

## NEW SITE/REACH ESTABLISHMENT

Here are some steps to go through if you're establishing a new monitoring site or reach. A "site" is a fairly-contained spot, whereas a "reach" is a specified length of stream; generally, a "site" will suffice unless you'll be doing physical-habitat measurements, in which case you'll need to establish a "reach." For the purposes of this section, we'll use the words interchangeably.

- ***Identify prospective monitoring reaches***
  - Using the resources and criteria described in "Monitoring Program Design," select prospective monitoring reaches and mark them on a map.
  - Use the County Assessor's maps to identify the parcel number and look up the owner's name (either at the Assessor's office or online at <http://www.clallam.net/Maps>).
  - Confirm accessibility of the site through a visit or a drive-by. If private property, contact the owner regarding access. Streamkeepers staff can supply you with a permission form for establishing a monitoring site and a standard letter asking for permission, which you can bring to the owner; or we can mail these items to them at your request.
  - Write a brief text (1-2 paragraphs) describing the reach, its location, how to access it, and why you've chosen it. If you consulted with anyone, be sure to list his or her name, title and contact information. Also, if you want to do something other than monitor the regular suite of parameters (e.g. you think you should monitor only chemical water quality, or only riparian vegetation, etc.), list the parameters you want to monitor and (briefly) why you think it's a good idea to diverge from the standard suite.
- ***Confirm selection of monitoring reach(es) with Streamkeepers staff***
- ***Document and mark the reach***
  - Complete as much of the "New Site Questionnaire" (see following pages) as you can prior to going into the field. You can get this form from our office or our website.
  - Go to the site(s) and:
    - Finish the "New Site Questionnaire"
    - Perform the "Sampling Site Sketch Map" or "Reach Map" protocol, depending on directions from program staff.
    - Install monuments and flagging as needed at your reach(es), per the above protocols.
  - Draw your map(s), per the above protocols.
  - Determine the Washington Department of Fish & Wildlife stream number for each reach; you'll need the state Water Resources Inventory Area (WRIA) catalog, available from Streamkeepers staff.
  - Have staff create a field-forms folder and hanging file for the stream-team, and an office binder for the stream if new. In the binder, include photocopies of maps with the monitoring site(s) clearly marked.

**STREAMKEEPERS OF CLALLAM COUNTY—NEW SITE QUESTIONNAIRE**

Dear Streamkeeper advisor/partner/volunteer: You have suggested a new Streamkeepers monitoring site. (For more information, see <http://www.clallam.net/streamkeepers/assets/applets/SamplingPlanDesign.pdf> & <http://www.clallam.net/streamkeepers/assets/applets/NewReachEst.pdf>.) In order to facilitate our addition of this site into our database system, please answer the following questions about each new site you wish to see monitored, using a separate form for each site. You may submit responses electronically or by hard-copy.

1. Your name (and agency if applicable):
2. Brief descriptive name of this site, and stream-mile to the nearest tenth if you can calculate it from a map:
3. Would you like this site sampled quarterly, or only in certain seasons? For what parameters and duration?
4. Where, exactly, would you like this site to be? (Describe in terms of landmarks and rough distances and directions from them.) *Please note: Streamkeepers' macroinvertebrate-sampling protocol specifies that collection sites are to be at least 660' downstream or at least 165' upstream of any human-made structure in the bankfull channel, such as a culvert or bridge, UNLESS your goal is to sample the impacts of the structure. So if you think macroinvertebrate samples will someday be taken at this location, follow the above guidelines.*
5. Supply good written directions as to how to access this site:
6. Every new site needs to be visited by SK staff or a technical advisor prior to any monitoring. Has this site been visited, and if so, by whom and when? If not, who will be visiting this site, and when?
7. The technical advisor should help decide if flow will be measured at this site, and if so, if it should be measured along a transect between permanent monuments. If so, have the monuments been installed, or is there a plan to install them? (If so, the installation should be indicated and referenced on the Site Sketch Map.)
8. Is it safe to measure flow at or near that site in all conditions?
9. Who owns the site and the access route to it? What are the parcel numbers? (See below for map link.)
10. Have you obtained permission to access these parcels? If so, when, and who did you talk to (incl. phone #)? If not, can you help us make the necessary contacts?
11. Would there be any special access instructions, such as gated access points or the need to contact the landowner prior to each site visit?
12. Is past data available at that site? If so, who/what/when/where & how can we access it?
13. How soon would you ideally like Streamkeepers to start monitoring? (The quicker & better the information you provide, the sooner we can start.)

(See next two pages ↪)

## LOCATION INFORMATION

We need to record accurate information about the locations of all of our sites. Please help us with the following information, to the best of your ability.

### 14. Horizontal location information:

- a. Put a dot for this site on an attached map (preferably 1:3000 or larger scale; easy-to-use interactive County maps are available at [http://10.5.10.73/aimsiwebsite/arcims\\_start.htm](http://10.5.10.73/aimsiwebsite/arcims_start.htm)), **OR** give a lat/long, preferably in decimal degrees (i.e., set your GPS to read out in this form).
- b. We also need to know how you placed your dot or took your GPS reading, so please answer the questions below. We need this information in order to share our data with the State and other agencies. Some of the notes in italics should help you with your answers.

Horizontal collection method (select one):

|                                  |  |   |
|----------------------------------|--|---|
| address match--block face        | conversion from STR  | LORAN-C   |
| address match--house #           | digital or manual raw photo extraction   | orthophoto—digital<br><i>[e.g., Clallam County GIS]</i> |
| address match--street centerline | digitized--CTR screen/digital data <i>[if located on a computer map without the aid of an air or orthophoto]</i> | orthophoto--paper                                       |
| address match--unknown           | digitized--paper map   | satellite imagery--Landsat MSS (multi-spectral scan)    |
| air photo--rectified             | GPS carrier/geodetic   | satellite imagery--Landsat TM (thematic mapper)         |
| air photo--unknown               | GPS code/geodetic  | satellite imagery--other                                |
| air photo--unrectified           | GPS kinematic  | satellite imagery--SPOT panchromatic                    |
| cadastral survey                 | GPS unknown <i>[if you used a GPS and can't place it in one of the above 3 categories]</i>                       | satellite imagery--SPOT multi-spectral                  |
| census block 1990 centroid       | hand measured--paper map interpolation<br><i>[e.g., County road maps or USGS 7.5' quads]</i>                     | zip code centroid                                       |
| census block group 1990 centroid | LIDAR <i>[e.g., if you used LIDAR hillshade to determine where the stream &amp; site were]</i>                   | unknown   |

Horizontal datum (select one):

|   |
|---|
| N. American Datum 1927 (NAD27) <i>[e.g., USGS 7.5'quads or NOAA charts]</i> |
| N. American Datum 1983 (NAD83 or 91 Adj.) <i>[e.g., Clallam County GIS]</i> |
| HARN  |
| GPS WGS84 (GPS NAVS88)  |
| unknown   |

Horizontal accuracy (use your best judgment and select one):

|               |             |              |               |          |           |         |
|---------------|-------------|--------------|---------------|----------|-----------|---------|
| <0.01m        | =>0.1m <1m  | + -20ft(6m)  | + -100ft(35m) | + -250ft | + -1000ft | >2000ft |
| =>0.01m <0.1m | + -10ft(3m) | + -40ft(12m) | + -180ft(55m) | + -500ft | + -2000ft | unknown |

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15. Vertical location information:

a. Provide an elevation in feet: \_\_\_\_\_

b. Provide the appropriate metadata for your answer to the above question, in each table below. Some of the notes in italics should help you with your answers.

Vertical collection method (select one):

|   |                        |  |                          |
|---|------------------------|--|--------------------------|
| bathymetric sounding  | GPS (code/geodetic)    | hand measured, paper map<br><i>[e.g., USGS 7.5' quads]</i> | other engineering survey |
| cadastral survey  | GPS (carrier/geodetic) | LIDAR <i>[e.g., using LIDAR 50' contours]</i>              | photogrammetry           |
| digital elevation model <i>[e.g., DEM from Clallam Cty GIS]</i> | GPS (kinematic)        | map-derived  | Unknown                  |
|   | GPS (unknown)          |  |                          |

Vertical reference (select one):

|                 |                      |  |                  |                              |
|-----------------|----------------------|--|------------------|------------------------------|
| mean sea level  | mean high high level | mean low low level<br><i>[DEM from Clallam County GIS, or USGS 7.5' quads]</i> | highest tide     | lowest tide                  |
| mean high level | mean low level       | local tide datum   | mean (half) tide | unknown <i>[incl. LIDAR]</i> |

Vertical datum (select one):

|  |   |
|--|---|
| N. American Vertical datum of 1988 (NAVD88)  | GPS WGS84 (GPS NAVD88) <i>[e.g., LIDAR]</i> |
| N. American Geodetic Vertical datum of 1929 (NGVD29)<br><i>[DEM from Clallam County GIS, or USGS 7.5' quads]</i> | unknown                                     |

Vertical accuracy (use your best judgement and select one):

|               |            |            |             |        |         |         |
|---------------|------------|------------|-------------|--------|---------|---------|
| <0.01m        | =>0.1m <1m | +20ft(6m)  | +100ft(35m) | +250ft | +1000ft | >2000ft |
| =>0.01m <0.1m | +10ft(3m)  | +40ft(12m) | +180ft(55m) | +500ft | +2000ft | unknown |