Targeted Sampling for Redside Dace (*Clinostomus elongatus*) in Gully Creek and Unknown Stan J, Huron County, Ontario, 2020

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Targeted sampling for Redside Dace (*Clinostomus elongatus*), a species listed as Endangered under Canada's *Species at Risk Act*, was undertaken in 2020 in the Lake Huron tributaries, Gully Creek (north and south branches) and Unknown Stan J. Expanding on sampling conducted in Gully Creek by Fisheries and Oceans Canada in 2019, sampling objectives were to increase the spatial coverage of targeted sampling for Redside Dace, estimate the abundance of Redside Dace in selected pools, and identify habitats used by the species. Habitat attributes of pools only (n=15) and entire reaches (n=12) were evaluated using a modified Ontario Stream Assessment Protocol for Point-Transect Sampling and other coarse habitat assessment methods. Depletion seining of 27 pools produced 4,250 fishes representing ten species, including 674 Redside Dace (34 to 96 mm total length) in 20 pools. Creek Chub (*Semotilus atromaculatus*), Blacknose Dace (*Rhinichthys obtusus*), and Redside Dace were the three most abundant species in both watercourses. Habitat features in both waterbodies were consistent with previous descriptions consisting of short, narrow, moderately deep pools. Sampling in 2020 has increased knowledge of the distribution of Redside Dace in both Unknown Stan J and Gully Creek (not previously detected in the north branch).

RÉSUMÉ

Gáspárdy, R.C., Barnucz, J., Colm, J.E., and Drake, D.A.R. 2021. Targeted Sampling for Redside Dace (*Clinostomus elongatus*) in Gully Creek and Unknown Stan J, Huron County, Ontario, 2020. Can. Data Rep. Fish. Aquat. Sci. 1344: vi + 77 p.

En 2020, on a effectué un échantillonnage ciblant le méné long (*Clinostomus elongatus*), une espèce inscrite comme étant en voie de disparition en vertu de la *Loi sur les espèces en péril* du Canada, dans les affluents du lac Huron, le ruisseau Gully (branches nord et sud) et Unknown Stan J. En élargissant l'échantillonnage effectué dans le ruisseau Gully par Pêches et Océans Canada en 2019, les objectifs de l'échantillonnage étaient d'augmenter la couverture spatiale de l'échantillonnage ciblant le méné long et d'estimer l'abondance du méné long dans certains bassins et de mettre en évidence les habitats utilisés par l'espèce. Les attributs de l'habitat des bassins seulement (n=15) et des tronçons entiers (n=12) ont été évalués au moyen d'une version modifiée de l'échantillonnage de transect-par-point du Protocole d'évaluation des rivières de l'Ontario et d'autres méthodes communes d'évaluation de l'habitat. Le seinage d'appauvrissement de 27 bassins a permis la capture de 4 250 poissons représentant dix espèces, dont 674 ménés longs d'une longueur totale variant de 34 à 96 mm dans 20 bassins. Le mulet à cornes (*Semotilus atromaculatus*), le naseux noir (*Rhinichthys obtusus*) et le méné long étaient les trois espèces les plus abondantes dans les deux cours d'eau. Les caractéristiques de l'habitat dans les deux plans d'eau étaient conformes aux descriptions antérieures et présentaient des bassins courts, étroits et modérément profonds. L'échantillonnage effectué en 2020 a permis de multiplier les connaissances sur la distribution du méné long dans Unknown Stan J et dans le ruisseau Gully (espèce non détectée auparavant dans la branche nord).

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), hereafter 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 gaining a better understanding of the 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 2020, expanding on field sampling completed in 2019 (Gáspárdy and Drake 2021), to better understand the distribution, abundance, and habitat attributes of Redside Dace (*Clinostomus elongatus*) in Lake Huron tributaries within Huron County, Ontario. Sampling in 2019 focused on the main stem of Gully Creek, while sampling in 2020 focused on upstream reaches of Gully Creek as well as Unknown Stan J to the south.

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 the *Species at Risk Act.* The range of Redside Dace in Canada is restricted, with the bulk of extant populations found in the Lake Ontario drainage near the Greater Toronto Area (GTA) as reported by 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) also reported by Lebrun et al. 2020.

The sub-watersheds in which Gully Creek and Unknown Stan J are located contain forested and agricultural land-cover (Jean 2010), but lack urban land-cover, providing an opportunity to evaluate the ecological attributes of Redside Dace populations that are unaffected by urbanization. In an effort to better understand the distribution, abundance, and habitat attributes of Redside Dace in Gully Creek and Unknown Stan J, targeted sampling was undertaken by DFO's Great Lakes Laboratory for Fisheries and Aquatic Sciences in 2020. The goals of sampling were:

1) To increase the spatial coverage of targeted sampling for Redside Dace in the upstream segments of Gully Creek and in Unknown Stan J 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; and,
3) To assess the abundance of Redside Dace in selected pools.

METHODS

STUDY SYSTEM AND SITE SELECTION

Gully Creek and Unknown Stan J are located within two small sub-watersheds, Bayfield North and South Gullies, respectively, together referred to as Lakeshore watersheds by the Ausable Bayfield Conservation Authority (ABCA) as they contain many small watercourses that outlet directly into Lake Huron (Jean 2010; Coleman et al. 2018). Gully Creek is the largest of the "gullies" that make up the Bayfield North sub-watershed, located north of Bayfield, Ontario. The Bayfield North sub-watershed has an area of 40 km^2 and the dominant land uses are agriculture (59%) and natural (36%) (Coleman et al. 2018). Gully Creek is classified as an Environmentally Significant Area (ESA) by ABCA, is vegetated for much of it's length (Jean et al. 2012), and upstream segments of Gully Creek have been classified by ABCA as Significant Ground Water Recharge Areas (Brock et al. 2010). Unknown Stan J is one of many smaller watersheds within the South Gullies sub-watershed that covers 199 km^2 south of Bayfield; the average catchment of the small watersheds is 3 km^2. In contrast to the North Bayfield sub-watershed, South Gullies land use is dominantly agriculture (78%) with only 17% natural cover overall (Coleman et al. 2018). Unknown Stan J was referred to as Unnamed Tributary by COSEWIC (2017); however, ABCA reports and drainage mapping tool identify this watercourse as Unknown Stan J (Jean et al. 2012; ABCA 2021).

Reaches of Gully Creek targeted for sampling in 2020 consisted of the main Ontario Ministry of Natural Resources Aquatic Ecosystem Classification (AEC) segments of the north (R12.2038, R12.1995) and south (R12.2048, R12.2067) branches, upstream of the main stem segment (R12.2051) that was sampled in 2019 (Figure 1). The north branch flows from north to south, crossing under Tower Line Road, and the south branch flows from south to north, crossing under Telephone Road. Both road crossings have perched culverts on the downstream side that drain into deep pools and likely represent barriers to upstream fish movement in most flow conditions. The north and south branches meet at a single confluence with the main stem, upstream of Porter's Hill Line (Figure 1). A minimum of four sites were targeted for sampling within each of the four target AEC segments (Figure 2). All sampling in these segments was contained within one country block and was located on private property, with site access granted by landowners for the 2020 field visits. Sampling was not conducted upstream of either Tower Line Road or Telephone Road because landowner permission was not requested or obtained for those parcels. The study area consisted of steep valleys and dense forest cover, which made site access challenging, and required field crews to descend steep, wooded slopes to access the gully valley below. Field sampling from Gully Creek in 2020 represents a targeted convenience sample, which was influenced by landowner permission and other site access constraints.

The focal area for sampling in Unknown Stan J was three road crossings (Highway 21, Bronson Line, and Centennial Road), with additional spatial coverage where access and landowner permission allowed (Figure 3). The road crossing at Bronson line has large cattle pastures on either side, which had a bull present during the sampling period and thus restricted access to the watercourse at the road crossing. However, access in this segment was granted by the landowner at the secondary driveway to the pasture off Centennial Road, west of Bronson Line. Landowner permission was also granted to access Unknown Stan J on the two properties upstream and downstream of Highway 21, allowing for greater spatial coverage of sites within these two segments.

Sites within both Gully Creek and Unknown Stan J were chosen based on the selection criteria used in Gully Creek in 2019 (Gáspárdy and Drake 2021), which involved walking the streambank or channel and identifying pool habitats where hydraulic head was 0 – 3 mm (Reid

et al. 2008) and that were mostly open with limited woody debris to allow for effective seining. Pools where Redside Dace had been previously detected by DFO or ABCA (Jean 2010, 2011; Jean et al. 2012) were prioritized for sampling in situations where past detections occurred within target reaches and where these pools met all other selection criteria. Efforts were made to maintain at least one riffle-pool sequence between selected pools until the target number of pools in each segment had been reached (i.e., four pools per AEC segment in Gully Creek).

FISH COMMUNITY SAMPLING

Depletion Seining

Depletion seining was conducted in Gully Creek and Unknown Stan J in 2020 following the depletion protocol used in the main stem of Gully Creek in 2019 (Gáspárdy and Drake 2021); however, seines used in 2020 were shorter in length (same height and mesh size) than in 2019 to facilitate gear deployment in the smaller habitats sampled in 2020. 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 6 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. The coordinates of the upstream and downstream limits of the sampled pool were measured using a Garmin Montana® series 600 handheld GPS unit and recorded to define the location of the sampling site (Appendix A).

Fishes were sampled from within the enclosed area using a 5 m long x 1.8 m tall straight seine with 3 mm mesh mounted on 1.8 m tall poles of 51 mm diameter hardwood dowel. 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 haul 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

Habitat data was collected at sites sampled in Gully Creek and Unknown Stan J in 2020 following the same protocol used in Gully Creek in 2019 (Gaspardy and Drake, 2021). Aquatic habitat variables were measured after fish sampling was complete. 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. YSI readings were taken either prior to sampling, or immediately upstream of the site after sampling to avoid disturbance and turbidity. Water clarity (m) was measured using a 1.20 m Fieldmaster turbidity tube. Air temperature (°C) was measured using a Kestrel 3000 wind meter.

The stream segments were defined and measured, and morphometric data and substrate were collected using modified versions of the following Ontario Stream Assessment Protocol (OSAP) modules (Stanfield 2005): Defining Site Boundaries and Key Identifiers (S1:M1), and Point-Transect Sampling for Channel Structure, Substrate, and Bank Conditions (S4:M2). The reach at each site was identified based on OSAP S1:M1 for defining site boundaries and length determination in which the reach is defined as a stream segment at least 40 m long containing at least one riffle-pool sequence, beginning and ending at a crossover point (Stanfield 2005). In this study, the OSAP minimum reach length was not implemented and the identified reach was limited to a single riffle-pool sequence that contained the seined pool. The total reach length and sampled pool length (subsection of reach) were measured at each site using a measuring tape, chaining through the center of the stream segment following OSAP S1:M1 instructions.

Morphometric and substrate data were collected following OSAP S4:M2 point-transect sampling. Due to time and resource constraints, these data were collected from only 12 sites over the full reach, which includes the sampled pool, and additionally from 15 sites located within the sampled pool (Appendix G). The target was to collect OSAP point-transect data from the full reach for at least two sites per AEC segment in Gully Creek and at least one third of the sites in Unknown Stan J, and within the sampled pool only at the remainder of sites.

As per the OSAP point-transect sampling protocol (S4:M2), 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, half of the total reach transects were used and spaced 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 visually assessed and recorded, and the wetted width was measured (including undercuts) 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. The presence of large woody debris and percent composition of substrate types were recorded based on visual delineation within a 30 cm diameter observation area centered on each observation point.

SAMPLING PERMITS AND DATA ARCHIVING

Sampling for this project was conducted under SARA Permit Number 20-PCAA-00022. 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 “2020-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 COMMUNITY SAMPLING

Overall, 27 sites were sampled in Gully Creek and Unknown Stan J in summer 2020. A total of 4,250 fishes representing ten species were captured, including 674 Redside Dace at 20 sites. A total of approximately 840.16 m^2 of pool habitat was sampled with 81 seine hauls. Creek Chub (*Semotilus atromaculatus*) and Blacknose Dace (*Rhinichthys obtusus*) were detected at every site where Redside Dace was detected. Fish assemblage results are summarized by waterbody below.

Gully Creek

Eighteen sites were sampled using depletion seining between August 18 and 31, 2020 in Gully Creek among the four AEC segments: R12.2038 and R12.1995 in the north branch, and R12.2048 and R12.2067 in the south branch (Table 1, Figure 2, Appendix A1). A total of 1,440 fishes representing six species were captured, including 154 Redside Dace (Table 2). The most abundant species were Creek Chub, Blacknose Dace, and Redside Dace, which collectively represented 92.4% of the total abundance (Figure 4a). Creek Chub and Blacknose Dace were the most frequently occurring species, each detected at 17 of 18 sites (Appendix B1).

Redside Dace detections occurred at seven of nine sites sampled in the south branch (AEC R12.2048 and R12.2067), with Redside Dace detected furthest upstream at the pool immediately north of Telephone Road (GC-18). Redside Dace had not been previously detected in the north branch (AEC R12.2038 and R12.1995), but in 2020 was detected at four of nine sites sampled, as far upstream as site GC-04, which was approximately 230 m downstream from Tower Line Road (Table 3a, Figure 2). Based on visual assessment of the length-frequency distribution, mostly adult Redside Dace were captured, with a single 50 mm fish, likely a juvenile, also captured (Table 3a, Figure 5, Figure 6). Mean total length of Redside Dace captured in Gully Creek was 74.1 mm (range: 50 – 96 mm), and mean mass was 2.97 g (range: 1.8 – 6.2 g, though the 50 mm individual was not weighed) (Table 3a, Figure 7a, Appendix C1). Redside Dace were most abundant at site GC-18 (n=64), but made up the highest percentage of relative abundance at the site at GC-10 where Redside Dace (n=37) constituted 52.9% of total fishes captured.

Unknown Stan J

Nine sites were sampled using depletion seining between September 1 and 9, 2020 in Unknown Stan J, including one site in Unknown Stan J Trib A (Table 1, Figure 3, Appendix A2). A total of 2,810 fishes representing eight species were captured, including 520 Redside Dace (Table 2,

Table 3b). The most abundant species were Creek Chub, Redside Dace, Blacknose Dace, and Common Shiner (*Luxilus cornutus*), which collectively represent 85.3% of the total abundance in Unknown Stan J (Figure 4b). Northern Redbelly Dace (*Chrosomus eos*) and Common Shiner were detected in Unknown Stan J but not in Gully Creek in 2019 or 2020 sampling (Table 2, Appendix B2).

Redside Dace was detected at all nine sites sampled in Unknown Stan J, including the furthest site upstream (USJ-01), which is immediately upstream of Centennial Road. Redside Dace was also found at three sites downstream of highway 21 (USJ-07, USJ-08, and USJ-09; Figure 3, Appendix B2). Based on visual observation, the Highway 21 box culvert likely presents a barrier to upstream fish passage in most flow conditions. Based on visual assessment of the length-frequency distribution, both adult and juvenile Redside Dace were captured representing two or more age-classes (Figure 5, Figure 6b). Mean total length of Redside Dace captured in Unknown Stan J was 69.9 mm (range: 34 – 93 mm), and mean mass was 2.56 g (range: 0.2 – 5.7) (Table 3b, Figure 7b, Appendix C2). Redside Dace was the most abundant at site USJ-07 (n=162*)* and USJ-09 (n=120) where Redside Dace also had the highest relative abundance of 27.0% and 27.1% of the total catch at each site, respectively.

HABITAT SAMPLING

Sampled pool dimensions varied based on available habitat at each site – site dimensions are summarized by AEC segment in Table 4. All data collected from the modified Ontario Stream Assessment Protocol Point-Transect Sampling for Channel Structure, Substrate, and Bank Conditions (S4.M2) method are provided in appendices relating to site-level data (Appendix D), transect-level data (Appendix E), and point-observation data (Appendix F).

Gully Creek

Water temperature was generally cool at all sites sampled with a mean temperature of 16.86°C (range: 13.987 – 20.666°C); evidence of groundwater, such as presence of Watercress (*Nasturium officinale*) or iron staining, was noted at multiple sites. Mean conductivity was 16.86 µS (range: 432.4 – 539.0 µS), mean dissolved oxygen was 8.32 mg/L (range: 6.38 – 9.84 mg/L), mean pH was 8.22 (range: 7.83 – 9.82), and water clarity was high with a mean turbidity of 3.50 (range: 1.74 – 7.00 NTU) (Table 5a, Appendix G1). Pools in Gully Creek lacked aquatic vegetation, with all but one site classified as 100% open water; site GC-12 had 5% emergent vegetation (watercress) present (Table 5a, Appendix H1). Dominant riparian vegetation type was variable across sites, with deciduous, coniferous, herbaceous, and none (or bare) noted as dominant at several sites, though herbaceous was most commonly identified as the dominant riparian vegetation type at the most sites (Table 5a, Appendix I1). Many sites had steep vegetated banks with overhanging vegetation, with channel cover ranging from 0 to 50% and bank slope from 45 to 100% (Appendix I1). All sites downstream of GC-07 in R12.2038 in the north branch were within a deeper gully with floodplain use classified as less disturbed – shrubs/woodland. GC-07 and sites upstream were located in grassland and rural residential or pasture (Appendix I1).

Overall, mean reach length of sites in Gully Creek was 15.88 m, and mean pool dimension (L x W) was 9.65 m x 3.18 m (Table 4a, Appendix D1 – E1). Mean pool depth was 0.24 m when all point depth measurements were averaged at each site, however, the majority of sites in Gully Creek did not exceed 0.60 m deep at any measured point (15 sites), while three sites (GC-01, GC-10, and GC-18) had maximum depths greater than 1.20 m. Overall, mean hydraulic head (HH) within sampled pools was 0.1 mm (range of mean site HH: 0.0 – 0.7) (Table 4a, Appendix F1).

Unknown Stan J

Water temperature in Unknown Stan J was generally cool, with a mean temperature of 17.96°C (range: 14.14 – 20.83°C) (Table 5b); evidence of groundwater, such as presence of Watercress, was noted at several sites (Appendix H2). Mean conductivity was 387.94 µS (range: 241 – 533 µS), mean dissolved oxygen was 7.88 mg/L (range: 6.64 – 9.77 mg/L), mean pH was 8.13 (range: 7.94 – 8.41), and water clarity was 29.24 NTU (range: 8.06 – 93.75) likely due to rain events during the sampling period (Table 5b, Appendix G2). Pools in Unknown Stan J lacked aquatic vegetation and were dominated by open water (> 70% at all sites), with up to 25% submerged and/or emergent vegetation present (Table 5b, Appendix H2) including Watercress and Canada waterweed (*Elodea Canadensis*). Dominant riparian vegetation type was herbaceous at all but two sites, which were dominated by deciduous trees (Table 5b, Appendix I2). All sites with dominantly herbaceous riparian vegetation had dense overhanging vegetation resulting in channel cover ranging from 5 to 50% of the total channel width (Appendix I2).

Overall, mean reach length in Unknown Stan J was 19.90 m, and mean pool dimension (L x W) was 12.55 m x 2.87 m (Table 4b, Appendix D2 – E2). Mean pool depth was 0.27 m, calculated as the mean of all point depth measurements within the pool; the maximum single point depth measurement in any Unknown Stan J sampled pool was 0.87 m. Mean hydraulic head within sampled pools was 0 mm (range: 0 – 1 mm) (Table 4b, Appendix F2)

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

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Table 1. *Summary of sampling effort in a) Gully Creek, and b) Unknown Stan J, 2020.*

a) Gully Creek

Segment	Sites	Seine hauls	Mean pool area (m^2)	Total species	Total fishes
R12.2038	4	12	31.54	5	97
R12.1995	5	15	26.99	6	345
R12.2048	4	12	34.69	6	370
R12.2067	5	15	23.77	6	628
TOTAL	**18**	**54**	**28.82**	**6**	**1440**

b) Unknown Stan J

Segment	Sites	Seine hauls	Mean pool area (m^2)	Total species	Total fishes
Trib a	1	3	11.87	4	146
Main	8	24	38.69	8	2664
TOTAL	**9**	**27**	**35.71**	**8**	**2810**

Table 2. *Summary of species detected by watercourse and aquatic ecosystem classification (AEC) segment in Gully Creek and Unknown Stan J in 2020. Species detected in Gully Creek in 2019 (AEC segment R12.2015) are indicated with an X for comparison.*

			Gully Creek					Unknown Stan J		
Scientific name	**Common name**	**R12.2051***	**R12.2038**	**R12.1995**	**R12.2048**	**R12.2067**	**Total (2020)**	**Trib A**	**Main**	**Total**
Ambloplites rupestris	Rock Bass	X	0	0	0	0	**0**	0	0	**0**
Campostoma anomalum	Central Stoneroller	X	0	0	0	0	**0**	0	9	**9**
Catostomus commersonii	White Sucker	X	0	4	6	6	**16**	0	82	**82**
Chrosomus eos	Northern Redbelly Dace	-	0	0	0	0	**0**	0	233	**233**
Clinostomus elongatus	Redside Dace	X	2	3	69	80	**154**	16	504	**520**
Cottus bairdii	Mottled Sculpin	X	1	33	5	29	**68**	0	0	**0**
Hybognathus hankinsoni	Brassy Minnow	X	0	0	0	0	**0**	0	0	**0**
Luxilus cornutus	Common Shiner	-	0	0	0	0	**0**	0	399	**399**
Noturus flavus	Stonecat	X	0	0	0	0	**0**	0	0	**0**
Oncorhynchus kisutch	Coho Salmon	X	0	0	0	0	**0**	0	0	**0**
Oncorhynchus mykiss	Rainbow Trout	X	3	2	16	5	**26**	0	0	**0**
Pimephales notatus	Bluntnose Minnow	X	0	0	0	0	**0**	2	86	**88**
Rhinichthys obtusus	Blacknose Dace	X	51	209	77	209	**546**	77	424	**501**
Rhinichthys cataractae	Longnose Dace	X	0	0	0	0	**0**	0	0	**0**
Semotilus atromaculatus	Creek Chub	X	40	94	197	299	**630**	51	927	**978**
TOTAL			**97**	**345**	**370**	**628**	**1440**	**146**	**2664**	**2810**

**R12.2051 sampled in 2019* (Gáspárdy and Drake 2021)

Table 3. *Summary of Redside Dace (RSD) captured by segment of each watershed, including frequency of occurrence as a percentage. Individual Redside Dace were measured for total length (TL) and mass.*

a) Gully Creek

Segment	Sites (%)	Total RSD	TL (mm)			Mass (g)		
			Min	Max	Mean	Min	Max	Mean
R12.2038	50	2	74	75	74.5	2.8	2.9	2.85
R12.1995	66	3	75	76	75.3	3.2	3.3	3.27
R12.2048	75	69	50	89	74.3	1.8	4.9	2.84
R12.2067	100	80	65	96	73.8	2.0	6.2	3.06
All	**66**	**154**	**50**	**96**	**74.1**	**1.8**	**6.2**	**2.97**

b) Unknown Stan J

Segment	Sites (%)	Total RSD	TL (mm)			Mass (g)		
			Min	Max	Mean	Min	Max	Mean
Trib a	100	16	63	72	68.2	1.7	2.9	2.31
Main	100	504	34	93	69.9	0.2	5.7	2.57
All	**100**	**520**	**34**	**93**	**69.9**	**0.2**	**5.7**	**2.56**

Table 4. *Summary of the dimensions of sites by segment in a) Gully Creek, and b) Unknown Stan J, presented as mean values (min - max). Pool width is summarized from transect level measurements, pool depth and hydraulic head (HH) are summarized from point observations; grand means represent mean values calculated form segment means, while minimum and maximum values in the bottom row represent the minimum and maximum values among all measured data points.*

a) Gully Creek

Segment	Pool length (m)	Reach length (m)	Pool width (m)	Pool depth (m)	Pool HH (mm)
R12.1995	11.43	17.43	2.64	0.29	0.2
	(7.51 - 15.72)	(11.8 - 24.25)	(0.79 - 7.25)	(-0.135 - 1.31)	(0 - 9)
R12.2038	12.38	20.73	2.42	0.18	0.1
	(3.5 - 20.8)	(10.06 - 30.6)	(1.58 - 3.45)	(-0.06 - 0.42)	(0 - 3)
R12.2048	7.50	12.76	4.49	0.27	0.1
	(4.6 - 9.9)	(10.75 - 14.8)	(2.96 - 6.76)	(0.01 - 1.2)	0 - 5)
R12.2067	7.40	12.89	3.27	0.24	0
	(4.2 - 13.4)	(7.3 - 24)	(1.52 - 7.85)	(0.022 - 1.31)	(0 - 0)
All	**9.65**	**15.88**	**3.18**	**0.25**	**0.1**
	(3.5 - 20.8)	(7.3 - 30.6)	(0.79 - 7.85)	(-0.135 - 1.31)	(0 - 9)

b) Unknown Stan J

Segment	Pool length (m)	Reach length (m)	Pool width (m)	Pool depth (m)	Pool HH (mm)
Trib A	5.27	12.82	2.25	0.20	0
			(1.33 - 3.025)	(-0.205 - 0.37)	
Main	13.31	20.78	2.95	0.28	0
	(7.95 - 21.15)	(13.15 - 27.1)	(1.27 - 4.91)	(-0.13 - 0.87)	(0 - 1)
All	**12.55**	**19.90**	**2.87**	**0.27**	**0**
	(5.27 - 21.15)	(12.82 - 27.1)	(1.27 - 4.91)	(-0.205 - 0.87)	(0 - 1)

Table 5. *Summary of habitat conditions in each section of a) Gully Creek, and b) Unknown Stan J sampled for Redside Dace in 2020. Mean values are presented for the sites sampled within each segment.*

a) Gully Creek

Segment	Air temp. (°C)	Water temp. (°C)	Conductivity (µS)	Dissolved oxygen (mg/L)	pH	Turbidity (NTU)	Dominant substrate type	Dominant aquatic vegetation type	Dominant riparian vegetation type	Channel cover (%)
R12.1995	23.7	16.43	498.52	8.20	7.95	3.39	Sand	Open water	Herbaceous	22.0
R12.2038	17.6	15.56	476.18	9.38	8.73	2.90	Sand	Open water	None/Herb	8.8
R12.2048	20.4	17.83	487.50	8.64	8.33	3.31	Sand	Open water	Deciduous/Coniferous	10.0
R12.2067	19.7	17.56	513.20	7.30	8.01	4.25	Sand	Open water	Herbaceous	11.0
All	**20.9**	**16.86**	**495.18**	**8.31**	**8.22**	**3.50**	**Sand**	**Open water**	**Herbaceous**	**13.3**

b) Unknown Stan J

Segment	Air temp. (°C)	Water temp. (°C)	Conductivity (µS)	Dissolved oxygen (mg/L)	pH	Turbidity (NTU)	Dominant substrate type	Dominant aquatic vegetation type	Dominant riparian vegetation type	Channel cover (%)
Trib A	14.1	14.14	533.00	7.90	8.04	8.79	Silt	Open water	Herbaceous	15.0
Main	21.1	18.43	369.81	7.88	8.14	32.16	Sand	Open water	Herbaceous	25.6
All	**20.4**	**17.96**	**387.94**	**7.88**	**8.13**	**29.24**	**Sand/Silt**	**Open water**	**Herbaceous**	**24.4**

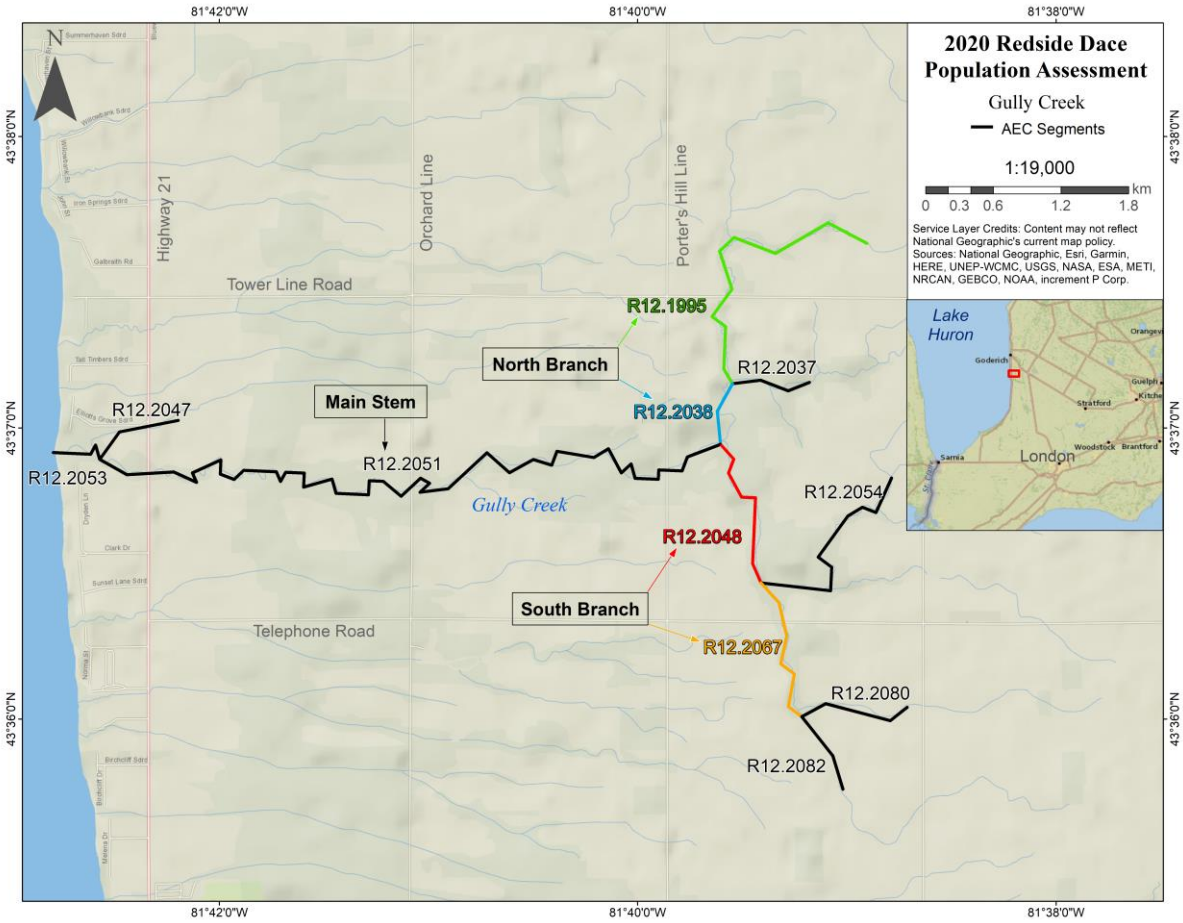


Figure 1. *Diagram of the location and identity of Aquatic Ecosystem Classification (AEC) segments within Gully Creek. Colour-coded AEC segments (R12.1995, R12.2038, R12.2048, R12.2067) in the north and south branches of Gully Creek sampled by Fisheries and Oceans Canada in 2020.*

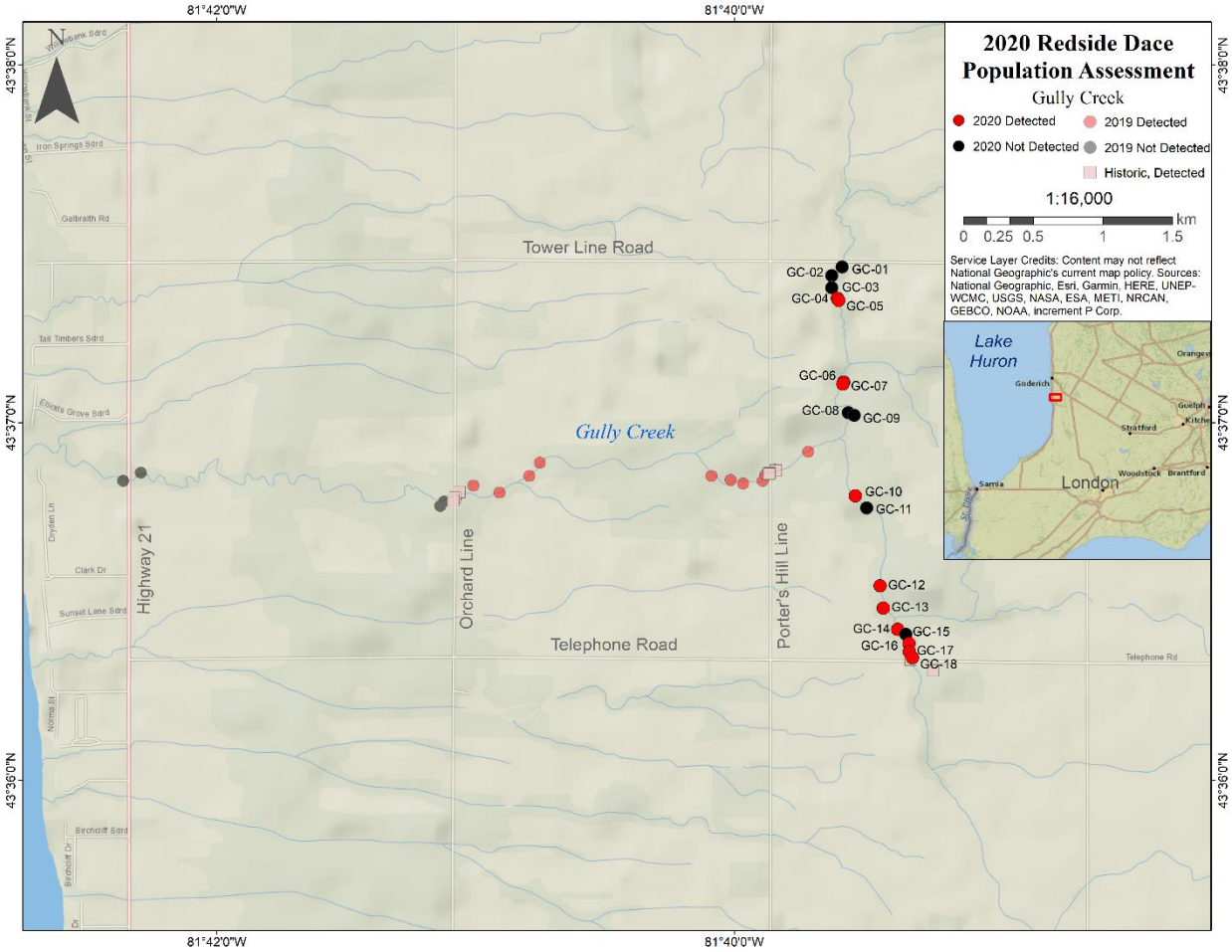


Figure 2. *Location of sampling in Gully Creek in 2020, including subset of locations where Redside Dace was detected. Labels are Map SiteIDs.*

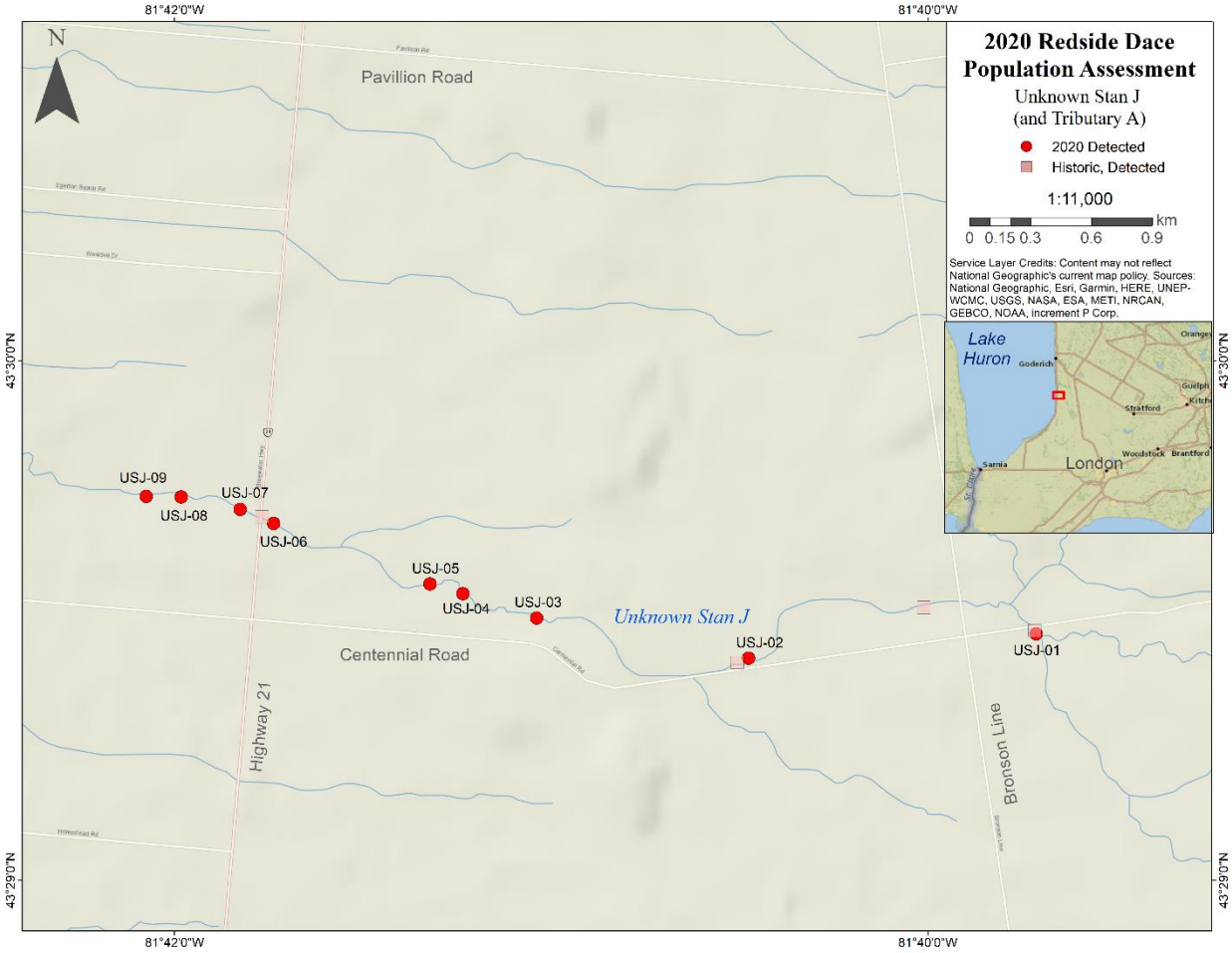
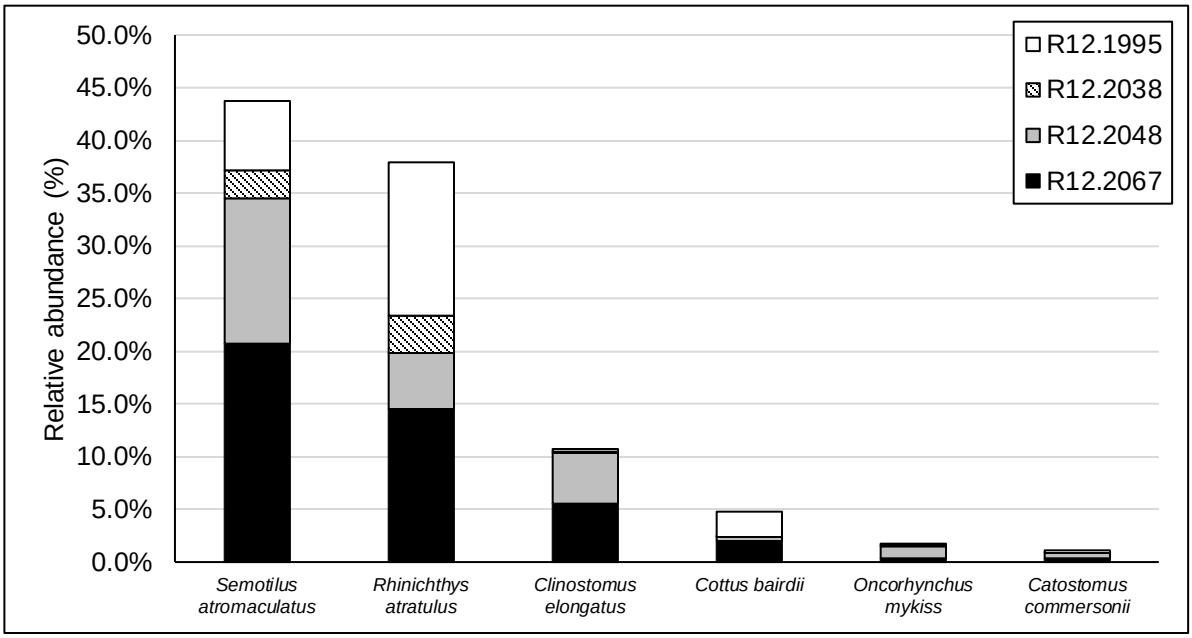
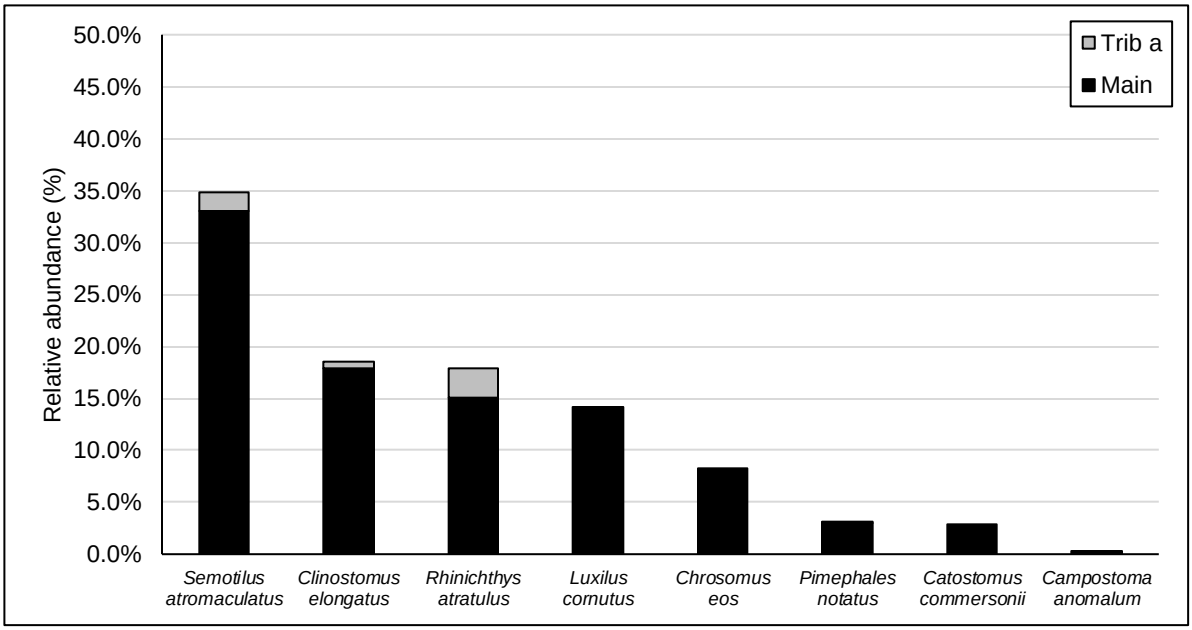


Figure 3. *Location of sampling in Unknown Stan J in 2020, indicating where Redside Dace was detected. Labels are Map SiteIDs. USJ-01 is on Unknown Stan J Tributary A.*



a) Gully Creek



b) Unknown Stan J

Figure 4. *Overall rank-abundance of species captured in each segment of a) Gully Creek, and b) Unknown Stan J based on sampling in 2020.*

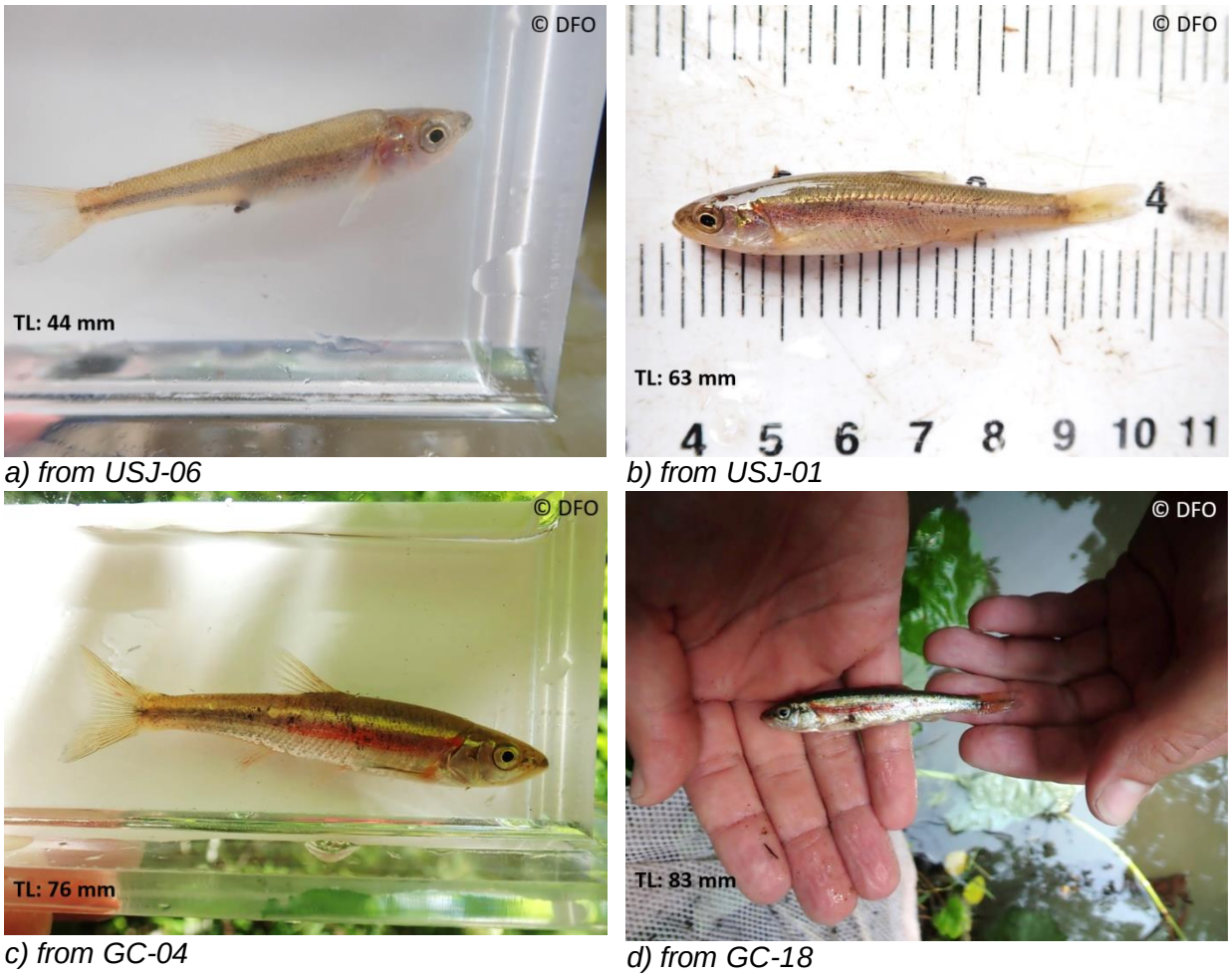
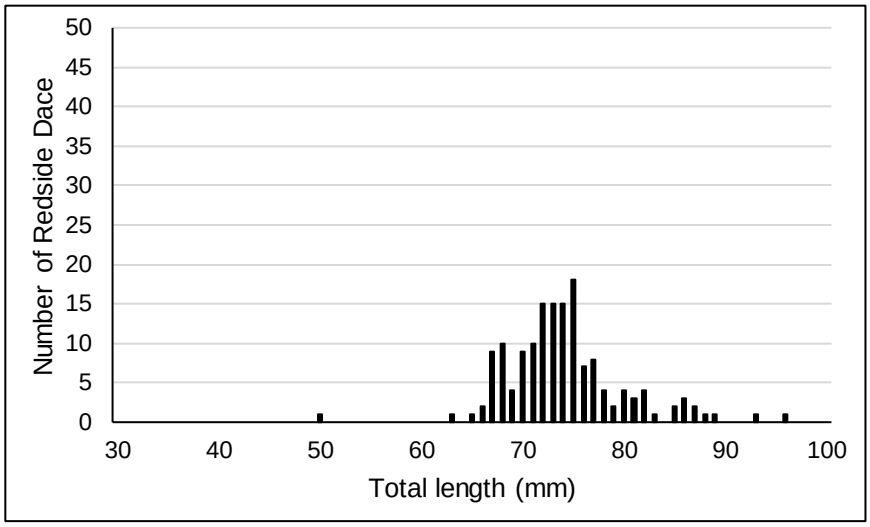
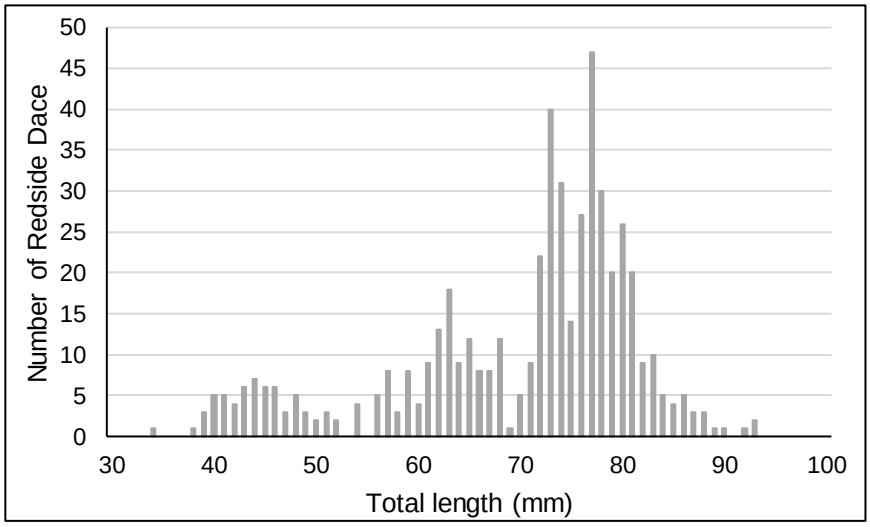


Figure 5. *Voucher photographs of Redside Dace a) juvenile, 44 mm total length (TL), SiteID USJ-06; b) juvenile: 63 mm TL, USJ-01; c) adult, 76 mm TL, GC-04; and d) adult, 83 mm TL, GC-18 captured in Gully Creek (GC) and Unknown Stan J (USJ) during 2020 sampling.*

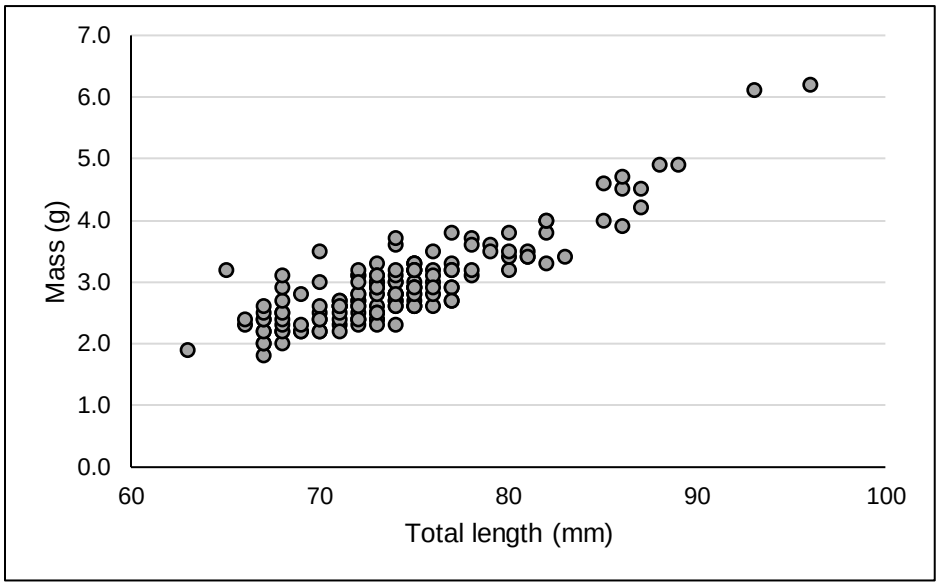


a) Gully Creek

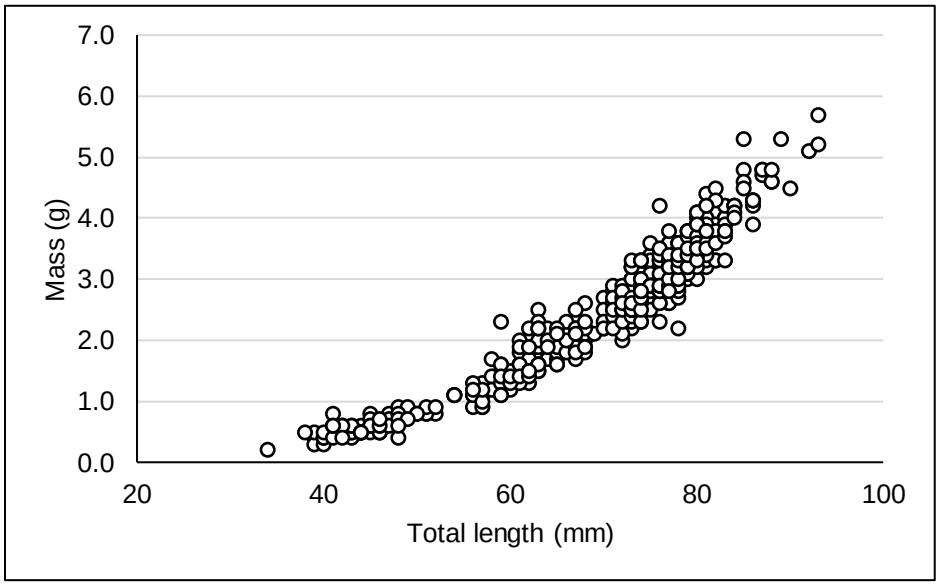


b) Unknown Stan J

Figure 6. *Length-frequency distribution of Redside Dace captured in a) Gully Creek (n=154), and b) Unknown Stan J (n=519), based on sampling in 2020.*



a) Gully Creek



b) Unknown Stan J

Figure 7. *Relationship between total length (mm) and mass (g) of Redside Dace captured in a) Gully Creek (n=152), and b) Unknown Stan J (n=519) based on sampling in 2020. Y-axes reflect differences in range of TL of Redside Dace in Gully Creek (63-96 mm) and Unknown Stan J (34-93 mm).*

Appendix A. *Location and description of sites sampled in 1) Gully Creek, north and south branches, and 2) Unknown Stan J, where upstream (u/s) and downstream (d/s) coordinates represent the boundaries of the sampled pools. Access to all sites via private property was graciously granted by landowners.*

1) Gully Creek

Map SiteID	Branch	AEC Segment	Field number	Date	Narrative locality description	u/s latitude	u/s longitude	d/s latitude	d/s longitude
GC-01	North	R12.1995	2020-RSDPA-310820-002A	31-Aug-20	large deep pool immediately d/s of perched culvert under Tower Line Rd, next to sheep pasture	43.62392	-81.65972	43.62390	-81.65974
GC-02	North	R12.1995	2020-RSDPA-200820-003A	20-Aug-20	b/w small culvert and little bridge by pond/sheep pasture	43.62352	-81.66039	43.62350	-81.66038
GC-03	North	R12.1995	2020-RSDPA-250820-001A	25-Aug-20	Mid lawn	43.62295	-81.66039	43.62291	-81.66041
GC-04	North	R12.1995	2020-RSDPA-310820-001A	31-Aug-20	South end of lawn	43.62246	-81.66003	43.62246	-81.66010
GC-05	North	R12.1995	2020-RSDPA-240820-001A	24-Aug-20	South end of mown lawn, S of pond/cabin	43.62236	-81.65994	43.62240	-81.65990
GC-06	North	R12.2038	2020-RSDPA-200820-002A	20-Aug-20	Meadow, d/s of culvert	43.61856	-81.65962	43.61854	-81.65963
GC-07	North	R12.2038	2020-RSDPA-200820-001A	20-Aug-20	North end of PH property, meadow clearing	43.61847	-81.65967	43.61839	-81.65960
GC-08	North	R12.2038	2020-RSDPA-180820-002A	18-Aug-20	North of PH's trail	43.61713	-81.65932	43.61709	-81.65933
GC-09	North	R12.2038	2020-RSDPA-180820-001A	18-Aug-20	at end of PH's trail	43.61701	-81.65894	43.61694	-81.65882
GC-10	South	R12.2048	2020-RSDPA-190820-001A	19-Aug-20	Big pool ~300 m u/s (S) of confluence with main stem (R12.2051)	43.61325	-81.65887	43.61328	-81.65894
GC-11	South	R12.2048	2020-RSDPA-190820-002A	19-Aug-20	~375 m u/s (S) of confluence	43.61269	-81.65814	43.61279	-81.65810
GC-12	South	R12.2048	2020-RSDPA-250820-002A	25-Aug-20	~450 m (straight) d/s Telephone Rd - ~170 m d/s of R12.2067	43.60906	-81.65727	43.60913	-81.65725
GC-13	South	R12.2048	2020-RSDPA-250820-003A	25-Aug-20	~325 m (straight) d/s Telephone Rd - ~65 m d/s of R12.2067	43.60802	-81.65707	43.60812	-81.65717

Map SiteID	Branch	AEC Segment	Field number	Date	Narrative locality description	u/s latitude	u/s longitude	d/s latitude	d/s longitude
GC-14	South	R12.2067	2020-RSDPA-260820-001A	26-Aug-20	d/s Telephone Rd - ~190 m u/s of R12.2048	43.60703	-81.65614	43.60711	-81.65630
GC-15	South	R12.2067	2020-RSDPA-260820-002A	26-Aug-20	~150 m d/s Telephone Rd	43.60680	-81.65562	43.60677	-81.65571
GC-16	South	R12.2067	2020-RSDPA-260820-003A	26-Aug-20	~100 m d/s Telephone Rd	43.60637	-81.65541	43.60649	-81.65548
GC-17	South	R12.2067	2020-RSDPA-270820-001A	27-Aug-20	d/s Telephone Rd	43.60598	-81.65539	43.60607	-81.65536
GC-18	South	R12.2067	2020-RSDPA-270820-002A	27-Aug-20	large, deep pool immediately d/s Telephone Rd	43.60571	-81.65520	43.60583	-81.65527

2) Unknown Stan J

Map SiteID	Branch	AEC Segment	Field number	Date	Narrative locality description	u/s latitude	u/s longitude	d/s latitude	d/s longitude
USJ-01	Trib. A	NA	2020-RSDPA-090920-001A	09-Sep-20	Pool immediately u/s of Centennial Rd	43.49123	-81.66187	43.49130	-81.66192
USJ-02	Main	NA	2020-RSDPA-030920-001A	03-Sep-20	~50 m u/s of laneway culvert, alongside cattle pasture on Centennial Rd	43.49045	-81.67460	43.49046	-81.67474
USJ-03	Main	NA	2020-RSDPA-020920-001A	02-Sep-20	~1.05 km u/s of Hwy 21, u/s of farm laneway off Centennial Rd	43.49174	-81.68398	43.49179	-81.68409
USJ-04	Main	NA	2020-RSDPA-020920-002A	02-Sep-20	~770 m u/s of Hwy 21, ~250 m d/s of of farm laneway off Centennial Rd	43.49252	-81.68724	43.49249	-81.68723
USJ-05	Main	NA	2020-RSDPA-090920-002A	09-Sep-20	~350m NW of farm laneway off Centennial Rd, ~650 m u/s of Hwy 21	43.49283	-81.68870	43.49284	-81.68880
USJ-06	Main	NA	2020-RSDPA-010920-001A	01-Sep-20	Pool ~25 m u/s Hwy 21	43.49477	-81.69562	43.49480	-81.69585
USJ-07	Main	NA	2020-RSDPA-010920-002A	01-Sep-20	~85 m d/s of Hwy 21, ~40 m u/s farm bridge	43.49522	-81.69710	43.49524	-81.69724
USJ-08	Main	NA	2020-RSDPA-030920-002A	03-Sep-20	~300 m d/s Hwy 21, ~180 m d/s farm bridge	43.49562	-81.69971	43.49561	-81.69977
USJ-09	Main	NA	2020-RSDPA-030920-003A	03-Sep-20	~415 m d/s Hwy 21, ~300 m d/s farm bridge	43.49564	-81.70126	43.49567	-81.70141

Appendix B. *Fish assemblage sampling results indicating the total number of each species captured in 1) Gully Creek, and 2) Unknown Stan J, 2020, where bin number is the first, second, or third consecutive seine haul.*

1) Gully Creek

Map SiteID	Field Number	Bin Number	*Campostoma anomalum*	*Catostomus commersonii*	*Chrosomus eos*	*Clinostomus elongatus*	*Cottus bairdii*	*Luxilus cornutus*	*Oncorhynchus mykiss*	*Pimephales notatus*	*Rhinichthys obtusus*	*Semotilus atromaculatus*
GC-01	2020-RSDPA-310820-002A	1	0	1	0	0	1	0	0	0	1	0
GC-01	2020-RSDPA-310820-002A	2	0	0	0	0	0	0	0	0	1	2
GC-01	2020-RSDPA-310820-002A	3	0	2	0	0	0	0	1	0	17	2
GC-02	2020-RSDPA-200820-003A	1	0	0	0	0	0	0	0	0	8	0
GC-02	2020-RSDPA-200820-003A	2	0	0	0	0	2	0	0	0	1	0
GC-02	2020-RSDPA-200820-003A	3	0	0	0	0	1	0	1	0	9	0
GC-03	2020-RSDPA-250820-001A	1	0	0	0	0	0	0	0	0	1	0
GC-03	2020-RSDPA-250820-001A	2	0	0	0	0	2	0	0	0	21	0
GC-03	2020-RSDPA-250820-001A	3	0	0	0	0	5	0	0	0	22	1
GC-04	2020-RSDPA-310820-001A	1	0	0	0	0	4	0	0	0	41	31
GC-04	2020-RSDPA-310820-001A	2	0	0	0	1	3	0	0	0	13	4
GC-04	2020-RSDPA-310820-001A	3	0	0	0	0	2	0	0	0	4	1
GC-05	2020-RSDPA-240820-001A	1	0	0	0	0	4	0	0	0	15	20
GC-05	2020-RSDPA-240820-001A	2	0	1	0	2	6	0	0	0	40	29
GC-05	2020-RSDPA-240820-001A	3	0	0	0	0	3	0	0	0	15	4
GC-06	2020-RSDPA-200820-002A	1	0	0	0	1	1	0	2	0	4	2
GC-06	2020-RSDPA-200820-002A	2	0	0	0	0	0	0	0	0	15	5
GC-06	2020-RSDPA-200820-002A	3	0	0	0	0	0	0	0	0	4	6
GC-07	2020-RSDPA-200820-001A	1	0	0	0	0	0	0	0	0	16	11
GC-07	2020-RSDPA-200820-001A	2	0	0	0	0	0	0	1	0	6	7
GC-07	2020-RSDPA-200820-001A	3	0	0	0	1	0	0	0	0	0	1
GC-08	2020-RSDPA-180820-002A	1	0	0	0	0	0	0	0	0	3	5
GC-08	2020-RSDPA-180820-002A	2	0	0	0	0	0	0	0	0	3	1
GC-08	2020-RSDPA-180820-002A	3	0	0	0	0	0	0	0	0	0	0
GC-09	2020-RSDPA-180820-001A	1	0	0	0	0	0	0	0	0	0	0
GC-09	2020-RSDPA-180820-001A	2	0	0	0	0	0	0	0	0	0	0

Map SiteID	Field Number	Bin Number	*Campostoma anomalum*	*Catostomus commersonii*	*Chrosomus eos*	*Clinostomus elongatus*	*Cottus bairdii*	*Luxilus cornutus*	*Oncorhynchus mykiss*	*Pimephales notatus*	*Rhinichthys obtusus*	*Semotilus atromaculatus*
GC-09	2020-RSDPA-180820-001A	3	0	0	0	0	0	0	0	0	0	2
GC-10	2020-RSDPA-190820-001A	1	0	0	0	5	0	0	1	0	2	1
GC-10	2020-RSDPA-190820-001A	2	0	0	0	25	0	0	2	0	3	7
GC-10	2020-RSDPA-190820-001A	3	0	2	0	7	0	0	1	0	3	11
GC-11	2020-RSDPA-190820-002A	1	0	0	0	0	0	0	1	0	2	2
GC-11	2020-RSDPA-190820-002A	2	0	1	0	0	0	0	3	0	7	10
GC-11	2020-RSDPA-190820-002A	3	0	0	0	0	1	0	4	0	10	14
GC-12	2020-RSDPA-250820-002A	1	0	3	0	13	0	0	1	0	3	3
GC-12	2020-RSDPA-250820-002A	2	0	0	0	9	1	0	2	0	8	48
GC-12	2020-RSDPA-250820-002A	3	0	0	0	1	0	0	1	0	2	7
GC-13	2020-RSDPA-250820-003A	1	0	0	0	3	0	0	0	0	6	25
GC-13	2020-RSDPA-250820-003A	2	0	0	0	0	0	0	0	0	18	35
GC-13	2020-RSDPA-250820-003A	3	0	0	0	6	3	0	0	0	13	34
GC-14	2020-RSDPA-260820-001A	1	0	0	0	2	1	0	0	0	5	10
GC-14	2020-RSDPA-260820-001A	2	0	0	0	5	4	0	0	0	17	28
GC-14	2020-RSDPA-260820-001A	3	0	0	0	0	2	0	0	0	8	6
GC-15	2020-RSDPA-260820-002A	1	0	0	0	0	0	0	0	0	5	15
GC-15	2020-RSDPA-260820-002A	2	0	0	0	0	1	0	1	0	19	35
GC-15	2020-RSDPA-260820-002A	3	0	1	0	0	0	0	0	0	8	9
GC-16	2020-RSDPA-260820-003A	1	0	0	0	0	2	0	1	0	5	21
GC-16	2020-RSDPA-260820-003A	2	0	0	0	1	1	0	1	0	13	19
GC-16	2020-RSDPA-260820-003A	3	0	0	0	0	4	0	0	0	14	14
GC-17	2020-RSDPA-270820-001A	1	0	1	0	0	0	0	0	0	3	19
GC-17	2020-RSDPA-270820-001A	2	0	0	0	7	3	0	0	0	42	47
GC-17	2020-RSDPA-270820-001A	3	0	0	0	1	3	0	0	0	26	32
GC-18	2020-RSDPA-270820-002A	1	0	2	0	42	2	0	0	0	24	30
GC-18	2020-RSDPA-270820-002A	2	0	0	0	10	0	0	0	0	10	6
GC-18	2020-RSDPA-270820-002A	3	0	2	0	12	6	0	2	0	10	8

2) Unknown Stan J

Map SiteID	Field Number	Bin Number	*Campostoma anomalum*	*Catostomus commersonii*	*Chrosomus eos*	*Clinostomus elongatus*	*Cottus bairdii*	*Luxilus cornutus*	*Oncorhynchus mykiss*	*Pimephales notatus*	*Rhinichthys obtusus*	*Semotilus atromaculatus*
USJ-01	2020-RSDPA-090920-001A	1	0	0	0	11	0	0	0	1	40	29
USJ-01	2020-RSDPA-090920-001A	2	0	0	0	4	0	0	0	1	30	16
USJ-01	2020-RSDPA-090920-001A	3	0	0	0	1	0	0	0	0	7	6
USJ-02	2020-RSDPA-030920-001A	1	0	1	0	13	0	3	0	0	3	8
USJ-02	2020-RSDPA-030920-001A	2	0	4	0	24	0	2	0	1	35	29
USJ-02	2020-RSDPA-030920-001A	3	0	8	0	9	0	4	0	1	28	31
USJ-03	2020-RSDPA-020920-001A	1	0	5	38	9	0	21	0	40	14	31
USJ-03	2020-RSDPA-020920-001A	2	0	1	5	10	0	7	0	2	8	10
USJ-03	2020-RSDPA-020920-001A	3	0	6	2	14	0	8	0	3	14	7
USJ-04	2020-RSDPA-020920-002A	1	0	5	8	11	0	33	0	2	19	61
USJ-04	2020-RSDPA-020920-002A	2	0	2	0	0	0	7	0	4	23	56
USJ-04	2020-RSDPA-020920-002A	3	0	0	0	0	0	0	0	0	0	8
USJ-05	2020-RSDPA-090920-002A	1	0	4	65	15	0	33	0	0	25	53
USJ-05	2020-RSDPA-090920-002A	2	0	10	74	33	0	42	0	0	17	30
USJ-05	2020-RSDPA-090920-002A	3	0	2	5	12	0	11	0	0	4	17
USJ-06	2020-RSDPA-010920-001A	1	0	3	0	17	0	22	0	0	19	92
USJ-06	2020-RSDPA-010920-001A	2	0	1	0	23	0	25	0	0	17	63
USJ-06	2020-RSDPA-010920-001A	3	0	0	0	1	0	4	0	2	3	3
USJ-07	2020-RSDPA-010920-002A	1	0	0	2	40	0	12	0	1	9	34
USJ-07	2020-RSDPA-010920-002A	2	1	1	10	55	0	33	0	5	69	89
USJ-07	2020-RSDPA-010920-002A	3	0	4	2	67	0	24	0	3	64	75
USJ-08	2020-RSDPA-030920-002A	1	0	2	0	31	0	21	0	3	29	78
USJ-08	2020-RSDPA-030920-002A	2	1	0	0	0	0	1	0	1	1	3
USJ-08	2020-RSDPA-030920-002A	3	0	0	0	0	0	0	0	0	1	4
USJ-09	2020-RSDPA-030920-003A	1	6	18	15	54	0	50	0	13	10	91
USJ-09	2020-RSDPA-030920-003A	2	1	4	5	62	0	32	0	3	12	41
USJ-09	2020-RSDPA-030920-003A	3	0	1	2	4	0	4	0	2	0	13

Appendix C. *Total length (TL; mm) and mass (g) of individual Redside Dace captured in 1) Gully Creek (n=154), and 2) Unknown Stan J (n=520), 2020.*

1) Gully Creek

Map SiteID	Bin	TL (mm)	Mass (g)
GC-04	2	76	3.2
GC-05	2	75	3.3
GC-05	2	75	3.3
GC-06	1	75	2.9
GC-07	3	74	2.8
GC-10	1	50	-
GC-10	1	67	2.2
GC-10	1	73	2.6
GC-10	1	74	2.7
GC-10	1	80	3.2
GC-10	2	67	1.8
GC-10	2	67	2.0
GC-10	2	69	2.2
GC-10	2	69	2.2
GC-10	2	70	2.2
GC-10	2	70	2.5
GC-10	2	71	2.3
GC-10	2	72	2.4
GC-10	2	72	2.4
GC-10	2	72	2.5
GC-10	2	72	2.6
GC-10	2	73	2.4
GC-10	2	74	2.8
GC-10	2	74	3.0
GC-10	2	75	2.6
GC-10	2	75	3.0
GC-10	2	76	2.6
GC-10	2	77	2.9
GC-10	2	77	3.3
GC-10	2	79	3.6
GC-10	2	81	3.4
GC-10	2	82	3.8
GC-10	2	85	4.0
GC-10	2	86	3.9
GC-10	2	87	4.5
GC-10	3	71	2.4
GC-10	3	71	2.6
GC-10	3	73	2.5
GC-10	3	73	2.5
GC-10	3	76	3.0
GC-10	3	77	3.2
GC-10	3	89	4.9
GC-12	1	63	1.9
GC-12	1	71	2.7
GC-12	1	72	2.3
GC-12	1	72	2.8
GC-12	1	73	3.0
GC-12	1	74	2.8
GC-12	1	74	3.0
GC-12	1	74	3.1
GC-12	1	75	3.2
GC-12	1	76	2.8
GC-12	1	77	2.9
GC-12	1	78	3.1
GC-12	1	87	4.2

Map SiteID	Bin	TL (mm)	Mass (g)
GC-12	2	73	2.4
GC-12	2	75	2.6
GC-12	2	75	2.7
GC-12	2	75	2.9
GC-12	2	75	3.3
GC-12	2	76	3.1
GC-12	2	77	3.2
GC-12	2	80	3.4
GC-12	2	81	3.5
GC-12	3	81	3.4
GC-13	1	68	2.2
GC-13	1	74	2.6
GC-13	1	77	2.7
GC-13	3	68	2.0
GC-13	3	68	2.2
GC-13	3	70	-
GC-13	3	72	2.4
GC-13	3	74	2.7
GC-13	3	75	2.8
GC-14	1	67	2.0
GC-14	1	75	2.6
GC-14	2	70	2.2
GC-14	2	70	3.5
GC-14	2	71	2.6
GC-14	2	74	2.6
GC-14	2	75	2.9
GC-16	2	68	2.5
GC-17	2	70	2.6
GC-17	2	72	2.7
GC-17	2	72	3.1
GC-17	2	74	2.8
GC-17	2	75	3.2
GC-17	2	75	3.2
GC-17	2	80	3.8
GC-17	3	69	2.3
GC-18	1	65	3.2
GC-18	1	66	2.3
GC-18	1	66	2.4
GC-18	1	67	2.2
GC-18	1	67	2.4
GC-18	1	67	2.4
GC-18	1	67	2.5
GC-18	1	67	2.6
GC-18	1	68	2.3
GC-18	1	68	2.4
GC-18	1	68	2.5
GC-18	1	68	2.7
GC-18	1	68	2.9
GC-18	1	69	2.8
GC-18	1	70	2.4
GC-18	1	70	2.4
GC-18	1	71	2.5
GC-18	1	71	2.6
GC-18	1	71	2.7
GC-18	1	72	2.7
GC-18	1	72	2.8
GC-18	1	72	3.1
GC-18	1	72	3.2
GC-18	1	73	2.3
GC-18	1	73	3.0
GC-18	1	73	3.3
GC-18	1	74	2.3

Map SiteID	Bin	TL (mm)	Mass (g)
GC-18	1	74	3.6
GC-18	1	75	2.8
GC-18	1	75	2.9
GC-18	1	75	3.2
GC-18	1	76	2.9
GC-18	1	76	3.5
GC-18	1	77	3.8
GC-18	1	78	3.2
GC-18	1	78	3.7
GC-18	1	79	3.5
GC-18	1	80	3.5
GC-18	1	82	4.0
GC-18	1	82	4.0
GC-18	1	88	4.9
GC-18	1	96	6.2
GC-18	2	68	3.1
GC-18	2	71	2.6
GC-18	2	72	2.6
GC-18	2	73	2.8
GC-18	2	73	2.9
GC-18	2	73	3.1
GC-18	2	74	3.7
GC-18	2	77	2.7
GC-18	2	85	4.6
GC-18	2	93	6.1
GC-18	3	70	3.0
GC-18	3	71	2.2
GC-18	3	72	3.0
GC-18	3	73	2.5
GC-18	3	73	2.9
GC-18	3	73	3.1
GC-18	3	74	3.2
GC-18	3	78	3.6
GC-18	3	82	3.3
GC-18	3	83	3.4
GC-18	3	86	4.5
GC-18	3	86	4.7

2) Unknown Stan J

Map SiteID	Bin	TL (mm)	Mass (g)
USJ-01	1	63	1.7
USJ-01	1	63	2.5
USJ-01	1	65	1.9
USJ-01	1	68	2.2
USJ-01	1	70	2.2
USJ-01	1	70	2.7
USJ-01	1	71	2.8
USJ-01	1	71	2.9
USJ-01	1	72	2.0
USJ-01	1	72	2.6
USJ-01	1	72	2.8
USJ-01	2	63	1.8
USJ-01	2	66	2.0
USJ-01	2	70	2.5
USJ-01	2	72	2.7
USJ-01	3	63	1.7
USJ-02	1	54	1.1
USJ-02	1	62	1.6
USJ-02	1	63	1.8
USJ-02	1	66	2.1
USJ-02	1	68	2.0

Map SiteID	Bin	TL (mm)	Mass (g)
USJ-02	1	68	2.2
USJ-02	1	73	2.7
USJ-02	1	73	2.9
USJ-02	1	74	2.8
USJ-02	1	77	3.0
USJ-02	1	77	3.5
USJ-02	1	81	3.3
USJ-02	1	86	4.2
USJ-02	2	61	1.5
USJ-02	2	62	1.6
USJ-02	2	62	1.7
USJ-02	2	64	2.0
USJ-02	2	65	1.9
USJ-02	2	67	2.2
USJ-02	2	68	2.6
USJ-02	2	72	2.7
USJ-02	2	73	2.7
USJ-02	2	74	3.0
USJ-02	2	74	3.1
USJ-02	2	75	3.4
USJ-02	2	76	3.1
USJ-02	2	76	3.4
USJ-02	2	76	3.4
USJ-02	2	77	3.1
USJ-02	2	77	3.1
USJ-02	2	77	3.2
USJ-02	2	79	3.0
USJ-02	2	80	3.4
USJ-02	2	80	3.6
USJ-02	2	80	4.1
USJ-02	2	81	3.3
USJ-02	2	-	-
USJ-02	3	64	1.8
USJ-02	3	65	1.9
USJ-02	3	66	2.1
USJ-02	3	66	2.2
USJ-02	3	67	2.5
USJ-02	3	73	2.9
USJ-02	3	74	3.1
USJ-02	3	76	3.4
USJ-02	3	77	3.2
USJ-03	1	68	2.2
USJ-03	1	76	3.1
USJ-03	1	77	3.1
USJ-03	1	77	3.3
USJ-03	1	78	3.4
USJ-03	1	79	3.5
USJ-03	1	80	3.9
USJ-03	1	82	3.3
USJ-03	1	85	4.8
USJ-03	2	65	1.9
USJ-03	2	71	2.6
USJ-03	2	72	2.5
USJ-03	2	72	2.6
USJ-03	2	73	2.5
USJ-03	2	76	3.4
USJ-03	2	77	2.6
USJ-03	2	77	2.9
USJ-03	2	77	3.1
USJ-03	2	89	5.3
USJ-03	3	46	0.5
USJ-03	3	64	1.9

Map SiteID	Bin	TL (mm)	Mass (g)
USJ-03	3	67	1.7
USJ-03	3	68	2.2
USJ-03	3	74	2.8
USJ-03	3	75	2.5
USJ-03	3	77	2.6
USJ-03	3	77	3.0
USJ-03	3	77	3.0
USJ-03	3	77	3.6
USJ-03	3	78	3.3
USJ-03	3	80	4.0
USJ-03	3	81	3.8
USJ-03	3	83	4.0
USJ-04	1	47	0.8
USJ-04	1	48	0.4
USJ-04	1	51	0.8
USJ-04	1	57	0.9
USJ-04	1	57	1.1
USJ-04	1	64	1.8
USJ-04	1	68	2.1
USJ-04	1	73	2.8
USJ-04	1	73	3.2
USJ-04	1	76	2.8
USJ-04	1	87	4.8
USJ-05	1	41	0.8
USJ-05	1	49	0.8
USJ-05	1	52	0.8
USJ-05	1	56	1.1
USJ-05	1	72	2.5
USJ-05	1	74	2.8
USJ-05	1	78	3.6
USJ-05	1	79	3.1
USJ-05	1	79	3.7
USJ-05	1	81	3.8
USJ-05	1	81	4.0
USJ-05	1	81	4.4
USJ-05	1	83	4.2
USJ-05	1	86	4.3
USJ-05	1	92	5.1
USJ-05	2	47	0.7
USJ-05	2	48	0.9
USJ-05	2	49	0.9
USJ-05	2	50	0.8
USJ-05	2	51	0.8
USJ-05	2	51	0.9
USJ-05	2	52	0.9
USJ-05	2	54	1.1
USJ-05	2	57	1.2
USJ-05	2	63	2.3
USJ-05	2	68	1.9
USJ-05	2	70	2.3
USJ-05	2	73	3.0
USJ-05	2	77	3.2
USJ-05	2	77	3.4
USJ-05	2	77	3.4
USJ-05	2	78	3.3
USJ-05	2	79	3.4
USJ-05	2	80	3.5
USJ-05	2	80	3.5
USJ-05	2	81	3.2
USJ-05	2	81	3.7
USJ-05	2	82	3.8
USJ-05	2	82	3.9

Map SiteID	Bin	TL (mm)	Mass (g)
USJ-05	2	82	4.5
USJ-05	2	83	3.9
USJ-05	2	83	4.0
USJ-05	2	83	4.2
USJ-05	2	84	4.2
USJ-05	2	84	4.2
USJ-05	2	86	4.3
USJ-05	2	87	4.7
USJ-05	2	87	4.8
USJ-05	3	48	0.8
USJ-05	3	50	0.8
USJ-05	3	61	1.6
USJ-05	3	77	3.1
USJ-05	3	77	3.3
USJ-05	3	80	3.6
USJ-05	3	80	3.7
USJ-05	3	81	3.5
USJ-05	3	81	3.8
USJ-05	3	81	3.9
USJ-05	3	85	4.6
USJ-05	3	88	4.6
USJ-06	1	34	0.2
USJ-06	1	39	0.4
USJ-06	1	40	0.4
USJ-06	1	42	0.6
USJ-06	1	43	0.4
USJ-06	1	43	0.5
USJ-06	1	43	0.6
USJ-06	1	44	0.5
USJ-06	1	44	0.5
USJ-06	1	44	0.6
USJ-06	1	45	0.6
USJ-06	1	45	0.8
USJ-06	1	61	1.6
USJ-06	1	61	2.0
USJ-06	1	69	2.1
USJ-06	1	75	3.6
USJ-06	1	80	3.6
USJ-06	2	39	0.3
USJ-06	2	39	0.5
USJ-06	2	40	0.3
USJ-06	2	40	0.4
USJ-06	2	40	0.4
USJ-06	2	40	0.5
USJ-06	2	41	0.4
USJ-06	2	41	0.6
USJ-06	2	42	0.6
USJ-06	2	43	0.5
USJ-06	2	43	0.6
USJ-06	2	43	0.6
USJ-06	2	44	0.5
USJ-06	2	45	0.5
USJ-06	2	45	0.7
USJ-06	2	46	0.5
USJ-06	2	46	0.5
USJ-06	2	46	0.6
USJ-06	2	47	0.6
USJ-06	2	48	0.7
USJ-06	2	49	0.7
USJ-06	2	79	3.7
USJ-06	2	85	5.3
USJ-06	3	44	0.5

Map SiteID	Bin	TL (mm)	Mass (g)
USJ-07	1	42	0.6
USJ-07	1	45	0.6
USJ-07	1	45	0.6
USJ-07	1	46	0.6
USJ-07	1	46	0.7
USJ-07	1	48	0.6
USJ-07	1	57	1.3
USJ-07	1	59	1.5
USJ-07	1	59	1.6
USJ-07	1	60	1.5
USJ-07	1	62	1.3
USJ-07	1	62	1.9
USJ-07	1	63	1.5
USJ-07	1	63	1.7
USJ-07	1	63	1.9
USJ-07	1	64	1.8
USJ-07	1	66	2.1
USJ-07	1	67	1.9
USJ-07	1	71	2.5
USJ-07	1	71	2.6
USJ-07	1	73	2.6
USJ-07	1	73	2.7
USJ-07	1	73	2.7
USJ-07	1	74	3.2
USJ-07	1	74	3.3
USJ-07	1	75	3.2
USJ-07	1	75	3.2
USJ-07	1	75	3.3
USJ-07	1	76	3.2
USJ-07	1	77	2.9
USJ-07	1	77	3.0
USJ-07	1	77	3.1
USJ-07	1	78	3.6
USJ-07	1	79	3.8
USJ-07	1	80	3.5
USJ-07	1	80	3.7
USJ-07	1	80	3.9
USJ-07	1	81	3.3
USJ-07	1	82	4.3
USJ-07	1	83	3.9
USJ-07	2	41	0.6
USJ-07	2	42	0.4
USJ-07	2	44	0.5
USJ-07	2	54	1.1
USJ-07	2	58	1.4
USJ-07	2	58	1.7
USJ-07	2	59	1.6
USJ-07	2	61	1.8
USJ-07	2	61	1.9
USJ-07	2	62	1.5
USJ-07	2	62	1.6
USJ-07	2	62	1.7
USJ-07	2	62	2.2
USJ-07	2	63	1.5
USJ-07	2	63	1.9
USJ-07	2	63	2.0
USJ-07	2	64	1.7
USJ-07	2	64	2.2
USJ-07	2	65	1.7
USJ-07	2	65	1.8
USJ-07	2	65	1.8
USJ-07	2	65	1.9

Map SiteID	Bin	TL (mm)	Mass (g)
USJ-07	2	66	1.8
USJ-07	2	66	2.3
USJ-07	2	67	1.9
USJ-07	2	72	2.4
USJ-07	2	72	2.7
USJ-07	2	72	2.8
USJ-07	2	73	2.2
USJ-07	2	73	2.6
USJ-07	2	73	2.6
USJ-07	2	73	2.8
USJ-07	2	73	2.8
USJ-07	2	73	2.8
USJ-07	2	73	2.9
USJ-07	2	73	3.0
USJ-07	2	73	3.2
USJ-07	2	74	2.7
USJ-07	2	74	2.7
USJ-07	2	74	2.8
USJ-07	2	74	3.0
USJ-07	2	74	3.0
USJ-07	2	74	3.1
USJ-07	2	76	2.8
USJ-07	2	76	3.2
USJ-07	2	77	3.1
USJ-07	2	77	3.1
USJ-07	2	77	3.1
USJ-07	2	77	3.2
USJ-07	2	77	3.2
USJ-07	2	78	2.7
USJ-07	2	78	3.5
USJ-07	2	80	3.0
USJ-07	2	81	4.2
USJ-07	2	86	3.9
USJ-07	3	38	0.5
USJ-07	3	41	0.6
USJ-07	3	44	0.5
USJ-07	3	54	1.1
USJ-07	3	56	1.3
USJ-07	3	57	1.1
USJ-07	3	60	1.2
USJ-07	3	61	1.6
USJ-07	3	62	1.9
USJ-07	3	63	1.6
USJ-07	3	63	1.6
USJ-07	3	63	2.2
USJ-07	3	64	2.0
USJ-07	3	65	1.6
USJ-07	3	65	1.6
USJ-07	3	65	2.2
USJ-07	3	66	2.0
USJ-07	3	67	2.2
USJ-07	3	68	2.2
USJ-07	3	70	2.2
USJ-07	3	71	2.4
USJ-07	3	71	2.7
USJ-07	3	72	2.1
USJ-07	3	72	2.8
USJ-07	3	72	2.9
USJ-07	3	73	2.6
USJ-07	3	73	2.7
USJ-07	3	73	2.7
USJ-07	3	73	2.7

Map SiteID	Bin	TL (mm)	Mass (g)
USJ-07	3	73	2.7
USJ-07	3	73	2.8
USJ-07	3	73	3.0
USJ-07	3	73	3.2
USJ-07	3	73	3.3
USJ-07	3	74	2.7
USJ-07	3	74	2.9
USJ-07	3	74	2.9
USJ-07	3	74	3.0
USJ-07	3	75	3.1
USJ-07	3	76	2.6
USJ-07	3	76	3.0
USJ-07	3	76	3.3
USJ-07	3	76	3.3
USJ-07	3	77	3.0
USJ-07	3	77	3.0
USJ-07	3	77	3.2
USJ-07	3	77	3.2
USJ-07	3	77	3.2
USJ-07	3	77	3.2
USJ-07	3	77	3.4
USJ-07	3	77	3.4
USJ-07	3	77	3.6
USJ-07	3	78	3.0
USJ-07	3	78	3.1
USJ-07	3	78	3.1
USJ-07	3	78	3.4
USJ-07	3	78	3.6
USJ-07	3	78	3.6
USJ-07	3	79	3.4
USJ-07	3	79	3.7
USJ-07	3	79	3.8
USJ-07	3	80	3.5
USJ-07	3	81	3.7
USJ-07	3	81	3.8
USJ-07	3	82	3.3
USJ-07	3	83	3.3
USJ-07	3	84	4.2
USJ-08	1	58	1.2
USJ-08	1	59	2.3
USJ-08	1	63	1.5
USJ-08	1	63	2.2
USJ-08	1	64	1.9
USJ-08	1	65	2.1
USJ-08	1	67	2.1
USJ-08	1	68	1.8
USJ-08	1	74	2.3
USJ-08	1	74	3.0
USJ-08	1	74	3.3
USJ-08	1	75	2.9
USJ-08	1	76	3.4
USJ-08	1	76	3.5
USJ-08	1	76	4.2
USJ-08	1	77	3.1
USJ-08	1	77	3.8
USJ-08	1	78	3.2
USJ-08	1	78	3.4
USJ-08	1	78	3.5
USJ-08	1	78	3.6
USJ-08	1	79	3.7
USJ-08	1	79	3.8
USJ-08	1	80	3.7

Map SiteID	Bin	TL (mm)	Mass (g)
USJ-08	1	80	3.9
USJ-08	1	80	4.1
USJ-08	1	81	3.4
USJ-08	1	81	4.2
USJ-08	1	82	3.7
USJ-08	1	83	3.8
USJ-08	1	85	4.5
USJ-09	1	56	0.9
USJ-09	1	56	1.1
USJ-09	1	57	0.9
USJ-09	1	57	1.0
USJ-09	1	57	1.2
USJ-09	1	59	1.3
USJ-09	1	61	1.3
USJ-09	1	62	1.5
USJ-09	1	63	1.6
USJ-09	1	67	1.8
USJ-09	1	68	2.3
USJ-09	1	71	2.2
USJ-09	1	71	2.5
USJ-09	1	72	2.5
USJ-09	1	72	2.5
USJ-09	1	72	2.6
USJ-09	1	72	2.7
USJ-09	1	72	2.8
USJ-09	1	73	2.3
USJ-09	1	73	2.6
USJ-09	1	73	2.7
USJ-09	1	74	2.6
USJ-09	1	74	2.8
USJ-09	1	75	2.8
USJ-09	1	75	2.8
USJ-09	1	75	2.8
USJ-09	1	75	2.9
USJ-09	1	75	2.9
USJ-09	1	76	2.3
USJ-09	1	76	2.6
USJ-09	1	76	2.8
USJ-09	1	76	3.0
USJ-09	1	76	3.1
USJ-09	1	77	3.2
USJ-09	1	77	3.3
USJ-09	1	77	3.4
USJ-09	1	78	2.8
USJ-09	1	78	2.9
USJ-09	1	78	3.0
USJ-09	1	78	3.2
USJ-09	1	78	3.3
USJ-09	1	78	3.3
USJ-09	1	78	3.3
USJ-09	1	79	3.1
USJ-09	1	79	3.2
USJ-09	1	79	3.2
USJ-09	1	80	3.2
USJ-09	1	80	3.4
USJ-09	1	80	3.4
USJ-09	1	80	3.6
USJ-09	1	80	3.9
USJ-09	1	81	3.6
USJ-09	1	82	3.8
USJ-09	1	88	4.6
USJ-09	2	56	1.2

Map SiteID	Bin	TL (mm)	Mass (g)
USJ-09	2	59	1.1
USJ-09	2	59	1.1
USJ-09	2	59	1.4
USJ-09	2	60	1.3
USJ-09	2	60	1.4
USJ-09	2	61	1.4
USJ-09	2	62	1.4
USJ-09	2	62	1.5
USJ-09	2	68	1.9
USJ-09	2	72	2.3
USJ-09	2	72	2.5
USJ-09	2	72	2.6
USJ-09	2	73	2.4
USJ-09	2	73	2.5
USJ-09	2	73	2.5
USJ-09	2	73	2.5
USJ-09	2	73	2.5
USJ-09	2	73	2.5
USJ-09	2	73	2.5
USJ-09	2	73	2.6
USJ-09	2	74	2.3
USJ-09	2	74	2.5
USJ-09	2	74	2.7
USJ-09	2	74	2.8
USJ-09	2	74	2.8
USJ-09	2	74	2.8
USJ-09	2	74	3.3
USJ-09	2	75	2.9
USJ-09	2	76	2.8
USJ-09	2	76	2.8
USJ-09	2	76	2.8
USJ-09	2	76	2.9
USJ-09	2	76	2.9
USJ-09	2	77	2.8
USJ-09	2	77	2.9
USJ-09	2	77	3.0
USJ-09	2	77	3.2
USJ-09	2	78	2.2
USJ-09	2	78	2.9
USJ-09	2	78	3.0
USJ-09	2	78	3.2
USJ-09	2	78	3.3
USJ-09	2	78	3.4
USJ-09	2	79	3.2
USJ-09	2	79	3.2
USJ-09	2	79	3.4
USJ-09	2	79	3.4
USJ-09	2	79	3.5
USJ-09	2	80	3.3
USJ-09	2	80	3.5
USJ-09	2	80	3.5
USJ-09	2	81	3.5
USJ-09	2	82	3.6
USJ-09	2	83	3.7
USJ-09	2	83	3.8
USJ-09	2	84	4.1
USJ-09	2	86	4.3
USJ-09	2	88	4.8
USJ-09	2	90	4.5
USJ-09	2	93	5.2
USJ-09	2	93	5.7
USJ-09	3	74	2.8

Map SiteID	Bin	TL (mm)	Mass (g)
USJ-09	3	77	2.8
USJ-09	3	81	3.8
USJ-09	3	84	4.0

Appendix D. *Site-level data collected in 1) Gully Creek, and 2) Unknown Stan J during modified Ontario Stream Assessment Protocol Point-Transect Sampling for Channel Structure, Substrate, and Bank Conditions (S4.M2), indicating whether point-transect sampling was conducted only at the pool level or at the full reach level at the site.*

1) Gully Creek

Map SiteID	Field Number	Date	Pool length (m)	Reach length (m)	OSAP level
GC-01	2020-RSDPA-310820-002A	31-Aug-20	7.51	11.80	REACH
GC-02	2020-RSDPA-200820-003A	20-Aug-20	14.78	23.00	POOL
GC-03	2020-RSDPA-250820-001A	25-Aug-20	15.72	24.25	POOL
GC-04	2020-RSDPA-310820-001A	31-Aug-20	8.70	14.10	REACH
GC-05	2020-RSDPA-240820-001A	24-Aug-20	10.44	14.32	REACH
GC-06	2020-RSDPA-200820-002A	20-Aug-20	3.50	10.06	POOL
GC-07	2020-RSDPA-200820-001A	20-Aug-20	13.10	22.05	REACH
GC-08	2020-RSDPA-180820-002A	18-Aug-20	12.10	20.20	REACH
GC-09	2020-RSDPA-180820-001A	18-Aug-20	20.80	30.60	REACH
GC-10	2020-RSDPA-190820-001A	19-Aug-20	9.90	14.80	POOL
GC-11	2020-RSDPA-190820-002A	19-Aug-20	4.60	10.75	POOL
GC-12	2020-RSDPA-250820-002A	25-Aug-20	6.90	12.40	REACH
GC-13	2020-RSDPA-250820-003A	25-Aug-20	8.60	13.10	POOL
GC-14	2020-RSDPA-260820-001A	26-Aug-20	13.40	24.00	REACH
GC-15	2020-RSDPA-260820-002A	26-Aug-20	8.50	14.70	POOL
GC-16	2020-RSDPA-260820-003A	26-Aug-20	5.90	10.30	REACH
GC-17	2020-RSDPA-270820-001A	27-Aug-20	4.20	7.30	POOL
GC-18	2020-RSDPA-270820-002A	27-Aug-20	5.00	8.15	POOL

2) Unknown Stan J

Map SiteID	Field number	Date	Pool length (m)	Reach length (m)	OSAP level
USJ-01	2020-RSDPA-090920-001A	09-Sep-20	5.27	12.82	POOL
USJ-02	2020-RSDPA-030920-001A	03-Sep-20	16.93	25.30	POOL
USJ-03	2020-RSDPA-020920-001A	02-Sep-20	8.36	14.50	POOL
USJ-04	2020-RSDPA-020920-002A	02-Sep-20	13.50	18.75	REACH
USJ-05	2020-RSDPA-090920-002A	09-Sep-20	7.95	13.15	POOL
USJ-06	2020-RSDPA-010920-001A	01-Sep-20	12.10	18.80	REACH
USJ-07	2020-RSDPA-010920-002A	01-Sep-20	12.30	23.40	POOL
USJ-08	2020-RSDPA-030920-002A	03-Sep-20	15.42	27.10	REACH
USJ-09	2020-RSDPA-030920-003A	03-Sep-20	21.15	25.25	POOL

Appendix E. *Transect-level data collected in 1) Gully Creek, and 2) Unknown Stan J 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.*

1) Gully Creek

Map SiteID	TransectID	Transect number	Wetted width (m)	Left undercut (m)	Right undercut (m)	Left bank stability	Right bank stability	Location
GC-01	226	1	1.65	0	0	Eroding Bank	Deposition Zone	POOL
GC-01	227	2	4.21	0	0	Eroding Bank	Deposition Zone	POOL
GC-01	228	3	7.25	0	0	Eroding Bank	Vulnerable Bank	POOL
GC-01	229	4	6.14	0.05	0	Eroding Bank	Eroding Bank	POOL
GC-01	230	5	5.51	0	0	Eroding Bank	Eroding Bank	POOL
GC-01	231	6	3.74	0	0	Eroding Bank	Eroding Bank	POOL
GC-02	108	1	0.88	0	0	Protected Bank	Protected Bank	POOL
GC-02	109	2	1.31	0	0	Protected Bank	Protected Bank	POOL
GC-02	110	3	1.83	0	0	Protected Bank	Protected Bank	POOL
GC-02	111	4	2.22	0	0	Protected Bank	Protected Bank	POOL
GC-02	112	5	2.46	0	0	Protected Bank	Protected Bank	POOL
GC-02	113	6	2.16	0	0	Protected Bank	Protected Bank	POOL
GC-02	114	7	1.69	0	0	Protected Bank	Protected Bank	POOL
GC-02	115	8	1.98	0	0	Protected Bank	Protected Bank	POOL
GC-02	116	9	1.46	0	0	Protected Bank	Protected Bank	POOL
GC-02	117	10	0.79	0	0	Protected Bank	Protected Bank	POOL
GC-03	133	1	1.52	0	0	Protected Bank	Vulnerable Bank	REACH
GC-03	134	2	1.60	0	0	Protected Bank	Vulnerable Bank	REACH
GC-03	135	3	1.60	0	0	Protected Bank	Vulnerable Bank	REACH
GC-03	136	4	1.88	0	0	Protected Bank	Eroding Bank	POOL
GC-03	137	5	1.85	0	0	Protected Bank	Eroding Bank	POOL
GC-03	138	6	1.75	0	0	Protected Bank	Vulnerable Bank	POOL
GC-03	139	7	1.39	0	0	Protected Bank	Protected Bank	POOL
GC-03	140	8	1.33	0	0	Protected Bank	Protected Bank	POOL
GC-03	141	9	1.71	0	0	Protected Bank	Protected Bank	POOL
GC-03	142	10	1.86	0	0	Protected Bank	Protected Bank	POOL
GC-03	143	11	1.85	0	0	Protected Bank	Protected Bank	POOL
GC-03	144	12	1.60	0	0	Protected Bank	Protected Bank	POOL
GC-03	145	13	1.51	0	0	Protected Bank	Protected Bank	POOL
GC-03	146	14	1.63	0	0	Protected Bank	Protected Bank	POOL
GC-03	147	15	1.77	0	0	Protected Bank	Protected Bank	POOL
GC-03	148	16	1.89	0	0.13	Protected Bank	Eroding Bank	POOL
GC-03	149	17	1.36	0	0	Protected Bank	Vulnerable Bank	REACH
GC-03	150	18	0.86	0	0	Protected Bank	Protected Bank	REACH

Map SiteID	TransectID	Transect number	Wetted width (m)	Left undercut (m)	Right undercut (m)	Left bank stability	Right bank stability	Location
GC-03	151	19	1.06	0	0	Protected Bank	Protected Bank	REACH
GC-03	152	20	0.91	0	0	Protected Bank	Protected Bank	REACH
GC-04	220	1	3.59	0	0	Deposition Zone	Vulnerable Bank	POOL
GC-04	221	2	2.84	0	0	Deposition Zone	Eroding Bank	POOL
GC-04	222	3	3.26	0	0	Deposition Zone	Eroding Bank	POOL
GC-04	223	4	3.29	0	0	Deposition Zone	Eroding Bank	POOL
GC-04	224	5	2.68	0	0	Protected Bank	Vulnerable Bank	POOL
GC-04	225	6	1.50	0	0	Vulnerable Bank	Vulnerable Bank	POOL
GC-05	118	1	1.27	0	0	Protected Bank	Vulnerable Bank	REACH
GC-05	119	2	1.04	0	0	Protected Bank	Vulnerable Bank	REACH
GC-05	120	3	1.25	0	0	Protected Bank	Vulnerable Bank	REACH
GC-05	121	4	1.30	0	0	Protected Bank	Eroding Bank	REACH
GC-05	122	5	1.34	0	0	Protected Bank	Eroding Bank	REACH
GC-05	123	6	1.69	0	0	Protected Bank	Eroding Bank	POOL
GC-05	124	7	1.98	0	0.15	Protected Bank	Vulnerable Bank	POOL
GC-05	125	8	2.40	0	0.22	Vulnerable Bank	Vulnerable Bank	POOL
GC-05	126	9	3.17	0	0	Vulnerable Bank	Eroding Bank	POOL
GC-05	127	10	3.33	0	0.31	Protected Bank	Eroding Bank	POOL
GC-05	128	11	2.40	0	0	Protected Bank	Eroding Bank	POOL
GC-05	129	12	2.02	0	0	Protected Bank	Eroding Bank	POOL
GC-05	130	13	1.45	0	0	Protected Bank	Eroding Bank	POOL
GC-05	131	14	1.38	0	0	Not Recorded	Not Recorded	POOL
GC-05	132	15	1.46	0	0.07	Protected Bank	Vulnerable Bank	REACH
GC-06	102	1	2.35	0	0	Vulnerable Bank	Deposition Zone	POOL
GC-06	103	2	1.94	0	0	Vulnerable Bank	Deposition Zone	POOL
GC-06	104	3	1.99	0	0.09	Deposition Zone	Vulnerable Bank	POOL
GC-06	105	4	1.85	0	0.18	Deposition Zone	Vulnerable Bank	POOL
GC-06	106	5	2.08	0	0.14	Deposition Zone	Vulnerable Bank	POOL
GC-06	107	6	1.58	0	0.12	Deposition Zone	Vulnerable Bank	POOL
GC-07	90	1	2.16	0	0	Protected Bank	Protected Bank	REACH
GC-07	91	2	1.85	0	0	Protected Bank	Protected Bank	REACH
GC-07	92	3	2.05	0	0	Protected Bank	Protected Bank	REACH
GC-07	93	4	3.15	0	0	Protected Bank	Protected Bank	POOL
GC-07	94	5	3.34	0.33	0	Protected Bank	Protected Bank	POOL
GC-07	95	6	3.18	0.31	0	Protected Bank	Protected Bank	POOL
GC-07	96	7	2.72	0.22	0	Protected Bank	Protected Bank	POOL
GC-07	97	8	2.10	0	0	Not Recorded	Not Recorded	POOL
GC-07	98	9	2.11	0	0.08	Protected Bank	Protected Bank	POOL
GC-07	99	10	2.17	0	0	Protected Bank	Protected Bank	POOL
GC-07	100	11	1.87	0	0	Protected Bank	Protected Bank	REACH
GC-07	101	12	4.55	0	0	Protected Bank	Protected Bank	REACH

Map SiteID	TransectID	Transect number	Wetted width (m)	Left undercut (m)	Right undercut (m)	Left bank stability	Right bank stability	Location
GC-08	67	1	2.05	0.175	0	Eroding Bank	Deposition Zone	POOL
GC-08	68	2	2.25	0.62	0	Eroding Bank	Deposition Zone	POOL
GC-08	69	3	2.18	0.15	0	Eroding Bank	Deposition Zone	POOL
GC-08	70	4	2.77	0	0	Eroding Bank	Deposition Zone	POOL
GC-08	71	5	2.44	0	0	Eroding Bank	Deposition Zone	POOL
GC-08	72	6	2.45	0	0	Eroding Bank	Deposition Zone	POOL
GC-09	55	1	1.86	0	0	Deposition Zone	Eroding Bank	REACH
GC-09	56	2	1.50	0	0	Deposition Zone	Eroding Bank	REACH
GC-09	57	3	1.98	0	0	Deposition Zone	Eroding Bank	POOL
GC-09	58	4	2.12	0	0	Deposition Zone	Eroding Bank	POOL
GC-09	59	5	2.69	0	0	Deposition Zone	Vulnerable Bank	POOL
GC-09	60	6	3.28	0	0.28	Deposition Zone	Eroding Bank	POOL
GC-09	61	7	3.45	0	0	Eroding Bank	Eroding Bank	POOL
GC-09	62	8	2.53	0	0	Eroding Bank	Deposition Zone	POOL
GC-09	63	9	2.20	0.43	0	Eroding Bank	Deposition Zone	REACH
GC-09	64	10	2.62	0	0	Eroding Bank	Deposition Zone	REACH
GC-09	65	11	2.50	0	0	Eroding Bank	Deposition Zone	REACH
GC-09	66	12	2.36	0.41	0	Eroding Bank	Deposition Zone	REACH
GC-10	73	1	1.83	0	0	Deposition Zone	Eroding Bank	REACH
GC-10	74	2	2.91	0	0	Deposition Zone	Eroding Bank	REACH
GC-10	75	3	6.27	0	0	Deposition Zone	Eroding Bank	POOL
GC-10	76	4	6.46	0	0	Deposition Zone	Deposition Zone	POOL
GC-10	77	5	4.74	0.28	0	Eroding Bank	Deposition Zone	POOL
GC-10	78	6	6.09	0.72	0	Eroding Bank	Deposition Zone	POOL
GC-10	79	7	6.73	0.23	0	Eroding Bank	Deposition Zone	POOL
GC-10	80	8	6.76	0.17	0	Eroding Bank	Deposition Zone	POOL
GC-10	81	9	4.30	0.255	0	Eroding Bank	Deposition Zone	POOL
GC-10	82	10	3.54	0.28	0	Eroding Bank	Deposition Zone	REACH
GC-10	83	11	3.49	0	0	Eroding Bank	Deposition Zone	REACH
GC-10	84	12	3.85	0.31	0	Eroding Bank	Deposition Zone	REACH
GC-11	85	1	3.68	0	0	Eroding Bank	Deposition Zone	POOL
GC-11	86	2	3.41	0	0	Eroding Bank	Deposition Zone	POOL
GC-11	87	3	4.27	0.8	0	Eroding Bank	Deposition Zone	POOL
GC-11	88	4	4.80	0	0	Not Recorded	Deposition Zone	POOL
GC-11	89	5	4.32	0	0	Deposition Zone	Deposition Zone	POOL
GC-12	153	1	1.66	0	0	Vulnerable Bank	Deposition Zone	REACH
GC-12	154	2	2.24	0	0	Vulnerable Bank	Deposition Zone	REACH
GC-12	155	3	2.96	0	0	Vulnerable Bank	Deposition Zone	POOL
GC-12	156	4	2.98	0	0	Eroding Bank	Deposition Zone	POOL
GC-12	157	5	3.51	0	0	Eroding Bank	Deposition Zone	POOL
GC-12	158	6	5.72	0.75	0	Eroding Bank	Deposition Zone	POOL

Map SiteID	TransectID	Transect number	Wetted width (m)	Left undercut (m)	Right undercut (m)	Left bank stability	Right bank stability	Location
GC-12	159	7	5.61	0.76	0	Eroding Bank	Deposition Zone	POOL
GC-12	160	8	4.77	0	0	Eroding Bank	Deposition Zone	POOL
GC-12	161	9	3.00	0	0	Deposition Zone	Deposition Zone	POOL
GC-12	162	10	2.59	0	0	Vulnerable Bank	Deposition Zone	REACH
GC-12	163	11	3.24	0	0	Protected Bank	Eroding Bank	REACH
GC-12	164	12	3.35	0	0	Vulnerable Bank	Eroding Bank	REACH
GC-13	165	1	3.39	0	0	Eroding Bank	Eroding Bank	POOL
GC-13	166	2	4.07	0	0	Eroding Bank	Eroding Bank	POOL
GC-13	167	3	3.73	0	0	Eroding Bank	Vulnerable Bank	POOL
GC-13	168	4	4.16	0.34	0	Eroding Bank	Vulnerable Bank	POOL
GC-13	169	5	4.01	0	0	Deposition Zone	Vulnerable Bank	POOL
GC-14	170	1	3.05	0	0	Eroding Bank	Deposition Zone	POOL
GC-14	171	2	3.58	0.54	0	Eroding Bank	Deposition Zone	POOL
GC-14	172	3	3.56	0.56	0	Eroding Bank	Deposition Zone	POOL
GC-14	173	4	3.75	0	0	Eroding Bank	Vulnerable Bank	POOL
GC-14	174	5	2.95	0	0	Eroding Bank	Vulnerable Bank	POOL
GC-14	175	6	2.49	0	0	Eroding Bank	Vulnerable Bank	POOL
GC-15	176	1	1.86	0	0	Eroding Bank	Deposition Zone	REACH
GC-15	177	2	2.37	0	0	Eroding Bank	Deposition Zone	REACH
GC-15	178	3	3.11	0	0	Eroding Bank	Deposition Zone	POOL
GC-15	179	4	3.72	0	0	Vulnerable Bank	Protected Bank	POOL
GC-15	180	5	3.49	0	0	Vulnerable Bank	Deposition Zone	POOL
GC-15	181	6	3.40	0	0	Vulnerable Bank	Deposition Zone	POOL
GC-15	182	7	3.38	0	0	Vulnerable Bank	Deposition Zone	POOL
GC-15	183	8	3.32	0	0	Vulnerable Bank	Vulnerable Bank	POOL
GC-15	184	9	3.01	0	0	Vulnerable Bank	Vulnerable Bank	POOL
GC-15	185	10	2.81	0	0	Deposition Zone	Vulnerable Bank	POOL
GC-15	186	11	2.78	0	0	Deposition Zone	Vulnerable Bank	POOL
GC-15	187	12	2.80	0	0	Deposition Zone	Eroding Bank	POOL
GC-15	188	13	2.82	0	0	Deposition Zone	Eroding Bank	POOL
GC-15	189	14	2.39	0	0	Deposition Zone	Eroding Bank	POOL
GC-15	190	15	1.89	0	0	Deposition Zone	Eroding Bank	POOL
GC-15	191	16	1.52	0	0	Deposition Zone	Eroding Bank	POOL
GC-15	192	17	1.81	0	0	Deposition Zone	Eroding Bank	POOL
GC-15	193	18	1.61	0	0	Deposition Zone	Deposition Zone	REACH
GC-15	194	19	0.74	0	0	Deposition Zone	Deposition Zone	REACH
GC-15	195	20	0.86	0	0	Deposition Zone	Deposition Zone	REACH
GC-16	196	1	1.84	0	0	Vulnerable Bank	Deposition Zone	POOL
GC-16	197	2	2.51	0	0	Eroding Bank	Deposition Zone	POOL
GC-16	198	3	3.49	0	0	Eroding Bank	Vulnerable Bank	POOL
GC-16	199	4	3.73	0	0	Deposition Zone	Eroding Bank	POOL

Map SiteID	TransectID	Transect number	Wetted width (m)	Left undercut (m)	Right undercut (m)	Left bank stability	Right bank stability	Location
GC-16	200	5	2.54	0	0.185	Vulnerable Bank	Eroding Bank	POOL
GC-16	201	6	2.02	0	0	Deposition Zone	Eroding Bank	POOL
GC-17	202	1	3.43	0	0	Deposition Zone	Eroding Bank	REACH
GC-17	203	2	3.30	0	0	Deposition Zone	Eroding Bank	REACH
GC-17	204	3	3.53	0	0	Eroding Bank	Eroding Bank	REACH
GC-17	205	4	3.34	0.11	0	Eroding Bank	Deposition Zone	POOL
GC-17	206	5	2.71	0.15	0	Eroding Bank	Deposition Zone	POOL
GC-17	207	6	2.53	0	0	Eroding Bank	Deposition Zone	POOL
GC-17	208	7	3.32	0.18	0.03	Eroding Bank	Eroding Bank	POOL
GC-17	209	8	3.25	0.22	0	Eroding Bank	Vulnerable Bank	POOL
GC-17	210	9	3.12	0	0	Vulnerable Bank	Vulnerable Bank	POOL
GC-17	211	10	2.06	0	0	Vulnerable Bank	Vulnerable Bank	POOL
GC-17	212	11	2.02	0	0	Protected Bank	Eroding Bank	REACH
GC-17	213	12	2.39	0	0	Protected Bank	Deposition Zone	REACH
GC-18	214	1	2.31	0	0	Vulnerable Bank	Vulnerable Bank	POOL
GC-18	215	2	3.03	0	0.06	Vulnerable Bank	Eroding Bank	POOL
GC-18	216	3	5.21	0.16	0	Eroding Bank	Vulnerable Bank	POOL
GC-18	217	4	7.17	0.225	0	Eroding Bank	Vulnerable Bank	POOL
GC-18	218	5	7.85	0.125	0	Eroding Bank	Vulnerable Bank	POOL
GC-18	219	6	2.74	0	0	Vulnerable Bank	Vulnerable Bank	POOL

2) Unknown Stan J

Map SiteID	TransectID	Transect number	Wetted width (m)	Left undercut (m)	Right undercut (m)	Left bank stability	Right bank stability	Location
USJ-01	299	1	2.09	0	0	Vulnerable Bank	Vulnerable Bank	REACH
USJ-01	300	2	1.51	0	0	Vulnerable Bank	Vulnerable Bank	REACH
USJ-01	301	3	1.92	0.085	0.38	Vulnerable Bank	Vulnerable Bank	POOL
USJ-01	302	4	1.53	0.03	0	Vulnerable Bank	Protected Bank	POOL
USJ-01	303	5	2.21	0.135	0	Vulnerable Bank	Protected Bank	POOL
USJ-01	304	6	2.76	0.23	0	Vulnerable Bank	Protected Bank	POOL
USJ-01	305	7	3.03	0.205	0	Vulnerable Bank	Protected Bank	POOL
USJ-01	306	8	3.00	0.07	0	Vulnerable Bank	Protected Bank	POOL
USJ-01	307	9	2.55	0.23	0.09	Vulnerable Bank	Vulnerable Bank	POOL
USJ-01	308	10	1.95	0	0	Protected Bank	Protected Bank	POOL
USJ-01	309	11	1.33	0	0	Protected Bank	Protected Bank	POOL
USJ-01	310	12	1.42	0	0	Protected Bank	Protected Bank	REACH
USJ-02	271	1	1.35	0	0	Deposition Zone	Deposition Zone	REACH
USJ-02	272	2	1.06	0	0	Deposition Zone	Deposition Zone	REACH
USJ-02	273	3	1.31	0	0	Deposition Zone	Eroding Bank	REACH
USJ-02	274	4	2.66	0	0	Deposition Zone	Eroding Bank	POOL

Map SiteID	TransectID	Transect number	Wetted width (m)	Left undercut (m)	Right undercut (m)	Left bank stability	Right bank stability	Location
USJ-02	275	5	3.04	0	0	Deposition Zone	Eroding Bank	POOL
USJ-02	276	6	3.20	0	0	Deposition Zone	Eroding Bank	POOL
USJ-02	277	7	3.41	0	0	Deposition Zone	Eroding Bank	POOL
USJ-02	278	8	3.58	0	0	Deposition Zone	Eroding Bank	POOL
USJ-02	279	9	3.78	0	0	Vulnerable Bank	Eroding Bank	POOL
USJ-02	280	10	3.75	0	0	Vulnerable Bank	Eroding Bank	POOL
USJ-02	281	11	3.45	0	0	Vulnerable Bank	Eroding Bank	POOL
USJ-02	282	12	2.09	0	0	Deposition Zone	Eroding Bank	POOL
USJ-02	283	13	2.26	0	0	Vulnerable Bank	Eroding Bank	POOL
USJ-02	284	14	2.38	0	0	Vulnerable Bank	Eroding Bank	REACH
USJ-02	285	15	2.48	0	0	Vulnerable Bank	Eroding Bank	REACH
USJ-03	259	1	2.12	0.33	0.105	Eroding Bank	Eroding Bank	POOL
USJ-03	260	2	3.04	0	0	Deposition Zone	Eroding Bank	POOL
USJ-03	261	3	3.33	0.05	0	Protected Bank	Eroding Bank	POOL
USJ-03	262	4	3.48	0.1	0	Protected Bank	Eroding Bank	POOL
USJ-03	263	5	3.45	0.12	0.18	Vulnerable Bank	Vulnerable Bank	POOL
USJ-03	264	6	2.01	0	0	Vulnerable Bank	Vulnerable Bank	POOL
USJ-04	265	1	2.60	0	0.082	Vulnerable Bank	Vulnerable Bank	POOL
USJ-04	266	2	3.64	0	0	Eroding Bank	Vulnerable Bank	POOL
USJ-04	267	3	3.53	0	0	Vulnerable Bank	Vulnerable Bank	POOL
USJ-04	268	4	4.16	0	0.058	Protected Bank	Eroding Bank	POOL
USJ-04	269	5	4.11	0	0	Protected Bank	Eroding Bank	POOL
USJ-04	270	6	2.73	0	0	Protected Bank	Vulnerable Bank	POOL
USJ-05	311	1	1.87	0	0	Vulnerable Bank	Protected Bank	POOL
USJ-05	312	2	2.99	0	0.08	Vulnerable Bank	Protected Bank	POOL
USJ-05	313	3	2.63	0	0	Protected Bank	Protected Bank	POOL
USJ-05	314	4	4.53	0	0	Vulnerable Bank	Protected Bank	POOL
USJ-05	315	5	3.97	0	0	Protected Bank	Protected Bank	POOL
USJ-05	316	6	3.12	0	0	Protected Bank	Vulnerable Bank	POOL
USJ-06	232	1	2.99	0	0	Deposition Zone	Deposition Zone	REACH
USJ-06	233	2	4.87	0	0	Eroding Bank	Vulnerable Bank	POOL
USJ-06	234	3	4.75	0	0	Deposition Zone	Vulnerable Bank	POOL
USJ-06	235	4	4.81	0	0	Deposition Zone	Eroding Bank	POOL
USJ-06	236	5	4.91	0	0	Eroding Bank	Eroding Bank	POOL
USJ-06	237	6	4.51	0	0	Eroding Bank	Deposition Zone	POOL
USJ-06	238	7	4.83	0	0	Eroding Bank	Deposition Zone	POOL
USJ-06	239	8	4.40	0	0	Eroding Bank	Eroding Bank	POOL
USJ-06	240	9	4.07	0	0	Eroding Bank	Deposition Zone	POOL
USJ-06	241	10	3.92	0	0	Eroding Bank	Deposition Zone	POOL
USJ-06	242	11	2.35	0	0	Protected Bank	Protected Bank	REACH
USJ-06	243	12	2.13	0	0	Protected Bank	Protected Bank	REACH

Map SiteID	TransectID	Transect number	Wetted width (m)	Left undercut (m)	Right undercut (m)	Left bank stability	Right bank stability	Location
USJ-07	244	1	1.31	0.12	0	Protected Bank	Protected Bank	REACH
USJ-07	245	2	1.94	0.22	0.051	Protected Bank	Protected Bank	REACH
USJ-07	246	3	2.03	0.22	0	Protected Bank	Protected Bank	POOL
USJ-07	247	4	2.21	0.15	0	Protected Bank	Protected Bank	POOL
USJ-07	248	5	2.50	0.34	0.225	Protected Bank	Protected Bank	POOL
USJ-07	249	6	1.97	0	0.04	Protected Bank	Protected Bank	POOL
USJ-07	250	7	1.82	0.1	0	Protected Bank	Protected Bank	POOL
USJ-07	251	8	2.17	0.18	0	Protected Bank	Protected Bank	POOL
USJ-07	252	9	1.66	0	0	Protected Bank	Protected Bank	POOL
USJ-07	253	10	1.89	0.28	0	Protected Bank	Protected Bank	POOL
USJ-07	254	11	1.91	0	0.255	Protected Bank	Protected Bank	POOL
USJ-07	255	12	2.00	0	0	Protected Bank	Protected Bank	POOL
USJ-07	256	13	1.32	0	0.26	Deposition Zone	Protected Bank	REACH
USJ-07	257	14	1.12	0	0	Deposition Zone	Eroding Bank	REACH
USJ-07	258	15	0.72	0	0	Deposition Zone	Deposition Zone	REACH
USJ-08	286	1	1.62	0	0	Protected Bank	Protected Bank	POOL
USJ-08	287	2	1.90	0.04	0.11	Protected Bank	Protected Bank	POOL
USJ-08	288	3	2.40	0.195	0.22	Protected Bank	Protected Bank	POOL
USJ-08	289	4	2.59	0.19	0.26	Protected Bank	Protected Bank	POOL
USJ-08	290	5	2.52	0.185	0.31	Protected Bank	Protected Bank	POOL
USJ-08	291	6	2.18	0.05	0.21	Protected Bank	Protected Bank	POOL
USJ-08	292	7	1.54	0	0.19	Protected Bank	Protected Bank	POOL
USJ-09	293	1	1.91	0	0	Protected Bank	Protected Bank	POOL
USJ-09	294	2	2.45	0.17	0.03	Protected Bank	Protected Bank	POOL
USJ-09	295	3	3.35	0.24	0.20	Protected Bank	Vulnerable Bank	POOL
USJ-09	296	4	2.67	0.24	0	Protected Bank	Vulnerable Bank	POOL
USJ-09	297	5	1.92	0	0	Vulnerable Bank	Eroding Bank	POOL
USJ-09	298	6	1.27	0	0	Vulnerable Bank	Eroding Bank	POOL

Appendix F. *Point-transect level data collected in 1) Gully Creek, and 2) Unknown Stan J 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. Where HH is Hydraulic Head and LWD is Large Woody Debris.*

1) Gully Creek

Map SiteID	TransectID	PointID	Transect Number	Point Number	Depth (m)	HH (mm)	LWD present	Organic	Clay	Silt	Sand	Gravel	Cobble	Boulder	Bedrock	Hardpan	Rubble	Concrete	Unknown	N/A
GC-01	226	986	1	1	0.205	0	No	25	0	25	50	0	0	0	0	0	0	0	0	No
GC-01	226	987	1	2	0.215	0	No	20	0	0	80	0	0	0	0	0	0	0	0	No
GC-01	226	988	1	3	0.189	0	No	0	0	0	90	10	0	0	0	0	0	0	0	No
GC-01	226	989	1	4	0.115	0	No	0	0	0	90	10	0	0	0	0	0	0	0	No
GC-01	226	990	1	5	0.058	0	No	0	0	0	90	10	0	0	0	0	0	0	0	No
GC-01	227	991	2	1	0.505	0	No	20	0	0	80	0	0	0	0	0	0	0	0	No
GC-01	227	992	2	2	0.385	0	No	0	0	0	100	0	0	0	0	0	0	0	0	No
GC-01	227	993	2	3	0.305	0	No	0	0	0	100	0	0	0	0	0	0	0	0	No
GC-01	227	994	2	4	0.163	0	No	0	0	0	50	50	0	0	0	0	0	0	0	No
GC-01	227	995	2	5	0.093	0	No	0	0	0	100	0	0	0	0	0	0	0	0	No
GC-01	228	996	3	1	0.875	0	No	0	0	0	100	0	0	0	0	0	0	0	0	No
GC-01	228	997	3	2	1.105	0	No	0	0	0	100	0	0	0	0	0	0	0	0	No
GC-01	228	998	3	3	0.855	0	No	0	0	0	100	0	0	0	0	0	0	0	0	No
GC-01	228	999	3	4	0.481	0	No	0	0	0	90	10	0	0	0	0	0	0	0	No
GC-01	228	1000	3	5	0.214	0	Yes	40	0	30	30	0	0	0	0	0	0	0	0	No
GC-01	229	1001	4	1	1.225	0	No	0	0	0	100	0	0	0	0	0	0	0	0	No
GC-01	229	1002	4	2	1.300	0	No	-	-	-	-	-	-	-	-	-	-	-	100	No
GC-01	229	1003	4	3	1.310	0	No	0	0	0	100	0	0	0	0	0	0	0	0	No
GC-01	229	1004	4	4	0.855	0	No	0	0	0	80	20	0	0	0	0	0	0	0	No
GC-01	229	1005	4	5	0.460	0	Yes	20	0	0	80	0	0	0	0	0	0	0	0	No
GC-01	230	1006	5	1	1.115	0	No	50	0	0	50	0	0	0	0	0	0	0	0	No
GC-01	230	1007	5	2	1.300	0	No	-	-	-	-	-	-	-	-	-	-	-	100	No
GC-01	230	1008	5	3	1.300	0	No	-	-	-	-	-	-	-	-	-	-	-	100	No
GC-01	230	1009	5	4	1.045	0	No	30	0	20	50	0	0	0	0	0	0	0	0	No
GC-01	230	1010	5	5	0.459	0	No	20	0	20	60	0	0	0	0	0	0	0	0	No
GC-01	231	1011	6	1	0.325	0	No	100	0	0	0	0	0	0	0	0	0	0	0	No
GC-01	231	1012	6	2	0.980	0	No	100	0	0	0	0	0	0	0	0	0	0	0	No
GC-01	231	1013	6	3	0.465	0	No	100	0	0	0	0	0	0	0	0	0	0	0	No
GC-01	231	1014	6	4	0.805	0	No	25	0	0	75	0	0	0	0	0	0	0	0	No

Map SiteID	TransectID	PointID	Transect Number	Point Number	Depth (m)	HH (mm)	LWD present	Organic	Clay	Silt	Sand	Gravel	Cobble	Boulder	Bedrock	Hardpan	Rubble	Concrete	Unknown	N/A
GC-01	231	1015	6	5	0.250	0	No	75	0	25	0	0	0	0	0	0	0	0	0	No
GC-02	108	571	1	1	0.116	0	No	30	0	0	20	50	0	0	0	0	0	0	0	No
GC-02	108	572	1	2	-0.135	-	No	-	-	-	-	-	-	100	-	-	-	-	-	No
GC-02	109	573	2	1	0.195	0	No	30	0	0	60	10	0	0	0	0	0	0	0	No
GC-02	109	574	2	2	0.225	0	No	0	0	0	0	20	80	0	0	0	0	0	0	No
GC-02	110	575	3	1	0.285	0	No	0	0	0	60	10	30	0	0	0	0	0	0	No
GC-02	110	576	3	2	0.485	0	No	0	0	0	0	0	100	0	0	0	0	0	0	No
GC-02	111	577	4	1	0.275	0	No	0	0	0	70	30	0	0	0	0	0	0	0	No
GC-02	111	578	4	2	0.395	0	No	0	0	0	0	0	100	0	0	0	0	0	0	No
GC-02	112	579	5	1	0.215	1	No	0	0	0	60	40	0	0	0	0	0	0	0	No
GC-02	112	580	5	2	0.365	0	No	0	0	0	20	0	80	0	0	0	0	0	0	No
GC-02	113	581	6	1	0.266	1	No	0	0	0	50	50	0	0	0	0	0	0	0	No
GC-02	113	582	6	2	0.525	0	No	0	0	0	20	0	80	0	0	0	0	0	0	No
GC-02	114	583	7	1	0.305	1	No	0	0	0	50	50	0	0	0	0	0	0	0	No
GC-02	114	584	7	2	0.415	0	No	0	0	0	0	0	70	30	0	0	0	0	0	No
GC-02	115	585	8	1	0.410	0	No	0	0	10	70	20	0	0	0	0	0	0	0	No
GC-02	115	586	8	2	0.435	1	No	10	0	0	10	0	80	0	0	0	0	0	0	No
GC-02	116	587	9	1	0.152	0	No	0	0	0	10	20	10	60	0	0	0	0	0	No
GC-02	116	588	9	2	0.215	9	No	0	0	0	0	0	100	0	0	0	0	0	0	No
GC-02	117	589	10	1	0.074	0	No	50	0	0	10	40	0	0	0	0	0	0	0	No
GC-02	117	590	10	2	0.060	0	No	70	0	0	30	0	0	0	0	0	0	0	0	No
GC-03	133	636	1	1	0.054	0	No	0	0	0	30	40	30	0	0	0	0	0	0	No
GC-03	133	637	1	2	0.035	0	No	0	0	0	0	80	20	0	0	0	0	0	0	No
GC-03	134	638	2	1	0.059	0	No	0	0	0	20	30	50	0	0	0	0	0	0	No
GC-03	134	639	2	2	0.085	0	No	0	0	0	20	40	40	0	0	0	0	0	0	No
GC-03	135	640	3	1	0.070	0	No	0	0	0	20	50	30	0	0	0	0	0	0	No
GC-03	135	641	3	2	0.085	0	No	0	0	0	0	20	80	0	0	0	0	0	0	No
GC-03	136	642	4	1	0.095	0	No	0	0	0	50	40	10	0	0	0	0	0	0	No
GC-03	136	643	4	2	0.115	0	No	10	0	10	60	10	10	0	0	0	0	0	0	No
GC-03	137	644	5	1	0.135	0	No	0	0	0	50	20	30	0	0	0	0	0	0	No
GC-03	137	645	5	2	0.195	0	No	0	0	20	60	20	0	0	0	0	0	0	0	No
GC-03	138	646	6	1	0.200	0	No	0	0	0	80	0	20	0	0	0	0	0	0	No
GC-03	138	647	6	2	0.215	0	Yes	20	0	20	60	0	0	0	0	0	0	0	0	No
GC-03	139	648	7	1	0.242	0	No	0	0	0	60	0	40	0	0	0	0	0	0	No
GC-03	139	649	7	2	0.265	0	No	10	0	0	60	30	0	0	0	0	0	0	0	No
GC-03	140	650	8	1	0.255	0	No	30	0	0	50	0	20	0	0	0	0	0	0	No
GC-03	140	651	8	2	0.205	0	No	0	0	0	20	0	60	20	0	0	0	0	0	No
GC-03	141	652	9	1	0.235	0	No	10	0	0	30	40	20	0	0	0	0	0	0	No

Map SiteID	TransectID	PointID	Transect Number	Point Number	Depth (m)	HH (mm)	LWD present	Organic	Clay	Silt	Sand	Gravel	Cobble	Boulder	Bedrock	Hardpan	Rubble	Concrete	Unknown	N/A
GC-03	141	653	9	2	0.205	0	No	15	0	0	0	15	70	0	0	0	0	0	0	No
GC-03	142	654	10	1	0.152	0	No	30	0	20	30	0	20	0	0	0	0	0	0	No
GC-03	142	655	10	2	0.205	0	No	15	0	15	0	0	70	0	0	0	0	0	0	No
GC-03	143	656	11	1	0.178	0	No	20	0	40	20	0	20	0	0	0	0	0	0	No
GC-03	143	657	11	2	0.145	0	No	0	0	10	40	40	10	0	0	0	0	0	0	No
GC-03	144	658	12	1	0.148	0	No	0	0	40	50	0	10	0	0	0	0	0	0	No
GC-03	144	659	12	2	0.175	0	No	0	0	10	0	80	10	0	0	0	0	0	0	No
GC-03	145	660	13	1	0.121	0	No	10	0	0	90	0	0	0	0	0	0	0	0	No
GC-03	145	661	13	2	0.145	0	No	0	0	10	0	10	80	0	0	0	0	0	0	No
GC-03	146	662	14	1	0.170	0	No	0	0	0	80	10	10	0	0	0	0	0	0	No
GC-03	146	663	14	2	0.045	0	No	10	0	0	40	0	50	0	0	0	0	0	0	No
GC-03	147	664	15	1	0.218	0	No	0	0	0	20	40	30	10	0	0	0	0	0	No
GC-03	147	665	15	2	0.175	0	No	0	0	20	0	20	60	0	0	0	0	0	0	No
GC-03	148	666	16	1	0.191	0	No	0	0	0	10	40	50	0	0	0	0	0	0	No
GC-03	148	667	16	2	0.120	0	No	10	0	10	0	0	80	0	0	0	0	0	0	No
GC-03	149	668	17	1	0.150	1	No	0	0	0	20	40	40	0	0	0	0	0	0	No
GC-03	149	669	17	2	0.135	0	No	10	0	10	10	0	70	0	0	0	0	0	0	No
GC-03	150	670	18	1	0.055	1	No	0	0	0	20	40	40	0	0	0	0	0	0	No
GC-03	150	671	18	2	0.045	3	Yes	0	0	0	0	50	50	0	0	0	0	0	0	No
GC-03	151	672	19	1	0.044	2	Yes	0	0	0	30	10	60	0	0	0	0	0	0	No
GC-03	151	673	19	2	0.045	0	No	20	0	0	40	0	40	0	0	0	0	0	0	No
GC-03	152	674	20	1	0.034	0	No	10	0	0	20	30	40	0	0	0	0	0	0	No
GC-03	152	675	20	2	0.045	2	No	20	0	0	60	0	20	0	0	0	0	0	0	No
GC-04	220	956	1	1	0.060	0	Yes	20	0	60	20	0	0	0	0	0	0	0	0	No
GC-04	220	957	1	2	0.045	0	No	10	0	20	50	20	0	0	0	0	0	0	0	No
GC-04	220	958	1	3	0.025	0	No	0	0	0	50	50	0	0	0	0	0	0	0	No
GC-04	220	959	1	4	0.126	0	Yes	10	0	0	50	40	0	0	0	0	0	0	0	No
GC-04	220	960	1	5	0.075	0	Yes	25	0	40	35	0	0	0	0	0	0	0	0	No
GC-04	221	961	2	1	0.040	0	No	0	0	25	50	25	0	0	0	0	0	0	0	No
GC-04	221	962	2	2	0.225	0	No	0	0	0	40	60	0	0	0	0	0	0	0	No
GC-04	221	963	2	3	-0.110	-	Yes	-	-	-	-	-	-	-	-	-	-	-	-	Yes
GC-04	221	964	2	4	0.180	0	Yes	10	0	0	50	40	0	0	0	0	0	0	0	No
GC-04	221	965	2	5	0.065	0	Yes	25	0	25	50	0	0	0	0	0	0	0	0	No
GC-04	222	966	3	1	0.120	0	No	10	0	10	80	0	0	0	0	0	0	0	0	No
GC-04	222	967	3	2	0.375	0	No	0	0	20	40	40	0	0	0	0	0	0	0	No
GC-04	222	968	3	3	0.415	0	No	10	0	0	40	40	10	0	0	0	0	0	0	No
GC-04	222	969	3	4	0.317	0	Yes	20	0	0	50	30	0	0	0	0	0	0	0	No
GC-04	222	970	3	5	0.125	0	No	0	0	0	70	0	0	30	0	0	0	0	0	No

Map SiteID	TransectID	PointID	Transect Number	Point Number	Depth (m)	HH (mm)	LWD present	Organic	Clay	Silt	Sand	Gravel	Cobble	Boulder	Bedrock	Hardpan	Rubble	Concrete	Unknown	N/A
GC-04	223	971	4	1	0.130	0	No	10	0	10	80	0	0	0	0	0	0	0	0	No
GC-04	223	972	4	2	0.380	0	No	0	0	25	25	50	0	0	0	0	0	0	0	No
GC-04	223	973	4	3	0.410	0	No	10	0	10	60	20	0	0	0	0	0	0	0	No
GC-04	223	974	4	4	0.670	0	No	10	0	20	20	0	20	30	0	0	0	0	0	No
GC-04	223	975	4	5	0.199	0	No	10	0	40	50	0	0	0	0	0	0	0	0	No
GC-04	224	976	5	1	0.170	0	No	10	0	0	90	0	0	0	0	0	0	0	0	No
GC-04	224	977	5	2	0.240	0	No	0	0	0	20	80	0	0	0	0	0	0	0	No
GC-04	224	978	5	3	0.245	0	No	0	0	0	20	60	20	0	0	0	0	0	0	No
GC-04	224	979	5	4	0.234	0	No	0	0	0	100	0	0	0	0	0	0	0	0	No
GC-04	224	980	5	5	0.070	0	No	20	0	10	70	0	0	0	0	0	0	0	0	No
GC-04	225	981	6	1	0.065	0	No	0	0	0	25	50	25	0	0	0	0	0	0	No
GC-04	225	982	6	2	0.045	4	No	0	0	0	20	50	0	30	0	0	0	0	0	No
GC-04	225	983	6	3	0.045	3	No	0	0	0	25	50	25	0	0	0	0	0	0	No
GC-04	225	984	6	4	0.050	0	No	10	0	0	30	40	20	0	0	0	0	0	0	No
GC-04	225	985	6	5	0.055	0	No	40	0	0	40	0	20	0	0	0	0	0	0	No
GC-05	118	591	1	1	0.044	4	No	0	0	0	0	60	40	0	0	0	0	0	0	No
GC-05	118	592	1	2	0.037	1	No	0	0	0	0	40	60	0	0	0	0	0	0	No
GC-05	118	593	1	3	0.035	4	No	0	0	0	0	0	100	0	0	0	0	0	0	No
GC-05	119	594	2	1	0.049	3	No	0	0	0	0	60	40	0	0	0	0	0	0	No
GC-05	119	595	2	2	0.035	1	No	0	0	0	0	20	20	60	0	0	0	0	0	No
GC-05	119	596	2	3	0.020	1	Yes	0	0	0	0	60	40	0	0	0	0	0	0	No
GC-05	120	597	3	1	0.045	0	No	0	0	0	80	20	0	0	0	0	0	0	0	No
GC-05	120	598	3	2	0.090	0	No	0	0	0	0	20	80	0	0	0	0	0	0	No
GC-05	120	599	3	3	0.045	0	No	0	0	0	0	20	80	0	0	0	0	0	0	No
GC-05	121	600	4	1	0.060	0	No	0	0	0	40	60	0	0	0	0	0	0	0	No
GC-05	121	601	4	2	0.135	0	No	0	0	0	0	20	80	0	0	0	0	0	0	No
GC-05	121	602	4	3	0.085	0	No	0	0	0	10	10	80	0	0	0	0	0	0	No
GC-05	122	603	5	1	0.052	0	No	0	0	0	25	75	0	0	0	0	0	0	0	No
GC-05	122	604	5	2	0.134	0	No	0	0	0	0	50	50	0	0	0	0	0	0	No
GC-05	122	605	5	3	0.075	0	No	0	0	20	40	40	0	0	0	0	0	0	0	No
GC-05	123	606	6	1	0.105	0	No	0	0	0	60	40	0	0	0	0	0	0	0	No
GC-05	123	607	6	2	0.190	0	No	0	0	0	20	60	20	0	0	0	0	0	0	No
GC-05	123	608	6	3	0.135	0	No	20	0	30	40	0	10	0	0	0	0	0	0	No
GC-05	124	609	7	1	0.118	0	No	0	0	0	90	10	0	0	0	0	0	0	0	No
GC-05	124	610	7	2	0.185	0	No	0	0	0	40	20	40	0	0	0	0	0	0	No
GC-05	124	611	7	3	0.005	0	No	0	0	0	15	15	0	70	0	0	0	0	0	No
GC-05	125	612	8	1	0.188	0	No	0	0	0	100	0	0	0	0	0	0	0	0	No
GC-05	125	613	8	2	0.330	0	No	0	0	0	100	0	0	0	0	0	0	0	0	No

Map SiteID	TransectID	PointID	Transect Number	Point Number	Depth (m)	HH (mm)	LWD present	Organic	Clay	Silt	Sand	Gravel	Cobble	Boulder	Bedrock	Hardpan	Rubble	Concrete	Unknown	N/A
GC-05	125	614	8	3	0.185	0	No	0	0	0	0	0	100	0	0	0	0	0	0	No
GC-05	126	615	9	1	0.191	0	No	40	0	0	60	0	0	0	0	0	0	0	0	No
GC-05	126	616	9	2	0.365	0	No	0	0	0	90	10	0	0	0	0	0	0	0	No
GC-05	126	617	9	3	0.425	0	No	10	0	30	60	0	0	0	0	0	0	0	0	No
GC-05	127	618	10	1	0.120	0	No	20	0	10	70	0	0	0	0	0	0	0	0	No
GC-05	127	619	10	2	0.365	0	No	50	0	20	30	0	0	0	0	0	0	0	0	No
GC-05	127	620	10	3	0.115	0	No	25	0	25	50	0	0	0	0	0	0	0	0	No
GC-05	128	621	11	1	0.225	0	No	0	0	0	100	0	0	0	0	0	0	0	0	No
GC-05	128	622	11	2	0.316	0	No	40	0	0	30	0	0	30	0	0	0	0	0	No
GC-05	128	623	11	3	0.335	0	No	20	0	20	60	0	0	0	0	0	0	0	0	No
GC-05	129	624	12	1	0.195	0	No	10	0	0	70	20	0	0	0	0	0	0	0	No
GC-05	129	625	12	2	0.325	0	No	40	0	0	40	0	20	0	0	0	0	0	0	No
GC-05	129	626	12	3	0.230	0	No	20	0	20	60	0	0	0	0	0	0	0	0	No
GC-05	130	627	13	1	0.174	0	No	0	0	0	100	0	0	0	0	0	0	0	0	No
GC-05	130	628	13	2	0.244	0	No	30	0	0	40	0	0	30	0	0	0	0	0	No
GC-05	130	629	13	3	0.150	0	No	10	0	10	20	60	0	0	0	0	0	0	0	No
GC-05	131	630	14	1	0.085	0	No	20	0	0	80	0	0	0	0	0	0	0	0	No
GC-05	131	631	14	2	0.230	0	No	60	0	0	40	0	0	0	0	0	0	0	0	No
GC-05	131	632	14	3	0.130	0	No	20	0	20	60	0	0	0	0	0	0	0	0	No
GC-05	132	633	15	1	0.073	0	No	30	0	10	60	0	0	0	0	0	0	0	0	No
GC-05	132	634	15	2	0.185	0	No	20	0	0	30	20	30	0	0	0	0	0	0	No
GC-05	132	635	15	3	0.090	0	No	10	0	10	80	0	0	0	0	0	0	0	0	No
GC-06	102	541	1	1	0.085	0	No	0	0	0	100	0	0	0	0	0	0	0	0	No
GC-06	102	542	1	2	0.240	0	No	0	0	10	80	10	0	0	0	0	0	0	0	No
GC-06	102	543	1	3	0.310	0	Yes	20	0	20	60	0	0	0	0	0	0	0	0	No
GC-06	102	544	1	4	0.350	0	Yes	70	0	10	20	0	0	0	0	0	0	0	0	No
GC-06	102	545	1	5	0.170	0	Yes	80	0	10	10	0	0	0	0	0	0	0	0	No
GC-06	103	546	2	1	0.065	0	No	0	0	0	50	50	0	0	0	0	0	0	0	No
GC-06	103	547	2	2	0.155	0	No	0	0	0	50	50	0	0	0	0	0	0	0	No
GC-06	103	548	2	3	0.255	0	No	30	0	0	40	15	15	0	0	0	0	0	0	No
GC-06	103	549	2	4	0.285	0	No	0	0	0	70	0	30	0	0	0	0	0	0	No
GC-06	103	550	2	5	0.125	0	No	0	0	0	60	10	30	0	0	0	0	0	0	No
GC-06	104	551	3	1	0.075	0	No	0	0	0	80	15	5	0	0	0	0	0	0	No
GC-06	104	552	3	2	0.150	0	No	0	0	0	50	50	0	0	0	0	0	0	0	No
GC-06	104	553	3	3	0.255	0	No	0	0	0	10	40	50	0	0	0	0	0	0	No
GC-06	104	554	3	4	0.205	0	No	0	0	0	25	0	75	0	0	0	0	0	0	No
GC-06	104	555	3	5	0.080	0	Yes	0	0	60	40	0	0	0	0	0	0	0	0	No
GC-06	105	556	4	1	0.065	0	No	0	0	0	50	50	0	0	0	0	0	0	0	No

Map SiteID	TransectID	PointID	Transect Number	Point Number	Depth (m)	HH (mm)	LWD present	Organic	Clay	Silt	Sand	Gravel	Cobble	Boulder	Bedrock	Hardpan	Rubble	Concrete	Unknown	N/A
GC-06	105	557	4	2	0.155	0	No	0	0	0	20	80	0	0	0	0	0	0	0	No
GC-06	105	558	4	3	0.245	0	No	0	0	0	50	50	0	0	0	0	0	0	0	No
GC-06	105	559	4	4	0.140	0	No	0	0	0	20	0	80	0	0	0	0	0	0	No
GC-06	105	560	4	5	0.180	0	Yes	0	0	0	15	10	75	0	0	0	0	0	0	No
GC-06	106	561	5	1	0.050	0	No	0	0	0	80	20	0	0	0	0	0	0	0	No
GC-06	106	562	5	2	0.180	0	No	0	0	0	50	25	25	0	0	0	0	0	0	No
GC-06	106	563	5	3	0.275	0	No	0	0	0	25	50	25	0	0	0	0	0	0	No
GC-06	106	564	5	4	0.268	0	No	0	0	10	40	0	50	0	0	0	0	0	0	No
GC-06	106	565	5	5	0.150	0	No	20	0	20	60	0	0	0	0	0	0	0	0	No
GC-06	107	566	6	1	0.065	0	No	0	0	0	100	0	0	0	0	0	0	0	0	No
GC-06	107	567	6	2	0.155	0	No	15	0	0	50	0	10	25	0	0	0	0	0	No
GC-06	107	568	6	3	0.205	0	No	10	0	0	20	0	20	50	0	0	0	0	0	No
GC-06	107	569	6	4	0.240	0	No	0	0	0	40	0	40	0	0	0	20	0	0	No
GC-06	107	570	6	5	0.200	0	No	0	0	0	40	30	30	0	0	0	0	0	0	No
GC-07	90	481	1	1	0.070	0	No	0	0	0	60	30	10	0	0	0	0	0	0	No
GC-07	90	482	1	2	0.155	0	No	0	0	0	60	30	10	0	0	0	0	0	0	No
GC-07	90	483	1	3	0.096	0	No	75	0	0	15	10	0	0	0	0	0	0	0	No
GC-07	90	484	1	4	0.105	0	No	10	0	0	90	0	0	0	0	0	0	0	0	No
GC-07	90	485	1	5	0.160	0	No	20	0	0	80	0	0	0	0	0	0	0	0	No
GC-07	91	486	2	1	0.033	0	No	0	0	0	10	80	10	0	0	0	0	0	0	No
GC-07	91	487	2	2	0.060	0	No	0	0	0	20	80	0	0	0	0	0	0	0	No
GC-07	91	488	2	3	0.105	0	No	0	0	0	20	80	0	0	0	0	0	0	0	No
GC-07	91	489	2	4	0.145	0	No	0	0	0	40	60	0	0	0	0	0	0	0	No
GC-07	91	490	2	5	0.150	0	Yes	10	0	0	90	0	0	0	0	0	0	0	0	No
GC-07	92	491	3	1	0.035	1	No	0	0	0	10	90	0	0	0	0	0	0	0	No
GC-07	92	492	3	2	0.034	0	No	0	0	0	10	90	0	0	0	0	0	0	0	No
GC-07	92	493	3	3	0.055	0	No	0	0	0	25	75	0	0	0	0	0	0	0	No
GC-07	92	494	3	4	0.135	0	No	0	0	0	50	50	0	0	0	0	0	0	0	No
GC-07	92	495	3	5	0.115	0	Yes	50	0	0	50	0	0	0	0	0	0	0	0	No
GC-07	93	496	4	1	0.076	0	No	0	0	0	75	0	25	0	0	0	0	0	0	No
GC-07	93	497	4	2	0.120	0	No	0	0	0	80	20	0	0	0	0	0	0	0	No
GC-07	93	498	4	3	0.085	0	No	0	0	0	50	20	30	0	0	0	0	0	0	No
GC-07	93	499	4	4	0.055	0	No	0	0	0	20	80	0	0	0	0	0	0	0	No
GC-07	93	500	4	5	0.085	0	No	0	0	0	20	80	0	0	0	0	0	0	0	No
GC-07	94	501	5	1	0.142	0	No	0	0	0	100	0	0	0	0	0	0	0	0	No
GC-07	94	502	5	2	0.235	0	No	10	0	0	30	60	0	0	0	0	0	0	0	No
GC-07	94	503	5	3	0.245	0	No	0	0	0	30	0	0	70	0	0	0	0	0	No
GC-07	94	504	5	4	0.155	0	No	0	0	0	70	30	0	0	0	0	0	0	0	No

Map SiteID	TransectID	PointID	Transect Number	Point Number	Depth (m)	HH (mm)	LWD present	Organic	Clay	Silt	Sand	Gravel	Cobble	Boulder	Bedrock	Hardpan	Rubble	Concrete	Unknown	N/A
GC-07	94	505	5	5	0.045	0	No	0	0	0	100	0	0	0	0	0	0	0	0	No
GC-07	95	506	6	1	0.201	0	No	0	0	0	75	0	25	0	0	0	0	0	0	No
GC-07	95	507	6	2	0.300	0	No	0	0	0	20	0	0	80	0	0	0	0	0	No
GC-07	95	508	6	3	0.205	0	No	0	0	0	90	10	0	0	0	0	0	0	0	No
GC-07	95	509	6	4	0.145	0	No	0	0	0	10	90	0	0	0	0	0	0	0	No
GC-07	95	510	6	5	0.135	0	No	0	0	0	30	70	0	0	0	0	0	0	0	No
GC-07	96	511	7	1	0.240	0	No	0	0	0	30	0	10	60	0	0	0	0	0	No
GC-07	96	512	7	2	0.235	0	No	0	0	0	85	10	5	0	0	0	0	0	0	No
GC-07	96	513	7	3	0.162	0	No	10	0	0	40	50	0	0	0	0	0	0	0	No
GC-07	96	514	7	4	0.215	0	No	0	0	0	20	80	0	0	0	0	0	0	0	No
GC-07	96	515	7	5	0.210	0	No	20	0	0	20	60	0	0	0	0	0	0	0	No
GC-07	97	516	8	1	0.290	0	No	70	0	0	20	10	0	0	0	0	0	0	0	No
GC-07	97	517	8	2	0.340	0	No	0	0	0	0	20	80	0	0	0	0	0	0	No
GC-07	97	518	8	3	0.317	0	Yes	0	0	0	30	50	20	0	0	0	0	0	0	No
GC-07	97	519	8	4	0.240	0	Yes	10	0	0	30	60	0	0	0	0	0	0	0	No
GC-07	97	520	8	5	0.160	0	Yes	50	0	0	50	0	0	0	0	0	0	0	0	No
GC-07	98	521	9	1	0.290	0	No	0	0	0	0	20	80	0	0	0	0	0	0	No
GC-07	98	522	9	2	0.365	0	No	0	0	0	0	10	90	0	0	0	0	0	0	No
GC-07	98	523	9	3	0.290	0	No	0	0	0	0	10	90	0	0	0	0	0	0	No
GC-07	98	524	9	4	0.355	0	Yes	0	0	0	0	10	90	0	0	0	0	0	0	No
GC-07	98	525	9	5	0.170	0	Yes	30	0	0	70	0	0	0	0	0	0	0	0	No
GC-07	99	526	10	1	0.170	0	No	40	0	50	10	0	0	0	0	0	0	0	0	No
GC-07	99	527	10	2	0.280	0	No	0	0	10	20	60	10	0	0	0	0	0	0	No
GC-07	99	528	10	3	0.210	0	Yes	0	0	10	15	0	0	75	0	0	0	0	0	No
GC-07	99	529	10	4	0.220	0	Yes	0	0	0	100	0	0	0	0	0	0	0	0	No
GC-07	99	530	10	5	0.075	0	Yes	10	0	10	80	0	0	0	0	0	0	0	0	No
GC-07	100	531	11	1	0.252	0	No	0	0	0	30	30	40	0	0	0	0	0	0	No
GC-07	100	532	11	2	0.265	0	No	0	0	0	10	10	80	0	0	0	0	0	0	No
GC-07	100	533	11	3	0.195	0	No	20	0	0	70	0	10	0	0	0	0	0	0	No
GC-07	100	534	11	4	0.140	0	No	20	0	0	80	0	0	0	0	0	0	0	0	No
GC-07	100	535	11	5	0.030	0	No	30	0	0	70	0	0	0	0	0	0	0	0	No
GC-07	101	536	12	1	0.119	0	No	0	0	0	15	10	75	0	0	0	0	0	0	No
GC-07	101	537	12	2	0.145	0	No	50	0	0	50	0	0	0	0	0	0	0	0	No
GC-07	101	538	12	3	-0.319	-	No	-	-	-	-	-	-	-	-	-	-	-	-	Yes
GC-07	101	539	12	4	-0.170	-	No	-	-	-	-	-	-	-	-	-	-	-	-	Yes
GC-07	101	540	12	5	0.100	0	Yes	25	0	0	25	50	0	0	0	0	0	0	0	No
GC-08	67	361	1	1	0.280	0	Yes	0	0	0	30	0	60	10	0	0	0	0	0	No
GC-08	67	362	1	2	0.291	0	No	0	0	0	20	0	60	20	0	0	0	0	0	No

Map SiteID	TransectID	PointID	Transect Number	Point Number	Depth (m)	HH (mm)	LWD present	Organic	Clay	Silt	Sand	Gravel	Cobble	Boulder	Bedrock	Hardpan	Rubble	Concrete	Unknown	N/A
GC-08	67	363	1	3	0.040	0	No	0	0	0	0	0	10	90	0	0	0	0	0	No
GC-08	67	364	1	4	0.121	0	No	0	0	0	90	0	10	0	0	0	0	0	0	No
GC-08	67	365	1	5	0.042	0	No	0	0	0	90	0	10	0	0	0	0	0	0	No
GC-08	68	366	2	1	0.165	0	Yes	0	0	0	100	0	0	0	0	0	0	0	0	No
GC-08	68	367	2	2	0.268	0	Yes	0	0	0	80	0	20	0	0	0	0	0	0	No
GC-08	68	368	2	3	0.305	0	No	0	0	0	30	0	70	0	0	0	0	0	0	No
GC-08	68	369	2	4	0.198	0	No	0	0	0	70	0	30	0	0	0	0	0	0	No
GC-08	68	370	2	5	0.084	0	No	0	0	0	100	0	0	0	0	0	0	0	0	No
GC-08	69	371	3	1	0.184	0	Yes	0	0	0	100	0	0	0	0	0	0	0	0	No
GC-08	69	372	3	2	0.265	0	Yes	0	0	0	95	0	5	0	0	0	0	0	0	No
GC-08	69	373	3	3	0.251	0	No	0	0	0	95	0	5	0	0	0	0	0	0	No
GC-08	69	374	3	4	0.252	0	No	0	0	0	100	0	0	0	0	0	0	0	0	No
GC-08	69	375	3	5	0.045	0	No	0	0	0	100	0	0	0	0	0	0	0	0	No
GC-08	70	376	4	1	0.133	0	Yes	0	0	0	30	0	70	0	0	0	0	0	0	No
GC-08	70	377	4	2	0.179	0	No	0	0	0	20	0	75	5	0	0	0	0	0	No
GC-08	70	378	4	3	0.142	0	No	0	0	0	10	0	50	40	0	0	0	0	0	No
GC-08	70	379	4	4	0.215	0	No	0	0	0	100	0	0	0	0	0	0	0	0	No
GC-08	70	380	4	5	0.105	0	No	0	0	0	100	0	0	0	0	0	0	0	0	No
GC-08	71	381	5	1	0.083	0	No	0	0	0	70	0	30	0	0	0	0	0	0	No
GC-08	71	382	5	2	0.137	0	No	0	0	0	15	0	80	5	0	0	0	0	0	No
GC-08	71	383	5	3	0.190	0	No	0	0	0	60	0	30	10	0	0	0	0	0	No
GC-08	71	384	5	4	0.226	0	No	0	0	0	100	0	0	0	0	0	0	0	0	No
GC-08	71	385	5	5	0.093	0	No	0	0	0	100	0	0	0	0	0	0	0	0	No
GC-08	72	386	6	1	0.050	0	Yes	0	0	0	60	0	20	20	0	0	0	0	0	No
GC-08	72	387	6	2	0.090	0	Yes	0	0	0	5	0	95	0	0	0	0	0	0	No
GC-08	72	388	6	3	0.115	0	No	0	0	0	10	0	80	10	0	0	0	0	0	No
GC-08	72	389	6	4	0.190	0	No	0	0	0	80	0	20	0	0	0	0	0	0	No
GC-08	72	390	6	5	0.025	0	No	0	0	0	5	0	0	95	0	0	0	0	0	No
GC-09	55	301	1	1	0.055	2	No	0	0	0	10	30	60	0	0	0	0	0	0	No
GC-09	55	302	1	2	0.089	3	No	0	0	0	15	70	15	0	0	0	0	0	0	No
GC-09	55	303	1	3	0.068	1	No	0	0	0	20	60	20	0	0	0	0	0	0	No
GC-09	55	304	1	4	0.058	0	No	0	0	0	0	80	20	0	0	0	0	0	0	No
GC-09	55	305	1	5	0.034	0	No	0	0	0	70	20	10	0	0	0	0	0	0	No
GC-09	56	306	2	1	0.008	0	No	0	0	0	40	40	20	0	0	0	0	0	0	No
GC-09	56	307	2	2	0.074	1	No	0	0	0	20	40	40	0	0	0	0	0	0	No
GC-09	56	308	2	3	0.003	0	No	0	0	0	30	40	30	0	0	0	0	0	0	No
GC-09	56	309	2	4	0.015	1	No	0	0	0	30	20	50	0	0	0	0	0	0	No
GC-09	56	310	2	5	0.089	2	No	0	0	0	60	20	20	0	0	0	0	0	0	No

Map SiteID	TransectID	PointID	Transect Number	Point Number	Depth (m)	HH (mm)	LWD present	Organic	Clay	Silt	Sand	Gravel	Cobble	Boulder	Bedrock	Hardpan	Rubble	Concrete	Unknown	N/A
GC-09	57	311	3	1	0.047	3	No	0	0	0	100	0	0	0	0	0	0	0	0	No
GC-09	57	312	3	2	0.091	2	No	0	0	0	50	30	20	0	0	0	0	0	0	No
GC-09	57	313	3	3	0.113	1	No	0	0	0	70	0	30	0	0	0	0	0	0	No
GC-09	57	314	3	4	0.110	2	No	0	0	0	30	10	60	0	0	0	0	0	0	No
GC-09	57	315	3	5	-0.061	-	No	0	0	0	50	0	50	0	0	0	0	0	0	No
GC-09	58	316	4	1	0.061	0	No	0	0	0	100	0	0	0	0	0	0	0	0	No
GC-09	58	317	4	2	0.181	0	No	0	0	0	80	0	20	0	0	0	0	0	0	No
GC-09	58	318	4	3	0.194	0	No	0	0	0	30	20	50	0	0	0	0	0	0	No
GC-09	58	319	4	4	0.200	0	No	0	0	0	80	0	20	0	0	0	0	0	0	No
GC-09	58	320	4	5	0.051	0	No	0	0	0	100	0	0	0	0	0	0	0	0	No
GC-09	59	321	5	1	0.069	0	No	0	0	0	100	0	0	0	0	0	0	0	0	No
GC-09	59	322	5	2	0.285	0	No	0	0	0	100	0	0	0	0	0	0	0	0	No
GC-09	59	323	5	3	0.347	0	No	0	0	0	90	0	10	0	0	0	0	0	0	No
GC-09	59	324	5	4	0.183	0	No	0	0	0	50	0	50	0	0	0	0	0	0	No
GC-09	59	325	5	5	0.170	0	No	0	0	0	80	0	20	0	0	0	0	0	0	No
GC-09	60	326	6	1	0.152	0	No	0	0	0	100	0	0	0	0	0	0	0	0	No
GC-09	60	327	6	2	0.303	0	No	0	0	0	60	0	40	0	0	0	0	0	0	No
GC-09	60	328	6	3	0.422	1	No	0	0	0	60	0	40	0	0	0	0	0	0	No
GC-09	60	329	6	4	0.354	0	Yes	0	0	0	50	20	30	0	0	0	0	0	0	No
GC-09	60	330	6	5	0.142	0	Yes	0	0	0	50	10	40	0	0	0	0	0	0	No
GC-09	61	331	7	1	0.131	2	No	0	0	0	100	0	0	0	0	0	0	0	0	No
GC-09	61	332	7	2	0.356	0	No	0	0	0	90	0	10	0	0	0	0	0	0	No
GC-09	61	333	7	3	0.300	1	No	0	0	0	100	0	0	0	0	0	0	0	0	No
GC-09	61	334	7	4	0.247	0	Yes	0	0	0	40	20	40	0	0	0	0	0	0	No
GC-09	61	335	7	5	0.046	0	Yes	0	0	0	100	0	0	0	0	0	0	0	0	No
GC-09	62	336	8	1	0.185	2	No	0	0	0	75	10	5	10	0	0	0	0	0	No
GC-09	62	337	8	2	0.125	0	No	0	0	0	65	0	30	5	0	0	0	0	0	No
GC-09	62	338	8	3	0.160	1	No	0	0	0	40	0	50	10	0	0	0	0	0	No
GC-09	62	339	8	4	0.079	1	No	0	0	0	50	15	35	0	0	0	0	0	0	No
GC-09	62	340	8	5	0.040	0	No	0	0	0	100	0	0	0	0	0	0	0	0	No
GC-09	63	341	9	1	0.038	0	Yes	0	0	0	30	10	60	0	0	0	0	0	0	No
GC-09	63	342	9	2	0.117	0	No	0	0	0	0	20	80	0	0	0	0	0	0	No
GC-09	63	343	9	3	0.101	1	No	0	0	0	10	0	70	20	0	0	0	0	0	No
GC-09	63	344	9	4	0.132	2	No	0	0	0	20	0	60	20	0	0	0	0	0	No
GC-09	63	345	9	5	0.035	0	Yes	0	0	0	0	20	80	0	0	0	0	0	0	No
GC-09	64	346	10	1	0.065	0	Yes	0	0	0	0	90	0	10	0	0	0	0	0	No
GC-09	64	347	10	2	0.112	0	Yes	0	0	0	0	20	80	0	0	0	0	0	0	No
GC-09	64	348	10	3	0.118	2	Yes	0	0	0	0	50	50	0	0	0	0	0	0	No

Map SiteID	TransectID	PointID	Transect Number	Point Number	Depth (m)	HH (mm)	LWD present	Organic	Clay	Silt	Sand	Gravel	Cobble	Boulder	Bedrock	Hardpan	Rubble	Concrete	Unknown	N/A
GC-09	64	349	10	4	-0.020	-	No	0	0	0	5	0	25	70	0	0	0	0	0	No
GC-09	64	350	10	5	0.016	0	No	0	0	0	0	10	50	40	0	0	0	0	0	No
GC-09	65	351	11	1	0.020	0	No	0	0	0	25	0	25	50	0	0	0	0	0	No
GC-09	65	352	11	2	0.030	0	Yes	0	0	0	10	0	30	60	0	0	0	0	0	No
GC-09	65	353	11	3	0.182	0	No	0	0	0	0	20	80	0	0	0	0	0	0	No
GC-09	65	354	11	4	0.125	1	No	0	0	0	0	10	80	10	0	0	0	0	0	No
GC-09	65	355	11	5	0.049	0	No	0	0	0	5	10	80	5	0	0	0	0	0	No
GC-09	66	356	12	1	0.050	0	Yes	0	0	0	70	10	20	0	0	0	0	0	0	No
GC-09	66	357	12	2	0.101	0	No	0	0	0	0	10	20	70	0	0	0	0	0	No
GC-09	66	358	12	3	0.155	0	No	0	0	0	10	20	40	30	0	0	0	0	0	No
GC-09	66	359	12	4	0.147	0	No	0	0	0	10	10	80	0	0	0	0	0	0	No
GC-09	66	360	12	5	0.084	0	No	0	0	0	40	0	60	0	0	0	0	0	0	No
GC-10	73	391	1	1	0.010	0	No	0	0	0	0	100	0	0	0	0	0	0	0	No
GC-10	73	392	1	2	0.025	0	No	0	0	0	50	50	0	0	0	0	0	0	0	No
GC-10	73	393	1	3	0.093	2	No	0	0	0	0	40	60	0	0	0	0	0	0	No
GC-10	73	394	1	4	0.076	1	Yes	0	0	0	10	0	90	0	0	0	0	0	0	No
GC-10	73	395	1	5	0.057	0	No	0	0	0	10	0	30	60	0	0	0	0	0	No
GC-10	74	396	2	1	0.020	1	No	0	0	0	20	70	10	0	0	0	0	0	0	No
GC-10	74	397	2	2	0.035	1	No	0	0	0	0	100	0	0	0	0	0	0	0	No
GC-10	74	398	2	3	0.010	0	No	0	0	0	10	80	10	0	0	0	0	0	0	No
GC-10	74	399	2	4	0.048	2	No	0	0	0	20	30	50	0	0	0	0	0	0	No
GC-10	74	400	2	5	0.017	0	No	0	0	0	10	20	70	0	0	0	0	0	0	No
GC-10	75	401	3	1	0.116	0	No	0	0	0	50	50	0	0	0	0	0	0	0	No
GC-10	75	402	3	2	0.172	0	No	0	0	0	40	60	0	0	0	0	0	0	0	No
GC-10	75	403	3	3	0.153	0	No	0	0	0	30	70	0	0	0	0	0	0	0	No
GC-10	75	404	3	4	0.045	0	No	0	0	0	75	25	0	0	0	0	0	0	0	No
GC-10	75	405	3	5	0.059	0	No	0	0	0	90	5	5	0	0	0	0	0	0	No
GC-10	76	406	4	1	0.198	0	No	0	0	0	80	20	0	0	0	0	0	0	0	No
GC-10	76	407	4	2	0.575	0	No	0	0	0	100	0	0	0	0	0	0	0	0	No
GC-10	76	408	4	3	0.840	0	No	0	0	0	0	100	0	0	0	0	0	0	0	No
GC-10	76	409	4	4	0.509	0	No	0	0	0	20	80	0	0	0	0	0	0	0	No
GC-10	76	410	4	5	0.200	0	No	0	0	0	100	0	0	0	0	0	0	0	0	No
GC-10	77	411	5	1	0.509	0	Yes	0	0	0	100	0	0	0	0	0	0	0	0	No
GC-10	77	412	5	2	0.910	0	No	0	0	0	100	0	0	0	0	0	0	0	0	No
GC-10	77	413	5	3	0.770	0	No	0	0	0	90	10	0	0	0	0	0	0	0	No
GC-10	77	414	5	4	0.530	0	No	0	0	0	100	0	0	0	0	0	0	0	0	No
GC-10	77	415	5	5	0.236	0	No	0	0	0	100	0	0	0	0	0	0	0	0	No
GC-10	78	416	6	1	0.525	0	Yes	100	0	0	0	0	0	0	0	0	0	0	0	No

Map SiteID	TransectID	PointID	Transect Number	Point Number	Depth (m)	HH (mm)	LWD present	Organic	Clay	Silt	Sand	Gravel	Cobble	Boulder	Bedrock	Hardpan	Rubble	Concrete	Unknown	N/A
GC-10	78	417	6	2	1.200	0	Yes	100	0	0	0	0	0	0	0	0	0	0	0	No
GC-10	78	418	6	3	0.874	0	Yes	0	0	0	100	0	0	0	0	0	0	0	0	No
GC-10	78	419	6	4	0.610	0	No	0	0	0	95	5	0	0	0	0	0	0	0	No
GC-10	78	420	6	5	0.243	0	No	0	0	0	100	0	0	0	0	0	0	0	0	No
GC-10	79	421	7	1	0.585	0	No	0	0	0	50	25	25	0	0	0	0	0	0	No
GC-10	79	422	7	2	0.990	0	No	0	0	0	0	50	50	0	0	0	0	0	0	No
GC-10	79	423	7	3	0.950	0	No	0	0	0	0	50	0	50	0	0	0	0	0	No
GC-10	79	424	7	4	0.491	0	No	0	0	0	95	0	5	0	0	0	0	0	0	No
GC-10	79	425	7	5	0.177	0	No	0	0	0	100	0	0	0	0	0	0	0	0	No
GC-10	80	426	8	1	0.310	0	No	0	0	0	100	0	0	0	0	0	0	0	0	No
GC-10	80	427	8	2	0.695	0	No	0	0	0	100	0	0	0	0	0	0	0	0	No
GC-10	80	428	8	3	0.703	0	No	0	0	0	0	25	25	50	0	0	0	0	0	No
GC-10	80	429	8	4	0.391	0	No	0	0	0	80	20	0	0	0	0	0	0	0	No
GC-10	80	430	8	5	0.120	0	No	0	0	0	100	0	0	0	0	0	0	0	0	No
GC-10	81	431	9	1	0.340	0	Yes	0	0	0	80	20	0	0	0	0	0	0	0	No
GC-10	81	432	9	2	0.390	0	No	0	0	0	90	10	0	0	0	0	0	0	0	No
GC-10	81	433	9	3	0.205	0	No	0	0	0	50	50	0	0	0	0	0	0	0	No
GC-10	81	434	9	4	0.110	0	No	0	0	0	60	40	0	0	0	0	0	0	0	No
GC-10	81	435	9	5	0.061	0	No	0	0	0	95	0	5	0	0	0	0	0	0	No
GC-10	82	436	10	1	0.115	0	No	0	0	0	100	0	0	0	0	0	0	0	0	No
GC-10	82	437	10	2	0.155	0	No	0	0	0	50	50	0	0	0	0	0	0	0	No
GC-10	82	438	10	3	0.180	0	No	0	0	0	25	50	25	0	0	0	0	0	0	No
GC-10	82	439	10	4	0.145	0	No	0	0	0	30	50	20	0	0	0	0	0	0	No
GC-10	82	440	10	5	0.025	0	No	0	0	0	30	40	30	0	0	0	0	0	0	No
GC-10	83	441	11	1	0.115	0	No	0	0	0	100	0	0	0	0	0	0	0	0	No
GC-10	83	442	11	2	0.290	0	No	0	0	0	0	70	30	0	0	0	0	0	0	No
GC-10	83	443	11	3	0.305	0	No	0	0	0	0	25	25	50	0	0	0	0	0	No
GC-10	83	444	11	4	0.171	0	No	0	0	0	10	0	30	60	0	0	0	0	0	No
GC-10	83	445	11	5	0.059	0	No	0	0	0	20	20	60	0	0	0	0	0	0	No
GC-10	84	446	12	1	0.115	0	Yes	0	0	0	100	0	0	0	0	0	0	0	0	No
GC-10	84	447	12	2	0.356	0	No	0	0	0	50	0	0	50	0	0	0	0	0	No
GC-10	84	448	12	3	0.425	0	No	0	0	0	0	30	70	0	0	0	0	0	0	No
GC-10	84	449	12	4	0.258	0	No	0	0	0	20	10	70	0	0	0	0	0	0	No
GC-10	84	450	12	5	0.077	0	No	0	0	0	60	30	10	0	0	0	0	0	0	No
GC-11	85	451	1	1	0.072	0	Yes	70	0	0	30	0	0	0	0	0	0	0	0	No
GC-11	85	452	1	2	0.148	0	Yes	90	0	0	10	0	0	0	0	0	0	0	0	No
GC-11	85	453	1	3	0.145	0	No	0	0	0	0	20	50	30	0	0	0	0	0	No
GC-11	85	454	1	4	0.130	0	No	0	0	0	0	80	0	20	0	0	0	0	0	No

Map SiteID	TransectID	PointID	Transect Number	Point Number	Depth (m)	HH (mm)	LWD present	Organic	Clay	Silt	Sand	Gravel	Cobble	Boulder	Bedrock	Hardpan	Rubble	Concrete	Unknown	N/A
GC-11	85	455	1	5	0.110	0	No	0	0	0	0	0	30	70	0	0	0	0	0	No
GC-11	85	456	1	6	0.055	0	No	0	0	0	0	80	20	0	0	0	0	0	0	No
GC-11	86	457	2	1	0.209	0	Yes	100	0	0	0	0	0	0	0	0	0	0	0	No
GC-11	86	458	2	2	0.258	0	Yes	30	0	0	0	0	0	70	0	0	0	0	0	No
GC-11	86	459	2	3	0.274	0	No	0	0	0	0	40	50	10	0	0	0	0	0	No
GC-11	86	460	2	4	0.360	0	No	0	0	0	20	80	0	0	0	0	0	0	0	No
GC-11	86	461	2	5	0.230	0	No	0	0	0	50	50	0	0	0	0	0	0	0	No
GC-11	86	462	2	6	0.140	0	No	0	0	0	80	20	0	0	0	0	0	0	0	No
GC-11	87	463	3	1	0.240	0	Yes	0	0	0	40	40	0	20	0	0	0	0	0	No
GC-11	87	464	3	2	0.363	0	No	0	0	0	0	0	0	0	0	100	0	0	0	No
GC-11	87	465	3	3	0.424	0	No	0	0	0	50	0	0	0	0	50	0	0	0	No
GC-11	87	466	3	4	0.390	0	No	0	0	0	40	60	0	0	0	0	0	0	0	No
GC-11	87	467	3	5	0.380	0	No	0	0	0	80	20	0	0	0	0	0	0	0	No
GC-11	87	468	3	6	0.140	0	No	0	0	0	100	0	0	0	0	0	0	0	0	No
GC-11	88	469	4	1	0.102	0	Yes	0	0	0	0	20	80	0	0	0	0	0	0	No
GC-11	88	470	4	2	0.270	0	No	0	0	0	0	10	90	0	0	0	0	0	0	No
GC-11	88	471	4	3	0.329	0	No	0	0	0	10	10	80	0	0	0	0	0	0	No
GC-11	88	472	4	4	0.145	0	No	0	0	0	100	0	0	0	0	0	0	0	0	No
GC-11	88	473	4	5	0.140	0	No	0	0	0	100	0	0	0	0	0	0	0	0	No
GC-11	88	474	4	6	0.150	0	No	0	0	0	0	30	70	0	0	0	0	0	0	No
GC-11	89	475	5	1	0.051	0	No	0	0	0	30	20	50	0	0	0	0	0	0	No
GC-11	89	476	5	2	0.027	0	No	0	0	0	10	60	30	0	0	0	0	0	0	No
GC-11	89	477	5	3	0.039	0	No	0	0	0	60	20	20	0	0	0	0	0	0	No
GC-11	89	478	5	4	0.010	2	No	0	0	0	0	50	50	0	0	0	0	0	0	No
GC-11	89	479	5	5	0.045	5	No	0	0	0	0	20	50	30	0	0	0	0	0	No
GC-11	89	480	5	6	0.020	0	No	0	0	0	0	20	80	0	0	0	0	0	0	No
GC-12	153	676	1	1	0.035	0	No	0	0	0	10	90	0	0	0	0	0	0	0	No
GC-12	153	677	1	2	0.060	5	No	0	0	0	0	70	30	0	0	0	0	0	0	No
GC-12	153	678	1	3	0.045	10	No	0	0	0	0	80	20	0	0	0	0	0	0	No
GC-12	153	679	1	4	0.037	4	No	0	0	0	0	80	20	0	0	0	0	0	0	No
GC-12	153	680	1	5	0.045	2	No	0	0	0	0	70	30	0	0	0	0	0	0	No
GC-12	154	681	2	1	0.055	0	No	0	0	0	80	20	0	0	0	0	0	0	0	No
GC-12	154	682	2	2	0.105	0	No	0	0	0	0	100	0	0	0	0	0	0	0	No
GC-12	154	683	2	3	0.075	0	No	0	0	0	0	100	0	0	0	0	0	0	0	No
GC-12	154	684	2	4	0.049	0	No	0	0	0	10	90	0	0	0	0	0	0	0	No
GC-12	154	685	2	5	0.025	0	No	0	0	0	20	80	0	0	0	0	0	0	0	No
GC-12	155	686	3	1	0.095	0	No	0	0	0	100	0	0	0	0	0	0	0	0	No
GC-12	155	687	3	2	0.225	0	No	0	0	0	0	80	20	0	0	0	0	0	0	No

Map SiteID	TransectID	PointID	Transect Number	Point Number	Depth (m)	HH (mm)	LWD present	Organic	Clay	Silt	Sand	Gravel	Cobble	Boulder	Bedrock	Hardpan	Rubble	Concrete	Unknown	N/A
GC-12	155	688	3	3	0.210	0	No	0	0	0	0	40	40	20	0	0	0	0	0	No
GC-12	155	689	3	4	0.145	0	No	0	0	0	0	80	20	0	0	0	0	0	0	No
GC-12	155	690	3	5	0.069	0	No	0	0	0	0	100	0	0	0	0	0	0	0	No
GC-12	156	691	4	1	0.240	0	No	0	0	0	0	0	0	0	0	100	0	0	0	No
GC-12	156	692	4	2	0.435	0	No	0	0	0	0	30	0	0	0	70	0	0	0	No
GC-12	156	693	4	3	0.408	0	No	0	0	0	10	80	10	0	0	0	0	0	0	No
GC-12	156	694	4	4	0.280	0	No	0	0	0	20	80	0	0	0	0	0	0	0	No
GC-12	156	695	4	5	0.110	0	No	0	0	0	80	20	0	0	0	0	0	0	0	No
GC-12	157	696	5	1	0.380	0	No	0	0	0	0	0	0	0	0	100	0	0	0	No
GC-12	157	697	5	2	0.360	0	No	0	0	0	0	0	0	0	0	100	0	0	0	No
GC-12	157	698	5	3	0.408	0	No	0	0	0	20	80	0	0	0	0	0	0	0	No
GC-12	157	699	5	4	0.229	0	No	20	0	0	80	0	0	0	0	0	0	0	0	No
GC-12	157	700	5	5	0.074	0	No	30	0	10	60	0	0	0	0	0	0	0	0	No
GC-12	158	701	6	1	0.170	0	No	0	0	0	0	0	0	0	0	100	0	0	0	No
GC-12	158	702	6	2	0.234	0	No	0	0	0	40	0	0	0	0	60	0	0	0	No
GC-12	158	703	6	3	0.380	0	No	0	0	0	0	20	0	40	0	40	0	0	0	No
GC-12	158	704	6	4	0.434	0	No	0	0	0	10	90	0	0	0	0	0	0	0	No
GC-12	158	705	6	5	0.201	0	No	0	0	0	100	0	0	0	0	0	0	0	0	No
GC-12	159	706	7	1	0.140	0	No	0	0	0	40	0	0	0	0	60	0	0	0	No
GC-12	159	707	7	2	0.230	0	No	0	0	0	100	0	0	0	0	0	0	0	0	No
GC-12	159	708	7	3	0.356	0	No	0	0	0	0	40	10	40	0	10	0	0	0	No
GC-12	159	709	7	4	0.430	0	No	0	0	0	0	20	0	60	0	20	0	0	0	No
GC-12	159	710	7	5	0.260	0	No	0	0	0	60	40	0	0	0	0	0	0	0	No
GC-12	160	711	8	1	0.135	0	No	0	0	20	80	0	0	0	0	0	0	0	0	No
GC-12	160	712	8	2	0.305	0	No	0	0	0	100	0	0	0	0	0	0	0	0	No
GC-12	160	713	8	3	0.390	0	No	0	0	0	60	30	10	0	0	0	0	0	0	No
GC-12	160	714	8	4	0.398	0	No	0	0	0	10	50	40	0	0	0	0	0	0	No
GC-12	160	715	8	5	0.250	0	No	0	0	20	30	40	10	0	0	0	0	0	0	No
GC-12	161	716	9	1	0.105	0	No	0	0	0	100	0	0	0	0	0	0	0	0	No
GC-12	161	717	9	2	0.255	0	No	0	0	0	25	50	25	0	0	0	0	0	0	No
GC-12	161	718	9	3	0.250	0	No	0	0	0	0	80	20	0	0	0	0	0	0	No
GC-12	161	719	9	4	0.235	0	No	0	0	0	20	50	30	0	0	0	0	0	0	No
GC-12	161	720	9	5	0.070	0	No	0	0	0	50	50	0	0	0	0	0	0	0	No
GC-12	162	721	10	1	0.105	0	No	0	0	0	100	0	0	0	0	0	0	0	0	No
GC-12	162	722	10	2	0.115	0	No	0	0	0	25	50	25	0	0	0	0	0	0	No
GC-12	162	723	10	3	0.125	0	No	0	0	0	0	25	25	50	0	0	0	0	0	No
GC-12	162	724	10	4	0.095	0	No	0	0	0	0	60	40	0	0	0	0	0	0	No
GC-12	162	725	10	5	0.070	0	Yes	0	0	0	0	80	20	0	0	0	0	0	0	No

Map SiteID	TransectID	PointID	Transect Number	Point Number	Depth (m)	HH (mm)	LWD present	Organic	Clay	Silt	Sand	Gravel	Cobble	Boulder	Bedrock	Hardpan	Rubble	Concrete	Unknown	N/A
GC-12	163	726	11	1	0.045	0	No	0	0	0	20	80	0	0	0	0	0	0	0	No
GC-12	163	727	11	2	0.030	0	No	0	0	0	20	80	0	0	0	0	0	0	0	No
GC-12	163	728	11	3	0.075	0	No	0	0	0	10	90	0	0	0	0	0	0	0	No
GC-12	163	729	11	4	0.089	0	Yes	0	0	0	20	80	0	0	0	0	0	0	0	No
GC-12	163	730	11	5	0.094	0	No	0	0	0	30	60	10	0	0	0	0	0	0	No
GC-12	164	735	12	1	0.035	1	No	0	0	0	20	80	0	0	0	0	0	0	0	No
GC-12	164	734	12	2	-0.120	-	No	-	-	-	-	-	-	-	-	-	-	-	-	Yes
GC-12	164	733	12	3	-0.125	-	No	-	-	-	-	-	-	-	-	-	-	-	-	Yes
GC-12	164	732	12	4	0.012	0	No	0	0	0	10	80	10	0	0	0	0	0	0	No
GC-12	164	731	12	5	0.040	1	No	0	0	0	10	80	10	0	0	0	0	0	0	No
GC-13	165	736	1	1	0.145	0	Yes	0	0	25	50	25	0	0	0	0	0	0	0	No
GC-13	165	737	1	2	0.205	0	No	0	0	0	0	0	100	0	0	0	0	0	0	No
GC-13	165	738	1	3	0.180	0	No	0	0	0	0	50	50	0	0	0	0	0	0	No
GC-13	165	739	1	4	0.130	0	No	0	0	0	30	50	20	0	0	0	0	0	0	No
GC-13	165	740	1	5	0.104	0	No	0	0	0	50	25	25	0	0	0	0	0	0	No
GC-13	165	741	1	6	0.068	0	No	0	0	0	40	40	20	0	0	0	0	0	0	No
GC-13	166	742	2	1	0.120	0	No	40	0	20	40	0	0	0	0	0	0	0	0	No
GC-13	166	743	2	2	0.198	0	No	0	0	0	0	0	30	0	0	70	0	0	0	No
GC-13	166	744	2	3	0.300	0	No	0	90	0	0	0	10	0	0	0	0	0	0	No
GC-13	166	745	2	4	0.270	0	No	0	0	0	40	60	0	0	0	0	0	0	0	No
GC-13	166	746	2	5	0.237	0	No	0	0	0	100	0	0	0	0	0	0	0	0	No
GC-13	166	747	2	6	0.168	0	No	20	0	30	20	0	0	30	0	0	0	0	0	No
GC-13	167	748	3	1	0.115	0	No	0	0	0	0	80	20	0	0	0	0	0	0	No
GC-13	167	749	3	2	0.250	0	No	0	0	0	0	0	60	0	0	40	0	0	0	No
GC-13	167	750	3	3	0.295	0	No	0	0	0	0	25	50	0	0	25	0	0	0	No
GC-13	167	751	3	4	0.298	0	No	0	0	0	25	50	25	0	0	0	0	0	0	No
GC-13	167	752	3	5	0.155	0	No	10	0	0	90	0	0	0	0	0	0	0	0	No
GC-13	167	753	3	6	0.088	0	No	30	0	20	50	0	0	0	0	0	0	0	0	No
GC-13	168	754	4	1	0.120	0	Yes	0	0	0	0	0	0	0	0	100	0	0	0	No
GC-13	168	755	4	2	0.210	0	No	0	0	0	0	0	0	0	0	100	0	0	0	No
GC-13	168	756	4	3	0.345	0	No	0	0	0	0	0	0	0	0	100	0	0	0	No
GC-13	168	757	4	4	0.374	0	No	0	0	0	30	70	0	0	0	0	0	0	0	No
GC-13	168	758	4	5	0.292	0	No	0	0	0	0	60	20	20	0	0	0	0	0	No
GC-13	168	759	4	6	0.075	0	No	0	0	10	30	40	20	0	0	0	0	0	0	No
GC-13	169	760	5	1	0.055	0	No	20	0	20	60	0	0	0	0	0	0	0	0	No
GC-13	169	761	5	2	0.145	0	No	0	0	0	70	30	0	0	0	0	0	0	0	No
GC-13	169	762	5	3	0.235	0	No	0	0	0	20	60	20	0	0	0	0	0	0	No
GC-13	169	763	5	4	0.237	0	No	0	0	0	25	50	25	0	0	0	0	0	0	No

Map SiteID	TransectID	PointID	Transect Number	Point Number	Depth (m)	HH (mm)	LWD present	Organic	Clay	Silt	Sand	Gravel	Cobble	Boulder	Bedrock	Hardpan	Rubble	Concrete	Unknown	N/A
GC-13	169	764	5	5	0.147	0	No	0	10	0	40	10	40	0	0	0	0	0	0	No
GC-13	169	765	5	6	0.090	0	No	0	10	20	20	30	20	0	0	0	0	0	0	No
GC-14	170	766	1	1	0.095	0	Yes	30	0	0	70	0	0	0	0	0	0	0	0	No
GC-14	170	767	1	2	0.213	0	Yes	0	0	0	0	30	70	0	0	0	0	0	0	No
GC-14	170	768	1	3	0.245	0	No	0	0	0	0	40	0	10	0	50	0	0	0	No
GC-14	170	769	1	4	0.190	0	No	0	0	0	100	0	0	0	0	0	0	0	0	No
GC-14	170	770	1	5	0.097	0	No	0	0	0	100	0	0	0	0	0	0	0	0	No
GC-14	171	771	2	1	0.180	0	Yes	0	0	20	30	50	0	0	0	0	0	0	0	No
GC-14	171	772	2	2	0.191	0	No	0	0	0	10	10	10	0	0	70	0	0	0	No
GC-14	171	773	2	3	0.355	0	Yes	10	0	0	60	0	15	0	0	15	0	0	0	No
GC-14	171	774	2	4	0.080	0	No	10	0	10	80	0	0	0	0	0	0	0	0	No
GC-14	171	775	2	5	0.135	0	No	0	0	0	100	0	0	0	0	0	0	0	0	No
GC-14	172	776	3	1	0.175	0	Yes	0	0	0	20	30	0	50	0	0	0	0	0	No
GC-14	172	777	3	2	0.240	0	No	0	0	0	0	40	40	0	0	20	0	0	0	No
GC-14	172	778	3	3	0.305	0	No	0	0	0	0	0	0	0	0	100	0	0	0	No
GC-14	172	779	3	4	0.325	0	No	0	0	0	50	25	25	0	0	0	0	0	0	No
GC-14	172	780	3	5	0.095	0	No	0	0	0	100	0	0	0	0	0	0	0	0	No
GC-14	173	781	4	1	0.190	0	Yes	40	0	40	20	0	0	0	0	0	0	0	0	No
GC-14	173	782	4	2	0.330	0	No	0	0	0	100	0	0	0	0	0	0	0	0	No
GC-14	173	783	4	3	0.272	0	No	0	0	0	0	0	0	0	0	100	0	0	0	No
GC-14	173	784	4	4	0.330	0	Yes	0	0	0	0	50	0	0	0	50	0	0	0	No
GC-14	173	785	4	5	0.085	0	Yes	10	0	10	80	0	0	0	0	0	0	0	0	No
GC-14	174	786	5	1	0.168	0	Yes	0	0	60	40	0	0	0	0	0	0	0	0	No
GC-14	174	787	5	2	0.308	0	No	0	0	20	30	0	0	0	0	50	0	0	0	No
GC-14	174	788	5	3	0.295	0	No	0	0	10	10	0	0	0	0	80	0	0	0	No
GC-14	174	789	5	4	0.215	0	No	0	0	0	0	25	50	0	0	25	0	0	0	No
GC-14	174	790	5	5	0.095	0	Yes	0	0	0	80	20	0	0	0	0	0	0	0	No
GC-14	175	791	6	1	0.078	0	Yes	70	0	20	10	0	0	0	0	0	0	0	0	No
GC-14	175	792	6	2	0.110	0	Yes	0	0	20	20	40	20	0	0	0	0	0	0	No
GC-14	175	793	6	3	0.115	0	No	0	0	15	0	15	70	0	0	0	0	0	0	No
GC-14	175	794	6	4	0.090	0	No	0	0	0	0	30	60	10	0	0	0	0	0	No
GC-14	175	795	6	5	0.030	0	No	0	0	0	40	60	0	0	0	0	0	0	0	No
GC-15	176	796	1	1	0.009	0	No	0	0	0	0	0	50	50	0	0	0	0	0	No
GC-15	176	797	1	2	0.045	0	No	0	0	0	0	40	20	40	0	0	0	0	0	No
GC-15	177	798	2	1	0.029	0	No	0	0	0	0	20	60	20	0	0	0	0	0	No
GC-15	177	799	2	2	0.095	0	No	0	0	0	0	20	80	0	0	0	0	0	0	No
GC-15	178	800	3	1	0.075	0	No	0	0	0	50	0	50	0	0	0	0	0	0	No
GC-15	178	801	3	2	0.195	0	No	0	0	0	80	20	0	0	0	0	0	0	0	No

Map SiteID	TransectID	PointID	Transect Number	Point Number	Depth (m)	HH (mm)	LWD present	Organic	Clay	Silt	Sand	Gravel	Cobble	Boulder	Bedrock	Hardpan	Rubble	Concrete	Unknown	N/A
GC-15	179	802	4	1	0.148	0	No	0	0	0	0	30	40	30	0	0	0	0	0	No
GC-15	179	803	4	2	0.180	0	No	0	0	0	100	0	0	0	0	0	0	0	0	No
GC-15	180	804	5	1	0.230	0	No	0	0	0	15	10	75	0	0	0	0	0	0	No
GC-15	180	805	5	2	0.270	0	No	0	0	0	90	10	0	0	0	0	0	0	0	No
GC-15	181	806	6	1	0.275	0	No	0	0	30	30	0	40	0	0	0	0	0	0	No
GC-15	181	807	6	2	0.280	0	No	0	0	0	90	10	0	0	0	0	0	0	0	No
GC-15	182	808	7	1	0.278	0	No	0	10	20	40	0	30	0	0	0	0	0	0	No
GC-15	182	809	7	2	0.245	0	No	0	0	0	90	10	0	0	0	0	0	0	0	No
GC-15	183	810	8	1	0.240	0	No	0	10	20	20	0	50	0	0	0	0	0	0	No
GC-15	183	811	8	2	0.130	0	No	0	0	25	50	15	10	0	0	0	0	0	0	No
GC-15	184	812	9	1	0.179	0	No	0	0	10	20	20	50	0	0	0	0	0	0	No
GC-15	184	813	9	2	0.165	0	No	0	0	20	40	20	20	0	0	0	0	0	0	No
GC-15	185	814	10	1	0.180	0	No	10	0	0	40	30	20	0	0	0	0	0	0	No
GC-15	185	815	10	2	0.182	0	No	0	0	20	40	20	20	0	0	0	0	0	0	No
GC-15	186	816	11	1	0.155	0	No	10	0	0	30	20	40	0	0	0	0	0	0	No
GC-15	186	817	11	2	0.125	0	No	0	0	20	0	40	20	20	0	0	0	0	0	No
GC-15	187	818	12	1	0.119	0	No	0	0	0	30	60	10	0	0	0	0	0	0	No
GC-15	187	819	12	2	0.125	0	No	0	0	20	60	0	20	0	0	0	0	0	0	No
GC-15	188	820	13	1	0.066	0	No	0	0	0	20	40	40	0	0	0	0	0	0	No
GC-15	188	821	13	2	0.095	0	No	0	0	10	40	20	20	10	0	0	0	0	0	No
GC-15	189	822	14	1	0.076	0	No	0	0	0	20	40	40	0	0	0	0	0	0	No
GC-15	189	823	14	2	0.175	0	Yes	0	0	10	15	50	25	0	0	0	0	0	0	No
GC-15	190	824	15	1	0.109	0	No	0	0	0	30	40	30	0	0	0	0	0	0	No
GC-15	190	825	15	2	0.035	0	No	0	0	5	0	80	15	0	0	0	0	0	0	No
GC-15	191	826	16	1	0.069	0	No	0	0	0	10	70	20	0	0	0	0	0	0	No
GC-15	191	827	16	2	0.074	0	No	0	0	10	20	10	60	0	0	0	0	0	0	No
GC-15	192	828	17	1	0.070	0	No	0	0	0	10	40	30	20	0	0	0	0	0	No
GC-15	192	829	17	2	0.075	0	No	0	0	20	0	20	60	0	0	0	0	0	0	No
GC-15	193	830	18	1	-0.020	-	No	0	0	0	30	50	0	20	0	0	0	0	0	No
GC-15	193	831	18	2	0.070	0	No	0	0	0	0	10	40	50	0	0	0	0	0	No
GC-15	194	832	19	1	-0.044	-	No	0	0	0	20	30	20	30	0	0	0	0	0	No
GC-15	194	833	19	2	-0.095	-	No	0	0	10	0	0	40	50	0	0	0	0	0	No
GC-15	195	834	20	1	0.019	0	No	0	0	0	40	0	10	50	0	0	0	0	0	No
GC-15	195	835	20	2	0.055	0	No	0	0	20	0	10	70	0	0	0	0	0	0	No
GC-16	196	840	1	1	0.040	0	No	0	0	10	0	80	10	0	0	0	0	0	0	No
GC-16	196	839	1	2	0.052	0	No	0	0	0	0	0	100	0	0	0	0	0	0	No
GC-16	196	838	1	3	0.090	0	No	0	0	0	0	70	20	10	0	0	0	0	0	No
GC-16	196	837	1	4	0.063	0	No	0	0	0	0	80	20	0	0	0	0	0	0	No

Map SiteID	TransectID	PointID	Transect Number	Point Number	Depth (m)	HH (mm)	LWD present	Organic	Clay	Silt	Sand	Gravel	Cobble	Boulder	Bedrock	Hardpan	Rubble	Concrete	Unknown	N/A
GC-16	196	836	1	5	0.039	0	No	0	0	0	0	70	30	0	0	0	0	0	0	No
GC-16	197	841	2	1	0.085	0	No	0	0	20	20	30	0	30	0	0	0	0	0	No
GC-16	197	842	2	2	0.280	0	No	0	0	0	0	0	0	50	0	50	0	0	0	No
GC-16	197	843	2	3	0.272	0	No	20	0	30	0	30	20	0	0	0	0	0	0	No
GC-16	197	844	2	4	0.116	0	No	0	0	0	30	60	10	0	0	0	0	0	0	No
GC-16	197	845	2	5	0.038	0	No	0	0	0	30	60	10	0	0	0	0	0	0	No
GC-16	198	846	3	1	0.360	0	No	0	0	0	10	80	10	0	0	0	0	0	0	No
GC-16	198	847	3	2	0.390	0	No	0	0	0	60	40	0	0	0	0	0	0	0	No
GC-16	198	848	3	3	0.330	0	No	0	0	0	0	80	20	0	0	0	0	0	0	No
GC-16	198	849	3	4	0.263	0	No	20	0	0	30	30	20	0	0	0	0	0	0	No
GC-16	198	850	3	5	0.060	0	No	0	0	0	30	30	0	40	0	0	0	0	0	No
GC-16	199	851	4	1	0.080	0	Yes	0	0	10	90	0	0	0	0	0	0	0	0	No
GC-16	199	852	4	2	0.225	0	No	0	0	10	90	0	0	0	0	0	0	0	0	No
GC-16	199	853	4	3	0.315	0	No	10	0	10	80	0	0	0	0	0	0	0	0	No
GC-16	199	854	4	4	0.264	0	No	0	0	30	0	30	40	0	0	0	0	0	0	No
GC-16	199	855	4	5	0.250	0	No	0	20	40	0	40	0	0	0	0	0	0	0	No
GC-16	200	856	5	1	0.032	0	No	10	0	10	80	0	0	0	0	0	0	0	0	No
GC-16	200	857	5	2	0.025	0	Yes	0	0	20	40	40	0	0	0	0	0	0	0	No
GC-16	200	858	5	3	0.121	0	Yes	0	0	10	15	60	15	0	0	0	0	0	0	No
GC-16	200	859	5	4	0.161	0	No	0	0	20	0	40	40	0	0	0	0	0	0	No
GC-16	200	860	5	5	0.081	0	Yes	20	20	30	0	30	0	0	0	0	0	0	0	No
GC-16	201	861	6	1	0.135	0	Yes	0	0	0	10	90	0	0	0	0	0	0	0	No
GC-16	201	862	6	2	0.085	0	Yes	0	0	0	40	60	0	0	0	0	0	0	0	No
GC-16	201	863	6	3	0.110	0	Yes	0	0	0	20	80	0	0	0	0	0	0	0	No
GC-16	201	864	6	4	0.118	0	Yes	50	0	0	20	0	30	0	0	0	0	0	0	No
GC-16	201	865	6	5	0.079	0	Yes	40	0	30	30	0	0	0	0	0	0	0	0	No
GC-17	202	866	1	1	0.045	0	No	0	0	10	90	0	0	0	0	0	0	0	0	No
GC-17	202	867	1	2	0.085	0	No	0	0	10	50	40	0	0	0	0	0	0	0	No
GC-17	202	868	1	3	0.095	0	No	10	0	0	90	0	0	0	0	0	0	0	0	No
GC-17	202	869	1	4	0.102	0	No	10	0	0	20	30	40	0	0	0	0	0	0	No
GC-17	202	870	1	5	0.111	0	No	10	0	20	10	20	0	40	0	0	0	0	0	No
GC-17	203	871	2	1	0.095	0	No	5	0	5	90	0	0	0	0	0	0	0	0	No
GC-17	203	872	2	2	0.095	0	No	0	0	0	50	40	10	0	0	0	0	0	0	No
GC-17	203	873	2	3	0.105	0	No	20	0	0	50	30	0	0	0	0	0	0	0	No
GC-17	203	874	2	4	0.097	0	No	20	0	30	10	20	20	0	0	0	0	0	0	No
GC-17	203	875	2	5	0.105	0	No	0	0	20	40	0	40	0	0	0	0	0	0	No
GC-17	204	876	3	1	0.080	0	No	10	0	10	80	0	0	0	0	0	0	0	0	No
GC-17	204	877	3	2	0.090	0	No	0	0	0	100	0	0	0	0	0	0	0	0	No

Map SiteID	TransectID	PointID	Transect Number	Point Number	Depth (m)	HH (mm)	LWD present	Organic	Clay	Silt	Sand	Gravel	Cobble	Boulder	Bedrock	Hardpan	Rubble	Concrete	Unknown	N/A
GC-17	204	878	3	3	0.125	0	No	0	0	10	50	20	20	0	0	0	0	0	0	No
GC-17	204	879	3	4	0.097	0	No	0	0	30	10	20	40	0	0	0	0	0	0	No
GC-17	204	880	3	5	0.139	0	Yes	20	0	60	20	0	0	0	0	0	0	0	0	No
GC-17	205	881	4	1	0.175	0	No	10	0	10	70	10	0	0	0	0	0	0	0	No
GC-17	205	882	4	2	0.200	0	No	0	0	10	70	10	10	0	0	0	0	0	0	No
GC-17	205	883	4	3	0.170	0	No	0	0	20	40	40	0	0	0	0	0	0	0	No
GC-17	205	884	4	4	0.102	0	No	10	0	0	90	0	0	0	0	0	0	0	0	No
GC-17	205	885	4	5	0.022	0	Yes	10	0	0	90	0	0	0	0	0	0	0	0	No
GC-17	206	886	5	1	0.150	0	Yes	40	0	40	20	0	0	0	0	0	0	0	0	No
GC-17	206	887	5	2	0.290	0	No	0	0	0	20	40	40	0	0	0	0	0	0	No
GC-17	206	888	5	3	0.205	0	No	0	0	0	30	50	20	0	0	0	0	0	0	No
GC-17	206	889	5	4	0.145	0	No	0	0	0	60	40	0	0	0	0	0	0	0	No
GC-17	206	890	5	5	0.050	0	No	0	0	100	0	0	0	0	0	0	0	0	0	No
GC-17	207	891	6	1	0.125	0	No	15	0	15	0	0	0	70	0	0	0	0	0	No
GC-17	207	892	6	2	0.225	0	No	0	0	10	10	0	40	40	0	0	0	0	0	No
GC-17	207	893	6	3	0.240	0	No	0	0	10	0	40	10	40	0	0	0	0	0	No
GC-17	207	894	6	4	0.141	0	No	0	0	0	40	60	0	0	0	0	0	0	0	No
GC-17	207	895	6	5	0.051	0	No	0	0	0	100	0	0	0	0	0	0	0	0	No
GC-17	208	896	7	1	0.320	0	No	20	0	20	0	40	0	20	0	0	0	0	0	No
GC-17	208	897	7	2	0.430	0	No	20	0	20	0	20	0	40	0	0	0	0	0	No
GC-17	208	898	7	3	0.360	0	No	0	0	20	20	30	0	30	0	0	0	0	0	No
GC-17	208	899	7	4	0.294	0	No	10	0	0	50	40	0	0	0	0	0	0	0	No
GC-17	208	900	7	5	0.152	0	No	20	0	20	20	40	0	0	0	0	0	0	0	No
GC-17	209	901	8	1	0.435	0	Yes	20	0	20	20	10	30	0	0	0	0	0	0	No
GC-17	209	902	8	2	0.540	0	No	15	0	15	50	0	20	0	0	0	0	0	0	No
GC-17	209	903	8	3	0.550	0	No	15	0	15	20	0	50	0	0	0	0	0	0	No
GC-17	209	904	8	4	0.390	0	No	0	0	0	25	75	0	0	0	0	0	0	0	No
GC-17	209	905	8	5	0.234	0	Yes	10	0	0	80	10	0	0	0	0	0	0	0	No
GC-17	210	906	9	1	0.175	0	No	25	0	25	50	0	0	0	0	0	0	0	0	No
GC-17	210	907	9	2	0.270	0	No	10	0	15	50	25	0	0	0	0	0	0	0	No
GC-17	210	908	9	3	0.255	0	No	10	0	0	40	40	10	0	0	0	0	0	0	No
GC-17	210	909	9	4	0.262	0	No	0	0	0	30	40	30	0	0	0	0	0	0	No
GC-17	210	910	9	5	0.140	0	No	30	0	0	30	40	0	0	0	0	0	0	0	No
GC-17	211	911	10	1	0.105	0	No	40	0	20	40	0	0	0	0	0	0	0	0	No
GC-17	211	912	10	2	0.270	0	No	10	0	10	40	0	40	0	0	0	0	0	0	No
GC-17	211	913	10	3	0.220	0	No	10	0	10	0	0	80	0	0	0	0	0	0	No
GC-17	211	914	10	4	0.202	0	No	0	0	20	20	20	40	0	0	0	0	0	0	No
GC-17	211	915	10	5	0.029	0	No	0	0	0	60	20	20	0	0	0	0	0	0	No

Map SiteID	TransectID	PointID	Transect Number	Point Number	Depth (m)	HH (mm)	LWD present	Organic	Clay	Silt	Sand	Gravel	Cobble	Boulder	Bedrock	Hardpan	Rubble	Concrete	Unknown	N/A
GC-17	212	916	11	1	0.095	0	No	25	0	10	15	50	0	0	0	0	0	0	0	No
GC-17	212	917	11	2	0.145	0	No	0	0	10	10	0	60	10	0	10	0	0	0	No
GC-17	212	918	11	3	0.155	0	No	0	0	0	40	10	40	10	0	0	0	0	0	No
GC-17	212	919	11	4	0.079	0	No	0	0	0	20	30	20	30	0	0	0	0	0	No
GC-17	212	920	11	5	0.102	0	Yes	20	0	20	50	0	10	0	0	0	0	0	0	No
GC-17	213	921	12	1	0.095	0	No	10	0	10	40	40	0	0	0	0	0	0	0	No
GC-17	213	922	12	2	0.135	0	No	0	0	10	10	0	80	0	0	0	0	0	0	No
GC-17	213	923	12	3	0.145	0	No	0	0	20	20	0	60	0	0	0	0	0	0	No
GC-17	213	924	12	4	0.120	0	No	0	0	0	40	50	10	0	0	0	0	0	0	No
GC-17	213	925	12	5	0.077	0	No	0	0	0	80	20	0	0	0	0	0	0	0	No
GC-18	214	926	1	1	0.115	0	Yes	40	0	10	40	10	0	0	0	0	0	0	0	No
GC-18	214	927	1	2	0.164	0	Yes	0	0	0	20	50	30	0	0	0	0	0	0	No
GC-18	214	928	1	3	0.220	0	No	10	0	0	30	60	0	0	0	0	0	0	0	No
GC-18	214	929	1	4	0.210	0	No	10	0	0	40	40	10	0	0	0	0	0	0	No
GC-18	214	930	1	5	0.140	0	No	40	0	0	40	20	0	0	0	0	0	0	0	No
GC-18	215	931	2	1	0.135	0	Yes	50	0	20	30	0	0	0	0	0	0	0	0	No
GC-18	215	932	2	2	0.455	0	No	30	0	20	50	0	0	0	0	0	0	0	0	No
GC-18	215	933	2	3	0.541	0	No	0	0	0	60	40	0	0	0	0	0	0	0	No
GC-18	215	934	2	4	0.515	0	No	20	0	40	40	0	0	0	0	0	0	0	0	No
GC-18	215	935	2	5	0.520	0	No	20	0	40	40	0	0	0	0	0	0	0	0	No
GC-18	216	936	3	1	0.331	0	No	20	0	0	70	10	0	0	0	0	0	0	0	No
GC-18	216	937	3	2	0.580	0	Yes	0	0	0	40	60	0	0	0	0	0	0	0	No
GC-18	216	938	3	3	0.624	0	Yes	0	0	10	40	50	0	0	0	0	0	0	0	No
GC-18	216	939	3	4	0.630	0	Yes	0	0	20	80	0	0	0	0	0	0	0	0	No
GC-18	216	940	3	5	0.550	0	No	15	0	15	70	0	0	0	0	0	0	0	0	No
GC-18	217	941	4	1	0.521	0	Yes	30	0	30	40	0	0	0	0	0	0	0	0	No
GC-18	217	942	4	2	0.790	0	No	0	0	10	90	0	0	0	0	0	0	0	0	No
GC-18	217	943	4	3	1.120	0	No	0	0	10	90	0	0	0	0	0	0	0	0	No
GC-18	217	944	4	4	0.935	0	Yes	15	0	15	70	0	0	0	0	0	0	0	0	No
GC-18	217	945	4	5	0.505	0	Yes	15	0	15	70	0	0	0	0	0	0	0	0	No
GC-18	218	946	5	1	0.318	0	Yes	40	0	20	40	0	0	0	0	0	0	0	0	No
GC-18	218	947	5	2	0.882	0	No	20	0	20	60	0	0	0	0	0	0	0	0	No
GC-18	218	948	5	3	1.310	0	No	30	0	20	50	0	0	0	0	0	0	0	0	No
GC-18	218	949	5	4	0.925	0	Yes	20	0	30	30	20	0	0	0	0	0	0	0	No
GC-18	218	950	5	5	0.715	0	Yes	20	0	30	30	20	0	0	0	0	0	0	0	No
GC-18	219	951	6	1	0.090	0	No	20	0	10	70	0	0	0	0	0	0	0	0	No
GC-18	219	952	6	2	0.226	0	No	20	0	0	50	0	0	30	0	0	0	0	0	No
GC-18	219	953	6	3	0.435	0	No	0	0	0	30	50	20	0	0	0	0	0	0	No

Map SiteID	TransectID	PointID	Transect Number	Point Number	Depth (m)	HH (mm)	LWD present	Organic	Clay	Silt	Sand	Gravel	Cobble	Boulder	Bedrock	Hardpan	Rubble	Concrete	Unknown	N/A
GC-18	219	954	6	4	0.310	0	No	15	0	15	70	0	0	0	0	0	0	0	0	No
GC-18	219	955	6	5	0.180	0	No	40	0	40	20	0	0	0	0	0	0	0	0	No

2) Unknown Stan J

Map SiteID	TransectID	PointID	Transect Number	Point Number	Depth (m)	HH (mm)	LWD present	Organic	Clay	Silt	Sand	Gravel	Cobble	Boulder	Bedrock	Hardpan	Rubble	Concrete	Unknown	N/A
USJ-01	299	1277	1	1	-0.420	-	No	-	-	-	-	-	-	-	-	-	-	-	-	Yes
USJ-01	299	1278	1	2	-0.380	-	No	-	-	-	-	-	-	-	-	-	-	-	-	Yes
USJ-01	299	1279	1	3	0.095	5	No	0	0	0	0	10	0	0	0	0	90	0	0	No
USJ-01	299	1280	1	4	0.030	0	No	0	0	10	0	0	0	0	0	0	90	0	0	No
USJ-01	299	1281	1	5	0.010	0	No	0	0	0	0	0	0	0	0	0	100	0	0	No
USJ-01	300	1282	2	1	0.068	0	No	0	0	0	0	40	0	0	0	0	60	0	0	No
USJ-01	300	1283	2	2	0.010	2	No	0	0	0	0	0	0	0	0	0	100	0	0	No
USJ-01	300	1284	2	3	0.060	2	No	0	0	0	0	0	0	0	0	0	100	0	0	No
USJ-01	300	1285	2	4	0.030	2	No	0	0	0	0	0	0	0	0	0	100	0	0	No
USJ-01	300	1286	2	5	0.060	0	No	0	0	10	0	0	0	0	0	0	90	0	0	No
USJ-01	301	1287	3	1	0.109	0	No	0	0	20	30	50	0	0	0	0	0	0	0	No
USJ-01	301	1288	3	2	0.171	0	No	0	0	10	20	70	0	0	0	0	0	0	0	No
USJ-01	301	1289	3	3	0.207	0	No	10	0	10	10	70	0	0	0	0	0	0	0	No
USJ-01	301	1290	3	4	0.305	0	No	20	0	40	0	0	40	0	0	0	0	0	0	No
USJ-01	301	1291	3	5	0.190	0	No	0	0	50	50	0	0	0	0	0	0	0	0	No
USJ-01	302	1292	4	1	0.215	0	No	20	0	80	0	0	0	0	0	0	0	0	0	No
USJ-01	302	1293	4	2	0.223	0	No	10	0	50	20	20	0	0	0	0	0	0	0	No
USJ-01	302	1294	4	3	0.305	0	No	30	0	30	0	40	0	0	0	0	0	0	0	No
USJ-01	302	1295	4	4	0.145	0	No	0	0	0	0	0	0	0	0	100	0	0	0	No
USJ-01	302	1296	4	5	0.175	0	No	25	0	50	0	0	25	0	0	0	0	0	0	No
USJ-01	303	1297	5	1	0.170	0	No	20	0	40	40	0	0	0	0	0	0	0	0	No
USJ-01	303	1298	5	2	0.160	0	No	10	0	20	0	70	0	0	0	0	0	0	0	No
USJ-01	303	1299	5	3	0.288	0	No	20	0	80	0	0	0	0	0	0	0	0	0	No
USJ-01	303	1300	5	4	0.205	0	No	0	0	10	0	0	0	0	0	90	0	0	0	No
USJ-01	303	1301	5	5	0.140	0	No	10	10	0	0	0	0	0	0	80	0	0	0	No
USJ-01	304	1302	6	1	0.225	0	No	0	0	10	10	80	0	0	0	0	0	0	0	No
USJ-01	304	1303	6	2	0.279	0	No	20	0	80	0	0	0	0	0	0	0	0	0	No
USJ-01	304	1304	6	3	0.271	0	No	15	0	75	10	0	0	0	0	0	0	0	0	No

Map SiteID	TransectID	PointID	Transect Number	Point Number	Depth (m)	HH (mm)	LWD present	Organic	Clay	Silt	Sand	Gravel	Cobble	Boulder	Bedrock	Hardpan	Rubble	Concrete	Unknown	N/A
USJ-01	304	1305	6	4	0.280	0	No	0	0	25	50	25	0	0	0	0	0	0	0	No
USJ-01	304	1306	6	5	0.220	0	No	10	0	10	0	0	0	0	0	80	0	0	0	No
USJ-01	305	1307	7	1	0.218	0	No	10	0	80	10	0	0	0	0	0	0	0	0	No
USJ-01	305	1308	7	2	0.370	0	No	20	0	80	0	0	0	0	0	0	0	0	0	No
USJ-01	305	1309	7	3	0.315	0	No	20	0	30	0	50	0	0	0	0	0	0	0	No
USJ-01	305	1310	7	4	0.290	0	No	0	0	20	40	40	0	0	0	0	0	0	0	No
USJ-01	305	1311	7	5	0.165	0	No	20	0	40	40	0	0	0	0	0	0	0	0	No
USJ-01	306	1312	8	1	0.116	0	No	25	0	75	0	0	0	0	0	0	0	0	0	No
USJ-01	306	1313	8	2	0.265	0	No	10	0	30	20	40	0	0	0	0	0	0	0	No
USJ-01	306	1314	8	3	0.320	0	No	40	0	40	20	0	0	0	0	0	0	0	0	No
USJ-01	306	1315	8	4	0.210	0	No	40	0	40	20	0	0	0	0	0	0	0	0	No
USJ-01	306	1316	8	5	-0.205	-	No	-	-	-	-	-	-	-	-	-	-	-	-	Yes
USJ-01	307	1317	9	1	0.209	0	No	10	0	90	0	0	0	0	0	0	0	0	0	No
USJ-01	307	1318	9	2	0.238	0	No	0	0	20	0	80	0	0	0	0	0	0	0	No
USJ-01	307	1319	9	3	0.335	0	No	25	0	75	0	0	0	0	0	0	0	0	0	No
USJ-01	307	1320	9	4	0.180	0	No	60	0	40	0	0	0	0	0	0	0	0	0	No
USJ-01	307	1321	9	5	0.210	0	No	40	0	50	10	0	0	0	0	0	0	0	0	No
USJ-01	308	1322	10	1	0.150	0	No	20	0	20	30	30	0	0	0	0	0	0	0	No
USJ-01	308	1323	10	2	0.200	0	No	20	0	40	40	0	0	0	0	0	0	0	0	No
USJ-01	308	1324	10	3	0.287	0	No	50	0	30	20	0	0	0	0	0	0	0	0	No
USJ-01	308	1325	10	4	0.305	0	No	40	0	60	0	0	0	0	0	0	0	0	0	No
USJ-01	308	1326	10	5	0.180	0	No	10	0	30	50	10	0	0	0	0	0	0	0	No
USJ-01	309	1327	11	1	0.088	0	No	40	0	20	0	40	0	0	0	0	0	0	0	No
USJ-01	309	1328	11	2	0.100	0	No	10	0	40	0	50	0	0	0	0	0	0	0	No
USJ-01	309	1329	11	3	0.119	0	No	10	0	0	0	90	0	0	0	0	0	0	0	No
USJ-01	309	1330	11	4	0.115	0	No	0	0	0	20	80	0	0	0	0	0	0	0	No
USJ-01	309	1331	11	5	0.060	0	No	15	0	15	0	70	0	0	0	0	0	0	0	No
USJ-01	310	1332	12	1	0.075	0	No	0	0	0	20	80	0	0	0	0	0	0	0	No
USJ-01	310	1333	12	2	0.130	0	No	20	0	80	0	0	0	0	0	0	0	0	0	No
USJ-01	310	1334	12	3	0.144	0	No	25	0	75	0	0	0	0	0	0	0	0	0	No
USJ-01	310	1335	12	4	0.060	0	No	10	0	20	0	50	0	20	0	0	0	0	0	No
USJ-01	310	1336	12	5	0.050	0	No	0	0	20	20	60	0	0	0	0	0	0	0	No
USJ-02	271	1181	1	1	0.035	2	No	0	0	0	10	90	0	0	0	0	0	0	0	No
USJ-02	271	1182	1	2	0.040	5	No	0	0	0	15	80	5	0	0	0	0	0	0	No
USJ-02	271	1183	1	3	0.028	2	No	0	0	10	20	70	0	0	0	0	0	0	0	No
USJ-02	272	1184	2	1	0.052	2	No	0	0	0	0	100	0	0	0	0	0	0	0	No
USJ-02	272	1185	2	2	0.055	3	No	0	0	0	0	100	0	0	0	0	0	0	0	No
USJ-02	272	1186	2	3	0.026	1	No	0	0	10	10	80	0	0	0	0	0	0	0	No

Map SiteID	TransectID	PointID	Transect Number	Point Number	Depth (m)	HH (mm)	LWD present	Organic	Clay	Silt	Sand	Gravel	Cobble	Boulder	Bedrock	Hardpan	Rubble	Concrete	Unknown	N/A
USJ-02	273	1187	3	1	0.010	0	No	5	0	5	0	90	0	0	0	0	0	0	0	No
USJ-02	273	1188	3	2	0.070	5	No	10	0	0	0	90	0	0	0	0	0	0	0	No
USJ-02	273	1189	3	3	0.046	0	Yes	0	0	10	10	80	0	0	0	0	0	0	0	No
USJ-02	274	1190	4	1	0.045	0	No	10	0	10	40	40	0	0	0	0	0	0	0	No
USJ-02	274	1191	4	2	0.070	0	No	10	0	10	0	80	0	0	0	0	0	0	0	No
USJ-02	274	1192	4	3	0.037	0	No	0	0	20	10	70	0	0	0	0	0	0	0	No
USJ-02	275	1193	5	1	0.120	0	No	25	0	50	25	0	0	0	0	0	0	0	0	No
USJ-02	275	1194	5	2	0.145	0	No	0	0	25	25	50	0	0	0	0	0	0	0	No
USJ-02	275	1195	5	3	0.149	0	No	0	0	70	10	20	0	0	0	0	0	0	0	No
USJ-02	276	1196	6	1	0.255	0	No	25	0	50	25	0	0	0	0	0	0	0	0	No
USJ-02	276	1197	6	2	0.310	0	No	0	0	20	40	40	0	0	0	0	0	0	0	No
USJ-02	276	1198	6	3	0.225	0	No	20	0	80	0	0	0	0	0	0	0	0	0	No
USJ-02	277	1199	7	1	0.295	0	No	50	0	50	0	0	0	0	0	0	0	0	0	No
USJ-02	277	1200	7	2	0.380	0	No	10	0	10	80	0	0	0	0	0	0	0	0	No
USJ-02	277	1201	7	3	0.305	0	No	20	10	70	0	0	0	0	0	0	0	0	0	No
USJ-02	278	1202	8	1	0.410	0	No	20	0	40	40	0	0	0	0	0	0	0	0	No
USJ-02	278	1203	8	2	0.380	0	No	25	0	25	50	0	0	0	0	0	0	0	0	No
USJ-02	278	1204	8	3	0.338	0	No	0	10	90	0	0	0	0	0	0	0	0	0	No
USJ-02	279	1205	9	1	0.390	0	No	20	0	40	40	0	0	0	0	0	0	0	0	No
USJ-02	279	1206	9	2	0.425	0	No	20	0	30	30	0	0	20	0	0	0	0	0	No
USJ-02	279	1207	9	3	0.344	0	No	30	0	70	0	0	0	0	0	0	0	0	0	No
USJ-02	280	1208	10	1	0.275	0	No	10	0	10	0	0	0	0	0	80	0	0	0	No
USJ-02	280	1209	10	2	0.465	0	No	10	0	45	45	0	0	0	0	0	0	0	0	No
USJ-02	280	1210	10	3	0.345	0	No	20	0	40	10	30	0	0	0	0	0	0	0	No
USJ-02	281	1211	11	1	0.195	0	No	20	0	80	0	0	0	0	0	0	0	0	0	No
USJ-02	281	1212	11	2	0.385	0	No	0	0	20	40	40	0	0	0	0	0	0	0	No
USJ-02	281	1213	11	3	0.254	0	No	80	0	20	0	0	0	0	0	0	0	0	0	No
USJ-02	282	1214	12	1	0.210	0	Yes	30	0	70	0	0	0	0	0	0	0	0	0	No
USJ-02	282	1215	12	2	0.330	0	No	10	0	10	80	0	0	0	0	0	0	0	0	No
USJ-02	282	1216	12	3	0.180	0	No	90	0	10	0	0	0	0	0	0	0	0	0	No
USJ-02	283	1217	13	1	0.210	0	Yes	20	0	80	0	0	0	0	0	0	0	0	0	No
USJ-02	283	1218	13	2	0.205	0	No	10	0	10	80	0	0	0	0	0	0	0	0	No
USJ-02	283	1219	13	3	0.222	0	No	70	0	20	10	0	0	0	0	0	0	0	0	No
USJ-02	284	1220	14	1	0.075	0	No	10	0	10	20	60	0	0	0	0	0	0	0	No
USJ-02	284	1221	14	2	0.080	0	No	0	0	10	80	10	0	0	0	0	0	0	0	No
USJ-02	284	1222	14	3	0.101	0	No	0	0	20	10	70	0	0	0	0	0	0	0	No
USJ-02	285	1223	15	1	0.055	0	No	20	0	40	40	0	0	0	0	0	0	0	0	No
USJ-02	285	1224	15	2	0.055	0	No	0	0	20	40	40	0	0	0	0	0	0	0	No

Map SiteID	TransectID	PointID	Transect Number	Point Number	Depth (m)	HH (mm)	LWD present	Organic	Clay	Silt	Sand	Gravel	Cobble	Boulder	Bedrock	Hardpan	Rubble	Concrete	Unknown	N/A
USJ-02	285	1225	15	3	0.133	0	No	0	0	30	10	60	0	0	0	0	0	0	0	No
USJ-03	259	1121	1	1	0.145	0	No	0	0	25	25	50	0	0	0	0	0	0	0	No
USJ-03	259	1122	1	2	0.195	0	No	0	0	10	20	20	50	0	0	0	0	0	0	No
USJ-03	259	1123	1	3	0.215	0	No	0	0	10	10	40	40	0	0	0	0	0	0	No
USJ-03	259	1124	1	4	0.235	0	No	0	0	0	10	20	70	0	0	0	0	0	0	No
USJ-03	259	1125	1	5	0.198	0	No	0	0	0	10	10	80	0	0	0	0	0	0	No
USJ-03	260	1126	2	1	0.205	0	No	10	10	40	40	0	0	0	0	0	0	0	0	No
USJ-03	260	1127	2	2	0.335	0	No	20	0	20	20	0	0	0	0	40	0	0	0	No
USJ-03	260	1128	2	3	0.390	0	No	10	0	20	10	20	0	20	0	20	0	0	0	No
USJ-03	260	1129	2	4	0.323	0	No	0	0	20	0	10	70	0	0	0	0	0	0	No
USJ-03	260	1130	2	5	0.242	0	No	0	0	0	20	50	30	0	0	0	0	0	0	No
USJ-03	261	1131	3	1	0.360	0	No	0	0	10	0	0	10	0	0	80	0	0	0	No
USJ-03	261	1132	3	2	0.390	0	No	0	0	10	0	0	0	0	0	90	0	0	0	No
USJ-03	261	1133	3	3	0.435	0	No	0	0	5	0	5	0	0	0	90	0	0	0	No
USJ-03	261	1134	3	4	0.437	0	No	0	0	20	0	10	0	0	0	70	0	0	0	No
USJ-03	261	1135	3	5	0.274	0	No	10	0	0	0	10	0	0	0	80	0	0	0	No
USJ-03	262	1136	4	1	0.325	0	No	10	0	10	0	0	0	0	0	80	0	0	0	No
USJ-03	262	1137	4	2	0.435	0	No	0	0	10	0	0	0	0	0	90	0	0	0	No
USJ-03	262	1138	4	3	0.425	0	No	0	0	0	0	0	0	0	0	100	0	0	0	No
USJ-03	262	1139	4	4	0.392	0	No	0	0	0	10	0	0	0	0	90	0	0	0	No
USJ-03	262	1140	4	5	0.345	0	No	50	0	30	20	0	0	0	0	0	0	0	0	No
USJ-03	263	1141	5	1	0.195	0	No	20	0	40	40	0	0	0	0	0	0	0	0	No
USJ-03	263	1142	5	2	-0.130	-	No	-	-	-	-	-	-	-	-	-	-	-	-	Yes
USJ-03	263	1143	5	3	0.345	0	No	10	30	30	30	0	0	0	0	0	0	0	0	No
USJ-03	263	1144	5	4	0.408	0	No	40	0	20	20	20	0	0	0	0	0	0	0	No
USJ-03	263	1145	5	5	0.233	0	No	0	0	0	30	30	40	0	0	0	0	0	0	No
USJ-03	264	1146	6	1	0.230	0	No	20	0	20	40	20	0	0	0	0	0	0	0	No
USJ-03	264	1147	6	2	0.205	0	No	0	0	10	10	80	0	0	0	0	0	0	0	No
USJ-03	264	1148	6	3	0.265	0	No	0	0	0	20	40	40	0	0	0	0	0	0	No
USJ-03	264	1149	6	4	0.290	0	No	20	0	0	0	0	0	0	0	80	0	0	0	No
USJ-03	264	1150	6	5	0.191	0	No	0	0	30	20	20	30	0	0	0	0	0	0	No
USJ-04	265	1151	1	1	0.125	0	No	20	0	40	0	40	0	0	0	0	0	0	0	No
USJ-04	265	1152	1	2	0.175	0	No	10	0	10	40	40	0	0	0	0	0	0	0	No
USJ-04	265	1153	1	3	0.290	0	No	0	0	0	0	50	50	0	0	0	0	0	0	No
USJ-04	265	1154	1	4	0.061	0	No	100	0	0	0	0	0	0	0	0	0	0	0	No
USJ-04	265	1155	1	5	0.350	0	No	30	0	40	10	20	0	0	0	0	0	0	0	No
USJ-04	266	1156	2	1	0.115	0	Yes	20	0	40	40	0	0	0	0	0	0	0	0	No
USJ-04	266	1157	2	2	0.285	0	No	25	0	25	50	0	0	0	0	0	0	0	0	No

Map SiteID	TransectID	PointID	Transect Number	Point Number	Depth (m)	HH (mm)	LWD present	Organic	Clay	Silt	Sand	Gravel	Cobble	Boulder	Bedrock	Hardpan	Rubble	Concrete	Unknown	N/A
USJ-04	266	1158	2	3	0.255	0	No	0	0	20	20	30	30	0	0	0	0	0	0	No
USJ-04	266	1159	2	4	0.440	0	No	20	0	0	40	30	10	0	0	0	0	0	0	No
USJ-04	266	1160	2	5	0.321	0	No	0	0	10	40	50	0	0	0	0	0	0	0	No
USJ-04	267	1161	3	1	0.185	0	No	20	0	60	20	0	0	0	0	0	0	0	0	No
USJ-04	267	1162	3	2	0.260	0	No	20	0	40	20	20	0	0	0	0	0	0	0	No
USJ-04	267	1163	3	3	0.415	0	No	0	0	20	20	20	40	0	0	0	0	0	0	No
USJ-04	267	1164	3	4	0.435	0	No	30	0	50	10	0	10	0	0	0	0	0	0	No
USJ-04	267	1165	3	5	0.350	0	No	40	0	30	30	0	0	0	0	0	0	0	0	No
USJ-04	268	1166	4	1	0.120	0	No	25	0	50	25	0	0	0	0	0	0	0	0	No
USJ-04	268	1167	4	2	0.220	0	No	40	0	50	10	0	0	0	0	0	0	0	0	No
USJ-04	268	1168	4	3	0.360	0	No	20	0	60	20	0	0	0	0	0	0	0	0	No
USJ-04	268	1169	4	4	0.480	0	No	20	0	50	20	0	10	0	0	0	0	0	0	No
USJ-04	268	1170	4	5	0.358	0	No	0	0	20	30	40	10	0	0	0	0	0	0	No
USJ-04	269	1171	5	1	0.135	0	No	50	0	50	0	0	0	0	0	0	0	0	0	No
USJ-04	269	1172	5	2	0.250	0	No	30	0	70	0	0	0	0	0	0	0	0	0	No
USJ-04	269	1173	5	3	0.415	0	No	30	0	50	10	10	0	0	0	0	0	0	0	No
USJ-04	269	1174	5	4	0.472	0	No	20	0	40	30	10	0	0	0	0	0	0	0	No
USJ-04	269	1175	5	5	0.315	0	No	10	0	0	90	0	0	0	0	0	0	0	0	No
USJ-04	270	1176	6	1	0.125	0	No	30	0	70	0	0	0	0	0	0	0	0	0	No
USJ-04	270	1177	6	2	0.215	0	No	25	0	50	25	0	0	0	0	0	0	0	0	No
USJ-04	270	1178	6	3	0.295	0	No	0	0	40	20	20	20	0	0	0	0	0	0	No
USJ-04	270	1179	6	4	0.310	0	No	0	0	10	40	30	20	0	0	0	0	0	0	No
USJ-04	270	1180	6	5	0.232	0	No	20	0	60	10	0	10	0	0	0	0	0	0	No
USJ-05	311	1337	1	1	0.070	0	No	40	0	40	20	0	0	0	0	0	0	0	0	No
USJ-05	311	1338	1	2	0.155	0	No	0	0	20	80	0	0	0	0	0	0	0	0	No
USJ-05	311	1339	1	3	0.125	0	No	0	0	20	80	0	0	0	0	0	0	0	0	No
USJ-05	311	1340	1	4	0.130	0	No	0	0	40	40	20	0	0	0	0	0	0	0	No
USJ-05	311	1341	1	5	0.171	0	No	20	0	40	20	20	0	0	0	0	0	0	0	No
USJ-05	312	1342	2	1	0.200	0	No	0	0	70	30	0	0	0	0	0	0	0	0	No
USJ-05	312	1343	2	2	0.380	0	No	40	0	40	0	0	20	0	0	0	0	0	0	No
USJ-05	312	1344	2	3	0.355	0	No	25	0	50	25	0	0	0	0	0	0	0	0	No
USJ-05	312	1345	2	4	0.355	0	No	10	0	65	25	0	0	0	0	0	0	0	0	No
USJ-05	312	1346	2	5	0.214	0	No	0	0	20	80	0	0	0	0	0	0	0	0	No
USJ-05	313	1347	3	1	0.285	0	No	0	0	0	0	0	0	0	0	100	0	0	0	No
USJ-05	313	1348	3	2	0.550	0	No	20	0	60	10	10	0	0	0	0	0	0	0	No
USJ-05	313	1349	3	3	0.530	0	No	20	0	20	30	30	0	0	0	0	0	0	0	No
USJ-05	313	1350	3	4	0.642	0	No	0	0	70	20	10	0	0	0	0	0	0	0	No
USJ-05	313	1351	3	5	0.511	0	No	0	0	40	60	0	0	0	0	0	0	0	0	No

Map SiteID	TransectID	PointID	Transect Number	Point Number	Depth (m)	HH (mm)	LWD present	Organic	Clay	Silt	Sand	Gravel	Cobble	Boulder	Bedrock	Hardpan	Rubble	Concrete	Unknown	N/A
USJ-05	314	1352	4	1	0.190	0	No	70	0	30	0	0	0	0	0	0	0	0	0	No
USJ-05	314	1353	4	2	0.360	0	No	20	0	40	40	0	0	0	0	0	0	0	0	No
USJ-05	314	1354	4	3	0.520	0	No	25	0	25	50	0	0	0	0	0	0	0	0	No
USJ-05	314	1355	4	4	0.640	0	No	0	0	50	40	10	0	0	0	0	0	0	0	No
USJ-05	314	1356	4	5	0.694	0	No	0	0	100	0	0	0	0	0	0	0	0	0	No
USJ-05	315	1357	5	1	0.280	0	No	30	0	70	0	0	0	0	0	0	0	0	0	No
USJ-05	315	1358	5	2	0.550	0	No	25	0	50	25	0	0	0	0	0	0	0	0	No
USJ-05	315	1359	5	3	0.605	0	No	25	0	50	25	0	0	0	0	0	0	0	0	No
USJ-05	315	1360	5	4	0.605	0	No	20	0	25	0	45	10	0	0	0	0	0	0	No
USJ-05	315	1361	5	5	0.465	0	No	10	0	80	10	0	0	0	0	0	0	0	0	No
USJ-05	316	1362	6	1	0.255	0	No	20	0	80	0	0	0	0	0	0	0	0	0	No
USJ-05	316	1363	6	2	0.355	0	No	25	0	25	50	0	0	0	0	0	0	0	0	No
USJ-05	316	1364	6	3	0.355	0	Yes	25	0	25	50	0	0	0	0	0	0	0	0	No
USJ-05	316	1365	6	4	0.388	0	Yes	10	0	20	50	20	0	0	0	0	0	0	0	No
USJ-05	316	1366	6	5	0.321	0	Yes	0	0	20	30	50	0	0	0	0	0	0	0	No
USJ-06	232	1016	1	1	-0.040	-	No	0	0	0	0	20	80	0	0	0	0	0	0	No
USJ-06	232	1017	1	2	0.020	0	No	15	0	0	0	15	70	0	0	0	0	0	0	No
USJ-06	232	1018	1	3	0.020	0	No	0	0	0	0	40	40	20	0	0	0	0	0	No
USJ-06	232	1019	1	4	0.037	4	No	0	0	0	0	40	60	0	0	0	0	0	0	No
USJ-06	232	1020	1	5	0.036	0	Yes	0	0	0	0	40	60	0	0	0	0	0	0	No
USJ-06	233	1021	2	1	0.145	0	Yes	20	0	0	20	60	0	0	0	0	0	0	0	No
USJ-06	233	1022	2	2	0.110	0	No	10	0	10	20	60	0	0	0	0	0	0	0	No
USJ-06	233	1023	2	3	0.055	0	No	20	0	10	10	60	0	0	0	0	0	0	0	No
USJ-06	233	1024	2	4	0.039	0	No	0	0	0	30	50	20	0	0	0	0	0	0	No
USJ-06	233	1025	2	5	0.042	0	No	0	0	0	20	50	30	0	0	0	0	0	0	No
USJ-06	234	1026	3	1	0.145	0	No	0	0	0	0	5	0	0	0	95	0	0	0	No
USJ-06	234	1027	3	2	0.380	0	No	0	0	0	20	0	0	0	0	80	0	0	0	No
USJ-06	234	1028	3	3	0.290	0	No	0	0	0	50	50	0	0	0	0	0	0	0	No
USJ-06	234	1029	3	4	0.148	0	No	0	0	0	30	50	20	0	0	0	0	0	0	No
USJ-06	234	1030	3	5	0.062	0	Yes	0	0	20	40	20	20	0	0	0	0	0	0	No
USJ-06	235	1031	4	1	0.230	0	No	0	0	0	0	0	0	0	0	100	0	0	0	No
USJ-06	235	1032	4	2	0.480	0	No	0	0	20	80	0	0	0	0	0	0	0	0	No
USJ-06	235	1033	4	3	0.410	0	No	0	0	10	90	0	0	0	0	0	0	0	0	No
USJ-06	235	1034	4	4	0.320	0	No	0	0	10	30	40	20	0	0	0	0	0	0	No
USJ-06	235	1035	4	5	0.168	0	No	10	0	20	50	0	20	0	0	0	0	0	0	No
USJ-06	236	1036	5	1	0.240	0	No	0	0	0	0	0	0	0	0	100	0	0	0	No
USJ-06	236	1037	5	2	0.550	0	No	0	0	0	0	0	0	0	0	100	0	0	0	No
USJ-06	236	1038	5	3	0.485	0	No	0	0	20	50	0	0	0	0	30	0	0	0	No

Map SiteID	TransectID	PointID	Transect Number	Point Number	Depth (m)	HH (mm)	LWD present	Organic	Clay	Silt	Sand	Gravel	Cobble	Boulder	Bedrock	Hardpan	Rubble	Concrete	Unknown	N/A
USJ-06	236	1039	5	4	0.350	0	No	10	0	0	70	20	0	0	0	0	0	0	0	No
USJ-06	236	1040	5	5	0.172	0	No	20	40	20	0	0	20	0	0	0	0	0	0	No
USJ-06	237	1041	6	1	0.255	0	No	0	0	0	0	0	0	0	0	100	0	0	0	No
USJ-06	237	1042	6	2	0.540	0	No	0	0	0	0	0	0	0	0	100	0	0	0	No
USJ-06	237	1043	6	3	0.575	0	No	0	0	0	0	0	10	0	0	90	0	0	0	No
USJ-06	237	1044	6	4	0.490	0	No	10	0	0	90	0	0	0	0	0	0	0	0	No
USJ-06	237	1045	6	5	0.215	0	No	30	0	30	40	0	0	0	0	0	0	0	0	No
USJ-06	238	1046	7	1	0.230	0	Yes	0	0	0	0	0	0	0	0	100	0	0	0	No
USJ-06	238	1047	7	2	0.345	0	No	0	0	0	0	0	0	0	0	100	0	0	0	No
USJ-06	238	1048	7	3	0.530	0	No	0	0	0	0	0	0	0	0	100	0	0	0	No
USJ-06	238	1049	7	4	0.503	0	No	0	0	0	90	0	10	0	0	0	0	0	0	No
USJ-06	238	1050	7	5	0.192	0	No	10	0	0	90	0	0	0	0	0	0	0	0	No
USJ-06	239	1051	8	1	0.155	0	No	10	0	0	0	10	0	0	0	80	0	0	0	No
USJ-06	239	1052	8	2	0.320	0	Yes	0	0	0	0	0	0	0	0	100	0	0	0	No
USJ-06	239	1053	8	3	0.410	0	No	0	0	0	0	0	0	0	0	100	0	0	0	No
USJ-06	239	1054	8	4	0.457	0	No	0	0	0	90	0	10	0	0	0	0	0	0	No
USJ-06	239	1055	8	5	0.221	0	Yes	10	0	10	80	0	0	0	0	0	0	0	0	No
USJ-06	240	1056	9	1	0.155	0	Yes	0	0	0	0	0	0	0	0	100	0	0	0	No
USJ-06	240	1057	9	2	0.225	0	No	0	0	0	0	0	0	0	0	100	0	0	0	No
USJ-06	240	1058	9	3	0.330	0	No	0	0	0	0	0	20	0	0	80	0	0	0	No
USJ-06	240	1059	9	4	0.335	0	No	0	0	10	30	60	0	0	0	0	0	0	0	No
USJ-06	240	1060	9	5	0.208	0	No	10	0	40	50	0	0	0	0	0	0	0	0	No
USJ-06	241	1061	10	1	0.055	0	No	0	0	0	0	0	0	0	0	100	0	0	0	No
USJ-06	241	1062	10	2	0.205	0	No	10	0	10	0	0	30	0	0	50	0	0	0	No
USJ-06	241	1063	10	3	0.105	0	No	0	0	0	0	0	100	0	0	0	0	0	0	No
USJ-06	241	1064	10	4	0.197	0	No	0	0	0	20	30	50	0	0	0	0	0	0	No
USJ-06	241	1065	10	5	0.148	0	No	0	0	0	30	50	20	0	0	0	0	0	0	No
USJ-06	242	1066	11	1	0.020	0	No	10	0	10	0	0	80	0	0	0	0	0	0	No
USJ-06	242	1067	11	2	0.035	0	No	0	0	15	0	70	15	0	0	0	0	0	0	No
USJ-06	242	1068	11	3	0.040	0	No	10	0	10	0	60	20	0	0	0	0	0	0	No
USJ-06	242	1069	11	4	0.070	0	No	0	0	10	20	0	70	0	0	0	0	0	0	No
USJ-06	242	1070	11	5	0.048	0	No	0	0	10	20	0	70	0	0	0	0	0	0	No
USJ-06	243	1071	12	1	-0.020	-	No	0	0	15	0	70	15	0	0	0	0	0	0	No
USJ-06	243	1072	12	2	0.040	0	No	10	0	10	0	50	30	0	0	0	0	0	0	No
USJ-06	243	1073	12	3	0.055	5	No	10	0	0	0	60	30	0	0	0	0	0	0	No
USJ-06	243	1074	12	4	0.020	0	No	0	0	10	5	10	75	0	0	0	0	0	0	No
USJ-06	243	1075	12	5	-0.065	-	No	0	0	10	0	15	75	0	0	0	0	0	0	No
USJ-07	244	1076	1	1	0.280	0	No	10	0	20	20	0	50	0	0	0	0	0	0	No

Map SiteID	TransectID	PointID	Transect Number	Point Number	Depth (m)	HH (mm)	LWD present	Organic	Clay	Silt	Sand	Gravel	Cobble	Boulder	Bedrock	Hardpan	Rubble	Concrete	Unknown	N/A
USJ-07	244	1077	1	2	0.280	0	No	0	0	0	10	10	70	10	0	0	0	0	0	No
USJ-07	244	1078	1	3	0.118	0	No	0	0	0	0	20	0	0	0	80	0	0	0	No
USJ-07	245	1079	2	1	0.160	0	No	0	0	20	10	20	50	0	0	0	0	0	0	No
USJ-07	245	1080	2	2	0.167	0	No	0	0	0	40	20	40	0	0	0	0	0	0	No
USJ-07	245	1081	2	3	0.148	0	No	0	0	20	10	50	20	0	0	0	0	0	0	No
USJ-07	246	1082	3	1	0.145	0	No	10	0	10	20	60	0	0	0	0	0	0	0	No
USJ-07	246	1083	3	2	0.160	0	No	0	0	10	10	60	20	0	0	0	0	0	0	No
USJ-07	246	1084	3	3	0.157	0	No	10	0	20	40	0	30	0	0	0	0	0	0	No
USJ-07	247	1085	4	1	0.205	0	No	20	0	20	60	0	0	0	0	0	0	0	0	No
USJ-07	247	1086	4	2	0.272	0	No	0	0	15	0	15	70	0	0	0	0	0	0	No
USJ-07	247	1087	4	3	0.181	0	No	10	0	10	70	0	10	0	0	0	0	0	0	No
USJ-07	248	1088	5	1	0.280	0	No	0	0	15	15	20	50	0	0	0	0	0	0	No
USJ-07	248	1089	5	2	0.370	0	No	0	0	20	20	30	30	0	0	0	0	0	0	No
USJ-07	248	1090	5	3	0.254	0	No	20	0	20	60	0	0	0	0	0	0	0	0	No
USJ-07	249	1091	6	1	0.220	0	Yes	0	0	15	15	0	0	70	0	0	0	0	0	No
USJ-07	249	1092	6	2	0.350	0	No	0	0	0	40	40	0	20	0	0	0	0	0	No
USJ-07	249	1093	6	3	0.358	0	No	20	0	40	40	0	0	0	0	0	0	0	0	No
USJ-07	250	1094	7	1	0.165	0	No	0	0	0	0	20	80	0	0	0	0	0	0	No
USJ-07	250	1095	7	2	0.305	0	No	0	0	0	30	50	20	0	0	0	0	0	0	No
USJ-07	250	1096	7	3	0.149	0	No	20	0	30	20	0	0	30	0	0	0	0	0	No
USJ-07	251	1097	8	1	0.165	0	No	10	0	10	30	30	20	0	0	0	0	0	0	No
USJ-07	251	1098	8	2	0.325	0	No	0	0	15	70	15	0	0	0	0	0	0	0	No
USJ-07	251	1099	8	3	0.300	0	No	40	0	30	30	0	0	0	0	0	0	0	0	No
USJ-07	252	1100	9	1	0.155	0	No	0	0	10	10	80	0	0	0	0	0	0	0	No
USJ-07	252	1101	9	2	0.245	0	No	0	0	0	40	40	0	20	0	0	0	0	0	No
USJ-07	252	1102	9	3	0.197	0	No	30	0	0	30	40	0	0	0	0	0	0	0	No
USJ-07	253	1103	10	1	0.105	0	No	0	0	20	0	80	0	0	0	0	0	0	0	No
USJ-07	253	1104	10	2	0.165	0	No	0	0	0	20	60	20	0	0	0	0	0	0	No
USJ-07	253	1105	10	3	0.122	0	No	0	0	0	30	50	0	20	0	0	0	0	0	No
USJ-07	254	1106	11	1	0.075	0	No	10	0	10	10	70	0	0	0	0	0	0	0	No
USJ-07	254	1107	11	2	0.185	0	No	0	0	0	20	60	0	20	0	0	0	0	0	No
USJ-07	254	1108	11	3	0.132	0	No	0	0	0	40	60	0	0	0	0	0	0	0	No
USJ-07	255	1109	12	1	0.005	0	No	5	0	0	0	0	5	90	0	0	0	0	0	No
USJ-07	255	1110	12	2	0.165	0	No	0	0	0	10	40	20	30	0	0	0	0	0	No
USJ-07	255	1111	12	3	0.256	0	Yes	50	0	30	10	0	10	0	0	0	0	0	0	No
USJ-07	256	1112	13	1	0.035	0	No	10	0	10	0	0	50	30	0	0	0	0	0	No
USJ-07	256	1113	13	2	0.120	0	No	0	0	0	30	40	30	0	0	0	0	0	0	No
USJ-07	256	1114	13	3	0.116	0	Yes	60	0	40	0	0	0	0	0	0	0	0	0	No

Map SiteID	TransectID	PointID	Transect Number	Point Number	Depth (m)	HH (mm)	LWD present	Organic	Clay	Silt	Sand	Gravel	Cobble	Boulder	Bedrock	Hardpan	Rubble	Concrete	Unknown	N/A
USJ-07	257	1115	14	1	0.030	0	No	10	0	10	80	0	0	0	0	0	0	0	0	No
USJ-07	257	1116	14	2	0.090	0	No	0	0	25	50	25	0	0	0	0	0	0	0	No
USJ-07	257	1117	14	3	0.025	0	No	0	0	0	0	0	0	0	0	100	0	0	0	No
USJ-07	258	1118	15	1	0.025	0	No	0	0	0	80	20	0	0	0	0	0	0	0	No
USJ-07	258	1119	15	2	0.075	3	No	0	0	0	25	25	25	0	0	25	0	0	0	No
USJ-07	258	1120	15	3	0.064	0	No	0	0	0	0	0	10	0	0	90	0	0	0	No
USJ-08	286	1226	1	1	0.075	1	Yes	10	0	0	40	50	0	0	0	0	0	0	0	No
USJ-08	286	1227	1	2	0.010	1	No	0	0	0	0	0	0	0	0	0	100	0	0	No
USJ-08	286	1228	1	3	0.065	0	No	15	0	0	15	70	0	0	0	0	0	0	0	No
USJ-08	287	1229	2	1	0.090	0	No	10	0	10	30	50	0	0	0	0	0	0	0	No
USJ-08	287	1230	2	2	0.119	0	No	0	0	10	10	80	0	0	0	0	0	0	0	No
USJ-08	287	1231	2	3	0.155	0	No	0	0	15	15	70	0	0	0	0	0	0	0	No
USJ-08	288	1232	3	1	0.112	0	No	0	0	10	90	0	0	0	0	0	0	0	0	No
USJ-08	288	1233	3	2	0.187	0	No	0	0	10	10	80	0	0	0	0	0	0	0	No
USJ-08	288	1234	3	3	0.205	0	No	0	0	10	10	80	0	0	0	0	0	0	0	No
USJ-08	289	1235	4	1	0.120	0	No	20	0	20	40	20	0	0	0	0	0	0	0	No
USJ-08	289	1236	4	2	0.271	0	No	0	0	10	40	30	20	0	0	0	0	0	0	No
USJ-08	289	1237	4	3	0.235	0	No	10	0	10	20	50	10	0	0	0	0	0	0	No
USJ-08	290	1238	5	1	0.162	0	No	20	0	20	30	30	0	0	0	0	0	0	0	No
USJ-08	290	1239	5	2	0.292	0	No	0	0	10	30	40	20	0	0	0	0	0	0	No
USJ-08	290	1240	5	3	0.195	0	No	0	0	20	20	30	30	0	0	0	0	0	0	No
USJ-08	291	1241	6	1	0.151	0	No	20	0	10	50	20	0	0	0	0	0	0	0	No
USJ-08	291	1242	6	2	0.230	0	No	0	0	0	40	30	20	0	0	0	10	0	0	No
USJ-08	291	1243	6	3	0.185	0	No	20	0	20	40	20	0	0	0	0	0	0	0	No
USJ-08	292	1244	7	1	0.060	0	No	0	0	0	10	50	40	0	0	0	0	0	0	No
USJ-08	292	1245	7	2	0.110	0	No	10	0	0	20	40	30	0	0	0	0	0	0	No
USJ-08	292	1246	7	3	0.110	0	No	10	0	40	40	10	0	0	0	0	0	0	0	No
USJ-09	293	1247	1	1	0.125	0	No	10	0	90	0	0	0	0	0	0	0	0	0	No
USJ-09	293	1248	1	2	0.185	0	No	25	0	50	25	0	0	0	0	0	0	0	0	No
USJ-09	293	1249	1	3	0.220	0	No	0	0	20	40	40	0	0	0	0	0	0	0	No
USJ-09	293	1250	1	4	0.198	0	No	10	0	0	50	40	0	0	0	0	0	0	0	No
USJ-09	293	1251	1	5	0.068	0	No	10	0	10	40	40	0	0	0	0	0	0	0	No
USJ-09	294	1252	2	1	0.540	0	No	25	0	50	25	0	0	0	0	0	0	0	0	No
USJ-09	294	1253	2	2	0.530	0	No	15	0	15	60	10	0	0	0	0	0	0	0	No
USJ-09	294	1254	2	3	0.520	0	No	0	0	0	60	40	0	0	0	0	0	0	0	No
USJ-09	294	1255	2	4	0.452	0	No	10	0	10	20	60	0	0	0	0	0	0	0	No
USJ-09	294	1256	2	5	0.380	0	No	10	0	70	20	0	0	0	0	0	0	0	0	No
USJ-09	295	1257	3	1	0.350	0	No	0	0	0	0	0	0	0	0	100	0	0	0	No

Map SiteID	TransectID	PointID	Transect Number	Point Number	Depth (m)	HH (mm)	LWD present	Organic	Clay	Silt	Sand	Gravel	Cobble	Boulder	Bedrock	Hardpan	Rubble	Concrete	Unknown	N/A
USJ-09	295	1258	3	2	0.710	0	No	0	0	0	50	50	0	0	0	0	0	0	0	No
USJ-09	295	1259	3	3	0.830	0	No	0	0	40	50	10	0	0	0	0	0	0	0	No
USJ-09	295	1260	3	4	0.700	0	No	0	0	0	0	0	0	0	0	100	0	0	0	No
USJ-09	295	1261	3	5	0.435	0	No	0	0	0	0	0	0	0	0	100	0	0	0	No
USJ-09	296	1262	4	1	0.770	0	No	0	0	0	0	0	0	0	0	100	0	0	0	No
USJ-09	296	1263	4	2	0.870	0	No	0	0	20	0	0	0	20	0	60	0	0	0	No
USJ-09	296	1264	4	3	0.760	0	No	40	0	40	0	20	0	0	0	0	0	0	0	No
USJ-09	296	1265	4	4	0.315	0	No	60	0	0	10	30	0	0	0	0	0	0	0	No
USJ-09	296	1266	4	5	0.278	0	No	20	0	40	0	10	0	0	0	30	0	0	0	No
USJ-09	297	1267	5	1	0.540	0	No	20	0	80	0	0	0	0	0	0	0	0	0	No
USJ-09	297	1268	5	2	0.490	0	No	20	0	80	0	0	0	0	0	0	0	0	0	No
USJ-09	297	1269	5	3	0.530	0	No	60	0	20	0	20	0	0	0	0	0	0	0	No
USJ-09	297	1270	5	4	0.493	0	No	40	0	50	10	0	0	0	0	0	0	0	0	No
USJ-09	297	1271	5	5	0.345	0	No	40	0	60	0	0	0	0	0	0	0	0	0	No
USJ-09	298	1272	6	1	0.065	0	No	0	0	0	0	0	0	0	0	100	0	0	0	No
USJ-09	298	1273	6	2	0.240	0	No	0	0	0	0	50	0	0	0	50	0	0	0	No
USJ-09	298	1274	6	3	0.220	0	No	0	0	0	30	70	0	0	0	0	0	0	0	No
USJ-09	298	1275	6	4	0.134	0	No	20	0	20	10	50	0	0	0	0	0	0	0	No
USJ-09	298	1276	6	5	0.108	0	No	30	0	10	30	30	0	0	0	0	0	0	0	No

Appendix G. *Abiotic habitat features measured at each pool sampled for Redside Dace in 1) Gully Creek, and 2) Unknown Stan J, 2020.*

1) Gully Creek

Map SiteID	Segment	Air temp. (°C)	Water temp. (°C)	Conductivity (µS)	Dissolved oxygen (mg/L)	pH	Turbidity (NTU)
GC-01	R12.1995	22.6	15.637	482.6	8.49	7.97	2.93
GC-02	R12.1995	23.4	14.856	473.9	8.50	7.88	3.53
GC-03	R12.1995	22.0	17.465	512.0	7.09	7.84	5.43
GC-04	R12.1995	22.1	16.075	486.1	8.54	8.02	2.30
GC-05	R12.1995	28.5	18.130	538.0	8.40	8.04	2.75
GC-06	R12.2038	20.6	14.754	473.3	9.84	9.82	1.74
GC-07	R12.2038	14.6	13.987	465.4	9.43	8.33	5.19
GC-08	R12.2038	-	17.180	489.3	9.01	8.38	2.15
GC-09	R12.2038	-	16.319	476.7	9.23	8.39	2.52
GC-10	R12.2048	14.9	14.920	432.4	8.80	8.37	2.81
GC-11	R12.2048	19.8	15.852	447.6	9.09	8.35	3.71
GC-12	R12.2048	24.0	19.864	531.0	8.02	8.27	2.17
GC-13	R12.2048	22.8	20.666	539.0	8.65	8.34	4.53
GC-14	R12.2067	16.4	16.930	509.0	8.35	8.19	1.89
GC-15	R12.2067	17.2	17.217	512.0	7.83	8.11	3.83
GC-16	R12.2067	19.9	17.380	516.0	6.94	7.98	3.84
GC-17	R12.2067	22.1	18.222	515.0	7.01	7.93	4.69
GC-18	R12.2067	22.7	18.030	514.0	6.38	7.83	7.00

2) Unknown Stan J

Map SiteID	Segment	Air temp. (°C)	Water temp. (°C)	Conductivity (µS)	Dissolved oxygen (mg/L)	pH	Turbidity (NTU)
USJ-01	Trib A	14.1	14.140	533.0	7.90	8.04	8.79
USJ-02	Main	15.6	17.515	488.0	8.11	8.25	11.60
USJ-03	Main	22.0	19.823	359.3	7.44	8.04	93.75
USJ-04	Main	25.6	20.100	370.2	6.98	7.94	68.15
USJ-05	Main	16.3	15.500	256.0	9.24	8.29	12.31
USJ-06	Main	17.9	17.314	454.2	6.64	8.16	8.06
USJ-07	Main	26.4	20.830	241.0	9.77	8.41	10.19
USJ-08	Main	20.3	17.840	391.3	7.57	8.03	-
USJ-09	Main	25.0	18.539	398.5	7.25	8.01	21.06

Appendix H. *Aquatic vegetation by percent composition of each vegetation type present and species present at sites sampled in 1) Gully Creek, and 2) Unknown Stan J in 2020.*

1) Gully Creek

Map SiteID	Segment	Emergent	Floating	Submerged	Open water	Dominant type	Aquatic vegetation species present
GC-01	R12.1995	0	0	0	100	Open water	-
GC-02	R12.1995	0	0	0	100	Open water	-
GC-03	R12.1995	0	0	0	100	Open water	-
GC-04	R12.1995	0	0	0	100	Open water	-
GC-05	R12.1995	0	0	0	100	Open water	-
GC-06	R12.2038	0	0	0	100	Open water	-
GC-07	R12.2038	0	0	0	100	Open water	Watercress
GC-08	R12.2038	0	0	0	100	Open water	-
GC-09	R12.2038	0	0	0	100	Open water	-
GC-10	R12.2048	0	0	0	100	Open water	-
GC-11	R12.2048	0	0	0	100	Open water	-
GC-12	R12.2048	5	0	0	95	Open water	Watercress
GC-13	R12.2048	0	0	0	100	Open water	-
GC-14	R12.2067	0	0	0	100	Open water	-
GC-15	R12.2067	0	0	0	100	Open water	-
GC-16	R12.2067	0	0	0	100	Open water	-
GC-17	R12.2067	0	0	0	100	Open water	-
GC-18	R12.2067	0	0	0	100	Open water	-

2) Unknown Stan J

Map SiteID	Segment	Emergent	Floating	Submerged	Open water	Dominant type	Aquatic vegetation species present
USJ-01	Trib A	5	0	0	95	Open water	Watercress
USJ-02	Main	0	0	0	100	Open water	-
USJ-03	Main	0	0	0	100	Open water	-
USJ-04	Main	20	0	5	75	Open water	Watercress, Canada waterweed
USJ-05	Main	5	0	25	70	Open water	Canada waterweed, Watercress
USJ-06	Main	0	0	0	100	Open water	-
USJ-07	Main	0	0	0	100	Open water	-
USJ-08	Main	20	0	0	80	Open water	Watercress
USJ-09	Main	5	0	0	95	Open water	Watercress

Appendix I. *Riparian conditions recorded at sites sampled in 1) Gully Creek, and 2) Unknown Stan J in 2020. Riparian vegetation presented as percent composition of each type present within 2 m of water's edge.*

1) Gully Creek

Map SiteID	Segment	Deciduous	Coniferous	Herbaceous	Shrubs	None	Dominant type	Riparian vegetation notes	Floodplain Use	Channel cover (%)	Bank Slope (%)
GC-01	R12.1995	40	0	30	5	25	Deciduous	-	Agricultural - Pasture	10	90
GC-02	R12.1995	10	0	90	0	0	Herbaceous	various rip. veg. overhanging in water	Developed - Rural residential	15	75
GC-03	R12.1995	5	0	90	0	5	Herbaceous	overhanging, dense rip. veg.	Developed - Rural residential	50	90
GC-04	R12.1995	40	0	40	10	10	Deciduous	overhanging jewelweed and grasses	Less disturbed - Shrubs/woodland	10	60
GC-05	R12.1995	15	5	60	5	15	Herbaceous	overhanging herbaceous rip. veg. ~15%	Developed - Rural residential	25	75
GC-06	R12.2038	0	0	50	40	10	Herbaceous	steep vegetated bank	Less disturbed - Grassland	10	70
GC-07	R12.2038	10	0	75	10	5	Herbaceous	grasses overhanging in water	Less disturbed - Grassland	15	70
GC-08	R12.2038	5	5	5	0	85	None	-	Less disturbed - Shrubs/woodland	5	95
GC-09	R12.2038	0	20	5	0	75	None	-	Less disturbed - Shrubs/woodland	5	100
GC-10	R12.2048	30	20	30	0	20	Deciduous	exposed roots, large rootwad	Less disturbed - Shrubs/woodland	10	90
GC-11	R12.2048	40	40	10	0	10	Coniferous	-	Less disturbed - Shrubs/woodland	10	50
GC-12	R12.2048	25	25	25	10	15	Herbaceous	overhanging herbaceous rip. veg.	Less disturbed - Shrubs/woodland	10	75
GC-13	R12.2048	20	20	20	0	40	None	-	Less disturbed - Shrubs/woodland	10	80
GC-14	R12.2067	20	20	20	20	20	Herbaceous	overhanging cedar boughs and shrub with red berries overhanging	Less disturbed - Shrubs/woodland	25	60
GC-15	R12.2067	15	5	50	10	20	Herbaceous	-	Less disturbed - Shrubs/woodland	0	50
GC-16	R12.2067	25	25	30	5	15	Herbaceous	-	Less disturbed - Shrubs/woodland	10	45

Map SiteID	Segment	Deciduous	Coniferous	Herbaceous	Shrubs	None	Dominant type	Riparian vegetation notes	Floodplain Use	Channel cover (%)	Bank Slope (%)
GC-17	R12.2067	30	5	35	0	30	Herbaceous	overhanging rip. veg. (10%)	Less disturbed - Shrubs/woodland	10	80
GC-18	R12.2067	30	0	30	20	20	Deciduous	woody debris cover, some shrub branches overhanging	Less disturbed - Shrubs/woodland	10	80

2) Unknown Stan J

Map SiteID	Segment	Deciduous	Coniferous	Herbaceous	Shrubs	None	Dominant type	Riparian vegetation notes	Floodplain Use	Channel cover (%)	Bank Slope (%)
USJ-01	Trib A	20	0	75	5	0	Herbaceous	overhanging rip. veg.	Less disturbed - Grassland	15	95
USJ-02	Main	40	0	20	0	40	Deciduous	-	Agricultural - Pasture	5	10
USJ-03	Main	5	0	90	5	0	Herbaceous	dense terr. rip. veg. overhanging banks into water	Less disturbed - Grassland	25	90
USJ-04	Main	5	0	95	0	0	Herbaceous	overhanging rip. veg.	Less disturbed - Grassland	25	90
USJ-05	Main	10	0	90	0	0	Herbaceous	overhanging rip. veg.	Less disturbed - Grassland	15	80
USJ-06	Main	60	0	20	0	20	Deciduous	-	Agricultural - Cropland	25	50
USJ-07	Main	0	0	90	10	0	Herbaceous	LOTS of overhanging herbaceous rip. veg. on each back (25% ch. cover each bank)	Developed - Rural residential	50	95
USJ-08	Main	0	0	100	0	0	Herbaceous	lots of overhanging rip. veg. terr. grasses into water	Agricultural - Cropland	40	90
USJ-09	Main	5	0	95	0	0	Herbaceous	lots of overhanging terr. grasses into water	Agricultural - Cropland	20	60