

# 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:***

Please adjust the format of this template as needed. 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:***

For nonproject proposals (such as ordinances, regulations, plans and programs), complete the applicable parts of sections A and B plus the [SUPPLEMENTAL SHEET FOR NONPROJECT ACTIONS \(part D\)](#). Please completely answer 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. The lead agency may exclude (for non-projects) questions in Part B - Environmental Elements –that do not contribute meaningfully to the analysis of the proposal.

## ***A. Background*** [\[HELP\]](#)

1. Name of proposed project, if applicable:  
Little Green Lake Dam Safety Repairs

2. Name of applicant:  
Sara Kuhn, WDFW

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

600 Capitol Way N, Olympia WA, 98501

(360) 819-3886

4. Date checklist prepared:

January 20, 2022

5. Agency requesting checklist:

Washington Department of Fish & Wildlife (WDFW)

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

Construct in the fall of 2022 (September through November) outside of the fire hazard window.

Construction could also commence in the fall of 2023 if permits are not obtained in time to construct this year.

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

No, this project proposes to construct an auxiliary spillway so that the dam can be in compliance with Department of Ecology Dam Safety spillway requirements for high risks dams with a downstream population at risk. While included on the dam design plans from 1958, an auxiliary spillway was not detected during the last dam safety inspection, indicating that it was either never constructed or has filled in with sediment over the years.

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

A wetland delineation was performed on November 8, 2021 to inform spillway design and impact assessment.

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.

An adjacent landowner has submitted an HPA proposing to construct a bridge either on top of the earthen dam or through a wetland immediately adjacent to the dam in order to provide vehicle access to that property. WDFW is coordinating with the applicant but that proposal is not a part of this project.

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

Project will need county permits, HPA, and a federal permit for wetland impacts. WDFW is in communication with each agency.

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 proposes to construct an auxiliary spillway so that the dam can be in compliance with Department of Ecology Dam Safety spillway requirements for high risks dams with a downstream

population at risk. The dam is classified as having a downstream hazard classification of 2D (1 or 2 inhabited structures at risk). US National Dam website states that the dam was built in 1959 for the purpose of fish propagation. The auxiliary spillway was identified on the original dam design dating back to 1958 as shown in the 2019 Periodic Inspection Report by DOE Dam Safety. The auxiliary spillway is shown to be approximately 32 ft. wide and 3 ft. deep, however it was not located during the last onsite inspection by DOE Dam Safety. This means that it was either never built or has filled in over time with sediment. The spillway must be rebuilt to current safety design standards and will be approximately 96 ft. wide by 33.3 Ft. long. The spillway will be constructed with articulated concrete matting (ACM) and the side slopes of the spillway will be lined with quarry spalls to control flow off of the dam face's sides.

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.

Okanogan County, see plans. T34N R25E section 24. Dam is adjacent to 91 Green Lake Road, Okanogan WA, 98840

## **B. Environmental Elements** [\[HELP\]](#)

### **1. Earth** [\[help\]](#)

a. General description of the site:

(circle one): Flat, rolling, **hilly**, steep slopes, mountainous, other \_\_\_\_\_

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

The earthen dam exhibits 1.5:1 slopes

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 agricultural land of long-term commercial significance and whether the proposal results in removing any of these soils.

The project area is comprised of Conconully gravelly ashy loam (8-15% slopes) which is classified as farmland of unique importance, and lithic Haploxerepts-Conconully complex (15-45% slopes) which is not prime farmland. The proposal involves the excavation of 86.04 cubic yards (CY) of soil in order to construct the spillway.

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

No

e. Describe the purpose, type, total area, and approximate quantities and total affected area of any filling, excavation, and grading proposed. Indicate source of fill.

The project would remove 86.04 CY of material and would place 67.04 CY of fill (primarily in the form of ACM and quarry spalls) within the area. The fill will be sourced locally by the contractor once they are selected for the project.

f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe. The purpose of this project is to provide an emergency spillway for the dam to prevent downstream erosion and flooding concerns. Suitable erosion control BMPs will be implemented during construction to ensure that the project will not contribute to additional erosion or sedimentation.

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

This project will increase the impervious surface by 3,636 SF due to the construction of the auxiliary spillway. This spillway is necessary in order to meet dam safety standards and seeks to rebuild or construct the structure that was initially included in dam designs from 1958.

h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any: Standard erosion control BMPs (silt fencing, straw wattles, etc.) will be implemented as needed to control erosion resulting from construction.

## 2. Air [\[help\]](#)

a. What types of emissions to the air would result from the proposal during construction, operation, and maintenance when the project is completed? If any, generally describe and give approximate quantities if known.

General equipment emissions will occur.

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:

None proposed or needed

## 3. Water [\[help\]](#)

a. Surface Water: [\[help\]](#)

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, Little Green Lake is located onsite and the emergency spillway would be constructed for its earthen dam. Additionally, there are two palustrine fringe wetlands along the banks of Little Green Lake (Wetland A) and along the existing spillway's outlet (Wetland B).

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, see plans.

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.

38.5 square feet (SF) of fill material will be placed below the OHWM of Little Green Lake due to the construction of the new spillway. Additionally, Wetland B will incur 137.5 SF of permanent fill impacts associated with the construction of the new spillway. In total, the waters onsite will incur 176 SF of permanent fill impacts. Wetland A will not incur any impacts.

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

The emergency spillway dam is intended to divert surface water from Little Green Lake in the event of a significant flooding event.

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

No, the entire area is outside of the 100-year floodplain according to FEMA FIRM panel 530117 0925 B, effective February 10, 1981 (no modernized data is available for this site).

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.

b. Ground Water: [\[help\]](#)

1) Will groundwater be withdrawn from a well for drinking water or other purposes? If so, give a general description of the well, proposed uses and approximate quantities withdrawn from the well. Will water be discharged to groundwater? 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.

No waste material will be discharged into the ground

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.

Runoff would flow via the emergency spillway downhill. An articulated concrete mat channel at the base of the spillway will be formed to dissipate the water and to channel water toward the natural drainage located in the runoff ditch to the west of the site.

2) Could waste materials enter ground or surface waters? If so, generally describe.  
No, this project is designed to channel and disperse excess surface waters safely.

3) Does the proposal alter or otherwise affect drainage patterns in the vicinity of the site? If so, describe.

Yes, this proposal would bring the earthen dam of Little Green Lake into compliance with Department of Ecology Dam Safety standards by providing an auxiliary spillway for excess water. The drainage patterns at Little Green Lake have already been altered by the dam itself and this project will not significantly alter the drainage patterns at the site from its current condition.

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

Project goal is to control runoff water from Little Green Lake if the dam is overtopped.

#### 4. **Plants** [\[help\]](#)

a. Check the 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
- Orchards, vineyards or other permanent crops.
- 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?

176 SF of vegetation will be cleared from the area of impact in order to construct the spillway. In its current condition, this vegetation is entirely herbaceous and consists of landscaping grass on the dam face and Reed canary grass within the wetland.

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

The federally protected Spalding's catchfly (*Silene spaldingii*), Ute ladies'-tresses (*Spiranthes diluvialis*), and whitebark pine (*Pinus albicaulis*) are listed as occurring within Okanogan County; however there are no known occurrences near the project site and no suitable habitat onsite for any of these species.

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

Disturbed areas will be revegetated with a native seed mix upon project completion.

- e. List all noxious weeds and invasive species known to be on or near the site.  
Reed canary grass has been documented onsite.

## 5. **Animals** [\[help\]](#)

- a. List any birds and other animals which have been observed on or near the site or are known to be on or near the site.

Examples include:

birds: **hawk**, heron, **eagle**, **songbirds**, other:

mammals: **deer**, bear, elk, beaver, other:

fish: bass, salmon, **trout**, herring, shellfish, other \_\_\_\_\_

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

IPaC lists the federally protected Canada lynx, northern spotted owl, yellow-billed cuckoo, bull trout, dolly varden, and monarch butterfly as occurring within Okanogan County. There are no records of any of these species within the project vicinity, however the WDFW Priority Habitat Species mapper lists nearby occurrences of the federally protected golden eagle as well as the state protected mule deer and Columbian sharp-tailed grouse. Project activities will have no effect on any of these species.

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

This site is not part of a known migration route, however it is possible that monarch butterflies could pass through this area while migrating south to Mexico.

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

The project will not impact wildlife and therefore does not propose any wildlife enhancement

- e. List any invasive animal species known to be on or near the site.

WDFW recently carried out a rehabilitation project to remove invasive goldfish from Little Green Lake. While the project was considered a success, it is likely that there may still be a few goldfish within the lake.

## 6. **Energy and Natural Resources** [\[help\]](#)

- 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.

Construction will involve gas and diesel engines primarily. Any need for electrical during construction would likely be provided by portable generators.

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

No effect.

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, the project will not result in any energy impacts.

## **7. Environmental Health** [\[help\]](#)

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 is a chance for spilling of petroleum products when refueling equipment. However, BMPs will be in place and spill clean up kits will be on hand should an issue arise.

1) Describe any known or possible contamination at the site from present or past uses.

No known contamination.

2) Describe existing hazardous chemicals/conditions that might affect project development and design. This includes underground hazardous liquid and gas transmission pipelines located within the project area and in the vicinity.

No known hazards.

3) Describe any toxic or hazardous chemicals that might be stored, used, or produced during the project's development or construction, or at any time during the operating life of the project.

Only petroleum.

4) Describe special emergency services that might be required.

None anticipated. There is vehicular access to the site via Green Lake Road should an issue arise.

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

None proposed or needed.

### **b. Noise**

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

There will be a temporary increase in noise associated with construction equipment. Once the project is complete, noise will return to normal.

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 there will be an increase in traffic and construction noise. Long-term, noise levels will return to normal.

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

Construction activities will be limited to between 7am to 7pm, unless local ordinances restrict noise further, in which case more restrictive hours will be adhered to.



## **8. Land and Shoreline Use** [\[help\]](#)

a. What is the current use of the site and adjacent properties? Will the proposal affect current land uses on nearby or adjacent properties? If so, describe.

No external noise will affect this project.

b. Has the project site been used as working farmlands or working forest lands? If so, describe. How much agricultural or forest land of long-term commercial significance will be converted to other uses as a result of the proposal, if any? If resource lands have not been designated, how many acres in farmland or forest land tax status will be converted to nonfarm or nonforest use?

Elevated noise levels between 80-120dB(A) associated with the use of heavy machinery will occur during daylight hours throughout construction (expected to take 2-3 months). Traffic will also increase during construction as many dump truck loads of material will be needed to construct the spillway. These increases in noise will be a discrete event and noise levels are expected to return to normal following construction.

1) Will the proposal affect or be affected by surrounding working farm or forest land normal business operations, such as oversize equipment access, the application of pesticides, tilling, and harvesting? If so, how:

Construction will occur during daylight hours and will return to normal levels upon project completion.

c. Describe any structures on the site.

Within the project area, there is an earthen dam as well as a stop log and grated deck conveying water through the dam.

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

No structures would be demolished as a result of this project.

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

Rural 3

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

The rural 3 zone district establishes and protects medium density rural areas of Okanogan County as identified by the Okanogan County Comprehensive Plan by preserving the rural character and protecting the natural resources, environmental, aesthetic and economic qualities of Okanogan County.

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

The Shorelines maps do not show a designation on Little Green Lake, other than identified as a lake.

h. Has any part of the site been classified as a critical area by the city or county? If so, specify.

Yes, Little Green Lake and its buffer are designated critical areas. Additionally, there are two wetlands onsite (Wetland A and Wetland B). These wetlands and their buffers are also designated critical areas.

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 required.

l. Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:

WDFW is coordinating with Okanogan County to ensure that this project is consistent with land uses and plans. As this spillway is a required design feature for the constructed dam and was included in the original designs from 1958, this project is in line with the current land use.

m. Proposed measures to reduce or control impacts to agricultural and forest lands of long-term commercial significance, if any:

The emergency spillway will ensure that there is no downstream flooding resulting from dam overtopping. As such, the spillway is a protection measure for downstream agricultural lands.

## **9. Housing** [\[help\]](#)

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

No housing is included as part of this project.

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

No changes to housing will result from this project.

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

This project will have no impacts to housing.

## **10. Aesthetics** [\[help\]](#)

a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed?

The spillway will be approximately 3 feet above the existing ground.

b. What views in the immediate vicinity would be altered or obstructed?

No views would be altered or obstructed by the construction of the spillway.

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

No impacts anticipated.

## **11. Light and Glare** [\[help\]](#)

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

The spillway will be constructed with articulated concrete matting. Glare is not anticipated.

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

Very unlikely.

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

No issues anticipated.

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

None proposed or needed.

## **12. Recreation** [\[help\]](#)

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

Little Green Lake Access Area is located approximately a quarter mile north of the dam. The boat ramp is used by fishermen and the lake is used for rainbow trout fishing.

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:

There will be no impacts to recreation resulting from this project.

## **13. Historic and cultural preservation** [\[help\]](#)

a. Are there any buildings, structures, or sites, located on or near the site that are over 45 years old listed in or eligible for listing in national, state, or local preservation registers? If so, specifically describe.

No previously identified historic structures are within the project area of potential impact. No previously identified historic structures are within 1-mile (1.6 km) of the project.

b. Are there any landmarks, features, or other evidence of Indian or historic use or occupation? This may include human burials or old cemeteries. Are there any material evidence, artifacts, or areas of cultural importance on or near the site? Please list any professional studies conducted at the site to identify such resources.

No previously identified archaeological sites are within the project area of potential impact. One previously identified archaeological site is within 1-mile (1.6 km) of project 45OK1363, the Green Lake fire cairns site a circa 1940s historic cairn site.

c. Describe the methods used to assess the potential impacts to cultural and historic resources on or near the project site. Examples include consultation with tribes and the department of archeology and historic preservation, archaeological surveys, historic maps, GIS data, etc.

Consultation under EX 21-02 with tribes and DAHP. Use of historic maps and GIS.

d. Proposed measures to avoid, minimize, or compensate for loss, changes to, and disturbance to resources. Please include plans for the above and any permits that may be required.

As Little Green Lake Dam is over 45 years of age, an historic property inventory form will be completed prior to project implementation to document the structure.

#### **14. Transportation** [\[help\]](#)

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

See plans. Site can be accessed from Green Lake Road.

- b. Is the site or affected geographic area currently served by public transit? If so, generally describe. If not, what is the approximate distance to the nearest transit stop?

The nearest public transit is within the town of Omak, approximately 5 miles southeast of the site.

- c. How many additional parking spaces would the completed project or non-project proposal have? How many would the project or proposal eliminate?

This project would not create or eliminate parking spaces.

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

No, this project would not require any new improvements to existing facilities.

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

The project will use ground transportation exclusively.

- f. How many vehicular trips per day would be generated by the completed project or proposal? If known, indicate when peak volumes would occur and what percentage of the volume would be trucks (such as commercial and nonpassenger vehicles). What data or transportation models were used to make these estimates?

Vehicle trips will increase during construction and then fall back to normal levels once construction is complete.

- g. Will the proposal interfere with, affect or be affected by the movement of agricultural and forest products on roads or streets in the area? If so, generally describe.

No.

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

None proposed or needed.

#### **15. Public Services** [\[help\]](#)

- a. Would the project result in an increased need for public services (for example: fire protection, police protection, public transit, 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** [\[help\]](#)

- 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.

This project would not result in the reduction or elimination of any existing utilities.

**C. Signature** [\[HELP\]](#)

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 Sara Kuhn

Position and Agency/Organization Environmental Planner – Washington Department of Fish  
and Wildlife

Date Submitted: 1/20/2022