

SEPA ENVIRONMENTAL CHECKLIST

Purpose of checklist:

Governmental agencies use this checklist to help determine whether the environmental impacts of your proposal are significant. This information is also helpful to determine if available avoidance, minimization or compensatory mitigation measures will address the probable significant impacts or if an environmental impact statement will be prepared to further analyze the proposal.

Instructions for applicants:

This environmental checklist asks you to describe some basic information about your proposal. Please answer each question accurately and carefully, to the best of your knowledge. You may need to consult with an agency specialist or private consultant for some questions. You may use "not applicable" or "does not apply" only when you can explain why it does not apply and not when the answer is unknown. You may also attach or incorporate by reference additional studies reports. Complete and accurate answers to these questions often avoid delays with the SEPA process as well as later in the decision-making process.

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.

Instructions for Lead Agencies:

Additional information may be necessary to evaluate the existing environment, all interrelated aspects of the proposal and an analysis of adverse impacts. The checklist is considered the first but not necessarily the only source of information needed to make an adequate threshold determination. Once a threshold determination is made, the lead agency is responsible for the completeness and accuracy of the checklist and other supporting documents.

Use of checklist for nonproject proposals:

Please complete all questions that apply and note that the words "project," "applicant," and "property or site" should be read as "proposal," "proponent," and "affected geographic area," respectively. ADDITION, complete the SUPPLEMENTAL SHEET FOR NONPROJECT ACTIONS (part D). For nonproject actions.

A. BACKGROUND

1. Name of proposed project, if applicable:
Lake Aberdeen Pipeline 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: Chris Gourley (360) 902-8392
4. Date checklist prepared:
06/10/2013
5. Agency requesting checklist:

Washington Department of Fish and Wildlife

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

Construction scheduled to begin when permits allow. Project work is anticipated to be completed from August 2013 to December 2013.

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

No

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

A wetland report was completed for the north end of the lake in December 2012.

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.

None are known at this time.

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

A City of Aberdeen building permit, an Army Corps of Engineers permit to work within waters of the state, and a WDFW HPA permit will likely be required for the work.

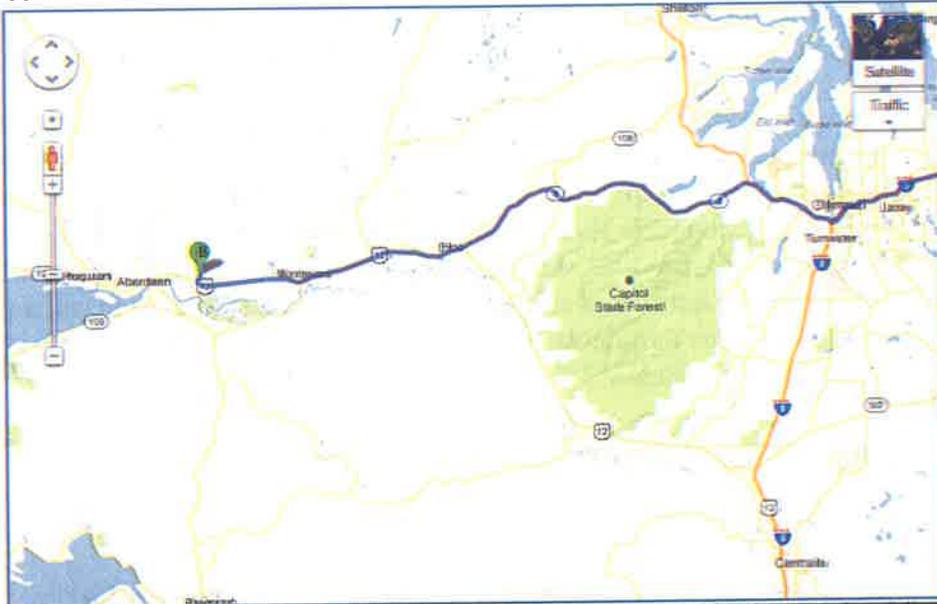
11. Give brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead agencies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

This project will install a pipeline from the current pipe at the north end of Lake Aberdeen to the hatchery at the south end of the lake. At the connection point, the 36" pipe will be buried and a siphon pump will be installed. The pipe will then rest on the ground for approximately 1,300 feet, which includes crossing the large wetland at the north end of the lake. Minor clearing and grading is proposed for pipe stability and to keep air trapping at a minimum. Once the edge of the wetland is reached, the pipe will be laid on the bottom of the lake, up to approximately 10 feet below the water's surface. The pipe will be floated onto the lake and sunk with concrete collars. No supports will be placed below or above the water. The pipeline will connect through the dam at the south side of the lake through an existing concrete pipe. The plugs will be removed, the pipe placed, and the gap resealed. The new pipeline will supply the steelhead hatchery with fresh water from the Wynoochee River that is cooler and contains fewer parasites than the lake water.

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, and county 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.

Lake Aberdeen is located just east of the City of Aberdeen in Grays Harbor County. The hatchery is located at the south end of the lake. From I-5, take exit 104 onto US-101 N and continue on to State Route 8 W. Continue onto US-12 W/Olympic Hwy and turn right toward Aberdeen Lake Road and Central Park Drive. Turn left onto Central Park Drive and right onto Aberdeen Lake Road. The hatchery is on the left at the south end of the

lake. The lake is located at approximately latitude 46.984805 and longitude -123.742141 within township 17N, range 09W, and section 1. Part of the hatchery is also located in section 12.



B. ENVIRONMENTAL ELEMENTS

1. Earth

a. General description of the site

(circle one): **Flat**, rolling, hilly, steep slopes, mountainous,
other _____ Hills of approximately 500 feet are all around Lake Aberdeen, but the work area is very flat. The bathymetry of the lake adds a slight challenge to the pipeline, but the water routinely stays between 6 and 12 feet deep.

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

The site is very flat. The steepest slope within the work area is no more than 10%, other than the sides of the dike which could be up to 45%.

- 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 work at the north area of the lake is primarily Zenker silt loam on 30 to 65% slopes. This soil has a parent material of colluvium derived from sandstone and is well drained. Through parts of the northern wetland, soils are composed of mainly Rennie silty clay loam, a soil found on 0 to 2% slopes on flood plains. It is a poorly drained soil that has a parent material of fine textured alluvium. At the south end of the lake there is an earthen dam that holds the lake. On the landward side of the dam, Ocosta silty clay loam, a poorly drained soil found on flood plains and deltas, can be found. The parent material is clayey alluvium and it is found on slopes below 2%.

- 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.

Approximately 74.6 cubic yards of soil will be excavated for trenching of the pipe at the connection site at the north end of the lake. This will be backfilled with 72.1 cubic yards of fill and 2.5 cubic yards of pipe. If any grading is to occur for the earthen pipe bed, it will be minimal. This material would be smoothed and spread nearby if necessary. The maximum grading would be 100 cubic yards over the wetland. This grading is anticipated to use material on site, without any fill import. At the dam, a concrete plug will be removed from the concrete pipe. The exact depth of the plug is unknown, so we anticipate that the removal will be no more than 3 cubic yards. The new pipe will be placed inside the remnant pipe and the gap between the two will be sealed with concrete. This will account for 1 cubic yard of fill. All fill sources will be local, when possible.

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

While it is possible for erosion to occur, it is highly unlikely given the relatively flat surfaces. Trenching would be the most likely cause of erosion. Erosion control measures will be taken to reduce or eliminate erosion and to keep any turbidity from reaching water sources.

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

The pipeline itself will be an addition of impervious surface, but its rounded shape allows for runoff from precipitation to be easily transported to the ground in a sheeted manner instead of at a direct point. This will only be an effect in the wetland and it is not anticipated to be an issue for the wetland itself.

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

Temporary erosion and sediment control measures will be used during construction as described in the site plans. Staging and refueling of machines will be conducted out of the OHWM with non-toxic lubricants. Additional siltation prevention BMPs include placement

of a silt fence around the staging area and the wetland work where the ground will be trenched. The method for moving the pipe by using a winch to ease it across the wetland is not anticipated to create any erosion or negative impacts to earth. Construction fencing will be placed to delineate construction limits so that additional areas are not impacted. At project conclusion, these materials will be removed by hand and taken to an approved disposal site out of the flood zone.

All work will be done in accordance with the terms and conditions of required permits. Please see site drawings for additional details.

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 and dust from construction 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 would be in use by construction vehicles.

3. Water

a. Surface Water:

- 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.
Lake Aberdeen is a dammed lake that has multiple inlets. The outlet at Van Winkle Creek at the south end of the lake is restricted so that anadromous fish may not pass into the lake. There is a large wetland at the north end of the lake. Water will be piped in from the Wynoochee River through the proposed pipe to the hatchery through the new pipeline from north to south. There is a small unnamed tributary on the east side of the lake.
- 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.
The work will take place in the wetland and within the lake itself. The pipeline will connect to current piping by routing it through the dam that is in place. The pipe will be placed in the lake, along the substrate, by sinking it with concrete. The concrete will be precast. The unnamed tributary will require a temporary bridge during construction. The bridge will be removed after construction is complete. All structures for the bridge will be placed at or above the top of bank. The pipeline itself will be stabilized in this area with precast concrete blocks on each bank with a 30" steel casing

pipe spanning the tributary.

- 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.

The northern portion of the lake where the pipeline will be buried will require about 74.6 cubic yards of excavation and will be filled with the pipe and cover soil. The other pipeline structure will be laid on top of the earth, so no excavation will occur in this area.

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

The work will not require surface water withdrawal or diversion. The pipe from the Wynoochee River will be turned off before connection with the new pipe. At the dam, there will be a cofferdam in place to keep the pipe dry while the new pipeline is inserted through the dam's existing concrete pipe and gaps are sealed.

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

No. The area is in Zone C on map panel 530057 0407 B.

- 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.

No. Any wastes will be contained within the upland areas and removed by the end of construction.

b. Ground Water:

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

No.

- 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.

Not Applicable.

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.

Storm water will not be not changed or affected in any way.

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

There will not be any waste materials to enter the waters. Any wastes will be contained and properly disposed of out of the floodplain.

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

Temporary erosion and sediment control measures will be used during construction as described in the site plans. Staging and refueling of machines will be conducted out of the OHWM with non-toxic lubricants. During project demolition and construction, a silt fence will be installed on the water-ward side of the work area. Additional siltation prevention BMPs include filter fabric fences and hay bales. Construction fencing will be placed in the wetland at construction limits to reduce impact on additional and unnecessary areas. Minimum tracking by equipment will be done to reduce impacts on soils and plants. At project conclusion, these materials will be removed by hand and taken to an approved disposal site out of the flood zone.

All work will be done in accordance with the terms and conditions of required permits. Please see site drawings for additional details.

4. Plants

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

- deciduous tree: **alder**, maple, aspen, other:
- evergreen tree: **fir**, cedar, pine, spruce, other
- shrubs
- grass
- pasture
- crop or grain
- wet soil plants: cattail, buttercup, rush, 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?

Vegetation may be removed if it is required in some areas for grading. The goal of the chosen alignment was to keep large vegetation from needing to be cut. The preferred path is through low vegetation that requires minimal clearing. No trees are anticipated to be cut for the project. The plants that are present in the area to be graded are primarily wetland plants such as skunk cabbage, sedges, and rushes.

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 (USFWS) were examined for threatened or endangered plants on May 29, 2013. Threatened plants listed in Grays Harbor County include the following: *Carex macrochaeta* (large-awn sedge), *Claytonia multiscapa pacifica* (Pacific lanceleaved springbeauty), *Erythronium quinaultense* (Quinault fawnlily), *Polemonium carneum* (great polemonium), and *Sanguisorba menziesii* (Menzie's burnet). Endangered plants listed include the *Dodecatheon austrofrigidum* (frigid shootingstar) and the *Sanicula arctopoides* (bear's-foot sanicle).

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

As mitigation for the work being done, we are proposing to enhance the wetland with

plantings. The plantings will consist of native wetland plants, such as willows, rushes, sedges, and elderberry. They will primarily be placed in areas where there is low vegetative diversity currently.

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: **various waterfowl**

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.

Northern spotted owl (*Strix occidentalis caurina*), marbled murrelet (*Brachyramphus marmoratus*), western snowy plover (*Charadrius alexandrinus nivosus*), bull trout (*Salvelinus confluentus*), and green sea turtle (*Chelonia mydas*) are all listed as threatened species by US Fish and Wildlife in Grays Harbor County. Brown pelican (*pelecanus occidentalis*) is in recovery status. Streaked horned lark (*Eremophila alpenstris strigata*) is proposed threatened. Short-tailed albatross (*Phoebastria albatrus*) and leatherback sea turtle (*Dermochelys coriacea*) are listed as endangered.

- 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. Fish do not use Lake Aberdeen for migration due to the barrier that exists at the hatchery.

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

The project does not take place in an area that will likely harm any wildlife. However, timing windows that will have the least impact on wildlife will be adhered to as per permitting 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.

Some electricity will be used for the siphon tank and vacuum pumps. Multi conductor cable will be buried under the road to the current pump house located at the north end of the lake.

- 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:

None are included.

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.

None.

- 1) Describe special emergency services that might be required.

None.

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

Avoid use of toxic chemicals and materials.

b. Noise

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

None.

- 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.

Increased levels of noise during construction activities are expected from this project. Hours of increased noise levels will be 7am to 6pm. While additional noise may occur with the new system, it is unlikely to be noticeable due to the surrounding hatchery noises.

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

No special noise reduction efforts are planned.

8. Land and shoreline use

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

The south end of the site is currently used as a fish hatchery. The property was purchased in 1936 and the hatchery was renovated in 1958 to replace circular ponds with standard shallow raceways. The hatchery was renovated again in 1992, adding 5 additional raceways, two adult collection/holding ponds, fish ladder and a modern incubation/nursery building. Adjacent properties are mature timber and there is a facility on the north side of the lake that was used when the previous pipeline was in place. There is a local park which has a boat launch and swimming area, as well as a gun range nearby.

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

This site is not thought to have been used for agriculture.

- c. Describe any structures on the site.

The south end of the site is a fully functioning hatchery. There are 2 residences, 2 garages, a covered shed, an open sided shed, a freezer, a hatchery building, 3 structures containing raceways, PA pond, and an adult holding pond. The driving surface is primarily graveled, with a small paved portion after crossing Van Winkle Creek. There is also a visitor display and parking wheel stops. The north end of the site has a pump house and pipelines that are not currently in use.

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

No structures will be demolished.

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

City Limits

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

Not designated under the current plan (2001).

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

Public supply, reservoir.

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

There are wood duck populations and palustrine wetlands around the lake. Both are listed in the WDFW PHS system. The palustrine wetlands at the north end of the lake have been delineated as Category III wetlands by GeoEngineers. There are wetlands to the south of the lake, but these will not be impacted.

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:

None.

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.

None.

b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.

None.

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

None.

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?
The pipe will reach a high point in the landscape that will be around 2 feet higher than the existing grade at the north end of the lake. In all other locations, the pipe will be below existing structures or the pipe's diameter above ground. Once the pipeline enters the lake, it will be below the water's surface.
- b. What views in the immediate vicinity would be altered or obstructed?
There will be no obstruction. The high point of the pipe in is a vegetated area.
- c. Proposed measures to reduce or control aesthetic impacts, if any:
None are planned at this time.

11. Light and glare

- a. What type of light or glare will the proposal produce? What time of day would it mainly occur?
There will be no change in light or glare.
- 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?
Visitors are welcomed to the hatchery and there are fishing piers and boat launches on the lake as well. Internal combustion engines are prohibited. There are often swimmers at the lake. There is also a shooting range along the east side of the lake.
- 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:
The project will have no impact on recreational opportunities. In conversations with the Army Corps of Engineers, navigation was discussed. The lake is shallow and there is an opportunity for anchors to be snagged on the shallow pipeline. Boats that utilize the lake have small motors and this is not anticipated to be a problem. However, WDFW will explore the idea of posting signs at the recreational launch for users if the City of Aberdeen would like.

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 show there are no known sites near the project site (WISAARD access 05/29/13). There is a historic property about 0.25 miles away from the lake, but it will not be impacted in the construction process.

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

A wood stave pipe used to carry water through this area. The pipe remnants are still found in areas adjacent to the new pipeline's orientation. The pump house is also still on site at that north end of the lake and will be used to house the new siphon pumps at that end.

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

Keep project within the proposed existing 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.

US-12 is a highway that serves the surrounding area and allows access via Central Park Drive and Aberdeen Lake Road.

- 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 3.4 miles away at the Wal-Mart in Aberdeen.

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

This project does not add or remove any parking.

- 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 new streets will be constructed. The current road to the pump house will be trenched and a cable line added for electrical hookup to the new pumps.

- 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.

No trips will be generated by the completion of the project.

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

None.

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.

None.

16. Utilities

a. Circle utilities currently available at the site:

electricity, natural gas, **water**, **refuse service**, **telephone**, sanitary sewer, **septic system**, other _____

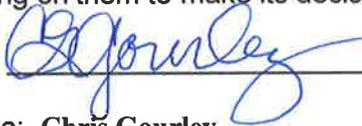
b. Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.

The project introduces additional water and drain pipes. These will require trenching to install. The pipeline at the north end of the lake will be trenched and the rest will be laid above ground and on the lake bottom, with minimal grading and disturbance. An electrical line will be placed in the road along the east side of the lake and will be trenched in at the centerline.

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: _____



Name of signee: **Chris Gourley**

Position and Agency/Organization: **Biologist, Washington Department of Fish and Wildlife**

Date Submitted: **June 10, 2013**

Appendix A Project Drawings

