
21-Jul-20	Creek Chub	WCD-CC-25	12.2	11.5	18.136	None	R
21-Jul-20	Creek Chub	WCD-CC-26	7.7	7.4	2.931	None	R
21-Jul-20	Creek Chub	WCD-CC-27	10.5	9.9	10.864	None	R
21-Jul-20	Creek Chub	WCD-CC-28	8.2	7.8	5.370	None	R
21-Jul-20	Creek Chub	WCD-CC-29	9.1	8.6	6.536	None	R
21-Jul-20	Creek Chub	WCD-CC-30	9.0	8.6	7.699	None	R
21-Jul-20	Creek Chub	WCD-CC-31	7.9	7.6	4.709	None	R
21-Jul-20	Creek Chub	WCD-CC-32	7.4	7.0	3.964	None	R
21-Jul-20	Creek Chub	WCD-CC-33	7.6	7.4	2.915	None	R
21-Jul-20	Creek Chub	WCD-CC-34	7.7	7.2	4.578	None	R
21-Jul-20	Creek Chub	WCD-CC-35	6.5	6.2	2.790	None	R
21-Jul-20	Creek Chub	WCD-CC-36	9.7	9.2	6.889	None	R
21-Jul-20	Creek Chub	WCD-CC-37	11.7	11.1	15.818	None	R
21-Jul-20	Creek Chub	WCD-CC-38	9.7	9.1	10.045	None	R
21-Jul-20	Creek Chub	WCD-CC-39	10.4	9.9	10.938	caudal injury	R
21-Jul-20	Creek Chub	WCD-CC-40	16.0	15.5	43.708	None	R
21-Jul-20	Fathead Minnow	WCD-FHM-01	6.2	5.8	3.538	None	R
21-Jul-20	Fathead Minnow	WCD-FHM-02	6.4	6.0	2.618	None	R
21-Jul-20	Fathead Minnow	WCD-FHM-03	5.1	4.8	1.277	None	R
21-Jul-20	Fathead Minnow	WCD-FHM-04	6.1	5.7	2.307	None	R
21-Jul-20	Fathead Minnow	WCD-FHM-05	6.5	6.2	2.863	None	R
21-Jul-20	Fathead Minnow	WCD-FHM-06	5.8	5.3	1.684	None	R
21-Jul-20	Fathead Minnow	WCD-FHM-07	6.0	5.7	1.815	None	R
21-Jul-20	Fathead Minnow	WCD-FHM-08	8.9	8.6	6.701	None	R
21-Jul-20	Fathead Minnow	WCD-FHM-09	5.4	5.0	3.416	None	R
21-Jul-20	Finescale Dace	WCD-FSD-01	5.4	5.0	2.026	None	R
21-Jul-20	Finescale Dace	WCD-FSD-02	4.7	4.4	1.014	None	R
21-Jul-20	Finescale Dace	WCD-FSD-03	6.9	6.6	3.210	None	R
21-Jul-20	Finescale Dace	WCD-FSD-04	6.4	6.1	2.448	None	R
21-Jul-20	Finescale Dace	WCD-FSD-05	6.7	6.3	2.645	None	R
21-Jul-20	Finescale Dace	WCD-FSD-06	6.4	6.1	2.732	None	R
21-Jul-20	Finescale Dace	WCD-FSD-07	7.8	7.5	5.778	None	R
21-Jul-20	Finescale Dace	WCD-FSD-08	6.3	6.0	2.676	None	R
21-Jul-20	Finescale Dace	WCD-FSD-09	4.7	4.3	0.934	None	R
21-Jul-20	Finescale Dace	WCD-FSD-10	4.8	4.4	0.890	None	R
21-Jul-20	Finescale Dace	WCD-FSD-11	4.6	4.2	1.057	None	R
21-Jul-20	Finescale Dace	WCD-FSD-12	5.4	4.5	1.126	None	R
21-Jul-20	Finescale Dace	WCD-FSD-13	5.5	5.0	1.554	None	R
21-Jul-20	Finescale Dace	WCD-FSD-14	4.9	4.6	1.117	None	R
21-Jul-20	Finescale Dace	WCD-FSD-15	4.9	4.5	1.203	None	R
21-Jul-20	Finescale Dace	WCD-FSD-16	4.8	4.4	1.182	None	R
21-Jul-20	Johnny Darter	WCD-JD-01	6.4	-	2.409	None	R



**Appendix Table A.14: Detailed Fish Measurements for West Creek Diversion, RRM July 2020**

Processing Date	Fish Species	Fish ID	Total Length (cm)	Fork Length (cm)	Body Weight (g)	Abnormalities	Fate (M) Mortality (R) Released
21-Jul-20	Northern Redbelly Dace	WCD-NRBD-01	4.8	4.5	1.052	None	R
21-Jul-20	Northern Redbelly Dace	WCD-NRBD-02	4.6	4.4	0.814	None	R
21-Jul-20	Northern Redbelly Dace	WCD-NRBD-03	5.7	5.4	1.950	None	R
21-Jul-20	Northern Redbelly Dace	WCD-NRBD-03	4.9	4.5	1.268	None	R
21-Jul-20	Northern Redbelly Dace	WCD-NRBD-04	4.7	4.4	1.080	None	R
21-Jul-20	Northern Redbelly Dace	WCD-NRBD-05	5.6	5.3	1.612	None	R
21-Jul-20	Northern Redbelly Dace	WCD-NRBD-06	4.5	4.2	0.911	None	R
21-Jul-20	Northern Redbelly Dace	WCD-NRBD-07	5.2	4.9	1.265	None	R
21-Jul-20	Northern Redbelly Dace	WCD-NRBD-08	5.1	4.8	1.128	None	R
21-Jul-20	Northern Redbelly Dace	WCD-NRBD-09	7.9	7.5	2.682	None	R
21-Jul-20	Northern Redbelly Dace	WCD-NRBD-10	4.8	4.5	1.020	None	R
21-Jul-20	Northern Redbelly Dace	WCD-NRBD-11	5.1	4.8	1.440	None	R
21-Jul-20	Northern Redbelly Dace	WCD-NRBD-12	4.6	4.3	0.928	None	R
21-Jul-20	Northern Redbelly Dace	WCD-NRBD-13	6.2	5.8	1.774	None	R
21-Jul-20	Northern Redbelly Dace	WCD-NRBD-14	4.5	4.1	0.834	None	R
21-Jul-20	Northern Redbelly Dace	WCD-NRBD-15	4.4	4.2	1.038	None	R
21-Jul-20	Northern Redbelly Dace	WCD-NRBD-16	4.4	4.1	0.908	None	R
21-Jul-20	Northern Redbelly Dace	WCD-NRBD-17	4.5	4.2	0.854	None	R
21-Jul-20	Northern Redbelly Dace	WCD-NRBD-18	4.5	4.1	0.918	None	R
22-Jul-20	Northern Redbelly Dace	WCD-NRBD-19	4.8	4.5	0.978	None	R
22-Jul-20	Northern Redbelly Dace	WCD-NRBD-20	4.2	4.0	0.601	None	R
22-Jul-20	Northern Redbelly Dace	WCD-NRBD-21	3.9	3.5	0.412	None	R
22-Jul-20	Northern Redbelly Dace	WCD-NRBD-22	4.5	4.3	1.220	None	R
21-Jul-20	Pearl Dace	WCD-PD-01	6.8	6.5	2.971	None	R
21-Jul-20	Pearl Dace	WCD-PD-02	7.2	6.8	7.321	None	R
21-Jul-20	Pearl Dace	WCD-PD-03	8.5	8.0	6.922	None	R
21-Jul-20	Pearl Dace	WCD-PD-04	6.1	5.7	1.970	None	R
21-Jul-20	Pearl Dace	WCD-PD-05	5.9	5.5	2.051	None	R
21-Jul-20	Pearl Dace	WCD-PD-06	7.5	7.0	3.881	None	R
21-Jul-20	Pearl Dace	WCD-PD-07	8.0	7.6	4.543	None	R
21-Jul-20	Pearl Dace	WCD-PD-08	8.0	7.5	4.693	None	R
21-Jul-20	Pearl Dace	WCD-PD-09	7.1	6.7	3.144	None	R
21-Jul-20	Pearl Dace	WCD-PD-10	8.2	7.8	5.170	None	R
21-Jul-20	Pearl Dace	WCD-PD-11	6.8	6.4	2.931	None	R
21-Jul-20	Pearl Dace	WCD-PD-12	7.2	6.9	4.032	None	R
21-Jul-20	Pearl Dace	WCD-PD-13	6.8	6.5	3.175	None	R
21-Jul-20	White Sucker	WCD-WS-01	10.1	9.5	9.956	None	R
21-Jul-20	White Sucker	WCD-WS-02	9.0	8.7	7.046	asymmetrical mouth	R
21-Jul-20	White Sucker	WCD-WS-03	9.2	8.9	7.224	None	R
21-Jul-20	White Sucker	WCD-WS-04	12.1	11.7	17.288	None	R
21-Jul-20	White Sucker	WCD-WS-05	9.9	9.5	10.165	None	R
21-Jul-20	White Sucker	WCD-WS-06	10.6	10.2	12.508	None	R
21-Jul-20	White Sucker	WCD-WS-07	7.9	7.7	5.160	None	R
21-Jul-20	White Sucker	WCD-WS-08	10.0	9.5	10.458	None	R
21-Jul-20	White Sucker	WCD-WS-09	8.7	8.1	6.948	None	R
21-Jul-20	White Sucker	WCD-WS-10	9.5	9.0	9.370	None	R
21-Jul-20	White Sucker	WCD-WS-11	10.0	9.4	9.913	None	R
21-Jul-20	White Sucker	WCD-WS-12	9.5	9.0	8.623	None	R
21-Jul-20	White Sucker	WCD-WS-13	8.7	8.1	6.795	None	R
21-Jul-20	White Sucker	WCD-WS-14	9.6	9.3	8.545	None	R
21-Jul-20	White Sucker	WCD-WS-15	10.7	10.1	10.612	None	R
21-Jul-20	White Sucker	WCD-WS-16	10.5	10.0	10.121	None	R
21-Jul-20	White Sucker	WCD-WS-17	9.0	8.6	7.184	None	R
21-Jul-20	White Sucker	WCD-WS-18	11.0	10.6	12.376	None	R
21-Jul-20	White Sucker	WCD-WS-19	8.5	7.9	7.463	None	R
21-Jul-20	White Sucker	WCD-WS-20	8.0	7.7	7.638	None	R
21-Jul-20	White Sucker	WCD-WS-21	7.5	7.3	6.005	None	R
22-Jul-20	White Sucker	WCD-WS-22	3.8	3.6	0.471	None	R
22-Jul-20	White Sucker	WCD-WS-23	9.3	8.9	7.901	None	R
22-Jul-20	White Sucker	WCD-WS-24	3.4	3.2	0.278	None	R

Note: "-" indicates no measurement taken.



Appendix Table A.15: Detailed Fish Measurements for Clark Creek Diversion, RRM July 2020

Processing Date	Fish Species	Fish ID	Total Length (cm)	Fork Length (cm)	Body Weight (g)	Abnormalities	Fate (M) Mortality (R) Released
20-Jul-20	Brook Stickleback	CCD-BSB-01	5.4	-	1.651	None	R
20-Jul-20	Brook Stickleback	CCD-BSB-02	4.7	-	1.078	None	R
20-Jul-20	Brook Stickleback	CCD-BSB-03	5	-	1.43	None	R
20-Jul-20	Brook Stickleback	CCD-BSB-04	5.5	-	1.624	None	R
20-Jul-20	Brook Stickleback	CCD-BSB-05	4.6	-	0.9	None	R
20-Jul-20	Brook Stickleback	CCD-BSB-06	4.8	-	1.253	None	R
20-Jul-20	Brook Stickleback	CCD-BSB-07	4.6	-	1.045	None	R
20-Jul-20	Brook Stickleback	CCD-BSB-08	5	-	1.402	None	R
20-Jul-20	Brook Stickleback	CCD-BSB-09	5	-	1.492	None	R
20-Jul-20	Brook Stickleback	CCD-BSB-10	4.2	-	0.884	None	R
20-Jul-20	Brook Stickleback	CCD-BSB-11	4.3	-	0.624	None	R
20-Jul-20	Brook Stickleback	CCD-BSB-12	5	-	1.26	None	R
20-Jul-20	Brook Stickleback	CCD-BSB-13	5.8	-	1.738	None	R
20-Jul-20	Brook Stickleback	CCD-BSB-14	5.3	-	1.288	None	R
20-Jul-20	Brook Stickleback	CCD-BSB-15	5.2	-	1.268	None	R
20-Jul-20	Brook Stickleback	CCD-BSB-16	5.3	-	1.387	None	R
20-Jul-20	Brook Stickleback	CCD-BSB-17	5.2	-	1.575	None	R
20-Jul-20	Brook Stickleback	CCD-BSB-18	4.7	-	1.005	None	R
20-Jul-20	Brook Stickleback	CCD-BSB-19	5.2	-	0.621	None	R
20-Jul-20	Brook Stickleback	CCD-BSB-20	5	-	1.356	None	R
20-Jul-20	Brook Stickleback	CCD-BSB-21	4.6	-	1.024	None	R
20-Jul-20	Brook Stickleback	CCD-BSB-22	4.9	-	1.415	None	R
20-Jul-20	Brook Stickleback	CCD-BSB-23	5.3	-	1.526	None	R
20-Jul-20	Brook Stickleback	CCD-BSB-24	4.5	-	1.073	None	R
20-Jul-20	Brook Stickleback	CCD-BSB-25	5.3	-	1.468	None	R
20-Jul-20	Brook Stickleback	CCD-BSB-26	4.6	-	1.211	None	R
20-Jul-20	Brook Stickleback	CCD-BSB-27	4.8	-	1.431	None	R
20-Jul-20	Brook Stickleback	CCD-BSB-28	4.6	-	0.972	None	R
20-Jul-20	Brook Stickleback	CCD-BSB-29	4.6	-	1.184	None	R
20-Jul-20	Brook Stickleback	CCD-BSB-30	4.5	-	1.028	None	R
20-Jul-20	Central Mudminnow	CCD-CMM-01	10.1	-	13.721	None	R
20-Jul-20	Central Mudminnow	CCD-CMM-02	10.5	-	16.337	None	R
20-Jul-20	Central Mudminnow	CCD-CMM-03	8.7	-	7.627	None	R
20-Jul-20	Central Mudminnow	CCD-CMM-04	7.4	-	5.175	None	R
20-Jul-20	Central Mudminnow	CCD-CMM-05	8.9	-	10.046	None	R
20-Jul-20	Central Mudminnow	CCD-CMM-06	9.4	-	10.594	None	R
20-Jul-20	Central Mudminnow	CCD-CMM-07	7.4	-	4.854	yellow worms	R
20-Jul-20	Central Mudminnow	CCD-CMM-08	10	-	10.511	None	R
20-Jul-20	Central Mudminnow	CCD-CMM-09	11.4	-	15.58	None	R
20-Jul-20	Central Mudminnow	CCD-CMM-10	8.9	-	8.41	None	R
20-Jul-20	Central Mudminnow	CCD-CMM-11	9.4	-	11.194	None	R
20-Jul-20	Central Mudminnow	CCD-CMM-12	9.1	-	9.651	None	R
20-Jul-20	Central Mudminnow	CCD-CMM-13	9.7	-	10.32	None	R
20-Jul-20	Central Mudminnow	CCD-CMM-14	9.4	-	11.586	None	R
20-Jul-20	Central Mudminnow	CCD-CMM-15	10.2	-	15.696	None	R
20-Jul-20	Central Mudminnow	CCD-CMM-16	7.1	-	6.155	None	R
20-Jul-20	Central Mudminnow	CCD-CMM-17	10.5	-	13.664	None	R
20-Jul-20	Central Mudminnow	CCD-CMM-18	10.8	-	17.135	None	R
21-Jul-20	Central Mudminnow	CCD-CMM-19	9.5	-	13.11	None	R
21-Jul-20	Central Mudminnow	CCD-CMM-20	8.3	-	8.032	None	R
21-Jul-20	Central Mudminnow	CCD-CMM-21	8.4	-	7.723	yellow worms	R
21-Jul-20	Central Mudminnow	CCD-CMM-22	4.6	-	1.168	black spot	R
21-Jul-20	Central Mudminnow	CCD-CMM-23	8	-	7.018	None	R
21-Jul-20	Central Mudminnow	CCD-CMM-24	10.1	-	12.835	None	R
21-Jul-20	Central Mudminnow	CCD-CMM-25	8.5	-	5.238	None	R
21-Jul-20	Central Mudminnow	CCD-CMM-26	6.5	-	3.799	None	R
21-Jul-20	Central Mudminnow	CCD-CMM-27	6.5	-	3.782	None	R
21-Jul-20	Central Mudminnow	CCD-CMM-28	6.8	-	4.407	black spot	R
21-Jul-20	Central Mudminnow	CCD-CMM-29	8.8	-	8.406	None	R
21-Jul-20	Central Mudminnow	CCD-CMM-30	10.5	-	16.41	None	R
21-Jul-20	Central Mudminnow	CCD-CMM-31	7.2	-	4.826	None	R
21-Jul-20	Central Mudminnow	CCD-CMM-32	4.4	-	1.103	None	R
21-Jul-20	Central Mudminnow	CCD-CMM-33	5	-	1.714	None	R
21-Jul-20	Central Mudminnow	CCD-CMM-34	5.4	-	2.011	None	R
21-Jul-20	Central Mudminnow	CCD-CMM-35	7	-	4.542	None	R
21-Jul-20	Central Mudminnow	CCD-CMM-36	5.1	-	1.831	None	R
21-Jul-20	Central Mudminnow	CCD-CMM-37	5.2	-	1.756	black spot	R
21-Jul-20	Central Mudminnow	CCD-CMM-38	4.5	-	1.316	None	R
21-Jul-20	Central Mudminnow	CCD-CMM-39	5.6	-	2.008	black spot	R
21-Jul-20	Central Mudminnow	CCD-CMM-40	4.9	-	1.824	None	R
21-Jul-20	Central Mudminnow	CCD-CMM-41	5	-	1.507	None	R
21-Jul-20	Central Mudminnow	CCD-CMM-42	5.4	-	1.864	None	R

Appendix Table A.15: Detailed Fish Measurements for Clark Creek Diversion, RRM July 2020

Processing Date	Fish Species	Fish ID	Total Length (cm)	Fork Length (cm)	Body Weight (g)	Abnormalities	Fate (M) Mortality (R) Released
20-Jul-20	Finescale Dace	CCD-FSD-01	8.6	8.3	6.701	None	R
20-Jul-20	Finescale Dace	CCD-FSD-02	8.3	8	5.725	None	R
20-Jul-20	Finescale Dace	CCD-FSD-03	8.1	8	6.133	None	R
20-Jul-20	Finescale Dace	CCD-FSD-04	8.4	8.2	5.778	None	R
20-Jul-20	Finescale Dace	CCD-FSD-05	7.1	6.8	4.403	None	R
20-Jul-20	Finescale Dace	CCD-FSD-06	8	7.7	5.694	None	R
20-Jul-20	Finescale Dace	CCD-FSD-07	8.5	8.2	7.254	None	R
20-Jul-20	Finescale Dace	CCD-FSD-08	8.5	8.2	6.424	None	R
20-Jul-20	Finescale Dace	CCD-FSD-09	8.7	8.3	6.65	None	R
20-Jul-20	Finescale Dace	CCD-FSD-10	9	8.8	7.481	None	R
20-Jul-20	Finescale Dace	CCD-FSD-11	8.2	7.9	5.471	None	R
20-Jul-20	Finescale Dace	CCD-FSD-12	8.9	8.5	7.704	None	R
20-Jul-20	Finescale Dace	CCD-FSD-13	7.3	7	4.597	None	R
20-Jul-20	Finescale Dace	CCD-FSD-14	7.4	7	4.429	None	R
20-Jul-20	Finescale Dace	CCD-FSD-15	6.4	6.1	3.16	None	R
20-Jul-20	Finescale Dace	CCD-FSD-16	6.2	5.9	2.469	None	R
20-Jul-20	Finescale Dace	CCD-FSD-17	8.9	8.5	8.044	None	R
20-Jul-20	Finescale Dace	CCD-FSD-18	5.7	5.4	2.931	None	R
20-Jul-20	Finescale Dace	CCD-FSD-19	7.5	7.2	4.671	None	R
20-Jul-20	Finescale Dace	CCD-FSD-20	6.6	6.3	3.194	None	R
20-Jul-20	Finescale Dace	CCD-FSD-21	6.6	6.4	3.516	None	R
20-Jul-20	Finescale Dace	CCD-FSD-22	6.6	6.4	3.493	large black mark	R
20-Jul-20	Finescale Dace	CCD-FSD-23	9.9	9.5	10.053	None	R
20-Jul-20	Finescale Dace	CCD-FSD-24	8.8	8.5	6.157	None	R
20-Jul-20	Finescale Dace	CCD-FSD-25	9.9	9.5	9.11	None	R
20-Jul-20	Finescale Dace	CCD-FSD-26	9.2	8.8	7.215	None	R
20-Jul-20	Finescale Dace	CCD-FSD-27	8.2	7.9	6.287	None	R
20-Jul-20	Finescale Dace	CCD-FSD-28	7.1	6.8	4.161	None	R
20-Jul-20	Finescale Dace	CCD-FSD-29	5.8	5.5	1.914	None	R
20-Jul-20	Finescale Dace	CCD-FSD-30	6.7	6.4	4.073	None	R
20-Jul-20	Finescale Dace	CCD-FSD-31	9.1	8.8	7.522	None	R
20-Jul-20	Finescale Dace	CCD-FSD-32	9.4	9	9.342	None	R
20-Jul-20	Finescale Dace	CCD-FSD-33	5.6	5.4	2.075	None	R
20-Jul-20	Finescale Dace	CCD-FSD-34	6.7	6.4	3.295	None	R
20-Jul-20	Finescale Dace	CCD-FSD-35	7.6	7.4	5.322	None	R
20-Jul-20	Finescale Dace	CCD-FSD-36	7	6.7	3.889	None	R
20-Jul-20	Finescale Dace	CCD-FSD-37	8.5	8.2	7.743	None	R
20-Jul-20	Finescale Dace	CCD-FSD-38	4.7	4.5	0.938	None	R
20-Jul-20	Finescale Dace	CCD-FSD-39	5.7	5.4	1.713	None	R
21-Jul-20	Finescale Dace	CCD-FSD-40	5.7	5.4	3.727	None	R
20-Jul-20	Northern Redbelly Dace	CCD-NRBD-01	6.1	5.9	2.351	caudal damage	R
20-Jul-20	Northern Redbelly Dace	CCD-NRBD-02	6.5	6.2	2.706	None	R
20-Jul-20	Northern Redbelly Dace	CCD-NRBD-03	5.2	5	1.865	None	R
20-Jul-20	Northern Redbelly Dace	CCD-NRBD-04	6.7	6.4	3.195	None	R
20-Jul-20	Northern Redbelly Dace	CCD-NRBD-05	5.7	5.4	2.134	None	R
20-Jul-20	Northern Redbelly Dace	CCD-NRBD-06	5.8	5.6	2.248	None	R
20-Jul-20	Northern Redbelly Dace	CCD-NRBD-07	5.6	5.3	1.972	None	R
20-Jul-20	Northern Redbelly Dace	CCD-NRBD-08	5.4	5.6	1.663	None	R
20-Jul-20	Northern Redbelly Dace	CCD-NRBD-09	5.4	5.1	1.709	None	R
20-Jul-20	Northern Redbelly Dace	CCD-NRBD-10	6.8	6.5	2.695	None	R
20-Jul-20	Northern Redbelly Dace	CCD-NRBD-11	5.4	5.1	2.155	damaged caudal	R
20-Jul-20	Northern Redbelly Dace	CCD-NRBD-12	5.5	5.3	1.718	None	R
20-Jul-20	Northern Redbelly Dace	CCD-NRBD-13	5.9	5.7	2.606	None	R
20-Jul-20	Northern Redbelly Dace	CCD-NRBD-14	5.2	4.9	1.61	None	R
20-Jul-20	Northern Redbelly Dace	CCD-NRBD-15	6.1	5.8	2.393	None	R
20-Jul-20	Northern Redbelly Dace	CCD-NRBD-16	5.5	5.3	1.901	None	R
20-Jul-20	Northern Redbelly Dace	CCD-NRBD-17	4.5	4.3	0.75	None	R
20-Jul-20	Northern Redbelly Dace	CCD-NRBD-18	5.7	5.5	1.616	None	R
20-Jul-20	Northern Redbelly Dace	CCD-NRBD-19	5.9	5.7	2.067	None	R
20-Jul-20	Northern Redbelly Dace	CCD-NRBD-20	8	7.6	4.784	None	R

Note: "-" indicates no measurement taken.

**Appendix Table A.16: Detailed Fish Measurements for Stockpile Pond, RRM July 2020**

Processing Date	Fish Species	Fish ID	Total Length (cm)	Fork Length (cm)	Body Weight (g)	Abnormalities	Fate (M) Mortality (R) Released
23-Jul-20	Brassy Minnow	SP-BM-01	7.5	7.1	4.021	None	R
23-Jul-20	Brassy Minnow	SP-BM-02	7.0	6.6	3.397	blackspot	R
23-Jul-20	Brassy Minnow	SP-BM-03	7.1	6.7	3.570	None	R
23-Jul-20	Brassy Minnow	SP-BM-04	7.0	6.5	3.243	None	R
23-Jul-20	Brassy Minnow	SP-BM-05	6.9	6.6	3.032	None	R
23-Jul-20	Brassy Minnow	SP-BM-06	6.3	5.9	2.393	blackspot	R
23-Jul-20	Brassy Minnow	SP-BM-07	6.9	6.5	3.419	None	R
23-Jul-20	Brassy Minnow	SP-BM-08	6.8	6.5	2.998	blackspot	R
23-Jul-20	Brassy Minnow	SP-BM-09	7.8	7.5	4.812	None	R
23-Jul-20	Brassy Minnow	SP-BM-10	6.1	5.6	2.157	None	R
23-Jul-20	Brassy Minnow	SP-BM-11	7.0	6.6	3.277	blackspot	R
23-Jul-20	Brassy Minnow	SP-BM-12	7.5	7.2	4.101	None	R
23-Jul-20	Brassy Minnow	SP-BM-13	7.7	7.1	4.122	blackspot	R
23-Jul-20	Brassy Minnow	SP-BM-14	7.1	6.7	3.491	None	R
23-Jul-20	Brassy Minnow	SP-BM-15	7.4	7.0	3.703	blackspot	R
23-Jul-20	Brassy Minnow	SP-BM-16	7.2	6.7	3.302	None	R
23-Jul-20	Brassy Minnow	SP-BM-17	7.7	7.1	3.825	None	R
23-Jul-20	Brassy Minnow	SP-BM-18	7.6	7.3	4.170	None	R
23-Jul-20	Brassy Minnow	SP-BM-19	7.7	7.2	4.368	None	R
23-Jul-20	Brassy Minnow	SP-BM-20	9.1	8.5	6.883	blackspot	R
23-Jul-20	Brassy Minnow	SP-BM-21	6.9	6.5	2.914	None	R
23-Jul-20	Brassy Minnow	SP-BM-22	7.5	7.1	4.168	blackspot	R
23-Jul-20	Brassy Minnow	SP-BM-23	7.0	6.7	3.113	None	R
23-Jul-20	Brassy Minnow	SP-BM-24	7.4	7.9	3.601	None	R
23-Jul-20	Brassy Minnow	SP-BM-25	7.8	7.4	4.215	None	R
24-Jul-20	Brassy Minnow	SP-BM-26	6.3	6.0	2.051	None	R
24-Jul-20	Brassy Minnow	SP-BM-27	7.0	6.5	2.705	blackspot	R
24-Jul-20	Brook Stickleback	SP-BSB-01	5.6	-	1.382	None	R
24-Jul-20	Brook Stickleback	SP-BSB-02	3.7	-	0.530	None	R
24-Jul-20	Brown Bullhead	SP-BB-01	14.2	-	37.040	None	R
24-Jul-20	Brown Bullhead	SP-BB-02	14.0	-	38.830	None	R
24-Jul-20	Brown Bullhead	SP-BB-03	9.9	-	14.010	None	R
24-Jul-20	Brown Bullhead	SP-BB-04	13.2	-	32.600	None	R
24-Jul-20	Brown Bullhead	SP-BB-05	7.6	-	5.350	None	R
24-Jul-20	Brown Bullhead	SP-BB-06	9.7	-	10.515	None	R
24-Jul-20	Brown Bullhead	SP-BB-07	10.3	-	13.970	None	R
24-Jul-20	Brown Bullhead	SP-BB-08	13.8	-	43.165	None	R
24-Jul-20	Brown Bullhead	SP-BB-09	13.6	-	42.438	None	R
24-Jul-20	Brown Bullhead	SP-BB-10	13.1	-	31.465	None	R
24-Jul-20	Brown Bullhead	SP-BB-11	15.2	-	46.813	None	R
24-Jul-20	Brown Bullhead	SP-BB-12	8.2	-	7.768	None	R
24-Jul-20	Brown Bullhead	SP-BB-13	15.3	-	44.377	None	R
24-Jul-20	Brown Bullhead	SP-BB-14	15.2	-	34.678	None	R
24-Jul-20	Brown Bullhead	SP-BB-15	8.6	-	11.565	None	R
24-Jul-20	Brown Bullhead	SP-BB-16	13.8	-	30.672	None	R
24-Jul-20	Brown Bullhead	SP-BB-17	6.6	-	5.750	None	R
24-Jul-20	Brown Bullhead	SP-BB-18	14.1	-	42.385	None	R
24-Jul-20	Brown Bullhead	SP-BB-19	8.4	-	9.932	None	R
24-Jul-20	Brown Bullhead	SP-BB-20	7.1	-	9.526	None	R
24-Jul-20	Brown Bullhead	SP-BB-21	15.2	-	46.836	None	R
24-Jul-20	Brown Bullhead	SP-BB-22	8.5	-	6.994	None	R
24-Jul-20	Brown Bullhead	SP-BB-23	15.5	-	45.164	None	R
24-Jul-20	Brown Bullhead	SP-BB-24	14.4	-	43.886	None	R
24-Jul-20	Brown Bullhead	SP-BB-25	10.0	-	11.729	None	R
24-Jul-20	Brown Bullhead	SP-BB-26	8.1	-	7.530	None	R
24-Jul-20	Brown Bullhead	SP-BB-27	14.2	-	37.765	None	R
24-Jul-20	Brown Bullhead	SP-BB-28	15.0	-	46.124	None	R
24-Jul-20	Brown Bullhead	SP-BB-29	8.1	-	8.065	None	R
24-Jul-20	Brown Bullhead	SP-BB-30	15.5	-	36.489	None	R
24-Jul-20	Brown Bullhead	SP-BB-31	10.4	-	16.572	None	R

**Appendix Table A.16: Detailed Fish Measurements for Stockpile Pond, RRM July 2020**

Processing Date	Fish Species	Fish ID	Total Length (cm)	Fork Length (cm)	Body Weight (g)	Abnormalities	Fate (M) Mortality (R) Released
24-Jul-20	Brown Bullhead	SP-BB-32	9.0	-	9.357	None	R
24-Jul-20	Brown Bullhead	SP-BB-33	8.6	-	10.225	None	R
24-Jul-20	Brown Bullhead	SP-BB-34	10.3	-	15.343	None	R
24-Jul-20	Brown Bullhead	SP-BB-35	9.8	-	12.443	None	R
24-Jul-20	Brown Bullhead	SP-BB-36	8.3	-	7.727	None	R
24-Jul-20	Brown Bullhead	SP-BB-37	7.4	-	6.047	None	R
24-Jul-20	Brown Bullhead	SP-BB-38	8.3	-	7.198	None	R
24-Jul-20	Brown Bullhead	SP-BB-39	7.9	-	7.398	None	R
24-Jul-20	Brown Bullhead	SP-BB-40	9.3	-	9.945	None	R
24-Jul-20	Brown Bullhead	SP-BB-41	9.2	-	9.351	None	R
24-Jul-20	Central Mudminnow	SP-CMM-01	6.9	-	3.712	None	R
24-Jul-20	Central Mudminnow	SP-CMM-02	9.6	-	10.247	None	R
24-Jul-20	Central Mudminnow	SP-CMM-03	8.0	-	5.317	None	R
24-Jul-20	Central Mudminnow	SP-CMM-04	8.2	-	5.872	None	R
24-Jul-20	Central Mudminnow	SP-CMM-05	5.0	-	1.432	None	R
24-Jul-20	Central Mudminnow	SP-CMM-06	4.9	-	1.388	None	R
24-Jul-20	Central Mudminnow	SP-CMM-07	8.1	-	6.148	None	M
24-Jul-20	Central Mudminnow	SP-CMM-08	5.7	-	1.917	None	R
24-Jul-20	Central Mudminnow	SP-CMM-09	9.4	-	8.179	None	R
24-Jul-20	Central Mudminnow	SP-CMM-10	5.2	-	1.583	None	R
24-Jul-20	Central Mudminnow	SP-CMM-11	4.7	-	1.158	None	R
24-Jul-20	Central Mudminnow	SP-CMM-12	6.2	-	2.563	None	R
24-Jul-20	Central Mudminnow	SP-CMM-13	4.5	-	1.006	None	R
24-Jul-20	Central Mudminnow	SP-CMM-14	5.9	-	2.159	None	R
24-Jul-20	Central Mudminnow	SP-CMM-15	5.9	-	2.115	None	R
24-Jul-20	Central Mudminnow	SP-CMM-16	7.3	-	4.114	None	R
24-Jul-20	Central Mudminnow	SP-CMM-17	5.9	-	1.688	None	R
24-Jul-20	Central Mudminnow	SP-CMM-18	5.5	-	1.795	None	R
24-Jul-20	Central Mudminnow	SP-CMM-19	5.7	-	2.146	None	R
24-Jul-20	Central Mudminnow	SP-CMM-20	8.7	-	7.202	None	R
24-Jul-20	Central Mudminnow	SP-CMM-21	5.5	-	1.805	None	R
24-Jul-20	Central Mudminnow	SP-CMM-22	5.5	-	1.561	None	R
24-Jul-20	Central Mudminnow	SP-CMM-23	6.3	-	2.716	None	R
24-Jul-20	Central Mudminnow	SP-CMM-24	8.5	-	6.465	None	R
24-Jul-20	Central Mudminnow	SP-CMM-25	8.0	-	5.395	None	R
24-Jul-20	Central Mudminnow	SP-CMM-26	5.5	-	1.836	None	R
24-Jul-20	Central Mudminnow	SP-CMM-27	5.1	-	1.437	None	R
24-Jul-20	Central Mudminnow	SP-CMM-28	5.9	-	2.136	None	R
24-Jul-20	Central Mudminnow	SP-CMM-29	5.0	-	1.385	None	R
24-Jul-20	Central Mudminnow	SP-CMM-30	5.4	-	1.720	None	R
24-Jul-20	Central Mudminnow	SP-CMM-31	4.9	-	1.324	None	R
24-Jul-20	Central Mudminnow	SP-CMM-32	4.9	-	1.398	None	R
24-Jul-20	Central Mudminnow	SP-CMM-33	5.2	-	1.673	None	R
25-Jul-20	Central Mudminnow	SP-CMM-34	7.2	-	4.459	None	R
25-Jul-20	Central Mudminnow	SP-CMM-35	8.9	-	8.214	None	R
25-Jul-20	Central Mudminnow	SP-CMM-36	8.0	-	5.269	None	R
25-Jul-20	Central Mudminnow	SP-CMM-37	8.4	-	6.578	None	R
25-Jul-20	Central Mudminnow	SP-CMM-38	8.6	-	6.816	None	R
25-Jul-20	Central Mudminnow	SP-CMM-39	5.8	-	2.358	None	R
25-Jul-20	Central Mudminnow	SP-CMM-40	6.5	-	3.082	None	R

**Appendix Table A.16: Detailed Fish Measurements for Stockpile Pond, RRM July 2020**

Processing Date	Fish Species	Fish ID	Total Length (cm)	Fork Length (cm)	Body Weight (g)	Abnormalities	Fate (M) Mortality (R) Released
23-Jul-20	Common Shiner	SP-CS-01	5.6	5.3	1.588	None	R
23-Jul-20	Common Shiner	SP-CS-02	7.5	7.0	3.576	None	R
23-Jul-20	Common Shiner	SP-CS-03	6.8		2.601	1/2 caudal	R
23-Jul-20	Common Shiner	SP-CS-04	7.6	6.8	3.236	None	R
23-Jul-20	Common Shiner	SP-CS-05	6.2	5.8	2.164	None	R
23-Jul-20	Common Shiner	SP-CS-06	8.0	7.3	4.331	None	R
23-Jul-20	Common Shiner	SP-CS-07	7.3	6.7	3.234	None	R
23-Jul-20	Common Shiner	SP-CS-08	5.9	5.4	1.883	None	R
23-Jul-20	Common Shiner	SP-CS-09	7.2	6.6	3.137	None	R
23-Jul-20	Common Shiner	SP-CS-10	6.4	5.8	2.173	None	R
23-Jul-20	Common Shiner	SP-CS-11	7.4	6.7	3.248	None	R
23-Jul-20	Common Shiner	SP-CS-12	6.5	6.0	2.287	None	R
23-Jul-20	Common Shiner	SP-CS-13	6.7	6.2	2.498	None	R
23-Jul-20	Common Shiner	SP-CS-14	7.0	6.3	2.699	None	R
23-Jul-20	Common Shiner	SP-CS-15	7.0	6.4	2.863	blackspot	R
23-Jul-20	Common Shiner	SP-CS-16	6.4	5.8	2.177	None	R
23-Jul-20	Common Shiner	SP-CS-17	5.7	5.3	1.524	None	R
23-Jul-20	Common Shiner	SP-CS-18	8.3	7.6	4.483	None	R
23-Jul-20	Common Shiner	SP-CS-19	6.9	6.3	2.700	None	R
24-Jul-20	Common Shiner	SP-CS-20	7.4	6.6	2.995	None	R
24-Jul-20	Common Shiner	SP-CS-21	6.3	5.7	1.992	None	R
24-Jul-20	Common Shiner	SP-CS-22	7.8	7.1	3.710	None	R
24-Jul-20	Common Shiner	SP-CS-23	6.0	5.5	1.778	None	R
24-Jul-20	Common Shiner	SP-CS-24	7.1	6.4	2.933	None	R
24-Jul-20	Common Shiner	SP-CS-25	6.6	5.9	2.202	None	R
24-Jul-20	Common Shiner	SP-CS-26	6.7	6.0	2.406	None	R
24-Jul-20	Common Shiner	SP-CS-27	7.0	6.3	2.761	None	R
24-Jul-20	Common Shiner	SP-CS-28	6.0	5.3	1.655	None	R
24-Jul-20	Common Shiner	SP-CS-29	5.9	5.3	1.544	None	R
24-Jul-20	Common Shiner	SP-CS-30	8.2	7.3	4.049	None	R
24-Jul-20	Common Shiner	SP-CS-31	6.0	5.4	1.613	None	R
24-Jul-20	Common Shiner	SP-CS-32	6.7	6.1	2.483	None	R
24-Jul-20	Common Shiner	SP-CS-33	8.4	7.7	4.641	None	R
24-Jul-20	Common Shiner	SP-CS-34	8.4	7.5	4.927	None	R
24-Jul-20	Common Shiner	SP-CS-35	7.2	6.5	2.890	None	R
24-Jul-20	Common Shiner	SP-CS-36	8.0	7.3	4.660	None	R
24-Jul-20	Common Shiner	SP-CS-37	8.9	8.0	5.076	None	R
24-Jul-20	Common Shiner	SP-CS-38	6.4	5.9	2.132	None	R
24-Jul-20	Common Shiner	SP-CS-39	6.3	5.7	2.301	blackspot	R
24-Jul-20	Common Shiner	SP-CS-40	7.8	7.2	3.805	None	R
24-Jul-20	Common Shiner	SP-CS-41	7.7	6.9	3.591	None	R

**Appendix Table A.16: Detailed Fish Measurements for Stockpile Pond, RRM July 2020**

Processing Date	Fish Species	Fish ID	Total Length (cm)	Fork Length (cm)	Body Weight (g)	Abnormalities	Fate (M) Mortality (R) Released
23-Jul-20	Creek Chub	SP-CC-01	6.4	5.9	2.505	None	R
23-Jul-20	Creek Chub	SP-CC-02	6.8	6.5	3.011	None	R
23-Jul-20	Creek Chub	SP-CC-03	7.6	7.2	4.830	None	R
24-Jul-20	Creek Chub	SP-CC-04	6.2	5.8	2.270	None	R
24-Jul-20	Creek Chub	SP-CC-05	7.2	6.8	3.512	None	R
24-Jul-20	Creek Chub	SP-CC-06	6.8	6.4	2.967	None	R
24-Jul-20	Creek Chub	SP-CC-07	7.3	6.7	3.496	None	R
24-Jul-20	Creek Chub	SP-CC-08	10.3	9.7	10.410	None	R
24-Jul-20	Creek Chub	SP-CC-09	5.7	5.3	1.735	None	R
24-Jul-20	Creek Chub	SP-CC-10	7.4	6.8	3.473	None	R
24-Jul-20	Creek Chub	SP-CC-11	6.5	6.1	2.319	blackspot	R
24-Jul-20	Creek Chub	SP-CC-12	7.8	7.3	4.794	None	R
24-Jul-20	Creek Chub	SP-CC-13	9.2	8.7	7.919	None	R
24-Jul-20	Creek Chub	SP-CC-14	6.1	5.8	2.056	None	R
24-Jul-20	Creek Chub	SP-CC-15	6.6	6.2	2.567	None	R
24-Jul-20	Creek Chub	SP-CC-16	5.7	5.4	1.738	blackspot	R
24-Jul-20	Creek Chub	SP-CC-17	7.4	6.9	3.473	None	R
24-Jul-20	Creek Chub	SP-CC-18	6.4	6.0	2.420	None	R
24-Jul-20	Creek Chub	SP-CC-19	6.0	5.6	1.748	None	R
24-Jul-20	Creek Chub	SP-CC-20	6.5	6.1	2.684	None	R
24-Jul-20	Creek Chub	SP-CC-21	6.2	5.8	2.298	None	R
24-Jul-20	Creek Chub	SP-CC-22	7.1	6.7	3.280	blackspot	R
24-Jul-20	Creek Chub	SP-CC-23	6.7	6.2	2.951	None	R
24-Jul-20	Creek Chub	SP-CC-24	7.1	6.6	3.079	None	R
24-Jul-20	Creek Chub	SP-CC-25	6.1	5.7	2.400	None	R
24-Jul-20	Creek Chub	SP-CC-26	12.9	12.2	26.223	damaged operculum	R
24-Jul-20	Creek Chub	SP-CC-27	6.5	6.1	2.991	None	R
24-Jul-20	Creek Chub	SP-CC-28	17.3	16.2	44.589	None	R
24-Jul-20	Creek Chub	SP-CC-29	11.1	10.7	14.495	None	R
24-Jul-20	Creek Chub	SP-CC-30	12.2	11.5	17.762	None	R
24-Jul-20	Creek Chub	SP-CC-31	7.9	7.6	3.491	None	R
24-Jul-20	Creek Chub	SP-CC-32	7.4	6.9	3.971	None	R
24-Jul-20	Creek Chub	SP-CC-33	6.3	5.8	2.493	None	R
24-Jul-20	Creek Chub	SP-CC-34	7.0	6.5	3.433	blackspot	R
24-Jul-20	Creek Chub	SP-CC-35	7.4	6.9	4.329	None	R
24-Jul-20	Creek Chub	SP-CC-36	9.0	8.4	7.003	None	R
24-Jul-20	Creek Chub	SP-CC-37	10.1	9.7	10.032	None	R
24-Jul-20	Creek Chub	SP-CC-38	6.8	6.3	2.983	None	R
24-Jul-20	Creek Chub	SP-CC-39	6.3	5.8	2.268	blackspot	R
24-Jul-20	Creek Chub	SP-CC-40	11.1	10.6	12.722	None	R
24-Jul-20	Creek Chub	SP-CC-41	6.9	6.4	3.219	None	R
24-Jul-20	Creek Chub	SP-CC-42	8.1	7.7	5.612	blackspot	R
24-Jul-20	Creek Chub	SP-CC-43	6.3	6.0	2.326	damage on caudal	R
24-Jul-20	Creek Chub	SP-CC-44	6.8	6.4	3.112	None	R

**Appendix Table A.16: Detailed Fish Measurements for Stockpile Pond, RRM July 2020**

Processing Date	Fish Species	Fish ID	Total Length (cm)	Fork Length (cm)	Body Weight (g)	Abnormalities	Fate (M) Mortality (R) Released
23-Jul-20	Fathead Minnow	SP-FHM-01	6.0	5.6	2.139	None	R
23-Jul-20	Fathead Minnow	SP-FHM-02	5.1	4.7	1.366	None	R
23-Jul-20	Fathead Minnow	SP-FHM-03	5.9	5.5	2.144	None	R
23-Jul-20	Fathead Minnow	SP-FHM-04	5.7	5.3	1.958	None	R
23-Jul-20	Fathead Minnow	SP-FHM-05	5.9	5.5	2.234	None	R
24-Jul-20	Fathead Minnow	SP-FHM-06	5.5	5.1	1.594	None	R
24-Jul-20	Fathead Minnow	SP-FHM-07	6.6	6.3	2.913	blackspot	R
24-Jul-20	Fathead Minnow	SP-FHM-08	8.1	7.5	5.777	blackspot	R
24-Jul-20	Fathead Minnow	SP-FHM-09	6.5	6.2	2.965	blackspot	R
24-Jul-20	Fathead Minnow	SP-FHM-10	6.0	5.5	2.109	None	R
24-Jul-20	Fathead Minnow	SP-FHM-11	6.7	6.2	3.020	blackspot	R
24-Jul-20	Fathead Minnow	SP-FHM-12	5.5	5.1	1.423	None	R
24-Jul-20	Fathead Minnow	SP-FHM-13	6.0	5.6	1.983	None	R
24-Jul-20	Fathead Minnow	SP-FHM-14	6.1	5.7	2.136	None	R
24-Jul-20	Fathead Minnow	SP-FHM-15	5.5	5.1	1.578	None	R
24-Jul-20	Fathead Minnow	SP-FHM-16	5.5	5.1	1.585	None	R
24-Jul-20	Fathead Minnow	SP-FHM-17	5.9	5.5	1.985	None	R
24-Jul-20	Fathead Minnow	SP-FHM-18	5.6	5.2	1.613	None	R
24-Jul-20	Fathead Minnow	SP-FHM-19	7.2	6.6	3.435	blackspot	R
24-Jul-20	Fathead Minnow	SP-FHM-20	5.5	5.1	1.670	None	R
24-Jul-20	Fathead Minnow	SP-FHM-21	5.6	5.2	1.613	blackspot	R
24-Jul-20	Fathead Minnow	SP-FHM-22	5.6	5.2	1.600	blackspot	R
24-Jul-20	Fathead Minnow	SP-FHM-23	5.4	5.0	1.542	None	R
24-Jul-20	Fathead Minnow	SP-FHM-24	5.7	5.3	1.690	None	R
24-Jul-20	Fathead Minnow	SP-FHM-25	5.3	4.9	1.513	None	R
24-Jul-20	Fathead Minnow	SP-FHM-26	5.7	5.3	1.798	None	R
24-Jul-20	Fathead Minnow	SP-FHM-27	4.6	4.3	0.938	None	R
24-Jul-20	Fathead Minnow	SP-FHM-28	5.8	5.4	1.815	None	R
24-Jul-20	Fathead Minnow	SP-FHM-29	5.5	5.1	1.599	blackspot	R
24-Jul-20	Fathead Minnow	SP-FHM-30	6.4	6.0	2.356	None	R
24-Jul-20	Fathead Minnow	SP-FHM-31	6.2	5.8	2.324	blackspot	R
24-Jul-20	Fathead Minnow	SP-FHM-32	6.4	5.9	2.386	None	R
24-Jul-20	Fathead Minnow	SP-FHM-33	5.8	5.4	1.562	blackspot	R
24-Jul-20	Fathead Minnow	SP-FHM-34	6.1	5.8	2.157	None	R
24-Jul-20	Fathead Minnow	SP-FHM-35	5.7	5.4	1.912	blackspot	R
24-Jul-20	Fathead Minnow	SP-FHM-36	5.7	5.4	1.756	blackspot	R
24-Jul-20	Fathead Minnow	SP-FHM-37	6.4	6.0	2.545	None	R
24-Jul-20	Fathead Minnow	SP-FHM-38	5.6	5.2	1.548	blackspot	R
24-Jul-20	Fathead Minnow	SP-FHM-39	6.5	5.9	2.403	blackspot	R
24-Jul-20	Fathead Minnow	SP-FHM-40	6.4	6.0	2.408	blackspot	R
24-Jul-20	Finescale Dace	SP-FSD-01	8.5	8.0	5.302	None	R
24-Jul-20	Finescale Dace	SP-FSD-02	6.4	5.9	1.448	None	R
23-Jul-20	Northern Redbelly Dace	SP-NRBD-01	5.5	5.2	1.382	None	R
23-Jul-20	Northern Redbelly Dace	SP-NRBD-02	4.5	4.1	0.904	None	R
23-Jul-20	Northern Redbelly Dace	SP-NRBD-03	4.3	4.0	0.698	None	R
23-Jul-20	Northern Redbelly Dace	SP-NRBD-04	4.5	4.2	0.823	None	R
23-Jul-20	Northern Redbelly Dace	SP-NRBD-05	4.9	4.6	1.135	None	R
23-Jul-20	Northern Redbelly Dace	SP-NRBD-06	4.5	4.3	0.869	None	R
23-Jul-20	Northern Redbelly Dace	SP-NRBD-07	4.2	4.0	0.671	None	R
24-Jul-20	Northern Redbelly Dace	SP-NRBD-08	4.6	4.3	0.887	None	R
24-Jul-20	Northern Redbelly Dace	SP-NRBD-09	4.5	4.2	0.876	None	R
24-Jul-20	Northern Redbelly Dace	SP-NRBD-10	5.5	5.1	1.329	None	R
24-Jul-20	Northern Redbelly Dace	SP-NRBD-11	5.3	5.1	1.265	None	R
24-Jul-20	Northern Redbelly Dace	SP-NRBD-12	4.9	4.5	0.950	None	R
24-Jul-20	Northern Redbelly Dace	SP-NRBD-13	5.9	5.6	1.839	None	R
24-Jul-20	Northern Redbelly Dace	SP-NRBD-14	6.0	5.6	1.731	tumor	R
24-Jul-20	Northern Redbelly Dace	SP-NRBD-15	5.8	5.4	1.569	None	R
24-Jul-20	Northern Redbelly Dace	SP-NRBD-16	5.8	5.4	1.562	None	R
24-Jul-20	Northern Redbelly Dace	SP-NRBD-17	4.5	4.2	0.820	None	R
24-Jul-20	Northern Redbelly Dace	SP-NRBD-18	4.7	4.4	0.928	None	R
24-Jul-20	Northern Redbelly Dace	SP-NRBD-19	4.4	4.2	0.760	None	M
24-Jul-20	Northern Redbelly Dace	SP-NRBD-20	4.5	4.3	0.809	None	R
24-Jul-20	Northern Redbelly Dace	SP-NRBD-21	3.6	3.3	0.422	None	R
24-Jul-20	Northern Redbelly Dace	SP-NRBD-22	4.3	4.0	0.687	None	R
24-Jul-20	Northern Redbelly Dace	SP-NRBD-23	4.3	4.1	0.759	None	R

Note: "." indicates no measurement taken.



**Appendix Table A.17: Detailed Fish Measurements for West Creek Pond, RRM July 2020**

Processing Date	Fish Species	Fish ID	Total Length (cm)	Fork Length (cm)	Body Weight (g)	Abnormalities	Fate (M) Mortality (R) Released
22-Jul-20	Brassy Minnow	WCP-BM-01	6.0	5.8	1.983	None	R
22-Jul-20	Brassy Minnow	WCP-BM-02	5.8	5.4	1.545	None	R
22-Jul-20	Brassy Minnow	WCP-BM-03	5.8	5.5	1.802	None	R
22-Jul-20	Brassy Minnow	WCP-BM-04	7.6	7.1	3.717	None	R
22-Jul-20	Brassy Minnow	WCP-BM-05	11.1	10.1	9.681	None	R
22-Jul-20	Brassy Minnow	WCP-BM-06	10.8	10.1	10.222	None	R
22-Jul-20	Brassy Minnow	WCP-BM-07	6.3	5.8	1.982	None	R
22-Jul-20	Brassy Minnow	WCP-BM-08	5.8	5.5	1.598	blcak	R
22-Jul-20	Brassy Minnow	WCP-BM-09	9.7	9.2	6.501	None	R
22-Jul-20	Brassy Minnow	WCP-BM-10	7.4	7.0	3.469	None	R
22-Jul-20	Brassy Minnow	WCP-BM-11	7.4	7.1	3.284	black spot	R
22-Jul-20	Brassy Minnow	WCP-BM-12	7.0	6.7	3.006	None	R
22-Jul-20	Brassy Minnow	WCP-BM-13	6.7	6.3	2.434	None	R
22-Jul-20	Brassy Minnow	WCP-BM-14	8.8	8.3	5.917	None	R
22-Jul-20	Brassy Minnow	WCP-BM-15	6.6	6.2	2.535	None	R
22-Jul-20	Brassy Minnow	WCP-BM-16	6.4	6.0	2.275	None	R
22-Jul-20	Brassy Minnow	WCP-BM-17	6.9	6.5	2.636	None	R
22-Jul-20	Brassy Minnow	WCP-BM-18	6.5	6.1	2.327	None	R
22-Jul-20	Brassy Minnow	WCP-BM-19	6.6	6.2	2.417	None	R
22-Jul-20	Brassy Minnow	WCP-BM-20	6.6	6.1	2.550	None	R
22-Jul-20	Brassy Minnow	WCP-BM-21	8.0	7.5	4.327	None	R
22-Jul-20	Brassy Minnow	WCP-BM-22	6.1	5.8	1.785	None	R
22-Jul-20	Brassy Minnow	WCP-BM-23	7.0	6.7	3.070	None	R
22-Jul-20	Brassy Minnow	WCP-BM-24	5.9	5.4	2.001	None	R
22-Jul-20	Brassy Minnow	WCP-BM-25	6.4	6.2	2.247	None	R
22-Jul-20	Brassy Minnow	WCP-BM-26	6.4	6.0	2.051	None	R
22-Jul-20	Brassy Minnow	WCP-BM-27	6.7	6.4	3.368	None	R
22-Jul-20	Brassy Minnow	WCP-BM-28	6.6	6.3	2.286	None	R
22-Jul-20	Brassy Minnow	WCP-BM-29	6.4	6.0	2.124	None	R
22-Jul-20	Brassy Minnow	WCP-BM-30	6.0	5.7	1.713	None	R
22-Jul-20	Brassy Minnow	WCP-BM-31	6.6	6.3	2.731	None	R
22-Jul-20	Brassy Minnow	WCP-BM-32	6.2	5.7	1.995	None	R
22-Jul-20	Brassy Minnow	WCP-BM-33	7.2	6.7	3.279	None	R
22-Jul-20	Brassy Minnow	WCP-BM-34	6.7	6.3	2.494	None	R
22-Jul-20	Brassy Minnow	WCP-BM-35	5.9	5.6	2.035	None	R
22-Jul-20	Brassy Minnow	WCP-BM-36	7.3	6.9	3.608	None	R
22-Jul-20	Brassy Minnow	WCP-BM-37	6.0	5.7	1.731	None	R
22-Jul-20	Brassy Minnow	WCP-BM-38	6.7	6.3	2.381	None	R

**Appendix Table A.17: Detailed Fish Measurements for West Creek Pond, RRM July 2020**

Processing Date	Fish Species	Fish ID	Total Length (cm)	Fork Length (cm)	Body Weight (g)	Abnormalities	Fate (M) Mortality (R) Released
22-Jul-20	Brook Stickleback	WCP-BSB-01	5.2	-	0.868	None	R
22-Jul-20	Brook Stickleback	WCP-BSB-02	4.6	-	0.721	None	R
22-Jul-20	Brook Stickleback	WCP-BSB-03	4.7	-	1.058	None	R
22-Jul-20	Brook Stickleback	WCP-BSB-04	3.9	-	0.594	None	R
22-Jul-20	Brook Stickleback	WCP-BSB-05	5.5	-	1.123	None	R
22-Jul-20	Brook Stickleback	WCP-BSB-06	4.9	-	0.844	None	R
22-Jul-20	Brook Stickleback	WCP-BSB-07	5.3	-	1.189	None	R
22-Jul-20	Brook Stickleback	WCP-BSB-08	5.6	-	1.235	None	R
22-Jul-20	Brook Stickleback	WCP-BSB-09	4.7	-	1.006	None	R
22-Jul-20	Brook Stickleback	WCP-BSB-10	4.7	-	0.889	None	R
22-Jul-20	Brook Stickleback	WCP-BSB-11	4.6	-	0.809	None	R
22-Jul-20	Brook Stickleback	WCP-BSB-12	4.4	-	0.797	None	R
22-Jul-20	Brook Stickleback	WCP-BSB-13	4.6	-	0.884	None	R
22-Jul-20	Brook Stickleback	WCP-BSB-14	4.8	-	0.882	None	R
22-Jul-20	Brook Stickleback	WCP-BSB-15	4.7	-	0.821	None	R
22-Jul-20	Brook Stickleback	WCP-BSB-16	4.6	-	0.891	None	R
22-Jul-20	Brook Stickleback	WCP-BSB-17	5.3	-	1.280	None	R
22-Jul-20	Brook Stickleback	WCP-BSB-18	4.1	-	0.901	None	R
22-Jul-20	Brook Stickleback	WCP-BSB-19	5.2	-	1.044	None	R
22-Jul-20	Brook Stickleback	WCP-BSB-20	4.7	-	0.866	None	R
22-Jul-20	Brook Stickleback	WCP-BSB-21	5.2	-	1.338	None	R
22-Jul-20	Brook Stickleback	WCP-BSB-22	4.4	-	0.717	None	R
22-Jul-20	Brook Stickleback	WCP-BSB-23	4.6	-	0.826	None	R
22-Jul-20	Brook Stickleback	WCP-BSB-24	4.5	-	0.781	None	R
22-Jul-20	Brook Stickleback	WCP-BSB-25	4.1	-	0.687	None	R
22-Jul-20	Brook Stickleback	WCP-BSB-26	4.8	-	0.923	None	R
22-Jul-20	Brook Stickleback	WCP-BSB-27	5.6	-	1.629	None	R
22-Jul-20	Brook Stickleback	WCP-BSB-28	4.8	-	0.870	None	R
22-Jul-20	Brook Stickleback	WCP-BSB-29	4.9	-	0.964	None	R
22-Jul-20	Brook Stickleback	WCP-BSB-30	5.1	-	0.970	None	R
22-Jul-20	Brook Stickleback	WCP-BSB-31	4.9	-	0.971	None	R
22-Jul-20	Brook Stickleback	WCP-BSB-32	4.6	-	0.861	None	R
22-Jul-20	Brook Stickleback	WCP-BSB-33	4.9	-	0.882	None	R
22-Jul-20	Brook Stickleback	WCP-BSB-34	4.5	-	0.822	None	R
22-Jul-20	Brook Stickleback	WCP-BSB-35	4.8	-	0.913	None	R
22-Jul-20	Brook Stickleback	WCP-BSB-36	4.7	-	1.045	bulging eyes	R
22-Jul-20	Brook Stickleback	WCP-BSB-37	4.6	-	0.767	None	R
22-Jul-20	Brook Stickleback	WCP-BSB-38	4.5	-	0.647	None	R
22-Jul-20	Brook Stickleback	WCP-BSB-39	4.4	-	0.795	None	R
22-Jul-20	Brook Stickleback	WCP-BSB-40	5.0	-	1.271	None	R

**Appendix Table A.17: Detailed Fish Measurements for West Creek Pond, RRM July 2020**

Processing Date	Fish Species	Fish ID	Total Length (cm)	Fork Length (cm)	Body Weight (g)	Abnormalities	Fate (M) Mortality (R) Released
22-Jul-20	Brown Bullhead	WCP-BB-01	10.2	-	15.769	None	R
22-Jul-20	Brown Bullhead	WCP-BB-02	10.8	-	22.020	None	R
22-Jul-20	Brown Bullhead	WCP-BB-02	9.0	-	9.933	None	R
22-Jul-20	Brown Bullhead	WCP-BB-03	10.4	-	17.718	None	R
22-Jul-20	Brown Bullhead	WCP-BB-04	9.0	-	9.929	None	R
22-Jul-20	Brown Bullhead	WCP-BB-05	9.3	-	12.438	None	R
22-Jul-20	Brown Bullhead	WCP-BB-06	7.4	-	4.975	None	R
23-Jul-20	Brown Bullhead	WCP-BB-07	8.1	-	8.914	None	R
23-Jul-20	Brown Bullhead	WCP-BB-08	7.0	-	4.367	None	R
23-Jul-20	Brown Bullhead	WCP-BB-09	9.5	-	12.603	None	R
23-Jul-20	Brown Bullhead	WCP-BB-10	9.4	-	13.726	None	R
23-Jul-20	Brown Bullhead	WCP-BB-11	7.1	-	4.898	None	R
23-Jul-20	Brown Bullhead	WCP-BB-12	8.4	-	6.687	None	R
23-Jul-20	Brown Bullhead	WCP-BB-13	6.6	-	4.039	None	R
23-Jul-20	Brown Bullhead	WCP-BB-14	7.1	-	5.189	None	R
23-Jul-20	Brown Bullhead	WCP-BB-15	7.3	-	6.028	None	R
23-Jul-20	Brown Bullhead	WCP-BB-16	6.8	-	4.809	None	R
23-Jul-20	Brown Bullhead	WCP-BB-17	16.5	-	62.488	None	R
23-Jul-20	Brown Bullhead	WCP-BB-18	9.5	-	12.367	None	R
23-Jul-20	Brown Bullhead	WCP-BB-19	12.5	-	29.023	None	R

**Appendix Table A.17: Detailed Fish Measurements for West Creek Pond, RRM July 2020**

Processing Date	Fish Species	Fish ID	Total Length (cm)	Fork Length (cm)	Body Weight (g)	Abnormalities	Fate (M) Mortality (R) Released
21-Jul-20	Creek Chub	WCP-CC-01	16.8	16.2	54.430	None	R
21-Jul-20	Creek Chub	WCP-CC-02	16.6	15.7	47.830	None	R
21-Jul-20	Creek Chub	WCP-CC-03	14.8	13.9	29.080	None	R
21-Jul-20	Creek Chub	WCP-CC-04	16.2	15.6	42.210	None	R
22-Jul-20	Creek Chub	WCP-CC-05	7.6	7.2	4.035	None	R
22-Jul-20	Creek Chub	WCP-CC-06	4.8	4.6	1.103	None	R
22-Jul-20	Creek Chub	WCP-CC-07	8.0	7.2	4.011	None	R
22-Jul-20	Creek Chub	WCP-CC-08	8.3	7.7	4.917	None	R
22-Jul-20	Creek Chub	WCP-CC-09	7.9	7.4	4.554	None	R
22-Jul-20	Creek Chub	WCP-CC-10	5.0	4.7	1.112	None	R
22-Jul-20	Creek Chub	WCP-CC-11	7.9	6.7	3.143	None	R
22-Jul-20	Creek Chub	WCP-CC-12	8.4	7.8	5.568	None	R
22-Jul-20	Creek Chub	WCP-CC-13	6.5	6.9	3.027	None	R
22-Jul-20	Creek Chub	WCP-CC-14	9.6	9.1	8.618	None	R
22-Jul-20	Creek Chub	WCP-CC-15	8.0	7.6	4.832	None	R
22-Jul-20	Creek Chub	WCP-CC-16	7.6	6.9	3.825	None	R
22-Jul-20	Creek Chub	WCP-CC-17	8.1	7.6	4.394	None	R
22-Jul-20	Creek Chub	WCP-CC-18	8.4	8.0	5.104	None	R
22-Jul-20	Creek Chub	WCP-CC-19	9.1	8.7	6.975	None	R
22-Jul-20	Creek Chub	WCP-CC-20	14.2	13.7	26.600	None	R
22-Jul-20	Creek Chub	WCP-CC-21	9.5	9.1	9.666	None	R
22-Jul-20	Creek Chub	WCP-CC-22	7.2	6.8	4.106	None	R
22-Jul-20	Creek Chub	WCP-CC-23	11.6	11.0	15.945	None	R
22-Jul-20	Creek Chub	WCP-CC-24	11.1	10.6	12.713	None	R
22-Jul-20	Creek Chub	WCP-CC-25	7.3	6.9	3.545	None	R
22-Jul-20	Creek Chub	WCP-CC-26	12.5	11.6	18.144	None	R
22-Jul-20	Creek Chub	WCP-CC-27	7.5	7.1	4.146	None	R
22-Jul-20	Creek Chub	WCP-CC-28	7.5	7.1	4.146	None	R
22-Jul-20	Creek Chub	WCP-CC-29	8.5	8.0	5.493	None	R
22-Jul-20	Creek Chub	WCP-CC-30	9.9	9.5	9.667	None	R
22-Jul-20	Creek Chub	WCP-CC-31	9.4	8.9	8.360	None	R
22-Jul-20	Creek Chub	WCP-CC-32	7.3	7.0	4.111	None	R
22-Jul-20	Creek Chub	WCP-CC-33	17.0	16.2	46.338	None	R
22-Jul-20	Creek Chub	WCP-CC-34	9.9	9.4	8.519	None	R
22-Jul-20	Creek Chub	WCP-CC-35	7.4	6.9	3.653	None	R
22-Jul-20	Creek Chub	WCP-CC-36	9.1	8.6	7.005	None	R
22-Jul-20	Creek Chub	WCP-CC-37	7.1	6.7	3.258	None	R
22-Jul-20	Creek Chub	WCP-CC-38	8.1	7.6	4.672	None	R
22-Jul-20	Creek Chub	WCP-CC-39	8.0	7.5	4.234	None	R
22-Jul-20	Creek Chub	WCP-CC-40	16.3	15.5	41.480	None	R
22-Jul-20	Creek Chub	WCP-CC-41	12.5	11.7	15.880	None	R

**Appendix Table A.17: Detailed Fish Measurements for West Creek Pond, RRM July 2020**

Processing Date	Fish Species	Fish ID	Total Length (cm)	Fork Length (cm)	Body Weight (g)	Abnormalities	Fate (M) Mortality (R) Released
22-Jul-20	Fathead Minnow	WCP-FHM-01	6.2	6.0	2.466	None	R
22-Jul-20	Fathead Minnow	WCP-FHM-02	5.7	5.4	1.883	None	R
22-Jul-20	Fathead Minnow	WCP-FHM-03	6.5	6.1	2.602	None	R
22-Jul-20	Fathead Minnow	WCP-FHM-04	6.5	6.1	2.582	None	R
22-Jul-20	Fathead Minnow	WCP-FHM-05	5.5	5.1	1.621	black spot	R
22-Jul-20	Fathead Minnow	WCP-FHM-06	6.8	6.4	3.167	black spot	R
22-Jul-20	Fathead Minnow	WCP-FHM-07	10.5	9.8	10.231	None	R
22-Jul-20	Fathead Minnow	WCP-FHM-08	7.1	6.6	3.545	None	R
22-Jul-20	Fathead Minnow	WCP-FHM-09	6.9	6.4	3.673	None	R
22-Jul-20	Fathead Minnow	WCP-FHM-10	6.1	5.7	2.043	black spot	R
22-Jul-20	Fathead Minnow	WCP-FHM-11	6.7	6.4	3.157	black spot	R
22-Jul-20	Fathead Minnow	WCP-FHM-12	5.3	4.9	1.183	None	R
22-Jul-20	Fathead Minnow	WCP-FHM-13	5.3	4.9	1.340	None	R
22-Jul-20	Fathead Minnow	WCP-FHM-14	5.5	5.0	1.342	None	R
22-Jul-20	Fathead Minnow	WCP-FHM-15	6.5	6.3	3.085	None	R
22-Jul-20	Fathead Minnow	WCP-FHM-16	6.8	6.5	3.503	None	R
22-Jul-20	Fathead Minnow	WCP-FHM-17	6.7	6.4	3.460	None	R
22-Jul-20	Fathead Minnow	WCP-FHM-18	6.5	6.0	3.149	None	R
22-Jul-20	Fathead Minnow	WCP-FHM-19	6.4	6.0	2.446	None	R
22-Jul-20	Fathead Minnow	WCP-FHM-20	6.6	6.2	3.046	None	R
22-Jul-20	Fathead Minnow	WCP-FHM-21	6.7	6.3	3.082	None	R
22-Jul-20	Fathead Minnow	WCP-FHM-22	6.5	6.1	2.965	None	R
22-Jul-20	Fathead Minnow	WCP-FHM-23	6.7	6.3	3.042	None	R
22-Jul-20	Fathead Minnow	WCP-FHM-24	6.2	5.8	2.146	None	R
22-Jul-20	Fathead Minnow	WCP-FHM-25	6.6	6.2	3.244	None	R
22-Jul-20	Fathead Minnow	WCP-FHM-26	6.0	5.6	2.199	None	R
22-Jul-20	Fathead Minnow	WCP-FHM-27	5.5	5.1	1.615	None	R
22-Jul-20	Fathead Minnow	WCP-FHM-28	5.9	5.5	1.909	None	R
22-Jul-20	Fathead Minnow	WCP-FHM-29	5.0	4.6	1.177	None	R
22-Jul-20	Fathead Minnow	WCP-FHM-30	6.4	6.1	3.053	None	R
22-Jul-20	Fathead Minnow	WCP-FHM-31	6.2	5.8	2.665	None	R
22-Jul-20	Fathead Minnow	WCP-FHM-32	6.8	6.4	3.121	None	R
22-Jul-20	Fathead Minnow	WCP-FHM-33	5.3	4.8	1.384	None	R
22-Jul-20	Fathead Minnow	WCP-FHM-34	7.7	7.4	2.724	black spot	R
22-Jul-20	Fathead Minnow	WCP-FHM-35	6.8	6.5	3.178	None	R
22-Jul-20	Fathead Minnow	WCP-FHM-36	6.5	6.1	2.449	None	R
22-Jul-20	Fathead Minnow	WCP-FHM-37	6.8	6.5	2.836	None	R
22-Jul-20	Fathead Minnow	WCP-FHM-38	6.6	6.4	3.584	None	R
22-Jul-20	Fathead Minnow	WCP-FHM-39	6.7	6.2	3.227	None	R
22-Jul-20	Fathead Minnow	WCP-FHM-40	6.5	6.0	3.160	None	R
22-Jul-20	Fathead Minnow	WCP-FHM-41	6.4	6.0	2.505	black spot	R
22-Jul-20	Fathead Minnow	WCP-FHM-42	7.9	6.4	2.477	None	R
23-Jul-20	Johnny Darter	WCP-JD-01	5.0	-	1.294	None	R

**Appendix Table A.17: Detailed Fish Measurements for West Creek Pond, RRM July 2020**

Processing Date	Fish Species	Fish ID	Total Length (cm)	Fork Length (cm)	Body Weight (g)	Abnormalities	Fate (M) Mortality (R) Released
22-Jul-20	Northern Redbelly Dace	WCP-NRBD-01	4.8	4.5	1.032	None	R
22-Jul-20	Northern Redbelly Dace	WCP-NRBD-02	4.8	4.6	0.920	None	R
22-Jul-20	Northern Redbelly Dace	WCP-NRBD-03	4.6	4.3	0.893	None	R
22-Jul-20	Northern Redbelly Dace	WCP-NRBD-04	4.6	4.4	0.999	None	R
22-Jul-20	Northern Redbelly Dace	WCP-NRBD-05	4.8	4.6	1.002	None	R
22-Jul-20	Northern Redbelly Dace	WCP-NRBD-06	5.2	5.0	1.275	split caudal	R
22-Jul-20	Northern Redbelly Dace	WCP-NRBD-07	5.1	4.1	1.291	None	R
22-Jul-20	Northern Redbelly Dace	WCP-NRBD-08	5.5	5.2	1.308	None	R
22-Jul-20	Northern Redbelly Dace	WCP-NRBD-09	4.8	4.5	1.085	None	R
22-Jul-20	Northern Redbelly Dace	WCP-NRBD-10	5.4	5.1	1.298	None	R
22-Jul-20	Northern Redbelly Dace	WCP-NRBD-11	4.8	4.6	1.047	None	R
22-Jul-20	Northern Redbelly Dace	WCP-NRBD-12	4.7	4.4	0.945	None	R
22-Jul-20	Northern Redbelly Dace	WCP-NRBD-13	5.6	5.4	1.271	None	R
22-Jul-20	Northern Redbelly Dace	WCP-NRBD-14	4.5	4.3	0.893	None	R
22-Jul-20	Northern Redbelly Dace	WCP-NRBD-15	5.7	5.3	1.683	None	R
22-Jul-20	Northern Redbelly Dace	WCP-NRBD-16	4.6	4.4	0.935	None	R
22-Jul-20	Northern Redbelly Dace	WCP-NRBD-17	4.7	4.5	1.006	None	R
22-Jul-20	Northern Redbelly Dace	WCP-NRBD-18	5.7	5.4	1.590	None	R
22-Jul-20	Northern Redbelly Dace	WCP-NRBD-19	4.9	4.6	1.191	None	R
22-Jul-20	Northern Redbelly Dace	WCP-NRBD-20	6.2	5.9	1.944	None	R
22-Jul-20	Northern Redbelly Dace	WCP-NRBD-21	4.8	4.6	1.258	None	R
22-Jul-20	Northern Redbelly Dace	WCP-NRBD-22	4.8	4.5	1.020	None	R
22-Jul-20	Northern Redbelly Dace	WCP-NRBD-23	5.0	4.7	1.177	None	R
22-Jul-20	Northern Redbelly Dace	WCP-NRBD-24	4.8	4.5	1.122	None	R
22-Jul-20	Northern Redbelly Dace	WCP-NRBD-25	5.0	4.7	1.114	None	R
22-Jul-20	Northern Redbelly Dace	WCP-NRBD-26	4.6	4.3	0.971	None	R
22-Jul-20	Northern Redbelly Dace	WCP-NRBD-27	5.2	4.9	1.400	None	R
22-Jul-20	Northern Redbelly Dace	WCP-NRBD-28	5.0	4.7	1.052	None	R
22-Jul-20	Northern Redbelly Dace	WCP-NRBD-29	5.0	4.7	1.090	None	R
22-Jul-20	Northern Redbelly Dace	WCP-NRBD-30	4.8	4.5	1.025	None	R
22-Jul-20	Northern Redbelly Dace	WCP-NRBD-31	4.9	4.5	4.909	None	R
22-Jul-20	Northern Redbelly Dace	WCP-NRBD-32	4.8	4.5	1.098	None	R
22-Jul-20	Northern Redbelly Dace	WCP-NRBD-33	4.8	4.5	0.954	None	R
22-Jul-20	Northern Redbelly Dace	WCP-NRBD-34	5.5	5.1	1.411	None	R
22-Jul-20	Northern Redbelly Dace	WCP-NRBD-35	4.5	4.4	0.804	None	R
22-Jul-20	Northern Redbelly Dace	WCP-NRBD-36	4.8	4.5	0.906	None	R
22-Jul-20	Northern Redbelly Dace	WCP-NRBD-37	4.8	4.6	0.963	None	R
22-Jul-20	Northern Redbelly Dace	WCP-NRBD-38	4.9	4.6	1.062	None	R
22-Jul-20	Northern Redbelly Dace	WCP-NRBD-39	5.0	4.8	1.212	None	R
22-Jul-20	Northern Redbelly Dace	WCP-NRBD-40	4.8	4.5	0.881	None	R
22-Jul-20	Northern Redbelly Dace	WCP-NRBD-41	5.1	4.8	1.210	None	R

**Appendix Table A.17: Detailed Fish Measurements for West Creek Pond, RRM July 2020**

Processing Date	Fish Species	Fish ID	Total Length (cm)	Fork Length (cm)	Body Weight (g)	Abnormalities	Fate (M) Mortality (R) Released
22-Jul-20	White Sucker	WCP-WS-01	15.2	14.3	31.600	None	R
22-Jul-20	White Sucker	WCP-WS-02	8.9	8.3	6.281	None	R
22-Jul-20	White Sucker	WCP-WS-03	9.6	9.0	7.945	None	R
22-Jul-20	White Sucker	WCP-WS-04	9.5	9.0	8.533	None	R
22-Jul-20	White Sucker	WCP-WS-05	8.0	7.5	4.686	None	R
22-Jul-20	White Sucker	WCP-WS-06	8.3	7.8	5.113	None	R
22-Jul-20	White Sucker	WCP-WS-07	8.5	8.1	5.642	None	R
22-Jul-20	White Sucker	WCP-WS-08	11.0	10.5	13.003	None	R
22-Jul-20	White Sucker	WCP-WS-09	8.3	8.0	5.865	None	R
22-Jul-20	White Sucker	WCP-WS-10	11.0	10.3	10.258	None	R
22-Jul-20	White Sucker	WCP-WS-11	8.5	8.2	5.872	None	R
22-Jul-20	White Sucker	WCP-WS-12	14.8	13.9	36.682	None	R
22-Jul-20	White Sucker	WCP-WS-13	13.8	12.9	24.564	None	R
22-Jul-20	White Sucker	WCP-WS-14	13.0	12.2	22.088	None	R
22-Jul-20	White Sucker	WCP-WS-15	8.0	7.5	5.206	None	R
22-Jul-20	White Sucker	WCP-WS-16	8.3	7.8	6.518	None	R
22-Jul-20	White Sucker	WCP-WS-17	11.0	10.4	13.902	None	R
22-Jul-20	White Sucker	WCP-WS-18	9.0	8.4	7.530	None	R
22-Jul-20	White Sucker	WCP-WS-19	9.8	9.1	9.660	None	R
22-Jul-20	White Sucker	WCP-WS-20	7.6	7.2	5.224	None	R
22-Jul-20	White Sucker	WCP-WS-21	7.1	6.7	3.304	None	R
22-Jul-20	White Sucker	WCP-WS-22	11.2	10.5	15.425	None	R
22-Jul-20	White Sucker	WCP-WS-23	13.9	13.0	25.083	None	R
22-Jul-20	White Sucker	WCP-WS-24	7.6	7.1	4.723	None	R
22-Jul-20	White Sucker	WCP-WS-25	11.3	10.8	15.883	None	R
22-Jul-20	White Sucker	WCP-WS-26	11.9	11.2	16.254	None	R
22-Jul-20	White Sucker	WCP-WS-27	8.2	7.7	5.748	None	R
22-Jul-20	White Sucker	WCP-WS-28	10.6	9.9	11.610	None	R
22-Jul-20	White Sucker	WCP-WS-29	8.0	7.5	5.074	None	R
22-Jul-20	White Sucker	WCP-WS-30	12.0	11.2	16.738	None	R
22-Jul-20	White Sucker	WCP-WS-31	8.8	8.4	6.752	None	R
23-Jul-20	White Sucker	WCP-WS-32	11.4	10.7	14.912	None	R
23-Jul-20	White Sucker	WCP-WS-33	12.8	11.9	19.668	None	R
23-Jul-20	White Sucker	WCP-WS-34	15.1	14.1	34.198	None	R
23-Jul-20	White Sucker	WCP-WS-35	13.5	12.9	25.698	None	R
23-Jul-20	White Sucker	WCP-WS-36	12.8	12.0	24.449	None	R
23-Jul-20	White Sucker	WCP-WS-37	8.8	8.3	3.429	None	R
23-Jul-20	White Sucker	WCP-WS-38	7.0	6.6	2.414	None	R
23-Jul-20	White Sucker	WCP-WS-39	8.2	7.8	5.334	None	R
23-Jul-20	White Sucker	WCP-WS-40	12.8	12.8	19.284	None	R
23-Jul-20	White Sucker	WCP-WS-41	8.4	7.9	6.253	None	R
23-Jul-20	White Sucker	WCP-WS-42	9.1	8.7	7.972	black spot	R
23-Jul-20	White Sucker	WCP-WS-43	13.1	12.4	21.978	None	R
23-Jul-20	White Sucker	WCP-WS-44	11.2	10.5	15.768	None	R
23-Jul-20	White Sucker	WCP-WS-45	8.5	8.0	6.874	None	R
23-Jul-20	White Sucker	WCP-WS-46	9.0	8.5	7.834	None	R

Note: "-" indicates no measurement taken.



**Appendix Table A.18: Detailed Fish Measurements for Clark Pond, RRM July 2020**

Processing Date	Fish Species	Fish ID	Total Length (cm)	Fork Length (cm)	Body Weight (g)	Abnormalities	Fate (M) Mortality (R) Released
19-Jul-20	Brassy Minnow	CP-BM-01	4.9	4.7	1.071	damaged caudal	R
20-Jul-20	Brassy Minnow	CP-BM-02	6.5	7.1	3.685	caudal split	
20-Jul-20	Brassy Minnow	CP-BM-03	6.7	7.0	3.678	None	R
20-Jul-20	Brassy Minnow	CP-BM-04	6.6	6.4	3.363	None	R
20-Jul-20	Brassy Minnow	CP-BM-05	5.8	5.6	2.385	None	R
20-Jul-20	Brassy Minnow	CP-BM-06	6.8	6.5	3.187	None	R
23-Jul-20	Brassy Minnow	CP-BM-07	5.0	4.7	1.088	None	R
19-Jul-20	Brook Stickleback	CP-BSB-01	4.7	-	1.186	None	R
19-Jul-20	Brook Stickleback	CP-BSB-02	5.0	-	1.253	None	R
19-Jul-20	Brook Stickleback	CP-BSB-03	5.5	-	1.213	None	R
19-Jul-20	Brook Stickleback	CP-BSB-04	4.8	-	1.001	None	R
19-Jul-20	Brook Stickleback	CP-BSB-05	5.5	-	1.425	None	R
19-Jul-20	Brook Stickleback	CP-BSB-06	4.9	-	0.965	None	R
19-Jul-20	Brook Stickleback	CP-BSB-07	5.9	-	0.976	None	R
19-Jul-20	Brook Stickleback	CP-BSB-08	4.7	-	0.716	None	R
19-Jul-20	Brook Stickleback	CP-BSB-09	4.8	-	1.096	None	R
19-Jul-20	Brook Stickleback	CP-BSB-10	4.7	-	1.106	None	R
20-Jul-20	Brook Stickleback	CP-BSB-11	5.1	-	1.438	None	R
20-Jul-20	Brook Stickleback	CP-BSB-12	5.5	-	1.219	None	R
20-Jul-20	Brook Stickleback	CP-BSB-13	5.4	-	1.605	None	R
20-Jul-20	Brook Stickleback	CP-BSB-14	5.1	-	1.243	None	R
20-Jul-20	Brook Stickleback	CP-BSB-15	4.6	-	0.863	None	R
20-Jul-20	Brook Stickleback	CP-BSB-16	5.1	-	0.984	None	R
20-Jul-20	Brook Stickleback	CP-BSB-17	4.9	-	0.951	None	R
20-Jul-20	Brook Stickleback	CP-BSB-18	4.3	-	0.743	None	R
20-Jul-20	Brook Stickleback	CP-BSB-19	4.6	-	0.943	None	R
20-Jul-20	Brook Stickleback	CP-BSB-20	4.7	-	0.968	None	R
20-Jul-20	Brook Stickleback	CP-BSB-21	4.6	-	0.948	None	R
20-Jul-20	Brook Stickleback	CP-BSB-22	4.8	-	0.932	None	R
20-Jul-20	Brook Stickleback	CP-BSB-23	4.6	-	0.904	None	R
20-Jul-20	Brook Stickleback	CP-BSB-24	4.9	-	1.074	None	R
20-Jul-20	Brook Stickleback	CP-BSB-25	5.1	-	1.186	None	R
20-Jul-20	Brook Stickleback	CP-BSB-26	5.0	-	1.046	None	R
20-Jul-20	Brook Stickleback	CP-BSB-27	4.5	-	0.862	None	R
20-Jul-20	Brook Stickleback	CP-BSB-28	5.0	-	1.214	None	R
20-Jul-20	Brook Stickleback	CP-BSB-29	5.0	-	1.616	None	R
20-Jul-20	Brook Stickleback	CP-BSB-30	4.7	-	0.91	None	R
20-Jul-20	Brook Stickleback	CP-BSB-31	5.0	-	1.186	None	R
20-Jul-20	Brook Stickleback	CP-BSB-32	4.9	-	0.912	None	R
20-Jul-20	Brook Stickleback	CP-BSB-33	5.5	-	1.802	None	R
20-Jul-20	Brook Stickleback	CP-BSB-34	4.5	-	0.972	None	R
20-Jul-20	Brook Stickleback	CP-BSB-35	5.7	-	2.178	None	R
20-Jul-20	Brook Stickleback	CP-BSB-36	5.4	-	1.433	None	R
20-Jul-20	Brook Stickleback	CP-BSB-37	4.3	-	0.797	None	R
20-Jul-20	Brook Stickleback	CP-BSB-38	4.9	-	1.106	None	R
20-Jul-20	Brook Stickleback	CP-BSB-39	5.4	-	1.422	None	R
20-Jul-20	Brook Stickleback	CP-BSB-40	4.7	-	1.022	None	R

**Appendix Table A.18: Detailed Fish Measurements for Clark Pond, RRM July 2020**

Processing Date	Fish Species	Fish ID	Total Length (cm)	Fork Length (cm)	Body Weight (g)	Abnormalities	Fate (M) Mortality (R) Released
19-Jul-20	Central Mudminnow	CP-CMM-01	8.7	-	5.672	None	R
19-Jul-20	Central Mudminnow	CP-CMM-02	11.0	-	11.309	lesions on caudal	R
19-Jul-20	Central Mudminnow	CP-CMM-03	8.4	-	6.844	None	R
19-Jul-20	Central Mudminnow	CP-CMM-04	8.4	-	4.977	None	R
19-Jul-20	Central Mudminnow	CP-CMM-05	8.8	-	5.975	black spot	R
19-Jul-20	Central Mudminnow	CP-CMM-06	11.4	-	13.108	None	R
19-Jul-20	Central Mudminnow	CP-CMM-07	8.2	-	5.971	None	R
19-Jul-20	Central Mudminnow	CP-CMM-08	6.5	-	3.48	None	R
19-Jul-20	Central Mudminnow	CP-CMM-09	9.2	-	9.045	red spot on stomach	R
19-Jul-20	Central Mudminnow	CP-CMM-10	7.0	-	2.434	black spot	R
19-Jul-20	Central Mudminnow	CP-CMM-11	5.8	-	2.21	None	R
19-Jul-20	Central Mudminnow	CP-CMM-12	5.5	-	2.038	black spot	R
19-Jul-20	Central Mudminnow	CP-CMM-13	4.6	-	0.993	None	R
20-Jul-20	Central Mudminnow	CP-CMM-14	8.4	-	7.034	None	R
20-Jul-20	Central Mudminnow	CP-CMM-15	12.1	-	10.991	None	R
20-Jul-20	Central Mudminnow	CP-CMM-16	8.1	-	5.68	None	R
20-Jul-20	Central Mudminnow	CP-CMM-17	6.7	-	3.6	black spot	R
20-Jul-20	Central Mudminnow	CP-CMM-18	5.5	-	1.975	None	R
20-Jul-20	Central Mudminnow	CP-CMM-19	10.5	-	10.668	lesions on caudal	R
20-Jul-20	Central Mudminnow	CP-CMM-20	17.5	-	15.538	lesions on caudal	R
20-Jul-20	Central Mudminnow	CP-CMM-21	19.4	-	18.182	black spot	R
20-Jul-20	Central Mudminnow	CP-CMM-22	9.2	-	8.366	black spot	R
20-Jul-20	Central Mudminnow	CP-CMM-23	8.4	-	4.458	black spot	R
20-Jul-20	Central Mudminnow	CP-CMM-24	10.0	-	10.938	black spot	R
20-Jul-20	Central Mudminnow	CP-CMM-25	9.0	-	5.463	split caudal	R
20-Jul-20	Central Mudminnow	CP-CMM-26	7.9	-	5.289	None	R
20-Jul-20	Central Mudminnow	CP-CMM-27	11.8	-	7.87	black spot	R
20-Jul-20	Central Mudminnow	CP-CMM-28	8.9	-	7.902	black spot	R
20-Jul-20	Central Mudminnow	CP-CMM-29	7.1	-	3.847	black spot	R
20-Jul-20	Central Mudminnow	CP-CMM-30	6.5	-	3.226	black spot	R
20-Jul-20	Central Mudminnow	CP-CMM-31	5.0	-	1.673	black spot	R
20-Jul-20	Central Mudminnow	CP-CMM-32	4.8	-	2.185	black spot	R
20-Jul-20	Central Mudminnow	CP-CMM-33	8.1	-	5.792	tumor on tail	R
20-Jul-20	Central Mudminnow	CP-CMM-34	8.3	-	5.559	tumor	R
20-Jul-20	Central Mudminnow	CP-CMM-35	11.4	-	14.538	black spot	R
20-Jul-20	Central Mudminnow	CP-CMM-36	9.8	-	10.082	None	R
20-Jul-20	Central Mudminnow	CP-CMM-37	7.9	-	5.424	None	R
20-Jul-20	Central Mudminnow	CP-CMM-38	10.3	-	11.935	black spot	R
20-Jul-20	Central Mudminnow	CP-CMM-39	8.2	-	6.322	tumor on caudal	R
20-Jul-20	Central Mudminnow	CP-CMM-40	9.0	-	8.139	black spot	R

**Appendix Table A.18: Detailed Fish Measurements for Clark Pond, RRM July 2020**

Processing Date	Fish Species	Fish ID	Total Length (cm)	Fork Length (cm)	Body Weight (g)	Abnormalities	Fate (M) Mortality (R) Released
20-Jul-20	Fathead Minnow	CP-FHM-01	7.5	7.0	4.834	None	R
20-Jul-20	Fathead Minnow	CP-FHM-02	7.3	6.9	4.641	None	R
20-Jul-20	Fathead Minnow	CP-FHM-03	6.3	6.0	2.854	None	R
20-Jul-20	Fathead Minnow	CP-FHM-04	7.4	7.0	4.589	None	R
20-Jul-20	Fathead Minnow	CP-FHM-05	6.7	6.2	2.987	black spot	R
20-Jul-20	Fathead Minnow	CP-FHM-06	6.0	5.6	2.414	black spot	R
20-Jul-20	Fathead Minnow	CP-FHM-07	7.6	7.1	4.544	None	R
20-Jul-20	Fathead Minnow	CP-FHM-14	7.3	7.0	7.298	None	R
20-Jul-20	Fathead Minnow	CP-FHM-15	7.6	7.1	5.135	black spot	R
20-Jul-20	Fathead Minnow	CP-FHM-16	7.8	7.4	4.576	black spot	R
20-Jul-20	Fathead Minnow	CP-FHM-17	7.3	7.0	4.425	None	R
20-Jul-20	Fathead Minnow	CP-FHM-18	7.8	7.4	4.49	None	R
20-Jul-20	Fathead Minnow	CP-FHM-08	7.0	6.7	3.858	None	R
20-Jul-20	Fathead Minnow	CP-FHM-09	6.9	6.7	4.109	None	R
20-Jul-20	Fathead Minnow	CP-FHM-10	6.7	6.4	2.94	None	R
20-Jul-20	Fathead Minnow	CP-FHM-11	8.1	7.8	5.031	None	R
20-Jul-20	Fathead Minnow	CP-FHM-12	7.6	7.4	5.412	None	R
20-Jul-20	Fathead Minnow	CP-FHM-13	7.4	7.2	4.767	None	R
20-Jul-20	Fathead Minnow	CP-FHM-18	6.7	6.4	2.796	None	R
20-Jul-20	Fathead Minnow	CP-FHM-19	6.9	6.6	3.415	None	R
20-Jul-20	Fathead Minnow	CP-FHM-20	6.4	5.9	2.863	None	R
20-Jul-20	Fathead Minnow	CP-FHM-21	6.2	5.8	2.263	None	R
20-Jul-20	Fathead Minnow	CP-FHM-22	6.4	6.0	2.766	None	R
23-Jul-20	Fathead Minnow	CP-FHM-23	6.5	6.1	2.701	None	R
23-Jul-20	Fathead Minnow	CP-FHM-24	6.8	6.3	3.051	None	R
23-Jul-20	Fathead Minnow	CP-FHM-25	6.4	6.0	2.848	None	R
23-Jul-20	Fathead Minnow	CP-FHM-26	6.3	5.9	2.571	None	R

**Appendix Table A.18: Detailed Fish Measurements for Clark Pond, RRM July 2020**

Processing Date	Fish Species	Fish ID	Total Length (cm)	Fork Length (cm)	Body Weight (g)	Abnormalities	Fate (M) Mortality (R) Released
19-Jul-20	Finescale Dace	CP-FSD-01	7.1	6.8	3.758	None	R
20-Jul-20	Finescale Dace	CP-FSD-02	5.8	5.5	1.876	None	R
20-Jul-20	Finescale Dace	CP-FSD-03	6.6	6.2	2.873	None	R
20-Jul-20	Finescale Dace	CP-FSD-04	7.6	7.1	4.408	None	R
20-Jul-20	Finescale Dace	CP-FSD-05	7.3	6.9	4.188	None	R
20-Jul-20	Finescale Dace	CP-FSD-06	7.2	6.9	3.737	None	R
20-Jul-20	Finescale Dace	CP-FSD-07	7.0	6.6	3.114	None	R
20-Jul-20	Finescale Dace	CP-FSD-08	6.0	5.7	2.05	None	R
20-Jul-20	Finescale Dace	CP-FSD-09	8.2	7.8	6.275	None	R
20-Jul-20	Finescale Dace	CP-FSD-10	6.7	6.3	3.27	None	R
20-Jul-20	Finescale Dace	CP-FSD-11	4.3	4.0	0.72	None	R
20-Jul-20	Finescale Dace	CP-FSD-12	7.5	7.8	5.113	None	R
20-Jul-20	Finescale Dace	CP-FSD-13	5.8	6.0	2.248	None	R
20-Jul-20	Finescale Dace	CP-FSD-14	6.6	6.9	3.275	None	R
20-Jul-20	Finescale Dace	CP-FSD-15	7.2	7.0	4.199	None	R
20-Jul-20	Finescale Dace	CP-FSD-16	7.1	6.8	4.208	None	R
20-Jul-20	Finescale Dace	CP-FSD-17	6.9	6.6	3.689	None	R
20-Jul-20	Finescale Dace	CP-FSD-18	7.2	6.9	4.64	None	R
20-Jul-20	Finescale Dace	CP-FSD-19	9.2	8.9	7.567	damaged body	R
20-Jul-20	Finescale Dace	CP-FSD-20	7.7	7.5	5.318	None	R
20-Jul-20	Finescale Dace	CP-FSD-21	7.1	6.8	3.402	None	R
20-Jul-20	Finescale Dace	CP-FSD-22	5.5	5.2	2.052	None	R
20-Jul-20	Finescale Dace	CP-FSD-23	5.2	5.0	1.786	None	R
20-Jul-20	Finescale Dace	CP-FSD-24	7.4	7.0	4.092	None	R
20-Jul-20	Finescale Dace	CP-FSD-25	6.1	5.7	2.327	None	R
20-Jul-20	Finescale Dace	CP-FSD-26	7.4	7.1	4.261	None	R
20-Jul-20	Finescale Dace	CP-FSD-27	8.1	7.7	4.841	None	R
20-Jul-20	Finescale Dace	CP-FSD-28	6.7	6.1	3.181	None	R
20-Jul-20	Finescale Dace	CP-FSD-29	4.6	4.4	0.975	None	R
20-Jul-20	Finescale Dace	CP-FSD-30	7.3	6.9	4.605	None	R
20-Jul-20	Finescale Dace	CP-FSD-31	6.0	5.7	1.927	None	R
20-Jul-20	Finescale Dace	CP-FSD-32	4.6	4.4	1.013	None	R
20-Jul-20	Finescale Dace	CP-FSD-33	6.5	6.2	2.743	None	R
20-Jul-20	Finescale Dace	CP-FSD-34	7.9	7.6	5.45	None	R
20-Jul-20	Finescale Dace	CP-FSD-35	7.6	7.4	5.46	None	R
20-Jul-20	Finescale Dace	CP-FSD-36	6.2	6.0	2.677	None	R
20-Jul-20	Finescale Dace	CP-FSD-37	5.0	4.8	1.424	None	R
23-Jul-20	Finescale Dace	CP-FSD-38	7.7	7.3	4.113	None	R
23-Jul-20	Finescale Dace	CP-FSD-39	7.4	7.0	4.248	None	R
23-Jul-20	Finescale Dace	CP-FSD-40	8.6	8.2	6.144	None	R
23-Jul-20	Finescale Dace	CP-FSD-41	7.4	6.9	3.815	None	R
23-Jul-20	Finescale Dace	CP-FSD-42	7.6	7.2	4.545	None	R
23-Jul-20	Finescale Dace	CP-FSD-43	6.8	6.5	2.989	None	R
23-Jul-20	Finescale Dace	CP-FSD-44	8.5	8.2	6.931	None	R
23-Jul-20	Finescale Dace	CP-FSD-45	7.2	6.8	4.014	None	R
23-Jul-20	Finescale Dace	CP-FSD-46	6.9	6.5	3.377	None	R
23-Jul-20	Finescale Dace	CP-FSD-47	8.0	7.5	5.059	None	R

**Appendix Table A.18: Detailed Fish Measurements for Clark Pond, RRM July 2020**

Processing Date	Fish Species	Fish ID	Total Length (cm)	Fork Length (cm)	Body Weight (g)	Abnormalities	Fate (M) Mortality (R) Released
20-Jul-20	Northern Redbelly Dace	CP-NRBD-01	6.0	5.7	2.086	None	R
20-Jul-20	Northern Redbelly Dace	CP-NRBD-02	5.7	5.4	1.663	None	R
20-Jul-20	Northern Redbelly Dace	CP-NRBD-03	5.9	5.6	2.058	None	R
20-Jul-20	Northern Redbelly Dace	CP-NRBD-04	6.2	5.8	2.391	None	R
20-Jul-20	Northern Redbelly Dace	CP-NRBD-05	5.7	5.3	1.846	None	R
20-Jul-20	Northern Redbelly Dace	CP-NRBD-06	5.9	5.6	2.19	None	R
20-Jul-20	Northern Redbelly Dace	CP-NRBD-07	5.9	5.5	1.864	None	R
20-Jul-20	Northern Redbelly Dace	CP-NRBD-08	5.4	5.1	1.557	None	R
20-Jul-20	Northern Redbelly Dace	CP-NRBD-09	5.9	5.5	1.821	None	R
20-Jul-20	Northern Redbelly Dace	CP-NRBD-10	5.5	5.2	1.527	None	R
20-Jul-20	Northern Redbelly Dace	CP-NRBD-11	6.1	5.8	2.519	None	R
20-Jul-20	Northern Redbelly Dace	CP-NRBD-12	5.8	5.4	1.648	None	R
20-Jul-20	Northern Redbelly Dace	CP-NRBD-13	6.0	5.7	2.224	None	R
20-Jul-20	Northern Redbelly Dace	CP-NRBD-14	5.9	5.6	1.887	None	R
20-Jul-20	Northern Redbelly Dace	CP-NRBD-15	5.9	5.6	2.16	tumor on side	R
20-Jul-20	Northern Redbelly Dace	CP-NRBD-16	5.8	5.3	1.817	None	R
20-Jul-20	Northern Redbelly Dace	CP-NRBD-17	6.8	6.3	3.001	None	R
20-Jul-20	Northern Redbelly Dace	CP-NRBD-18	5.7	5.5	1.892	None	R
20-Jul-20	Northern Redbelly Dace	CP-NRBD-19	5.6	5.1	1.694	None	R
20-Jul-20	Northern Redbelly Dace	CP-NRBD-20	5.2	4.9	1.339	None	R
20-Jul-20	Northern Redbelly Dace	CP-NRBD-21	5.8	5.5	1.876	None	R
20-Jul-20	Northern Redbelly Dace	CP-NRBD-22	5.6	5.3	1.768	None	R
20-Jul-20	Northern Redbelly Dace	CP-NRBD-23	6.0	5.8	2.304	None	R
20-Jul-20	Northern Redbelly Dace	CP-NRBD-24	5.3	5.0	1.491	None	R
20-Jul-20	Northern Redbelly Dace	CP-NRBD-25	5.6	5.3	1.979	None	R
20-Jul-20	Northern Redbelly Dace	CP-NRBD-26	5.6	5.2	1.624	None	R
20-Jul-20	Northern Redbelly Dace	CP-NRBD-27	5.6	5.2	1.647	None	R
20-Jul-20	Northern Redbelly Dace	CP-NRBD-28	5.7	5.3	1.757	None	R
20-Jul-20	Northern Redbelly Dace	CP-NRBD-29	6.1	5.6	2.064	None	R
20-Jul-20	Northern Redbelly Dace	CP-NRBD-30	5.5	5.1	1.58	None	R
20-Jul-20	Northern Redbelly Dace	CP-NRBD-31	6.8	6.4	2.785	None	R
20-Jul-20	Northern Redbelly Dace	CP-NRBD-32	5.7	5.4	1.827	None	R
20-Jul-20	Northern Redbelly Dace	CP-NRBD-33	5.3	5.0	1.6	None	R
20-Jul-20	Northern Redbelly Dace	CP-NRBD-34	5.8	5.5	1.78	None	R
20-Jul-20	Northern Redbelly Dace	CP-NRBD-35	5.8	5.4	1.873	None	R
20-Jul-20	Northern Redbelly Dace	CP-NRBD-36	5.8	5.4	1.893	None	R
20-Jul-20	Northern Redbelly Dace	CP-NRBD-37	5.9	5.7	2.235	None	R
20-Jul-20	Northern Redbelly Dace	CP-NRBD-38	5.5	5.3	1.788	None	R
20-Jul-20	Northern Redbelly Dace	CP-NRBD-39	6.4	6.1	2.19	None	R
20-Jul-20	Northern Redbelly Dace	CP-NRBD-40	5.9	5.5	2.078	None	R

Note: "-" indicates no measurement taken.

**Appendix Table A.19: Detailed Fish Measurements for Teeple Pond Outlet, RRM July 2020**

Processing Date	Fish Species	Fish ID	Total Length (cm)	Fork Length (cm)	Body Weight (g)	Abnormalities	Fate (M) Mortality (R) Released
21-Jul-20	Brook Stickleback	TPD-BSB-01	4.0	-	0.663	None	R
21-Jul-20	Brook Stickleback	TPD-BSB-02	3.4	-	0.412	None	R
21-Jul-20	Brook Stickleback	TPD-BSB-03	5.5	-	1.821	None	R
21-Jul-20	Brook Stickleback	TPD-BSB-04	5.1	-	1.275	None	R
21-Jul-20	Brook Stickleback	TPD-BSB-05	4.1	-	0.599	None	R
21-Jul-20	Central Mudminnow	TPD-CMM-01	6.4	-	2.814	None	R
21-Jul-20	Central Mudminnow	TPD-CMM-02	7.9	-	6.561	None	R
21-Jul-20	Central Mudminnow	TPD-CMM-03	10.2	-	11.625	None	R
21-Jul-20	Central Mudminnow	TPD-CMM-04	7.4	-	5.011	None	R
21-Jul-20	Central Mudminnow	TPD-CMM-05	7.4	-	3.963	None	R
21-Jul-20	Central Mudminnow	TPD-CMM-06	7.0	-	4.225	None	R
21-Jul-20	Central Mudminnow	TPD-CMM-07	6.4	-	2.806	None	R
21-Jul-20	Central Mudminnow	TPD-CMM-08	6.0	-	2.445	None	R
21-Jul-20	Central Mudminnow	TPD-CMM-09	5.5	-	1.865	None	R
21-Jul-20	Central Mudminnow	TPD-CMM-10	6.2	-	2.786	None	R
21-Jul-20	Central Mudminnow	TPD-CMM-11	3.9	-	0.696	None	R
21-Jul-20	Finescale Dace	TPD-FSD-01	4.3	4.164	0.948	None	R
21-Jul-20	Finescale Dace	TPD-FSD-02	4.5	4.275	0.912	None	R

Note: "-" indicates no measurement taken.



**Appendix Table A.20: Detailed Fish Measurements for Teeple Pond, RRM July 2020**

Processing Date	Fish Species	Fish ID	Total Length (cm)	Fork Length (cm)	Body Weight (g)	Abnormalities	Fate (M) Mortality (R) Released
18-Jul-20	Brassy Minnow	TP-BM-01	6.2	5.8	2.530	None	R
18-Jul-20	Brassy Minnow	TP-BM-02	6.2	6.0	2.879	None	R
18-Jul-20	Brassy Minnow	TP-BM-03	7.8	7.5	3.144	None	R
18-Jul-20	Brassy Minnow	TP-BM-04	5.2	5.0	1.606	None	R
18-Jul-20	Brassy Minnow	TP-BM-05	5.9	5.6	2.548	None	R
18-Jul-20	Brassy Minnow	TP-BM-06	6.0	5.5	1.845	asymmetrical caudal fin	R
18-Jul-20	Brassy Minnow	TP-BM-07	7.5	7.2	4.494	None	R
18-Jul-20	Brassy Minnow	TP-BM-08	6.3	5.9	2.806	None	R
18-Jul-20	Brassy Minnow	TP-BM-09	5.7	5.3	2.038	None	R
18-Jul-20	Brassy Minnow	TP-BM-10	7.0	6.6	3.961	missing eye	R
18-Jul-20	Brassy Minnow	TP-BM-11	6.9	6.3	2.766	None	R
18-Jul-20	Brassy Minnow	TP-BM-12	6.7	6.4	2.948	none	R
18-Jul-20	Brook Stickleback	TP-BSB-01	4.3	-	0.797	None	R
18-Jul-20	Brook Stickleback	TP-BSB-02	5.2	-	1.389	None	R
18-Jul-20	Brook Stickleback	TP-BSB-03	4.5	-	0.871	None	R
18-Jul-20	Brook Stickleback	TP-BSB-04	4.9	-	0.987	None	R
18-Jul-20	Brook Stickleback	TP-BSB-05	5.0	-	1.100	None	R
18-Jul-20	Brook Stickleback	TP-BSB-06	4.7	-	0.742	None	R
18-Jul-20	Brook Stickleback	TP-BSB-07	5.6	-	1.618	None	R
18-Jul-20	Brook Stickleback	TP-BSB-08	4.8	-	1.053	None	R
18-Jul-20	Brook Stickleback	TP-BSB-09	4.8	-	1.035	None	R
18-Jul-20	Brook Stickleback	TP-BSB-10	4.6	-	0.936	None	R
18-Jul-20	Brook Stickleback	TP-BSB-11	4.5	-	0.970	None	R
18-Jul-20	Brook Stickleback	TP-BSB-12	5.4	-	1.534	None	R
18-Jul-20	Brook Stickleback	TP-BSB-13	5.0	-	1.262	None	R
18-Jul-20	Brook Stickleback	TP-BSB-14	5.0	-	1.364	None	R
18-Jul-20	Brook Stickleback	TP-BSB-15	5.4	-	1.427	None	R
18-Jul-20	Brook Stickleback	TP-BSB-16	5.5	-	1.845	None	R
18-Jul-20	Brook Stickleback	TP-BSB-17	5.6	-	1.514	None	R
18-Jul-20	Brook Stickleback	TP-BSB-18	5.0	-	0.916	None	R
18-Jul-20	Brook Stickleback	TP-BSB-19	4.9	-	0.978	None	R
18-Jul-20	Brook Stickleback	TP-BSB-20	4.5	-	0.925	None	R
18-Jul-20	Brook Stickleback	TP-BSB-21	4.5	-	0.874	None	R
18-Jul-20	Brook Stickleback	TP-BSB-22	5.1	-	1.277	None	R
18-Jul-20	Brook Stickleback	TP-BSB-23	4.7	-	0.881	None	R
18-Jul-20	Brook Stickleback	TP-BSB-24	5.7	-	2.019	None	R
18-Jul-20	Brook Stickleback	TP-BSB-25	4.7	-	1.224	None	R
18-Jul-20	Brook Stickleback	TP-BSB-26	4.5	-	0.838	None	R
18-Jul-20	Brook Stickleback	TP-BSB-27	4.2	-	0.767	None	R
18-Jul-20	Brook Stickleback	TP-BSB-28	5.2	-	1.287	None	R
18-Jul-20	Brook Stickleback	TP-BSB-29	4.8	-	1.126	None	R
18-Jul-20	Brook Stickleback	TP-BSB-30	4.5	-	0.849	None	R
18-Jul-20	Brook Stickleback	TP-BSB-31	4.4	-	0.860	None	R
18-Jul-20	Brook Stickleback	TP-BSB-32	4.6	-	0.845	None	R
18-Jul-20	Brook Stickleback	TP-BSB-33	4.9	-	1.151	None	R
18-Jul-20	Brook Stickleback	TP-BSB-34	4.7	-	1.041	None	R
18-Jul-20	Brook Stickleback	TP-BSB-35	4.8	-	1.205	None	R
18-Jul-20	Brook Stickleback	TP-BSB-36	4.8	-	1.090	None	R
18-Jul-20	Brook Stickleback	TP-BSB-37	4.6	-	0.972	None	R
18-Jul-20	Brook Stickleback	TP-BSB-38	4.5	-	0.825	None	R
18-Jul-20	Brook Stickleback	TP-BSB-39	4.4	-	0.813	None	R
18-Jul-20	Brook Stickleback	TP-BSB-40	4.5	-	0.809	None	R

**Appendix Table A.20: Detailed Fish Measurements for Teeple Pond, RRM July 2020**

Processing Date	Fish Species	Fish ID	Total Length (cm)	Fork Length (cm)	Body Weight (g)	Abnormalities	Fate (M) Mortality (R) Released
18-Jul-20	Creek Chub	TP-CC-01	11.4	10.0	14.760	None	R
18-Jul-20	Central Mudminnow	TP-CMM-01	8.0	-	5.826	None	R
18-Jul-20	Central Mudminnow	TP-CMM-02	9.3	-	10.983	None	R
18-Jul-20	Central Mudminnow	TP-CMM-03	6.0	-	2.956	None	R
18-Jul-20	Central Mudminnow	TP-CMM-04	8.8	-	7.432	None	R
18-Jul-20	Central Mudminnow	TP-CMM-05	6.1	-	2.527	None	R
18-Jul-20	Central Mudminnow	TP-CMM-06	5.5	-	1.946	None	R
18-Jul-20	Central Mudminnow	TP-CMM-07	6.5	-	3.265	None	R
18-Jul-20	Central Mudminnow	TP-CMM-08	6.7	-	3.610	None	R
18-Jul-20	Central Mudminnow	TP-CMM-09	6.3	-	4.470	None	R
18-Jul-20	Central Mudminnow	TP-CMM-10	9.2	-	9.022	None	R
18-Jul-20	Central Mudminnow	TP-CMM-11	6.0	-	3.468	None	R
18-Jul-20	Central Mudminnow	TP-CMM-12	9.4	-	9.062	None	R
18-Jul-20	Central Mudminnow	TP-CMM-13	6.0	-	2.974	None	R
18-Jul-20	Central Mudminnow	TP-CMM-14	8.7	-	7.113	None	R
18-Jul-20	Central Mudminnow	TP-CMM-15	9.6	-	8.248	injury on mouth	R
18-Jul-20	Central Mudminnow	TP-CMM-16	8.5	-	7.211	None	R
18-Jul-20	Central Mudminnow	TP-CMM-17	8.5	-	7.450	None	R
18-Jul-20	Central Mudminnow	TP-CMM-18	8.3	-	4.386	None	R
18-Jul-20	Central Mudminnow	TP-CMM-19	6.8	-	3.525	None	R
18-Jul-20	Central Mudminnow	TP-CMM-20	8.2	-	5.542	None	R
18-Jul-20	Central Mudminnow	TP-CMM-21	5.9	-	2.515	black spot	R
18-Jul-20	Central Mudminnow	TP-CMM-22	9.6	-	10.310	None	R
18-Jul-20	Central Mudminnow	TP-CMM-23	8.8	-	8.023	None	R
18-Jul-20	Central Mudminnow	TP-CMM-24	6.8	-	3.460	None	R
18-Jul-20	Central Mudminnow	TP-CMM-25	6.0	-	2.643	None	R
18-Jul-20	Central Mudminnow	TP-CMM-26	7.2	-	4.481	None	R
18-Jul-20	Central Mudminnow	TP-CMM-27	8.3	-	6.360	None	R
18-Jul-20	Central Mudminnow	TP-CMM-28	8.0	-	6.285	black spot	R
18-Jul-20	Central Mudminnow	TP-CMM-29	8.3	-	6.322	None	R
18-Jul-20	Central Mudminnow	TP-CMM-30	7.2	-	4.650	None	R
18-Jul-20	Central Mudminnow	TP-CMM-31	8.3	-	6.775	None	R
18-Jul-20	Central Mudminnow	TP-CMM-32	8.6	-	7.069	None	R
18-Jul-20	Central Mudminnow	TP-CMM-33	7.9	-	5.852	None	R
18-Jul-20	Central Mudminnow	TP-CMM-34	8.2	-	5.737	None	R
18-Jul-20	Central Mudminnow	TP-CMM-35	6.0	-	2.703	None	R
18-Jul-20	Central Mudminnow	TP-CMM-36	5.7	-	2.262	None	R
18-Jul-20	Central Mudminnow	TP-CMM-37	6.8	-	3.588	black spot	R
18-Jul-20	Central Mudminnow	TP-CMM-38	6.0	-	2.703	None	R
18-Jul-20	Central Mudminnow	TP-CMM-39	6.5	-	3.002	None	R
18-Jul-20	Central Mudminnow	TP-CMM-40	6.9	-	3.839	None	R
18-Jul-20	Central Mudminnow	TP-CMM-41	7.8	-	4.947	growths on caudal	R

**Appendix Table A.20: Detailed Fish Measurements for Teeple Pond, RRM July 2020**

Processing Date	Fish Species	Fish ID	Total Length (cm)	Fork Length (cm)	Body Weight (g)	Abnormalities	Fate (M) Mortality (R) Released
19-Jul-20	Fathead Minnow	TP-FHM-01	7.3	6.9	4.040	None	R
18-Jul-20	Finescale Dace	TP-FSD-01	5.4	4.9	1.462	None	R
18-Jul-20	Finescale Dace	TP-FSD-02	5.5	5.2	1.583	None	R
18-Jul-20	Finescale Dace	TP-FSD-03	6.0	5.5	2.395	None	R
18-Jul-20	Finescale Dace	TP-FSD-04	5.4	5.0	1.773	None	R
18-Jul-20	Finescale Dace	TP-FSD-05	5.3	4.9	1.767	None	R
18-Jul-20	Finescale Dace	TP-FSD-06	5.4	5.0	1.763	None	R
18-Jul-20	Finescale Dace	TP-FSD-07	6.4	6.1	2.965	None	R
18-Jul-20	Finescale Dace	TP-FSD-08	6.8	6.3	3.086	None	R
18-Jul-20	Finescale Dace	TP-FSD-09	7.9	7.6	4.860	None	R
18-Jul-20	Finescale Dace	TP-FSD-10	7.1	6.8	3.227	None	R
18-Jul-20	Finescale Dace	TP-FSD-11	8.7	8.5	6.466	None	R
18-Jul-20	Finescale Dace	TP-FSD-12	6.4	6.2	2.549	None	R
18-Jul-20	Finescale Dace	TP-FSD-13	7.9	7.6	4.750	None	R
18-Jul-20	Finescale Dace	TP-FSD-14	6.1	5.9	2.732	None	R
18-Jul-20	Finescale Dace	TP-FSD-15	6.4	6.2	2.802	None	R
18-Jul-20	Finescale Dace	TP-FSD-16	7.1	6.9	3.728	None	R
18-Jul-20	Finescale Dace	TP-FSD-17	7.3	7.0	3.603	None	R
18-Jul-20	Finescale Dace	TP-FSD-18	6.5	6.2	2.797	None	R
18-Jul-20	Finescale Dace	TP-FSD-19	6.3	5.9	2.474	None	R
18-Jul-20	Finescale Dace	TP-FSD-20	6.9	6.6	3.802	None	R
18-Jul-20	Finescale Dace	TP-FSD-21	5.8	5.5	1.673	None	R
18-Jul-20	Finescale Dace	TP-FSD-22	5.5	5.3	1.623	None	R
18-Jul-20	Finescale Dace	TP-FSD-23	6.7	6.5	2.835	None	R
18-Jul-20	Finescale Dace	TP-FSD-24	5.2	5.0	1.386	None	R
18-Jul-20	Finescale Dace	TP-FSD-25	6.7	6.5	4.206	None	R
18-Jul-20	Finescale Dace	TP-FSD-26	6.6	6.4	3.515	None	R
18-Jul-20	Finescale Dace	TP-FSD-27	6.6	6.4	3.351	blackspot on side	R
18-Jul-20	Finescale Dace	TP-FSD-28	6.2	5.9	2.840	None	R
18-Jul-20	Finescale Dace	TP-FSD-29	7.0	6.8	3.896	None	R
18-Jul-20	Finescale Dace	TP-FSD-30	6.1	5.7	2.346	None	R
18-Jul-20	Finescale Dace	TP-FSD-31	7.2	6.9	4.031	None	R
18-Jul-20	Finescale Dace	TP-FSD-32	5.6	5.3	3.523	None	R
18-Jul-20	Finescale Dace	TP-FSD-33	7.8	7.2	4.528	None	R
18-Jul-20	Finescale Dace	TP-FSD-34	6.0	5.6	1.884	None	R
18-Jul-20	Finescale Dace	TP-FSD-35	6.6	6.2	2.968	None	R
18-Jul-20	Finescale Dace	TP-FSD-36	7.4	7.0	4.691	None	R
18-Jul-20	Finescale Dace	TP-FSD-37	6.0	5.7	2.357	None	R
18-Jul-20	Finescale Dace	TP-FSD-38	6.5	6.3	3.469	None	R
18-Jul-20	Finescale Dace	TP-FSD-39	5.9	5.5	2.237	None	R
19-Jul-20	Finescale Dace	TP-FSD-40	6.2	5.9	2.695	None	R

**Appendix Table A.20: Detailed Fish Measurements for Teeple Pond, RRM July 2020**

Processing Date	Fish Species	Fish ID	Total Length (cm)	Fork Length (cm)	Body Weight (g)	Abnormalities	Fate (M) Mortality (R) Released
18-Jul-20	Northern Redbelly Dace	TP-NRBD-01	5.9	5.4	2.081	None	R
18-Jul-20	Northern Redbelly Dace	TP-NRBD-02	5.3	5.0	2.297	None	R
18-Jul-20	Northern Redbelly Dace	TP-NRBD-03	5.7	5.4	2.036	None	R
18-Jul-20	Northern Redbelly Dace	TP-NRBD-04	5.7	5.4	2.458	None	R
18-Jul-20	Northern Redbelly Dace	TP-NRBD-05	5.9	5.6	2.610	None	R
18-Jul-20	Northern Redbelly Dace	TP-NRBD-06	5.6	5.3	2.028	None	R
18-Jul-20	Northern Redbelly Dace	TP-NRBD-07	5.6	5.3	1.766	None	R
18-Jul-20	Northern Redbelly Dace	TP-NRBD-08	5.6	5.4	2.014	None	R
18-Jul-20	Northern Redbelly Dace	TP-NRBD-09	5.4	5.1	1.973	None	R
18-Jul-20	Northern Redbelly Dace	TP-NRBD-10	5.3	5.0	1.887	None	R
18-Jul-20	Northern Redbelly Dace	TP-NRBD-11	5.8	5.5	2.369	None	R
18-Jul-20	Northern Redbelly Dace	TP-NRBD-12	5.8	5.5	2.048	None	R
18-Jul-20	Northern Redbelly Dace	TP-NRBD-13	5.3	4.5	1.509	half caudal fin missing	R
18-Jul-20	Northern Redbelly Dace	TP-NRBD-14	5.0	4.8	1.387	None	R
18-Jul-20	Northern Redbelly Dace	TP-NRBD-15	5.1	4.7	1.388	None	R
18-Jul-20	Northern Redbelly Dace	TP-NRBD-16	5.0	4.7	1.255	None	R
18-Jul-20	Northern Redbelly Dace	TP-NRBD-17	5.5	5.2	1.707	None	R
18-Jul-20	Northern Redbelly Dace	TP-NRBD-18	6.1	5.8	2.223	None	R
18-Jul-20	Northern Redbelly Dace	TP-NRBD-19	5.4	5.0	1.884	None	R
18-Jul-20	Northern Redbelly Dace	TP-NRBD-20	6.0	5.4	2.317	None	R
18-Jul-20	Northern Redbelly Dace	TP-NRBD-21	5.5	5.3	1.822	None	R
18-Jul-20	Northern Redbelly Dace	TP-NRBD-22	5.4	5.1	1.695	None	R
18-Jul-20	Northern Redbelly Dace	TP-NRBD-23	5.7	5.4	2.042	None	R
18-Jul-20	Northern Redbelly Dace	TP-NRBD-24	5.6	5.3	1.829	None	R
18-Jul-20	Northern Redbelly Dace	TP-NRBD-25	5.6	5.3	2.136	None	R
18-Jul-20	Northern Redbelly Dace	TP-NRBD-26	5.7	5.4	1.838	None	R
18-Jul-20	Northern Redbelly Dace	TP-NRBD-27	5.7	5.4	1.757	None	R
18-Jul-20	Northern Redbelly Dace	TP-NRBD-28	5.6	5.3	1.767	None	R
18-Jul-20	Northern Redbelly Dace	TP-NRBD-29	5.6	5.2	2.026	None	R
18-Jul-20	Northern Redbelly Dace	TP-NRBD-30	5.5	5.1	1.923	None	R
18-Jul-20	Northern Redbelly Dace	TP-NRBD-31	5.9	5.6	2.052	None	R
18-Jul-20	Northern Redbelly Dace	TP-NRBD-32	5.4	5.0	1.733	None	R
18-Jul-20	Northern Redbelly Dace	TP-NRBD-33	6.1	5.7	2.453	None	R
18-Jul-20	Northern Redbelly Dace	TP-NRBD-34	5.5	5.2	1.862	None	R
18-Jul-20	Northern Redbelly Dace	TP-NRBD-35	5.5	5.1	1.981	None	R
18-Jul-20	Northern Redbelly Dace	TP-NRBD-36	5.4	5.0	1.710	None	R
18-Jul-20	Northern Redbelly Dace	TP-NRBD-37	5.2	4.9	1.531	None	R
18-Jul-20	Northern Redbelly Dace	TP-NRBD-38	5.6	5.2	2.161	None	R
18-Jul-20	Northern Redbelly Dace	TP-NRBD-39	5.2	4.9	1.551	None	R
18-Jul-20	Northern Redbelly Dace	TP-NRBD-40	6.1	5.9	2.243	None	R
18-Jul-20	Pearl Dace	TP-PD-01	10.2	9.6	11.487	None	R

Note: "-" indicates no measurement taken.