

WAC 197-11-960 Environmental checklist.

ENVIRONMENTAL CHECKLIST

Purpose of checklist:

The State Environmental Policy Act (SEPA), chapter 43.21C RCW, requires all governmental agencies to consider the environmental impacts of a proposal before making decisions. An environmental impact statement (EIS) must be prepared for all proposals with probable significant adverse impacts on the quality of the environment. The purpose of this checklist is to provide information to help you and the agency identify impacts from your proposal (and to reduce or avoid impacts from the proposal, if it can be done) and to help the agency decide whether an EIS is required.

Instructions for applicants:

This environmental checklist asks you to describe some basic information about your proposal. Governmental agencies use this checklist to determine whether the environmental impacts of your proposal are significant, requiring preparation of an EIS. Answer the questions briefly, with the most precise information known, or give the best description you can.

You must answer each question accurately and carefully, to the best of your knowledge. In most cases, you should be able to answer the questions from your own observations or project plans without the need to hire experts. If you really do not know the answer, or if a question does not apply to your proposal, write "do not know" or "does not apply." Complete answers to the questions now may avoid unnecessary delays later.

Some questions ask about governmental regulations, such as zoning, shoreline, and landmark designations. Answer these questions if you can. If you have problems, the governmental agencies can assist you.

The checklist questions apply to all parts of your proposal, even if you plan to do them over a period of time or on different parcels of land. Attach any additional information that will help describe your proposal or its environmental effects. The agency to which you submit this checklist may ask you to explain your answers or provide additional information reasonably related to determining if there may be significant adverse impact.

Use of checklist for nonproject proposals:

Complete this checklist for nonproject proposals, even though questions may be answered "does not apply." IN ADDITION, complete the SUPPLEMENTAL SHEET FOR NONPROJECT ACTIONS (part D).

For nonproject actions, the references in the checklist to the words "project," "applicant," and "property or site" should be read as "proposal," "proposer," and "affected geographic area," respectively.

A. BACKGROUND

1. Name of proposed project, if applicable:

Passive Integrated Transponder (PIT) tag antenna array installation and maintenance

2. Name of applicant:

Ben Truscott

3. Address and phone number of applicant and contact person:

3515 State Hwy. 97A

Wenatchee, WA 98801

(509) 664-3148 ext.14

4. Date checklist prepared:

9/28/2010

5. Agency requesting checklist:

Washington Department of Fish and Wildlife

6. Proposed timing or schedule (including phasing, if applicable):

Initial installation of all sites from October, 2010 to April, 2014. Maintenance and repair of sites indefinite.

7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain.

The initial study design includes 30 permanent site locations, and up to 20 temporary site locations, which are included in this checklist. No current plans exist to expand beyond this initial design. However, if advancements in applicable technology and/or methods arise, or analysis of data show that additional sites are needed to meet project goals, it is possible that expansion would be desired beyond the initial study design. If additional sites are desired, and the additional sites are equivalent in design, installation and potential impact to the initial sites, then the additional sites could become amendments to this review.

8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal.

Do not know

9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain.

Do not know

10. List any government approvals or permits that will be needed for your proposal, if known.

Depending on site location, various government approvals or permits may or may not be required. This includes, but is not limited to, Section 10 Permit (Army Corps of Engineers), Authorization to use State-Owned Aquatic Lands (Washington State Department of Natural Resources), Special Use Permit (United States Forest Service), Shoreline Exemption Permit (County), Right of Entry Agreement (Privately owned property). All necessary permits, approvals, or agreements for each will be obtained prior to installation of that site.

11. Give brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead agencies may modify this form to include additional specific information on project description.)

The purpose of this project is to monitor the movement and survival of adult and juvenile spring Chinook and steelhead using passive integrated transponder (PIT) tag antenna arrays. The arrays will be installed in streams and tributaries in the Columbia River basin. An array consists of multiple PIT tag antennas, typically in two or three rows, anchored to the stream bed and spanning the width of the stream. Information collected from this project will be used to assess effectiveness of habitat improvement projects and/or hatchery programs. Data collected will also be used to better understand life history characteristics (e.g., migration patterns and timing) and limiting factors (e.g., parr to smolt, smolt to smolt, and smolt to adult survival) of salmonid populations in the upper Columbia River basin. Methods and technology used in this project are becoming the standard for PIT tag antenna arrays operated in fresh water river systems.

The proposed project consists of installing and maintaining antenna arrays at 30 permanent locations and up to 20 temporary locations. At a permanent location, up to twelve antennae constructed of PVC (schedule 80, 4 inch diameter, 3 feet wide by 10-20 feet long) will be connected to a multiplex transceiver housed in a metal Jobox located on the stream bank in close proximity to the antennae. At temporary sites, two antennae constructed of PVC (schedule 80, 2 inch diameter, 2-3 feet wide by 5-10 feet long) will be connected to a data-logger housed in metal Jobox located on the stream bank in close proximity to the antennae. The transceiver or data logger will be powered using 12-volt batteries; however, grid, solar, or thermoelectric power will be used in order to maintain the charge of the batteries.

12. Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist.

See attachment A

B. ENVIRONMENTAL ELEMENTS

1. **Earth**

a. General description of the site (circle one): Flat, rolling, hilly, steep slopes, mountainous, other

Multiple sites locations are proposed as part of this checklist, and conditions vary from steep slopes in upper reaches of watersheds, to flat reaches near the mouths of streams and rivers.

b. What is the steepest slope on the site (approximate percent slope)?

Do not know

- c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any prime farmland.

Cobbles and boulders

- d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.

No site locations will be selected if surface indications or history of unstable soils are in the immediate vicinity.

- e. Describe the purpose, type, and approximate quantities of any filling or grading proposed. Indicate source of fill.

There will be no filling or grading associated with the proposed activities

- f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.

PIT tag antenna arrays have been installed in multiple locations in upper Columbia River watersheds over the past three years, and no erosion has occurred as a result of any activities associated with installation, maintenance, or removal.

- g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)?

No impervious surfaces will be created as a result of the project activities

- h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any:

All activities of this project will result in little to no direct or indirect permanent impacts to the waterbody or surrounding area. Additionally, all efforts are made to minimize any impact that may occur during installation, including but not limited to preserving bank, streambed, and riparian habitat integrity and functionality, and surveying for the presence of salmonids and salmonid redds prior to, during, and after activities. Any impacts that do occur as a result of project activities will be mitigated for by replacement of equal or greater value. Many PIT tag arrays have been installed in mainstem and tributary waterbodies such as the proposed project locations over the past years, and no adverse impacts have been identified. If any unforeseen impacts occur upon the waterbody due to activities associated with the project, all operations will cease until impacts are remedied.

2. Air

- a. What types of emissions to the air would result from the proposal (i.e., dust, automobile, odors, industrial wood smoke) during construction and when the project is completed? If any, generally describe and give approximate quantities if known.

A diesel powered air compressor is used during installation of permanent sites, producing similar emissions as an automobile. Typical installation requires the compressor to be running for eight hours. There would be no emissions after construction is complete.

- b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.

None

c. Proposed measures to reduce or control emissions or other impacts to air, if any:

The compressor is running for the minimum amount of time necessary to complete construction, reducing emissions as much as possible.

3. Water

a. Surface:

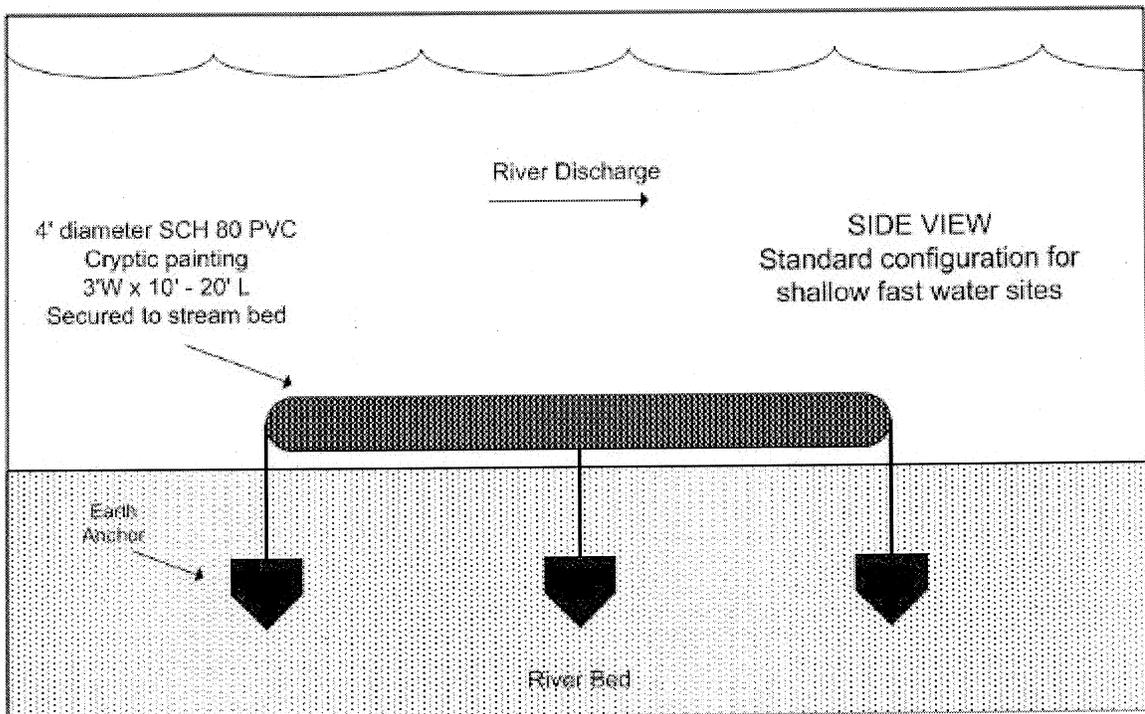
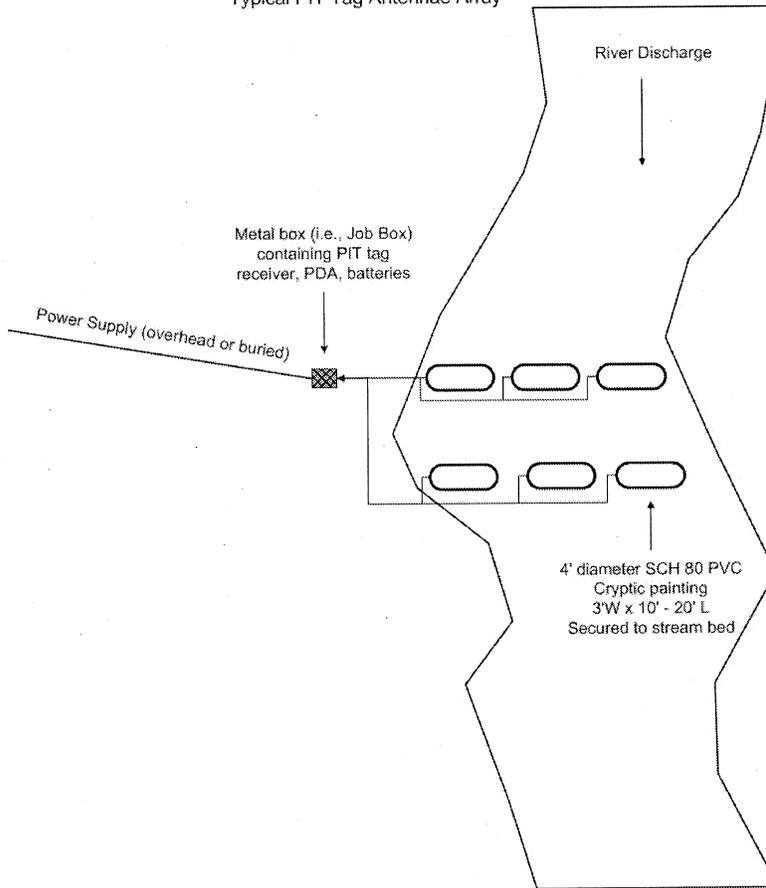
- 1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into.

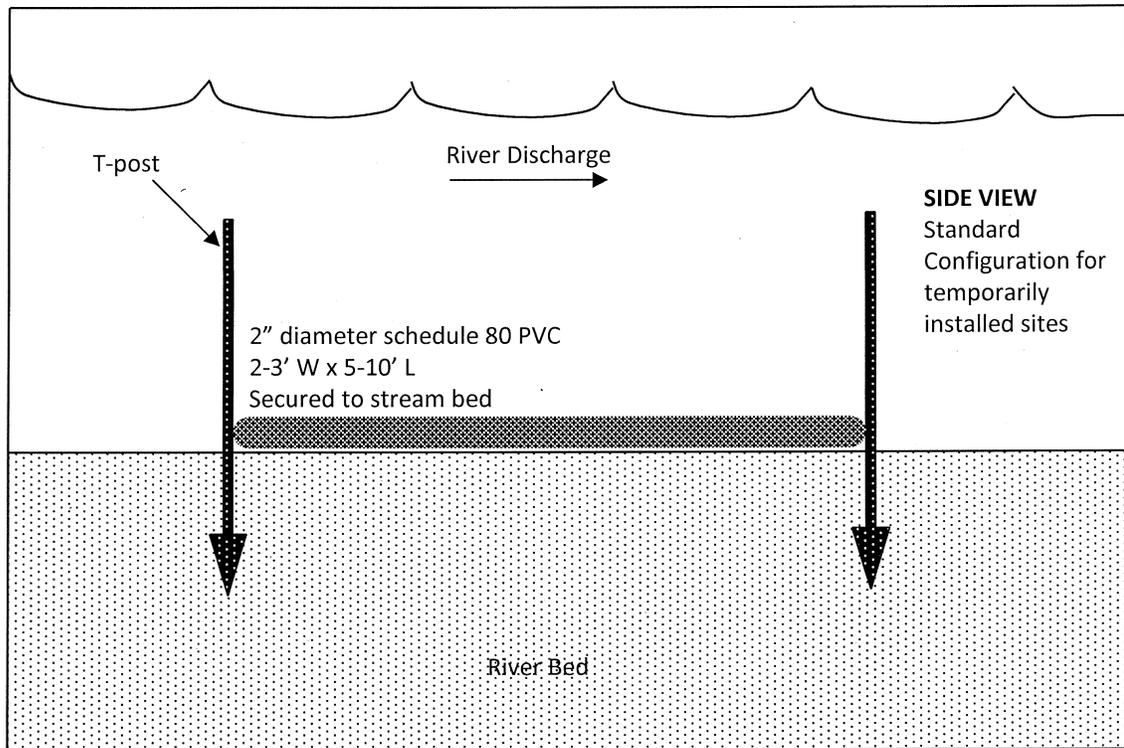
Yes, all project locations are in surface waterbodies. See proposed project locations for names of all waterbodies.

- 2) Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans.

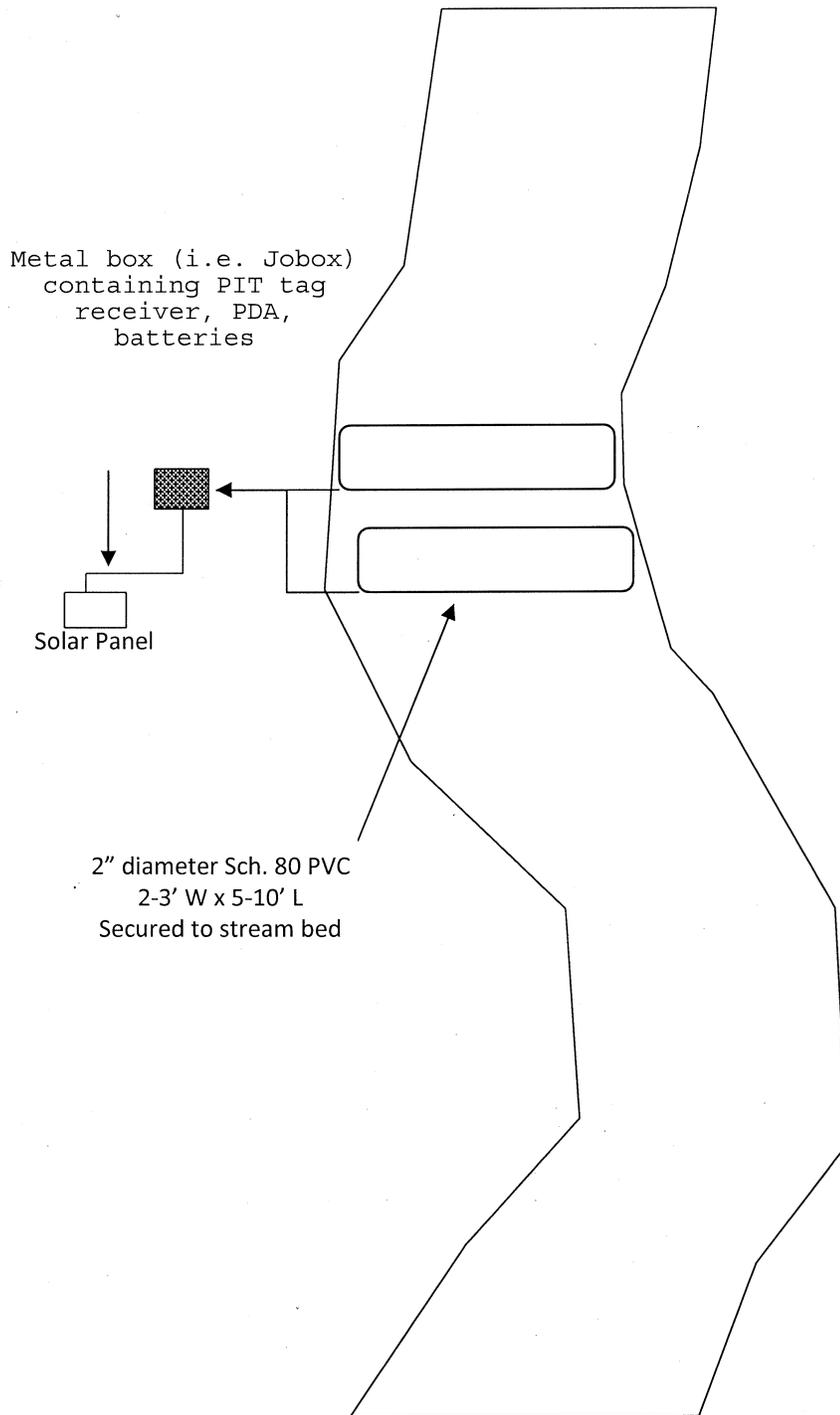
Antennas will be placed in stream channels that are of uniform substrate and less than four feet deep during low water. The antennas will be placed on top of existing substrate. Installation may require some movement of cobble or boulders by hand to facilitate placement of the antennas directly to the river bottom. Antennas at permanently installed sites will be held in place using up to eight Manta Ray (MR-4) type earth anchors for each antenna, driven into the substrate using a 90-lb. pneumatic hammer. Nylon straps with metal clips will attach the upstream and downstream sides of the antennas to the anchors. The antennae at temporarily installed sites will be held in place using metal T-posts driven into the substrate using hand tools. Temporary antennas will be attached to the T-posts using nylon straps with metal clips. Once a temporary site is no longer needed, all components of the system will be removed. Safety lines may be attached to anchor points on shore to prevent theft and/or loss of antennas during high water events. All cables and lines attached to antennas and the shore will sit on top of the river bottom, and may require some movement of cobble or boulders by hand to provide protection and prevent entanglement. Caution signs may be placed in the vicinity of the antennae and associated equipment with appropriate contact information. If any unforeseen impacts occur upon aquatic and/or non-aquatic species, riparian and/or stream bank/bed habitat due to placement of antennas the project will cease operation and the antennas will be removed until impacts are remedied. The proposed project will be funded through Bonneville Power Administration (BPA) for annual operations and maintenance.

TOP VIEW
Typical PIT Tag Antennae Array





TOP VIEW
Typical Temporary PIT Tag Antenna Array



- 3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.

There will be no fill or dredge material placed in or removed from surface water or wetlands.

- 4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known.

The proposal will not require surface water withdrawals or diversions.

- 5) Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.

All locations of the proposal are within the a 100-year floodplain

- 6) Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge.

The proposal does not involve any discharge of waste materials to surface waters.

b. Ground:

- 1) Will ground water be withdrawn, or will water be discharged to ground water? Give general description, purpose, and approximate quantities if known.

No ground water will be withdrawn or discharged.

- 2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals. . . ; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.

No waste material will be discharged.

c. Water runoff (including stormwater):

- 1) Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.

Does not apply

- 2) Could waste materials enter ground or surface waters? If so, generally describe.

No waste materials could enter ground or surface waters

d. Proposed measures to reduce or control surface, ground, and runoff water impacts, if any:

Does not apply

4. Plants

a. Check or circle types of vegetation found on the site:

- deciduous tree: alder, maple, aspen, other
- evergreen tree: fir, cedar, pine, other
- shrubs
- grass
- pasture
- crop or grain
- wet soil plants: cattail, buttercup, bullrush, skunk cabbage, other
- water plants: water lily, eelgrass, milfoil, other
- other types of vegetation

b. What kind and amount of vegetation will be removed or altered?

No vegetation will be removed or altered intentionally through proposed project activities. If any beneficial or native vegetation is altered as a result of project activities it will be replaced and maintained in equal or greater value than previous vegetation

c. List threatened or endangered species known to be on or near the site.

None

d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:

Native plants may be planted in riparian areas bordering site locations to preserve and enhance existing vegetation.

5. Animals

a. Circle any birds and animals which have been observed on or near the site or are known to be on or near the site:

birds: hawk, heron, eagle, songbirds, other:
mammals: deer, bear, elk, beaver, other:
fish: bass, salmon, trout, herring, shellfish, other:

b. List any threatened or endangered species known to be on or near the site.

Steelhead - Upper Columbia River Basin, Threatened

Bull Trout - Conterminous, lower 48 states, Threatened

Spring Chinook – Upper Columbia River Basin, Endangered

ESA coverage for this project is provided through existing NOAA permits

c. Is the site part of a migration route? If so, explain.

All sites are selected as potential migration routes for anadromous salmonids

d. Proposed measures to preserve or enhance wildlife, if any:

Project is designed to collect data to be used in evaluating

Information collected from this project will be used to assess effectiveness of habitat improvement projects and/or hatchery programs. Data collected will also be used to better understand life history characteristics (e.g., migration patterns and timing) and limiting factors (e.g., parr to smolt, smolt to smolt, and smolt to adult survival) of salmonid populations in the Columbia River basin.

6. Energy and natural resources

a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs?

Describe whether it will be used for heating, manufacturing, etc.

Electric, solar and propane (thermoelectric generator) energy will be used to maintain the charge of the batteries that power the antennas. Site conditions determine which type of energy is used.

b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.

The project would not have affect the potential use of solar energy by adjacent properties

c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any:

Antennas require minimal amounts of energy to operate, and high quality components (battery chargers, solar panels, electrical wire) are used to maximize efficient use power at all sites.

7. Environmental health

a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal? If so, describe.

There are no environmental health hazards that could result from this proposal

1) Describe special emergency services that might be required.

Does not apply

2) Proposed measures to reduce or control environmental health hazards, if any:

Does not apply

b. Noise

1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?

Noise in the area will not affect the proposal

2) What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site.

Noise from the diesel compressor and pneumatic hammer are produced when installing permanent locations. Hours of construction would be from 8-5, for one to two days per site installation.

3) Proposed measures to reduce or control noise impacts, if any:

Diesel compressor and pneumatic hammer are used at the minimum amount required to properly install the antennas.

8. Land and shoreline use

a. What is the current use of the site and adjacent properties?

Site locations are within waterbodies. Undeveloped or rural residential use is typically adjacent.

b. Has the site been used for agriculture? If so, describe.

No sites have been used for agriculture

c. Describe any structures on the site.

Some sites are located near bridges that span the waterbody

d. Will any structures be demolished? If so, what?

Does not apply

e. What is the current zoning classification of the site?

Various depending on site location

f. What is the current comprehensive plan designation of the site?

Various depending on site location

g. If applicable, what is the current shoreline master program designation of the site?

Various depending on site location

h. Has any part of the site been classified as an "environmentally sensitive" area? If so, specify.

No sites will be selected if they have previously been classified as an environmentally sensitive area.

i. Approximately how many people would reside or work in the completed project?

No people would reside or work within the completed project

j. Approximately how many people would the completed project displace?

No people would be displaced.

k. Proposed measures to avoid or reduce displacement impacts, if any:

Does not apply

- l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:
All sites could be removed or altered if projected or existing land uses conflicted with proposed project activities

9. Housing

- a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.
Does not apply
- b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.
Does not apply
- c. Proposed measures to reduce or control housing impacts, if any:
Does not apply

10. Aesthetics

- a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed?
Does not apply
- b. What views in the immediate vicinity would be altered or obstructed?

No views would be altered or obstructed from any project activities
- c. Proposed measures to reduce or control aesthetic impacts, if any:
Efforts are made during the placement of any antennas, solar panels, Jobox, etc. to control aesthetic impacts.

11. Light and glare

- a. What type of light or glare will the proposal produce? What time of day would it mainly occur?
Sites with solar panels could produce glare during daylight hours.
- b. Could light or glare from the finished project be a safety hazard or interfere with views?
Solar panels are placed so that any glare or obstructed view would not cause an impact.
- c. What existing off-site sources of light or glare may affect your proposal?
No existing sources of light or glare would affect the proposal.
- d. Proposed measures to reduce or control light and glare impacts, if any:
Solar panels are placed so that any glare or obstructed view would not cause an impact.

12. Recreation

a. What designated and informal recreational opportunities are in the immediate vicinity?

Fishing activities are allowed on some stream reaches where sites would be installed. Rafting or tubing may also occur at some sites.

b. Would the proposed project displace any existing recreational uses? If so, describe.

The proposed project would not displace any existing recreational uses.

c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:

Efforts are made during site selection to avoid areas that receive fishing pressure, to reduce any impact the project may have. Antennas are anchored flat to the river bottom, so that impacts to fishing or other recreational uses are minimized.

13. Historic and cultural preservation

a. Are there any places or objects listed on, or proposed for, national, state, or local preservation registers known to be on or next to the site? If so, generally describe.

No places or objects are listed on, or proposed for national, state, or local preservation registers on or near the sites.

b. Generally describe any landmarks or evidence of historic, archaeological, scientific, or cultural importance known to be on or next to the site.

No landmarks or evidence of historic, archaeological, scientific, or cultural importance are known to be on or near the sites

c. Proposed measures to reduce or control impacts, if any:

Site selection will be adjusted if an impact to an historic or cultural preservation site arises.

14. Transportation

a. Identify public streets and highways serving the site, and describe proposed access to the existing street system. Show on site plans, if any.

Various streets and highway serve the sites statewide.

b. Is site currently served by public transit? If not, what is the approximate distance to the nearest transit stop?

Various, depending on site location.

c. How many parking spaces would the completed project have? How many would the project eliminate?

Does not apply

d. Will the proposal require any new roads or streets, or improvements to existing roads or streets, not including driveways? If so, generally describe (indicate whether public or private).

The proposal will not require any new roads, streets, or improvements to existing roads or streets.

e. Will the project use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.

The project will not use or occur within the immediate vicinity of water, rail, or air transportation.

f. How many vehicular trips per day would be generated by the completed project? If known, indicate when peak volumes would occur.

No daily vehicular trips are generated by the completed project.

g. Proposed measures to reduce or control transportation impacts, if any:

Sites store and send data electronically, eliminating the need for daily or weekly trips to the sites for downloading data.

15. Public services

a. Would the project result in an increased need for public services (for example: fire protection, police protection, health care, schools, other)? If so, generally describe.

The project would not result in an increase need for public services

b. Proposed measures to reduce or control direct impacts on public services, if any.

Does not apply

16. Utilities

a. Circle utilities currently available at the site: electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other.

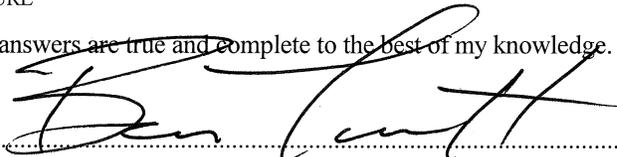
Various depending on site location

b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.

If electric grid power is feasible (in the immediate vicinity of a site location), an outdoor outlet is installed to provide electricity to the battery charger. A certified electrician, or public utility district, provides the construction and service.

C. SIGNATURE

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Signature: 

Date Submitted: 10/12/2010

D. SUPPLEMENTAL SHEET FOR NONPROJECT ACTIONS

(do not use this sheet for project actions)

Because these questions are very general, it may be helpful to read them in conjunction with the list of the elements of the environment.

When answering these questions, be aware of the extent the proposal, or the types of activities likely to result from the proposal, would affect the item at a greater intensity or at a faster rate than if the proposal were not implemented. Respond briefly and in general terms.

1. How would the proposal be likely to increase discharge to water; emissions to air; production, storage, or release of toxic or hazardous substances; or production of noise?

Proposed measures to avoid or reduce such increases are:

2. How would the proposal be likely to affect plants, animals, fish, or marine life?

Proposed measures to protect or conserve plants, animals, fish, or marine life are:

3. How would the proposal be likely to deplete energy or natural resources?

Proposed measures to protect or conserve energy and natural resources are:

4. How would the proposal be likely to use or affect environmentally sensitive areas or areas designated (or eligible or under study) for governmental protection; such as parks, wilderness, wild and scenic rivers, threatened or endangered species habitat, historic or cultural sites, wetlands, floodplains, or prime farmlands?

Proposed measures to protect such resources or to avoid or reduce impacts are:

5. How would the proposal be likely to affect land and shoreline use, including whether it would allow or encourage land or shoreline uses incompatible with existing plans?

Proposed measures to avoid or reduce shoreline and land use impacts are:

6. How would the proposal be likely to increase demands on transportation or public services and utilities?

Proposed measures to reduce or respond to such demand(s) are:

7. Identify, if possible, whether the proposal may conflict with local, state, or federal laws or requirements for the protection of the environment.