Information about these data sheets

Last updated April 2019 (RVH)

Designed for use by Coastal Monitoring Fish and Invertebrate Field Crews

Designed to be printed, then photocopied double-sided onto waterproof paper

Form Site-Side 2 is a Word file, CM-fldchklist-Ver5

Two copies of the Invert-WQ sheet should be printed to be photocopied back to back to allow for 4 zones per s One double-sided fish sheet will be needed PER NET, so print MANY of these forms

Crews only need a couple of copies of the codes-defs and Veg-list sheet (print these back to back and then lan

Notes for use:

One copy of the site sheet (both sides) should be filled out per site.

Use the checklist on the back to ensure everything gets done at a site.

Water quality can be put on EITHER the invert sheet or the fish sheet (no need to duplicate).

Check boxes allow indication of which sheet is used for WQ. This allows crew flexibility

See the Fish and Invertebrate SOP for the detailed instructions on sampling sites.

| Site Overview | | | | | | | Datasheet version: |
|--|--|--|--|--------------------------------|------------------|------------------------------------|--|
| Site ID: | | Site name | e (optional): | Crew co | de: ief name: | | Sampling type: New Finishing incomplete site |
| Sample Date: | | | | | | | |
| Shoreline Shoreline Structure 1. Sand Beach | % of site | | er near shore ensity Resid. | % of : | site P | hoto #s | GPS Unit No.: |
| Rocky Shoreline Cliff | | 2. High D | ensity Resid. ercial/Indust | | | | Boat launch waypoint: |
| 4. RipRap 5. Vegetated Bank | | 4. Ag 5. Upland | | | | | Boat launch lat: |
| 6. Muddy Bank 7. Marsh | | | ed wetland | | | | Boat launch long: |
| 8. Other | | 8. Stream 9. Other | ı | | | | Camera ID: |
| Site marphametry 9 acr | anostivity. | | nd (e.g.,cliff, hill) | | | | - |
| Site morphometry & cor | inectivity | | | | | | Sketch cross-section of riverine sites |
| 4 multiple channels Hydrologic connection to 0 strictly riverine co 1 fully exposed to o 2 fully exposed, bu 3 partially protected 4 partially protected 5 fully separated fr 6 fully separated fr Water level (select as ma 1 Water level stable 2 Hydrology influer 3 Evidence of rece 4 Evidence of long | ver, no meanders ers, no braiding s; no permanent vege s with permanent vege s with permanent vege lake (select only one onnection to lake deep water portion of t by sand bar, reef; c om lake, but seasons om lake by permanen my as necessary) lized by dyke (why sa need by culvert, road nt water level change term water level cha current (onshore win- | etation lake rom direct w pening is a pening is a il inundation at sand bar, ample?) e (e.g., artific | large river small stream a possible dune, dyke (wh cial dyke pumpi vel) | ny sample? | | | |
| Habitat Structure | | | | | | | |
| Habitat Types (at scale or riprap bedrock boulder cobble sand organic detritus muck | of the entire wetland | | er erosional | | ll present) | submerge undercut riverine / | bank depositional Invegetated shoreline |
| | on (e.g., single-speci c (e.g., patches of ca | es stand or | | n of taxa al | I mixed toge | ther) | |
| Disturbance (circle all p | | | of site) | | | | |
| RipRap Dredging (#) Marina | Sewage Discharge Industrial Discharge Rec. docks (#): | | | Water D Channel Ship doo | ization | | Boat channels (#): Mowing/veg removal (% of site): Shoreline Modification (describe below) |
| Shoreline modifications (d | lescribe): | | | | | | |
| Recreational activities: | swimming | sailing | fishing | motor-b | oating | PWC | |
| Pollution: Public Litte | er Commercial Large Equipment | Refuse | Petrole Household Ap | | Sewege | | |
| Evidence and location of | other disturbance (in | cl. natural di | sturbance such | n as beaver | , carp, musk | rat) : | |

Site not sampleable for bugs or fish because....

Acceptable reasons: no access, wetland no longer exists, water too deep/shallow, vegetation too dense (name it). Please describe below.

| Version 2 Site ID: | Site Name: | Date: | |
|--|--|---------------------------------|-----------------------------------|
| Pre-launch Checklist: | | ☐ Download GPS points | |
| ☐ Calibrate meters | (signature) | ☐ Download site informati | on |
| ☐ Notify DNR, others for sa | ampling permission | ☐ Upload GPS points to N | RRI |
| ☐ Nets intact, no holes | | ☐ Update site information | in site database |
| Crew names: | | | |
| Field crew chief: | | | |
| Weather: Dry Damp/Haze/Fo | og Drizzle Rain Air Temp (F): | % Cloud Cover: | Wind: onshore offshore alongshore |
| Past 24 hr weather notes: Seiche Evidence: onshore of | fshore none | | |
| Important reminders about this | s site: | | |
| | | | |
| | | | |
| Site abaye staying tion form | Inventable to forms | Fish forms | Water Quality |
| Site characterization form | Invertebrate forms | | Water Quality |
| ☐ Photos of site | Zones sampled (list): Zone: | Number of nets per zone: Zone: | Zones sampled (list): Zone: |
| ☐ Sketch of riverine site | Zone: | Zone: | Zone: |
| ☐ Boat launch GPS waypoint | Zone: | Zone: | Zone: |
| | Zone: | Zone: | Zone: |
| | Li Zone. | Zone. | In Situ WQ samples by: |
| | ☐ Samples labeled | D Eigh langth & anomalies | \square Zone |
| | ☐ Sediment characterization | ☐ Fish length & anomalies | ☐ Replicate |
| | | ☐ Unidentified fish preserved & | Тернеше |
| | ☐ Water depth | labeled | |
| Overall site info | Invertebrate Habitat | Fyke net habitat | |
| ☐ Shoreline & landcover | ☐ Plant quadrats | ☐ Plant quadrats | |
| ☐ Site morphometry/hydrology | ☐ Secchi depth/turbidity tube | ☐ Secchi depth/turbidity tube | |
| ☐ Habitat & vegetation patches | ☐ Sediment characterization | ☐ Sediment characterization | |
| ☐ Disturbance and pollution | | | |
| ☐ River cross-section sketch | _ | _ | |
| Triver cross section sketch | | | |
| Notes: List broken equipment, supp | blies needed, notes for the next crew | | |
| | , | | |
| | | | |
| | | | |
| I vyoni C v 4h 44h 4 1 - 4 - 1 | ageta for this site and assemble as 1 | ent a | (field array shief signature) |
| i verify that the datash | neets for this site are complete and accur | raie: | (field crew chief signature) |

| Macroinvertebrate / Water Quality Field | d Data Sheet | | | Crew code: | | |
|---|--------------|----------|----------|--|---------------------|----------|
| Site ID: | | | | Crew leader: | | |
| Date: | | | | Signature: | | |
| Sheet of for site | | _ | | - | | |
| | | | | Finishing i | ncomplete site (che | ck) |
| Zone name (veg type) | | | | | | |
| Start/end time | | | | | | |
| Zone contiguous or patches? | | | | | | |
| Zone or patch size (m x m) | | | | | | |
| Photos of zone | | | | | | |
| | | | | | | |
| Replicate Number | 1 | 2 | 3 | 1 | 2 | 3 |
| Latitude | | | | | | |
| Longitude | | | | | | |
| Waypoint ID | | | | | | |
| Depth (m) | | | | | | |
| Direction & dist to depth 0 | | | | | | |
| Quadrat photo #'s | | | | | | |
| Coverage at water surface (sum to 100%) | | | | | | |
| % Emergent | | | | | | |
| dominant sp. or gen. | | | | | | |
| % Floating leaved | | | | | | |
| dominant sp. or gen. | | | | | | |
| % SAV floating at the surface | | | | | | |
| dominant sp. or gen. | | | | | | |
| % Floating filamentous algae | | | | | | |
| % Open water | | | | | | |
| Coverage at sediment surface (sum to 100%) | | 1 | 1 | | | , |
| % Standing emergent stems (living or dead) | | | | | | |
| dominant sp. or gen. | | | | | | |
| % SAV | | | | | | |
| dominant sp. or gen. | | | | | | |
| % Coarse detritus (lying on bottom) | | | | | | |
| % Filamentous algae | | | | | | |
| % Bare sed. (no veg or detritus) | | | | | | |
| Check box if unable to assess: | | | | | | |
| Reason for not assessing: Organics Depth (cm) | | | | | + | |
| Substrate texture (dom/sub) | | | | | + | |
| Sample for % organic sed | | | | | | |
| Number of 1m net sweeps | | | | | | |
| Person-minutes picking | | | | | | |
| Number of organisms | | | | | | |
| Number of vials per rep | | | | | | |
| SEE FISH FORM FOR WQ DATA | / (CHECK) | | | | | <u> </u> |
| In situ water quality | 1 | 2 | 3 | 1 | 2 | 3 |
| Dup. WQ (indicate rep) | <u>'</u> | <u> </u> | <u> </u> | <u> </u> | <u>Z</u> | <u> </u> |
| Secchi tube (cm) | | | | | | |
| Temperature (°C) | | | | | | |
| Specific cond. (µS cm-1) | | | | | | |
| DO (% Saturation) | | | | | | |
| DO (mg/L) | | | | | | |
| pH | | | | | | |
| WQ meter data file ID | | | | | | |
| Tot. Diss. Solids (g L ⁻¹)† | | | | | | |
| Turbidity (NTU)† | | | | | | |
| Redox pot. (mv)† | | | | | | |
| In situ chloro. a (µg/L)† | | | | | | |
| Total Alk. (mg CaCO ₃ L ⁻¹) | | | | | | |
| Pheno. Alk. (mg CaCO ₃ L ⁻¹) | | | | | | |
| · • | | | | <u> </u> | | |
| Sample volume prepped for storage | | | | | | |
| Soluble reactive P NH₄ | | | | | | |
| · · | | | | | | |
| NO ₃ | | | | | | |
| Total P† | | | | | | |
| Total N† | | | | | | |
| Other: | | | | | | |
| Chlorophyll filter (y/n) | | | | 1.1 | | |

| Macroinvertebrate / Water Quality Field | d Data Sheet | | | Crew code: | | |
|---|--------------|---|---|--------------|---------------------|-----|
| Site ID: | | | | Crew leader: | | |
| Date: | | | | Signature: | | |
| Sheet of for site | | _ | | - | | |
| | 1 | | | Finishing i | ncomplete site (che | ck) |
| Zone name (veg type) | | | | | | |
| Start/end time | | | | | | |
| Zone contiguous or patches? | | | | | | |
| Zone or patch size (m x m) | | | | | | |
| Photos of zone | | | | | | |
| | | | | | | |
| Replicate Number | 1 | 2 | 3 | 1 | 2 | 3 |
| Latitude | | | | | | |
| Longitude | | | | | | |
| Waypoint ID | | | | | | |
| Depth (m) | | | | | | |
| Direction & dist to depth 0 | | | | | | |
| Quadrat photo #'s | | | | | | |
| Coverage at water surface (sum to 100%) | | 1 | 1 | | 1 | • |
| % Emergent | | | | | | |
| dominant sp. or gen. | | | | | | |
| % Floating leaved | | | | | | |
| dominant sp. or gen. | | | | | | |
| % SAV floating at the surface | | | | | | |
| dominant sp. or gen. | | | | | | |
| % Floating filamentous algae | | | | | | |
| % Open water | | | | | | |
| Coverage at sediment surface (sum to 100%) |) | 1 | I | | | T |
| % Standing emergent stems (living or dead) | | | | | | |
| dominant sp. or gen. % SAV | | | | | | |
| dominant sp. or gen. | | | | | | |
| % Coarse detritus (lying on bottom) | | | | | | |
| % Filamentous algae | | | | | | |
| % Bare sed. (no veg or detritus) | | | | | | |
| Check box if unable to assess: | | | | | | |
| Reason for not assessing: | | | | | | |
| Organics Depth (cm) | | | | | | |
| Substrate texture (dom/sub) | | | | | | |
| Sample for % organic sed | | | | | | |
| Number of 1m net sweeps | | | | | | |
| Person-minutes picking | | | | | | |
| Number of organisms | | | | | | |
| Number of vials per rep | | | | | | |
| SEE FISH FORM FOR WQ DATA | A (CHECK) | | | | | |
| In situ water quality | 1 | 2 | 3 | 1 | 2 | 3 |
| Dup. WQ (indicate rep) | | | | | | |
| Secchi tube (cm) | | | | | | |
| Temperature (°C) | | | | | | |
| Specific cond. (µS cm-1) | | | | | | |
| DO (% Saturation) | | | | | | |
| DO (mg/L) | | | | | | |
| рН | | | | | | |
| WQ meter data file ID | | | | | | |
| Tot. Diss. Solids (g L ⁻¹)† | | | | | | |
| Turbidity (NTU)† | | | | | | |
| Redox pot. (mv)† | | | | | | |
| In situ chloro. a (μg/L)† | | | | | | |
| Total Alk. (mg CaCO ₃ L ⁻¹) | | | | | | |
| Pheno. Alk. (mg CaCO ₃ L ⁻¹) | | | | | | |
| Sample volume prepped for storage | | | | | | |
| Soluble reactive P | | | | | | |
| NH ₄ | | | | | | |
| NO ₃ | | | | | | |
| Total P† | | | | | | |
| Total N† | | | | | | |
| Other: | | | | | | |
| Chlorophyll filter (y/n) | | | | | | |

| Site ID: | | | Samplin | g: initial | reset | | | Orientati | on to zor | ne (parall | el/perp/a | ngle): | | | Crew code: | |
|--------------------------|---------|---|-----------|------------|-----------|------------|---|-------------|--------------|------------|------------|-----------------|-------------|-------------|--------------------------------|------------------------|
| Site name (opt): | | | | Net-rep # | | | | Date set: | | | Date ck: | Unkn/Vouch Jars | | | | |
| Zone name (veg type) | : | | | Fyke size | | large | | Time set | : | | Time ck: | | | | Collectors: | |
| Taxa (length in mm) | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | | Comments |
| | TL | | | | | | | | | | | | | | | |
| | TL | | | | | | | | | | | | | $>\!\!<$ | | |
| | # | | | | | | | | | | | | | | Total | 1 |
| | TL | | | | | | | | | | | | | | | |
| | TL | | | | | | | | | | | | | | - | |
| | # | | | | | | | | | | | | | | Total | |
| | π | | | | | | | | | | | | | | Total | 1 |
| | TL | | | | | | | | | | | | | | | |
| | TL | | | | | | | | | | | | | > < | | |
| | # | | | | | | | | | | | | | | Total | _ |
| | | | | | | | | | | | | | | | | |
| | TL | | | | | | | | | | | | | | | |
| | TL | | | | | | | | | | | | | $>\!\!<$ | | |
| | # | | | | | | | | | | | | | | Total | 1 |
| | TL | | | | | | | | | | | | | | | |
| | TL | | | | | | | | | | | | | | - | |
| | # | | | | | | | | | | | | | | Total | |
| | π | | | | | | | | | | | | | | Total | 1 |
| | TL | | | | | | | | | | | | | | | ı |
| | TL | | | | | | | | | | | | | > < | | |
| | # | | | | | | | | | | | | | | Total | _ |
| | | | | | | | | | | | | | | | | |
| | TL | | | | | | | | | | | | | | _ | |
| | TL | | | | | | | | | | | | | \sim | T . 4 . 1 | |
| | # | | | | | | | | | | | | | | Total | 1 |
| | TL | | | | | | | | | | | | | | | |
| | TL | | | | | | | | | | | | | | - | |
| | # | | | | | | | | | | | | | | Total | |
| | | | | | | | | | | | | | | | |] |
| | TL | | | | | | | | | | | | | | | |
| | TL | | | | | | | | | | | | | \times | | |
| | # | | | | | | | | | | | | | | Total | - |
| | | | | | | | | | | | | | | | | |
| Anomalies: A=anchor worm | B=black | | | | | | | N=blind P=p | parasites Y= | popeye S= | | | | | | b -1\ |
| Water depth at net fra | me (m) | | vvater/vv | eather/Wi | nd/Net Co | onditions: | | | | | | | | | ndicate any proble em DID N | ns below): IOT FISH |
| Set Depth (m): | | | | | | | | | | | Conditions | : Net twiste | ed, caught, | obstructed, | torn open, disturbed, C | ther: |
| Pull Depth (m): | | | | | | | | | | | | | | | | |

| Taxa (length in mm) | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | Comments | | |
|---|--------------|-----------|-----------|---|---|---|--|---|---|------------------------------|----------|------------|-----------|-----------------|--|--|
| | TL | | | | | | | | | | | | | | | |
| [| TL | | | | | | | | | | | | $>\!\!<$ | | | |
| 7 | # | | | | | | | | | | | | | Total | | |
| | | | | | | | | | | | | | | | | |
| | TL | | | | | | | | | | | | | | | |
| [- | TL | | | | | | | | | | | | $>\!\!<$ | | | |
| 7 | # | | | | | | | | | | | | | Total | | |
| | | | | | | | | | | | | | | | | |
| | TL | | | | | | | | | | | | | | | |
| [| TL | | | | | | | | | | | | $>\!\!<$ | | | |
| 7 | # | | | | | | | | | | | | | Total | | |
| | | | | | | | | | | | | | | | | |
| | TL | | | | | | | | | | | | | | | |
| - | TL | | | | | | | | | | | | \gg | | | |
| 7 | # | | | | | | | | | | | | | Total | | |
| | | | | | | | | | | | | | | | | |
| | TL | | | | | | | | | | | | | | | |
| | TL | | | | | | | | | | | | > < | | | |
| 7 | # | | | | | | | | | | | | | Total | | |
| | | | | | | | | | | | | | | | | |
| | TL | | | | | | | | | | | | | | | |
| | TL | | | | | | | | | | | | $>\!\!<$ | | | |
| 7 | # | | | | | | | | | | | | | Total | | |
| | | | | | | | | | | | | | | | | |
| | TL | | | | | | | | | | | | | | | |
| | TL | | | | | | | | | | | | $>\!\!<$ | | | |
| 7 | # | | | | | | | | | | | | | Total | | |
| | | | | | | | | | | | | | | | | |
| Seneral info | | | | | | on/Quadr | | | | In situ W | ater Qua | lity | | | | |
| /eg Zone: | | Contig. o | or patch? | | Coverage at water surface (sum to 100%) | | | | | Temp (C) | | a file ID: | | | | |
| Zone or patch size (m | | | | | % Emergent | | | | | | | | Redox(mV) | | | |
| Direction & distance (m) to depth 0: | | | | | dominant sp. or gen. | | | | | DO(%) | | | Chl a | | | |
| | | | | | % Floating leaved | | | | | DO(mg/L) | | | Pheno Alk | | | |
| Organics depth (cm): | | | | | | dominant sp. or gen. | | | | | Tot Alk | | | Turbidity (ntu) | | |
| Organics depth (cm): GPS# Lat: | | Long: | | | dominant | sp. or gen. | | | | | | | | | | |
| Organics depth (cm): GPS# Lat: GPS Unit ID: | | Long: | | | i | ng at the surfa | ace | | | рН | | | TDS | | | |
| Organics depth (cm): GPS# Lat: | ures taken): | Long: | | | % SAV floatii | | ace | | | | ıbe (cm) | | | | | |
| Organics depth (cm): GPS# Lat: GPS Unit ID: Camera ID (if fish pictu Quadrat photo #'s: | Í | Long: | | | % SAV floatii dominant | ng at the surfa | | | | pH Secchi Tu | • | | | | | |
| Organics depth (cm): GPS# Lat: GPS Unit ID: Camera ID (if fish pictu Quadrat photo #'s: Sample Vol for lab W | Í | Long: | | | % SAV floating dominant % Floating fil % Open water | ng at the surfa sp. or gen. amentous alg | gae | | | рН | • | 1 | | 2 | | |
| Organics depth (cm): GPS# Lat: GPS Unit ID: Camera ID (if fish picto Quadrat photo #'s: Sample Vol for lab W SRP | Í | Long: | | | % SAV floating dominant % Floating fil % Open wate Coverage a | ng at the surfa sp. or gen. amentous alg er at sediment | gae surface (su n | - | | pH Secchi Tu Substrate | texture: | | TDS | | | |
| Organics depth (cm): GPS# Lat: GPS Unit ID: Camera ID (if fish pictu Quadrat photo #'s: Sample Vol for lab W SRP TP (opt) | Í | Long: | | | % SAV floating dominant % Floating fil % Open wate Coverage a | ng at the surfa sp. or gen. amentous alg er at sediment | gae | - | | pH Secchi Tu Substrate | texture: | | | | | |
| Organics depth (cm): GPS# Lat: GPS Unit ID: Camera ID (if fish pictor Quadrat photo #'s: Gample Vol for lab W GRP TP (opt) NO ₃ | Í | Long: | | | % SAV floating dominant % Floating fil % Open wate Coverage a % Standing e | ng at the surfa sp. or gen. amentous alg er at sediment | gae surface (su n | - | | pH Secchi Tu Substrate | texture: | | TDS | | | |
| Organics depth (cm): GPS# Lat: GPS Unit ID: Camera ID (if fish pictor Quadrat photo #'s: Cample Vol for lab W GRP P (opt) IO ₃ IH ₄ | Í | Long: | | | % SAV floating dominant % Floating fil % Open wate Coverage a % Standing e | ng at the surfa sp. or gen. amentous alg er at sediment emergent sten | gae surface (su n | - | | pH Secchi Tu Substrate | texture: | ORM FO | TDS | Α | | |
| Organics depth (cm): GPS# Lat: GPS Unit ID: Camera ID (if fish pictor Quadrat photo #'s: Gample Vol for lab W GRP P (opt) IO ₃ IH ₄ | Í | Long: | | | % SAV floating dominant % Floating fil % Open water Coverage a % Standing e dominant % SAV | ng at the surfa sp. or gen. amentous alg er at sediment emergent sten | gae surface (su n | - | | pH Secchi Tu Substrate | texture: | ORM FO | TDS | Α | | |
| Organics depth (cm): GPS# Lat: GPS Unit ID: Camera ID (if fish pictu Quadrat photo #'s: Cample Vol for lab W GRP TP (opt) NO ₃ NH ₄ TN (opt) | Í | Long: | | | % SAV floating dominant % Floating fii % Open wate Coverage a % Standing e dominant % SAV dominant | ng at the surfa sp. or gen. amentous alger at sediment emergent sten sp. or gen. | gae surface (sun ns (living or de | - | | pH Secchi Tu Substrate SE | texture: | ORM FO | TDS | Α | | |
| Organics depth (cm): GPS# Lat: GPS Unit ID: Camera ID (if fish picture) Quadrat photo #'s: Gample Vol for lab W GRP FP (opt) NO ₃ NH ₄ TN (opt) Other: | Í | Long: | | | % SAV floating dominant % Floating fii % Open wate Coverage a % Standing e dominant % SAV dominant | ng at the surfa sp. or gen. amentous alger at sediment mergent sten sp. or gen. sp. or gen. tritus (lying or | gae surface (sun ns (living or de | - | | pH Secchi Tu Substrate SE | texture: | ORM FO | TDS | Α | | |
| Organics depth (cm): GPS# Lat: GPS Unit ID: Camera ID (if fish pictu Quadrat photo #'s: Cample Vol for lab W SRP TP (opt) NO ₃ NH ₄ TN (opt) Other: | Í | Long: | | | % SAV floating file % Floating file % Open wate Coverage a % Standing e dominant % SAV dominant % Coarse de % Filamento | ng at the surfa sp. or gen. amentous alger at sediment mergent sten sp. or gen. sp. or gen. tritus (lying or | surface (sunns (living or dea | - | | pH Secchi Tu Substrate SE | texture: | ORM FO | TDS | Α | | |
| Organics depth (cm): GPS# Lat: GPS Unit ID: Camera ID (if fish pictu Quadrat photo #'s: | Í | Long: | | | % SAV floating fil % Open wate Coverage a % Standing e dominant % SAV dominant % Coarse de % Filamento % Bare sed. | ng at the surfa sp. or gen. amentous alger at sediment mergent sten sp. or gen. sp. or gen. tritus (lying or us algae | surface (sun ms (living or de- n bottom) | - | | pH Secchi Tu Substrate SE | texture: | ORM FO | TDS | Α | | |

Codes for Data Sheets:

Label Protocol: Site ID (from map) Date (month DD, YY)

> Zone name Jar x of X (if multiple jars per sample or net)

Rep number & net size Crew code Crew chief name Waypoint #

Part II

1 Vegetation zones

Typha: Typha (cattail)

Lily: Nuphar-Nyphaea (water lily, combined) In Schoen: Inner (dense) Schoenoplectus (bulrush) Out Schoen: Outer (sparse) Schoenoplectus (bulrush)

Pelt-Pont: Peltandra-Sagittaria-Pontederia (arrow-arum-arrowhead-pickerel weed)

OW: open water

Sparg: Sparganium (bur-reed)

Mead: Wet meadow

SAV: Submersed aquatic vegetation

Bog: Floating bog mat

2 Substrate Composition

Choose dominant, subdominant, sub-sub dominant (if necessary)

Mineral substrates

CL: Clay (sticky)

SL: Silt (silky smooth)

SD: Sand (gritty, grainy) GR: Gravel (4 mm to quarter)

PB: Pebble (quarter to fist-size)

CB: Cobble (fist-size to basketball)

BL: Boulder (> basketball to small car size)

Organic substrates

MU: Muck (black ooze, plant particles not discernable)

PT: Peat (thick mat of partially-broken-down plant particles of bog plants) DT: Detritus (plant remains from previous winter, typically reeds, cattails)

WD: Wood (write note if thick wood chips)

Common Vegetation Taxa

Genus Common Genus Common

Alisima Water Plantain Phalaris Canary Reed Grass

Bidens beckiiWater MarigoldPhragmitesCane GrassBrasenia schrebereiWater ShieldPistiaWater LettuceCallaWater ArumPontederiaPickerelweedCalthaMarsh MarigoldPotamogetonPond Weed

CarexSedgeP. amplifoliusCeratophyllumCoon TailP. crispusCharaWater CabbageP. natansEleocharisSpike RushP. pectinatusElodeaWater weedP. richardsonii

Equisetum Horse Tail Fern Ranunculus Buttercup Hippuris Arrowhead Water Mare's Tail Sagittaria Iris (blue flag), yellow flag is non-native Schoenoplectus/Scirpus Bulrush Iris Juncus Rush Sium Water Parsnip

LemnaDuck WeedSparganium sp.Bur ReedLythrumLoosestrife (purple loosestrife is non-native) SpiriodelaGreat Duck Weed

Myriophyllum Water Milfoil Typha Cattail **Bushy Pondweed** Utricularia Bladderwort Naias Nulumbo Lotus lily Vallisenaria Water Celery Nuphar Water Lily Zizania Wild Rice

Nymphaea Pond Lily

Fyke net problem codes:

A: Depth: A1 too deep; A2 too shallow R: Rough surf

B: Sediment: B1 unconsolidated; B2 rocky; B3 bedrock; B4 unsafe bog

D: Nets damaged or missing

H: No habitat available

S: Size of site too small

W: Weather not permitting

O: Other, please specify

M: Mechanical problems: M1 vehicle; M2 boat P: Permission lacking

Water quality problem codes:

A: Depth: A2 too shallow O: Other; please specify

B: Sediment: B2 rocky; B3 bedrock; B4 unsafe bog

M: Mechanical problems: M2 boat; M3 meters W: Weather not permitting

Invertebrate problem codes:

A: Depth: A2 too shallow

B: Sediment: B4 unsafe bog

O: Other; please specify

N: Not done; explain on data sheet

W: Weather not permitting