

# **Appendix C**

## **Harrington Dam Area Fish and Benthic Records**

Update Oct 13, 2016

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## Fish diversity upstream of Harrington Pond

| Species                     | Status - Global | Can | Ont. | Thames   | Thames Distribution | Times Sampled |
|-----------------------------|-----------------|-----|------|----------|---------------------|---------------|
| Blacknose Dace              | G5              |     | S5   | Abundant | widespread          | 1             |
| Brook Stickleback           | G5              |     | S5   | Abundant | widespread          | 1             |
| Brook Trout (coldwater)     | G5T             |     | S5   | Uncommon | localized           | 3             |
| Common Carp                 | G5              |     | SNA  | Abundant | widespread          | 1             |
| Mottled Sculpin (coldwater) | G5              |     | S5   | Uncommon | localized           | 4             |
| Rock Bass                   | G5              |     | S5   | Abundant | widespread          | 3             |
| White Sucker                | G5              |     | S5   | Abundant | widespread          | 3             |

## Fish diversity downstream of Harrington Dam

| Species                     | Status - Global | Can | Ont. | Thames   | Thames Distribution | Times Sampled |
|-----------------------------|-----------------|-----|------|----------|---------------------|---------------|
| Black Bullhead              | G5              |     | S4   | Common   | widespread          | 7             |
| Blacknose Dace              | G5              |     | S5   | Abundant | widespread          | 4             |
| Blackside Darter            | G5              |     | S4   | Abundant | widespread          | 13            |
| Bluntnose Minnow            | G5              |     | S5   | Abundant | widespread          | 12            |
| Brook Stickleback           | G5              |     | S5   | Abundant | widespread          | 2             |
| Brook Trout (coldwater)     | G5T             |     | S5   | Uncommon | localized           | 10            |
| Brown Bullhead              | G5              |     | S5   | Uncommon | widespread          | 1             |
| Central Mudminnow           | G5              |     | S5   | Abundant | widespread          | 5             |
| Central Stoneroller         | G5              |     | S4   | Abundant | widespread          | 3             |
| Common Carp                 | G5              |     | SNA  | Abundant | widespread          | 9             |
| Common Shiner               | G5              |     | S5   | Abundant | widespread          | 5             |
| Creek Chub                  | G5              |     | S5   | Abundant | widespread          | 6             |
| Fathead Minnow              | G5              |     | S5   | Abundant | widespread          | 5             |
| Golden Shiner               | G5              |     | S5   | Common   | localized           | 4             |
| Hornyhead Chub              | G5              |     | S4   | Abundant | widespread          | 1             |
| Johnny Darter               | G5              |     | S5   | Abundant | widespread          | 10            |
| Largemouth Bass             | G5              |     | S5   | Abundant | widespread          | 11            |
| Least Darter                | G5              |     | S4   | Common   | widespread          | 1             |
| Mottled Sculpin (coldwater) | G5              |     | S5   | Uncommon | localized           | 10            |
| Northern Hog Sucker         | G5              |     | S4   | Abundant | widespread          | 2             |
| Northern Pike               | G5              |     | S5   | Common   | widespread          | 6             |
| Pumpkinseed                 | G5              |     | S5   | Abundant | widespread          | 7             |
| Rainbow Darter              | G5              |     | S4   | Uncommon | localized           | 12            |
| Rainbow Trout               | G5              |     | SNA  | Common   | locally common      | 4             |
| Rock Bass                   | G5              |     | S5   | Abundant | widespread          | 13            |
| Smallmouth Bass             | G5              |     | S5   | Abundant | widespread          | 12            |
| Stonecat                    | G5              |     | S4   | Abundant | widespread          | 1             |
| Striped Shiner              | G5              |     | S4   | Abundant | widespread          | 2             |
| White Sucker                | G5              |     | S5   | Abundant | widespread          | 12            |
| Yellow Perch                | G5              |     | S5   | Common   | widespread          | 9             |

# Harrington Dam area fish sampling (2015)

| Species (Common Name)               | Scientific Name                | COSEWIC       | SARA | ESA 2007       | SRank  | Abundance | Distribution   |
|-------------------------------------|--------------------------------|---------------|------|----------------|--------|-----------|----------------|
| <b><u>Harrington Creek</u></b>      |                                |               |      |                |        |           |                |
| Upstream of Harrington CA pond      |                                | UTM x: 500576 |      | UTM y: 4787140 | R269   |           | 4/15/2015      |
| Brook Stickleback                   | <i>Culaea inconstans</i>       |               |      |                | S5     | Abundant  | widespread     |
| Brook Trout                         | <i>Salvelinus fontinalis</i>   |               |      |                | S5     | Uncommon  | localized      |
| Mottled Sculpin                     | <i>Cottus bairdi</i>           |               |      |                | S5     | Uncommon  | localized      |
| Rock Bass                           | <i>Ambloplites rupestris</i>   |               |      |                | S5     | Abundant  | widespread     |
| White Sucker                        | <i>Catostomus commersoni</i>   |               |      |                | S5     | Abundant  | widespread     |
| Upstream of Harrington CA pond      |                                | UTM x: 500576 |      | UTM y: 4787140 | R269   |           | 11/11/2015     |
| Brook Trout                         | <i>Salvelinus fontinalis</i>   |               |      |                | S5     | Uncommon  | localized      |
| Mottled Sculpin                     | <i>Cottus bairdi</i>           |               |      |                | S5     | Uncommon  | localized      |
| Rock Bass                           | <i>Ambloplites rupestris</i>   |               |      |                | S5     | Abundant  | widespread     |
| <b><u>Harrington-West Drain</u></b> |                                |               |      |                |        |           |                |
| 31st Line                           |                                | UTM x: 500617 |      | UTM y: 4786411 | 815-UT |           | 11/11/2015     |
| Blacknose Dace                      | <i>Rhinichthys atratulus</i>   |               |      |                | S5     | Abundant  | widespread     |
| Brook Trout                         | <i>Salvelinus fontinalis</i>   |               |      |                | S5     | Uncommon  | localized      |
| White Sucker                        | <i>Catostomus commersoni</i>   |               |      |                | S5     | Abundant  | widespread     |
| <b><u>Harrington Creek</u></b>      |                                |               |      |                |        |           |                |
| Harrington CA, Rd 96                |                                | UTM x: 500623 |      | UTM y: 4787599 | HA04   |           | 4/15/2015      |
| Blacknose Dace                      | <i>Rhinichthys atratulus</i>   |               |      |                | S5     | Abundant  | widespread     |
| Blackside Darter                    | <i>Percina maculata</i>        |               |      |                | S4     | Abundant  | widespread     |
| Bluntnose Minnow                    | <i>Pimephales notatus</i>      |               |      |                | S5     | Abundant  | widespread     |
| Brook Stickleback                   | <i>Culaea inconstans</i>       |               |      |                | S5     | Abundant  | widespread     |
| Brook Trout                         | <i>Salvelinus fontinalis</i>   |               |      |                | S5     | Uncommon  | localized      |
| Fathead Minnow                      | <i>Pimephales promelas</i>     |               |      |                | S5     | Abundant  | widespread     |
| Mottled Sculpin                     | <i>Cottus bairdi</i>           |               |      |                | S5     | Uncommon  | localized      |
| Rainbow Darter                      | <i>Etheostoma caeruleum</i>    |               |      |                | S4     | Uncommon  | localized      |
| Rainbow Trout                       | <i>Oncorhynchus mykiss</i>     |               |      |                | SNA    | Common    | locally common |
| Rock Bass                           | <i>Ambloplites rupestris</i>   |               |      |                | S5     | Abundant  | widespread     |
| White Sucker                        | <i>Catostomus commersoni</i>   |               |      |                | S5     | Abundant  | widespread     |
| Harrington CA, Rd 96                |                                | UTM x: 500623 |      | UTM y: 4787599 | HA04   |           | 7/22/2015      |
| Black Bullhead                      | <i>Ameiurus melas</i>          |               |      |                | S4     | Common    | widespread     |
| Blackside Darter                    | <i>Percina maculata</i>        |               |      |                | S4     | Abundant  | widespread     |
| Bluntnose Minnow                    | <i>Pimephales notatus</i>      |               |      |                | S5     | Abundant  | widespread     |
| Brook Trout                         | <i>Salvelinus fontinalis</i>   |               |      |                | S5     | Uncommon  | localized      |
| Central Mudminnow                   | <i>Umbra limi</i>              |               |      |                | S5     | Abundant  | widespread     |
| Common Carp                         | <i>Cyprinus carpio</i>         |               |      |                | SNA    | Abundant  | widespread     |
| Common Shiner                       | <i>Luxilus cornutus</i>        |               |      |                | S5     | Abundant  | widespread     |
| Creek Chub                          | <i>Semotilus atromaculatus</i> |               |      |                | S5     | Abundant  | widespread     |
| Johnny Darter                       | <i>Etheostoma nigrum</i>       |               |      |                | S5     | Abundant  | widespread     |

|                     |                              |     |          |                |
|---------------------|------------------------------|-----|----------|----------------|
| Largemouth Bass     | <i>Micropterus salmoides</i> | S5  | Abundant | widespread     |
| Mottled Sculpin     | <i>Cottus bairdi</i>         | S5  | Uncommon | localized      |
| Northern Hog Sucker | <i>Hypentelium nigricans</i> | S4  | Abundant | widespread     |
| Northern Pike       | <i>Esox lucius</i>           | S5  | Common   | widespread     |
| Pumpkinseed         | <i>Lepomis gibbosus</i>      | S5  | Abundant | widespread     |
| Rainbow Darter      | <i>Etheostoma caeruleum</i>  | S4  | Uncommon | localized      |
| Rainbow Trout       | <i>Oncorhynchus mykiss</i>   | SNA | Common   | locally common |
| Rock Bass           | <i>Ambloplites rupestris</i> | S5  | Abundant | widespread     |
| Smallmouth Bass     | <i>Micropterus dolomieu</i>  | S5  | Abundant | widespread     |
| White Sucker        | <i>Catostomus commersoni</i> | S5  | Abundant | widespread     |
| Yellow Perch        | <i>Perca flavescens</i>      | S5  | Common   | widespread     |

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|                      |               |                |      |           |
|----------------------|---------------|----------------|------|-----------|
| Harrington CA, Rd 96 | UTM x: 500623 | UTM y: 4787599 | HA04 | 8/16/2015 |
|----------------------|---------------|----------------|------|-----------|

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|                  |                                |     |          |            |
|------------------|--------------------------------|-----|----------|------------|
| Blackside Darter | <i>Percina maculata</i>        | S4  | Abundant | widespread |
| Bluntnose Minnow | <i>Pimephales notatus</i>      | S5  | Abundant | widespread |
| Brook Trout      | <i>Salvelinus fontinalis</i>   | S5  | Uncommon | localized  |
| Common Carp      | <i>Cyprinus carpio</i>         | SNA | Abundant | widespread |
| Creek Chub       | <i>Semotilus atromaculatus</i> | S5  | Abundant | widespread |
| Johnny Darter    | <i>Etheostoma nigrum</i>       | S5  | Abundant | widespread |
| Largemouth Bass  | <i>Micropterus salmoides</i>   | S5  | Abundant | widespread |
| Mottled Sculpin  | <i>Cottus bairdi</i>           | S5  | Uncommon | localized  |
| Northern Pike    | <i>Esox lucius</i>             | S5  | Common   | widespread |
| Rainbow Darter   | <i>Etheostoma caeruleum</i>    | S4  | Uncommon | localized  |
| Rock Bass        | <i>Ambloplites rupestris</i>   | S5  | Abundant | widespread |
| Smallmouth Bass  | <i>Micropterus dolomieu</i>    | S5  | Abundant | widespread |
| White Sucker     | <i>Catostomus commersoni</i>   | S5  | Abundant | widespread |

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|                      |               |                |      |            |
|----------------------|---------------|----------------|------|------------|
| Harrington CA, Rd 96 | UTM x: 500623 | UTM y: 4787599 | HA04 | 10/19/2015 |
|----------------------|---------------|----------------|------|------------|

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|                     |                              |     |          |            |
|---------------------|------------------------------|-----|----------|------------|
| Blacknose Dace      | <i>Rhinichthys atratulus</i> | S5  | Abundant | widespread |
| Blackside Darter    | <i>Percina maculata</i>      | S4  | Abundant | widespread |
| Bluntnose Minnow    | <i>Pimephales notatus</i>    | S5  | Abundant | widespread |
| Central Stoneroller | <i>Campostoma anomalum</i>   | S4  | Abundant | widespread |
| Common Carp         | <i>Cyprinus carpio</i>       | SNA | Abundant | widespread |
| Common Shiner       | <i>Luxilus cornutus</i>      | S5  | Abundant | widespread |
| Johnny Darter       | <i>Etheostoma nigrum</i>     | S5  | Abundant | widespread |
| Largemouth Bass     | <i>Micropterus salmoides</i> | S5  | Abundant | widespread |
| Least Darter        | <i>Etheostoma microperca</i> | S4  | Common   | widespread |
| Northern Pike       | <i>Esox lucius</i>           | S5  | Common   | widespread |
| Pumpkinseed         | <i>Lepomis gibbosus</i>      | S5  | Abundant | widespread |
| Rock Bass           | <i>Ambloplites rupestris</i> | S5  | Abundant | widespread |
| Smallmouth Bass     | <i>Micropterus dolomieu</i>  | S5  | Abundant | widespread |
| White Sucker        | <i>Catostomus commersoni</i> | S5  | Abundant | widespread |

| Species (Common Name)         | Scientific Name              | COSEWIC | SARA          | ESA 2007       | SRank | Abundance | Distribution |
|-------------------------------|------------------------------|---------|---------------|----------------|-------|-----------|--------------|
| <b><u>Harrington Pond</u></b> |                              |         |               |                |       |           |              |
| Harrington CA                 |                              |         | UTM x: 500663 | UTM y: 4787512 |       | TR25      | 4/15/2015    |
| Common Carp                   | <i>Cyprinus carpio</i>       |         |               |                | SNA   | Abundant  | widespread   |
| Mottled Sculpin               | <i>Cottus bairdi</i>         |         |               |                | S5    | Uncommon  | localized    |
| Rock Bass                     | <i>Ambloplites rupestris</i> |         |               |                | S5    | Abundant  | widespread   |
| White Sucker                  | <i>Catostomus commersoni</i> |         |               |                | S5    | Abundant  | widespread   |

## Harrington Dam area fish sampling (1999 – 2014)

| Species (Common Name)                   | Scientific Name | COSEWIC | SARA | ESA 2007 | SRank | Abundance | Distribution |
|---|-----------------|---------|------|----------|-------|-----------|--------------|
| <b><u>Harrington West Tributary</u></b> |                 |         |      |          |       |           |              |

|                     |                          |  |               |                |    |          |            |
|---------------------|--------------------------|--|---------------|----------------|----|----------|------------|
| Road 92 and Line 29 |                          |  | UTM x: 500009 | UTM y: 4784089 |    | TR23     | 8/14/2008  |
| Brook Stickleback   | <i>Culaea inconstans</i> |  |               |                | S5 | Abundant | widespread |

### **Harrington Creek**

|                                |  |  |               |                |  |      |            |
|--------------------------------|--|--|---------------|----------------|--|------|------------|
| Upstream of Harrington CA pond |  |  | UTM x: 500576 | UTM y: 4787140 |  | R269 | 10/13/1992 |
|--------------------------------|--|--|---------------|----------------|--|------|------------|

|                 |                              |  |  |  |    |          |           |
|-----------------|------------------------------|--|--|--|----|----------|-----------|
| Brook Trout     | <i>Salvelinus fontinalis</i> |  |  |  | S5 | Uncommon | localized |
| Mottled Sculpin | <i>Cottus bairdi</i>         |  |  |  | S5 | Uncommon | localized |

|                                |  |  |               |                |  |      |           |
|--------------------------------|--|--|---------------|----------------|--|------|-----------|
| Upstream of Harrington CA pond |  |  | UTM x: 500576 | UTM y: 4787140 |  | R269 | 7/21/2009 |
|--------------------------------|--|--|---------------|----------------|--|------|-----------|

|                 |                              |  |  |  |    |          |           |
|-----------------|------------------------------|--|--|--|----|----------|-----------|
| Brook Trout     | <i>Salvelinus fontinalis</i> |  |  |  | S5 | Uncommon | localized |
| Mottled Sculpin | <i>Cottus bairdi</i>         |  |  |  | S5 | Uncommon | localized |

### **Harrington Creek**

|                      |  |  |               |                |  |      |            |
|----------------------|--|--|---------------|----------------|--|------|------------|
| Harrington CA, Rd 96 |  |  | UTM x: 500600 | UTM y: 4787662 |  | HA04 | 11/29/2004 |
|----------------------|--|--|---------------|----------------|--|------|------------|

|                     |                                |  |  |  |    |          |            |
|---------------------|--------------------------------|--|--|--|----|----------|------------|
| Black Bullhead      | <i>Ameiurus melas</i>          |  |  |  | S4 | Common   | widespread |
| Blacknose Dace      | <i>Rhinichthys atratulus</i>   |  |  |  | S5 | Abundant | widespread |
| Blackside Darter    | <i>Percina maculata</i>        |  |  |  | S4 | Abundant | widespread |
| Bluntnose Minnow    | <i>Pimephales notatus</i>      |  |  |  | S5 | Abundant | widespread |
| Central Stoneroller | <i>Campostoma anomalum</i>     |  |  |  | S4 | Abundant | widespread |
| Common Shiner       | <i>Luxilus cornutus</i>        |  |  |  | S5 | Abundant | widespread |
| Creek Chub          | <i>Semotilus atromaculatus</i> |  |  |  | S5 | Abundant | widespread |
| Largemouth Bass     | <i>Micropterus salmoides</i>   |  |  |  | S5 | Abundant | widespread |
| Rainbow Darter      | <i>Etheostoma caeruleum</i>    |  |  |  | S4 | Uncommon | localized  |
| Rock Bass           | <i>Ambloplites rupestris</i>   |  |  |  | S5 | Abundant | widespread |
| Smallmouth Bass     | <i>Micropterus dolomieu</i>    |  |  |  | S5 | Abundant | widespread |
| Striped Shiner      | <i>Luxilus chrysocephalus</i>  |  |  |  | S4 | Abundant | widespread |
| White Sucker        | <i>Catostomus commersoni</i>   |  |  |  | S5 | Abundant | widespread |
| Yellow Perch        | <i>Perca flavescens</i>        |  |  |  | S5 | Common   | widespread |

|                      |  |  |               |                |  |      |           |
|----------------------|--|--|---------------|----------------|--|------|-----------|
| Harrington CA, Rd 96 |  |  | UTM x: 500600 | UTM y: 4787662 |  | HA04 | 7/21/2009 |
|----------------------|--|--|---------------|----------------|--|------|-----------|

|                  |                              |  |  |  |    |          |            |
|------------------|------------------------------|--|--|--|----|----------|------------|
| Black Bullhead   | <i>Ameiurus melas</i>        |  |  |  | S4 | Common   | widespread |
| Blacknose Dace   | <i>Rhinichthys atratulus</i> |  |  |  | S5 | Abundant | widespread |
| Blackside Darter | <i>Percina maculata</i>      |  |  |  | S4 | Abundant | widespread |

|                     |                                |    |          |            |
|---------------------|--------------------------------|----|----------|------------|
| Brook Stickleback   | <i>Culaea inconstans</i>       | S5 | Abundant | widespread |
| Brook Trout         | <i>Salvelinus fontinalis</i>   | S5 | Uncommon | localized  |
| Central Stoneroller | <i>Campostoma anomalum</i>     | S4 | Abundant | widespread |
| Fathead Minnow      | <i>Pimephales promelas</i>     | S5 | Abundant | widespread |
| Golden Shiner       | <i>Notemigonus crysoleucas</i> | S5 | Common   | localized  |
| Johnny Darter       | <i>Etheostoma nigrum</i>       | S5 | Abundant | widespread |
| Largemouth Bass     | <i>Micropterus salmoides</i>   | S5 | Abundant | widespread |
| Mottled Sculpin     | <i>Cottus bairdi</i>           | S5 | Uncommon | localized  |
| Rainbow Darter      | <i>Etheostoma caeruleum</i>    | S4 | Uncommon | localized  |
| Rock Bass           | <i>Ambloplites rupestris</i>   | S5 | Abundant | widespread |
| Smallmouth Bass     | <i>Micropterus dolomieu</i>    | S5 | Abundant | widespread |
| White Sucker        | <i>Catostomus commersoni</i>   | S5 | Abundant | widespread |
| Yellow Perch        | <i>Perca flavescens</i>        | S5 | Common   | widespread |

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|                      |               |                |      |           |
|----------------------|---------------|----------------|------|-----------|
| Harrington CA, Rd 96 | UTM x: 500600 | UTM y: 4787662 | HA04 | 5/14/2011 |
|----------------------|---------------|----------------|------|-----------|

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|                   |                              |    |          |            |
|-------------------|------------------------------|----|----------|------------|
| Blackside Darter  | <i>Percina maculata</i>      | S4 | Abundant | widespread |
| Bluntnose Minnow  | <i>Pimephales notatus</i>    | S5 | Abundant | widespread |
| Brook Trout       | <i>Salvelinus fontinalis</i> | S5 | Uncommon | localized  |
| Central Mudminnow | <i>Umbra limi</i>            | S5 | Abundant | widespread |
| Mottled Sculpin   | <i>Cottus bairdi</i>         | S5 | Uncommon | localized  |
| Rainbow Darter    | <i>Etheostoma caeruleum</i>  | S4 | Uncommon | localized  |
| Rock Bass         | <i>Ambloplites rupestris</i> | S5 | Abundant | widespread |
| Smallmouth Bass   | <i>Micropterus dolomieu</i>  | S5 | Abundant | widespread |
| White Sucker      | <i>Catostomus commersoni</i> | S5 | Abundant | widespread |

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|                      |               |                |      |           |
|----------------------|---------------|----------------|------|-----------|
| Harrington CA, Rd 96 | UTM x: 500600 | UTM y: 4787662 | HA04 | 8/28/2012 |
|----------------------|---------------|----------------|------|-----------|

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|                     |                                |     |          |                |
|---------------------|--------------------------------|-----|----------|----------------|
| Black Bullhead      | <i>Ameiurus melas</i>          | S4  | Common   | widespread     |
| Blackside Darter    | <i>Percina maculata</i>        | S4  | Abundant | widespread     |
| Bluntnose Minnow    | <i>Pimephales notatus</i>      | S5  | Abundant | widespread     |
| Brook Trout         | <i>Salvelinus fontinalis</i>   | S5  | Uncommon | localized      |
| Brown Bullhead      | <i>Ameiurus nebulosus</i>      | S5  | Uncommon | widespread     |
| Central Mudminnow   | <i>Umbra limi</i>              | S5  | Abundant | widespread     |
| Common Carp         | <i>Cyprinus carpio</i>         | SNA | Abundant | widespread     |
| Common Shiner       | <i>Luxilus cornutus</i>        | S5  | Abundant | widespread     |
| Golden Shiner       | <i>Notemigonus crysoleucas</i> | S5  | Common   | localized      |
| Johnny Darter       | <i>Etheostoma nigrum</i>       | S5  | Abundant | widespread     |
| Largemouth Bass     | <i>Micropterus salmoides</i>   | S5  | Abundant | widespread     |
| Northern Hog Sucker | <i>Hypentelium nigricans</i>   | S4  | Abundant | widespread     |
| Pumpkinseed         | <i>Lepomis gibbosus</i>        | S5  | Abundant | widespread     |
| Rainbow Darter      | <i>Etheostoma caeruleum</i>    | S4  | Uncommon | localized      |
| Rainbow Trout       | <i>Oncorhynchus mykiss</i>     | SNA | Common   | locally common |
| Rock Bass           | <i>Ambloplites rupestris</i>   | S5  | Abundant | widespread     |
| Smallmouth Bass     | <i>Micropterus dolomieu</i>    | S5  | Abundant | widespread     |
| Yellow Perch        | <i>Perca flavescens</i>        | S5  | Common   | widespread     |

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|                      |               |                |      |            |
|----------------------|---------------|----------------|------|------------|
| Harrington CA, Rd 96 | UTM x: 500600 | UTM y: 4787662 | HA04 | 10/25/2012 |
|----------------------|---------------|----------------|------|------------|

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|                |                       |    |        |            |
|----------------|-----------------------|----|--------|------------|
| Black Bullhead | <i>Ameiurus melas</i> | S4 | Common | widespread |
|----------------|-----------------------|----|--------|------------|

|                  |                                |     |          |            |
|------------------|--------------------------------|-----|----------|------------|
| Blackside Darter | <i>Percina maculata</i>        | S4  | Abundant | widespread |
| Bluntnose Minnow | <i>Pimephales notatus</i>      | S5  | Abundant | widespread |
| Brook Trout      | <i>Salvelinus fontinalis</i>   | S5  | Uncommon | localized  |
| Common Carp      | <i>Cyprinus carpio</i>         | SNA | Abundant | widespread |
| Common Shiner    | <i>Luxilus cornutus</i>        | S5  | Abundant | widespread |
| Creek Chub       | <i>Semotilus atromaculatus</i> | S5  | Abundant | widespread |
| Fathead Minnow   | <i>Pimephales promelas</i>     | S5  | Abundant | widespread |
| Johnny Darter    | <i>Etheostoma nigrum</i>       | S5  | Abundant | widespread |
| Largemouth Bass  | <i>Micropterus salmoides</i>   | S5  | Abundant | widespread |
| Mottled Sculpin  | <i>Cottus bairdi</i>           | S5  | Uncommon | localized  |
| Pumpkinseed      | <i>Lepomis gibbosus</i>        | S5  | Abundant | widespread |
| Rainbow Darter   | <i>Etheostoma caeruleum</i>    | S4  | Uncommon | localized  |
| Rock Bass        | <i>Ambloplites rupestris</i>   | S5  | Abundant | widespread |
| Smallmouth Bass  | <i>Micropterus dolomieu</i>    | S5  | Abundant | widespread |
| Striped Shiner   | <i>Luxilus chrysocephalus</i>  | S4  | Abundant | widespread |
| White Sucker     | <i>Catostomus commersoni</i>   | S5  | Abundant | widespread |
| Yellow Perch     | <i>Perca flavescens</i>        | S5  | Common   | widespread |

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|                      |               |                |      |           |
|----------------------|---------------|----------------|------|-----------|
| Harrington CA, Rd 96 | UTM x: 500600 | UTM y: 4787662 | HA04 | 7/12/2013 |
|----------------------|---------------|----------------|------|-----------|

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|                  |                              |     |          |            |
|------------------|------------------------------|-----|----------|------------|
| Blackside Darter | <i>Percina maculata</i>      | S4  | Abundant | widespread |
| Bluntnose Minnow | <i>Pimephales notatus</i>    | S5  | Abundant | widespread |
| Common Carp      | <i>Cyprinus carpio</i>       | SNA | Abundant | widespread |
| Fathead Minnow   | <i>Pimephales promelas</i>   | S5  | Abundant | widespread |
| Johnny Darter    | <i>Etheostoma nigrum</i>     | S5  | Abundant | widespread |
| Largemouth Bass  | <i>Micropterus salmoides</i> | S5  | Abundant | widespread |
| Mottled Sculpin  | <i>Cottus bairdi</i>         | S5  | Uncommon | localized  |
| Northern Pike    | <i>Esox lucius</i>           | S5  | Common   | widespread |
| Pumpkinseed      | <i>Lepomis gibbosus</i>      | S5  | Abundant | widespread |
| Rainbow Darter   | <i>Etheostoma caeruleum</i>  | S4  | Uncommon | localized  |
| Rock Bass        | <i>Ambloplites rupestris</i> | S5  | Abundant | widespread |
| Smallmouth Bass  | <i>Micropterus dolomieu</i>  | S5  | Abundant | widespread |
| White Sucker     | <i>Catostomus commersoni</i> | S5  | Abundant | widespread |
| Yellow Perch     | <i>Perca flavescens</i>      | S5  | Common   | widespread |

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|                      |               |                |      |           |
|----------------------|---------------|----------------|------|-----------|
| Harrington CA, Rd 96 | UTM x: 500600 | UTM y: 4787662 | HA04 | 7/19/2013 |
|----------------------|---------------|----------------|------|-----------|

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|                  |                              |     |          |            |
|------------------|------------------------------|-----|----------|------------|
| Blackside Darter | <i>Percina maculata</i>      | S4  | Abundant | widespread |
| Bluntnose Minnow | <i>Pimephales notatus</i>    | S5  | Abundant | widespread |
| Brook Trout      | <i>Salvelinus fontinalis</i> | S5  | Uncommon | localized  |
| Common Carp      | <i>Cyprinus carpio</i>       | SNA | Abundant | widespread |
| Johnny Darter    | <i>Etheostoma nigrum</i>     | S5  | Abundant | widespread |
| Largemouth Bass  | <i>Micropterus salmoides</i> | S5  | Abundant | widespread |
| Mottled Sculpin  | <i>Cottus bairdi</i>         | S5  | Uncommon | localized  |
| Northern Pike    | <i>Esox lucius</i>           | S5  | Common   | widespread |
| Pumpkinseed      | <i>Lepomis gibbosus</i>      | S5  | Abundant | widespread |
| Rainbow Darter   | <i>Etheostoma caeruleum</i>  | S4  | Uncommon | localized  |
| Rock Bass        | <i>Ambloplites rupestris</i> | S5  | Abundant | widespread |
| Smallmouth Bass  | <i>Micropterus dolomieu</i>  | S5  | Abundant | widespread |



|                      |                                |               |                |                |
|----------------------|--------------------------------|---------------|----------------|----------------|
| White Sucker         | <i>Catostomus commersoni</i>   | S5            | Abundant       | widespread     |
| Yellow Perch         | <i>Perca flavescens</i>        | S5            | Common         | widespread     |
| Harrington CA, Rd 96 |                                | UTM x: 500600 | UTM y: 4787662 | HA04 7/16/2014 |
| Black Bullhead       | <i>Ameiurus melas</i>          | S4            | Common         | widespread     |
| Harrington CA, Rd 96 |                                | UTM x: 500600 | UTM y: 4787662 | HA04 10/9/2014 |
| Black Bullhead       | <i>Ameiurus melas</i>          | S4            | Common         | widespread     |
| Blackside Darter     | <i>Percina maculata</i>        | S4            | Abundant       | widespread     |
| Bluntnose Minnow     | <i>Pimephales notatus</i>      | S5            | Abundant       | widespread     |
| Brook Trout          | <i>Salvelinus fontinalis</i>   | S5            | Uncommon       | localized      |
| Central Mudminnow    | <i>Umbra limi</i>              | S5            | Abundant       | widespread     |
| Common Carp          | <i>Cyprinus carpio</i>         | SNA           | Abundant       | widespread     |
| Creek Chub           | <i>Semotilus atromaculatus</i> | S5            | Abundant       | widespread     |
| Fathead Minnow       | <i>Pimephales promelas</i>     | S5            | Abundant       | widespread     |
| Golden Shiner        | <i>Notemigonus crysoleucas</i> | S5            | Common         | localized      |
| Hornyhead Chub       | <i>Nocomis biguttatus</i>      | S4            | Abundant       | widespread     |
| Johnny Darter        | <i>Etheostoma nigrum</i>       | S5            | Abundant       | widespread     |
| Largemouth Bass      | <i>Micropterus salmoides</i>   | S5            | Abundant       | widespread     |
| Mottled Sculpin      | <i>Cottus bairdi</i>           | S5            | Uncommon       | localized      |
| Pumpkinseed          | <i>Lepomis gibbosus</i>        | S5            | Abundant       | widespread     |
| Rainbow Darter       | <i>Etheostoma caeruleum</i>    | S4            | Uncommon       | localized      |
| Rock Bass            | <i>Ambloplites rupestris</i>   | S5            | Abundant       | widespread     |
| Smallmouth Bass      | <i>Micropterus dolomieu</i>    | S5            | Abundant       | widespread     |
| White Sucker         | <i>Catostomus commersoni</i>   | S5            | Abundant       | widespread     |
| Yellow Perch         | <i>Perca flavescens</i>        | S5            | Common         | widespread     |

### Harrington-West Drain

|                 |                              |               |                |                   |
|-----------------|------------------------------|---------------|----------------|-------------------|
| 31st Line       |                              | UTM x: 500617 | UTM y: 4786411 | 815-UT 10/25/1999 |
| Brook Trout     | <i>Salvelinus fontinalis</i> | S5            | Uncommon       | localized         |
| Mottled Sculpin | <i>Cottus bairdi</i>         | S5            | Uncommon       | localized         |
| White Sucker    | <i>Catostomus commersoni</i> | S5            | Abundant       | widespread        |
| 31st Line       |                              | UTM x: 500617 | UTM y: 4786411 | 815-UT 8/14/2008  |
| Blacknose Dace  | <i>Rhinichthys atratulus</i> | S5            | Abundant       | widespread        |
| Brook Trout     | <i>Salvelinus fontinalis</i> | S5            | Uncommon       | localized         |
| White Sucker    | <i>Catostomus commersoni</i> | S5            | Abundant       | widespread        |

**Global Rank (GRANK):** Global ranks are assigned by a consensus of the network of natural heritage programs (conservation data centres), scientific experts, and The Nature Conservancy to designate a rarity rank based on the range-wide status of a species, subspecies or variety. The most important factors considered in assigning global (and provincial) ranks are the total number of known, extant sites world-wide, and the degree to which they are potentially or actively threatened with destruction. Other criteria include the number of known populations considered to be securely protected, the size of the various populations, and the ability of the taxon to persist at its known sites. The taxonomic distinctness of each taxon has also been considered. Hybrids, introduced species, and taxonomically dubious species, subspecies and varieties have not been included.

G1 Extremely rare; usually 5 or fewer occurrences in the overall range or very few remaining individuals; or because some factor(s) making it especially vulnerable to extinction.

G2 Very rare; usually between 5 and 20 occurrences in the overall range or with many individuals in fewer occurrences; or because of some factor(s) making it vulnerable to extinction.

G3 Rare to uncommon; usually between 20 and 100 occurrences; may have fewer occurrences, but with a large number of individuals in some populations; may be susceptible to large-scale disturbances.

G4 Common; usually more than 100 occurrences; usually not susceptible to immediate threats.

G5 Very common; demonstrably secure under present conditions.

**COSEWIC Status:** The Committee on the Status of Endangered Wildlife in Canada (COSEWIC) assesses species for their consideration for legal protection and recovery (or management) under the Species at Risk Act (SARA).

Extinct: A wildlife species that no longer exists.

Extirpated: A wildlife species no longer existing in the wild in Canada, but exists elsewhere.

Endangered: A wildlife species facing imminent extirpation or extinction.

Threatened: A wildlife species likely to become endangered if limiting factors are not reversed.

Special Concern: A wildlife species that may become a threatened or an endangered species because of a combination of biological characteristics and identified threats.

Not at Risk: A wildlife species that has been evaluated and found to be not at risk of extinction given the current circumstances.

Data Deficient: A category that applies when the available information is insufficient (a) to resolve a wildlife species' eligibility for assessment or (b) to permit an assessment of the wildlife species' risk of extinction.

References: [http://www.sararegistry.gc.ca/species/schedules\\_e.cfm?id=1](http://www.sararegistry.gc.ca/species/schedules_e.cfm?id=1) [https://www.registrelep-sararegistry.gc.ca/sar/index/default\\_e.cfm?styp=speciesindex=1cosid=common=scientific=population=taxid=3locid=0desid=0schid=0desid2=0](https://www.registrelep-sararegistry.gc.ca/sar/index/default_e.cfm?styp=speciesindex=1cosid=common=scientific=population=taxid=3locid=0desid=0schid=0desid2=0)  
[http://www.cosewic.gc.ca/eng/sct0/rpt/rpt\\_csar\\_e.pdf](http://www.cosewic.gc.ca/eng/sct0/rpt/rpt_csar_e.pdf) [http://www.cosewic.gc.ca/eng/sct5/index\\_e.cfm](http://www.cosewic.gc.ca/eng/sct5/index_e.cfm) (current to September 2009)

**Provincial Rank (SRANK):** Provincial (or Subnational) ranks are used by the Natural Heritage Information Centre to set protection priorities for rare species and natural communities. These ranks are not legal designations. Provincial ranks are assigned in a manner similar to that described for global ranks, but consider only those factors within the political boundaries of Ontario. By comparing the global and provincial ranks, the status, rarity, and the urgency of conservation, needs can be ascertained. The NHIC evaluates provincial ranks on a continual basis and produces updated lists at least annually. The NHIC welcomes information which will assist in assigning accurate provincial ranks.

S1 Extremely rare in Ontario; usually 5 or fewer occurrences in the province or very few remaining individuals; often especially vulnerable to extirpation.

S2 Very rare in Ontario; usually between 5 and 20 occurrences in the province or with many individuals in fewer occurrences; often susceptible to extirpation.

S3 Rare to uncommon in Ontario; usually between 20 and 100 occurrences in the province; may have fewer occurrences, but with a large number of individuals in some populations; may be susceptible to large-scale disturbances. Most species with an S3 rank are assigned to the watch list, unless they have a relatively high global rank.

S4 Common and apparently secure in Ontario; usually with more than 100 occurrences in the province.

S5 Very common and demonstrably secure in Ontario.

S? Unranked, or, if following a ranking, rank uncertain (e.g. S3?). S? species are thought to be rare in Ontario, but there is insufficient information available to assign a more accurate rank.

SE Exotic; not believed to be a native component of Ontario's flora

# Harrington Dam area benthic water quality sampling summary

DATE FBI QUALITY

## Harrington Creek upstream of dam 31st Line, 1.1 km south of Rd. 96 (near Harrington)

Site code: TR21 UTM X Coordinate: 500617 UTM Y Coordinate: 4786411

|           |      |             |
|-----------|------|-------------|
| 6/4/1997  | 5.63 | Fair        |
| 6/22/1998 | 5.56 | Fair        |
| 6/25/1999 | 5.67 | Fair        |
| 6/25/1999 | 5.75 | Fairly Poor |
| 6/5/2000  | 5.33 | Fair        |
| 10/2/2000 | 5.68 | Fair        |
| 6/19/2001 | 4.93 | Good        |
| 6/19/2002 | 4.86 | Good        |
| 6/10/2003 | 5.04 | Fair        |
| 5/31/2004 | 5.02 | Fair        |
| 5/30/2006 | 5.35 | Fair        |
| 10/6/2006 | 5.51 | Fair        |
| 5/30/2007 | 5.42 | Fair        |
| 10/1/2007 | 5.59 | Fair        |
| 5/28/2008 | 5.59 | Fair        |
| 10/3/2008 | 5.24 | Fair        |
| 6/9/2009  | 5.67 | Fair        |
| 9/29/2009 | 5.71 | Fair        |
| 5/18/2010 | 4.94 | Good        |
| 6/15/2010 | 5.51 | Fair        |
| 10/5/2010 | 5.40 | Fair        |
| 5/10/2011 | 4.65 | Good        |
| 9/28/2011 | 5.84 | Fairly Poor |
| 5/9/2012  | 4.96 | Good        |
| 9/26/2012 | 5.98 | Fairly Poor |
| 2/13/2013 | 4.95 | Good        |
| 5/3/2013  | 4.85 | Good        |
| 9/27/2013 | 6.57 | Poor        |
| 5/8/2014  | 4.52 | Good        |
| 9/26/2014 | 5.37 | Fair        |
| 5/8/2015  | 4.68 | Good        |
| 9/23/2015 | 5.53 | Fair        |

## Harrington Creek downstream of dam

Site code: TR41 UTM X Coordinate: 500623 UTM Y Coordinate: 4787599

|            |      |      |
|------------|------|------|
| 10/18/2010 | 5.40 | Fair |
| 5/8/2015   | 6.73 | Poor |
| 9/23/2015  | 5.71 | Fair |

# Harrington Dam area benthic sampling data (1997 – 2015)

Taxonomic Name                      Common Name                      Life Stage                      # in Subsample                      Biotic Index

## Harrington Creek upstream of pond

31st Line, 1.1 km south of Rd. 96 (near Harrington)

Site code: TR21

UTM X: 500617

UTM Y: 4786411

Sampled - 6/4/1997

REP: 1

|                       |                        |   |    |   |
|-----------------------|------------------------|---|----|---|
| <i>Acariformes</i>    | Water Mite             | A | 6  | 6 |
| <i>Baetidae</i>       | Small Mayfly           | N | 2  | 6 |
| <i>Chironomidae</i>   | Midge                  | L | 38 | 6 |
| <i>Elmidae</i>        | Riffle Beetle          | L | 9  | 5 |
| <i>Elmidae</i>        | Riffle Beetle          | A | 2  | 5 |
| <i>Empididae</i>      | Dance Fly              | L | 9  | 6 |
| <i>Hyalellidae</i>    | Sideswimmer            | A | 6  | 8 |
| <i>Hydropsychidae</i> | Net-spinning Caddisfly | L | 7  | 5 |
| <i>Nematoda</i>       | Thread Worm            | A | 1  | 5 |
| <i>Nemouridae</i>     | Stonefly               | N | 5  | 2 |
| <i>Pisidiidae</i>     | Fingernail Clam        | A | 9  | 6 |
| <i>Simuliidae</i>     | Black Fly              | P | 1  | 5 |
| <i>Tabanidae</i>      | Horse Fly              | L | 3  | 5 |
| <i>Uenoidae</i>       | Caddisfly              | L | 2  | 3 |

Stream Health                      Fair                      Family Biotic Index                      5.63

Sampled - 6/22/1998

REP: 1

|                         |                               |   |    |   |
|-------------------------|-------------------------------|---|----|---|
| <i>Acariformes</i>      | Water Mite                    | A | 1  | 6 |
| <i>Baetidae</i>         | Small Mayfly                  | N | 16 | 6 |
| <i>Ceratopogonidae</i>  | Biting Midge                  | L | 1  | 6 |
| <i>Chironomidae</i>     | Midge                         | P | 4  | 6 |
| <i>Chironomidae</i>     | Midge                         | L | 64 | 6 |
| <i>Elmidae</i>          | Riffle Beetle                 | L | 5  | 5 |
| <i>Empididae</i>        | Dance Fly                     | L | 2  | 6 |
| <i>Hydropsychidae</i>   | Net-spinning Caddisfly        | L | 1  | 5 |
| <i>Lepidostomatidae</i> | <i>Lepidostatid</i> Caddisfly | L | 2  | 1 |
| <i>Leptoceridae</i>     | Long-horned Caddisfly         | L | 1  | 4 |
| <i>Leuctridae</i>       | Stonefly                      | N | 5  | 0 |
| <i>Oligochaeta</i>      | Aquatic Worm                  | A | 2  | 8 |
| <i>Simuliidae</i>       | Black Fly                     | L | 2  | 5 |
| <i>Tabanidae</i>        | Horse Fly                     | L | 1  | 5 |

Stream Health                      Fair                      Family Biotic Index                      5.56

Sampled - 6/25/1999

REP: 1

|                         |                               |   |    |   |
|-------------------------|-------------------------------|---|----|---|
| <i>Acariformes</i>      | Water Mite                    | A | 8  | 6 |
| <i>Baetidae</i>         | Small Mayfly                  | N | 19 | 6 |
| <i>Capniidae</i>        | Stonefly                      | N | 5  | 3 |
| <i>Chironomidae</i>     | Midge                         | L | 72 | 6 |
| <i>Chironomidae</i>     | Midge                         | P | 1  | 6 |
| <i>Elmidae</i>          | Riffle Beetle                 | A | 1  | 5 |
| <i>Elmidae</i>          | Riffle Beetle                 | L | 2  | 5 |
| <i>Empididae</i>        | Dance Fly                     | L | 2  | 6 |
| <i>Isotomidae</i>       | Springtail                    | A | 1  | 5 |
| <i>Lepidostomatidae</i> | <i>Lepidostatid</i> Caddisfly | L | 3  | 1 |
| <i>Nematoda</i>         | Thread Worm                   | A | 3  | 5 |
| <i>Physidae</i>         | Pouch Snail                   | A | 1  | 8 |
| <i>Pisidiidae</i>       | Fingernail Clam               | A | 1  | 6 |
| <i>Simuliidae</i>       | Black Fly                     | L | 2  | 5 |
| <i>Tipulidae</i>        | Crane Fly                     | L | 2  | 4 |

| Taxonomic Name  | Common Name                     | Life Stage | # in Subsample | Biotic Index |
|---|---------------------------------|------------|----------------|--------------|
| <b>Stream Health Fair Family Biotic Index 5.67</b>        |                                 |            |                |              |
| REP: 2  |                                 |            |                |              |
| <i>Acariformes</i>  | Water Mite                      | A          | 6              | 6            |
| <i>Baetidae</i>   | Small Mayfly                    | N          | 40             | 6            |
| <i>Capniidae</i>  | Stonefly                        | N          | 6              | 3            |
| <i>Chironomidae</i>                                       | Midge                           | L          | 89             | 6            |
| <i>Chironomidae</i>                                       | Midge                           | P          | 1              | 6            |
| <i>Elmidae</i>  | Riffle Beetle                   | L          | 4              | 5            |
| <i>Elmidae</i>  | Riffle Beetle                   | A          | 1              | 5            |
| <i>Empididae</i>  | Dance Fly                       | L          | 2              | 6            |
| <i>Hydropsychidae</i>                                     | Net-spinning Caddisfly          | L          | 2              | 5            |
| <i>Nematoda</i>   | Thread Worm                     | A          | 1              | 5            |
| <i>Rhyacophilidae</i>                                     | Primitive Caddisfly             | L          | 2              | 1            |
| <i>Simuliidae</i>   | Black Fly                       | L          | 3              | 5            |
| <b>Stream Health Fairly Poor Family Biotic Index 5.75</b> |                                 |            |                |              |
| <b>Sampled - 6/5/2000</b>                                 |                                 |            |                |              |
| REP: 1  |                                 |            |                |              |
| <i>Acariformes</i>  | Water Mite                      | A          | 4              | 6            |
| <i>Baetidae</i>   | Small Mayfly                    | N          | 26             | 6            |
| <i>Chironomidae</i>                                       | Midge                           | P          | 8              | 6            |
| <i>Chironomidae</i>                                       | Midge                           | L          | 67             | 6            |
| <i>Elmidae</i>  | Riffle Beetle                   | L          | 4              | 5            |
| <i>Empididae</i>  | Dance Fly                       | L          | 1              | 6            |
| <i>Leuctridae</i>   | Stonefly                        | N          | 13             | 0            |
| <i>Nematoda</i>   | Thread Worm                     | A          | 2              | 5            |
| <i>Nemouridae</i>   | Stonefly                        | N          | 1              | 2            |
| <i>Oligochaeta</i>  | Aquatic Worm                    | A          | 2              | 8            |
| <i>Simuliidae</i>   | Black Fly                       | L          | 1              | 5            |
| <i>Tipulidae</i>  | Crane Fly                       | L          | 1              | 4            |
| <b>Stream Health Fair Family Biotic Index 5.33</b>        |                                 |            |                |              |
| <b>Sampled - 10/2/2000</b>                                |                                 |            |                |              |
| REP: 1  |                                 |            |                |              |
| <i>Acariformes</i>  | Water Mite                      | A          | 9              | 6            |
| <i>Chironomidae</i>                                       | Midge                           | P          | 7              | 6            |
| <i>Chironomidae</i>                                       | Midge                           | L          | 38             | 6            |
| <i>Elmidae</i>  | Riffle Beetle                   | L          | 5              | 5            |
| <i>Empididae</i>  | Dance Fly                       | L          | 7              | 6            |
| <i>Gammaridae</i>   | Sideswimmer                     | A          | 1              | 6            |
| <i>Hydropsychidae</i>                                     | Net-spinning Caddisfly          | L          | 20             | 5            |
| <i>Lepidostomatidae</i>                                   | <i>Lepidostomatid</i> Caddisfly | L          | 3              | 1            |
| <i>Lymnaeidae</i>   | Pond Snail                      | A          | 1              | 6            |
| <i>Nemouridae</i>   | Stonefly                        | N          | 1              | 2            |
| <i>Oligochaeta</i>  | Aquatic Worm                    | A          | 7              | 8            |
| <i>Physidae</i>   | Pouch Snail                     | A          | 1              | 8            |
| <i>Pisidiidae</i>   | Fingernail Clam                 | A          | 1              | 6            |
| <i>Simuliidae</i>   | Black Fly                       | L          | 4              | 5            |
| <i>Tipulidae</i>  | Crane Fly                       | L          | 1              | 4            |
| <b>Stream Health Fair Family Biotic Index 5.68</b>        |                                 |            |                |              |
| <b>Sampled - 6/19/2001</b>                                |                                 |            |                |              |
| REP: 1  |                                 |            |                |              |
| <i>Acariformes</i>  | Water Mite                      | A          | 1              | 6            |
| <i>Baetidae</i>   | Small Mayfly                    | N          | 66             | 6            |
| <i>Chironomidae</i>                                       | Midge                           | P          | 1              | 6            |
| <i>Chironomidae</i>                                       | Midge                           | L          | 66             | 6            |

| Taxonomic Name        | Common Name            | Life Stage | # in Subsample | Biotic Index |
|-----------------------|------------------------|------------|----------------|--------------|
| <i>Elmidae</i>        | Riffle Beetle          | L          | 9              | 5            |
| <i>Elmidae</i>        | Riffle Beetle          | A          | 2              | 5            |
| <i>Empididae</i>      | Dance Fly              | P          | 1              | 6            |
| <i>Empididae</i>      | Dance Fly              | L          | 1              | 6            |
| <i>Gammaridae</i>     | Sideswimmer            | A          | 2              | 6            |
| <i>Hydropsychidae</i> | Net-spinning Caddisfly | L          | 4              | 5            |
| <i>Leuctridae</i>     | Stonefly               | N          | 34             | 0            |
| <i>Nematoda</i>       | Thread Worm            | A          | 2              | 5            |
| <i>Oligochaeta</i>    | Aquatic Worm           | A          | 3              | 8            |
| <i>Physidae</i>       | Pouch Snail            | A          | 1              | 8            |
| <i>Psychodidae</i>    | Sand Fly               | L          | 1              | 10           |
| <i>Simuliidae</i>     | Black Fly              | L          | 10             | 5            |
| <i>Turbellaria</i>    | Flatworm               | A          | 1              | 6            |

**Stream Health      Good      Family Biotic Index      4.93**

**Sampled - 6/19/2002**

REP: 1

|                       |                         |   |    |    |
|-----------------------|-------------------------|---|----|----|
| <i>Acariformes</i>    | Water Mite              | A | 4  | 6  |
| <i>Baetidae</i>       | Small Mayfly            | N | 58 | 6  |
| <i>Chironomidae</i>   | Midge                   | P | 8  | 6  |
| <i>Chironomidae</i>   | Midge                   | L | 64 | 6  |
| <i>Coenagrionidae</i> | Narrow-winged Damselfly | N | 1  | 8  |
| <i>Elmidae</i>        | Riffle Beetle           | L | 8  | 5  |
| <i>Elmidae</i>        | Riffle Beetle           | A | 4  | 5  |
| <i>Empididae</i>      | Dance Fly               | L | 2  | 6  |
| <i>Leuctridae</i>     | Stonefly                | N | 38 | 0  |
| <i>Nemouridae</i>     | Stonefly                | N | 2  | 2  |
| <i>Oligochaeta</i>    | Aquatic Worm            | A | 7  | 8  |
| <i>Pisidiidae</i>     | Fingernail Clam         | A | 1  | 6  |
| <i>Psychodidae</i>    | Sand Fly                | L | 1  | 10 |
| <i>Simuliidae</i>     | Black Fly               | L | 8  | 5  |
| <i>Tabanidae</i>      | Horse Fly               | L | 1  | 5  |

**Stream Health      Good      Family Biotic Index      4.86**

**Sampled - 6/10/2003**

REP: 1

|                        |                 |   |     |   |
|------------------------|-----------------|---|-----|---|
| <i>Acariformes</i>     | Water Mite      | A | 4   | 6 |
| <i>Baetidae</i>        | Small Mayfly    | N | 108 | 6 |
| <i>Ceratopogonidae</i> | Biting Midge    | L | 1   | 6 |
| <i>Chironomidae</i>    | Midge           | L | 66  | 6 |
| <i>Chironomidae</i>    | Midge           | P | 12  | 6 |
| <i>Elmidae</i>         | Riffle Beetle   | A | 4   | 5 |
| <i>Elmidae</i>         | Riffle Beetle   | L | 36  | 5 |
| <i>Empididae</i>       | Dance Fly       | L | 7   | 6 |
| <i>Empididae</i>       | Dance Fly       | P | 1   | 6 |
| <i>Glossiphoniidae</i> | Leech           | A | 2   | 8 |
| <i>Hyalellidae</i>     | Sideswimmer     | A | 1   | 8 |
| <i>Leuctridae</i>      | Stonefly        | N | 34  | 0 |
| <i>Nematoda</i>        | Thread Worm     | A | 1   | 5 |
| <i>Nemouridae</i>      | Stonefly        | N | 9   | 2 |
| <i>Pisidiidae</i>      | Fingernail Clam | A | 2   | 6 |
| <i>Simuliidae</i>      | Black Fly       | L | 4   | 5 |
| <i>Tabanidae</i>       | Horse Fly       | L | 1   | 5 |

**Stream Health      Fair      Family Biotic Index      5.04**

**Sampled - 5/31/2004**

REP: 1

|                    |            |   |   |   |
|--------------------|------------|---|---|---|
| <i>Acariformes</i> | Water Mite | A | 7 | 6 |
|--------------------|------------|---|---|---|

| Taxonomic Name         | Common Name         | Life Stage | # in Subsample | Biotic Index |
|------------------------|---------------------|------------|----------------|--------------|
| <i>Baetidae</i>        | Small Mayfly        | N          | 31             | 6            |
| <i>Ceratopogonidae</i> | Biting Midge        | L          | 2              | 6            |
| <i>Chironomidae</i>    | Midge               | L          | 85             | 6            |
| <i>Chironomidae</i>    | Midge               | P          | 2              | 6            |
| <i>Elmidae</i>         | Riffle Beetle       | A          | 2              | 5            |
| <i>Elmidae</i>         | Riffle Beetle       | L          | 11             | 5            |
| <i>Empididae</i>       | Dance Fly           | L          | 10             | 6            |
| <i>Hyalellidae</i>     | Sideswimmer         | A          | 1              | 8            |
| <i>Leptophlebiidae</i> | Mayfly              | N          | 1              | 4            |
| <i>Leuctridae</i>      | Stonefly            | N          | 30             | 0            |
| <i>Limnephilidae</i>   | Northern Caddisfly  | L          | 1              | 4            |
| <i>Nemouridae</i>      | Stonefly            | N          | 1              | 2            |
| <i>Oligochaeta</i>     | Aquatic Worm        | A          | 4              | 8            |
| <i>Pisidiidae</i>      | Fingernail Clam     | A          | 12             | 6            |
| <i>Rhyacophilidae</i>  | Primitive Caddisfly | L          | 1              | 1            |
| <i>Simuliidae</i>      | Black Fly           | L          | 11             | 5            |
| <i>Tipulidae</i>       | Crane Fly           | L          | 1              | 4            |

**Stream Health      Fair      Family Biotic Index      5.02**

**Sampled - 5/30/2006**

REP: 1

|                         |                 |   |     |   |
|-------------------------|-----------------|---|-----|---|
| <i>Acariformes</i>      | Water Mite      | A | 7   | 6 |
| <i>Baetidae</i>         | Small Mayfly    | N | 48  | 6 |
| <i>Capniidae</i>        | Stonefly        | N | 18  | 3 |
| <i>Ceratopogonidae</i>  | Biting Midge    | L | 3   | 6 |
| <i>Chironomidae</i>     | Midge           | P | 3   | 6 |
| <i>Chironomidae</i>     | Midge           | L | 159 | 6 |
| <i>Elmidae</i>          | Riffle Beetle   | L | 60  | 5 |
| <i>Elmidae</i>          | Riffle Beetle   | A | 4   | 5 |
| <i>Empididae</i>        | Dance Fly       | L | 11  | 6 |
| <i>Gammaridae</i>       | Sideswimmer     | A | 1   | 6 |
| <i>Hydroptilidae</i>    | Micro-caddisfly | L | 2   | 6 |
| <i>Leuctridae</i>       | Stonefly        | N | 14  | 0 |
| <i>Lymnaeidae</i>       | Pond Snail      | A | 1   | 6 |
| <i>Nemouridae</i>       | Stonefly        | N | 3   | 2 |
| <i>Oligochaeta</i>      | Aquatic Worm    | A | 2   | 8 |
| <i>Pisidiidae</i>       | Fingernail Clam | A | 11  | 6 |
| <i>Simuliidae</i>       | Black Fly       | L | 11  | 5 |
| <i>Tabanidae</i>        | Horse Fly       | L | 1   | 5 |
| <i>Taeniopterygidae</i> | Stonefly        | N | 3   | 2 |

**Stream Health      Fair      Family Biotic Index      5.35**

**Sampled - 10/6/2006**

REP: 1

|                        |                        |   |     |   |
|------------------------|------------------------|---|-----|---|
| <i>Acariformes</i>     | Water Mite             | A | 12  | 6 |
| <i>Asellidae</i>       | Sow Bug                | A | 1   | 8 |
| <i>Caenidae</i>        | Crawling Mayfly        | N | 1   | 6 |
| <i>Chironomidae</i>    | Midge                  | L | 117 | 6 |
| <i>Chironomidae</i>    | Midge                  | P | 20  | 6 |
| <i>Elmidae</i>         | Riffle Beetle          | L | 48  | 5 |
| <i>Elmidae</i>         | Riffle Beetle          | A | 1   | 5 |
| <i>Empididae</i>       | Dance Fly              | L | 5   | 6 |
| <i>Hyalellidae</i>     | Sideswimmer            | A | 20  | 8 |
| <i>Hydropsychidae</i>  | Net-spinning Caddisfly | L | 8   | 5 |
| <i>Hydroptilidae</i>   | Micro-caddisfly        | L | 2   | 6 |
| <i>Hydroptilidae</i>   | Micro-caddisfly        | P | 1   | 6 |
| <i>Leptophlebiidae</i> | Mayfly                 | N | 5   | 4 |
| <i>Leuctridae</i>      | Stonefly               | N | 2   | 0 |

| Taxonomic Name        | Common Name         | Life Stage | # in Subsample | Biotic Index |
|-----------------------|---------------------|------------|----------------|--------------|
| <i>Limnephilidae</i>  | Northern Caddisfly  | L          | 2              | 4            |
| <i>Nematoda</i>       | Thread Worm         | A          | 1              | 5            |
| <i>Nemouridae</i>     | Stonefly            | N          | 30             | 2            |
| <i>Oligochaeta</i>    | Aquatic Worm        | A          | 3              | 8            |
| <i>Physidae</i>       | Pouch Snail         | A          | 8              | 8            |
| <i>Pisidiidae</i>     | Fingemail Clam      | A          | 11             | 6            |
| <i>Rhyacophilidae</i> | Primitive Caddisfly | L          | 1              | 1            |
| <i>Simuliidae</i>     | Black Fly           | L          | 1              | 5            |
| <i>Tipulidae</i>      | Crane Fly           | L          | 1              | 4            |

**Stream Health      Fair      Family Biotic Index      5.51**

**Sampled - 5/30/2007**

REP: 1

|                         |                        |   |     |   |
|-------------------------|------------------------|---|-----|---|
| <i>Acariformes</i>      | Water Mite             | A | 3   | 6 |
| <i>Baetidae</i>         | Small Mayfly           | N | 34  | 6 |
| <i>Capniidae</i>        | Stonefly               | N | 40  | 3 |
| <i>Ceratopogonidae</i>  | Biting Midge           | L | 2   | 6 |
| <i>Chironomidae</i>     | Midge                  | P | 9   | 6 |
| <i>Chironomidae</i>     | Midge                  | L | 170 | 6 |
| <i>Elmidae</i>          | Riffle Beetle          | A | 2   | 5 |
| <i>Elmidae</i>          | Riffle Beetle          | L | 49  | 5 |
| <i>Empididae</i>        | Dance Fly              | L | 10  | 6 |
| <i>Gomphidae</i>        | Clubtail Dragonfly     | N | 1   | 4 |
| <i>Hyalellidae</i>      | Sideswimmer            | A | 3   | 8 |
| <i>Hydropsychidae</i>   | Net-spinning Caddisfly | L | 3   | 5 |
| <i>Leptohyphidae</i>    | Crawling Mayfly        | N | 1   | 4 |
| <i>Limnephilidae</i>    | Northern Caddisfly     | L | 1   | 4 |
| <i>Nemouridae</i>       | Stonefly               | N | 3   | 2 |
| <i>Oligochaeta</i>      | Aquatic Worm           | A | 2   | 8 |
| <i>Pisidiidae</i>       | Fingemail Clam         | A | 3   | 6 |
| <i>Simuliidae</i>       | Black Fly              | L | 11  | 5 |
| <i>Taeniopterygidae</i> | Stonefly               | N | 1   | 2 |
| <i>Tipulidae</i>        | Crane Fly              | L | 3   | 4 |

**Stream Health      Fair      Family Biotic Index      5.42**

**Sampled - 10/1/2007**

REP: 1

|                        |                        |   |     |   |
|------------------------|------------------------|---|-----|---|
| <i>Acariformes</i>     | Water Mite             | A | 10  | 6 |
| <i>Baetidae</i>        | Small Mayfly           | N | 3   | 6 |
| <i>Caenidae</i>        | Crawling Mayfly        | N | 1   | 6 |
| <i>Capniidae</i>       | Stonefly               | N | 2   | 3 |
| <i>Chironomidae</i>    | Midge                  | P | 19  | 6 |
| <i>Chironomidae</i>    | Midge                  | L | 166 | 6 |
| <i>Elmidae</i>         | Riffle Beetle          | L | 27  | 5 |
| <i>Empididae</i>       | Dance Fly              | L | 3   | 6 |
| <i>Gammaridae</i>      | Sideswimmer            | A | 7   | 6 |
| <i>Heptageniidae</i>   | Stream Mayfly          | N | 1   | 3 |
| <i>Hyalellidae</i>     | Sideswimmer            | A | 10  | 8 |
| <i>Hydropsychidae</i>  | Net-spinning Caddisfly | L | 9   | 5 |
| <i>Leptophlebiidae</i> | Mayfly                 | N | 6   | 4 |
| <i>Limnephilidae</i>   | Northern Caddisfly     | L | 3   | 4 |
| <i>Muscidae</i>        | Muscid Fly             | L | 6   | 6 |
| <i>Nematoda</i>        | Thread Worm            | A | 1   | 5 |
| <i>Nemouridae</i>      | Stonefly               | N | 7   | 2 |
| <i>Oligochaeta</i>     | Aquatic Worm           | A | 2   | 8 |
| <i>Physidae</i>        | Pouch Snail            | A | 4   | 8 |
| <i>Pisidiidae</i>      | Fingemail Clam         | A | 1   | 6 |
| <i>Pyralidae</i>       | Pyralid Moth           | L | 1   | 5 |



| Taxonomic Name          | Common Name         | Life Stage  | # in Subsample             | Biotic Index |
|-------------------------|---------------------|-------------|----------------------------|--------------|
| <i>Rhyacophilidae</i>   | Primitive Caddisfly | L           | 10                         | 1            |
| <i>Simuliidae</i>       | Black Fly           | L           | 1                          | 5            |
| <i>Taeniopterygidae</i> | Stonefly            | N           | 3                          | 2            |
| <i>Tipulidae</i>        | Crane Fly           | L           | 1                          | 4            |
| <b>Stream Health</b>    |                     | <b>Fair</b> | <b>Family Biotic Index</b> | <b>5.59</b>  |

**Sampled - 5/28/2008**

REP: 1

|                       |                          |             |                            |             |
|-----------------------|--------------------------|-------------|----------------------------|-------------|
| <i>Acariformes</i>    | Water Mite               | A           | 6                          | 6           |
| <i>Baetidae</i>       | Small Mayfly             | N           | 18                         | 6           |
| <i>Capniidae</i>      | Stonefly                 | N           | 16                         | 3           |
| <i>Chironomidae</i>   | Midge                    | L           | 155                        | 6           |
| <i>Chironomidae</i>   | Midge                    | P           | 9                          | 6           |
| <i>Dytiscidae</i>     | Predacious Diving Beetle | L           | 1                          | 5           |
| <i>Elmidae</i>        | Riffle Beetle            | A           | 9                          | 5           |
| <i>Elmidae</i>        | Riffle Beetle            | L           | 26                         | 5           |
| <i>Empididae</i>      | Dance Fly                | L           | 6                          | 6           |
| <i>Hyalellidae</i>    | Sideswimmer              | A           | 2                          | 8           |
| <i>Limnephilidae</i>  | Northern Caddisfly       | L           | 1                          | 4           |
| <i>Nematoda</i>       | Thread Worm              | A           | 1                          | 5           |
| <i>Nemouridae</i>     | Stonefly                 | N           | 8                          | 2           |
| <i>Oligochaeta</i>    | Aquatic Worm             | A           | 6                          | 8           |
| <i>Perlodidae</i>     | Stonefly                 | N           | 1                          | 2           |
| <i>Philopotamidae</i> | Finger-net Caddisfly     | L           | 1                          | 4           |
| <i>Pisidiidae</i>     | Fingernail Clam          | A           | 11                         | 6           |
| <i>Simuliidae</i>     | Black Fly                | L           | 10                         | 5           |
| <b>Stream Health</b>  |                          | <b>Fair</b> | <b>Family Biotic Index</b> | <b>5.59</b> |

**Sampled - 10/3/2008**

REP: 1

|                         |                                 |             |                            |             |
|-------------------------|---------------------------------|-------------|----------------------------|-------------|
| <i>Acariformes</i>      | Water Mite                      | A           | 22                         | 6           |
| <i>Caenidae</i>         | Crawling Mayfly                 | N           | 1                          | 6           |
| <i>Capniidae</i>        | Stonefly                        | N           | 2                          | 3           |
| <i>Ceratopogonidae</i>  | Biting Midge                    | L           | 4                          | 6           |
| <i>Chironomidae</i>     | Midge                           | L           | 115                        | 6           |
| <i>Chironomidae</i>     | Midge                           | P           | 15                         | 6           |
| <i>Elmidae</i>          | Riffle Beetle                   | L           | 53                         | 5           |
| <i>Elmidae</i>          | Riffle Beetle                   | A           | 1                          | 5           |
| <i>Empididae</i>        | Dance Fly                       | L           | 10                         | 6           |
| <i>Gammaridae</i>       | Sideswimmer                     | A           | 10                         | 6           |
| <i>Glossosomatidae</i>  | Caddisfly                       | L           | 1                          | 1           |
| <i>Hyalellidae</i>      | Sideswimmer                     | A           | 9                          | 8           |
| <i>Hydropsychidae</i>   | Net-spinning Caddisfly          | L           | 22                         | 5           |
| <i>Lepidostomatidae</i> | <i>Lepidostomatid</i> Caddisfly | L           | 6                          | 1           |
| <i>Leptoceridae</i>     | Long-horned Caddisfly           | L           | 1                          | 4           |
| <i>Leptophlebiidae</i>  | Mayfly                          | N           | 8                          | 4           |
| <i>Molannidae</i>       |                                 | L           | 1                          | 6           |
| <i>Nematoda</i>         | Thread Worm                     | A           | 4                          | 5           |
| <i>Nemouridae</i>       | Stonefly                        | N           | 10                         | 2           |
| <i>Oligochaeta</i>      | Aquatic Worm                    | A           | 4                          | 8           |
| <i>Physidae</i>         | Pouch Snail                     | A           | 1                          | 8           |
| <i>Pisidiidae</i>       | Fingernail Clam                 | A           | 6                          | 6           |
| <i>Planorbidae</i>      | Orb Snail                       | A           | 1                          | 6           |
| <i>Rhyacophilidae</i>   | Primitive Caddisfly             | L           | 16                         | 1           |
| <i>Taeniopterygidae</i> | Stonefly                        | N           | 5                          | 2           |
| <i>Turbellaria</i>      | Flatworm                        | A           | 2                          | 6           |
| <b>Stream Health</b>    |                                 | <b>Fair</b> | <b>Family Biotic Index</b> | <b>5.24</b> |

**Sampled - 6/9/2009**

|                         |                          | REP: 1      |                            |             |
|-------------------------|--------------------------|-------------|----------------------------|-------------|
| <i>Acariformes</i>      | Water Mite               | A           | 4                          | 6           |
| <i>Baetidae</i>         | Small Mayfly             | N           | 44                         | 6           |
| <i>Capniidae</i>        | Stonefly                 | N           | 18                         | 3           |
| <i>Ceratopogonidae</i>  | Biting Midge             | L           | 7                          | 6           |
| <i>Chironomidae</i>     | Midge                    | P           | 7                          | 6           |
| <i>Chironomidae</i>     | Midge                    | L           | 186                        | 6           |
| <i>Corixidae</i>        | Water Boatmen            | A           | 1                          | 5           |
| <i>Dytiscidae</i>       | Predacious Diving Beetle | L           | 1                          | 5           |
| <i>Elmidae</i>          | Riffle Beetle            | A           | 2                          | 5           |
| <i>Elmidae</i>          | Riffle Beetle            | L           | 4                          | 5           |
| <i>Empididae</i>        | Dance Fly                | L           | 2                          | 6           |
| <i>Heptageniidae</i>    | Stream Mayfly            | N           | 3                          | 3           |
| <i>Hyalellidae</i>      | Sideswimmer              | A           | 1                          | 8           |
| <i>Hydropsychidae</i>   | Net-spinning Caddisfly   | L           | 3                          | 5           |
| <i>Hydroptilidae</i>    | Micro-caddisfly          | L           | 2                          | 6           |
| <i>Muscidae</i>         | Muscid Fly               | L           | 1                          | 6           |
| <i>Nematoda</i>         | Thread Worm              | A           | 3                          | 5           |
| <i>Oligochaeta</i>      | Aquatic Worm             | A           | 12                         | 8           |
| <i>Pisidiidae</i>       | Fingemail Clam           | A           | 3                          | 6           |
| <i>Simuliidae</i>       | Black Fly                | L           | 63                         | 5           |
| <i>Taeniopterygidae</i> | Stonefly                 | N           | 1                          | 2           |
| <i>Tipulidae</i>        | Crane Fly                | L           | 1                          | 4           |
| <b>Stream Health</b>    |                          | <b>Fair</b> | <b>Family Biotic Index</b> | <b>5.67</b> |

**Sampled - 9/29/2009**

|                         |                        | REP: 1      |                            |             |
|-------------------------|------------------------|-------------|----------------------------|-------------|
| <i>Acariformes</i>      | Water Mite             | A           | 6                          | 6           |
| <i>Baetidae</i>         | Small Mayfly           | N           | 2                          | 6           |
| <i>Caenidae</i>         | Crawling Mayfly        | N           | 2                          | 6           |
| <i>Ceratopogonidae</i>  | Biting Midge           | L           | 3                          | 6           |
| <i>Chironomidae</i>     | Midge                  | L           | 208                        | 6           |
| <i>Chironomidae</i>     | Midge                  | P           | 14                         | 6           |
| <i>Elmidae</i>          | Riffle Beetle          | L           | 39                         | 5           |
| <i>Elmidae</i>          | Riffle Beetle          | A           | 2                          | 5           |
| <i>Empididae</i>        | Dance Fly              | L           | 9                          | 6           |
| <i>Gammaridae</i>       | Sideswimmer            | A           | 4                          | 6           |
| <i>Hyalellidae</i>      | Sideswimmer            | A           | 1                          | 8           |
| <i>Hydropsychidae</i>   | Net-spinning Caddisfly | L           | 16                         | 5           |
| <i>Limnephilidae</i>    | Northern Caddisfly     | L           | 2                          | 4           |
| <i>Nematoda</i>         | Thread Worm            | A           | 7                          | 5           |
| <i>Nemouridae</i>       | Stonefly               | N           | 1                          | 2           |
| <i>Oligochaeta</i>      | Aquatic Worm           | A           | 1                          | 8           |
| <i>Pisidiidae</i>       | Fingemail Clam         | A           | 3                          | 6           |
| <i>Planorbidae</i>      | Orb Snail              | A           | 1                          | 6           |
| <i>Rhyacophilidae</i>   | Primitive Caddisfly    | L           | 2                          | 1           |
| <i>Simuliidae</i>       | Black Fly              | L           | 1                          | 5           |
| <i>Taeniopterygidae</i> | Stonefly               | N           | 4                          | 2           |
| <b>Stream Health</b>    |                        | <b>Fair</b> | <b>Family Biotic Index</b> | <b>5.71</b> |

**Sampled - 5/18/2010**

|                     |              | REP: 1 |    |   |
|---------------------|--------------|--------|----|---|
| <i>Acariformes</i>  | Water Mite   | A      | 9  | 6 |
| <i>Baetidae</i>     | Small Mayfly | N      | 27 | 6 |
| <i>Capniidae</i>    | Stonefly     | N      | 47 | 3 |
| <i>Chironomidae</i> | Midge        | L      | 80 | 6 |

|                         |                               |   |    |    |
|-------------------------|-------------------------------|---|----|----|
| <i>Chironomidae</i>     | Midge                         | P | 6  | 6  |
| <i>Dytiscidae</i>       | Predacious Diving Beetle      | L | 1  | 5  |
| <i>Elmidae</i>          | Riffle Beetle                 | A | 7  | 5  |
| <i>Elmidae</i>          | Riffle Beetle                 | L | 38 | 5  |
| <i>Empididae</i>        | Dance Fly                     | L | 8  | 6  |
| <i>Heptageniidae</i>    | Stream Mayfly                 | N | 1  | 3  |
| <i>Hyalellidae</i>      | Sideswimmer                   | A | 1  | 8  |
| <i>Hydropsychidae</i>   | Net-spinning Caddisfly        | L | 1  | 5  |
| <i>Lepidostomatidae</i> | <i>Lepidostatid</i> Caddisfly | L | 1  | 1  |
| <i>Limnephilidae</i>    | Northern Caddisfly            | L | 6  | 4  |
| <i>Nematoda</i>         | Thread Worm                   | A | 10 | 5  |
| <i>Nemouridae</i>       | Stonefly                      | N | 16 | 2  |
| <i>Oligochaeta</i>      | Aquatic Worm                  | A | 5  | 8  |
| <i>Philopotamidae</i>   | Finger-net Caddisfly          | L | 1  | 4  |
| <i>Pisidiidae</i>       | Fingemail Clam                | A | 5  | 6  |
| <i>Rhyacophilidae</i>   | Primitive Caddisfly           | L | 2  | 1  |
| <i>Simuliidae</i>       | Black Fly                     | P | 4  | 5  |
| <i>Simuliidae</i>       | Black Fly                     | L | 29 | 5  |
| <i>Taeniopterygidae</i> | Stonefly                      | N | 1  | 2  |
| <i>Tipulidae</i>        | Crane Fly                     | L | 1  | 4  |
| <i>Veliidae</i>         | Ripple Bug                    | A | 1  | -1 |

**Stream Health      Good      Family Biotic Index      4.94**

**Sampled - 6/15/2010**

REP: 2

|                         |                               |   |     |   |
|-------------------------|-------------------------------|---|-----|---|
| <i>Acariformes</i>      | Water Mite                    | A | 4   | 6 |
| <i>Baetidae</i>         | Small Mayfly                  | N | 28  | 6 |
| <i>Capniidae</i>        | Stonefly                      | N | 24  | 3 |
| <i>Ceratopogonidae</i>  | Biting Midge                  | L | 2   | 6 |
| <i>Chironomidae</i>     | Midge                         | L | 163 | 6 |
| <i>Chironomidae</i>     | Midge                         | P | 4   | 6 |
| <i>Chloroperlidae</i>   | Stonefly                      | N | 1   | 0 |
| <i>Dytiscidae</i>       | Predacious Diving Beetle      | L | 2   | 5 |
| <i>Elmidae</i>          | Riffle Beetle                 | L | 28  | 5 |
| <i>Elmidae</i>          | Riffle Beetle                 | A | 2   | 5 |
| <i>Empididae</i>        | Dance Fly                     | L | 12  | 6 |
| <i>Hydroptilidae</i>    | Micro-caddisfly               | L | 2   | 6 |
| <i>Lepidostomatidae</i> | <i>Lepidostatid</i> Caddisfly | L | 2   | 1 |
| <i>Nematoda</i>         | Thread Worm                   | A | 1   | 5 |
| <i>Nemouridae</i>       | Stonefly                      | N | 3   | 2 |
| <i>Oligochaeta</i>      | Aquatic Worm                  | A | 5   | 8 |
| <i>Pisidiidae</i>       | Fingemail Clam                | A | 2   | 6 |
| <i>Simuliidae</i>       | Black Fly                     | L | 28  | 5 |
| <i>Tipulidae</i>        | Crane Fly                     | L | 2   | 4 |

**Stream Health      Fair      Family Biotic Index      5.51**

**Sampled - 10/5/2010**

REP: 1

|                        |                        |   |     |   |
|------------------------|------------------------|---|-----|---|
| <i>Acariformes</i>     | Water Mite             | A | 24  | 6 |
| <i>Baetidae</i>        | Small Mayfly           | N | 3   | 6 |
| <i>Ceratopogonidae</i> | Biting Midge           | L | 2   | 6 |
| <i>Chironomidae</i>    | Midge                  | P | 14  | 6 |
| <i>Chironomidae</i>    | Midge                  | L | 124 | 6 |
| <i>Elmidae</i>         | Riffle Beetle          | L | 52  | 5 |
| <i>Elmidae</i>         | Riffle Beetle          | A | 2   | 5 |
| <i>Empididae</i>       | Dance Fly              | L | 8   | 6 |
| <i>Hyalellidae</i>     | Sideswimmer            | A | 6   | 8 |
| <i>Hydropsychidae</i>  | Net-spinning Caddisfly | L | 57  | 5 |

|                         |                               |             |                            |             |
|-------------------------|-------------------------------|-------------|----------------------------|-------------|
| <i>Hydroptilidae</i>    | Micro-caddisfly               | L           | 1                          | 6           |
| <i>Lepidostomatidae</i> | <i>Lepidostatid</i> Caddisfly | L           | 2                          | 1           |
| <i>Leptophlebiidae</i>  | Mayfly                        | N           | 1                          | 4           |
| <i>Nematoda</i>         | Thread Worm                   | A           | 1                          | 5           |
| <i>Nemouridae</i>       | Stonefly                      | N           | 7                          | 2           |
| <i>Oligochaeta</i>      | Aquatic Worm                  | A           | 3                          | 8           |
| <i>Philopotamidae</i>   | Finger-net Caddisfly          | L           | 3                          | 4           |
| <i>Pisidiidae</i>       | Fingernail Clam               | A           | 4                          | 6           |
| <i>Rhyacophilidae</i>   | Primitive Caddisfly           | L           | 5                          | 1           |
| <i>Sialidae</i>         | Alderfly                      | N           | 1                          | 4           |
| <i>Simuliidae</i>       | Black Fly                     | L           | 2                          | 5           |
| <i>Taeniopterygidae</i> | Stonefly                      | N           | 6                          | 2           |
| <i>Tipulidae</i>        | Crane Fly                     | L           | 2                          | 4           |
|                         | <b>Stream Health</b>          | <b>Fair</b> | <b>Family Biotic Index</b> | <b>5.40</b> |

**Sampled - 5/10/2011**

|                         |                               |             |                            |             |
|-------------------------|-------------------------------|-------------|----------------------------|-------------|
|                         | REP: 1                        |             |                            |             |
| <i>Acariformes</i>      | Water Mite                    | A           | 15                         | 6           |
| <i>Baetidae</i>         | Small Mayfly                  | N           | 28                         | 6           |
| <i>Capniidae</i>        | Stonefly                      | N           | 62                         | 3           |
| <i>Ceratopogonidae</i>  | Biting Midge                  | L           | 1                          | 6           |
| <i>Chironomidae</i>     | Midge                         | L           | 63                         | 6           |
| <i>Chironomidae</i>     | Midge                         | P           | 7                          | 6           |
| <i>Elmidae</i>          | Riffle Beetle                 | A           | 9                          | 5           |
| <i>Elmidae</i>          | Riffle Beetle                 | L           | 48                         | 5           |
| <i>Empididae</i>        | Dance Fly                     | P           | 1                          | 6           |
| <i>Empididae</i>        | Dance Fly                     | L           | 12                         | 6           |
| <i>Hyalellidae</i>      | Sideswimmer                   | A           | 8                          | 8           |
| <i>Hydropsychidae</i>   | Net-spinning Caddisfly        | L           | 1                          | 5           |
| <i>Lepidostomatidae</i> | <i>Lepidostatid</i> Caddisfly | L           | 7                          | 1           |
| <i>Limnephilidae</i>    | Northern Caddisfly            | L           | 3                          | 4           |
| <i>Nematoda</i>         | Thread Worm                   | A           | 1                          | 5           |
| <i>Nemouridae</i>       | Stonefly                      | N           | 42                         | 2           |
| <i>Oligochaeta</i>      | Aquatic Worm                  | A           | 7                          | 8           |
| <i>Physidae</i>         | Pouch Snail                   | A           | 1                          | 8           |
| <i>Pisidiidae</i>       | Fingernail Clam               | A           | 2                          | 6           |
| <i>Rhyacophilidae</i>   | Primitive Caddisfly           | L           | 1                          | 1           |
| <i>Tipulidae</i>        | Crane Fly                     | L           | 4                          | 4           |
|                         | <b>Stream Health</b>          | <b>Good</b> | <b>Family Biotic Index</b> | <b>4.65</b> |

**Sampled - 9/28/2011**

|                         |                               |   |     |   |
|-------------------------|-------------------------------|---|-----|---|
|                         | REP: 1                        |   |     |   |
| <i>Acariformes</i>      | Water Mite                    | A | 21  | 6 |
| <i>Baetidae</i>         | Small Mayfly                  | N | 1   | 6 |
| <i>Caenidae</i>         | Crawling Mayfly               | N | 1   | 6 |
| <i>Ceratopogonidae</i>  | Biting Midge                  | L | 1   | 6 |
| <i>Chironomidae</i>     | Midge                         | P | 21  | 6 |
| <i>Chironomidae</i>     | Midge                         | L | 201 | 6 |
| <i>Elmidae</i>          | Riffle Beetle                 | L | 14  | 5 |
| <i>Empididae</i>        | Dance Fly                     | L | 8   | 6 |
| <i>Hyalellidae</i>      | Sideswimmer                   | A | 8   | 8 |
| <i>Hydropsychidae</i>   | Net-spinning Caddisfly        | L | 7   | 5 |
| <i>Lepidostomatidae</i> | <i>Lepidostatid</i> Caddisfly | L | 1   | 1 |
| <i>Leptophlebiidae</i>  | Mayfly                        | N | 2   | 4 |
| <i>Nematoda</i>         | Thread Worm                   | A | 1   | 5 |
| <i>Nemouridae</i>       | Stonefly                      | N | 3   | 2 |
| <i>Oligochaeta</i>      | Aquatic Worm                  | A | 5   | 8 |
| <i>Pisidiidae</i>       | Fingernail Clam               | A | 3   | 6 |

| Taxonomic Name          | Common Name         | Life Stage | # in Subsample | Biotic Index |
|-------------------------|---------------------|------------|----------------|--------------|
| <i>Rhyacophilidae</i>   | Primitive Caddisfly | L          | 3              | 1            |
| <i>Taeniopterygidae</i> | Stonefly            | N          | 4              | 2            |
| <i>Tipulidae</i>        | Crane Fly           | L          | 1              | 4            |

**Stream Health      Fairly Poor      Family Biotic Index      5.84**

**Sampled - 5/9/2012**

REP: 1

|                         |                               |   |     |   |
|-------------------------|-------------------------------|---|-----|---|
| <i>Acariformes</i>      | Water Mite                    | A | 11  | 6 |
| <i>Asellidae</i>        | Sow Bug                       | A | 10  | 8 |
| <i>Baetidae</i>         | Small Mayfly                  | N | 41  | 6 |
| <i>Capniidae</i>        | Stonefly                      | N | 22  | 3 |
| <i>Ceratopogonidae</i>  | Biting Midge                  | L | 3   | 6 |
| <i>Chironomidae</i>     | Midge                         | L | 151 | 6 |
| <i>Chironomidae</i>     | Midge                         | P | 1   | 6 |
| <i>Dytiscidae</i>       | Predacious Diving Beetle      | A | 2   | 5 |
| <i>Elmidae</i>          | Riffle Beetle                 | L | 30  | 5 |
| <i>Elmidae</i>          | Riffle Beetle                 | A | 6   | 5 |
| <i>Empididae</i>        | Dance Fly                     | L | 8   | 6 |
| <i>Gammaridae</i>       | Sideswimmer                   | A | 2   | 6 |
| <i>Hydropsychidae</i>   | Net-spinning Caddisfly        | L | 1   | 5 |
| <i>Hydroptilidae</i>    | Micro-caddisfly               | L | 1   | 6 |
| <i>Lepidostomatidae</i> | <i>Lepidostatid</i> Caddisfly | L | 1   | 1 |
| <i>Leuctridae</i>       | Stonefly                      | N | 14  | 0 |
| <i>Nematoda</i>         | Thread Worm                   | A | 1   | 5 |
| <i>Nemouridae</i>       | Stonefly                      | N | 47  | 2 |
| <i>Oligochaeta</i>      | Aquatic Worm                  | A | 1   | 8 |
| <i>Philopotamidae</i>   | Finger-net Caddisfly          | L | 8   | 4 |
| <i>Pisidiidae</i>       | Fingemail Clam                | A | 3   | 6 |
| <i>Simuliidae</i>       | Black Fly                     | L | 6   | 5 |
| <i>Simuliidae</i>       | Black Fly                     | P | 1   | 5 |
| <i>Tipulidae</i>        | Crane Fly                     | L | 1   | 4 |

**Stream Health      Good      Family Biotic Index      4.96**

**Sampled - 9/26/2012**

REP: 1

|                       |                        |   |     |   |
|-----------------------|------------------------|---|-----|---|
| <i>Acariformes</i>    | Water Mite             | A | 12  | 6 |
| <i>Asellidae</i>      | Sow Bug                | A | 58  | 8 |
| <i>Baetidae</i>       | Small Mayfly           | N | 18  | 6 |
| <i>Capniidae</i>      | Stonefly               | N | 2   | 3 |
| <i>Chironomidae</i>   | Midge                  | P | 5   | 6 |
| <i>Chironomidae</i>   | Midge                  | L | 117 | 6 |
| <i>Elmidae</i>        | Riffle Beetle          | A | 1   | 5 |
| <i>Elmidae</i>        | Riffle Beetle          | L | 26  | 5 |
| <i>Empididae</i>      | Dance Fly              | L | 4   | 6 |
| <i>Gammaridae</i>     | Sideswimmer            | A | 5   | 6 |
| <i>Hydropsychidae</i> | Net-spinning Caddisfly | L | 43  | 5 |
| <i>Leptoceridae</i>   | Long-horned Caddisfly  | P | 1   | 4 |
| <i>Nemouridae</i>     | Stonefly               | N | 7   | 2 |
| <i>Philopotamidae</i> | Finger-net Caddisfly   | L | 2   | 4 |
| <i>Rhyacophilidae</i> | Primitive Caddisfly    | L | 1   | 1 |
| <i>Simuliidae</i>     | Black Fly              | L | 7   | 5 |

**Stream Health      Fairly Poor      Family Biotic Index      5.98**

**Sampled - 2/13/2013**

REP: 1

|                    |              |   |    |   |
|--------------------|--------------|---|----|---|
| <i>Acariformes</i> | Water Mite   | A | 5  | 6 |
| <i>Asellidae</i>   | Sow Bug      | A | 37 | 8 |
| <i>Baetidae</i>    | Small Mayfly | N | 28 | 6 |

| Taxonomic Name   | Common Name            | Life Stage | # in Subsample | Biotic Index |
|------------------|------------------------|------------|----------------|--------------|
| Capniidae        | Stonefly               | N          | 7              | 3            |
| Chironomidae     | Midge                  | L          | 114            | 6            |
| Elmidae          | Riffle Beetle          | A          | 3              | 5            |
| Elmidae          | Riffle Beetle          | L          | 11             | 5            |
| Empididae        | Dance Fly              | L          | 6              | 6            |
| Hydropsychidae   | Net-spinning Caddisfly | L          | 2              | 5            |
| Lepidostomatidae | Lepistomatid Caddisfly | L          | 10             | 1            |
| Limnephilidae    | Northern Caddisfly     | L          | 1              | 4            |
| Nemouridae       | Stonefly               | N          | 65             | 2            |
| Oligochaeta      | Aquatic Worm           | A          | 1              | 8            |
| Perlodidae       | Stonefly               | N          | 1              | 2            |
| Physidae         | Pouch Snail            | A          | 1              | 8            |
| Rhyacophilidae   | Primitive Caddisfly    | L          | 5              | 1            |
| Simuliidae       | Black Fly              | L          | 6              | 5            |
| Tabanidae        | Horse Fly              | L          | 1              | 5            |
| Taeniopterygidae | Stonefly               | N          | 1              | 2            |
| Tipulidae        | Crane Fly              | L          | 2              | 4            |
| Turbellaria      | Flatworm               | A          | 1              | 6            |
| Uenoidae         | Caddisfly              | L          | 5              | 3            |

**Stream Health      Good      Family Biotic Index      4.95**

**Sampled - 5/3/2013**

REP: 1

|                  |                        |   |    |    |
|------------------|------------------------|---|----|----|
| Acariformes      | Water Mite             | P | 3  | 6  |
| Asellidae        | Sow Bug                | A | 25 | 8  |
| Baetidae         | Small Mayfly           | N | 17 | 6  |
| Capniidae        | Stonefly               | N | 16 | 3  |
| Chironomidae     | Midge                  | P | 3  | 6  |
| Chironomidae     | Midge                  | L | 79 | 6  |
| Crangonyctidae   | Sideswimmer            | A | 1  | 6  |
| Elmidae          | Riffle Beetle          | A | 6  | 5  |
| Elmidae          | Riffle Beetle          | L | 22 | 5  |
| Empididae        | Dance Fly              | L | 7  | 6  |
| Hyalellidae      | Sideswimmer            | A | 2  | 8  |
| Hydropsychidae   | Net-spinning Caddisfly | L | 2  | 5  |
| Lepidostomatidae | Lepistomatid Caddisfly | L | 7  | 1  |
| Limnephilidae    | Northern Caddisfly     | L | 5  | 4  |
| Nematoda         | Thread Worm            | A | 2  | 5  |
| Nemouridae       | Stonefly               | N | 61 | 2  |
| Oligochaeta      | Aquatic Worm           | A | 6  | 8  |
| Physidae         | Pouch Snail            | A | 1  | 8  |
| Pisidiidae       | Fingernail Clam        | A | 1  | 6  |
| Psychodidae      | Sand Fly               | L | 1  | 10 |
| Rhyacophilidae   | Primitive Caddisfly    | L | 1  | 1  |
| Simuliidae       | Black Fly              | L | 38 | 5  |
| Simuliidae       | Black Fly              | P | 5  | 5  |
| Tipulidae        | Crane Fly              | L | 5  | 4  |
| Uenoidae         | Caddisfly              | L | 4  | 3  |

**Stream Health      Good      Family Biotic Index      4.85**

**Sampled - 9/27/2013**

REP: 1

|              |                 |   |     |   |
|--------------|-----------------|---|-----|---|
| Acariformes  | Water Mite      | A | 8   | 6 |
| Asellidae    | Sow Bug         | A | 156 | 8 |
| Baetidae     | Small Mayfly    | N | 2   | 6 |
| Caenidae     | Crawling Mayfly | N | 2   | 6 |
| Chironomidae | Midge           | L | 36  | 6 |
| Chironomidae | Midge           | P | 7   | 6 |

| Taxonomic Name          | Common Name                   | Life Stage | # in Subsample | Biotic Index |
|-------------------------|-------------------------------|------------|----------------|--------------|
| <i>Collembola</i>       | Springtail                    | A          | 2              | 5            |
| <i>Dixidae</i>          | Dixa Fly                      | L          | 1              | 1            |
| <i>Elmidae</i>          | Riffle Beetle                 | A          | 8              | 5            |
| <i>Elmidae</i>          | Riffle Beetle                 | L          | 34             | 5            |
| <i>Empididae</i>        | Dance Fly                     | L          | 9              | 6            |
| <i>Glossosomatidae</i>  | Caddisfly                     | L          | 1              | 1            |
| <i>Heptageniidae</i>    | Stream Mayfly                 | N          | 1              | 3            |
| <i>Hyalellidae</i>      | Sideswimmer                   | A          | 3              | 8            |
| <i>Hydropsychidae</i>   | Net-spinning Caddisfly        | L          | 39             | 5            |
| <i>Lepidostomatidae</i> | <i>Lepidostatid</i> Caddisfly | L          | 1              | 1            |
| <i>Limnephilidae</i>    | Northern Caddisfly            | L          | 2              | 4            |
| <i>Nemouridae</i>       | Stonefly                      | N          | 7              | 2            |
| <i>Oligochaeta</i>      | Aquatic Worm                  | A          | 3              | 8            |
| <i>Physidae</i>         | Pouch Snail                   | A          | 2              | 8            |
| <i>Rhyacophilidae</i>   | Primitive Caddisfly           | L          | 1              | 1            |
| <i>Simuliidae</i>       | Black Fly                     | L          | 1              | 5            |
| <i>Tabanidae</i>        | Horse Fly                     | L          | 1              | 5            |
| <i>Tipulidae</i>        | Crane Fly                     | L          | 1              | 4            |

**Stream Health      Poor      Family Biotic Index      6.57**

**Sampled - 5/8/2014**

REP: 1

|                         |                               |   |    |   |
|-------------------------|-------------------------------|---|----|---|
| <i>Acariformes</i>      | Water Mite                    | A | 6  | 6 |
| <i>Asellidae</i>        | Sow Bug                       | A | 25 | 8 |
| <i>Baetidae</i>         | Small Mayfly                  | N | 11 | 6 |
| <i>Capniidae</i>        | Stonefly                      | N | 33 | 3 |
| <i>Ceratopogonidae</i>  | Biting Midge                  | L | 1  | 6 |
| <i>Chironomidae</i>     | Midge                         | L | 14 | 6 |
| <i>Dytiscidae</i>       | Predacious Diving Beetle      | L | 1  | 5 |
| <i>Elmidae</i>          | Riffle Beetle                 | A | 9  | 5 |
| <i>Elmidae</i>          | Riffle Beetle                 | L | 50 | 5 |
| <i>Empididae</i>        | Dance Fly                     | L | 29 | 6 |
| <i>Glossosomatidae</i>  | Caddisfly                     | L | 2  | 1 |
| <i>Halipidae</i>        | Crawling Water Beetle         | A | 1  | 5 |
| <i>Hydropsychidae</i>   | Net-spinning Caddisfly        | L | 2  | 5 |
| <i>Lepidostomatidae</i> | <i>Lepidostatid</i> Caddisfly | L | 1  | 1 |
| <i>Limnephilidae</i>    | Northern Caddisfly            | L | 2  | 4 |
| <i>Nematoda</i>         | Thread Worm                   | A | 7  | 5 |
| <i>Nemouridae</i>       | Stonefly                      | N | 72 | 2 |
| <i>Oligochaeta</i>      | Aquatic Worm                  | A | 13 | 8 |
| <i>Perlodidae</i>       | Stonefly                      | N | 3  | 2 |
| <i>Pisidiidae</i>       | Fingemail Clam                | A | 1  | 6 |
| <i>Planorbidae</i>      | Orb Snail                     | A | 1  | 6 |
| <i>Rhyacophilidae</i>   | Primitive Caddisfly           | L | 4  | 1 |
| <i>Simuliidae</i>       | Black Fly                     | L | 28 | 5 |
| <i>Simuliidae</i>       | Black Fly                     | P | 1  | 5 |
| <i>Tabanidae</i>        | Horse Fly                     | L | 2  | 5 |
| <i>Uenoidae</i>         | Caddisfly                     | L | 6  | 3 |

**Stream Health      Good      Family Biotic Index      4.52**

**Sampled - 9/26/2014**

REP: 1

|                     |               |   |    |   |
|---------------------|---------------|---|----|---|
| <i>Acariformes</i>  | Water Mite    | A | 6  | 6 |
| <i>Asellidae</i>    | Sow Bug       | A | 41 | 8 |
| <i>Baetidae</i>     | Small Mayfly  | N | 12 | 6 |
| <i>Chironomidae</i> | Midge         | L | 72 | 6 |
| <i>Chironomidae</i> | Midge         | P | 10 | 6 |
| <i>Elmidae</i>      | Riffle Beetle | L | 38 | 5 |

| Taxonomic Name          | Common Name                   | Life Stage  | # in Subsample             | Biotic Index |
|-------------------------|-------------------------------|-------------|----------------------------|--------------|
| <i>Elmidae</i>          | Riffle Beetle                 | A           | 2                          | 5            |
| <i>Empididae</i>        | Dance Fly                     | L           | 13                         | 6            |
| <i>Glossosomatidae</i>  | Caddisfly                     | L           | 6                          | 1            |
| <i>Hydropsychidae</i>   | Net-spinning Caddisfly        | L           | 73                         | 5            |
| <i>Lepidostomatidae</i> | <i>Lepidostatid</i> Caddisfly | L           | 4                          | 1            |
| <i>Leptophlebiidae</i>  | Mayfly                        | N           | 3                          | 4            |
| <i>Limnephilidae</i>    | Northern Caddisfly            | L           | 1                          | 4            |
| <i>Nemouridae</i>       | Stonefly                      | N           | 17                         | 2            |
| <i>Oligochaeta</i>      | Aquatic Worm                  | A           | 3                          | 8            |
| <i>Philopotamidae</i>   | Finger-net Caddisfly          | L           | 1                          | 4            |
| <i>Rhyacophilidae</i>   | Primitive Caddisfly           | L           | 8                          | 1            |
| <i>Simuliidae</i>       | Black Fly                     | L           | 3                          | 5            |
| <i>Tipulidae</i>        | Crane Fly                     | L           | 1                          | 4            |
| <i>Turbellaria</i>      | Flatworm                      | A           | 1                          | 6            |
| <b>Stream Health</b>    |                               | <b>Fair</b> | <b>Family Biotic Index</b> | <b>5.37</b>  |

**Sampled - 5/8/2015**

|                         |                               |             |                            |             |
|-------------------------|-------------------------------|-------------|----------------------------|-------------|
| REP: 1                  |                               |             |                            |             |
| <i>Acariformes</i>      | Water Mite                    | A           | 2                          | 6           |
| <i>Asellidae</i>        | Sow Bug                       | A           | 6                          | 8           |
| <i>Baetidae</i>         | Small Mayfly                  | N           | 54                         | 6           |
| <i>Capniidae</i>        | Stonefly                      | N           | 36                         | 3           |
| <i>Ceratopogonidae</i>  | Biting Midge                  | L           | 2                          | 6           |
| <i>Chironomidae</i>     | Midge                         | L           | 26                         | 6           |
| <i>Dytiscidae</i>       | Predacious Diving Beetle      | L           | 1                          | 5           |
| <i>Elmidae</i>          | Riffle Beetle                 | L           | 32                         | 5           |
| <i>Elmidae</i>          | Riffle Beetle                 | A           | 8                          | 5           |
| <i>Empididae</i>        | Dance Fly                     | L           | 48                         | 6           |
| <i>Heptageniidae</i>    | Stream Mayfly                 | N           | 1                          | 3           |
| <i>Hyalellidae</i>      | Sideswimmer                   | A           | 1                          | 8           |
| <i>Hydropsychidae</i>   | Net-spinning Caddisfly        | L           | 4                          | 5           |
| <i>Lepidostomatidae</i> | <i>Lepidostatid</i> Caddisfly | L           | 10                         | 1           |
| <i>Limnephilidae</i>    | Northern Caddisfly            | L           | 3                          | 4           |
| <i>Nematoda</i>         | Thread Worm                   | A           | 6                          | 5           |
| <i>Nemouridae</i>       | Stonefly                      | N           | 48                         | 2           |
| <i>Oligochaeta</i>      | Aquatic Worm                  | A           | 5                          | 8           |
| <i>Philopotamidae</i>   | Finger-net Caddisfly          | L           | 1                          | 4           |
| <i>Pisidiidae</i>       | Fingernail Clam               | A           | 2                          | 6           |
| <i>Rhyacophilidae</i>   | Primitive Caddisfly           | L           | 1                          | 1           |
| <i>Simuliidae</i>       | Black Fly                     | L           | 21                         | 5           |
| <i>Simuliidae</i>       | Black Fly                     | P           | 4                          | 5           |
| <i>Tabanidae</i>        | Horse Fly                     | L           | 1                          | 5           |
| <i>Tipulidae</i>        | Crane Fly                     | L           | 2                          | 4           |
| <i>Uenoidae</i>         | Caddisfly                     | L           | 3                          | 3           |
| <b>Stream Health</b>    |                               | <b>Good</b> | <b>Family Biotic Index</b> | <b>4.68</b> |

**Sampled - 9/23/2015**

|                        |               |   |     |   |
|------------------------|---------------|---|-----|---|
| REP: 1                 |               |   |     |   |
| <i>Asellidae</i>       | Sow Bug       | A | 27  | 8 |
| <i>Baetidae</i>        | Small Mayfly  | N | 15  | 6 |
| <i>Capniidae</i>       | Stonefly      | N | 2   | 3 |
| <i>Chironomidae</i>    | Midge         | L | 138 | 6 |
| <i>Chironomidae</i>    | Midge         | P | 8   | 6 |
| <i>Elmidae</i>         | Riffle Beetle | A | 4   | 5 |
| <i>Elmidae</i>         | Riffle Beetle | L | 56  | 5 |
| <i>Empididae</i>       | Dance Fly     | P | 1   | 6 |
| <i>Empididae</i>       | Dance Fly     | L | 10  | 6 |
| <i>Glossosomatidae</i> | Caddisfly     | L | 3   | 1 |



| Taxonomic Name        | Common Name            | Life Stage  | # in Subsample             | Biotic Index |
|-----------------------|------------------------|-------------|----------------------------|--------------|
| <i>Hyalellidae</i>    | Sideswimmer            | A           | 1                          | 8            |
| <i>Hydropsychidae</i> | Net-spinning Caddisfly | L           | 36                         | 5            |
| <i>Hydroptilidae</i>  | Micro-caddisfly        | L           | 3                          | 6            |
| <i>Limnephilidae</i>  | Northern Caddisfly     | L           | 4                          | 4            |
| <i>Nematoda</i>       | Thread Worm            | A           | 1                          | 5            |
| <i>Nemouridae</i>     | Stonefly               | N           | 14                         | 2            |
| <i>Oligochaeta</i>    | Aquatic Worm           | A           | 3                          | 8            |
| <i>Perlodidae</i>     | Stonefly               | N           | 2                          | 2            |
| <i>Philopotamidae</i> | Finger-net Caddisfly   | L           | 1                          | 4            |
| <i>Pisidiidae</i>     | Fingernail Clam        | A           | 1                          | 6            |
| <i>Planorbidae</i>    | Orb Snail              | A           | 1                          | 6            |
| <i>Rhyacophilidae</i> | Primitive Caddisfly    | L           | 4                          | 1            |
| <i>Simuliidae</i>     | Black Fly              | P           | 1                          | 5            |
| <i>Simuliidae</i>     | Black Fly              | L           | 5                          | 5            |
| <i>Tabanidae</i>      | Horse Fly              | L           | 1                          | 5            |
| <i>Tipulidae</i>      | Crane Fly              | L           | 2                          | 4            |
| <b>Stream Health</b>  |                        | <b>Fair</b> | <b>Family Biotic Index</b> | <b>5.53</b>  |

### Harrington Creek downstream of dam

Site code: TR41

UTM X: 500623

UTM Y: 4787599

Sampled - 10/18/2010

REP: 1

|                        |                         |             |                            |             |
|------------------------|-------------------------|-------------|----------------------------|-------------|
| <i>Acariformes</i>     | Water Mite              | A           | 10                         | 6           |
| <i>Brachycentridae</i> | Brachycentrid Caddisfly | L           | 1                          | 2           |
| <i>Chironomidae</i>    | Midge                   | P           | 29                         | 6           |
| <i>Elmidae</i>         | Riffle Beetle           | A           | 1                          | 5           |
| <i>Elmidae</i>         | Riffle Beetle           | L           | 22                         | 5           |
| <i>Empididae</i>       | Dance Fly               | L           | 2                          | 6           |
| <i>Hydropsychidae</i>  | Net-spinning Caddisfly  | L           | 99                         | 5           |
| <i>Nematoda</i>        | Thread Worm             | A           | 3                          | 5           |
| <i>Oligochaeta</i>     | Aquatic Worm            | A           | 6                          | 8           |
| <i>Philopotamidae</i>  | Finger-net Caddisfly    | L           | 19                         | 4           |
| <i>Pisidiidae</i>      | Fingernail Clam         | A           | 13                         | 6           |
| <i>Simuliidae</i>      | Black Fly               | L           | 20                         | 5           |
| <i>Tipulidae</i>       | Crane Fly               | L           | 2                          | 4           |
| <i>Turbellaria</i>     | Flatworm                | A           | 81                         | 6           |
| <i>Veliidae</i>        | Ripple Bug              | A           | 1                          | -1          |
| <b>Stream Health</b>   |                         | <b>Fair</b> | <b>Family Biotic Index</b> | <b>5.40</b> |

Sampled - 5/8/2015

REP: 1

|                        |                        |   |     |   |
|------------------------|------------------------|---|-----|---|
| <i>Acariformes</i>     | Water Mite             | A | 4   | 6 |
| <i>Asellidae</i>       | Sow Bug                | A | 9   | 8 |
| <i>Baetidae</i>        | Small Mayfly           | N | 1   | 6 |
| <i>Capniidae</i>       | Stonefly               | N | 1   | 3 |
| <i>Ceratopogonidae</i> | Biting Midge           | L | 1   | 6 |
| <i>Chironomidae</i>    | Midge                  | P | 4   | 6 |
| <i>Chironomidae</i>    | Midge                  | L | 54  | 6 |
| <i>Elmidae</i>         | Riffle Beetle          | L | 30  | 5 |
| <i>Empididae</i>       | Dance Fly              | L | 5   | 6 |
| <i>Helicopsychidae</i> | Snail-case Caddisfly   | L | 5   | 3 |
| <i>Hydropsychidae</i>  | Net-spinning Caddisfly | L | 20  | 5 |
| <i>Leptoceridae</i>    | Long-horned Caddisfly  | L | 1   | 4 |
| <i>Nematoda</i>        | Thread Worm            | A | 1   | 5 |
| <i>Oligochaeta</i>     | Aquatic Worm           | A | 147 | 8 |
| <i>Perlodidae</i>      | Stonefly               | N | 1   | 2 |
| <i>Philopotamidae</i>  | Finger-net Caddisfly   | L | 1   | 4 |

| Taxonomic Name       | Common Name     | Life Stage  | # in Subsample             | Biotic Index |
|----------------------|-----------------|-------------|----------------------------|--------------|
| <i>Pisidiidae</i>    | Fingernail Clam | A           | 20                         | 6            |
| <i>Simuliidae</i>    | Black Fly       | L           | 3                          | 5            |
| <i>Turbellaria</i>   | Flatworm        | A           | 11                         | 6            |
| <b>Stream Health</b> |                 | <b>Poor</b> | <b>Family Biotic Index</b> |              |
|                      |                 |             |                            | <b>6.73</b>  |

**Sampled - 9/23/2015**

REP: 1

|                       |                        |             |                            |             |
|-----------------------|------------------------|-------------|----------------------------|-------------|
| <i>Acariformes</i>    | Water Mite             | A           | 2                          | 6           |
| <i>Asellidae</i>      | Sow Bug                | A           | 4                          | 8           |
| <i>Baetidae</i>       | Small Mayfly           | N           | 4                          | 6           |
| <i>Chironomidae</i>   | Midge                  | P           | 1                          | 6           |
| <i>Chironomidae</i>   | Midge                  | L           | 34                         | 6           |
| <i>Elmidae</i>        | Riffle Beetle          | A           | 1                          | 5           |
| <i>Elmidae</i>        | Riffle Beetle          | L           | 28                         | 5           |
| <i>Hydropsychidae</i> | Net-spinning Caddisfly | L           | 93                         | 5           |
| <i>Nemouridae</i>     | Stonefly               | N           | 1                          | 2           |
| <i>Oligochaeta</i>    | Aquatic Worm           | A           | 19                         | 8           |
| <i>Philopotamidae</i> | Finger-net Caddisfly   | L           | 4                          | 4           |
| <i>Pisidiidae</i>     | Fingernail Clam        | A           | 19                         | 6           |
| <i>Simuliidae</i>     | Black Fly              | L           | 5                          | 5           |
| <i>Tipulidae</i>      | Crane Fly              | L           | 1                          | 4           |
| <i>Turbellaria</i>    | Flatworm               | A           | 112                        | 6           |
| <b>Stream Health</b>  |                        | <b>Fair</b> | <b>Family Biotic Index</b> |             |
|                       |                        |             |                            | <b>5.71</b> |

Benthic Samples were obtained using a Rapid Bioassessment Protocol developed by the United States Environmental Protection Agency and modified by Dr. Robert Bailey of the University of Western Ontario Zoology Department. A representative section of stream is selected, incorporating a riffle if present and sampled by moving upstream along a diagonal transect, dislodging and capturing invertebrates with a .5 mm mesh "D"- frame net.

Samples are preserved in the field and analyzed in the lab to randomly select a 100 bug subsample which is identified to the Family taxonomic level.

The biotic index is a value assigned to benthic invertebrate taxa indicating their pollution sensitivity and tolerance on a scale from 0 to 10. Lower numbers indicate pollution sensitivity and high numbers tolerance. A value of -1 indicates that no biotic index value has been assigned to these taxa.

The Family Biotic Index is the weighted average of the biotic index and number of bugs in each taxa in the sample. The water quality ranges for the FBI values are as follows: < 4.25 = Excellent; 4.25 - 5.00 = Good; 5.00 - 5.75 = Fair; 5.75 - 6.50 = Fairly Poor; 6.50 - 7.25 = Poor; and > 7.25 = Very Poor.

Report prepared - Monday, November 09, 2015

