

Appendix H: Examples of the IOWATER Assessment Forms



Chemical / Physical Assessment

* Recommended frequency – monthly *

Date _____ Time _____

IOWATER Monitor _____ # of Adults (incl. you) _____

Site Number _____ # of under 18 _____

Other Volunteers Involved _____

Was the stream dry when it was monitored? Yes _____ No _____

Weather (check all that apply)

Sunny _____ Partly Sunny _____ Cloudy _____ Rain/Snow _____ Windy _____ Calm _____

Water Color (check all that apply)

Clear _____ Brown _____ Green _____ Oily _____ Reddish _____ Blackish _____ Milky _____ Gray _____

Water Odor (check all that apply)

None _____ Sewage/Manure _____ Rotten Eggs _____ Petroleum _____ Musky _____

Air Temperature _____ °Fahrenheit

Precipitation _____ inches over the last 24 hours

Transparency (record whole numbers only – no tenths)

_____ centimeters

pH

Expiration date on bottom of bottle _____

check one – 4 _____ 5 _____ 6 _____ 7 _____ 8 _____ 9 _____

Nitrite-N (mg/l)

Expiration date on bottom of bottle _____

check one – 0 _____ 0.15 _____ 0.3 _____ 1.0 _____ 1.5 _____ 3 _____

Nitrate-N (mg/l)

Expiration date on bottom of bottle _____

check one – 0 _____ 1 _____ 2 _____ 5 _____ 10 _____ 20 _____ 50 _____

Dissolved Oxygen (mg/l)

Expiration date on back of color comparator _____

check one – 1 ___ 2 ___ 3 ___ 4 ___ 5 ___ 6 ___ 8 ___ 10 ___ 12 ___

Phosphate (mg/l)

Expiration date on back of color comparator _____

Expiration date on round color comparator _____

Expiration date on activator solution _____

check one – 0 ___ 0.1 ___ 0.2 ___ 0.3 ___ 0.4 ___ 0.6 ___ 0.8 ___
1 ___ 2 ___ 3 ___ 4 ___ 5 ___ 6 ___ 7 ___ 8 ___ 10 ___

Chloride

Expiration date on bottom of bottle _____

_____ mg/l – Convert Quantab Units to mg/L using the chart provided on the bottle

Water Temperature

_____ °Fahrenheit

Stream Width

____.____ meters

Maximum Stream Depth (along your transect)

____.____ meters

Stream Flow (along your transect)

_____ high _____ normal _____ low _____ not sure

Stream Depth (in meters)

1st Spot _____.____ 5th Spot _____.____ 9th Spot _____.____ 13th Spot _____.____
2nd Spot _____.____ 6th Spot _____.____ 10th Spot _____.____ 14th Spot _____.____
3rd Spot _____.____ 7th Spot _____.____ 11th Spot _____.____ 15th Spot _____.____
4th Spot _____.____ 8th Spot _____.____ 12th Spot _____.____

Stream Velocity (in seconds)

1st Spot _____ 5th Spot _____ 9th Spot _____ 13th Spot _____
2nd Spot _____ 6th Spot _____ 10th Spot _____ 14th Spot _____
3rd Spot _____ 7th Spot _____ 11th Spot _____ 15th Spot _____
4th Spot _____ 8th Spot _____ 12th Spot _____

Other Stream Assessment Observations and Notes



Biological Assessment

* Recommended frequency – no more than 3 times a year, preferably between mid-July to mid-Oct*

Date _____ Time _____

IOWATER Monitor _____ # of Adults (incl. you) _____

Site Number _____ # of under 18 _____

Other Volunteers Involved _____

Was the stream dry when it was monitored? Yes _____ No _____

____ Were Benthic Macroinvertebrates Found? (If no, please provide any relevant comments in the "Other Assessment Observations and Notes" section at the end of this form)

Benthic Macroinvertebrates (record the number of each collected, then total each group)

<u>High Quality Group</u> <i>(pollution intolerant)</i>			<u>Middle Quality Group</u> <i>(somewhat pollution tolerant)</i>			<u>Low Quality Group</u> <i>(pollution tolerant)</i>		
Tally Column	Total # found	HQ BMI	Tally Column	Total # found	MQ BMI	Tally Column	Total # found	LQ BMI
		Caddisfly			Alderfly			Aquatic Worm
		Dobsonfly			Backswimmer			Black Fly
		Mayfly			Crane Fly			Bloodworm
		Riffle Beetle			Crawdada			Flatworm
		Snail (not pouch)			Crawling Water Beetle			Leech
		Stonefly			Damselfly			Midge Fly
		Water Penny Beetle			Dragonfly			Mosquito
TOTAL		(A)			Giant Water Bug			Pouch Snail
					Limpet			Rat-tailed Maggot
					Mussels/Clams			Water Scavenger Beetle
					Orbsnail	TOTAL		(C)
					Predaceous Diving Beetle			
					Scud			
					Sowbug			
					Water Boatman			
					Water Mite			
					Water Scorpion			
					Water Strider			
					Whirligig Beetle			
			TOTAL		(B)			

____ Other _____ (no tolerance group assigned)

$$\text{Index of Biotic Integrity (IBI)} = \frac{(AX3)+(BX2)+(CX1)}{A+B+C} = \underline{\hspace{2cm}}$$

(Over)

Benthic Macroinvertebrate Collection Time (check one)

0-15 min. _____ 15-30 min. _____ 30-45 min. _____ More than 45 min. _____

Collection Nets (How many nets are you using to collect critters?)

1 _____ 2 _____ 3 _____ 4 _____ 5 _____ 6+ _____

Identification Confidence Level (Are you confident that your identification is correct?)

- _____ I'm not sure
- _____ I think they've been identified correctly
- _____ Some are definitely correct, I'm not sure about others (Please clarify in "Other Assessment Observations and Notes" section at the end of this form)
- _____ I'm fairly confident they've all been correctly identified
- _____ I guarantee they have been identified correctly

Stream Reach Length (How far along the stream did you search?)

___ 0-25 meters ___ 25-50 meters ___ 50-75 meters ___ 75-100 meters ___ 100+ meters

Microhabitats (check all present in stream reach, check if sampled)

- | | | | |
|------------------------------------|-------------------------|-------------------------------|-------------------------|
| Algae Mats | Present ___ Sampled ___ | Leaf Packs | Present ___ Sampled ___ |
| Logjams | Present ___ Sampled ___ | Rocks | Present ___ Sampled ___ |
| Root Wads | Present ___ Sampled ___ | Weed Beds | Present ___ Sampled ___ |
| Fallen Trees | Present ___ Sampled ___ | Undercut Banks | Present ___ Sampled ___ |
| Silt/Muck | Present ___ Sampled ___ | Rip Rap | Present ___ Sampled ___ |
| Sand | Present ___ Sampled ___ | Overhanging Vegetation | Present ___ Sampled ___ |
| Junk (tires, garbage, etc.) | Present ___ Sampled ___ | | |
| Other (describe) _____ | | Present ___ | Sampled ___ |

Stream Habitat Type (check all types sampled in stream reach)

Riffle _____ **Run** _____ **Pool** _____

Aquatic Plant Cover of Streambed (at transect – check one)

0-25% _____ 25-50% _____ 50-75% _____ 75-100% _____

Algae Cover of Stream Streambed (at transect – check one)

0-25% _____ 25-50% _____ 50-75% _____ 75-100% _____

Is sewage algae present in the stream?

No _____ **Yes** _____ *If yes, please submit a photographic record & contact IOWATER.*

Invasive Species (check all found)

- | | | |
|----------------------------|-------------------------|----------------------------|
| ___ Eurasian water milfoil | ___ Curly-leaf pondweed | ___ Zebra mussels |
| ___ Brittle naiad | ___ Purple Loosestrife | ___ Chinese mystery snails |
| ___ Bighead Carp | ___ Silver Carp | ___ Rusty Crawfish |

Other Assessment Observations and Notes
