Targeted Sampling for Redside Dace (*Clinostomus elongatus*) in Gully Creek, Ontario, 2019

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ABSTRACT

Gáspárdy, R.C. and Drake, D.A.R. 2021. Targeted Sampling for Redside Dace (*Clinostomus elongatus*) in Gully Creek, Ontario, 2019. Can. Data Rep. Fish. Aquat. Sci. 1315: vii + 48 p.

Targeted sampling for Redside Dace (*Clinostomus elongatus*), a species listed as Endangered under Canada's *Species at Risk Act*, was undertaken in Gully Creek, Lake Huron drainage, in 2019. Sampling occurred in areas where Redside Dace was detected in 2007 and 2008, as well as areas of the main stem of Gully Creek (Aquatic Ecosystem Classification segment R12.2051) that have been poorly sampled. In addition to increasing the spatial coverage of targeted sampling for Redside Dace in Gully Creek, objectives were to determine habitats used by the species and the population abundance of Redside Dace in selected pools. Sixteen sites (consisting of 48 seine hauls) were fished by depletion seining. Habitat attributes of pools (n=16) and reaches (n=4), were evaluated using a modified version of the Ontario Stream Assessment Protocol Point-Transect Sampling and other coarse habitat assessment methods. A total of 2,583 fishes representing 13 species were captured. Abundant and frequently occurring species were Creek Chub (*Semotilus atromaculatus*), Blacknose Dace (*Rhinichthys atratulus*), and White Sucker (*Catostomus commersonii*), which collectively represented 85.2% of total catch. A total of 142 Redside Dace were captured (detection at 68% of sites), representing 5.5% of total catch. Redside Dace from 34 mm to 100 mm total length were captured, likely representing two or more year classes. Habitat features were consistent with previous descriptions of Gully Creek and included short, narrow, moderately deep pools (average pool length 15.7 m; average width 4.98 m; average depth 0.32 m; maximum depth 1.05 m; average area 77.8 m^2). Pools were dominated by sand, but multiple substrate types were present. Surface water temperature was cool (average of 20.4°C; range 15.4 – 26.4°C) and generally clear (average of 6.83 NTU; range 1.6 – 38.77 NTU). Sampling in 2019 has increased the known distribution of Redside Dace in Gully Creek approximately three-fold.

RÉSUMÉ

Gáspárdy, R.C. and Drake, D.A.R. 2021. Targeted Sampling for Redside Dace (*Clinostomus elongatus*) in Gully Creek, Ontario, 2019. Can. Data Rep. Fish. Aquat. Sci. 1315: vii + 48 p.

Un échantillonnage ciblé du méné long (*Clinostomus elongatus*), une espèce classée comme menacée d'extinction aux termes de la *Loi canadienne sur les espèces en péril*, a été entrepris dans le ruisseau Gully, dans le bassin hydrographique du lac Huron, en 2019. L'échantillonnage a eu lieu dans les zones où le méné long a été détecté en 2007 et 2008, ainsi que dans les zones du bras principal du ruisseau Gully (segment R12.2051 de la classification des écosystèmes aquatiques) qui avaient été mal échantillonnées. En plus d'augmenter la couverture spatiale de l'échantillonnage ciblé pour le méné long dans le ruisseau Gully, les objectifs étaient de déterminer les habitats utilisés par l'espèce et l'abondance de la population de ménés longs dans certains bassins. Seize sites (comprenant 48 traits de senne) ont été échantillonnés selon la méthode de la pêche par voie d'épuisement à la senne. Les attributs de l'habitat des bassins (n=16) et des tronçons (n=4) ont été évalués en utilisant une version modifiée de l'échantillonnage par transects ponctuels du Protocole d'évaluation des rivières de l'Ontario et d'autres méthodes d'évaluation générales de l'habitat. En tout, 2 583 poissons représentant 13 espèces ont été capturés. Les espèces les plus abondantes et les plus fréquentes sont le mulet à cornes (*Semotilus atromaculatus*), le naseux noir (*Rhinichthys atratulus*) et le meunier noir (*Catostomus commersonii*), qui représentent 85,2 % des prises totales. Au total, 142 ménés longs ont été capturés (détection sur 68 % des sites), ce qui représente 5,5 % des prises totales. Des ménés longs de 34 mm à 100 mm de longueur totale ont été capturés, représentant probablement deux classes d'âge ou plus. Les caractéristiques de l'habitat étaient conformes aux descriptions précédentes du ruisseau Gully et comprenaient des fosses courtes, étroites et modérément profondes (longueur moyenne des fosses : 15,7 m; largeur moyenne : 4,98 m; profondeur moyenne : 0,32 m; profondeur maximale : 1,05 m; superficie moyenne : 77,8 m^2). Le fond des fosses était principalement sablonneux, mais plusieurs types de substrats étaient présents. La température de l'eau de surface était fraîche (moyenne de 20,4 °C; fourchette de 15,4 à 26,4 °C) et l'eau était généralement claire (moyenne de 6,83 NTU; fourchette de 1,6 à 38,77 NTU). L'échantillonnage effectué en 2019 a permis de tripler environ la répartition connue du méné long dans le ruisseau Gully.

INTRODUCTION

Fisheries and Oceans Canada (DFO) has the responsibility to provide for the protection and recovery of fishes listed under the *Species at Risk Act* (2002), hereinafter SARA. To inform scientific aspects of the recovery process, DFO regularly conducts field sampling to satisfy various research objectives for SARA-listed fishes, such as evaluating the distribution and abundance of species, determining species-habitat relationships, and a better understanding ofthe influence of threats and recovery actions. DFO data reports are published to support the Species at Risk Program by providing an overview of field activities and providing a medium for archiving data associated with sampling SARA-listed fishes and their habitat.

This data report summarizes targeted field sampling by DFO in 2019 to better understand the distribution, abundance, and habitat attributes of Redside Dace (*Clinostomus elongatus*) in Gully Creek, a small tributary of Lake Huron. Redside Dace is a small, colourful cyprinid that was assessed by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) as Special Concern in 1987 owing to its restricted range in Canada and sensitivity to agricultural and urban land-use. The species was reassessed as Endangered by COSEWIC in 2007 and 2017 and subsequently listed as Endangered in 2017 under Schedule 1 of the *Species at Risk Act.* The range of Redside Dace in Canada is limited to Ontario with the bulk of extant populations found in the Lake Ontario drainage near the Greater Toronto Area (GTA) (Lebrun et al. 2020). However, several populations exist outside the GTA including those within the Lake Huron drainage (Two Tree River, Saugeen River and tributaries, Gully Creek, and Unknown Stan J tributary), the Lake Erie drainage (tributaries of the Grand River), and the Lake Simcoe drainage (Kettleby Creek, Sharon Creek) (Lebrun et al. 2020).

The Gully Creek subwatershed contains a mix of forested and agricultural landcover (Jean 2010), but lacks urban landcover, providing an opportunity to evaluate the ecological attributes of a Redside Dace population that is as-yet unaffected by urbanization. In an effort to better understand the distribution, abundance, and habitat attributes of Redside Dace in Gully Creek, targeted sampling was undertaken by DFO's Great Lakes Laboratory for Fisheries and Aquatic Sciences in 2019. The goals of sampling were:

1) To increase the spatial coverage of targeted sampling for Redside Dace in the main stem of Gully Creek in an effort to better understand the distribution of the species;
2) To evaluate the habitat attributes (e.g., water depth, clarity, temperature, availability of cover) of pools and stream reaches selected for Redside Dace sampling and estimate the availability of Redside Dace habitat in the main stem; and,
3) To assess the population abundance of Redside Dace in selected pools.

METHODS

STUDY SYSTEM AND SITE SELECTION

Gully Creek is the largest of the "gullies" that make up the North Gullies sub-watershed, which contains numerous tributaries that flow into Lake Huron north of Bayfield, Ontario (Jean 2010). The sub-watershed has an area of 40 km^2 and is dominated by agricultural land use (59%)

(Brock and Veliz 2013), which results in high levels of erosion due to steep gradients and predominantly clay and sand soils. However, the floodplain immediately adjacent to Gully Creek is densely forested (64% of the 30 m riparian area is forest cover; Brock and Veliz 2013). The Ausable Bayfield Conservation Authority (ABCA) has classified Gully Creek as an Environmentally Significant Area (ESA) owing to the availability of cool water habitat and forested landcover, as well as the occurrence of Redside Dace (Jean 2010). Redside Dace was initially detected in Gully Creek in 1980 and repeated detections of the species have occurred sporadically in the main branch, including as recently as 2016 (COSEWIC 2017). The majority of detections have occurred near Orchard Line, Porter's Hill Line, and Telephone Road (Figure 1), with relatively sparse sampling occurring beyond road crossings. Based on the Aquatic Ecosystem Classification (AEC) system for Ontario (Melles et al. 2013), Gully Creek contains 11 distinct AEC segments (Figure 2). The majority of previous Redside Dace detections occurred within the main stem, AEC segment R12.2051, which is approx. 5.5 km long located from approx. 500 m downstream of Highway 21 to approx.500 m upstream of Porter's Hill Line at the confluence of north and south branch of tributaries, and within R12.2067, an approximately 900 m segment upstream of the main stem, bisected by Telephone Road.

Sites for sampling in 2019 were selected based on two criteria. First, efforts were made to re-sample locations where Redside Dace was detected by DFO during 2007 and 2008 (Figure 1; n=9 detections among three road crossings). Previous detections of Redside Dace in Gully Creek were located at road crossings as they provided easiest stream access; however, in many cases, areas upstream and downstream of road crossings have not been sampled using targeted methods for Redside Dace. Therefore, efforts were also made to increase the geographic coverage of sampling by selecting previously unfished sites throughout the AEC segment R12.2051. Sites were selected by walking the streambank or channel, upstream or downstream from the nearest road crossing, and identifying pool habitats where hydraulic head was 0 – 3 mm (Reid et al. 2008) and that were mostly open with limited large woody debris. Landowner permission and feasibility of access also determined which pools could be sampled; constraints such as large woody debris, debris jams, stinging nettle, steep banks, and thick forest cover made access along the creek difficult and in some cases limited spatial coverage of sampling within the AEC segment. Therefore, the sites sampled in 2019 constitute a convenience sample.

FISH ASSEMBLAGE SAMPLING

Depletion Seining

Upon arrival to the site, field crews immediately set block nets to prevent escapement of fishes contained within the pool and to allow for depletion seining. Two straight seines (1.8 m tall, approximately 12 m long, mesh size of 3 mm) were simultaneously deployed as block nets at the upstream and downstream limit of the pool, typically at the adjacent run or riffle, perpendicular to flow across the creek. Block nets were secured to the bank using either 0.61 m rebar, tied to vegetation or exposed roots, or weighted down by rocks or a net barrel on shore. The area of the enclosure varied based on the size of the pool such that the enclosure and sampled area encompassed the available pool habitat at that location.

Fishes were sampled from within the enclosed area using a 9.14 m long x 1.8 m tall bag seine with 3 mm mesh mounted on 1.8 m tall poles of 51 mm diameter hardwood dowel (Figure 3a).

Three successive seine hauls, moving from upstream to downstream, were completed within the enclosure and each haul covered the entire enclosure area. Special attention was given to sweep the seine pole within undercuts and large woody debris to capture fishes from these areas. Captured fishes were removed from the seine and held in bankside aquaria until processing occurred.

Enumeration of Fishes

Fishes were processed separately based on the order of each haul, which allowed species composition and abundance to be partitioned into the first, second, or third haul at each sampling site. Captured fishes were identified to species (where possible), enumerated, and the minimum and maximum total length, per species, was recorded per haul. In addition, individual total lengths (mm) and weights (g) were taken for Redside Dace. Care was taken to minimize the physical handling of fishes during capture and processing, thereby reducing capture stress and incidental mortalities. At least one representative specimen of each species from each sampling site was vouchered, either by preservation in 10% formalin or digital photograph, for subsequent species identification in the laboratory. Additionally, specimens that could not be identified to species *in situ*, as well as any Redside Dace mortalities or small (< 50 mm) individuals, were retained for laboratory identification.

HABITAT SAMPLING

Aquatic habitat variables were measured after fish sampling was complete and while fishes were being processed and released by other field crew members. Aquatic macrophytes were classified using a visual assessment in which the field crew would estimate the percent composition of the following vegetation classes within the sample area to a total of 100%: open water, emergent vegetation, submerged vegetation, and floating vegetation. The dominant species of vegetation was identified and recorded, as well as all other vegetation species present within the sampling area. Riparian vegetation was assessed visually by determining the percent composition of riparian vegetation classes (deciduous, coniferous, herbaceous, shrubs, or none) occurring in the riparian zone directly adjacent to the sampling site (1 – 2 m from water's edge). Surface water temperature (°C), conductivity (µS), turbidity (NTU), and dissolved oxygen (mg/L) were measured approximately 0.2 m beneath the water's surface using a YSI EX02 multiparameter sonde, which was deployed and allowed to stabilize for approximately one minute before measurements were recorded. Water clarity (cm) was measured using a 1.20 m Fieldmaster turbidity tube. Air temperature (°C) was measured using a Kestrel 3000 wind meter. Stream morphometric data and substrate were collected using a modified version of Ontario Stream Assessment Protocol (OSAP) Point-Transect Sampling for Channel Structure, Substrate, and Bank Conditions (S4.M2; Stanfield, 2005) at the sampled pool level for every site sampled (n=16), and for the full reach (crossover to crossover, as defined by the OSAP protocol) for a subset of sites (n=4; Figure 3b).

As per the OSAP protocol, the number of transects per reach and points per transect was determined by the minimum stream width within the pool. Transects were spread evenly through the reach; for sites where only the pool habitat was assessed we used half of the total reach transects and spread them evenly within the pool. At each transect, starting at the downstream-most transect, a tape measure was strung across the creek, perpendicular to the flow and secured to the banks. For each transect, the left and right banks were evaluated for undercuts,

and when present, the depth of the undercut was measured. Bank stability was assessed and recorded, and the wetted width was measured and recorded. The prescribed number of observation points per transect were marked on the measuring tape with flagging tape such that they were evenly spaced across the transect using the measurement of wetted width. At each point, moving from left bank to right back (facing upstream), depth and hydraulic head were measured with a metre stick directly below the observation point on the transect tape. Presence of large woody debris and percent composition of substrate types within a 30 cm diameter observation area centered on each observation point were recorded based on visual delineation with a 30 cm tomato cage.

SAMPLING PERMITS AND DATA ARCHIVING

Sampling for this project was conducted under SARA Permit Number 19-PCAA-00017. Seining was conducted under Standard Operating Protocol GWACC-116, approved by the DFO and Environment and Climate Change Canada Animal Care Committee (operated under approval of the Canadian Council on Animal Care). Data associated with the collections in this report are housed under the project code “2019-RSDPA” in the Biodiversity Science database within the Great Lakes Laboratory for Fisheries and Aquatic Sciences. Every effort has been made to ensure the accuracy of data contained in this report; however, species identities and other sampling results may be revised as part of a long-term data archiving process. Data associated with this report may be obtained by contacting the Great Lakes Laboratory for Fisheries and Aquatic Sciences.

RESULTS

FISH ASSEMBLAGE SAMPLING

Sixteen sites were sampled in Gully Creek between June 12 and July 8, 2019 using depletion seining, with all sites contained within AEC segment R12.2051 (Table 1, Figure 1). A total of 2,583 fishes representing 13 species (not including fishes identified only to genus level) were captured, including 142 Redside Dace at 11 sites (Table 2, Appendix 1). The most abundant species were Creek Chub (*Semotilus atromaculatus*), Blacknose Dace (*Rhinichthys atratulus*), and White Sucker (*Catostomus commersonii*), which collectively represented 85.2% of the total abundance of fishes captured in Gully Creek (Figure 4). Redside Dace was the fourth-most abundant species at 5.5% of total abundance, and the remaining nine species represented the remaining 9.3% of total abundance. The mean catch per unit effort was 53.8 fishes per seine haul (range 11.0 – 161.3 fishes per seine haul).

Redside Dace detections occurred within the known range between Orchard Line and Telephone Road; no Redside Dace were detected at sites near Highway 21 and sampling was not conducted on the downstream side of the Orchard Line road crossing (Figure 1). Based on visual assessment of length classes, both adult and juvenile Redside Dace were captured (Figure 5, Figure 6). Captured Redside Dace were an average of 58 mm TL (range 34 – 100 mm TL), and mean weight was 1.7 g (range 0.3 – 6.4 g; Figure 7, Table 3, Appendix 2). Six Redside Dace (4% of total captures) were retained. Of these, two were voucher specimens and four were sampling mortalities. Three of the sampling mortalities occurred due to a large number of captured crayfish, which caused physical damage by pinching.

HABITAT SAMPLING

Sampled pool dimensions varied based on available habitat at each site (Table 1). Mean pool length was 15.7 m (range 7.7 – 33.4 m) and mean pool width was 4.98 m (Table 1; Appendix 3) based on the mean wetted width of pool transects (range of transect widths 2.76 – 9.70 m; Appendix 4). The mean pool area was 77.8 m^2 (mean wetted width of pool transects multiplied by pool length; range 31.6 – 192.5 m^2). Mean pool depth, based on point-based transect observations, was 0.32 m with a minimum point depth of 0.01 m and maximum point depth of 1.05 m. Mean hydraulic head was 0.8 mm (range 0 – 30 mm; Table 4).

Overall, the mean surface water temperature was cool, 20.4 °C (range 15.4 – 26.4 °C), mean dissolved oxygen was 10.21 mg/L (range 9.16 – 11.99 mg/L), mean pH was 8.65 (range 8.46 – 8.92), and mean conductivity was 469.7 µS (range 453.0 – 500.0 µS) (Table 5). Water clarity was generally high with a mean turbidity of 6.83 NTU (range 1.60 – 38.77 NTU) and Secchi tube reading of 0.76 m (range 0.12 – >1.2 m).

Substrate in pools was mostly comprised of sand, gravel, silt, and cobble. Point observations of substrate composition from point-transect habitat assessments (Appendix 5) were averaged for each pool and are provided in Table 6. The substrate type with the highest percent composition in the pools was sand at 11 sites, with one site each dominated by boulder, gravel, cobble, hardpan, and clay. All sites, except for SiteID 1 and 6, had large woody debris present within the sampled pool (Appendix 4).

Biotic habitat features (aquatic and riparian vegetation) are summarized in Table 7. Aquatic vegetation was absent at all sites. The dominant riparian vegetation was most frequently categorized as None at the water's edge, likely due to fluctuations in water level and susceptibility to erosion. However, mixed and diverse riparian vegetation was observed at all sites with herbaceous, deciduous, coniferous, and shrub types represented.

All data collected from modified Ontario Stream Assessment Protocol Point-Transect Sampling for Channel Structure, Substrate, and Bank Conditions (S4.M2) are provided in appendices relating to site-level data (Appendix 3), transect-level data (Appendix 4), and point-observation data (Appendix 5).

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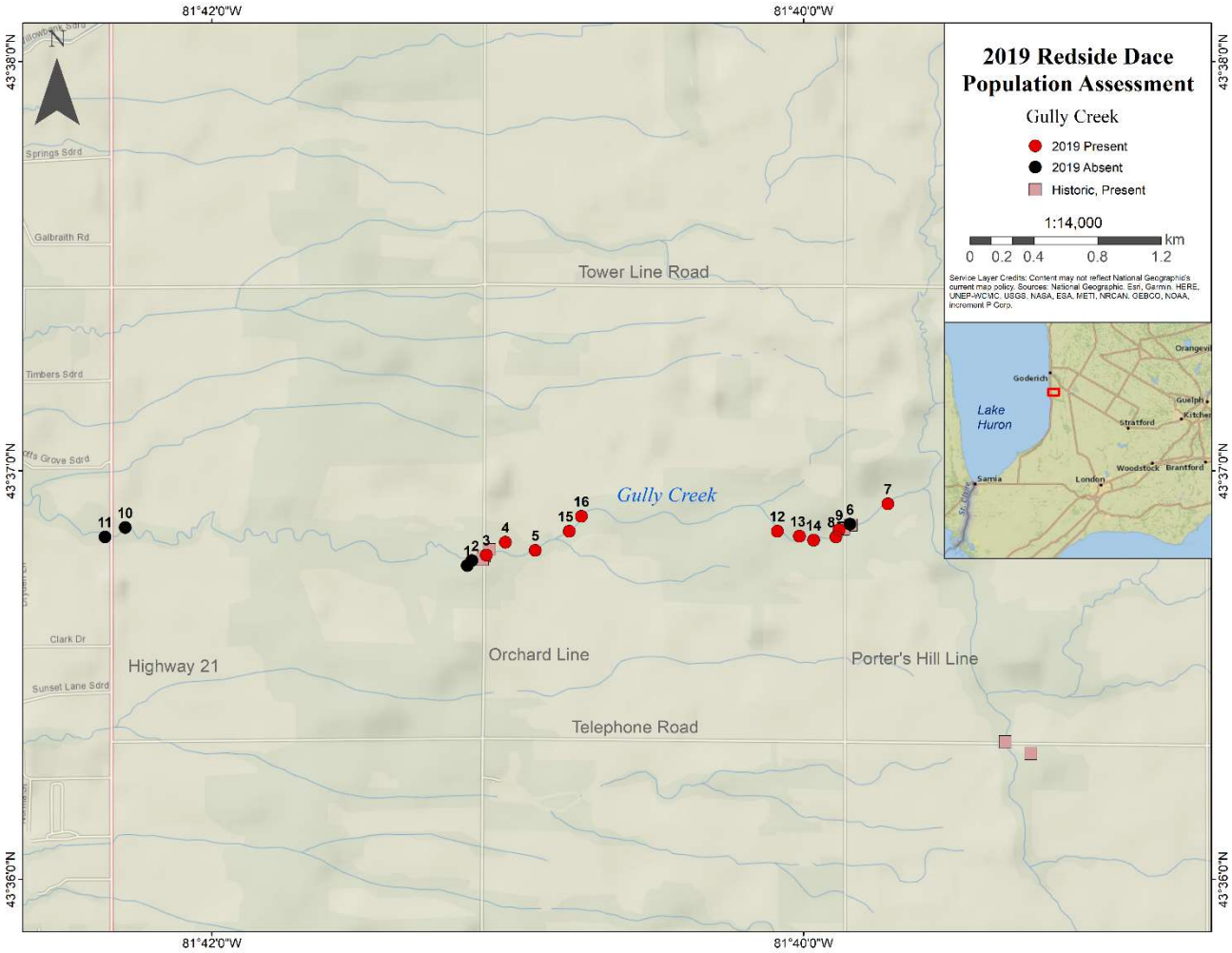

Figure 1. *Location of sampling including historic detections of Redside Dace in Gully Creek during previous sampling undertaken by Fisheries and Oceans Canada, and 2019 sampling location. Numeric labels are 2019 site IDs.*

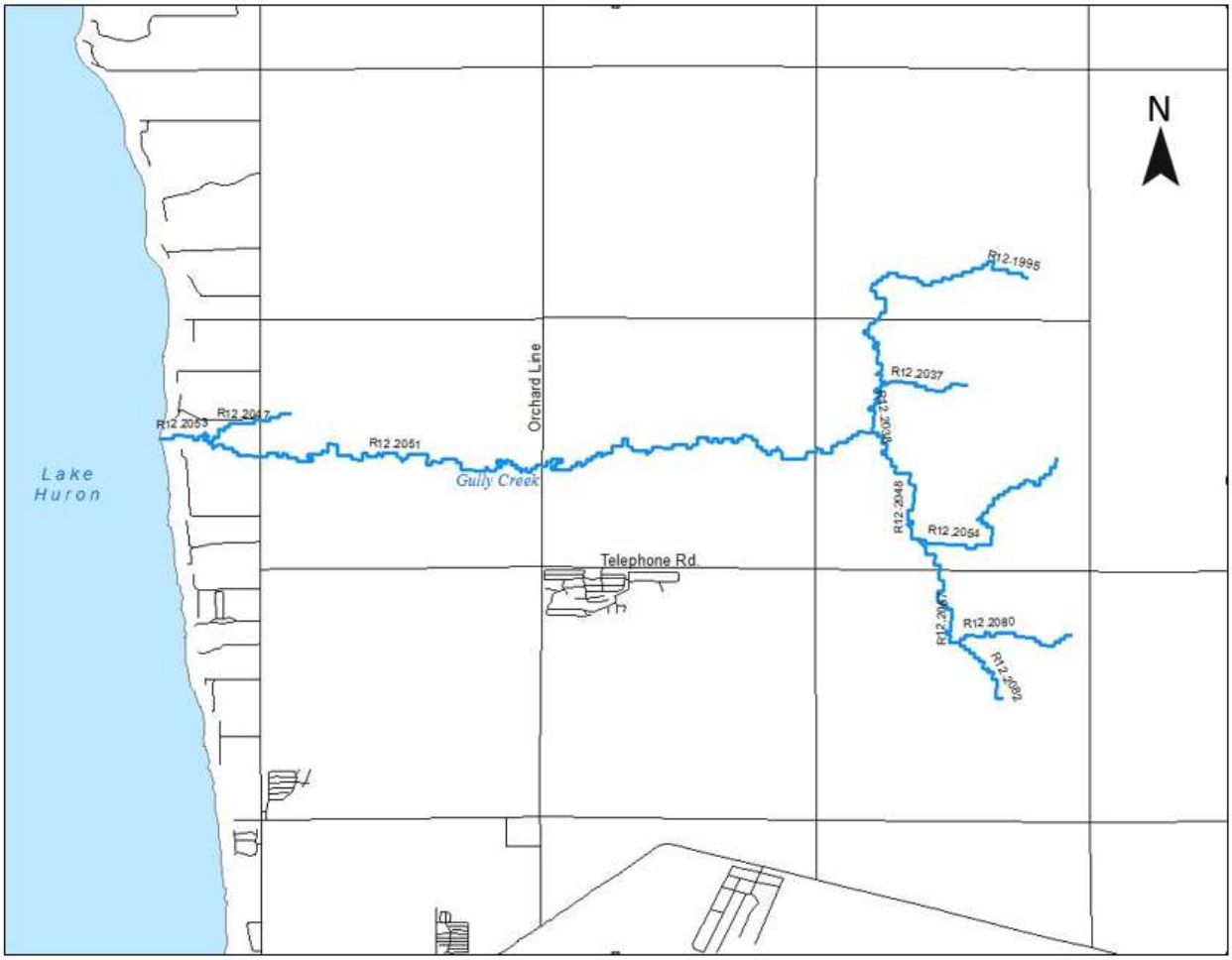

Figure 2. *Location and identity of Aquatic Ecosystem Classification (AEC) segments within Gully Creek.*

a)

b)

Figure 3. *Photographs of 2019 sampling in Gully Creek, including a) field personnel conducting depletion seining within pool enclosed with block nets, and b) field personnel completing point-transect habitat meaurements following modified OSAP protocol.*

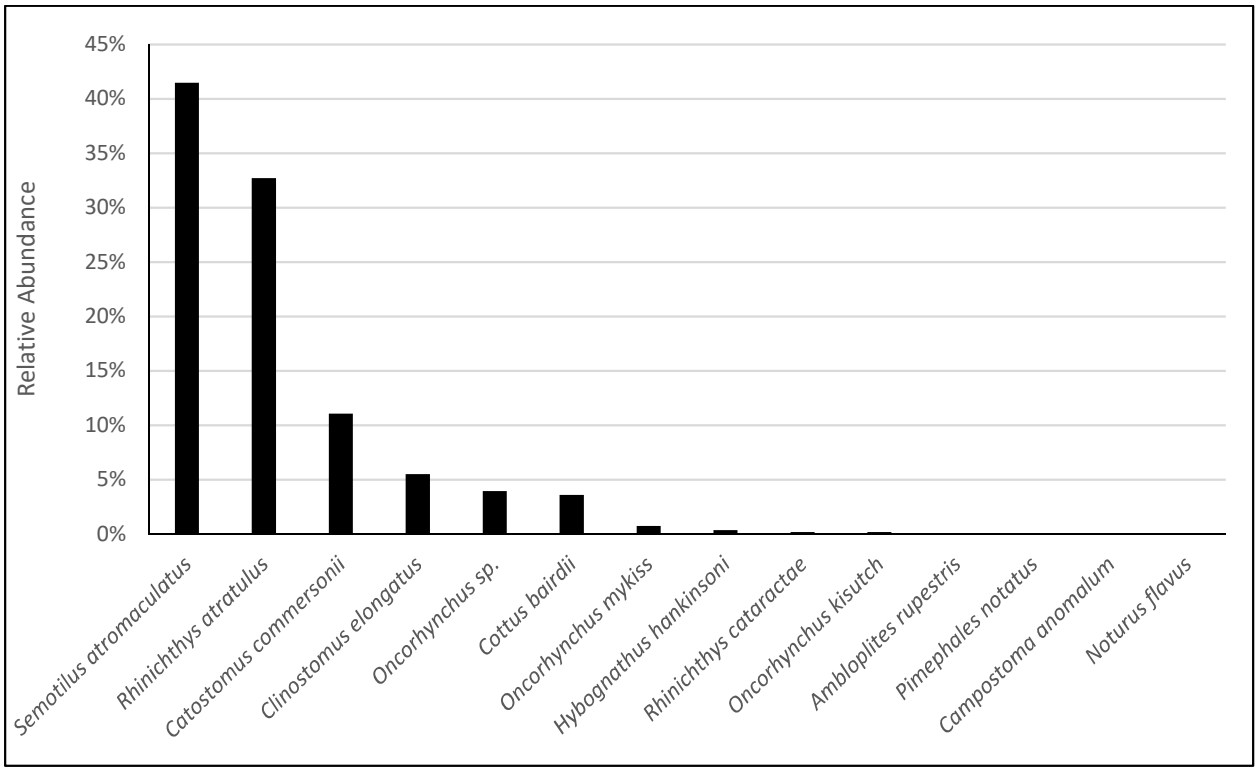

Figure 4. *Overall rank-abundance of species captured in Gully Creek, 2019.*

a)

b)

Figure 5. *Photograph of Redside Dace a) adult: 83 mm total length (TL), SiteID 4; and b) juvenile: 45 mm total length, SiteID 12 captured in Gully Creek, 2019.*

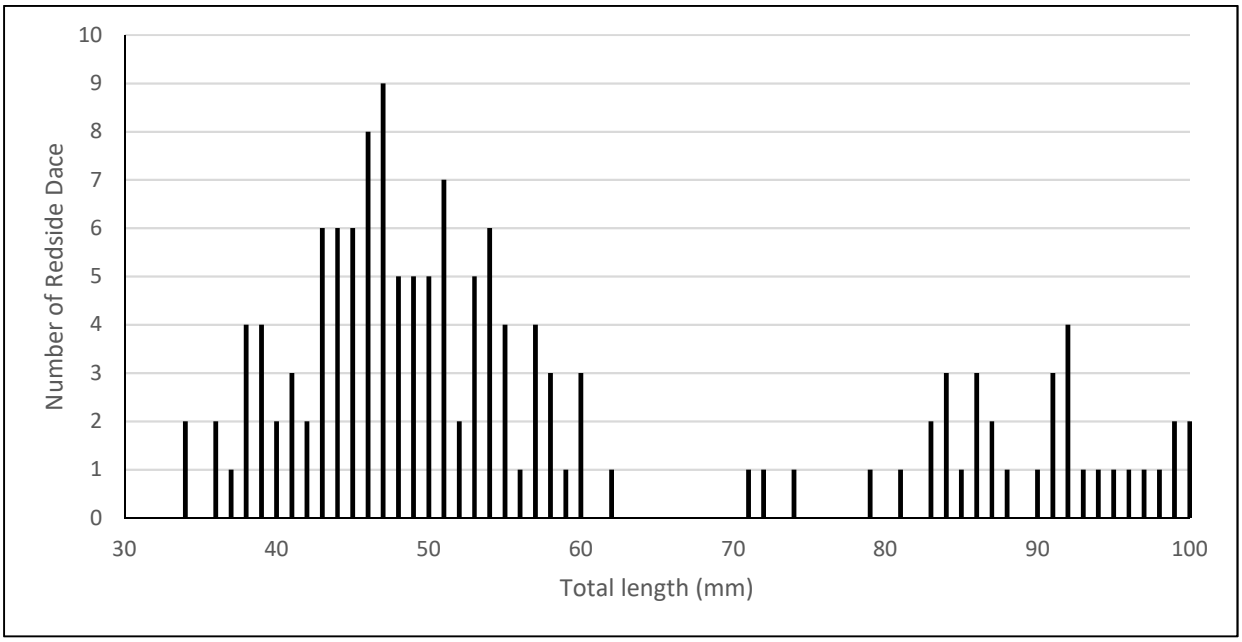

Figure 6. *Length-frequency of Redside Dace captured in Gully Creek, 2019 (n=142).*

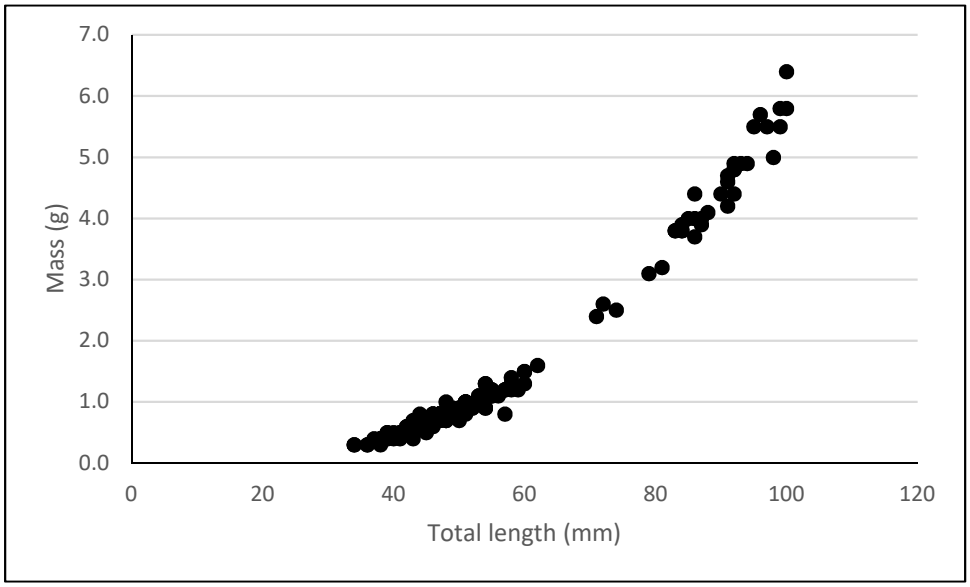

Figure 7. *Relationship between total length (mm) and mass (g) of Redside Dace captured in Gully Creek, Ontario, 2019 (n=142).*

Table 1. *Location and dimensions of sites sampled in Gully Creek, 2019, where start and stop coordinates represent the boundaries of the sampled pools.*

SiteID	Field number	Date	Narrative locality description	Upstream latitude	Upstream longitude	Downstream latitude	Downstream longitude	Pool length (m)	Average pool transect wetted width (m)
1	2019-RSDPA-120619-001A	12-Jun-19	Pool ~100 m d/s of Orchard Line	43.61279	-81.68561	43.61270	-81.68567	18.49	4.71
2	2019-RSDPA-120619-002A	12-Jun-19	Not Recorded - d/s of Orchard Line	43.61299	-81.68535	43.61296	-81.68541	11.12	4.88
3	2019-RSDPA-250619-001A	25-Jun-19	Pool under Orchard Line Culvert	43.61322	-81.68453	43.61315	-81.68499	24.35	3.96
4	2019-RSDPA-250619-002A	25-Jun-19	~200 m u/s Orchard Line	43.61374	-81.68346	43.61373	-81.68367	12.73	6.60
5	2019-RSDPA-250619-003A	25-Jun-19	~240 m from Orchard Line	43.61341	-81.68178	43.61337	-81.68204	26.72	4.43
6	2019-RSDPA-260619-001A	26-Jun-19	Pool @ first bend u/s of Porter's Hill Rd	43.61448	-81.66404	43.61443	-81.66412	10.30	4.37
7	2019-RSDPA-260619-002A	26-Jun-19	~500 m u/s Porters Hill Rd	43.61531	-81.66190	43.61520	-81.66203	11.02	6.22
8	2019-RSDPA-260619-003A	26-Jun-19	~150 m d/s of Porters Hill Line	43.61396	-81.66483	43.61390	-81.66487	18.20	3.83
9	2019-RSDPA-260619-004A	26-Jun-19	Immediately d/s Porters Hill Line	43.61425	-81.66465	43.61428	-81.66474	9.18	3.44
10	2019-RSDPA-080719-001A	08-Jul-19	~70 m u/s Highway 21	43.61434	-81.70488	43.61423	-81.70499	16.75	5.19
11	2019-RSDPA-080719-002A	08-Jul-19	~40 m d/s of Highway 21; d/s of concrete barrier	43.61396	-81.70602	43.61404	-81.70613	12.50	7.10
12	2019-RSDPA-090719-001A	09-Jul-19	~600 m d/s of Porter's Hill Line	43.61419	-81.66813	43.61425	-81.66809	13.65	4.14
13	2019-RSDPA-090719-002A	09-Jul-19	~520 m d/s of Porter's Hill Line	43.61399	-81.66689	43.61412	-81.66692	12.30	5.55
14	2019-RSDPA-090719-003A	09-Jul-19	Not Recorded - u/s of Orchard Line	43.61383	-81.66609	43.61382	-81.66653	12.13	5.16
15	2019-RSDPA-100719-001A	10-Jul-19	~600 m u/s of Orchard Line	43.61419	-81.67986	43.61412	-80.67995	7.70	4.33
16	2019-RSDPA-100719-002A	10-Jul-19	~ 680 m u/s of Orchard Line	43.61480	-81.67918	43.61472	-81.67928	33.40	5.76

Table 2. *Fish assemblage sampling results indicating the total number of each species captured in Gully Creek, 2019.*

Scientific Name	Common Name	SiteID 1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	Total captured	Relative abundance
Ambloplites rupestris	Rock Bass	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	**2**	0.1%
Campostoma anomalum	Central Stoneroller	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	**1**	0.0%
Catostomus commersonii	White Sucker	0	1	16	1	12	30	6	3	7	50	28	18	15	65	18	16	**286**	11.1%
Clinostomus elongatus	Redside Dace	0	0	2	4	1	0	18	5	22	0	0	13	2	58	8	9	**142**	5.5%
Cottus bairdii	Mottled Sculpin	2	0	5	2	3	7	2	6	8	0	0	9	5	35	3	6	**93**	3.6%
Hybognathus hankinsoni	Brassy Minnow	0	0	0	0	0	0	0	0	0	0	9	0	0	0	0	0	**9**	0.3%
Noturus flavus	Stonecat	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	**1**	0.0%
Oncorhynchus kisutch	Coho Salmon	1	1	1	0	0	1	0	0	1	0	0	0	0	0	0	0	**5**	0.2%
Oncorhynchus mykiss	Rainbow Trout	0	0	0	1	1	6	1	1	0	0	3	1	1	2	1	1	**19**	0.7%
Oncorhynchus sp.	*Oncorhynchus* sp. (juvenile)	13	6	11	2	2	5	12	2	0	0	5	8	3	9	9	15	**102**	3.9%
Pimephales notatus	Bluntnose Minnow	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	**2**	0.1%
Rhinichthys atratulus	Blacknose Dace	35	14	64	74	21	52	44	11	60	60	7	16	174	125	32	56	**845**	32.7%
Rhinichthys cataractae	Longnose Dace	0	1	0	1	0	0	0	0	0	0	3	0	0	0	0	0	**5**	0.2%
Semotilus atromaculatus	Creek Chub	21	10	88	66	72	30	51	23	57	145	53	41	57	190	104	63	**1071**	41.5%
Total individuals captured		**72**	**33**	**187**	**151**	**112**	**131**	**134**	**52**	**156**	**256**	**111**	**106**	**257**	**484**	**175**	**166**	**2583**	

Table 3. *Summary of total length (TL; mm) and mass (g) of individual Redside Dace captured at each sampling location in Gully Creek, 2019 (n = 142).*

			TL (mm)			Mass (g)		
SiteID	**Field number**	**Total captured**	**Min**	**Max**	**Avg**	**Min**	**Max**	**Avg**
1	2019-RSDPA-120619-001A	0	-	-	**-**	-	-	**-**
2	2019-RSDPA-120619-002A	0	-	-	**-**	-	-	**-**
3	2019-RSDPA-250619-001A	2	44	85	**65**	0.8	4.0	**2.4**
4	2019-RSDPA-250619-002A	4	39	84	**72**	0.5	3.9	**2.9**
5	2019-RSDPA-250619-003A	1	86	86	**86**	3.7	3.7	**3.7**
6	2019-RSDPA-260619-001A	0	-	-	**-**	-	-	**-**
7	2019-RSDPA-260619-002A	18	36	51	**44**	0.3	0.9	**0.6**
8	2019-RSDPA-260619-003A	5	40	46	**44**	0.5	0.8	**0.7**
9	2019-RSDPA-260619-004A	22	34	83	**43**	0.3	3.8	**0.7**
10	2019-RSDPA-090719-001A	0	-	-	**-**	-	-	**-**
11	2019-RSDPA-090719-002A	0	-	-	**-**	-	-	**-**
12	2019-RSDPA-090719-003A	13	45	97	**66**	0.6	5.5	**2.2**
13	2019-RSDPA-100719-001A	2	50	51	**51**	0.7	1.0	**0.9**
14	2019-RSDPA-100719-002A	58	43	100	**63**	0.4	5.8	**2.0**
15	2019-RSDPA-080719-001A	8	44	100	**72**	0.6	6.4	**3.1**
16	2019-RSDPA-080719-002A	9	46	99	**65**	0.7	5.8	**2.2**
	Overall	**142**	**34.0**	**100.0**	**58**	**0.3**	**6.4**	**1.7**

Table 4. *Summary of point observations of water depth (m) and hydraulic head (mm) in the pools sampled for Redside Dace in Gully Creek, 2019, from point-transect data.*

		Depth (m)			Hydraulic head (mm)		
SiteID	**Field Number**	**Min**	**Max**	**Avg**	**Min**	**Max**	**Avg**
1	2019-RSDPA-120619-001A	0.08	0.48	0.25	0	5	0.8
2	2019-RSDPA-120619-002A	0.05	0.82	0.36	0	14	2.1
3	2019-RSDPA-250619-001A	0.06	0.59	0.26	0	4	0.9
4	2019-RSDPA-250619-002A	0.05	0.50	0.21	0	3	0.4
5	2019-RSDPA-250619-003A	0.05	0.73	0.28	0	10	1.6
6	2019-RSDPA-260619-001A	0.01	0.90	0.35	0	7	0.7
7	2019-RSDPA-260619-002A	0.04	0.65	0.27	0	24	2.1
8	2019-RSDPA-260619-003A	0.03	0.75	0.30	0	10	0.6
9	2019-RSDPA-260619-004A	0.09	0.51	0.31	0	1	0.4
10	2019-RSDPA-080719-001A	0.04	0.86	0.38	0	2	0.3
11	2019-RSDPA-080719-002A	0.09	0.91	0.40	0	3	0.1
12	2019-RSDPA-090719-001A	0.10	1.05	0.45	0	5	0.4
13	2019-RSDPA-090719-002A	0.04	0.77	0.41	0	0	0.0
14	2019-RSDPA-090719-003A	0.13	0.73	0.42	0	5	0.3
15	2019-RSDPA-100719-001A	0.05	0.86	0.28	0	0	0.0
16	2019-RSDPA-100719-002A	0.01	0.67	0.28	0	30	1.2
	Overall	**0.01**	**1.05**	**0.32**	**0**	**30**	**0.8**

Table 5. *Summary of abiotic habitat conditions at each site sampled for Redside Dace in Gully Creek, 2019.*

SiteID	Field number	Air temperature (°C)	Water temperature (°C)	Conductivity (µS)	Dissolved oxygen (mg/L)	pH	Secchi tube (m)	Turbidity (ntu)
1	2019-RSDPA-120619-001A	15.4	12.89	455.2	10.03	8.6	> 1.2	2.06
2	2019-RSDPA-120619-002A	22.1	14.73	474.4	10.38	8.7	> 1.2	1.60
3	2019-RSDPA-250619-001A	18.3	15.54	465.5	9.62	8.5	1.12	2.90
4	2019-RSDPA-250619-002A	18.3	15.75	466.2	10.61	8.6	0.76	1.71
5	2019-RSDPA-250619-003A	19.2	16.41	469.7	10.85	8.6	> 1.2	2.03
6	2019-RSDPA-260619-001A	21.2	15.66	474.9	9.23	8.5	0.60	3.08
7	2019-RSDPA-260619-002A	20.9	16.72	486.3	9.91	8.6	0.33	13.54
8	2019-RSDPA-260619-003A	26.0	18.24	497.0	11.23	8.6	0.65	4.41
9	2019-RSDPA-260619-004A	26.4	18.67	500.0	10.37	8.6	.	2.42
10	2019-RSDPA-090719-001A	16.0	14.88	456.9	9.17	8.6	0.78	4.42
11	2019-RSDPA-090719-002A	18.4	15.48	462.1	10.45	8.7	0.86	6.01
12	2019-RSDPA-090719-003A	22.3	16.72	469.7	11.99	8.8	1.05	7.05
13	2019-RSDPA-100719-001A	18.4	15.83	453.0	9.16	8.7	0.61	4.56
14	2019-RSDPA-100719-002A	21.6	16.61	462.9	9.74	8.7	0.57	3.26
15	2019-RSDPA-080719-001A	19.6	18.77	459.1	10.44	8.8	0.39	11.50
16	2019-RSDPA-080719-002A	21.5	19.23	462.1	10.20	8.9	0.12	38.77
	Minimum	**15.4**	**12.89**	**453.0**	**9.16**	**8.5**	**0.12**	**1.60**
	Average	**20.4**	**16.38**	**469.7**	**10.21**	**8.6**	**0.76**	**6.83**
	Maximum	**26.4**	**19.23**	**500.0**	**11.99**	**8.9**	**> 1.2**	**38.77**

Table 6. *Summary of substrate composition by percent type within pool habitats sampled in Gully Creek, 2019, where point-transect substrate observations were averaged for site-level substrate composition.*

SiteID	Field number	Organic	Clay	Silt	Sand	Gravel	Cobble	Boulder	Bedrock	Hardpan	Rubble	Concrete	Dominant substrate type
1	2019-RSDPA-120619-001A	11.7	2.3	15.0	40.3	0.0	1.3	5.0	0.0	24.3	0.0	0.0	Sand
2	2019-RSDPA-120619-002A	6.2	0.0	19.7	34.8	9.7	12.3	8.3	0.0	9.0	0.0	0.0	Sand
3	2019-RSDPA-250619-001A	3.3	0.0	21.2	45.0	20.2	4.2	4.5	0.0	0.0	0.0	1.7	Sand
4	2019-RSDPA-250619-002A	8.2	0.7	11.5	61.7	17.0	1.0	0.0	0.0	0.0	0.0	0.0	Sand
5	2019-RSDPA-250619-003A	4.0	1.0	16.2	31.5	27.7	1.3	9.7	0.0	8.7	0.0	0.0	Sand
6	2019-RSDPA-260619-001A	11.7	0.0	16.7	25.3	8.0	11.7	26.7	0.0	0.0	0.0	0.0	Boulder
7	2019-RSDPA-260619-002A	10.3	2.7	15.5	35.3	25.5	0.0	5.7	0.0	5.0	0.0	0.0	Sand
8	2019-RSDPA-260619-003A	2.3	0.0	6.3	47.8	19.3	15.2	3.3	0.0	5.7	0.0	0.0	Sand
9	2019-RSDPA-260619-004A	5.0	0.0	14.0	27.2	18.7	24.5	10.7	0.0	0.0	0.0	0.0	Sand
10	2019-RSDPA-080719-001A	10.0	21.5	17.5	18.3	3.3	10.0	2.5	0.0	17.0	0.0	0.0	Clay
11	2019-RSDPA-080719-002A	3.0	13.0	7.5	11.2	33.8	9.7	0.0	0.0	21.8	0.0	0.0	Gravel
12	2019-RSDPA-090719-001A	3.0	3.8	8.3	24.8	14.0	26.2	10.0	0.0	9.8	0.0	0.0	Cobble
13	2019-RSDPA-090719-002A	0.6	0.0	3.6	14.2	11.9	25.6	6.4	0.0	37.8	0.0	0.0	Hardpan
14	2019-RSDPA-090719-003A	4.8	0.0	24.3	40.2	8.3	12.3	10.0	0.0	0.0	0.0	0.0	Sand
15	2019-RSDPA-100719-001A	3.0	0.0	11.7	36.2	32.8	13.0	3.3	0.0	0.0	0.0	0.0	Sand
16	2019-RSDPA-100719-002A	14.5	3.0	10.5	24.3	20.8	21.5	5.3	0.0	0.0	0.0	0.0	Sand
	Minimum	**0.6**	**0.0**	**3.6**	**11.2**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**	
	Average	**6.3**	**3.0**	**13.7**	**32.4**	**16.9**	**11.9**	**7.0**	**0.0**	**8.7**	**0.0**	**0.1**	
	Maximum	**14.5**	**21.5**	**24.3**	**61.7**	**33.8**	**26.2**	**26.7**	**0.0**	**37.8**	**0.0**	**1.7**	

Table 7. *Summary of a) aquatic and b) riparian vegetation by percent composition of each vegetation type present within the pool habitat sampled for Redside Dace in Gully Creek, 2019.*

a) Aquatic vegetation

SiteID	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**Mean**
Emergent	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Floating	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Submerged	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**
Open water	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	**100**

b) Riparian vegetation

SiteID	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**	**Mean**
Deciduous	15	10	5	5	30	5	0	0	0	30	5	30	40	40	5	10	**14**
Coniferous	15	20	0	25	50	10	30	30	0	5	30	10	10	20	40	50	**22**
Herbaceous	30	30	5	5	10	40	25	10	5	5	35	40	10	10	20	30	**19**
Shrubs	0	0	0	5	10	20	5	5	95	0	0	20	10	0	20	10	**13**
None	40	40	90	60	0	25	40	55	0	60	30	0	30	30	15	0	**32**

Appendix 1. *Fish assemblage sampling results indicating the total number of each species captured in Gully Creek, 2019, where bin number is the first, second, or third consecutive seine haul.*

SiteID	Field number	Bin number	*Ambloplites rupestris*	*Campostoma anomalum*	*Catostomus commersonii*	*Clinostomus elongatus*	*Cottus bairdii*	*Hybognathus hankinsoni*	*Noturus flavus*	*Oncorhynchus kisutch*	*Oncorhynchus mykiss*	*Oncorhynchus* sp.	*Pimephales notatus*	*Rhinichthys atratulus*	*Rhinichthys cataractae*	*Semotilus atromaculatus*
1	2019-RSDPA-120619-001A	1	0	0	0	0	1	0	0	1	0	6	0	20	0	15
1	2019-RSDPA-120619-001A	2	0	0	0	0	0	0	0	0	0	5	0	11	0	3
1	2019-RSDPA-120619-001A	3	0	0	0	0	1	0	0	0	0	2	0	4	0	3
2	2019-RSDPA-120619-002A	1	0	0	0	0	0	0	0	1	0	3	0	5	1	6
2	2019-RSDPA-120619-002A	2	0	0	1	0	0	0	0	0	0	0	0	1	0	2
2	2019-RSDPA-120619-002A	3	0	0	0	0	0	0	0	0	0	3	0	8	0	2
3	2019-RSDPA-250619-001A	1	0	0	11	1	1	0	0	1	0	10	0	52	0	66
3	2019-RSDPA-250619-001A	2	0	0	2	0	1	0	0	0	0	0	0	2	0	10
3	2019-RSDPA-250619-001A	3	0	0	3	1	3	0	0	0	0	1	0	10	0	12
4	2019-RSDPA-250619-002A	1	0	0	1	4	1	0	0	0	1	2	0	32	1	31
4	2019-RSDPA-250619-002A	2	0	0	0	0	1	0	0	0	0	0	0	24	0	23
4	2019-RSDPA-250619-002A	3	0	0	0	0	0	0	0	0	0	0	0	18	0	12
5	2019-RSDPA-250619-003A	1	0	0	6	1	2	0	0	0	1	2	0	6	0	26
5	2019-RSDPA-250619-003A	2	0	0	6	0	1	0	0	0	0	0	0	11	0	37
5	2019-RSDPA-250619-003A	3	0	0	0	0	0	0	0	0	0	0	0	4	0	9
6	2019-RSDPA-260619-001A	1	0	0	22	0	2	0	0	1	1	5	0	43	0	28
6	2019-RSDPA-260619-001A	2	0	0	7	0	3	0	0	0	4	0	0	7	0	2
6	2019-RSDPA-260619-001A	3	0	0	1	0	2	0	0	0	1	0	0	2	0	0
7	2019-RSDPA-260619-002A	1	0	0	5	18	1	0	0	0	1	7	0	36	0	40
7	2019-RSDPA-260619-002A	2	0	0	1	0	1	0	0	0	0	3	0	8	0	8
7	2019-RSDPA-260619-002A	3	0	0	0	0	0	0	0	0	0	2	0	0	0	3
8	2019-RSDPA-260619-003A	1	0	0	1	2	3	0	0	0	0	0	1	5	0	11
8	2019-RSDPA-260619-003A	2	0	0	1	3	2	0	0	0	1	2	0	5	0	11
8	2019-RSDPA-260619-003A	3	0	0	1	0	1	0	0	0	0	0	0	1	0	1
9	2019-RSDPA-260619-004A	1	0	0	5	18	4	0	0	0	0	0	1	55	0	49
9	2019-RSDPA-260619-004A	2	0	0	1	3	2	0	0	1	0	0	0	4	0	6
9	2019-RSDPA-260619-004A	3	0	0	1	1	2	0	0	0	0	0	0	1	0	2
10	2019-RSDPA-080719-001A	1	0	0	29	0	0	0	0	0	0	0	0	35	0	69
10	2019-RSDPA-080719-001A	2	1	0	14	0	0	0	0	0	0	0	0	14	0	60
10	2019-RSDPA-080719-001A	3	0	0	7	0	0	0	0	0	0	0	0	11	0	16
11	2019-RSDPA-080719-002A	1	1	1	23	0	0	6	0	0	3	3	0	5	2	24
11	2019-RSDPA-080719-002A	2	0	0	2	0	0	3	0	0	0	1	0	2	0	15
11	2019-RSDPA-080719-002A	3	0	0	3	0	0	0	1	0	0	1	0	0	1	14
12	2019-RSDPA-090719-001A	1	0	0	13	9	3	0	0	0	1	6	0	7	0	14
12	2019-RSDPA-090719-001A	2	0	0	0	2	5	0	0	0	0	0	0	7	0	19
12	2019-RSDPA-090719-001A	3	0	0	5	2	1	0	0	0	0	2	0	2	0	8
13	2019-RSDPA-090719-002A	1	0	0	3	0	2	0	0	0	1	0	0	111	0	28
13	2019-RSDPA-090719-002A	2	0	0	9	2	1	0	0	0	0	0	0	60	0	28

SiteID	Field number	Bin number	*Ambloplites rupestris*	*Campostoma anomalum*	*Catostomus commersonii*	*Clinostomus elongatus*	*Cottus bairdii*	*Hybognathus hankinsoni*	*Noturus flavus*	*Oncorhynchus kisutch*	*Oncorhynchus mykiss*	*Oncorhynchus* sp.	*Pimephales notatus*	*Rhinichthys atratulus*	*Rhinichthys cataractae*	*Semotilus atromaculatus*
13	2019-RSDPA-090719-002A	3	0	0	3	0	2	0	0	0	0	3	0	3	0	1
14	2019-RSDPA-090719-003A	1	0	0	2	36	23	0	0	0	1	0	0	30	0	102
14	2019-RSDPA-090719-003A	2	0	0	26	15	5	0	0	0	1	2	0	38	0	41
14	2019-RSDPA-090719-003A	3	0	0	37	7	7	0	0	0	0	7	0	57	0	47
15	2019-RSDPA-100719-001A	1	0	0	3	5	2	0	0	0	1	5	0	8	0	38
15	2019-RSDPA-100719-001A	2	0	0	15	3	1	0	0	0	0	2	0	17	0	54
15	2019-RSDPA-100719-001A	3	0	0	0	0	0	0	0	0	0	2	0	7	0	12
16	2019-RSDPA-100719-002A	1	0	0	5	4	2	0	0	0	1	8	0	10	0	31
16	2019-RSDPA-100719-002A	2	0	0	1	2	2	0	0	0	0	5	0	20	0	14
16	2019-RSDPA-100719-002A	3	0	0	10	3	2	0	0	0	0	2	0	26	0	18

Appendix 2. *Total length (mm) and mass (g) of individual Redside Dace captured in Gully Creek, 2019 (n = 142).*

SiteID	Field number	Bin number	Total length (mm)	Mass (g)
3	2019-RSDPA-250619-001A	1	44	0.8
3	2019-RSDPA-250619-001A	3	85	4.0
4	2019-RSDPA-250619-002A	1	39	0.5
4	2019-RSDPA-250619-002A	1	81	3.2
4	2019-RSDPA-250619-002A	1	83	3.8
4	2019-RSDPA-250619-002A	1	84	3.9
5	2019-RSDPA-250619-003A	1	86	3.7
7	2019-RSDPA-260619-002A	1	36	0.3
7	2019-RSDPA-260619-002A	1	40	0.4
7	2019-RSDPA-260619-002A	1	41	0.4
7	2019-RSDPA-260619-002A	1	41	0.5
7	2019-RSDPA-260619-002A	1	42	0.6
7	2019-RSDPA-260619-002A	1	43	0.6
7	2019-RSDPA-260619-002A	1	43	0.6
7	2019-RSDPA-260619-002A	1	44	0.6
7	2019-RSDPA-260619-002A	1	44	0.6
7	2019-RSDPA-260619-002A	1	45	0.5
7	2019-RSDPA-260619-002A	1	45	0.6
7	2019-RSDPA-260619-002A	1	45	0.6
7	2019-RSDPA-260619-002A	1	47	0.8
7	2019-RSDPA-260619-002A	1	48	0.7
7	2019-RSDPA-260619-002A	1	48	0.8
7	2019-RSDPA-260619-002A	1	48	0.8
7	2019-RSDPA-260619-002A	1	49	0.9
7	2019-RSDPA-260619-002A	1	51	0.9
8	2019-RSDPA-260619-003A	1	40	0.5
8	2019-RSDPA-260619-003A	1	46	0.8
8	2019-RSDPA-260619-003A	2	43	0.7
8	2019-RSDPA-260619-003A	2	45	0.6
8	2019-RSDPA-260619-003A	2	46	0.8
9	2019-RSDPA-260619-004A	1	34	0.3
9	2019-RSDPA-260619-004A	1	34	0.3
9	2019-RSDPA-260619-004A	1	36	0.3
9	2019-RSDPA-260619-004A	1	37	0.4
9	2019-RSDPA-260619-004A	1	38	0.3
9	2019-RSDPA-260619-004A	1	38	0.4
9	2019-RSDPA-260619-004A	1	38	0.4
9	2019-RSDPA-260619-004A	1	38	0.4
9	2019-RSDPA-260619-004A	1	39	0.4
9	2019-RSDPA-260619-004A	1	39	0.5
9	2019-RSDPA-260619-004A	1	41	0.5
9	2019-RSDPA-260619-004A	1	42	0.6
9	2019-RSDPA-260619-004A	1	43	0.6
9	2019-RSDPA-260619-004A	1	44	0.7
9	2019-RSDPA-260619-004A	1	46	0.7
9	2019-RSDPA-260619-004A	1	46	0.8

SiteID	Field number	Bin number	Total length (mm)	Mass (g)
9	2019-RSDPA-260619-004A	1	48	1.0
9	2019-RSDPA-260619-004A	1	83	3.8
9	2019-RSDPA-260619-004A	2	43	0.5
9	2019-RSDPA-260619-004A	2	46	0.8
9	2019-RSDPA-260619-004A	2	47	0.8
9	2019-RSDPA-260619-004A	3	39	0.4
12	2019-RSDPA-090719-001A	1	45	0.6
12	2019-RSDPA-090719-001A	1	46	0.6
12	2019-RSDPA-090719-001A	1	55	1.1
12	2019-RSDPA-090719-001A	1	57	0.8
12	2019-RSDPA-090719-001A	1	57	1.2
12	2019-RSDPA-090719-001A	1	58	1.3
12	2019-RSDPA-090719-001A	1	60	1.5
12	2019-RSDPA-090719-001A	1	86	4.4
12	2019-RSDPA-090719-001A	1	97	5.5
12	2019-RSDPA-090719-001A	2	88	4.1
12	2019-RSDPA-090719-001A	2	95	5.5
12	2019-RSDPA-090719-001A	3	54	0.9
12	2019-RSDPA-090719-001A	3	57	1.2
13	2019-RSDPA-090719-002A	2	50	0.7
13	2019-RSDPA-090719-002A	2	51	1.0
14	2019-RSDPA-090719-003A	1	43	0.4
14	2019-RSDPA-090719-003A	1	44	0.6
14	2019-RSDPA-090719-003A	1	45	0.6
14	2019-RSDPA-090719-003A	1	46	0.7
14	2019-RSDPA-090719-003A	1	47	0.7
14	2019-RSDPA-090719-003A	1	47	0.8
14	2019-RSDPA-090719-003A	1	47	0.8
14	2019-RSDPA-090719-003A	1	47	0.8
14	2019-RSDPA-090719-003A	1	47	0.8
14	2019-RSDPA-090719-003A	1	48	0.7
14	2019-RSDPA-090719-003A	1	49	0.8
14	2019-RSDPA-090719-003A	1	49	0.8
14	2019-RSDPA-090719-003A	1	49	0.8
14	2019-RSDPA-090719-003A	1	50	0.8
14	2019-RSDPA-090719-003A	1	50	0.8
14	2019-RSDPA-090719-003A	1	50	0.9
14	2019-RSDPA-090719-003A	1	50	0.9
14	2019-RSDPA-090719-003A	1	51	0.8
14	2019-RSDPA-090719-003A	1	51	0.9
14	2019-RSDPA-090719-003A	1	51	1.0
14	2019-RSDPA-090719-003A	1	53	1.0
14	2019-RSDPA-090719-003A	1	53	1.1
14	2019-RSDPA-090719-003A	1	54	0.9
14	2019-RSDPA-090719-003A	1	54	1.1
14	2019-RSDPA-090719-003A	1	54	1.3
14	2019-RSDPA-090719-003A	1	54	1.3
14	2019-RSDPA-090719-003A	1	55	1.1
14	2019-RSDPA-090719-003A	1	55	1.2
14	2019-RSDPA-090719-003A	1	56	1.1

SiteID	Field number	Bin number	Total length (mm)	Mass (g)
14	2019-RSDPA-090719-003A	1	57	1.2
14	2019-RSDPA-090719-003A	1	58	1.4
14	2019-RSDPA-090719-003A	1	60	1.3
14	2019-RSDPA-090719-003A	1	60	1.5
14	2019-RSDPA-090719-003A	1	87	4.0
14	2019-RSDPA-090719-003A	1	92	4.8
14	2019-RSDPA-090719-003A	1	94	4.9
14	2019-RSDPA-090719-003A	2	49	0.8
14	2019-RSDPA-090719-003A	2	51	1.0
14	2019-RSDPA-090719-003A	2	52	0.9
14	2019-RSDPA-090719-003A	2	52	0.9
14	2019-RSDPA-090719-003A	2	53	1.1
14	2019-RSDPA-090719-003A	2	58	1.2
14	2019-RSDPA-090719-003A	2	62	1.6
14	2019-RSDPA-090719-003A	2	74	2.5
14	2019-RSDPA-090719-003A	2	84	3.8
14	2019-RSDPA-090719-003A	2	87	3.9
14	2019-RSDPA-090719-003A	2	90	4.4
14	2019-RSDPA-090719-003A	2	91	4.6
14	2019-RSDPA-090719-003A	2	92	4.4
14	2019-RSDPA-090719-003A	2	92	4.8
14	2019-RSDPA-090719-003A	2	93	4.9
14	2019-RSDPA-090719-003A	3	71	2.4
14	2019-RSDPA-090719-003A	3	72	2.6
14	2019-RSDPA-090719-003A	3	79	3.1
14	2019-RSDPA-090719-003A	3	91	4.2
14	2019-RSDPA-090719-003A	3	92	4.9
14	2019-RSDPA-090719-003A	3	98	5.0
14	2019-RSDPA-090719-003A	3	100	5.8
15	2019-RSDPA-100719-001A	1	44	0.6
15	2019-RSDPA-100719-001A	1	47	0.7
15	2019-RSDPA-100719-001A	1	51	1.0
15	2019-RSDPA-100719-001A	1	54	1.1
15	2019-RSDPA-100719-001A	1	86	4.0
15	2019-RSDPA-100719-001A	2	96	5.7
15	2019-RSDPA-100719-001A	2	99	5.5
15	2019-RSDPA-100719-001A	2	100	6.4
16	2019-RSDPA-100719-002A	1	46	0.7
16	2019-RSDPA-100719-002A	1	47	0.7
16	2019-RSDPA-100719-002A	1	53	1.0
16	2019-RSDPA-100719-002A	1	59	1.2
16	2019-RSDPA-100719-002A	2	53	1.0
16	2019-RSDPA-100719-002A	2	55	1.2
16	2019-RSDPA-100719-002A	3	84	3.8
16	2019-RSDPA-100719-002A	3	91	4.7
16	2019-RSDPA-100719-002A	3	99	5.8

Appendix 3. *Site-level data collected during modified Ontario Stream Assessment Protocol Point-Transect Sampling for Channel Structure, Substrate, and Bank Conditions (S4.M2).*

SiteID	Field number	Date	Pool length (m)	Reach length (m)
1	2019-RSDPA-120619-001A	6/12/2019	18.49	-
2	2019-RSDPA-120619-002A	6/12/2019	11.12	-
3	2019-RSDPA-250619-001A	6/25/2019	24.35	-
4	2019-RSDPA-250619-002A	6/25/2019	12.73	-
5	2019-RSDPA-250619-003A	6/25/2019	26.72	-
6	2019-RSDPA-260619-001A	6/26/2019	10.30	25.80
7	2019-RSDPA-260619-002A	6/26/2019	11.02	-
8	2019-RSDPA-260619-003A	6/26/2019	18.20	-
9	2019-RSDPA-260619-004A	6/26/2019	9.18	-
10	2019-RSDPA-080719-001A	7/8/2019	13.65	44.42
11	2019-RSDPA-080719-002A	7/8/2019	12.30	-
12	2019-RSDPA-090719-001A	7/9/2019	12.13	-
13	2019-RSDPA-090719-002A	7/9/2019	7.70	22.40
14	2019-RSDPA-090719-003A	7/9/2019	33.40	-
15	2019-RSDPA-100719-001A	7/10/2019	16.75	41.54
16	2019-RSDPA-100719-002A	7/10/2019	12.50	-

Appendix 4. *Transect-level data collected during modified Ontario Stream Assessment Protocol Point-Transect Sampling for Channel Structure, Substrate, and Bank Conditions (S4.M2). Transect 1 is always the downstream-most transect.*

SiteID	TransectID	Field number	Transect number	Wetted width (m)	Left undercut present	Left undercut depth (m)	Right undercut present	Right undercut depth (m)	Left bank stability	Right bank stability	Transect Location
1	55	2019-RSDPA-120619-001A	1	3.85	Yes	0.760	No	-	Eroding Bank	Deposition Zone	Pool
1	56	2019-RSDPA-120619-001A	2	5.43	No	-	No	-	Vulnerable Bank	Vulnerable Bank	Pool
1	57	2019-RSDPA-120619-001A	3	4.64	No	-	No	-	Vulnerable Bank	Vulnerable Bank	Pool
1	58	2019-RSDPA-120619-001A	4	4.90	No	-	No	-	Vulnerable Bank	Vulnerable Bank	Pool
1	59	2019-RSDPA-120619-001A	5	4.75	No	-	No	-	Vulnerable Bank	Vulnerable Bank	Pool
2	60	2019-RSDPA-120619-002A	1	3.91	No	-	No	-	Deposition Zone	Vulnerable Bank	Pool
2	61	2019-RSDPA-120619-002A	2	5.40	No	-	No	-	Deposition Zone	Vulnerable Bank	Pool
2	62	2019-RSDPA-120619-002A	3	4.98	No	-	No	-	Deposition Zone	Vulnerable Bank	Pool
2	63	2019-RSDPA-120619-002A	4	6.05	No	-	Yes	0.026	Deposition Zone	Eroding Bank	Pool
2	64	2019-RSDPA-120619-002A	5	4.07	No	-	No	-	Deposition Zone	Deposition Zone	Pool
3	65	2019-RSDPA-250619-001A	1	3.71	No	-	No	-	Vulnerable Bank	Deposition Zone	Pool
3	66	2019-RSDPA-250619-001A	2	3.67	No	-	No	-	Eroding Bank	Deposition Zone	Pool
3	67	2019-RSDPA-250619-001A	3	3.90	No	-	No	-	Eroding Bank	Protected Bank	Pool
3	68	2019-RSDPA-250619-001A	4	4.43	No	-	No	-	Vulnerable Bank	Deposition Zone	Pool
3	69	2019-RSDPA-250619-001A	5	4.11	No	-	No	-	Vulnerable Bank	Deposition Zone	Pool
4	70	2019-RSDPA-250619-002A	1	6.59	No	-	No	-	Deposition Zone	Vulnerable Bank	Pool
4	71	2019-RSDPA-250619-002A	2	6.57	No	-	No	-	Deposition Zone	Vulnerable Bank	Pool
4	72	2019-RSDPA-250619-002A	3	6.95	Yes	0.500	No	-	Eroding Bank	Vulnerable Bank	Pool
4	73	2019-RSDPA-250619-002A	4	6.40	No	-	No	-	Eroding Bank	Deposition Zone	Pool
4	74	2019-RSDPA-250619-002A	5	6.47	No	-	No	-	Vulnerable Bank	Vulnerable Bank	Pool
5	75	2019-RSDPA-250619-003A	1	3.88	No	-	No	-	Deposition Zone	Eroding Bank	Pool
5	76	2019-RSDPA-250619-003A	2	3.90	No	-	Yes	0.380	Deposition Zone	Eroding Bank	Pool
5	77	2019-RSDPA-250619-003A	3	4.52	No	-	No	-	Deposition Zone	Vulnerable Bank	Pool
5	78	2019-RSDPA-250619-003A	4	5.99	No	-	No	-	Eroding Bank	Vulnerable Bank	Pool
5	79	2019-RSDPA-250619-003A	5	3.84	No	-	No	-	Eroding Bank	Deposition Zone	Pool

SiteID	TransectID	Field number	Transect number	Wetted width (m)	Left undercut present	Left undercut depth (m)	Right undercut present	Right undercut depth (m)	Left bank stability	Right bank stability	Transect Location
6	80	2019-RSDPA-260619-001A	1	3.42	Yes	0.190	No	-	Eroding Bank	Vulnerable Bank	Reach
6	81	2019-RSDPA-260619-001A	2	3.44	No	-	No	-	Vulnerable Bank	Vulnerable Bank	Reach
6	82	2019-RSDPA-260619-001A	3	3.06	No	-	No	-	Vulnerable Bank	Vulnerable Bank	Reach
6	83	2019-RSDPA-260619-001A	4	3.40	No	-	No	-	Vulnerable Bank	Deposition Zone	Pool
6	84	2019-RSDPA-260619-001A	5	6.17	No	-	No	-	Vulnerable Bank	Deposition Zone	Pool
6	85	2019-RSDPA-260619-001A	6	4.97	No	-	No	-	Vulnerable Bank	Deposition Zone	Pool
6	86	2019-RSDPA-260619-001A	7	4.53	No	-	No	-	Vulnerable Bank	Deposition Zone	Pool
6	87	2019-RSDPA-260619-001A	8	2.80	No	-	No	-	Vulnerable Bank	Vulnerable Bank	Pool
6	88	2019-RSDPA-260619-001A	9	3.84	No	-	No	-	Protected Bank	Vulnerable Bank	Reach
6	89	2019-RSDPA-260619-001A	10	2.72	No	-	No	-	Protected Bank	Vulnerable Bank	Reach
6	90	2019-RSDPA-260619-001A	11	2.40	No	-	No	-	Protected Bank	Vulnerable Bank	Reach
7	91	2019-RSDPA-260619-002A	1	9.59	No	-	No	-	Vulnerable Bank	Eroding Bank	Pool
7	92	2019-RSDPA-260619-002A	2	7.63	No	-	No	-	Vulnerable Bank	Vulnerable Bank	Pool
7	93	2019-RSDPA-260619-002A	3	6.32	No	-	No	-	Deposition Zone	Vulnerable Bank	Pool
7	94	2019-RSDPA-260619-002A	4	4.02	No	-	Yes	0.400	Deposition Zone	Eroding Bank	Pool
7	95	2019-RSDPA-260619-002A	5	3.54	No	-	Yes	0.210	Vulnerable Bank	Vulnerable Bank	Pool
8	96	2019-RSDPA-260619-003A	1	4.52	No	-	No	-	Deposition Zone	Eroding Bank	Pool
8	97	2019-RSDPA-260619-003A	2	5.37	No	-	Yes	0.570	Vulnerable Bank	Eroding Bank	Pool
8	98	2019-RSDPA-260619-003A	3	2.84	No	-	Yes	0.340	Deposition Zone	Eroding Bank	Pool
8	99	2019-RSDPA-260619-003A	4	3.80	No	-	No	-	Deposition Zone	Eroding Bank	Pool
8	100	2019-RSDPA-260619-003A	5	3.20	No	-	Yes	0.350	Deposition Zone	Eroding Bank	Pool
8	101	2019-RSDPA-260619-003A	6	3.26	No	-	No	-	Deposition Zone	Eroding Bank	Pool
9	102	2019-RSDPA-260619-004A	1	4.34	No	-	No	-	Vulnerable Bank	Vulnerable Bank	Pool
9	103	2019-RSDPA-260619-004A	2	4.52	No	-	No	-	Vulnerable Bank	Vulnerable Bank	Pool
9	104	2019-RSDPA-260619-004A	3	3.28	No	-	No	-	Vulnerable Bank	Vulnerable Bank	Pool
9	105	2019-RSDPA-260619-004A	4	2.94	No	-	Yes	0.150	Vulnerable Bank	Vulnerable Bank	Pool
9	106	2019-RSDPA-260619-004A	5	2.76	No	-	Yes	0.150	Vulnerable Bank	Vulnerable Bank	Pool
9	107	2019-RSDPA-260619-004A	6	2.80	No	-	Yes	0.160	Vulnerable Bank	Vulnerable Bank	Pool

SiteID	TransectID	Field number	Transect number	Wetted width (m)	Left undercut present	Left undercut depth (m)	Right undercut present	Right undercut depth (m)	Left bank stability	Right bank stability	Transect Location
10	1	2019-RSDPA-080719-001A	1	2.71	No	-	No	-	Deposition Zone	Vulnerable Bank	Reach
10	2	2019-RSDPA-080719-001A	2	4.04	No	-	No	-	Eroding Bank	Vulnerable Bank	Reach
10	3	2019-RSDPA-080719-001A	3	3.00	No	-	No	-	Deposition Zone	Deposition Zone	Reach
10	4	2019-RSDPA-080719-001A	4	3.32	Yes	0.150	No	-	Eroding Bank	Eroding Bank	Reach
10	5	2019-RSDPA-080719-001A	5	3.99	Yes	0.270	Yes	0.080	Eroding Bank	Eroding Bank	Reach
10	6	2019-RSDPA-080719-001A	6	3.84	No	-	No	-	Eroding Bank	Vulnerable Bank	Pool
10	7	2019-RSDPA-080719-001A	7	3.75	No	-	No	-	Eroding Bank	Deposition Zone	Pool
10	8	2019-RSDPA-080719-001A	8	4.56	Yes	0.080	No	-	Eroding Bank	Vulnerable Bank	Pool
10	9	2019-RSDPA-080719-001A	9	4.40	No	-	Yes	0.135	Vulnerable Bank	Vulnerable Bank	Pool
10	10	2019-RSDPA-080719-001A	10	4.90	Yes	0.050	Yes	0.190	Vulnerable Bank	Vulnerable Bank	Reach
10	11	2019-RSDPA-080719-001A	11	5.15	No	-	Yes	0.160	Vulnerable Bank	Vulnerable Bank	Reach
10	12	2019-RSDPA-080719-001A	12	4.50	No	-	No	-	Vulnerable Bank	Deposition Zone	Reach
11	13	2019-RSDPA-080719-002A	1	6.35	No	-	No	-	Eroding Bank	Deposition Zone	Pool
11	14	2019-RSDPA-080719-002A	2	4.87	No	-	No	-	Vulnerable Bank	Vulnerable Bank	Pool
11	15	2019-RSDPA-080719-002A	3	4.89	No	-	No	-	Vulnerable Bank	Vulnerable Bank	Pool
11	16	2019-RSDPA-080719-002A	4	5.06	No	-	Yes	0.160	Vulnerable Bank	Eroding Bank	Pool
11	17	2019-RSDPA-080719-002A	5	6.60	No	-	No	-	Vulnerable Bank	Eroding Bank	Pool
12	18	2019-RSDPA-090719-001A	1	3.76	No	-	No	-	Vulnerable Bank	Vulnerable Bank	Pool
12	19	2019-RSDPA-090719-001A	2	5.82	No	-	No	-	Vulnerable Bank	Eroding Bank	Pool
12	20	2019-RSDPA-090719-001A	3	5.33	No	-	No	-	Deposition Zone	Eroding Bank	Pool
12	21	2019-RSDPA-090719-001A	4	6.50	No	-	No	-	Deposition Zone	Eroding Bank	Pool
12	22	2019-RSDPA-090719-001A	5	4.40	No	-	Yes	1.200	Deposition Zone	Eroding Bank	Pool
13	23	2019-RSDPA-090719-002A	1	5.40	No	-	No	-	Vulnerable Bank	Deposition Zone	Reach
13	24	2019-RSDPA-090719-002A	2	6.32	No	-	No	-	Eroding Bank	Vulnerable Bank	Reach
13	25	2019-RSDPA-090719-002A	3	4.97	No	-	No	-	Deposition Zone	Vulnerable Bank	Reach
13	26	2019-RSDPA-090719-002A	4	4.29	No	-	Yes	0.760	Deposition Zone	Eroding Bank	Pool
13	27	2019-RSDPA-090719-002A	5	3.86	No	-	Yes	0.130	Vulnerable Bank	Eroding Bank	Pool
13	28	2019-RSDPA-090719-002A	6	4.84	No	-	Yes	0.460	Deposition Zone	Eroding Bank	Pool

SiteID	TransectID	Field number	Transect number	Wetted width (m)	Left undercut present	Left undercut depth (m)	Right undercut present	Right undercut depth (m)	Left bank stability	Right bank stability	Transect Location
13	29	2019-RSDPA-090719-002A	7	7.32	Yes	0.260	No	-	Eroding Bank	Eroding Bank	Reach
13	30	2019-RSDPA-090719-002A	8	9.85	No	-	No	-	Vulnerable Bank	Vulnerable Bank	Reach
13	31	2019-RSDPA-090719-002A	9	9.89	No	-	No	-	Vulnerable Bank	Vulnerable Bank	Reach
13	32	2019-RSDPA-090719-002A	10	9.68	No	-	No	-	Vulnerable Bank	Vulnerable Bank	Reach
14	33	2019-RSDPA-090719-003A	1	4.38	No	-	No	-	Vulnerable Bank	Vulnerable Bank	Pool
14	34	2019-RSDPA-090719-003A	2	7.57	No	-	No	-	Vulnerable Bank	Vulnerable Bank	Pool
14	35	2019-RSDPA-090719-003A	3	6.05	Yes	0.400	No	-	Eroding Bank	Vulnerable Bank	Pool
14	36	2019-RSDPA-090719-003A	4	5.67	No	-	No	-	Vulnerable Bank	Vulnerable Bank	Pool
14	37	2019-RSDPA-090719-003A	5	5.15	No	-	No	-	Vulnerable Bank	Vulnerable Bank	Pool
15	38	2019-RSDPA-100719-001A	1	4.68	No	-	No	-	Deposition Zone	Deposition Zone	Reach
15	39	2019-RSDPA-100719-001A	2	2.52	No	-	No	-	Deposition Zone	Deposition Zone	Reach
15	40	2019-RSDPA-100719-001A	3	3.63	No	-	No	-	Eroding Bank	Deposition Zone	Reach
15	41	2019-RSDPA-100719-001A	4	1.39	Yes	0.585	No	-	Eroding Bank	Deposition Zone	Reach
15	42	2019-RSDPA-100719-001A	5	3.25	No	-	No	-	Deposition Zone	Deposition Zone	Reach
15	43	2019-RSDPA-100719-001A	6	3.20	No	-	No	-	Vulnerable Bank	Deposition Zone	Pool
15	44	2019-RSDPA-100719-001A	7	4.12	No	-	No	-	Vulnerable Bank	Deposition Zone	Pool
15	45	2019-RSDPA-100719-001A	8	5.42	No	-	No	-	Vulnerable Bank	Vulnerable Bank	Pool
15	46	2019-RSDPA-100719-001A	9	9.00	No	-	No	-	Vulnerable Bank	Deposition Zone	Pool
15	47	2019-RSDPA-100719-001A	10	5.00	Yes	0.060	No	-	Eroding Bank	Protected Bank	Pool
15	48	2019-RSDPA-100719-001A	11	4.41	No	-	No	-	Vulnerable Bank	Deposition Zone	Pool
15	49	2019-RSDPA-100719-001A	12	4.60	No	-	No	-	Deposition Zone	Deposition Zone	Reach
16	50	2019-RSDPA-100719-002A	1	4.29	No	-	No	-	Eroding Bank	Deposition Zone	Pool
16	51	2019-RSDPA-100719-002A	2	7.51	Yes	0.790	No	-	Eroding Bank	Deposition Zone	Pool
16	52	2019-RSDPA-100719-002A	3	8.68	No	-	No	-	Vulnerable Bank	Deposition Zone	Pool
16	53	2019-RSDPA-100719-002A	4	9.70	Yes	0.260	No	-	Eroding Bank	Deposition Zone	Pool
16	54	2019-RSDPA-100719-002A	5	5.32	No	-	No	-	Vulnerable Bank	Deposition Zone	Pool

Appendix 5. *Point-transect level data collected during modified Ontario Stream Assessment Protocol Point-Transect Sampling for Channel Structure, Substrate, and Bank Conditions (S4.M2). Within a site, Point 1 always starts on left bank and Transect 1 is always furthest downstream. Substrate composition presented as percent composition by sub-type at each point.*

Site ID	Transect ID	Point ID	Field number	Transect number	Point number	Depth (m)	Hydraulic head (mm)	Woody debris present	Organic	Clay	Silt	Sand	Gravel	Cobble	Boulder	Bedrock	Hardpan	Rubble	Concrete
1	55	301	2019-RSDPA-120619-001A	1	1	0.44	0	No	40	0	20	10	0	0	0	0	30	0	0
1	55	302	2019-RSDPA-120619-001A	1	2	0.36	0	No	0	0	10	20	0	0	0	0	70	0	0
1	55	303	2019-RSDPA-120619-001A	1	3	0.48	5	No	0	0	10	30	0	0	0	0	60	0	0
1	55	304	2019-RSDPA-120619-001A	1	4	0.48	3	No	10	0	20	70	0	0	0	0	0	0	0
1	55	305	2019-RSDPA-120619-001A	1	5	0.28	1	No	30	0	10	60	0	0	0	0	0	0	0
1	55	306	2019-RSDPA-120619-001A	1	6	0.08	0	No	20	0	10	70	0	0	0	0	0	0	0
1	56	307	2019-RSDPA-120619-001A	2	1	0.16	0	No	10	0	20	70	0	0	0	0	0	0	0
1	56	308	2019-RSDPA-120619-001A	2	2	0.27	0	No	10	0	10	50	0	30	0	0	0	0	0
1	56	309	2019-RSDPA-120619-001A	2	3	0.35	2	No	0	0	10	50	0	0	40	0	0	0	0
1	56	310	2019-RSDPA-120619-001A	2	4	0.27	1	No	20	0	30	50	0	0	0	0	0	0	0
1	56	311	2019-RSDPA-120619-001A	2	5	0.16	0	No	0	0	40	60	0	0	0	0	0	0	0
1	56	312	2019-RSDPA-120619-001A	2	6	0.08	0	No	0	0	50	50	0	0	0	0	0	0	0
1	57	313	2019-RSDPA-120619-001A	3	1	0.08	0	No	0	0	10	90	0	0	0	0	0	0	0
1	57	314	2019-RSDPA-120619-001A	3	2	0.27	0	No	10	0	10	80	0	0	0	0	0	0	0
1	57	315	2019-RSDPA-120619-001A	3	3	0.29	1	No	20	0	10	70	0	0	0	0	0	0	0
1	57	316	2019-RSDPA-120619-001A	3	4	0.45	2	No	10	0	0	50	0	0	0	0	40	0	0
1	57	317	2019-RSDPA-120619-001A	3	5	0.21	1	No	0	0	0	10	0	0	30	0	60	0	0
1	57	318	2019-RSDPA-120619-001A	3	6	0.11	0	No	0	0	10	20	0	0	0	0	70	0	0
1	58	319	2019-RSDPA-120619-001A	4	1	0.12	0	No	20	0	20	60	0	0	0	0	0	0	0
1	58	320	2019-RSDPA-120619-001A	4	2	0.24	0	No	20	0	20	60	0	0	0	0	0	0	0
1	58	321	2019-RSDPA-120619-001A	4	3	0.33	1	No	10	0	10	40	0	0	0	0	40	0	0
1	58	322	2019-RSDPA-120619-001A	4	4	0.38	2	No	0	0	10	30	0	0	0	0	60	0	0
1	58	323	2019-RSDPA-120619-001A	4	5	0.32	1	No	10	0	10	10	0	0	70	0	0	0	0
1	58	324	2019-RSDPA-120619-001A	4	6	0.19	0	No	10	0	20	10	0	0	0	0	60	0	0
1	59	325	2019-RSDPA-120619-001A	5	1	0.18	0	No	70	0	10	20	0	0	0	0	0	0	0
1	59	326	2019-RSDPA-120619-001A	5	2	0.34	1	No	10	0	20	60	0	0	10	0	0	0	0
1	59	327	2019-RSDPA-120619-001A	5	3	0.28	2	No	0	0	10	10	0	0	0	0	80	0	0
1	59	328	2019-RSDPA-120619-001A	5	4	0.24	0	No	10	0	10	0	0	10	0	0	70	0	0

Site ID	Transect ID	Point ID	Field number	Transect number	Point number	Depth (m)	Hydraulic head (mm)	Woody debris present	Organic	Clay	Silt	Sand	Gravel	Cobble	Boulder	Bedrock	Hardpan	Rubble	Concrete
1	59	329	2019-RSDPA-120619-001A	5	5	0.12	0	No	0	0	10	0	0	0	0	0	90	0	0
1	59	330	2019-RSDPA-120619-001A	5	6	0.10	0	No	10	70	20	0	0	0	0	0	0	0	0
2	60	331	2019-RSDPA-120619-002A	1	1	0.68	8	No	0	0	0	10	90	0	0	0	0	0	0
2	60	332	2019-RSDPA-120619-002A	1	2	0.20	14	No	0	0	0	20	60	20	0	0	0	0	0
2	60	333	2019-RSDPA-120619-002A	1	3	0.34	6	No	0	0	0	60	0	40	0	0	0	0	0
2	60	334	2019-RSDPA-120619-002A	1	4	0.46	2	No	0	0	10	60	0	30	0	0	0	0	0
2	60	335	2019-RSDPA-120619-002A	1	5	0.29	0	No	0	0	0	20	0	0	80	0	0	0	0
2	60	336	2019-RSDPA-120619-002A	1	6	0.18	0	Yes	30	0	50	20	0	0	0	0	0	0	0
2	61	337	2019-RSDPA-120619-002A	2	1	0.36	0	No	0	0	60	40	0	0	0	0	0	0	0
2	61	338	2019-RSDPA-120619-002A	2	2	0.49	0	No	0	0	50	50	0	0	0	0	0	0	0
2	61	339	2019-RSDPA-120619-002A	2	3	0.56	1	No	0	0	30	70	0	0	0	0	0	0	0
2	61	340	2019-RSDPA-120619-002A	2	4	0.41	5	No	0	0	0	30	10	60	0	0	0	0	0
2	61	341	2019-RSDPA-120619-002A	2	5	0.24	2	No	0	0	10	80	10	0	0	0	0	0	0
2	61	342	2019-RSDPA-120619-002A	2	6	0.05	0	No	0	0	10	70	20	0	0	0	0	0	0
2	62	343	2019-RSDPA-120619-002A	3	1	0.07	0	No	0	0	20	80	0	0	0	0	0	0	0
2	62	344	2019-RSDPA-120619-002A	3	2	0.15	6	No	0	0	5	75	20	0	0	0	0	0	0
2	62	345	2019-RSDPA-120619-002A	3	3	0.22	8	No	0	0	0	10	30	50	10	0	0	0	0
2	62	346	2019-RSDPA-120619-002A	3	4	0.29	3	No	0	0	10	0	30	20	40	0	0	0	0
2	62	347	2019-RSDPA-120619-002A	3	5	0.30	0	Yes	20	0	40	0	10	30	0	0	0	0	0
2	62	348	2019-RSDPA-120619-002A	3	6	0.38	0	Yes	40	0	60	0	0	0	0	0	0	0	0
2	63	349	2019-RSDPA-120619-002A	4	1	0.10	0	No	0	0	10	10	0	0	80	0	0	0	0
2	63	350	2019-RSDPA-120619-002A	4	2	0.21	0	No	10	0	30	60	0	0	0	0	0	0	0
2	63	351	2019-RSDPA-120619-002A	4	3	0.43	2	No	10	0	30	60	0	0	0	0	0	0	0
2	63	352	2019-RSDPA-120619-002A	4	4	0.60	2	Yes	5	0	15	0	0	0	0	0	80	0	0
2	63	353	2019-RSDPA-120619-002A	4	5	0.58	0	Yes	0	0	5	0	0	0	0	0	95	0	0
2	63	354	2019-RSDPA-120619-002A	4	6	0.23	0	No	0	0	5	0	0	0	0	0	95	0	0
2	64	355	2019-RSDPA-120619-002A	5	1	0.19	0	No	40	0	30	30	0	0	0	0	0	0	0
2	64	356	2019-RSDPA-120619-002A	5	2	0.51	1	No	20	0	20	60	0	0	0	0	0	0	0
2	64	357	2019-RSDPA-120619-002A	5	3	0.75	2	No	0	0	0	0	0	60	40	0	0	0	0
2	64	358	2019-RSDPA-120619-002A	5	4	0.82	1	No	10	0	20	70	0	0	0	0	0	0	0
2	64	359	2019-RSDPA-120619-002A	5	5	0.61	0	No	0	0	10	20	10	60	0	0	0	0	0
2	64	360	2019-RSDPA-120619-002A	5	6	0.21	0	No	0	0	60	40	0	0	0	0	0	0	0
3	65	361	2019-RSDPA-250619-001A	1	1	0.15	0	No	0	0	10	70	20	0	0	0	0	0	0

Site ID	Transect ID	Point ID	Field number	Transect number	Point number	Depth (m)	Hydraulic head (mm)	Woody debris present	Organic	Clay	Silt	Sand	Gravel	Cobble	Boulder	Bedrock	Hardpan	Rubble	Concrete
3	65	362	2019-RSDPA-250619-001A	1	2	0.36	1	No	0	0	5	20	70	0	5	0	0	0	0
3	65	363	2019-RSDPA-250619-001A	1	3	0.39	4	No	0	0	20	5	0	25	50	0	0	0	0
3	65	364	2019-RSDPA-250619-001A	1	4	0.28	3	No	0	0	0	0	30	40	30	0	0	0	0
3	65	365	2019-RSDPA-250619-001A	1	5	0.14	0	No	0	0	0	0	30	20	0	0	0	0	50
3	65	366	2019-RSDPA-250619-001A	1	6	0.06	0	No	0	0	20	40	0	40	0	0	0	0	0
3	66	367	2019-RSDPA-250619-001A	2	1	0.12	0	No	0	0	70	30	0	0	0	0	0	0	0
3	66	368	2019-RSDPA-250619-001A	2	2	0.26	0	No	0	0	70	30	0	0	0	0	0	0	0
3	66	369	2019-RSDPA-250619-001A	2	3	0.28	1	No	0	0	50	50	0	0	0	0	0	0	0
3	66	370	2019-RSDPA-250619-001A	2	4	0.30	3	No	0	0	30	70	0	0	0	0	0	0	0
3	66	371	2019-RSDPA-250619-001A	2	5	0.38	4	No	0	0	10	40	0	0	50	0	0	0	0
3	66	372	2019-RSDPA-250619-001A	2	6	0.59	2	No	0	0	0	10	90	0	0	0	0	0	0
3	67	373	2019-RSDPA-250619-001A	3	1	0.13	0	No	0	0	60	40	0	0	0	0	0	0	0
3	67	374	2019-RSDPA-250619-001A	3	2	0.24	1	No	0	0	60	40	0	0	0	0	0	0	0
3	67	375	2019-RSDPA-250619-001A	3	3	0.27	0	No	5	0	45	50	0	0	0	0	0	0	0
3	67	376	2019-RSDPA-250619-001A	3	4	0.36	1	No	5	0	25	70	0	0	0	0	0	0	0
3	67	377	2019-RSDPA-250619-001A	3	5	0.34	1	No	5	0	20	70	5	0	0	0	0	0	0
3	67	378	2019-RSDPA-250619-001A	3	6	0.42	0	No	0	0	0	20	80	0	0	0	0	0	0
3	68	379	2019-RSDPA-250619-001A	4	1	0.22	0	No	10	0	40	50	0	0	0	0	0	0	0
3	68	380	2019-RSDPA-250619-001A	4	2	0.23	1	No	0	0	10	90	0	0	0	0	0	0	0
3	68	381	2019-RSDPA-250619-001A	4	3	0.24	1	No	5	0	5	90	0	0	0	0	0	0	0
3	68	382	2019-RSDPA-250619-001A	4	4	0.23	0	No	5	0	5	70	20	0	0	0	0	0	0
3	68	383	2019-RSDPA-250619-001A	4	5	0.19	0	No	0	0	5	60	35	0	0	0	0	0	0
3	68	384	2019-RSDPA-250619-001A	4	6	0.08	0	No	0	0	5	15	80	0	0	0	0	0	0
3	69	385	2019-RSDPA-250619-001A	5	1	0.38	0	Yes	10	0	40	50	0	0	0	0	0	0	0
3	69	386	2019-RSDPA-250619-001A	5	2	0.38	2	No	0	0	10	90	0	0	0	0	0	0	0
3	69	387	2019-RSDPA-250619-001A	5	3	0.37	2	No	30	0	0	55	15	0	0	0	0	0	0
3	69	388	2019-RSDPA-250619-001A	5	4	0.30	1	No	10	0	0	50	40	0	0	0	0	0	0
3	69	389	2019-RSDPA-250619-001A	5	5	0.18	0	No	10	0	10	40	40	0	0	0	0	0	0
3	69	390	2019-RSDPA-250619-001A	5	6	0.07	0	No	5	0	10	35	50	0	0	0	0	0	0
4	70	391	2019-RSDPA-250619-002A	1	1	0.17	0	No	0	0	20	80	0	0	0	0	0	0	0
4	70	392	2019-RSDPA-250619-002A	1	2	0.32	0	No	10	0	10	70	0	10	0	0	0	0	0
4	70	393	2019-RSDPA-250619-002A	1	3	0.15	0	No	10	0	10	80	0	0	0	0	0	0	0
4	70	394	2019-RSDPA-250619-002A	1	4	0.36	1	Yes	0	0	10	70	20	0	0	0	0	0	0

Site ID	Transect ID	Point ID	Field number	Transect number	Point number	Depth (m)	Hydraulic head (mm)	Woody debris present	Organic	Clay	Silt	Sand	Gravel	Cobble	Boulder	Bedrock	Hardpan	Rubble	Concrete
4	70	395	2019-RSDPA-250619-002A	1	5	0.23	0	Yes	30	0	10	60	0	0	0	0	0	0	0
4	70	396	2019-RSDPA-250619-002A	1	6	0.20	0	Yes	30	0	20	50	0	0	0	0	0	0	0
4	71	397	2019-RSDPA-250619-002A	2	1	0.23	0	No	0	0	20	80	0	0	0	0	0	0	0
4	71	398	2019-RSDPA-250619-002A	2	2	0.43	1	No	10	0	10	70	0	10	0	0	0	0	0
4	71	399	2019-RSDPA-250619-002A	2	3	0.28	0	No	10	0	10	80	0	0	0	0	0	0	0
4	71	400	2019-RSDPA-250619-002A	2	4	0.25	0	No	0	0	10	70	20	0	0	0	0	0	0
4	71	401	2019-RSDPA-250619-002A	2	5	0.45	0	No	30	0	10	60	0	0	0	0	0	0	0
4	71	402	2019-RSDPA-250619-002A	2	6	0.26	0	Yes	30	0	20	50	0	0	0	0	0	0	0
4	72	403	2019-RSDPA-250619-002A	3	1	0.25	0	No	0	0	20	80	0	0	0	0	0	0	0
4	72	404	2019-RSDPA-250619-002A	3	2	0.24	1	No	0	0	10	80	10	0	0	0	0	0	0
4	72	405	2019-RSDPA-250619-002A	3	3	0.50	2	No	10	0	10	70	10	0	0	0	0	0	0
4	72	406	2019-RSDPA-250619-002A	3	4	0.33	1	No	10	0	10	60	10	10	0	0	0	0	0
4	72	407	2019-RSDPA-250619-002A	3	5	0.22	0	No	10	20	10	50	10	0	0	0	0	0	0
4	72	408	2019-RSDPA-250619-002A	3	6	0.12	0	No	10	0	10	70	10	0	0	0	0	0	0
4	73	409	2019-RSDPA-250619-002A	4	1	0.19	0	No	0	0	30	70	0	0	0	0	0	0	0
4	73	410	2019-RSDPA-250619-002A	4	2	0.11	0	No	10	0	20	70	0	0	0	0	0	0	0
4	73	411	2019-RSDPA-250619-002A	4	3	0.17	0	Yes	10	0	10	70	10	0	0	0	0	0	0
4	73	412	2019-RSDPA-250619-002A	4	4	0.21	0	No	0	0	0	40	60	0	0	0	0	0	0
4	73	413	2019-RSDPA-250619-002A	4	5	0.18	0	No	0	0	5	25	70	0	0	0	0	0	0
4	73	414	2019-RSDPA-250619-002A	4	6	0.09	1	No	0	0	0	50	50	0	0	0	0	0	0
4	74	415	2019-RSDPA-250619-002A	5	1	0.09	0	Yes	5	0	10	65	20	0	0	0	0	0	0
4	74	416	2019-RSDPA-250619-002A	5	2	0.05	0	No	10	0	10	70	10	0	0	0	0	0	0
4	74	417	2019-RSDPA-250619-002A	5	3	0.05	0	No	10	0	10	50	30	0	0	0	0	0	0
4	74	418	2019-RSDPA-250619-002A	5	4	0.08	2	No	0	0	0	20	80	0	0	0	0	0	0
4	74	419	2019-RSDPA-250619-002A	5	5	0.05	1	No	0	0	0	20	80	0	0	0	0	0	0
4	74	420	2019-RSDPA-250619-002A	5	6	0.12	3	No	0	0	20	70	10	0	0	0	0	0	0
5	75	421	2019-RSDPA-250619-003A	1	1	0.14	0	No	10	0	25	15	50	0	0	0	0	0	0
5	75	422	2019-RSDPA-250619-003A	1	2	0.29	7	No	50	0	30	20	0	0	0	0	0	0	0
5	75	423	2019-RSDPA-250619-003A	1	3	0.34	7	No	10	0	0	40	0	0	50	0	0	0	0
5	75	424	2019-RSDPA-250619-003A	1	4	0.34	7	No	0	0	30	10	0	0	60	0	0	0	0
5	75	425	2019-RSDPA-250619-003A	1	5	0.35	10	No	0	0	10	20	20	0	50	0	0	0	0
5	75	426	2019-RSDPA-250619-003A	1	6	0.11	3	No	0	30	20	0	50	0	0	0	0	0	0
5	76	427	2019-RSDPA-250619-003A	2	1	0.05	0	No	20	0	30	50	0	0	0	0	0	0	0

Site ID	Transect ID	Point ID	Field number	Transect number	Point number	Depth (m)	Hydraulic head (mm)	Woody debris present	Organic	Clay	Silt	Sand	Gravel	Cobble	Boulder	Bedrock	Hardpan	Rubble	Concrete
5	76	428	2019-RSDPA-250619-003A	2	2	0.30	0	No	0	0	30	70	0	0	0	0	0	0	0
5	76	429	2019-RSDPA-250619-003A	2	3	0.51	1	No	10	0	20	70	0	0	0	0	0	0	0
5	76	430	2019-RSDPA-250619-003A	2	4	0.66	1	No	0	0	10	70	20	0	0	0	0	0	0
5	76	431	2019-RSDPA-250619-003A	2	5	0.73	0	No	0	0	0	20	10	0	70	0	0	0	0
5	76	432	2019-RSDPA-250619-003A	2	6	0.70	0	Yes	0	0	10	20	10	0	60	0	0	0	0
5	77	433	2019-RSDPA-250619-003A	3	1	0.15	0	Yes	0	0	20	0	10	0	0	0	70	0	0
5	77	434	2019-RSDPA-250619-003A	3	2	0.34	1	Yes	0	0	20	60	10	10	0	0	0	0	0
5	77	435	2019-RSDPA-250619-003A	3	3	0.46	1	No	0	0	10	40	50	0	0	0	0	0	0
5	77	436	2019-RSDPA-250619-003A	3	4	0.49	1	No	0	0	10	60	20	10	0	0	0	0	0
5	77	437	2019-RSDPA-250619-003A	3	5	0.52	0	No	0	0	20	10	70	0	0	0	0	0	0
5	77	438	2019-RSDPA-250619-003A	3	6	0.29	0	No	10	0	40	50	0	0	0	0	0	0	0
5	78	439	2019-RSDPA-250619-003A	4	1	0.13	0	No	0	0	20	0	10	0	0	0	70	0	0
5	78	440	2019-RSDPA-250619-003A	4	2	0.18	0	No	0	0	20	60	10	10	0	0	0	0	0
5	78	441	2019-RSDPA-250619-003A	4	3	0.23	1	No	0	0	10	40	50	0	0	0	0	0	0
5	78	442	2019-RSDPA-250619-003A	4	4	0.22	1	No	0	0	10	60	20	10	0	0	0	0	0
5	78	443	2019-RSDPA-250619-003A	4	5	0.17	2	No	0	0	20	10	70	0	0	0	0	0	0
5	78	444	2019-RSDPA-250619-003A	4	6	0.07	0	No	10	0	40	50	0	0	0	0	0	0	0
5	79	445	2019-RSDPA-250619-003A	5	1	0.06	1	No	0	0	0	0	10	0	0	0	90	0	0
5	79	446	2019-RSDPA-250619-003A	5	2	0.14	2	No	0	0	10	0	60	0	0	0	30	0	0
5	79	447	2019-RSDPA-250619-003A	5	3	0.17	2	No	0	0	20	30	50	0	0	0	0	0	0
5	79	448	2019-RSDPA-250619-003A	5	4	0.10	1	No	0	0	0	20	80	0	0	0	0	0	0
5	79	449	2019-RSDPA-250619-003A	5	5	0.12	0	No	0	0	0	20	80	0	0	0	0	0	0
5	79	450	2019-RSDPA-250619-003A	5	6	0.05	0	No	0	0	0	30	70	0	0	0	0	0	0
6	80	451	2019-RSDPA-260619-001A	1	1	0.10	3	No	0	0	0	10	90	0	0	0	0	0	0
6	80	452	2019-RSDPA-260619-001A	1	2	0.06	0	No	10	0	0	10	20	10	50	0	0	0	0
6	80	453	2019-RSDPA-260619-001A	1	3	0.13	1	Yes	10	0	0	10	80	0	0	0	0	0	0
6	80	454	2019-RSDPA-260619-001A	1	4	0.13	0	No	10	0	10	40	40	0	0	0	0	0	0
6	80	455	2019-RSDPA-260619-001A	1	5	0.09	0	No	0	0	0	0	0	10	90	0	0	0	0
6	80	456	2019-RSDPA-260619-001A	1	6	0.02	0	No	10	0	0	0	60	30	0	0	0	0	0
6	81	457	2019-RSDPA-260619-001A	2	1	0.05	1	No	0	0	0	0	10	90	0	0	0	0	0
6	81	458	2019-RSDPA-260619-001A	2	2	0.07	4	No	0	0	0	0	80	0	20	0	0	0	0
6	81	459	2019-RSDPA-260619-001A	2	3	0.11	5	No	0	0	0	10	20	0	70	0	0	0	0
6	81	460	2019-RSDPA-260619-001A	2	4	0.06	6	No	5	0	0	10	15	20	50	0	0	0	0

Site ID	Transect ID	Point ID	Field number	Transect number	Point number	Depth (m)	Hydraulic head (mm)	Woody debris present	Organic	Clay	Silt	Sand	Gravel	Cobble	Boulder	Bedrock	Hardpan	Rubble	Concrete
6	81	461	2019-RSDPA-260619-001A	2	5	0.07	12	No	10	0	5	10	25	0	50	0	0	0	0
6	81	462	2019-RSDPA-260619-001A	2	6	0.05	3	No	0	0	0	0	85	15	0	0	0	0	0
6	82	463	2019-RSDPA-260619-001A	3	1	0.04	15	No	0	0	0	0	100	0	0	0	0	0	0
6	82	464	2019-RSDPA-260619-001A	3	2	0.10	23	No	10	0	0	0	30	40	20	0	0	0	0
6	82	465	2019-RSDPA-260619-001A	3	3	0.15	5	No	10	0	0	0	60	30	0	0	0	0	0
6	82	466	2019-RSDPA-260619-001A	3	4	0.08	4	No	10	0	0	0	20	70	0	0	0	0	0
6	82	467	2019-RSDPA-260619-001A	3	5	0.08	16	No	10	0	0	0	50	20	20	0	0	0	0
6	82	468	2019-RSDPA-260619-001A	3	6	0.03	4	No	0	0	0	0	50	50	0	0	0	0	0
6	83	469	2019-RSDPA-260619-001A	4	1	0.17	0	No	5	0	60	35	0	0	0	0	0	0	0
6	83	470	2019-RSDPA-260619-001A	4	2	0.28	1	No	0	0	25	25	0	50	0	0	0	0	0
6	83	471	2019-RSDPA-260619-001A	4	3	0.32	2	No	10	0	10	30	0	50	0	0	0	0	0
6	83	472	2019-RSDPA-260619-001A	4	4	0.17	7	No	0	0	10	30	30	30	0	0	0	0	0
6	83	473	2019-RSDPA-260619-001A	4	5	0.07	4	No	10	0	0	10	80	0	0	0	0	0	0
6	83	474	2019-RSDPA-260619-001A	4	6	0.01	0	No	0	0	5	5	10	80	0	0	0	0	0
6	84	475	2019-RSDPA-260619-001A	5	1	0.03	0	No	20	0	5	5	0	0	70	0	0	0	0
6	84	476	2019-RSDPA-260619-001A	5	2	0.13	0	No	10	0	5	5	0	0	80	0	0	0	0
6	84	477	2019-RSDPA-260619-001A	5	3	0.83	1	No	0	0	10	20	0	0	70	0	0	0	0
6	84	478	2019-RSDPA-260619-001A	5	4	0.90	2	No	20	0	20	50	10	0	0	0	0	0	0
6	84	479	2019-RSDPA-260619-001A	5	5	0.59	0	No	20	0	40	30	10	0	0	0	0	0	0
6	84	480	2019-RSDPA-260619-001A	5	6	0.23	0	No	0	0	5	15	80	0	0	0	0	0	0
6	85	481	2019-RSDPA-260619-001A	6	1	0.36	0	No	0	0	0	0	0	0	100	0	0	0	0
6	85	482	2019-RSDPA-260619-001A	6	2	0.78	0	No	10	0	5	5	0	0	80	0	0	0	0
6	85	483	2019-RSDPA-260619-001A	6	3	0.76	0	No	0	0	40	30	0	0	30	0	0	0	0
6	85	484	2019-RSDPA-260619-001A	6	4	0.68	0	No	10	0	40	50	0	0	0	0	0	0	0
6	85	485	2019-RSDPA-260619-001A	6	5	0.33	0	No	20	0	20	50	10	0	0	0	0	0	0
6	85	486	2019-RSDPA-260619-001A	6	6	0.10	0	No	5	0	15	80	0	0	0	0	0	0	0
6	86	487	2019-RSDPA-260619-001A	7	1	0.03	0	No	0	0	0	0	0	0	100	0	0	0	0
6	86	488	2019-RSDPA-260619-001A	7	2	0.21	0	No	10	0	5	5	0	0	80	0	0	0	0
6	86	489	2019-RSDPA-260619-001A	7	3	0.39	0	No	10	0	0	10	10	0	70	0	0	0	0
6	86	490	2019-RSDPA-260619-001A	7	4	0.77	0	No	20	0	20	60	0	0	0	0	0	0	0
6	86	491	2019-RSDPA-260619-001A	7	5	0.51	1	No	30	0	20	50	0	0	0	0	0	0	0
6	86	492	2019-RSDPA-260619-001A	7	6	0.15	0	No	20	0	30	50	0	0	0	0	0	0	0
6	87	493	2019-RSDPA-260619-001A	8	1	0.45	0	No	20	0	5	5	0	0	70	0	0	0	0

Site ID	Transect ID	Point ID	Field number	Transect number	Point number	Depth (m)	Hydraulic head (mm)	Woody debris present	Organic	Clay	Silt	Sand	Gravel	Cobble	Boulder	Bedrock	Hardpan	Rubble	Concrete
6	87	494	2019-RSDPA-260619-001A	8	2	0.40	1	No	20	0	20	10	0	0	50	0	0	0	0
6	87	495	2019-RSDPA-260619-001A	8	3	0.37	1	No	0	0	20	30	0	50	0	0	0	0	0
6	87	496	2019-RSDPA-260619-001A	8	4	0.22	0	No	10	0	20	30	0	40	0	0	0	0	0
6	87	497	2019-RSDPA-260619-001A	8	5	0.08	0	No	30	0	30	20	0	20	0	0	0	0	0
6	87	498	2019-RSDPA-260619-001A	8	6	0.18	0	No	40	0	15	15	0	30	0	0	0	0	0
6	88	499	2019-RSDPA-260619-001A	9	1	0.30	0	No	0	0	0	0	0	0	100	0	0	0	0
6	88	500	2019-RSDPA-260619-001A	9	2	0.63	0	No	0	0	0	10	0	0	90	0	0	0	0
6	88	501	2019-RSDPA-260619-001A	9	3	0.60	0	No	0	0	0	0	0	0	100	0	0	0	0
6	88	502	2019-RSDPA-260619-001A	9	4	0.36	0	No	0	0	10	80	0	10	0	0	0	0	0
6	88	503	2019-RSDPA-260619-001A	9	5	0.18	0	No	0	0	15	65	10	10	0	0	0	0	0
6	88	504	2019-RSDPA-260619-001A	9	6	0.14	0	No	0	0	20	20	0	60	0	0	0	0	0
6	89	505	2019-RSDPA-260619-001A	10	1	0.25	0	No	0	0	0	0	0	0	100	0	0	0	0
6	89	506	2019-RSDPA-260619-001A	10	2	0.38	0	No	0	0	0	20	0	80	0	0	0	0	0
6	89	507	2019-RSDPA-260619-001A	10	3	0.28	0	No	10	0	0	10	10	70	0	0	0	0	0
6	89	508	2019-RSDPA-260619-001A	10	4	0.11	0	No	5	0	0	20	0	75	0	0	0	0	0
6	89	509	2019-RSDPA-260619-001A	10	5	0.12	0	No	10	0	10	20	10	50	0	0	0	0	0
6	89	510	2019-RSDPA-260619-001A	10	6	0.12	0	Yes	10	0	20	40	20	10	0	0	0	0	0
6	90	511	2019-RSDPA-260619-001A	11	1	0.04	0	No	10	0	50	30	10	0	0	0	0	0	0
6	90	512	2019-RSDPA-260619-001A	11	2	0.14	0	No	0	0	0	20	20	60	0	0	0	0	0
6	90	513	2019-RSDPA-260619-001A	11	3	0.16	0	No	0	0	0	30	10	60	0	0	0	0	0
6	90	514	2019-RSDPA-260619-001A	11	4	0.28	1	No	0	0	0	60	15	20	5	0	0	0	0
6	90	515	2019-RSDPA-260619-001A	11	5	0.31	1	No	0	0	0	20	30	50	0	0	0	0	0
6	90	516	2019-RSDPA-260619-001A	11	6	0.19	1	No	0	0	10	40	0	0	50	0	0	0	0
7	91	517	2019-RSDPA-260619-002A	1	1	0.05	16	Yes	0	0	0	10	90	0	0	0	0	0	0
7	91	518	2019-RSDPA-260619-002A	1	2	0.06	24	No	0	0	0	5	95	0	0	0	0	0	0
7	91	519	2019-RSDPA-260619-002A	1	3	0.04	0	No	0	0	30	70	0	0	0	0	0	0	0
7	91	520	2019-RSDPA-260619-002A	1	4	0.33	0	No	60	0	10	30	0	0	0	0	0	0	0
7	91	521	2019-RSDPA-260619-002A	1	5	0.04	0	No	10	0	10	80	0	0	0	0	0	0	0
7	91	522	2019-RSDPA-260619-002A	1	6	0.22	0	Yes	60	30	10	0	0	0	0	0	0	0	0
7	92	523	2019-RSDPA-260619-002A	2	1	0.05	10	No	0	0	5	15	80	0	0	0	0	0	0
7	92	524	2019-RSDPA-260619-002A	2	2	0.17	4	No	0	0	10	70	20	0	0	0	0	0	0
7	92	525	2019-RSDPA-260619-002A	2	3	0.40	0	No	0	0	10	50	40	0	0	0	0	0	0
7	92	526	2019-RSDPA-260619-002A	2	4	0.45	3	No	20	0	20	50	10	0	0	0	0	0	0

Site ID	Transect ID	Point ID	Field number	Transect number	Point number	Depth (m)	Hydraulic head (mm)	Woody debris present	Organic	Clay	Silt	Sand	Gravel	Cobble	Boulder	Bedrock	Hardpan	Rubble	Concrete
7	92	527	2019-RSDPA-260619-002A	2	5	0.19	0	No	0	0	30	40	0	0	0	0	30	0	0
7	92	528	2019-RSDPA-260619-002A	2	6	0.05	0	Yes	0	0	40	60	0	0	0	0	0	0	0
7	93	529	2019-RSDPA-260619-002A	3	1	0.09	0	No	10	0	10	50	30	0	0	0	0	0	0
7	93	530	2019-RSDPA-260619-002A	3	2	0.22	3	No	0	0	0	10	90	0	0	0	0	0	0
7	93	531	2019-RSDPA-260619-002A	3	3	0.35	2	No	0	0	10	40	50	0	0	0	0	0	0
7	93	532	2019-RSDPA-260619-002A	3	4	0.48	0	No	20	0	50	20	10	0	0	0	0	0	0
7	93	533	2019-RSDPA-260619-002A	3	5	0.39	0	No	10	0	30	20	0	0	0	0	40	0	0
7	93	534	2019-RSDPA-260619-002A	3	6	0.17	0	No	0	50	10	20	0	0	0	0	20	0	0
7	94	535	2019-RSDPA-260619-002A	4	1	0.08	0	No	10	0	10	60	20	0	0	0	0	0	0
7	94	536	2019-RSDPA-260619-002A	4	2	0.30	0	No	10	0	30	60	0	0	0	0	0	0	0
7	94	537	2019-RSDPA-260619-002A	4	3	0.47	1	No	30	0	20	50	0	0	0	0	0	0	0
7	94	538	2019-RSDPA-260619-002A	4	4	0.65	0	No	0	0	10	40	50	0	0	0	0	0	0
7	94	539	2019-RSDPA-260619-002A	4	5	0.59	0	Yes	10	0	10	30	50	0	0	0	0	0	0
7	94	540	2019-RSDPA-260619-002A	4	6	0.51	0	Yes	10	0	20	50	10	0	10	0	0	0	0
7	95	541	2019-RSDPA-260619-002A	5	1	0.12	0	No	10	0	20	70	0	0	0	0	0	0	0
7	95	542	2019-RSDPA-260619-002A	5	2	0.30	0	No	10	0	15	15	0	0	0	0	60	0	0
7	95	543	2019-RSDPA-260619-002A	5	3	0.38	1	No	10	0	10	20	60	0	0	0	0	0	0
7	95	544	2019-RSDPA-260619-002A	5	4	0.39	0	No	10	0	10	20	60	0	0	0	0	0	0
7	95	545	2019-RSDPA-260619-002A	5	5	0.40	0	No	10	0	20	0	0	0	70	0	0	0	0
7	95	546	2019-RSDPA-260619-002A	5	6	0.22	0	Yes	0	0	5	5	0	0	90	0	0	0	0
8	96	547	2019-RSDPA-260619-003A	1	1	0.04	0	No	0	0	10	10	20	60	0	0	0	0	0
8	96	548	2019-RSDPA-260619-003A	1	2	0.17	10	No	0	0	0	20	50	30	0	0	0	0	0
8	96	549	2019-RSDPA-260619-003A	1	3	0.15	2	No	0	0	0	20	80	0	0	0	0	0	0
8	96	550	2019-RSDPA-260619-003A	1	4	0.28	0	No	0	0	0	20	80	0	0	0	0	0	0
8	96	551	2019-RSDPA-260619-003A	1	5	0.27	0	No	0	0	10	0	15	15	60	0	0	0	0
8	97	552	2019-RSDPA-260619-003A	2	1	0.11	0	No	0	0	10	20	70	0	0	0	0	0	0
8	97	553	2019-RSDPA-260619-003A	2	2	0.33	0	No	10	0	10	80	0	0	0	0	0	0	0
8	97	554	2019-RSDPA-260619-003A	2	3	0.29	0	No	0	0	10	70	20	0	0	0	0	0	0
8	97	555	2019-RSDPA-260619-003A	2	4	0.42	0	Yes	10	0	0	70	20	0	0	0	0	0	0
8	97	556	2019-RSDPA-260619-003A	2	5	0.56	2	Yes	30	0	20	50	0	0	0	0	0	0	0
8	98	557	2019-RSDPA-260619-003A	3	1	0.06	0	No	0	0	10	90	0	0	0	0	0	0	0
8	98	558	2019-RSDPA-260619-003A	3	2	0.23	0	No	10	0	5	65	20	0	0	0	0	0	0
8	98	559	2019-RSDPA-260619-003A	3	3	0.41	0	No	0	0	5	80	15	0	0	0	0	0	0

Site ID	Transect ID	Point ID	Field number	Transect number	Point number	Depth (m)	Hydraulic head (mm)	Woody debris present	Organic	Clay	Silt	Sand	Gravel	Cobble	Boulder	Bedrock	Hardpan	Rubble	Concrete
8	98	560	2019-RSDPA-260619-003A	3	4	0.59	2	No	0	0	5	80	15	0	0	0	0	0	0
8	98	561	2019-RSDPA-260619-003A	3	5	0.75	0	No	0	0	0	70	30	0	0	0	0	0	0
8	99	562	2019-RSDPA-260619-003A	4	1	0.13	0	No	10	0	10	80	0	0	0	0	0	0	0
8	99	563	2019-RSDPA-260619-003A	4	2	0.37	0	No	0	0	10	80	10	0	0	0	0	0	0
8	99	564	2019-RSDPA-260619-003A	4	3	0.55	0	No	0	0	10	80	0	10	0	0	0	0	0
8	99	565	2019-RSDPA-260619-003A	4	4	0.61	0	No	0	0	0	20	0	10	0	0	70	0	0
8	99	566	2019-RSDPA-260619-003A	4	5	0.32	0	No	0	0	0	0	0	0	0	0	100	0	0
8	100	567	2019-RSDPA-260619-003A	5	1	0.10	0	No	0	0	20	80	0	0	0	0	0	0	0
8	100	568	2019-RSDPA-260619-003A	5	2	0.28	0	No	0	0	20	50	0	30	0	0	0	0	0
8	100	569	2019-RSDPA-260619-003A	5	3	0.41	0	No	0	0	0	20	10	30	40	0	0	0	0
8	100	570	2019-RSDPA-260619-003A	5	4	0.43	1	No	0	0	10	85	5	0	0	0	0	0	0
8	100	571	2019-RSDPA-260619-003A	5	5	0.27	0	Yes	0	0	10	90	0	0	0	0	0	0	0
8	101	572	2019-RSDPA-260619-003A	6	1	0.03	0	No	0	0	0	10	20	70	0	0	0	0	0
8	101	573	2019-RSDPA-260619-003A	6	2	0.11	0	No	0	0	0	10	40	50	0	0	0	0	0
8	101	574	2019-RSDPA-260619-003A	6	3	0.25	0	No	0	0	0	10	20	70	0	0	0	0	0
8	101	575	2019-RSDPA-260619-003A	6	4	0.34	0	No	0	0	0	20	20	60	0	0	0	0	0
8	101	576	2019-RSDPA-260619-003A	6	5	0.17	0	No	0	0	5	55	20	20	0	0	0	0	0
9	102	577	2019-RSDPA-260619-004A	1	1	0.19	0	No	10	0	10	80	0	0	0	0	0	0	0
9	102	578	2019-RSDPA-260619-004A	1	2	0.17	1	No	5	0	25	50	20	0	0	0	0	0	0
9	102	579	2019-RSDPA-260619-004A	1	3	0.21	1	No	10	0	30	40	20	0	0	0	0	0	0
9	102	580	2019-RSDPA-260619-004A	1	4	0.28	1	No	0	0	15	55	30	0	0	0	0	0	0
9	102	581	2019-RSDPA-260619-004A	1	5	0.09	0	No	0	0	30	20	0	0	50	0	0	0	0
9	103	582	2019-RSDPA-260619-004A	2	1	0.27	0	No	20	0	50	10	20	0	0	0	0	0	0
9	103	583	2019-RSDPA-260619-004A	2	2	0.34	1	No	5	0	35	60	0	0	0	0	0	0	0
9	103	584	2019-RSDPA-260619-004A	2	3	0.33	1	No	0	0	20	80	0	0	0	0	0	0	0
9	103	585	2019-RSDPA-260619-004A	2	4	0.19	1	No	0	0	0	0	5	15	80	0	0	0	0
9	103	586	2019-RSDPA-260619-004A	2	5	0.15	0	No	10	0	0	0	10	60	20	0	0	0	0
9	104	587	2019-RSDPA-260619-004A	3	1	0.27	0	No	10	0	10	80	0	0	0	0	0	0	0
9	104	588	2019-RSDPA-260619-004A	3	2	0.47	0	No	0	0	10	90	0	0	0	0	0	0	0
9	104	589	2019-RSDPA-260619-004A	3	3	0.49	0	No	0	0	10	30	10	0	50	0	0	0	0
9	104	590	2019-RSDPA-260619-004A	3	4	0.37	0	No	0	0	20	50	20	10	0	0	0	0	0
9	104	591	2019-RSDPA-260619-004A	3	5	0.32	0	No	0	0	10	10	0	0	80	0	0	0	0
9	105	592	2019-RSDPA-260619-004A	4	1	0.23	0	Yes	10	0	60	10	20	0	0	0	0	0	0

Site ID	Transect ID	Point ID	Field number	Transect number	Point number	Depth (m)	Hydraulic head (mm)	Woody debris present	Organic	Clay	Silt	Sand	Gravel	Cobble	Boulder	Bedrock	Hardpan	Rubble	Concrete
9	105	593	2019-RSDPA-260619-004A	4	2	0.51	0	No	0	0	0	0	100	0	0	0	0	0	0
9	105	594	2019-RSDPA-260619-004A	4	3	0.45	0	No	0	0	0	0	90	10	0	0	0	0	0
9	105	595	2019-RSDPA-260619-004A	4	4	0.44	1	No	0	0	0	10	10	80	0	0	0	0	0
9	105	596	2019-RSDPA-260619-004A	4	5	0.44	0	Yes	0	0	0	0	0	100	0	0	0	0	0
9	106	597	2019-RSDPA-260619-004A	5	1	0.32	0	Yes	30	0	60	10	0	0	0	0	0	0	0
9	106	598	2019-RSDPA-260619-004A	5	2	0.36	0	No	0	0	0	10	30	60	0	0	0	0	0
9	106	599	2019-RSDPA-260619-004A	5	3	0.33	0	No	0	0	10	20	0	70	0	0	0	0	0
9	106	600	2019-RSDPA-260619-004A	5	4	0.32	1	No	0	0	0	0	20	50	30	0	0	0	0
9	106	601	2019-RSDPA-260619-004A	5	5	0.27	0	No	20	0	0	15	15	50	0	0	0	0	0
9	107	602	2019-RSDPA-260619-004A	6	1	0.33	0	Yes	20	0	15	45	20	0	0	0	0	0	0
9	107	603	2019-RSDPA-260619-004A	6	2	0.36	1	No	0	0	0	10	80	10	0	0	0	0	0
9	107	604	2019-RSDPA-260619-004A	6	3	0.34	1	No	0	0	0	20	40	40	0	0	0	0	0
9	107	605	2019-RSDPA-260619-004A	6	4	0.30	1	No	0	0	0	0	0	90	10	0	0	0	0
9	107	606	2019-RSDPA-260619-004A	6	5	0.27	0	No	0	0	0	10	0	90	0	0	0	0	0
10	1	1	2019-RSDPA-080719-001A	1	1	0.08	0	No	0	0	10	0	0	90	0	0	0	0	0
10	1	2	2019-RSDPA-080719-001A	1	2	0.10	2	No	0	0	5	20	0	75	0	0	0	0	0
10	1	3	2019-RSDPA-080719-001A	1	3	0.09	24	No	0	0	0	10	0	20	70	0	0	0	0
10	1	4	2019-RSDPA-080719-001A	1	4	0.15	8	No	10	0	5	10	0	10	65	0	0	0	0
10	1	5	2019-RSDPA-080719-001A	1	5	0.07	0	No	0	0	30	30	0	0	40	0	0	0	0
10	2	6	2019-RSDPA-080719-001A	2	1	0.21	0	Yes	0	0	0	0	0	0	100	0	0	0	0
10	2	7	2019-RSDPA-080719-001A	2	2	0.19	7	No	0	0	0	0	20	80	0	0	0	0	0
10	2	8	2019-RSDPA-080719-001A	2	3	0.13	20	No	0	10	0	0	90	0	0	0	0	0	0
10	2	9	2019-RSDPA-080719-001A	2	4	0.11	1	No	10	0	20	0	0	0	70	0	0	0	0
10	2	10	2019-RSDPA-080719-001A	2	5	0.02	0	No	5	0	15	0	80	0	0	0	0	0	0
10	3	11	2019-RSDPA-080719-001A	3	1	0.05	0	No	5	95	0	0	0	0	0	0	0	0	0
10	3	12	2019-RSDPA-080719-001A	3	2	0.29	1	No	0	95	0	0	5	0	0	0	0	0	0
10	3	13	2019-RSDPA-080719-001A	3	3	0.58	0	No	5	0	0	30	15	0	0	0	50	0	0
10	3	14	2019-RSDPA-080719-001A	3	4	0.33	0	No	0	0	30	60	10	0	0	0	0	0	0
10	3	15	2019-RSDPA-080719-001A	3	5	0.16	0	No	0	0	50	50	0	0	0	0	0	0	0
10	4	16	2019-RSDPA-080719-001A	4	1	0.58	0	No	0	0	20	10	0	70	0	0	0	0	0
10	4	17	2019-RSDPA-080719-001A	4	2	0.51	1	Yes	0	0	20	70	10	0	0	0	0	0	0
10	4	18	2019-RSDPA-080719-001A	4	3	0.33	0	No	20	0	20	20	0	0	40	0	0	0	0
10	4	19	2019-RSDPA-080719-001A	4	4	0.26	0	Yes	10	0	30	60	0	0	0	0	0	0	0

Site ID	Transect ID	Point ID	Field number	Transect number	Point number	Depth (m)	Hydraulic head (mm)	Woody debris present	Organic	Clay	Silt	Sand	Gravel	Cobble	Boulder	Bedrock	Hardpan	Rubble	Concrete
10	4	20	2019-RSDPA-080719-001A	4	5	0.32	0	Yes	0	0	80	20	0	0	0	0	0	0	0
10	5	21	2019-RSDPA-080719-001A	5	1	0.21	0	No	0	50	0	0	0	0	50	0	0	0	0
10	5	22	2019-RSDPA-080719-001A	5	2	0.42	1	No	0	0	0	10	50	0	40	0	0	0	0
10	5	23	2019-RSDPA-080719-001A	5	3	0.32	1	No	0	0	40	30	0	0	30	0	0	0	0
10	5	24	2019-RSDPA-080719-001A	5	4	0.31	1	No	0	0	40	10	0	0	50	0	0	0	0
10	5	25	2019-RSDPA-080719-001A	5	5	0.18	0	No	0	0	60	0	10	30	0	0	0	0	0
10	6	26	2019-RSDPA-080719-001A	6	1	0.23	1	No	0	20	10	0	0	0	0	0	70	0	0
10	6	27	2019-RSDPA-080719-001A	6	2	0.40	0	No	10	20	0	70	0	0	0	0	0	0	0
10	6	28	2019-RSDPA-080719-001A	6	3	0.33	0	No	0	0	10	80	0	10	0	0	0	0	0
10	6	29	2019-RSDPA-080719-001A	6	4	0.17	0	No	0	0	10	0	20	40	30	0	0	0	0
10	6	30	2019-RSDPA-080719-001A	6	5	0.04	0	No	0	0	10	0	10	80	0	0	0	0	0
10	7	31	2019-RSDPA-080719-001A	7	1	0.16	0	No	0	20	0	0	0	0	0	0	80	0	0
10	7	32	2019-RSDPA-080719-001A	7	2	0.52	0	No	0	30	10	0	0	0	0	0	60	0	0
10	7	33	2019-RSDPA-080719-001A	7	3	0.33	0	No	10	90	0	0	0	0	0	0	0	0	0
10	7	34	2019-RSDPA-080719-001A	7	4	0.34	0	No	10	0	80	10	0	0	0	0	0	0	0
10	7	35	2019-RSDPA-080719-001A	7	5	0.10	0	No	0	0	70	10	20	0	0	0	0	0	0
10	8	36	2019-RSDPA-080719-001A	8	1	0.57	0	No	0	90	10	0	0	0	0	0	0	0	0
10	8	37	2019-RSDPA-080719-001A	8	2	0.71	2	No	0	0	10	0	0	0	0	0	90	0	0
10	8	38	2019-RSDPA-080719-001A	8	3	0.74	1	No	0	25	0	35	0	0	0	0	40	0	0
10	8	39	2019-RSDPA-080719-001A	8	4	0.62	0	No	50	0	20	30	0	0	0	0	0	0	0
10	8	40	2019-RSDPA-080719-001A	8	5	0.33	0	No	10	0	90	0	0	0	0	0	0	0	0
10	9	41	2019-RSDPA-080719-001A	9	1	0.13	0	No	40	60	0	0	0	0	0	0	0	0	0
10	9	42	2019-RSDPA-080719-001A	9	2	0.25	0	Yes	50	50	0	0	0	0	0	0	0	0	0
10	9	43	2019-RSDPA-080719-001A	9	3	0.86	1	Yes	5	25	0	30	0	40	0	0	0	0	0
10	9	44	2019-RSDPA-080719-001A	9	4	0.46	1	No	0	0	0	55	15	10	20	0	0	0	0
10	9	45	2019-RSDPA-080719-001A	9	5	0.28	0	Yes	15	0	20	45	0	20	0	0	0	0	0
10	10	46	2019-RSDPA-080719-001A	10	1	0.41	1	No	0	100	0	0	0	0	0	0	0	0	0
10	10	47	2019-RSDPA-080719-001A	10	2	0.40	1	No	0	0	0	50	50	0	0	0	0	0	0
10	10	48	2019-RSDPA-080719-001A	10	3	0.28	1	No	0	0	5	5	35	50	5	0	0	0	0
10	10	49	2019-RSDPA-080719-001A	10	4	0.40	1	No	5	0	5	30	20	40	0	0	0	0	0
10	10	50	2019-RSDPA-080719-001A	10	5	0.44	0	Yes	30	0	0	60	0	10	0	0	0	0	0
10	11	51	2019-RSDPA-080719-001A	11	1	0.18	1	No	0	0	0	70	30	0	0	0	0	0	0
10	11	52	2019-RSDPA-080719-001A	11	2	0.14	2	No	0	5	0	20	75	0	0	0	0	0	0

Site ID	Transect ID	Point ID	Field number	Transect number	Point number	Depth (m)	Hydraulic head (mm)	Woody debris present	Organic	Clay	Silt	Sand	Gravel	Cobble	Boulder	Bedrock	Hardpan	Rubble	Concrete
10	11	53	2019-RSDPA-080719-001A	11	3	0.19	2	No	0	0	0	30	20	50	0	0	0	0	0
10	11	54	2019-RSDPA-080719-001A	11	4	0.12	1	No	0	0	0	20	20	60	0	0	0	0	0
10	11	55	2019-RSDPA-080719-001A	11	5	0.15	1	No	0	0	0	30	10	60	0	0	0	0	0
10	12	56	2019-RSDPA-080719-001A	12	1	0.10	22	No	0	45	0	5	30	20	0	0	0	0	0
10	12	57	2019-RSDPA-080719-001A	12	2	0.04	4	No	0	0	0	20	30	50	0	0	0	0	0
10	12	58	2019-RSDPA-080719-001A	12	3	0.04	11	No	0	0	0	20	20	60	0	0	0	0	0
10	12	59	2019-RSDPA-080719-001A	12	4	0.08	2	No	0	0	0	15	15	70	0	0	0	0	0
10	12	60	2019-RSDPA-080719-001A	12	5	0.05	1	No	0	0	0	10	10	80	0	0	0	0	0
11	13	61	2019-RSDPA-080719-002A	1	1	0.21	1	No	0	0	10	20	70	0	0	0	0	0	0
11	13	62	2019-RSDPA-080719-002A	1	2	0.09	0	No	0	0	0	15	85	0	0	0	0	0	0
11	13	63	2019-RSDPA-080719-002A	1	3	0.11	0	No	0	0	0	10	90	0	0	0	0	0	0
11	13	64	2019-RSDPA-080719-002A	1	4	0.33	0	No	0	0	0	0	100	0	0	0	0	0	0
11	13	65	2019-RSDPA-080719-002A	1	5	0.43	0	No	10	90	0	0	0	0	0	0	0	0	0
11	13	66	2019-RSDPA-080719-002A	1	6	0.28	0	Yes	10	90	0	0	0	0	0	0	0	0	0
11	14	67	2019-RSDPA-080719-002A	2	1	0.29	0	Yes	20	0	20	60	0	0	0	0	0	0	0
11	14	68	2019-RSDPA-080719-002A	2	2	0.40	0	No	0	0	0	10	30	60	0	0	0	0	0
11	14	69	2019-RSDPA-080719-002A	2	3	0.51	0	No	0	0	10	0	20	70	0	0	0	0	0
11	14	70	2019-RSDPA-080719-002A	2	4	0.58	0	No	0	0	0	10	90	0	0	0	0	0	0
11	14	71	2019-RSDPA-080719-002A	2	5	0.60	0	No	0	90	0	0	10	0	0	0	0	0	0
11	14	72	2019-RSDPA-080719-002A	2	6	0.22	0	No	5	90	0	0	5	0	0	0	0	0	0
11	15	73	2019-RSDPA-080719-002A	3	1	0.17	0	No	10	0	50	30	10	0	0	0	0	0	0
11	15	74	2019-RSDPA-080719-002A	3	2	0.42	0	No	0	0	0	10	90	0	0	0	0	0	0
11	15	75	2019-RSDPA-080719-002A	3	3	0.74	0	No	0	0	0	10	90	0	0	0	0	0	0
11	15	76	2019-RSDPA-080719-002A	3	4	0.69	0	No	0	15	0	0	0	10	0	0	75	0	0
11	15	77	2019-RSDPA-080719-002A	3	5	0.47	0	No	0	0	0	0	0	0	0	0	100	0	0
11	15	78	2019-RSDPA-080719-002A	3	6	0.09	0	Yes	0	0	0	0	0	0	0	0	100	0	0
11	16	79	2019-RSDPA-080719-002A	4	1	0.22	0	No	10	0	80	10	0	0	0	0	0	0	0
11	16	80	2019-RSDPA-080719-002A	4	2	0.30	0	No	10	0	20	65	5	0	0	0	0	0	0
11	16	81	2019-RSDPA-080719-002A	4	3	0.61	0	No	0	0	0	10	30	60	0	0	0	0	0
11	16	82	2019-RSDPA-080719-002A	4	4	0.91	0	No	0	10	0	0	0	0	0	0	90	0	0
11	16	83	2019-RSDPA-080719-002A	4	5	0.86	0	No	0	0	0	0	0	0	0	0	100	0	0
11	16	84	2019-RSDPA-080719-002A	4	6	0.56	0	Yes	0	5	5	0	0	0	0	0	90	0	0
11	17	85	2019-RSDPA-080719-002A	5	1	0.19	3	Yes	15	0	30	45	10	0	0	0	0	0	0

Site ID	Transect ID	Point ID	Field number	Transect number	Point number	Depth (m)	Hydraulic head (mm)	Woody debris present	Organic	Clay	Silt	Sand	Gravel	Cobble	Boulder	Bedrock	Hardpan	Rubble	Concrete
11	17	86	2019-RSDPA-080719-002A	5	2	0.09	0	No	0	0	0	20	80	0	0	0	0	0	0
11	17	87	2019-RSDPA-080719-002A	5	3	0.14	0	No	0	0	0	10	70	20	0	0	0		0
11	17	88	2019-RSDPA-080719-002A	5	4	0.36	0	No	0	0	0	0	80	20	0	0	0	0	0
11	17	89	2019-RSDPA-080719-002A	5	5	0.69	0	No	0	0	0	0	50	50	0	0	0	0	0
11	17	90	2019-RSDPA-080719-002A	5	6	0.42	0	Yes	0	0	0	0	0	0	0	0	100	0	0
12	18	91	2019-RSDPA-090719-001A	1	1	0.11	1	No	0	0	0	5	55	40	0	0	0	0	0
12	18	92	2019-RSDPA-090719-001A	1	2	0.15	1	No	0	0	0	20	40	40	0	0	0	0	0
12	18	93	2019-RSDPA-090719-001A	1	3	0.24	2	No	0	0	0	0	20	80	0	0	0	0	0
12	18	94	2019-RSDPA-090719-001A	1	4	0.30	5	No	5	0	0	0	0	95	0	0	0	0	0
12	18	95	2019-RSDPA-090719-001A	1	5	0.24	3	Yes	0	0	0	0	0	100	0	0	0	0	0
12	18	96	2019-RSDPA-090719-001A	1	6	0.24	0	No	0	0	0	0	0	10	0	0	90	0	0
12	19	97	2019-RSDPA-090719-001A	2	1	0.18	0	No	0	5	0	10	20	0	0	0	65	0	0
12	19	98	2019-RSDPA-090719-001A	2	2	0.50	0	No	0	0	0	10	30	0	60	0	0	0	0
12	19	99	2019-RSDPA-090719-001A	2	3	0.81	0	No	0	0	0	10	30	60	0	0	0	0	0
12	19	100	2019-RSDPA-090719-001A	2	4	0.94	0	No	0	0	0	10	90	0	0	0	0	0	0
12	19	101	2019-RSDPA-090719-001A	2	5	0.72	1	No	0	30	0	0	0	70	0	0	0	0	0
12	19	102	2019-RSDPA-090719-001A	2	6	0.36	0	No	0	20	0	0	10	0	0	0	70	0	0
12	20	103	2019-RSDPA-090719-001A	3	1	0.10	0	No	0	0	10	90	0	0	0	0	0	0	0
12	20	104	2019-RSDPA-090719-001A	3	2	0.28	0	No	5	0	10	85	0	0	0	0	0	0	0
12	20	105	2019-RSDPA-090719-001A	3	3	0.36	0	No	0	0	5	95	0	0	0	0	0	0	0
12	20	106	2019-RSDPA-090719-001A	3	4	0.57	0	Yes	0	0	5	95	0	0	0	0	0	0	0
12	20	107	2019-RSDPA-090719-001A	3	5	0.84	0	Yes	0	0	5	95	0	0	0	0	0	0	0
12	20	108	2019-RSDPA-090719-001A	3	6	0.71	0	Yes	0	30	0	70	0	0	0	0	0	0	0
12	21	109	2019-RSDPA-090719-001A	4	1	0.25	0	No	50	0	40	10	0	0	0	0	0	0	0
12	21	110	2019-RSDPA-090719-001A	4	2	0.66	0	No	10	0	50	40	0	0	0	0	0	0	0
12	21	111	2019-RSDPA-090719-001A	4	3	0.97	0	No	10	0	50	40	0	0	0	0	0	0	0
12	21	112	2019-RSDPA-090719-001A	4	4	1.05	0	No	0	0	40	40	0	20	0	0	0	0	0
12	21	113	2019-RSDPA-090719-001A	4	5	0.85	0	No	0	0	20	0	0	80	0	0	0	0	0
12	21	114	2019-RSDPA-090719-001A	4	6	0.40	0	Yes	0	30	0	0	0	0	0	0	70	0	0
12	22	115	2019-RSDPA-090719-001A	5	1	0.13	0	No	0	0	0	0	45	15	40	0	0	0	0
12	22	116	2019-RSDPA-090719-001A	5	2	0.33	0	No	10	0	0	10	20	60	0	0	0	0	0
12	22	117	2019-RSDPA-090719-001A	5	3	0.28	0	No	0	0	5	0	10	85	0	0	0	0	0
12	22	118	2019-RSDPA-090719-001A	5	4	0.33	0	No	0	0	0	0	10	20	70	0	0	0	0

Site ID	Transect ID	Point ID	Field number	Transect number	Point number	Depth (m)	Hydraulic head (mm)	Woody debris present	Organic	Clay	Silt	Sand	Gravel	Cobble	Boulder	Bedrock	Hardpan	Rubble	Concrete
12	22	119	2019-RSDPA-090719-001A	5	5	0.24	0	No	0	0	10	0	40	10	40	0	0	0	0
12	22	120	2019-RSDPA-090719-001A	5	6	0.40	0	Yes	0	0	0	10	0	0	90	0	0	0	0
13	23	121	2019-RSDPA-090719-002A	1	1	-0.05	0	No	0	0	50	50	0	0	0	0	0	0	0
13	23	122	2019-RSDPA-090719-002A	1	2	-0.27	0	No	0	0	0	100	0	0	0	0	0	0	0
13	23	123	2019-RSDPA-090719-002A	1	3	0.21	0	Yes	10	0	30	10	50	0	0	0	0	0	0
13	23	124	2019-RSDPA-090719-002A	1	4	0.25	0	Yes	0	0	0	20	60	20	0	0	0	0	0
13	23	125	2019-RSDPA-090719-002A	1	5	0.28	1	No	10	0	10	0	0	80	0	0	0	0	0
13	23	126	2019-RSDPA-090719-002A	1	6	0.15	0	No	10	0	0	0	0	90	0	0	0	0	0
13	24	127	2019-RSDPA-090719-002A	2	1	0.06	0	No	10	0	10	80	0	0	0	0	0	0	0
13	24	128	2019-RSDPA-090719-002A	2	2	0.01	0	No	0	0	10	90	0	0	0	0	0	0	0
13	24	129	2019-RSDPA-090719-002A	2	3	0.18	0	No	10	0	0	10	0	80	0	0	0	0	0
13	24	130	2019-RSDPA-090719-002A	2	4	0.25	0	No	10	0	0	0	0	0	90	0	0	0	0
13	24	131	2019-RSDPA-090719-002A	2	5	0.22	0	No	0	0	10	0	0	0	0	0	90	0	0
13	24	132	2019-RSDPA-090719-002A	2	6	0.19	0	No	0	0	50	0	0	0	0	0	50	0	0
13	25	133	2019-RSDPA-090719-002A	3	1	0.09	0	No	0	0	30	70	0	0	0	0	0	0	0
13	25	134	2019-RSDPA-090719-002A	3	2	0.23	0	No	0	0	10	0	30	60	0	0	0	0	0
13	25	135	2019-RSDPA-090719-002A	3	3	0.26	0	No	10	0	0	0	0	90	0	0	0	0	0
13	25	136	2019-RSDPA-090719-002A	3	4	0.38	2	No	10	0	10	0	0	40	0	0	40	0	0
13	25	137	2019-RSDPA-090719-002A	3	5	0.21	0	No	0	0	0	0	0	0	0	0	100	0	0
13	25	138	2019-RSDPA-090719-002A	3	6	0.19	0	Yes	0	0	0	0	0	0	0	0	100	0	0
13	26	139	2019-RSDPA-090719-002A	4	1	0.17	0	No	0	0	20	50	0	0	30	0	0	0	0
13	26	140	2019-RSDPA-090719-002A	4	2	0.53	0	No	0	0	0	30	0	70	0	0	0	0	0
13	26	141	2019-RSDPA-090719-002A	4	3	0.77	0	No	0	0	0	20	0	20	0	0	60	0	0
13	26	142	2019-RSDPA-090719-002A	4	4	0.67	0	No	0	0	10	0	0	0	0	0	90	0	0
13	26	143	2019-RSDPA-090719-002A	4	5	0.55	0	No	0	0	10	0	0	0	0	0	90	0	0
13	26	144	2019-RSDPA-090719-002A	4	6	0.46	0	Yes	0	0	0	0	0	0	50	0	50	0	0
13	27	145	2019-RSDPA-090719-002A	5	1	0.07	0	No	0	0	10	90	0	0	0	0	0	0	0
13	27	146	2019-RSDPA-090719-002A	5	2	0.23	0	No	10	0	10	30	15	35	0	0	0	0	0
13	27	147	2019-RSDPA-090719-002A	5	3	0.34	0	No	0	0	0	0	0	100	0	0	0	0	0
13	27	148	2019-RSDPA-090719-002A	5	4	0.64	0	No	0	0	0	0	40	60	0	0	0	0	0
13	27	149	2019-RSDPA-090719-002A	5	5	0.74	0	No	0	0	0	0	0	0	0	0	100	0	0
13	27	150	2019-RSDPA-090719-002A	5	6	0.61	0	Yes	0	0	0	20	0	0	0	0	80	0	0
13	28	151	2019-RSDPA-090719-002A	6	1	0.04	0	No	0	0	0	5	95	0	0	0	0	0	0

Site ID	Transect ID	Point ID	Field number	Transect number	Point number	Depth (m)	Hydraulic head (mm)	Woody debris present	Organic	Clay	Silt	Sand	Gravel	Cobble	Boulder	Bedrock	Hardpan	Rubble	Concrete
13	28	152	2019-RSDPA-090719-002A	6	2	0.09	0	No	0	0	5	10	45	40	0	0	0	0	0
13	28	153	2019-RSDPA-090719-002A	6	3	0.28	0	No	0	0	0	0	20	65	15	0	0	0	0
13	28	154	2019-RSDPA-090719-002A	6	4	0.48	0	No	0	0	0	0	0	70	0	0	30	0	0
13	28	155	2019-RSDPA-090719-002A	6	5	0.37	0	No	0	0	0	0	0	0	0	0	100	0	0
13	28	156	2019-RSDPA-090719-002A	6	6	0.28	0	Yes	0	0	0	0	0	0	20	0	80	0	0
13	29	157	2019-RSDPA-090719-002A	7	1	-0.03	0	No	10	0	0	0	0	50	40	0	0	0	0
13	29	158	2019-RSDPA-090719-002A	7	2	-0.04	0	No	0	0	5	0	25	0	70	0	0	0	0
13	29	159	2019-RSDPA-090719-002A	7	3	0.04	0	No	0	0	5	0	45	20	30	0	0	0	0
13	29	160	2019-RSDPA-090719-002A	7	4	0.12	0	No	0	0	0	15	10	35	40	0	0	0	0
13	29	161	2019-RSDPA-090719-002A	7	5	0.21	0	No	0	0	0	0	20	60	20	0	0	0	0
13	29	162	2019-RSDPA-090719-002A	7	6	0.10	0	No	0	0	0	0	70	30	0	0	0	0	0
13	30	163	2019-RSDPA-090719-002A	8	1	0.05	0	No	5	0	0	10	5	50	30	0	0	0	0
13	30	164	2019-RSDPA-090719-002A	8	2	0.01	0	No	0	0	5	0	65	20	10	0	0	0	0
13	30	165	2019-RSDPA-090719-002A	8	3	0.06	4	No	0	0	10	0	5	35	50	0	0	0	0
13	30	166	2019-RSDPA-090719-002A	8	4	0.12	0	No	0	0	10	0	40	0	50	0	0	0	0
13	30	167	2019-RSDPA-090719-002A	8	5	0.07	11	No	0	0	10	0	60	0	30	0	0	0	0
13	30	168	2019-RSDPA-090719-002A	8	6	0.01	0	No	10	0	10	0	60	20	0	0	0	0	0
13	31	169	2019-RSDPA-090719-002A	9	1	0.06	0	No	0	0	5	0	65	10	20	0	0	0	0
13	31	170	2019-RSDPA-090719-002A	9	2	0.03	3	No	5	0	0	0	80	15	0	0	0	0	0
13	31	171	2019-RSDPA-090719-002A	9	3	0.05	9	No	5	0	0	0	75	0	20	0	0	0	0
13	31	172	2019-RSDPA-090719-002A	9	4	0.04	0	No	0	0	20	0	40	30	10	0	0	0	0
13	31	173	2019-RSDPA-090719-002A	9	5	-0.10	0	No	0	0	0	0	30	50	20	0	0	0	0
13	31	174	2019-RSDPA-090719-002A	9	6	0.13	35	No	0	0	0	0	90	10	0	0	0	0	0
13	32	175	2019-RSDPA-090719-002A	10	1	0.40	3	No	10	0	0	0	10	0	80	0	0	0	0
13	32	176	2019-RSDPA-090719-002A	10	2	0.03	1	No	5	0	0	0	10	85	0	0	0	0	0
13	32	177	2019-RSDPA-090719-002A	10	3	-0.12	0	No	0	0	0	0	100	0	0	0	0	0	0
13	32	178	2019-RSDPA-090719-002A	10	4	-0.20	0	No	0	0	0	100	0	0	0	0	0	0	0
13	32	179	2019-RSDPA-090719-002A	10	5	-0.24	0	No	0	0	0	30	60	10	0	0	0	0	0
13	32	180	2019-RSDPA-090719-002A	10	6	0.14	17	No	0	0	0	0	90	10	0	0	0	0	0
14	33	181	2019-RSDPA-090719-003A	1	1	0.33	0	Yes	15	0	10	75	0	0	0	0	0	0	0
14	33	182	2019-RSDPA-090719-003A	1	2	0.41	2	No	10	0	0	0	20	70	0	0	0	0	0
14	33	183	2019-RSDPA-090719-003A	1	3	0.36	5	No	0	0	0	0	0	70	30	0	0	0	0
14	33	184	2019-RSDPA-090719-003A	1	4	0.34	1	No	0	0	0	0	10	0	90	0	0	0	0

Site ID	Transect ID	Point ID	Field number	Transect number	Point number	Depth (m)	Hydraulic head (mm)	Woody debris present	Organic	Clay	Silt	Sand	Gravel	Cobble	Boulder	Bedrock	Hardpan	Rubble	Concrete
14	33	185	2019-RSDPA-090719-003A	1	5	0.30	0	No	0	0	0	15	65	20	0	0	0	0	0
14	33	186	2019-RSDPA-090719-003A	1	6	0.23	0	Yes	0	0	30	0	0	70	0	0	0	0	0
14	34	187	2019-RSDPA-090719-003A	2	1	0.31	0	No	0	0	20	0	40	40	0	0	0	0	0
14	34	188	2019-RSDPA-090719-003A	2	2	0.65	0	No	0	0	40	60	0	0	0	0	0	0	0
14	34	189	2019-RSDPA-090719-003A	2	3	0.61	0	No	0	0	20	80	0	0	0	0	0	0	0
14	34	190	2019-RSDPA-090719-003A	2	4	0.59	0	No	0	0	20	0	0	0	80	0	0	0	0
14	34	191	2019-RSDPA-090719-003A	2	5	0.44	0	No	0	0	10	30	0	60	0	0	0	0	0
14	34	192	2019-RSDPA-090719-003A	2	6	0.32	0	Yes	20	0	20	60	0	0	0	0	0	0	0
14	35	193	2019-RSDPA-090719-003A	3	1	0.71	0	Yes	0	0	0	10	0	0	90	0	0	0	0
14	35	194	2019-RSDPA-090719-003A	3	2	0.73	0	No	0	0	30	70	0	0	0	0	0	0	0
14	35	195	2019-RSDPA-090719-003A	3	3	0.63	0	No	0	0	30	70	0	0	0	0	0	0	0
14	35	196	2019-RSDPA-090719-003A	3	4	0.66	0	No	0	0	50	50	0	0	0	0	0	0	0
14	35	197	2019-RSDPA-090719-003A	3	5	0.60	0	No	0	0	40	50	0	0	10	0	0	0	0
14	35	198	2019-RSDPA-090719-003A	3	6	0.36	0	No	10	0	30	60	0	0	0	0	0	0	0
14	36	199	2019-RSDPA-090719-003A	4	1	0.25	0	No	20	0	50	30	0	0	0	0	0	0	0
14	36	200	2019-RSDPA-090719-003A	4	2	0.52	0	No	10	0	30	60	0	0	0	0	0	0	0
14	36	201	2019-RSDPA-090719-003A	4	3	0.68	0	No	0	0	40	60	0	0	0	0	0	0	0
14	36	202	2019-RSDPA-090719-003A	4	4	0.64	0	No	0	0	50	50	0	0	0	0	0	0	0
14	36	203	2019-RSDPA-090719-003A	4	5	0.50	0	No	0	0	50	50	0	0	0	0	0	0	0
14	36	204	2019-RSDPA-090719-003A	4	6	0.20	0	No	20	0	40	40	0	0	0	0	0	0	0
14	37	205	2019-RSDPA-090719-003A	5	1	0.21	0	No	20	0	30	35	15	0	0	0	0	0	0
14	37	206	2019-RSDPA-090719-003A	5	2	0.13	0	No	0	0	20	10	70	0	0	0	0	0	0
14	37	207	2019-RSDPA-090719-003A	5	3	0.23	0	No	0	0	20	50	30	0	0	0	0	0	0
14	37	208	2019-RSDPA-090719-003A	5	4	0.28	0	No	10	0	10	80	0	0	0	0	0	0	0
14	37	209	2019-RSDPA-090719-003A	5	5	0.34	0	No	0	0	20	70	0	10	0	0	0	0	0
14	37	210	2019-RSDPA-090719-003A	5	6	0.14	0	No	10	0	20	40	0	30	0	0	0	0	0
15	38	211	2019-RSDPA-100719-001A	1	1	0.07	6	No	0	0	0	10	90	0	0	0	0	0	0
15	38	212	2019-RSDPA-100719-001A	1	2	0.09	21	No	0	0	0	5	85	10	0	0	0	0	0
15	38	213	2019-RSDPA-100719-001A	1	3	0.06	8	No	0	0	0	5	90	5	0	0	0	0	0
15	38	214	2019-RSDPA-100719-001A	1	4	0.13	0	Yes	0	0	5	0	95	0	0	0	0	0	0
15	38	215	2019-RSDPA-100719-001A	1	5	0.18	0	Yes	5	0	90	0	5	0	0	0	0	0	0
15	39	216	2019-RSDPA-100719-001A	2	1	0.01	0	No	0	0	5	5	80	10	0	0	0	0	0
15	39	217	2019-RSDPA-100719-001A	2	2	0.05	0	No	0	0	0	5	85	10	0	0	0	0	0

Site ID	Transect ID	Point ID	Field number	Transect number	Point number	Depth (m)	Hydraulic head (mm)	Woody debris present	Organic	Clay	Silt	Sand	Gravel	Cobble	Boulder	Bedrock	Hardpan	Rubble	Concrete
15	39	218	2019-RSDPA-100719-001A	2	3	0.14	20	No	0	0	0	5	85	10	0	0	0	0	0
15	39	219	2019-RSDPA-100719-001A	2	4	0.12	19	No	0	0	0	5	95	0	0	0	0	0	0
15	39	220	2019-RSDPA-100719-001A	2	5	0.08	0	No	0	0	5	10	85	0	0	0	0	0	0
15	40	221	2019-RSDPA-100719-001A	3	1	0.06	11	Yes	70	0	30	0	0	0	0	0	0	0	0
15	40	222	2019-RSDPA-100719-001A	3	2	0.05	10	No	0	0	0	10	50	40	0	0	0	0	0
15	40	223	2019-RSDPA-100719-001A	3	3	0.04	7	No	0	0	5	5	70	20	0	0	0	0	0
15	40	224	2019-RSDPA-100719-001A	3	4	0.06	20	No	0	0	0	5	65	30	0	0	0	0	0
15	40	225	2019-RSDPA-100719-001A	3	5	0.04	7	No	0	0	0	5	95	0	0	0	0	0	0
15	41	226	2019-RSDPA-100719-001A	4	1	0.41	0	Yes	5	0	0	0	5	0	0	0	90	0	0
15	41	227	2019-RSDPA-100719-001A	4	2	0.37	0	Yes	0	0	0	0	40	10	0	0	50	0	0
15	41	228	2019-RSDPA-100719-001A	4	3	0.25	0	No	0	0	0	10	90	0	0	0	0	0	0
15	41	229	2019-RSDPA-100719-001A	4	4	0.11	0	No	0	0	5	10	85	0	0	0	0	0	0
15	41	230	2019-RSDPA-100719-001A	4	5	0.03	0	No	0	0	5	10	85	0	0	0	0	0	0
15	42	231	2019-RSDPA-100719-001A	5	1	0.16	0	No	20	0	20	20	40	0	0	0	0	0	0
15	42	232	2019-RSDPA-100719-001A	5	2	0.24	2	No	0	0	5	0	75	20	0	0	0	0	0
15	42	233	2019-RSDPA-100719-001A	5	3	0.11	3	No	0	0	0	10	90	0	0	0	0	0	0
15	42	234	2019-RSDPA-100719-001A	5	4	0.09	1	No	0	0	5	10	85	0	0	0	0	0	0
15	42	235	2019-RSDPA-100719-001A	5	5	0.05	0	No	0	0	5	5	90	0	0	0	0	0	0
15	43	236	2019-RSDPA-100719-001A	6	1	0.10	0	Yes	10	0	10	20	60	0	0	0	0	0	0
15	43	237	2019-RSDPA-100719-001A	6	2	0.18	0	No	0	0	0	10	90	0	0	0	0	0	0
15	43	238	2019-RSDPA-100719-001A	6	3	0.14	0	No	0	0	10	0	50	0	40	0	0	0	0
15	43	239	2019-RSDPA-100719-001A	6	4	0.11	0	No	0	0	5	0	65	30	0	0	0	0	0
15	43	240	2019-RSDPA-100719-001A	6	5	0.06	0	No	0	0	5	0	65	30	0	0	0	0	0
15	44	241	2019-RSDPA-100719-001A	7	1	0.31	0	No	10	0	50	30	0	10	0	0	0	0	0
15	44	242	2019-RSDPA-100719-001A	7	2	0.29	0	No	0	0	5	90	5	0	0	0	0	0	0
15	44	243	2019-RSDPA-100719-001A	7	3	0.23	0	No	0	0	5	20	75	0	0	0	0	0	0
15	44	244	2019-RSDPA-100719-001A	7	4	0.18	0	No	0	0	5	15	80	0	0	0	0	0	0
15	44	245	2019-RSDPA-100719-001A	7	5	0.05	0	No	0	0	10	5	85	0	0	0	0	0	0
15	45	246	2019-RSDPA-100719-001A	8	1	0.44	0	No	0	0	30	20	0	50	0	0	0	0	0
15	45	247	2019-RSDPA-100719-001A	8	2	0.45	0	No	0	0	0	20	0	80	0	0	0	0	0
15	45	248	2019-RSDPA-100719-001A	8	3	0.32	0	No	0	0	0	10	90	0	0	0	0	0	0
15	45	249	2019-RSDPA-100719-001A	8	4	0.25	0	No	5	0	0	15	80	0	0	0	0	0	0
15	45	250	2019-RSDPA-100719-001A	8	5	0.10	0	No	10	0	30	20	40	0	0	0	0	0	0

Site ID	Transect ID	Point ID	Field number	Transect number	Point number	Depth (m)	Hydraulic head (mm)	Woody debris present	Organic	Clay	Silt	Sand	Gravel	Cobble	Boulder	Bedrock	Hardpan	Rubble	Concrete
15	46	251	2019-RSDPA-100719-001A	9	1	0.07	0	No	0	0	20	80	0	0	0	0	0	0	0
15	46	252	2019-RSDPA-100719-001A	9	2	0.36	0	No	10	0	15	75	0	0	0	0	0	0	0
15	46	253	2019-RSDPA-100719-001A	9	3	0.86	0	No	0	0	10	60	0	30	0	0	0	0	0
15	46	254	2019-RSDPA-100719-001A	9	4	0.65	0	No	0	0	0	30	70	0	0	0	0	0	0
15	46	255	2019-RSDPA-100719-001A	9	5	0.26	0	No	0	0	40	60	0	0	0	0	0	0	0
15	47	256	2019-RSDPA-100719-001A	10	1	0.65	0	Yes	10	0	0	20	0	70	0	0	0	0	0
15	47	257	2019-RSDPA-100719-001A	10	2	0.62	0	No	0	0	10	60	30	0	0	0	0	0	0
15	47	258	2019-RSDPA-100719-001A	10	3	0.48	0	No	10	0	20	70	0	0	0	0	0	0	0
15	47	259	2019-RSDPA-100719-001A	10	4	0.32	0	No	10	0	10	80	0	0	0	0	0	0	0
15	47	260	2019-RSDPA-100719-001A	10	5	0.08	0	No	10	0	40	50	0	0	0	0	0	0	0
15	48	261	2019-RSDPA-100719-001A	11	1	0.16	0	No	0	0	5	30	55	10	0	0	0	0	0
15	48	262	2019-RSDPA-100719-001A	11	2	0.23	0	No	0	0	0	20	20	60	0	0	0	0	0
15	48	263	2019-RSDPA-100719-001A	11	3	0.26	0	No	0	0	5	90	5	0	0	0	0	0	0
15	48	264	2019-RSDPA-100719-001A	11	4	0.13	0	No	0	0	5	75	20	0	0	0	0	0	0
15	48	265	2019-RSDPA-100719-001A	11	5	0.06	0	No	5	0	5	10	0	20	60	0	0	0	0
15	49	266	2019-RSDPA-100719-001A	12	1	0.09	10	No	0	0	0	10	90	0	0	0	0	0	0
15	49	267	2019-RSDPA-100719-001A	12	2	0.06	2	No	0	0	30	70	0	0	0	0	0	0	0
15	49	268	2019-RSDPA-100719-001A	12	3	0.01	0	No	0	0	30	70	0	0	0	0	0	0	0
15	49	269	2019-RSDPA-100719-001A	12	4	0.10	1	Yes	0	0	20	50	0	30	0	0	0	0	0
15	49	270	2019-RSDPA-100719-001A	12	5	0.05	0	No	10	0	30	60	0	0	0	0	0	0	0
16	50	271	2019-RSDPA-100719-002A	1	1	0.18	1	No	10	90	0	0	0	0	0	0	0	0	0
16	50	272	2019-RSDPA-100719-002A	1	2	0.10	30	No	0	0	0	0	10	90	0	0	0	0	0
16	50	273	2019-RSDPA-100719-002A	1	3	0.03	5	No	0	0	0	0	20	80	0	0	0	0	0
16	50	274	2019-RSDPA-100719-002A	1	4	0.03	0	No	0	0	0	0	30	70	0	0	0	0	0
16	50	275	2019-RSDPA-100719-002A	1	5	0.01	0	No	0	0	0	10	60	30	0	0	0	0	0
16	50	276	2019-RSDPA-100719-002A	1	6	0.01	0	No	0	0	10	30	30	30	0	0	0	0	0
16	51	277	2019-RSDPA-100719-002A	2	1	0.47	0	Yes	10	0	0	10	50	30	0	0	0	0	0
16	51	278	2019-RSDPA-100719-002A	2	2	0.49	0	No	5	0	0	10	35	0	50	0	0	0	0
16	51	279	2019-RSDPA-100719-002A	2	3	0.40	0	No	20	0	30	30	20	0	0	0	0	0	0
16	51	280	2019-RSDPA-100719-002A	2	4	0.33	0	No	10	0	10	80	0	0	0	0	0	0	0
16	51	281	2019-RSDPA-100719-002A	2	5	0.12	0	No	0	0	45	50	5	0	0	0	0	0	0
16	51	282	2019-RSDPA-100719-002A	2	6	0.08	0	No	0	0	20	60	0	0	20	0	0	0	0
16	52	283	2019-RSDPA-100719-002A	3	1	0.47	0	Yes	0	0	0	20	80	0	0	0	0	0	0

Site ID	Transect ID	Point ID	Field number	Transect number	Point number	Depth (m)	Hydraulic head (mm)	Woody debris present	Organic	Clay	Silt	Sand	Gravel	Cobble	Boulder	Bedrock	Hardpan	Rubble	Concrete
16	52	284	2019-RSDPA-100719-002A	3	2	0.60	0	Yes	0	0	0	0	60	40	0	0	0	0	0
16	52	285	2019-RSDPA-100719-002A	3	3	0.46	0	No	0	0	0	0	20	80	0	0	0	0	0
16	52	286	2019-RSDPA-100719-002A	3	4	0.34	0	No	10	0	10	80	0	0	0	0	0	0	0
16	52	287	2019-RSDPA-100719-002A	3	5	0.19	0	No	80	0	5	15	0	0	0	0	0	0	0
16	52	288	2019-RSDPA-100719-002A	3	6	0.10	0	No	20	0	20	60	0	0	0	0	0	0	0
16	53	289	2019-RSDPA-100719-002A	4	1	0.23	0	No	0	0	50	50	0	0	0	0	0	0	0
16	53	290	2019-RSDPA-100719-002A	4	2	0.45	0	No	0	0	0	0	95	5	0	0	0	0	0
16	53	291	2019-RSDPA-100719-002A	4	3	0.37	0	No	0	0	5	5	70	20	0	0	0	0	0
16	53	292	2019-RSDPA-100719-002A	4	4	0.36	0	No	0	0	10	0	0	0	90	0	0	0	0
16	53	293	2019-RSDPA-100719-002A	4	5	0.15	0	No	90	0	10	0	0	0	0	0	0	0	0
16	53	294	2019-RSDPA-100719-002A	4	6	0.14	0	No	50	0	10	40	0	0	0	0	0	0	0
16	54	295	2019-RSDPA-100719-002A	5	1	0.67	0	Yes	0	0	0	0	0	100	0	0	0	0	0
16	54	296	2019-RSDPA-100719-002A	5	2	0.52	0	No	0	0	0	0	30	70	0	0	0	0	0
16	54	297	2019-RSDPA-100719-002A	5	3	0.45	0	No	10	0	10	70	10	0	0	0	0	0	0
16	54	298	2019-RSDPA-100719-002A	5	4	0.31	0	No	30	0	10	60	0	0	0	0	0	0	0
16	54	299	2019-RSDPA-100719-002A	5	5	0.15	0	No	80	0	20	0	0	0	0	0	0	0	0
16	54	300	2019-RSDPA-100719-002A	5	6	0.07	0	No	10	0	40	50	0	0	0	0	0	0	0