# STREAM HABITAT WALK

**Stream Name:** _____

**County:** _____ **State:** _____

**Investigators:** _____

_____

_____

**Site (description):** _____

_____

_____

_____

**Latitude:** _____ **Longitude:** _____

**Site or Map Number:** _____

**Date:** _____ **Time:** _____

**Weather in past 24 hours:**

- ❑ Storm (heavy rain)
- ❑ Rain (steady rain)
- ❑ Showers (intermittent rain)
- ❑ Overcast
- ❑ Clear/Sunny

**Weather now:**

- ❑ Storm (heavy rain)
- ❑ Rain (steady rain)
- ❑ Showers (intermittent rain)
- ❑ Overcast
- ❑ Clear/Sunny

# Sketch of site

On your sketch, note features that affect stream habitat, such as: riffles, runs, pools, ditches, wetlands, dams, riprap, outfalls, tributaries, landscape features, logging paths, vegetation, and roads.

# PHYSICAL CHARACTERIZATION

## *In-Stream Characteristics*

**1. Check which stream habitats are present:** Page 48

*(You can check more than 1 habitat)*

❑ Pool(s) θ Riffle(s) θ Run(s)

**2. Nature of particles in the stream bottom at site** Page 48

| | None/Little | Some | Most |
|---|---|---|---|
| Silt/Clay/Mud | ❑ | ❑ | ❑ |
| Sand (up to 0.1" in diam.) | ❑ | ❑ | ❑ |
| Gravel (0.1 - 2" in diam.) | ❑ | ❑ | ❑ |
| Cobbles (2 - 10" in diam.) | ❑ | ❑ | ❑ |
| Boulders (over 10" in diam.) | ❑ | ❑ | ❑ |
| Bedrock (solid) | ❑ | ❑ | ❑ |

**3. Pick the category that best describes the extent to which gravel, cobbles, and boulders on the stream bottom are embedded (sunk) in silt, sand, or mud.** Page 49

θ Somewhat/not embedded (0-25%) θ Mostly embedded (75%)

θ Halfway embedded (50%) θ Completely embedded (100%)

**4. Presence of logs or large woody debris in stream:** Page 49

θ None θ Occasional θ Plentiful

**5. Presence of naturally-occurring organic material (i.e., leaves and twigs, etc.) in stream:** Page 49

θ None θ Occasional θ Plentiful

**6. Water appearance:** Page 49

θ Clear θ Light brown θ Orange
θ Milky θ Dark brown θ Greenish
θ Foamy θ Oily sheen θ Other _____
θ Turbid

**7. Water odor:** Page 50

θ Sewage θ Fishy θ None
θ Chlorine θ Rotten eggs θ Other _____

**8. Water temperature:** Page 50

_____ °C *or* _____ °F

## *Streambank and Channel Characteristics*

**9. (a) Approximate depth of run(s):** Page 50

θ < 1 ft θ 1-2 ft θ > 2 ft

**(b) Approximate depth of pool(s):**

θ < 1 ft θ 1-2 ft θ > 2 ft

**10. Approximate width of stream channel:** Page 50

_____ feet θ measured θ estimated

**11. Stream velocity:** _____ ft/sec. Page 50

**12. Looking upstream (100 yds.), pick the description that best fits the shape of the stream bank and the channel.** Page 50

**(a) Stream bank:**

| Left | | Right |
|---|---|---|
| θ | Vertical/undercut | θ |
| θ | Steeply sloping (> 30°) | θ |
| θ | Gradual/no slope (< 30°) | θ |

**(b) Extent of artificial bank modifications:**

| Left | | Right |
|---|---|---|
| θ | Bank 0-25% covered | θ |
| θ | Bank 25-50% covered | θ |
| θ | Bank 50-75% covered | θ |
| θ | Bank 75-100% covered | θ |

**(c) Shape of the channel:**

θ Narrow, deep θ Wide, deep
θ Narrow, shallow θ Wide, shallow

**13. Looking upstream (100 yds.), describe the streamside cover. Check "1" if present, "2" if common** Page 51

**(a) Along water's edge and stream bank only:**

| Left | | | Right | |
|---|---|---|---|---|
| **1** | **2** | | **1** | **2** |
| θ | θ | Trees | θ | θ |
| θ | θ | Bushes, shrubs | θ | θ |
| θ | θ | Tall grasses, ferns, etc. | θ | θ |
| θ | θ | Lawn | θ | θ |
| θ | θ | Boulders/rocks | θ | θ |
| θ | θ | Gravel/sand | θ | θ |
| θ | θ | Bare soil | θ | θ |
| θ | θ | Pavement, structures | θ | θ |

(b) From the top of the streambank out to 25 yards.

| Left 1 | Left 2 | | Right 1 | Right 2 |
|---|---|---|---|---|
| θ | θ | Trees | θ | θ |
| θ | θ | Bushes, shrubs | θ | θ |
| θ | θ | Tall grasses, ferns, etc. | θ | θ |
| θ | θ | Lawn | θ | θ |
| θ | θ | Boulders/rocks | θ | θ |
| θ | θ | Gravel/sand | θ | θ |
| θ | θ | Bare soil | θ | θ |
| θ | θ | Pavement, structures | θ | θ |

**14. Pick the category that best describes the extent to which vegetation shades the stream at your site.** Page 52

θ 0% θ 25% θ 50% θ 75% θ 100%

**15. Looking upstream, note general conditions. Check "1" if present, "2" if severe problem is clearly** Page 52

| Left 1 | Left 2 | **Stream Banks** | Right 1 | Right 2 |
|---|---|---|---|---|
| θ | θ | Natural streamside plant cover degraded | θ | θ |
| θ | θ | Banks collapsed/eroded | θ | θ |
| θ | θ | Garbage/junk adjacent to the stream | θ | θ |
| θ | θ | Foam or sheen on bank | θ | θ |
| **1** | **2** | **Stream Channel** | **1** | **2** |
| θ | θ | Mud, silt, or sand in or entering the stream | θ | θ |
| θ | θ | Garbage/junk in the stream | θ | θ |
| **1** | **2** | **Other** | **1** | **2** |
| θ | θ | Yard waste on bank (grass, clippings, etc.) | θ | θ |
| θ | θ | Livestock in or with unrestricted access to stream | θ | θ |
| θ | θ | Actively discharging pipe(s) | θ | θ |
| θ | θ | Other pipe(s) entering the stream | θ | θ |
| θ | θ | Ditches entering the stream | θ | θ |

## *Local Watershed Characteristics*

***(within about 1/4 mile of the site; adjacent and upstream)***

**16. Land uses in the local watershed can potentially have an impact on a stream. Check "1" if present, "2" if clearly having an impact on the stream.** Page 53

| 1 | 2 | **Residential** |
|---|---|---|
| θ | θ | Single-family housing |
| θ | θ | Multifamily housing |
| θ | θ | Lawns |
| θ | θ | Commercial/institutional |
| **1** | **2** | **Roads, etc.** |
| θ | θ | Paved roads or bridges |
| θ | θ | Unpaved roads |
| **1** | **2** | **Construction underway on:** |
| θ | θ | Housing development |
| θ | θ | Commercial development |
| θ | θ | Road bridge construction/repair |
| **1** | **2** | **Agricultural** |
| θ | θ | Grazing land |
| θ | θ | Feeding lots or animal holding areas |
| θ | θ | Cropland |
| θ | θ | Inactive agricultural land/fields |
| **1** | **2** | **Recreation** |
| θ | θ | Power boating |
| θ | θ | Golfing |
| θ | θ | Camping |
| θ | θ | Swimming/fishing/canoeing |
| θ | θ | Hiking/paths |
| **1** | **2** | **Other** |
| θ | θ | Mining or gravel pits |
| θ | θ | Logging |
| θ | θ | Industry |
| θ | θ | Oil and gas drilling |
| θ | θ | Trash dump |
| θ | θ | Landfills |

# BIOLOGICAL CHARACTERIZATION

## VISUAL BIOLOGICAL SURVEY

**17. Wildlife in or around the stream?** *(Mark all that apply)* Page 53

θ Amphibians θ Waterfowl θ Reptiles θ Mammals

**18. Fish in the stream?** *(Mark all that apply)* Page 53

θ No θ Yes, but rare θ Yes, abundant

θ Small (1-2 in.) θ Medium (3-6 in.) θ Large (7 in. and above)

Are there any barriers to fish movement?

θ Beaver dams θ Waterfalls > 1' θ None

θ Dams θ Road barriers θ Other _____

**19. Aquatic plants in the stream.** *(Mark all that apply)* Page 53

θ None θ Occasional θ Plentiful

θ Attached θ Free-floating

θ Stream margin θ Pools θ Near riffle

**20. Extent of algae in the stream.** *(Mark all that apply)* Page 53

(a) Are the submerged stones, twigs, or other material in the stream coated with a layer of algal "slime"?

θ None θ Occasional θ Plentiful

θ Light coating θ Heavy coating

θ Brownish θ Greenish θ Other _____

(b) Are there any filamentous (string-like) algae?

θ None θ Occasional θ Plentiful

θ Brownish θ Greenish θ Other _____

(c) Are any detached "clumps" or "mats" of algae floating on the water's surface?

θ None θ Occasional θ Plentiful

θ Brownish θ Greenish θ Other _____

# MACROINVERTEBRATE SURVEY *(Optional)*

**21. If macroinvertebrates were collected from the stream bottom, which type of method/habitat was selected?** Page 53

θ Rock-rubbing method: From cobbles and large stones selected from riffles.

θ Stick-picking method: From woody objects in streams with sandy, silty bottoms.

θ Leaf-pack sorting method: From submerged leaves in streams with either a rocky or sandy, silty bottom.

**22. Are macroinvertebrates present?** Page 54

θ No θ Yes, but rare θ Yes, abundant

**23. If present, describe the types of macroinvertebrates found.** Page 54

*(Mark all that apply)*

| | | |
|---|---|---|
| Wormlike | θ Occasional | θ Plentiful |
| Snails/clamlike | θ Occasional | θ Plentiful |
| Insects | θ Occasional | θ Plentiful |
| Crayfish | θ Occasional | θ Plentiful |

**COMMENTS:** *(Note changes or potential problems such as spills, new construction, type of discharging pipes)*