PNAMP SURVEY OF AQUATIC MONITORING

This document is a paper version of the online PNAMP Survey of Aquatic Monitoring (http://pnampsurvey.streamnet.org), intended only for your reference. **Please submit information using the online interface**. Note also, the online survey guides the user through several "loops," allowing you to submit multiple "monitoring types x locations groups," and "secondary information" associated with each of those groups (see below for descriptions of these terms). If you are using this "paper version" to record notes before submitting data online, you may need to print multiple copies of the necessary sections (we have provided a table of contents to help navigate).

INTRODUCTION

The purpose of this survey is to help people who conduct aquatic and watershed monitoring in the field (that's you) to find other people doing similar work. The intent is to promote collaborative field sampling so that:

- duplication of effort can be avoided;
- the amount of information available for analyses can be increased; and
- monitoring can be done more efficiently.

To meet these goals, PNAMP (Pacific Northwest Aquatic Monitoring Partnership) is collecting information on monitoring -- who monitors what, and where. This survey is about monitoring of aquatic resources and those factors that affect aquatic resources. "Monitoring" in this survey refers only to:

- status and trend monitoring of populations (fish counts, amphibian counts, redd counts, etc.);
- status and trend monitoring of communities (macroinvertebrates, riparian vegetation, etc.);
- status and trend monitoring of aquatic habitats (stream physical habitat, water quality, etc.);
- status and trend monitoring of riparian and upland habitats as they affect aquatic habitats (erosion, upland vegetation, etc.);
- effectiveness monitoring of habitat improvement projects (evaluations of desired changes resulting from projects).

Are we interested in your information?

The geographic scope of this survey is the Pacific Northwest region from San Francisco to Canada, including Idaho and western Montana (though we'll gladly accept eastern Montana information if you have both). Estuarine areas are included but ocean areas are not. The temporal scope is monitoring that currently occurs or will begin in the next two years. We are interested only in long-term activities, not shorter-term efforts that last for only a few years.

*Required

A secondary purpose of this survey is help funding entities plan and evaluate their monitoring programs. Gaps can be identified and filled, and duplicative efforts avoided, so that the limited funds available for aquatic resource monitoring can be allocated appropriately

The results will be made available to you at www.pnamp.org. You will be able to find people doing monitoring work in your area of interest, and they will be able to find you. The first step in this process is to collect information from the people who do monitoring in the field -- we hope you will participate. We estimate this survey will take 20-30 minutes to complete.

(This survey is being conducted by PNAMP. Other surveys have been conducted recently. If you responded to one of those we will ask which one(s) you responded to, and gather your information from those results to the extent possible.)

*Required

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*Required

PRELIMINARY INFORMATION

In this survey we ask about aquatic resource monitoring you do. We are interested only in 1) *status and trend* monitoring of aquatic **populations** or **communities**, 2) *status and trend* monitoring of **aquatic habitats**, 3) *status and trend* monitoring of **riparian** and **upland habitats** as they affect aquatic habitats, and 4) *effectiveness* monitoring of habitat improvement projects. Please fill in what you can in a reasonable amount of time.

NAME AND CONTACT INFORMATION OF PERSON FILLING OUT THIS SURVEY

Last Name*:_____

First Name*:_____

Title*:_____

Agency/Entity*:_____

Office/Subunit: _____

Phone*:_____

Email*:_____

Mailing Address: _____

Address Line 2: _____

City, State, Zip: _____

NAME AND CONTACT INFORMATION OF PERSON IN CHARGE OF THE MONITORING WORK (if different than above)

Last Name: _____

First Name: _____

Title: _____

Agency/Entity: _____

Office/Subunit: _____

Phone: _____

Email: _____

Mailing Address: _____

Address Line 2: _____

City, State, Zip: _____

*Required

OTHER SURVEYS YOU HAVE TAKEN

Have you already responded to any of the following surveys?

If so, select the survey(s) you have responded to and then proceed to page 36.

___ Survey of Environmental Monitoring Programs & Associated Databases within Washington

___ Resource Monitoring Program Survey (for Washington's Comprehensive Monitoring Study)

___ Ecotrust/Wild Salmon Center "North Pacific Salmon Monitoring Data Inventory"
(State of the Salmon WA, OR, CA, ID ("WOCI") monitoring data inventory)

___ National Water Quality Monitoring Council (Northwest inventory)

___ OWEB: Effectiveness Monitoring Workshop Pre-workshop Questions

___ CSMEP inventory of fish monitoring data sets

*Required

WHAT AND WHERE (Introduction)

You provided the "who" on a previous page. This part is the "where and what."

Because you may conduct more than one type of monitoring, and at more than one location, we will ask you to identify one or more groupings of location / monitoring type combinations. A single grouping can represent any of the following:

- a single location with a single monitoring type
- a single location with multiple monitoring types
- a group of locations with a single monitoring type
- a group of locations with multiple monitoring types

After you have identified all your groupings we will ask for the following optional information about each of them:

- when the monitoring is scheduled to end
- method(s) used
- scope of inference
- cost and funders
- data availability

In general, a grouping representing related monitoring activities -- such as a monitoring project or program or other logical group -- will be most straight-forward. Use however many groupings you feel are needed to characterize your monitoring work.

*Required

CONFUSED? – MORE HELP UNDERSTANDING THIS SURVEY

This survey will be used to create a table of what types of aquatic monitoring are done where, and by whom. This combination of What x Where x Who is the basic unit of information we will collect -- our other questions will provide more information to describe each what/where/who unit. Your response to the first question provided the "Who." We now need appropriate What x Where combinations.

You should define What x Where combinations as necessary so that the subsequent questions (scheduled end date, methods, etc.) can be answered appropriately. For example, pretend you do the following monitoring:

- redd counts and sediment cores at locations A and B, and
- water temperatures and inverts at locations B and C.

You could create two groupings:

1. Monitoring types = redds & sediment; Locations = A & B
2. Monitoring types = temperature & inverts; Locations = B & C.

If you have many combinations of What x Where, or perhaps the secondary information (end dates, methods, scope of inference, etc.) are variable, then creating a What x Where entry for each combination could be onerous. If this is the case, you can take one of 3 approaches:

1. Go ahead and provide separate groupings for each combination (as shown above).
2. Create a grouping that provides a generalized answer. For the example above, provide a single grouping that contains all 4 monitoring types at all 3 locations. However, notice that this will overstate the monitoring work you do.
3. Create a grouping that contains more detailed secondary information. For the example above, provide a single grouping that contains all 4 monitoring types at all 3 locations, but provide detail in the secondary information to further refine your answer. Perhaps the redd counts are scheduled to end earlier than the other monitoring, or the funding is different for the invertebrates monitoring, or different methods are used in different locations. Such information could be provided in your responses to the secondary questions.

Which approach you use is up to you. Remember that the purpose of this survey is to let you find other people doing monitoring in areas you are interested in. So provide a response that you think will be useful to other people doing the same.

Still unclear? You can call Adam Storch at 503-595-3156 to discuss this further.

*Required

GROUPINGS (This is required)

ADD/EDIT MONITORING TYPE

MONITORING PROJECT AND PROGRAM NAME(S), IF ANY

Enter the names of projects, if any, that the monitoring is a part of. Also enter the names of any monitoring programs, if any, that this monitoring is a part of (e.g., AREMP; PIBO aquatic monitoring; TMDL; smolt monitoring program; general parr monitoring; etc.).

_____
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MONITORING TYPE (select one of the following)

___ WATER QUANTITY
___ WATER QUALITY
___ SOIL AND SEDIMENT QUALITY
___ PHYSICAL HABITAT: ESTUARINE
___ PHYSICAL HABITAT: FRESHWATER WETLAND
___ PHYSICAL HABITAT: IN-STREAM
___ PHYSICAL HABITAT: LAKE/POND/RESERVOIR
___ PHYSICAL HABITAT: RIPARIAN
___ PHYSICAL HABITAT: UPLAND
___ BIOLOGICAL: VEGETATION
___ BIOLOGICAL: MACROINVERTEBRATES
___ BIOLOGICAL: FISH
___ BIOLOGICAL: AMPHIBIANS/REPTILES
___ BIOLOGICAL: BIRDS
___ BIOLOGICAL: MAMMALS
___ BIOLOGICAL: OTHER
___ OTHER

*Required

SAMPLING FREQUENCY (select any of the following; you may select multiple frequencies)

___ UNKNOWN
___ MULTI-YEAR ROTATING PANEL
___ ANNUALLY OR LONGER
___ QUARTERLY
___ MONTHLY
___ WEEKLY
___ DAILY
___ MORE THAN DAILY

EFFECTIVENESS MONITORING

Is the indicated monitoring explicitly intended to evaluate the effectiveness of specific habitat improvement projects, policies, or regulatory actions?
If yes, please identify the action(s) being evaluated (e.g., name of a policy, "flow augmentation," "barrier removal," "riparian enhancement," etc.).

Select any of the following (you may select multiple categories)

___ FISH SCREENING
Examples:
Fish Screen
Fish Screen Replaced

___ FISH PASSAGE
Examples:
Fish Ladder Improved
Fish Ladder Installed
Fishways (ladders, chutes, or pools)
Barriers (dams or log jams)
Diversion Dam/push up dam removal
Road Crossings (bridges or culverts)
Culvert Improvements/Upgrades
Culvert Installation
Culvert Replacement
Culvert Removal
Weirs (log or rock)

___ INSTREAM FLOW
Examples:
Water leased or purchased
Irrigation practice improvement
Water flow returned to stream

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*Required

___ INSTREAM
Examples:
Streambank Stabilization
Channel Connectivity
Channel reconfiguration (includes channel roughening)
Deflectors/barbs
Log (control) weirs
Off channel habitat
Plant removal/control
Rock (control) weir
Signage
Site Maintenance
Spawning Gravel Placement
Large Woody Debris
Stream Channels
Boulders
Rootwads
Structure/Log Jam
Beaver Introduction

___ INSTREAM WETLAND
Examples:
Wetland Creation
Wetland Improvement/Enhancement
Wetland Restoration
Wetland Vegetation Planting
Wetland Invasive Species Removal

___ RIPARIAN
Examples:
Livestock Water Development
Water Gap Development
Fencing
Forestry Practices/Stand Management
Planting
Livestock Exclusion
Conservation Grazing Management
Weed Control

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*Required

___ SEDIMENT REDUCTION
Examples:
Road Reconstruction
Road Relocation
Road Stream Crossing Improvements (=Rocked Ford)
Road Drainage System Improvements
Road Obliteration
Erosion Control Structures
Sediment Traps
Upland Erosion Control (sediment control basins, windbreaks, planting, conservation land management)

___ UPLAND AGRICULTURE
Examples:
Livestock Management
Agriculture Management (BMPs)
Fencing
Water Development

___ UPLAND-VEGETATION
Examples:
Planting
Invasive Plant Control
Vegetation/Stand Management
Slope Stabilization

___ UPLAND-WETLAND
Examples:
Wetland Creation
Wetland Improvement/Enhancement
Wetland Restoration
Wetland Vegetation Planting
Wetland Invasive Species Removal

___ WATER QUALITY IMPROVEMENT
Examples:
Return Flow Cooling
Refuse Removal
Toxic Clean-up

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*Required

___ OUTMIGRANT SURVIVAL IMPROVEMENT (Estuary)
Examples:
Invasive Species Treated
Creation of new estuarine area
Removal of existing fill material
Channel Modification
Increased Freshwater Flow
Dike Breaching/Removal
Tidegate Alteration/Removal
Dike Reconfiguration

___ LAND PROTECTED, ACQUIRED, OR LEASED
Examples:
Streambank Protected
Wetland or Estuarine are Protected

___ NUTRIENT ENRICHMENT
Examples:
Fertilizer
Carcass Analog
Carcass Placement

___ OTHER

*Required

MONITORING INDICATORS

Check any of the indicators associated with the monitoring type selected on page 6 (you may select multiple indicators; if "other" please specify in the space provided)

WATER QUANTITY
___ Flow volume/timing
___ Flow diversion/timing
___ Ground water/water table
___ Other (please specify: _____)

WATER QUALITY
___ Temperature
___ Conductivity
___ Turbidity
___ Suspended sediment
___ Dissolved oxygen
___ pH
___ BOD
___ Nutrients
___ Contaminants
___ Algae/chlorophyll
___ Fecal coliforms
___ Macroinvertebrates
___ Other (please specify: _____)

SOIL AND SEDIMENT QUALITY
___ Salinity
___ Moisture content
___ Erosion
___ Other (please specify: _____)

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*Required

PHYSICAL HABITAT: ESTUARINE
___ Air temperature
___ Armoring
___ Turbidity
___ Channelization
___ Culverts
___ Dams
___ Depth
___ Dikes
___ Elevation
___ Emergent vegetation
___ Flood plain width
___ Large wood count
___ Salinity
___ Soil salinity
___ Species composition
___ Substrate type
___ Tidal range
___ Tributaries
___ Vegetation type
___ Other (please specify: _____)

PHYSICAL HABITAT: FRESHHWATER WETLAND
___ Species composition
___ Substrate type
___ Vegetation type
___ Other (please specify: _____)

PHYSICAL HABITAT: IN-STREAM
___ Thalweg profile
___ Thalweg depth
___ Wetted width
___ Bankfull width
___ Habitat class
___ Large woody debris
___ Slope and bearing
___ Bank angle
___ Bank incision
___ Bank undercut
___ Bankfull height
___ Canopy cover
___ Cover
___ Substrate
___ Channel type
___ Habitat unit types
___ Other (please specify: _____) *Continued on page 15*

*Required

PHYSICAL HABITAT: LAKE/POND/RESERVOIR
___ Depth
___ Substrate type
___ Other (please specify: _____)

PHYSICAL HABITAT: RIPARIAN
___ Substrate type
___ Elevation
___ Canopy cover
___ Riparian vegetation structure
___ Air temperature
___ Other (please specify: _____)

PHYSICAL HABITAT: LAKE/POND/RESERVOIR
___ Area
___ Perimeter
___ Stream layer
___ Elevation
___ Equivalent clearcut area
___ Impervious surfaces
___ Road density
___ Land cover
___ Land use
___ Substrate type
___ Riparian zone
___ Other (please specify: _____)

BIOLOGICAL: VEGETATION
___ Species composition
___ Species diversity
___ Nonnative/invasive species
___ Canopy cover
___ Riparian vegetation structure
___ Other (please specify: _____)

BIOLOGICAL: MACROINVERTEBRATES
___ Species composition
___ Species diversity
___ Species distribution
___ EPT
___ Nonnative/invasive species
___ Other (please specify: _____)

Continued on page 16

*Required

BIOLOGICAL: FISH

___ Adult age at return
___ Adult passage timing
___ Adults/redd
___ Age structure
___ Allelic richness (rarefication)
___ Ascendency
___ Carcass disease
___ Carcass count
___ Carcass distribution
___ Carcass length at age
___ Cost per adult harvested
___ CPUE
___ Dam counts
___ Dam passage mortality
___ Diversity
___ Effective number of breeders
___ Emigration size
___ Emigration timing
___ Escapement
___ Fecundity
___ Female spawner abundance
___ Gonadal somatic index (GSI)
___ Growth rates
___ Harvest effect
___ Harvest in-river
___ Harvest-ocean
___ Heterozygosity
___ H-W success
___ Juvenile abundance
___ Juvenile distribution
___ Juvenile size
___ Length/frequency distribution
___ Male: female ratio
___ Number of natural residuals
___ Number of redds
___ Parr to smolt survival
___ Phenotypic data
___ Piscovory index
___ Presence/absence
___ Pre-spawning mortality
___ Recruits per spawner
___ Redd distribution
___ Relative reproductive success
___ Run timing (adults)

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*Required

___ Sex ratio
___ Smolt abundance
___ Smolt distribution
___ Smolt heath
___ Smolt passage timing
___ Smolt size
___ Smolt to adult return rate (SAR)
___ Smolts/adult
___ Smolts/female
___ Smolts/redd
___ Spawner distribution
___ Stock identification
___ Stray rate
___ Total catch of each stock in fishery
___ Total spawner abundance
___ Other (please specify: _____)

BIOLOGICAL: AMPHIBIANS/REPTILES
___ Species composition
___ Species diversity
___ Species distribution
___ Nonnative/invasive species
___ Mortality
___ Other (please specify: _____)

BIOLOGICAL: BIRDS
___ Species composition
___ Species diversity
___ Species distribution
___ Nonnative/invasive species
___ Mortality
___ Other (please specify: _____)

BIOLOGICAL: MAMMALS
___ Species composition
___ Species diversity
___ Species distribution
___ Nonnative/invasive species
___ Mortality
___ Other (please specify: _____)

BIOLOGICAL: OTHER
please specify: _____

OTHER
please specify: _____

*Required

SPECIES MONITORED

Check any of the taxa or groups associated with the monitoring type selected on page 6 (you may select multiple indicators; if "other" please specify in the space provided)

BIOLOGICAL: VEGETATION
___ Estuarine
___ Wetland
___ Aquatic
___ Riparian
___ Upland
___ Smooth cordgrass (Spartina alterniflora, a.k.a. "saltmarsh" or "Atlantic" cordgrass)
___ Reed canary grass (Phalaris arundinacea)
___ American eel grass (Maritimas americanus)
___ Japanese eel grass (Maritimas japonica)
___ Virginia glasswort (Salicornia virginica)
___ Purple loosestrife (*Lythrum salicaria*)
___ Other (please specify: _____)

BIOLOGICAL: MACROINVERTEBRATES
___ Mussels / clams (Bivalvia)
___ Snails (Gastropoda)
___ New Zealand mud snail (*Potamopyrgus antipodarum*)
___ European green crab (*Carcinus maenas*)
___ Mitten crab (*Eriocheir sinensis*)
___ Other (please specify: _____)

Continued on page 19

*Required

BIOLOGICAL: FISH
Please provide a species list in the space provided below

_____
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_____

BIOLOGICAL: AMPHIBIANS/REPTILES
___ Pacific giant salamander (*Dicamptodon tenebrosus*)
___ Tailed frog (*Ascaphus sp.*)
___ Bullfrog (*Rana catesbeiana*)
___ Western pond turtle (*Clemmys marmorata*)
___ Common slider (turtle) (*Trachemys scripta*)
___ Other (please specify: _____)

BIOLOGICAL: BIRDS
Please provide a species list in the space provided below

_____
_____
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_____
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_____

BIOLOGICAL: MAMMALS
___ Beaver (*Castor canadensis*)
___ Mountain beaver (*Aplodontia rufa*)
___ Muskrat (*Ondatra zibethicus*)
___ Nutria (*Myocastor coypus*)
___ River otter (*Lontra canadensis*)
___ California sea lion (*Zalophus californianus*)
___ Steller sea lion (*Eumetopias jubatus*)
___ Harbor seal (*Phoca vitulina*)
___ Other (please specify: _____)

Continued on page 20

*Required

BIOLOGICAL: OTHER
Please provide a species list in the space provided below

_____
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*Required

LOCATIONS

Provide the location(s) where you conduct monitoring. Provide all the locations that apply.

Providing locations can be difficult. We have tried to break this down into logical location types (stream locations, upland points, polygons) because locations can be specified differently depending on where the work is done (upland vs. in-stream, for example). We show alternative ways to provide each type of location -- use whichever is easiest for you (methods are presented in the order of our preference.) If none of the methods work for you and you would rather use a different approach (e.g., sending shape files or other file type), please provide a person we can contact to discuss locations with later.

STREAM/RIPARIAN/ESTUARINE POINTS OR REACHES

LAT/LONG (preferred)

Provide the longitude and latitude (at least 4 decimal places) for each monitoring site in the space below. If you are providing stream, riparian, or estuarine locations, also include the water body name. For example:

-114.5898, 46.5510, "Podunk Creek"

The following formatting options are preferred:

- Use of negative sign for the longitude
- Commas between values
- Quotation marks around water body name
- Column order of longitude, latitude, water body name

Continued on page 22

*Required

What is the datum for these lat/longs? (Examples: WGS84, NAD83, 91 Adj., NAD27, HARN, unknown)

_____
_____
_____

Method used to determine lat/long (please check one of the following)

___ GPS (Differentially corrected)
___ GPS (No differential correction)
___ GPS (Unknown if corrected)
___ Digitized - computer screen (heads-up)
___ Digitized - paper map (digitizer pad)
___ Hand measured - paper map (interpolation)
___ Estimated Value
___ Multiple methods
___ Other

*Required

ROUTED HYDRO (less preferred)

Provide routed hydrography location information for each monitoring site, one site per line. The following formatting rules are **required**:

- Commas between values
- Quotation marks around water body name
- Column order of stream name, stream code (LLID) or downstream reach code (NHD), downstream measure, upstream reach code (for NHD), upstream measure.

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What routing system is used? (100-k LLID; 100-k NHD; 24-k NHD; etc.)

_____

What units are the measures in? (feet, m, km, etc.)

_____

What is the datum? (WGS84, NAD83, 91 Adj., NAD27, HARN, unknown, etc.)

_____

What is the projection?

_____

*Required

ESTUARIES (less preferred)

Please check the estuaries where your monitoring is conducted

PUGET SOUND
___ Strait of Juan de Fuca
___ San Juan Archipelago
___ Widbey Basin and Admiralty Inlet (North Puget Sound)
___ Central Puget Sound
___ Hood Canal
___ South Puget Sound

WASHINGTON COAST
___ Sooes River
___ Ozette River
___ Soleduck River
___ Hoh River
___ Queets River
___ Quinault River
___ Grays Harbor
___ Willipa Bay

___ Columbia River

OREGON COAST
___ Necanicum River
___ Nehalem River
___ Tillamook Bay
___ Netarts Bay
___ Sand Lake
___ Nestucca Bay
___ Salmon River
___ Siletz Bay
___ Depoe Bay
___ Yaquina Bay
___ Beaver Creek
___ Alsea Bay
___ Siuslaw River
___ Siltcoos River
___ Umpqua River
___ Ten Mile Lake
___ Coos Bay
___ Coquille River
___ Two Mile Creek
___ New River
___ Sixes River
___ Elk River
___ Euchre Creek
___ Rogue River
___ Pistol River
___ Chetco River
___ Winchuck River

CALIFORNIA
___ Smith River
___ Elk Creek
___ Nickle Creek
___ Klamath River
___ Redwood Creek
___ Little River
___ Humboldt Bay
___ Eel River
___ Bear River
___ Mattole River
___ Ten Mile River
___ Pudding Creek
___ Noyo River
___ Big River
___ Little River
___ Albion River
___ Whitesboro Cove (Little & Big Salmon Creeks)
___ Navarro River
___ Garcia River
___ Gualala River
___ Russian River
___ Bodega Harbor
___ Estero Americano
___ Estero San Antonio
___ Tomales Bay
___ Drakes Estero
___ Estero de Limantour
___ Bolinas Lagoon
___ San Francisco Bay

*Required

HUC (least preferred)

Please list the HUCs (5th-level or 6th-level) where the monitoring is conducted in the space below.

*Required

CONTACT PERSON

Provide contact information for the person who will provide locations.

Last name: _____

First name: _____

Phone number: _____

Email address: _____

*Required

UPLAND POINTS

LAT/LONG (preferred)

Provide the longitude and latitude (at least 4 decimal places) for each monitoring site in the space below. If you are providing stream, riparian, or estuarine locations, also include the water body name. For example:

-114.5898, 46.5510, "Podunk Creek"

The following formatting options are preferred:

- Use of negative sign for the longitude
- Commas between values
- Quotation marks around water body name
- Column order of longitude, latitude, water body name

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What is the datum for these lat/longs? (Examples: WGS84, NAD83, 91 Adj., NAD27, HARN, unknown)

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_____
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Continued on page 28

*Required

Method used to determine lat/long (please check one of the following)

___ GPS (Differentially corrected)
___ GPS (No differential correction)
___ GPS (Unknown if corrected)
___ Digitized - computer screen (heads-up)
___ Digitized - paper map (digitizer pad)
___ Hand measured - paper map (interpolation)
___ Estimated Value
___ Multiple methods
___ Other

*Required

UTM (less preferred)

Provide the UTM zone, easting, and northing for each monitoring site in the spaces below. The following formatting rules are required:

- Commas between values
- Column order of UTM zone, easting, northing.

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What is the datum? (Examples: WGS84, NAD83, 91 Adj., NAD27, HARN, unknown, etc.)

_____
_____

Method used to determine UTM coordinates

___ GPS (Differentially corrected)
___ GPS (No differential correction)
___ GPS (Unknown if corrected)
___ Digitized - computer screen (heads-up)
___ Digitized - paper map (digitizer pad)
___ Hand measured - paper map (interpolation)
___ Estimated Value
___ Multiple methods
___ Other

*Required

HUC (least preferred)

Please list the HUCs (5th-level or 6th-level) where the monitoring is conducted in the space below.

*Required

CONTACT PERSON

Provide contact information for the person who will provide locations.

Last name: _____

First name: _____

Phone number: _____

Email address: _____

*Required

AREAS (polygons)

LAT/LONG (preferred)

Provide the longitude and latitude (at least 4 decimal places) for each monitoring site in the space below. If you are providing stream, riparian, or estuarine locations, also include the water body name. For example:

-114.5898, 46.5510, "Podunk Creek"

The following formatting options are preferred:

- Use of negative sign for the longitude
- Commas between values
- Quotation marks around water body name
- Column order of longitude, latitude, water body name

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What is the datum for these lat/longs? (Examples: WGS84, NAD83, 91 Adj., NAD27, HARN, unknown)

_____
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Continued on page 33

*Required

Method used to determine lat/long (please check one of the following)

___ GPS (Differentially corrected)
___ GPS (No differential correction)
___ GPS (Unknown if corrected)
___ Digitized - computer screen (heads-up)
___ Digitized - paper map (digitizer pad)
___ Hand measured - paper map (interpolation)
___ Estimated Value
___ Multiple methods
___ Other

Formatted: Bullets and Numbering

*Required

HUC (least preferred)

Please list the HUCs (5th-level or 6th-level) where the monitoring is conducted in the space below.

*Required

CONTACT PERSON

Provide contact information for the person who will provide locations.

Last name: _____

First name: _____

Phone number: _____

Email address: _____

*Required

OTHER PEOPLE DOING MONITORING

Can you suggest other people involved in aquatic resource monitoring to take this survey? Please provide names and contact information (phone or email or mailing address) below.

Last Name*:_____

First Name*:_____

Title: _____

Agency/Entity: _____

Office/Subunit: _____

Phone*: _____

Email: _____

Mailing Address: _____

Address Line 2: _____

City, State, Zip: _____

Types of monitoring done:

_____
_____
_____

Notes:

_____
_____
_____

*Required

SECONDARY INFORMATION/COMMENTS

In addition to the core information you just provided, we would like to ask the following about your monitoring:

- Start / end years
- Methods
- Scope of inference
- Program / project name
- Costs / funders
- Data availability

If there is anything else we should know, or keywords or an abstract you would like to add, please provide it in the space below.

*Required

LAST YEAR (This is required)

What year is on the ground monitoring expected to end? Use 4 digits (i.e. "2009", not "09"). Enter 9999 for long-term monitoring with no planned end date.

_____

BEGIN YEAR

Approximately what year did on the ground monitoring begin? Use 4 digits (i.e. "1984", not "84").

_____

PROTOCOLS/METHODS USED

Data collection methods. If you can provide named protocols or have a methods section you can easily copy and paste (for online survey) here, please do so. Otherwise give a brief description of the methods used for the monitoring. If multiple protocols are used or this question is otherwise not easily answered, enter "multiple" or "complex" or simply ignore this question. Information of interest includes sampling design, time of year when sampling is done, equipment used, protocols followed, etc.

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*Required

SCOPE OF INFERENCE

Monitoring is being done to answer questions at what scale? (Check the broadest one that applies.)

___ Local (monitoring site only)
___ Single water body
___ Watershed
___ Population
___ ESU / DPS
___ Species
___ Project or program
___ Region-wide
___ Other (please specify: _____)

ANNUAL COST

What is the approximately annual cost of monitoring for the What x Where grouping? (check one of the following)

___ less than $100,000
___ $100,000 to 500,000
___ $500,000 to 1,000,000
___ greater than $1,000,000
___ Unknown

PARTNER(S), IF ANY

Please list any partners involved in this work.

_____
_____
_____
_____
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_____
_____

*Required

FUNDING

Please check any funding entities that apply

___ BPA
___ NMFS
___ USFS
___ BLM
___ SRFB
___ OWEB
___ USFWS
___ USACOE
___ US BOR
___ EPA
___ Other (please specify: _____)

PROJECT NUMBER (if any; Contract number, funder's project number, etc)
_____

*Required

DATA AVAILABILITY

Are you willing to share these data with other monitoring practitioners? If so, complete the following

DATA STORAGE FORMAT (check all that apply)

___ Paper hard copy
___ Electronic document (e.g., PDF file, MS word file)
___ Database software (e.g., MS Access, Oracle)
___ GIS (e.g., shape files, layers, geodatabase)
___ Internet site (provide URL)

HOW CAN PEOPLE OBTAIN THE DATA?

Provide a contact person or an Internet site. If the contact information is the same as for the person filling out this survey, you can enter "Same" for the last name and leave the rest blank.

Last Name: _____

First Name: _____

Title: _____

Agency/Entity: _____

Office/Subunit: _____

Phone: _____

Email: _____

Internet address (URL): _____

*Required