

**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:  
**Invasive Cattail Control Project**

2. Name of applicant:  
**Washington Department of Fish and Wildlife**

3. Address and phone number of applicant and contact person:  
**600 Capitol Way N., Olympia, WA 98501-1091**  
**David Heimer (253) 732-3869**  
**Belinda Rotton (360) 333-2131**

4. Date checklist prepared:  
**8-29-13**

5. Agency requesting checklist:  
**Washington Department of Fish and Wildlife**

6. Proposed timing or schedule (including phasing, if applicable):  
**June 1<sup>st</sup>-November 15<sup>th</sup> of each year starting in 2013 with a tentative end date of 2016.**

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

**Yes. Depending on the results of invasive cattail management, the project may be expanded and/or the timeline may be extended.**

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

**Invasive cattail management plan for the Skagit Wildlife Area (WDFW), the written findings for invasive *Typha* by the State Noxious Weed Control Board and the Invasive Cattail Control JARPA.**

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.

**No.**

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

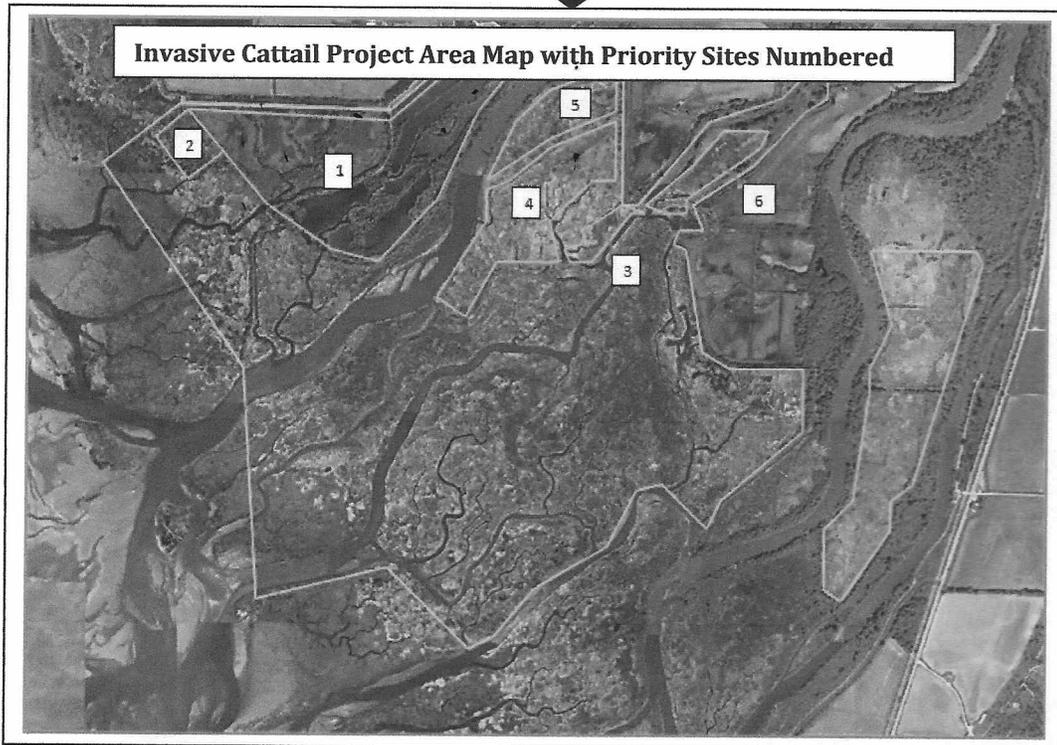
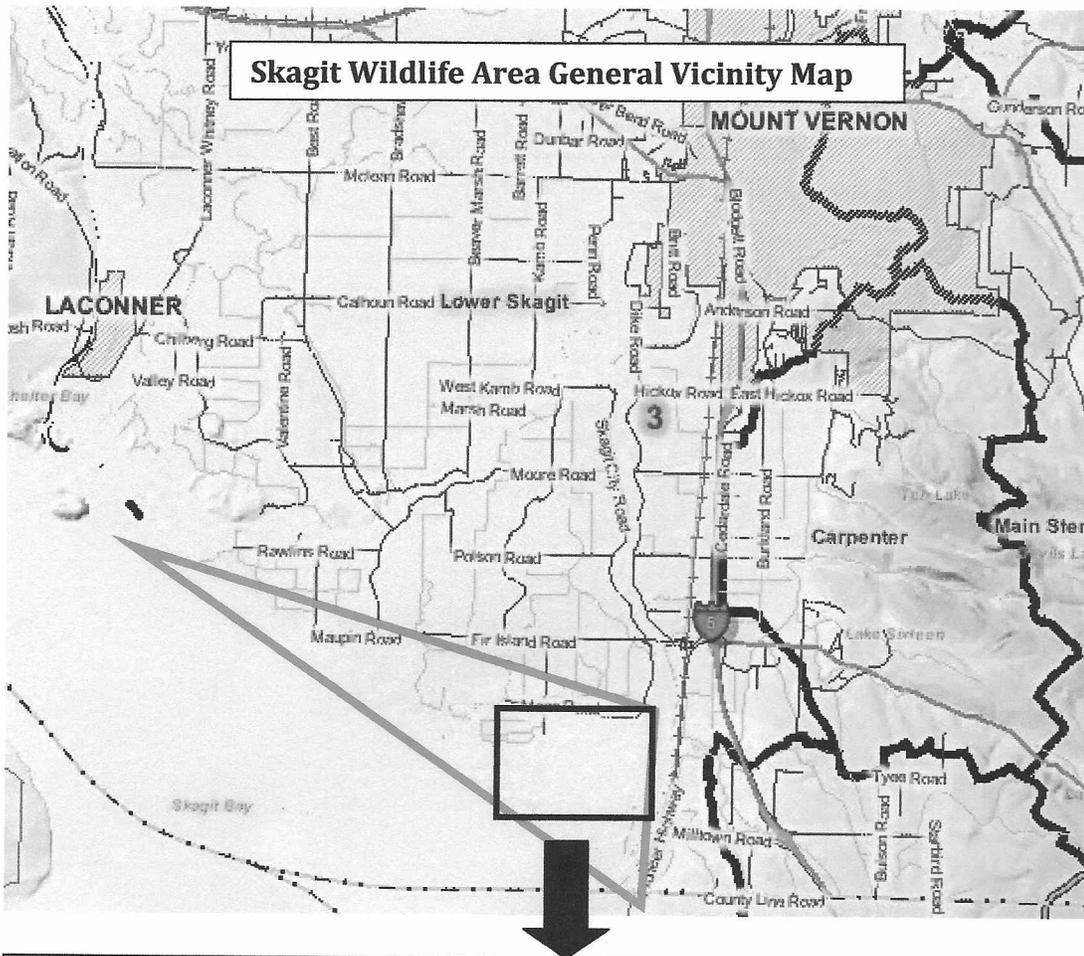
**WDFW HPA Permit and possibly a U.S. Corps of Engineers and Skagit County permit.**

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 project involves controlling invasive cattail (*Typha angustifolia* and *T. x glauca*) on approximately 650 acres of intertidal salt marsh at the Skagit Wildlife Area. Invasive cattail colonizes native marsh and mudflats and quickly forms stands which are not good habitat for fish, waterfowl, and other wildlife. Control will be accomplished through using mechanical methods such as using Marshmasters, underwater weed cutters, airboats, and brush cutters to crush and cut invasive cattail. Repeated cutting over three years has been shown to be effective at reducing cattail and allowing native marsh plants to recolonize the site. In addition, aquatic herbicides (i.e. imazpyr, glyphosate) will be used to treat invasive cattail under WSDA's Aquatic Noxious Weed NPDES (WAG993000) where mechanical treatments are impractical, or unfeasible. Applications will be made using the airboat, Marshmaster and by foot.**

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.

**The project will occur at the Headquarters Unit of the Skagit Wildlife Area (21961 Wylie Road, Mount Vernon, WA—T33N, R03E, Sections 25, 26, 35, 36) in Skagit County.**



B. ENVIRONMENTAL ELEMENTS

1. Earth

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

**Flat, intertidal salt marsh.**

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

**The steepest slopes on the site would be the edge of some sloughs, where a short slope could be vertical in some places. The edge of dikes may also have short slopes of up to 50%.**

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.

**The soils in this area are predominantly Tacoma silt loam. Nearby areas are composed of other silt and sandy loams. The Tacoma silt loam is typically found on delta plains and is from parent materials of alluvium and volcanic ash with thin lenses of unspecified organic material. This very poorly drained soil is found on 0-2% slopes.**

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

**No.**

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

**There will not be any filling or grading at the project location. Invasive cattail will be crushed, cut, or sprayed, but not removed from the sites.**

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

**Yes. Invasive cattail crushing and cutting may result in reduced sediment trapping at the treatment sites. However, crushed and cut plant material will be left on site, as well as leaving ten foot, uncut borders around treatment sites to reduce sedimentation. Based on a pilot project by Hood (2013), recolonization of the site by native plants after invasive cattail removal occurs relatively quickly through the nearby native seed bank.**

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

**None.**

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

**Refueling of equipment will be conducted out of the OHW, or where it can be contained in the vessel.**

**Operation of the Marshmaster would occur from August 1 – November 15, annually. When operating the Marshmaster:**

1. **The Marshmaster will only cross tidal channels that are 4 feet in width or less during low tide cycles when the marsh plain is dry.**
2. **The Marshmaster will only cross tidal channels greater than 4 feet in width during high tide cycles when the marsh plain has sufficient water depth to allow the Marshmaster to operate as a floating vessel.**
3. **At a minimum, a 10 foot buffer of undisturbed marsh vegetation will be maintained along tidal channels with widths greater than 4 feet.**
4. **Existing LOD in tidal channels with widths greater than 4 feet or within the 10 vegetation buffer described above in item 3 will be left undisturbed.**
5. **Existing LOD outside of the 10 foot vegetation buffer described above in item 3 may be set aside to allow crushing activity but will maintain on the marsh plain in the immediate vicinity of its original location.**

**All work will be done in accordance with the terms and conditions of required permits.**

## 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.

**Vehicle exhaust from the Marshmaster, brushcutters and airboats is expected. No long-term change in emissions is expected from the completed project.**

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

**No.**

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

**Standard emission control converters and mufflers installed on equipment would be in use.**

## 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.

**Skagit Bay- saltwater estuary, part of Puget Sound.**

**South Fork of the Skagit River and associated sloughs (e.g. Wiley, Freshwater, Deepwater)- freshwater and tidally influenced it flows into Skagit Bay.**

- 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.

**Yes. The project will involve the Marshmaster, airboat and personnel cutting and crushing invasive cattail in Skagit Bay at the mouth of the South Fork of the Skagit River primarily during low tides.**

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.

**None.**

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

**Yes. Approximately 5,000 gallons per year could be withdrawn from the surface of the river (or from well water, see "b" below) using a small, portable pump to be used for herbicide applications back onto the invasive cattail.**

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

**Yes. The project is within A1, A7 and V4 of FIRM Map Panel 5301510425C.**

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.

**Yes. Herbicides will be applied to invasive cattail under an NPDES permit (WAG993000). It is anticipated that up to 5,000 gallons of spray mix could be applied during a treatment season (June-October). The mix contains only a small percentage (0.5%– 0.75%) of herbicide and would be applied to invasive cattail and given enough time to dry on the plant. Very little herbicide would be available to enter surface water.**

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.

**Yes. Approximately 5,000 gallons per year of well water (or a combination of well and river water) may be used at the Skagit Wildlife Area as a carrier for herbicide applications. Herbicide applications made to invasive cattail is considered being made to surface water and therefore, requires the NPDES permit (WAG993000).**

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.

**Does not apply.**

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.

**There should be no runoff associated with this project. Invasive cattail is treated with herbicide with a spray-to-wet application, but not to the point of runoff, per label instructions.**

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

**Yes. Some herbicide applied to invasive cattail could be washed off the plant into surface water when the tide returns to the treatment area.**

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

**The NPDES for Aquatic Noxious Weeds (WAG993000) authorizes the application aquatically-labeled herbicides and adjuvants for invasive cattail. The permit is active annually, from June 1<sup>st</sup> – October 31<sup>st</sup>, and directs applicators to follow herbicide label instructions and the IPM Plan for Freshwater Emergent Noxious and Quarantine Listed Weeds.**

**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

X  grass

\_\_\_\_\_ pasture

\_\_\_\_\_ crop or grain

X  wet soil plants: *Typha angustifolia*, *T. x glauca*, *T. latifolia*, *Carex lyngbyei*, *Eleocharis palustris*, *Phalaris arundinacea*, *Scirpus maritimus* and *Distichlis spicata*, *Cotula coronopifolia*, *Triglochin maritimum*, *Lythrum salicaria* and *Spergularia canadensis*.

X  water plants: Eurasian watermilfoil, other

\_\_\_\_\_ other types of vegetation

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

**Invasive cattail (*Typha angustifolia* and *T. x glauca*).**

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

**The Natural Heritage Program (NHP) databases, as well as the federal agency listings on January 17, 2013. Threatened plants listed in Skagit County include the following: *Impatiens noli-tangere* (western jewel-weed), *Lobelia dortmanna* (water lobelia), *Loiseleuria procumbens* (Alpine azalea), *Meconella oregano* (white meconella), and *Ranunculus californicus* (California buttercup). The only endangered plant listed is *Castilleja levisecta* (golden paintbrush). Of all the listed threatened species, none prefer a lowland estuarine environment. It is unlikely that they would be present at the project site. Golden paintbrushes are found in open grasslands and the proposed work area would not be ideal habitat.**

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

**During invasive cattail control patches of native plants will be preserved to the extent possible to allow their expansion. Removing invasive cattail will create open niches for native, wetland plants to recolonize.**

**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, owl other: various waterfowl, shorebirds, purple martin

mammals: deer, bear, elk, beaver, other: harbor seal

fish: bass, salmon, trout, herring, shellfish, other: western floater

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

Common Name	Scientific Name	Federal Status
Bald Eagle	<i>Haliaeetus leucocephalus</i>	Spp. Concern
Bull Trout	<i>Salvelinus malma</i>	Threatened
Chinook	<i>Oncorhynchus tshawytscha</i>	Threatened
Coho	<i>Oncorhynchus kisutch</i>	Candidate
Steelhead	<i>Oncorhynchus mykiss</i>	Threatened

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

**Many migratory bird species use this area as part of a migration route along the Pacific Flyway. Many waterfowl and shorebirds use the intertidal areas for feeding along the migration route. Salmonids also use the river as a migration route.**

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

**To preserve fish and wildlife resources, WDFW will time this project to have minimal impact upon wildlife via permit requirements.**

#### 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.

**Does not apply.**

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

**No.**

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:

**Does not apply.**

#### 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.

**Yes. The project will be applying herbicides to invasive cattail and the equipment that is used contains petroleum products.**

1) Describe special emergency services that might be required.

**None.**

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

**Herbicides will be applied per label instructions and under the conditions of an NPDES permit which minimizes off-target impacts. Equipment will be maintained to avoid leaks and fueling of boats and equipment will occur either on uplands, or where it can be contained in the vessel. Spill kits will available on site.**

b. Noise

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

**Agricultural equipment and military jets.**

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.

**Short-term basis: Engine noise and airboat operation, typically during low-tide periods for the duration of the project.**

**Long-term basis: None.**

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

**Airboats will avoid sandy substrates to avoid excess noise from having to power-up. Noise produced from the Marshmaster is minimal, so no measures will be taken.**

8. Land and shoreline use

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

**Wildlife habitat, hunting, recreation and agriculture.**

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

**Yes. In the past, some of the diked areas were farmed, but many of these dikes have been intentionally breached to create intertidal habitat.**

c. Describe any structures on the site.

**Dikes, ditches and tide gates.**

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

**No.**

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

**Public Open Space of Regional/Statewide Importance and Agricultural-Natural Resource Lands.**

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

**Open Space of Regional/Statewide Importance.**

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

**Conservancy Shoreline.**

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

**The work area is an intertidal wetland that has regular concentrations of waterfowl, according to the WDFW PHS system, in addition to acting as habitat for salmonid species.**

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

**None.**

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

**None.**

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:

**None.**

#### **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?

**Does not apply.**

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

**Does not apply.**

#### **11. Light and glare**

a. What type of light or glare will the proposal produce? What time of day would it mainly occur?

**Headlights. Most of the work is anticipated to occur during daylight hours, but some work could occur in the morning, or evening during hours of darkness, depending on the tide.**

b. Could light or glare from the finished project be a safety hazard or interfere with views?

No.

c. What existing off-site sources of light or glare may affect your proposal?

None.

d. Proposed measures to reduce or control light and glare impacts, if any:

None.

## 12. Recreation

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

**The area is used for walking, jogging, hunting, bird dog training, dog walking, and bird watching.**

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

No.

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

**No impacts on recreation will occur during the project.**

## 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.

**The Department of Archaeology and Historic Preservation do not indicate any known sites near the project area (WISAARD access 8/25/13).**

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

None.

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

**Keep project within the proposed footprint.**

## 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.

**Public streets do not serve the site itself, but the access parking lot can be reached with the direction listed above.**

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

**The site is not served by public transit. The nearest stop is approximately 5.4 miles away at the South Mount Vernon Park and Ride on Old Hwy 99 and E. Hickox Road in Mount Vernon, WA.**

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).

**No.**

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

**No.**

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

**None.**

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

**Does not apply.**

**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.

**No.**

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.

**None.**

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.

**None.**

**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: 8-29-13 .....