

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: [\[help\]](#)

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: *Erosion Control at Colonial Creek Campground*
2. Name of applicant: *U.S. Department of Interior, National Park Service, North Cascades National Park Service Complex*
3. Address and phone number of applicant and contact person: *Elizabeth Boerke, 810 State Route 20, Sedro-Woolley, WA 98284 | 360-854-7328*

4. Date checklist prepared: *July 13, 2017*
5. Agency requesting checklist: *Washington Department of Fish and Wildlife*
6. Proposed timing or schedule (including phasing, if applicable): *September 6, 2017-November 17, 2017 (almost all work expected to be completed by September 14, 2017)*
7. Do you have any plans for future additions, expansion, or further activity related to or connected with this proposal? If yes, explain. *The NPS acknowledges that erosion at the Colonial Creek Campground is an ongoing issue that this one project will not likely solve entirely. Therefore, the NPS may seek to do additional work in the future to continue to protect the north side of Colonial Creek Campground – both the sites and loop road and will likely seek to maintain this engineered logjam into the future. That said, no plans or funding for this work exist at this time.*
8. List any environmental information you know about that has been prepared, or will be prepared, directly related to this proposal. *The National Park Service has completed consultation with the SHPO and associated tribes under the National Historic Preservation Act and intends to document compliance with the National Environmental Policy Act through a categorical exclusion. The NPS is further pursuing informal consultation with US Fish and Wildlife Service on the proposed action.*
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. *At the state level, none. The NPS is pursuing consultation and concurrence with the US Fish and Wildlife Service and will be pursuing pre-notification authorization with the US Army Corps of Engineers on a nationwide permit for bank stabilization.*
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.

During a major flood in 2003, Colonial Creek filled its channel with up to 12 feet of gravel and found a new course down an adjacent NPS campground road on the north side of Colonial Creek Campground on Diablo Lake in Ross Lake National Recreation Area (managed by North Cascades National Park Service Complex). This led the NPS to abandon the old camp road alignment and build a new camp road to the south in 2005. The next large flood in 2006 threatened campsite 25 on the north side of the new road, and although the camp site was lost, the NPS was able to stop the erosion by installing an engineered log structure along the bank at that time.

In November 2016, the NPS noted a new erosion problem downstream of site 25 at site 24, where there is now a six foot tall cut-bank, composed of sand and gravel. The cut-bank gets taller upstream and extends for about 60 feet laterally along the campsite. Already, the site 24 tent pad logs are dislodged, and one is hanging over the bank. See Figure 1 for a map of the campground and the changing conditions of Colonial Creek since 2003.

In response to this ongoing erosion and specifically to prevent the loss of campsite #24 and the road, the NPS is proposing to build an engineered logjam to protect 60 ft along the creek at site

24. This engineered log jam would be constructed with 6-10 large (2-3' diameter, 20-50 feet long) logs, with rootwads if possible, that are interwoven and pinned together with 1" diameter bolts and ¾" cable and secured onsite with 5-10 2-4' diameter angular rocks. The logs would extend to just above the ordinary high water level (OHWL). The upper log would extend into the stream at an angle of 65 degrees off of the bank and would be securely pinned on shore. The upper 3-4 ft of the bank above the log structure would then be revegetated with native shrubs and erosion control fabric using a willow-layering technique. See Figure 2 for a drawing of the proposed engineered log jam.

Design: This engineered logjam was designed to mimic natural conditions in a way that deflects erosion from the bank of concern. Fish habitat components such as logs, stumps, and/or large boulders were intentionally designed as part of the bank protection to mitigate project impacts, and both these fish components as well as the angular rock, would be installed to withstand 100-year peak flows. River gravels or other round cobbles would not be used as exterior armor, and the volume of rock used would not exceed 20 cubic yards.

Materials: Six to 10 large (2-3' diameter, 20-50 feet long) logs would be sourced directly from the channel – using machinery (only when able to access via arm from the shoreline) and winches. (There is notably an accumulation of woody debris in Colonial Creek just upstream of the project site.) The five to ten 2-4' angular rocks would be sourced from an NPS pit where material from Rhode Creek (neighboring creek) and Cascade Pass Road have been staged. All sourced rock would be cleaned prior to transport and use on site.

Methods and Equipment: NPS crews would construct the logjam and complete the revegetation. Bank protection material would be placed in a manner to avoid damage to existing vegetation, and alteration or disturbance of the bank and bank vegetation would be limited to that necessary to construct the project.

While the revegetation work would be done by hand above OHWL, an excavator would be needed to retrieve the logs from onsite and construct the logjam, which would be operated entirely from the upper bank and outside of the stream channel. No drive mechanisms (wheels, tracks, tires, etc.) would be allowed to enter or operate below the ordinary high water line, and the machinery would not enter nor cross the creek channel. If the arm of the excavator cannot reach a log that is needed for the project, NPS crews would winch the log across the channel.

Equipment used for this project would be free of external petroleum-based products while working around the stream, and extreme care would be taken to ensure that no petroleum products, hydraulic fluid, fresh cement, sediments, sediment-laden water, chemicals, or any other toxic or deleterious materials are allowed to enter or leach into the stream. Equipment would be checked daily for leaks and any necessary repairs shall be completed prior to commencing work activities along the stream.

Erosion control methods would also be used to prevent silt-laden water from entering the stream. These may include, but are not limited to, straw bales, filter fabric, temporary sediment ponds, check dams of pea gravel-filled burlap bags or other material, and/or immediate mulching of exposed areas.

Timing: Installation would occur in low flow conditions between September 6-14, 2017, but should high flow conditions that may cause siltation be encountered during this project, work would stop until the flow subsides. Within seven calendar days of project completion, all disturbed areas would be protected from erosion using vegetation or other means.

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.

This proposed project would occur along 60' of Colonial Creek, approximately 500 feet upstream from Diablo Lake and within tens of feet of the NPS Colonial Creek Campground Loop Road, all of which are within Ross Lake National Recreation Area in Whatcom County, WA. Specifically, the project would extend east and west of the north side of site 24 in Colonial Creek Campground at Lat 48.69095, Long -121.10133. The site is approximately 500 feet north of State Route 20 and just over 200 feet from the Thunder Knob Trail, a popular day hike for visitors to Ross Lake National Recreation Area.

B. ENVIRONMENTAL ELEMENTS [\[help\]](#)

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

a. General description of the site: [\[help\]](#)

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

b. What is the steepest slope on the site (approximate percent slope)? *Approximately 9%*

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 area is mostly within and adjacent to the alluvial fan of Colonial Creek - which represents the northern half of the action area. The substrate of this northern portion is therefore mainly composed of alluvium that was deposited as the creek moved across its fan over time, but the site of proposed logjam is now a six foot tall cut-bank, composed of sand and gravel, above the current creek channel. This project does not involve removing any of these soils.*

d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe. *Again, the immediate vicinity of the project area is composed of sand and gravel and has been slowly eroding into the creek. Other than impacts from the creek, the area has not shown signs of slumping, etc.*

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. *No excavation, fill, or grading is proposed within the terrestrial environment. See responses to questions regarding water below for information on some filled related to Colonial Creek.*

f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe. *No. Project is designed to minimize erosion on site.*

- g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)? *No additional impervious surfaces will be added to site. The future developed footprint will be equivalent to (same as) the existing developed footprint.*
- h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any: *The purpose of this project is to protect the bank along 60' of Colonial Creek to prevent further erosion within the campground. Installation would occur in low flow conditions between September 6-14, 2017, but should high flow conditions that may cause siltation be encountered during this project, work would stop until the flow subsides. Erosion control methods would also be used to prevent silt-laden water from entering the stream. These may include, but are not limited to, straw bales, filter fabric, temporary sediment ponds, check dams of pea gravel-filled burlap bags or other material, and/or immediate mulching of exposed areas. Within seven calendar days of project completion, all disturbed areas would be protected from erosion using vegetation or other means.*

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. *None expected.*
- 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 identified.*

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

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. *Yes. The project is immediately adjacent to and within Colonial Creek which is a permanent, glacier-fed stream that is a tributary to the Diablo Reservoir on the Skagit River. The project is approximately 500 feet upstream of the creek's confluence with Diablo Reservoir.*
- 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, this project would install an engineered log jam that would be mostly below the ordinary high water mark of Colonial Creek. Site plan and description are included on pages 2-4 and described further in the next question.*
- 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. *No excavation is planned for this project. Between 6-10 large diameter trees would be repositioned within the creek channel to cover approximately 60' of eroding bank on the south side of Colonial Creek. Another 5-10 2'-4' diameter angular rock would also be added to the site to pin in place with potentially up to one cubic yard of fill to be placed behind the engineered log jam. All rock to site would be*

cleaned and free of any non-native plant material. All fill/material used is believed to be the minimum necessary to protect the bank at this location while also avoiding true hardening of the bank and providing complex aquatic habitat on site. In general, this engineered logjam was designed to mimic natural conditions in a way that deflects erosion from the bank of concern. Fish habitat components such as logs, stumps, and/or large boulders were intentionally designed as part of the bank protection to mitigate project impacts, and both these fish components as well as the angular rock, would be installed to withstand 100-year peak flows. River gravels or other round cobbles would not be used as exterior armor, and the volume of rock used would not exceed 20 cubic yards.

- 4) Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known. *No.*
- 5) Does the proposal lie within a 100-year floodplain? If so, note location on the site plan. *Site is within a FEMA Undetermined floodzone. We expected that all work within the creek channel is within the 100 year floodplain at minimum.*
- 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:

- 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.*

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. *No runoff is anticipated from this project other than surface flows from Colonial Creek.*
- 2) Could waste materials enter ground or surface waters? If so, generally describe. *No.*
- 3) Does the proposal alter or otherwise affect drainage patterns in the vicinity of the site? If so, describe. *No.*

d. Proposed measures to reduce or control surface, ground, and runoff water, and drainage pattern impacts, if any: *None.*

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

- a. Check the types of vegetation found on the site: [\[help\]](#)

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

The action area is situated within a low elevation, mixed conifer old growth forest that has been impacted by bark beetles since the early 2000s. Large-diameter western hemlock (*Tsuga heterophylla*) and Douglas fir (*Pseudotsuga menziesii*) are common in the overstory, along with western redcedar (*Thuja plicata*) and western (or Pacific) yew (*Taxus brevifolia*). Dominant understory species include Oregon grape (*Mahonia nervosa*), salal (*Gaultheria shallon*), and blueberry (*Vaccinium* spp.), along with a dense carpet of mosses.

- b. What kind and amount of vegetation will be removed or altered? *No live vegetation will be removed, though work around old growth trees, particularly the use of heavy equipment along the bank, has the potential to compact soil and impact roots of these trees. Similarly, in retrieving wood from the creek and in installing the log jam itself, the arm of the excavator or other material (like a swinging log), could damage exposed roots of these old growth trees along the bank and thereby compromise the health of individual old growth trees. While crew awareness and sensitivity may reduce, if not eliminate, any damage to exposed roots, an excavator may further compact soil along the 60 feet of bank that will be protected from further erosion. This is not expected to be a significant risk/threat a portion of this bank is composed of existing campsites and has had some heavy equipment over it in the past (construction of nearby road and other tent pads, etc.) and access/work from these sites will be preferred over other locations.*
- c. List threatened and endangered species known to be on or near the site. *None found during surveys.*
- d. Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any: *Bank protection material would be placed in a manner to avoid damage to existing vegetation, and alteration or disturbance of the bank and bank vegetation would be limited to that necessary to construct the project. The upper 3-4 ft of the bank above the log structure would be revegetated with native shrubs and erosion control fabric using a willow-layering technique as the last phase of the project.*
- e. List all noxious weeds and invasive species known to be on or near the site. *None identified at project site.*

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.

Colonial Creek, in addition to Thunder Creek, is one of a few viable fish-bearing streams in the Diablo Basin. Several species are known to use the creek for spawning and rearing including juvenile rainbow trout and native char (bull trout or Dolly Varden).

Although the north unit of Colonial Creek Campground is situated in the lower Thunder Creek Valley, which provides outstanding habitat for many species of wildlife, the concentrated human use of the area likely causes many wildlife species to avoid it. The part of the campground is located on a small parcel of land that is bounded on the north and east by Diablo Reservoir/Thunder Arm and on the south and west by Highway 20. Some of the larger mammals found in the lower Thunder Creek Valley, including black tail deer, bobcat, cougar, and black bear, are likely not found within or near the campground because of the disturbance associated with the campgrounds, highway, and water body. There are several species, however, that are common at the campground in the summer and that use it as habitat. Mammals include mice, Douglas squirrels, and several bat species. Birds include pileated woodpeckers, jays, warblers, flycatchers, tanagers, and swallows. No formal surveys have been conducted for amphibians in or near Colonial Creek; however, several species are likely found in the vicinity, including the tailed frog, western toad, red-legged frog, the chorus frog, ensatina (fully terrestrial species), and the rough skinned newt.

- b. List any threatened and endangered species known to be on or near the site. *Bull Trout (Salvelinus confluentus)* are found within Diablo Lake and may spawn up Colonial Creek. It is also possible – as we know these species are in the ecosystem - but unlikely given the site's proximity to and enclosure within human development (site surrounded by a reservoir and highway), that grizzly bears (*Ursus arctos*) and gray wolves (*Canis lupus*) could be within the project area. Marbled murrelets (*Brachyramphus marmoratus marmoratus*) and spotted owls (*Strix occidentalis caurina*) have also been documented within the greater Lower Thunder Arm Basin. All of these species are federally threatened, except for the gray wolf which is federally endangered.
- c. Is the site part of a migration route? If so, explain. *Potentially. Bull trout may spawn up Colonial Creek from Diablo Lake.*
- d. Proposed measures to preserve or enhance wildlife, if any: *This engineered logjam was designed to mimic natural conditions in a way that deflects erosion from the bank of concern. Fish habitat components such as logs, stumps, and/or large boulders were intentionally designed as part of the bank protection to mitigate project impacts, and both these fish components as well as the angular rock, would be installed to withstand 100-year peak flows. River gravels or other round cobbles would not be used as exterior armor, and the volume of rock used would not exceed 20 cubic yards.*

The project was also timed to be implemented at lowest flows (which are notably outside the critical spotted owl and marbled murrelet nesting seasons) and prior to spawning season for bull trout.

- e. List any invasive animal species known to be on or near the site. *None identified.*

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. *An excavator and dump truck will be used to complete the work. This*

equipment will be powered with petrochemicals. No other energy needed to complete the work.

- 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 identified.*

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. *This project will use petrochemicals to power an excavator and dump truck for use onsite. The project is also along a steam bank, and heavy equipment will be used along bank to install material along the bank and access materials from within the creek – posing risk to employee safety.*
- 1) Describe any known or possible contamination at the site from present or past uses. *In 2003, floods at Colonial Creek washed out NPS campsites and a portion of a road (including utility lines) at Colonial Creek Campground North. Some of those materials remain in the creek and are slated for removal under a separate project and HPA (2015-4-268+01).*
 - 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. *The NPS knows of no hazardous chemicals or pipelines, etc. on site. Project is along a steam bank and heavy equipment will be used along bank to install material along the bank and access materials from within the creek. Extra caution is needed to ensure equipment is operating from stable locations.*
 - 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. *Petrochemicals will be used to power the heavy equipment proposed for use onsite.*
 - 4) Describe special emergency services that might be required. *The NPS is accustomed to responding to emergency situations in remote areas. Should NPS staff be severely injured or have a life-threatening condition, communications are in place to respond quickly and provide the necessary services and/or transport to emergency response facilities.*
 - 5) Proposed measures to reduce or control environmental health hazards, if any: *Machinery would not be allowed to enter or cross the creek channel. NPS staff will adhere to NPS and park-specific safety policies and plans including: The Crane, Derrick, and Hoist Plan (2010); Risk Management Plan (2010); and NOCA's Spill Prevention, Control, and Counter Measure Plan (2016). Equipment used for this project would be free of external petroleum-based products while working around the stream, and extreme care would be taken to ensure that no petroleum products, hydraulic fluid, fresh cement, sediments, sediment-laden water, chemicals, or any other toxic or deleterious materials are allowed to enter or leach into the stream.*

Equipment would be checked daily for leaks and any necessary repairs shall be completed prior to commencing work activities along the stream.

b. Noise [\[help\]](#)

1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)? *Project is in close proximity to highway 20 and a public campground which have been shown to increase natural sounds in the area by approximately 7 decibels on average during the day. Source: NPS, 2013. North Cascades National Park Complex Acoustic Monitoring 2009 – 2011, Natural Resource Technical Report NPS/NOCA/NRTR—2013/767.*

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. *An excavator will be used onsite for up to 8 working days (between 7am and 5pm)(~40 total over the course of those days) over the course of two weeks to construct the log jam, and a dump truck may be used periodically to deliver materials. Excavators have been documented at operating at sound levels of between 87-112 dbA at use. While sounds may dissipate quickly due to complexity of habitat, this use will temporarily increase existing ambient sound levels onsite, which have been measured at 32dbA (medium A-weighted for daylight hours, 7am-6:59pm). Source: NPS, 2013. North Cascades National Park Complex Acoustic Monitoring 2009 – 2011, Natural Resource Technical Report NPS/NOCA/NRTR—2013/767.*

3) Proposed measures to reduce or control noise impacts, if any: *None identified.*

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. *The project is within Colonial Creek Campground, North, in Ross Lake National Recreation Area – land managed by the National Park Service to provide for public enjoyment and the protection of natural and cultural resources therein. Nothing in this project is expected to change the land use of the area or adjacent properties.*

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? *No / Not applicable.*

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: *No.*

c. Describe any structures on the site. *The campground on the north side of Hwy 20 has 44 campsites, 3 bathroom facilities, and a number of locations to drop garbage and recycling. Within 500 feet of the site, there is also a public trail: the Thunder Knob Trail. All structures on and near site are primitive in nature, except for the narrow paved loop road that goes through the campground. See map on page 5.*

d. Will any structures be demolished? If so, what? *No.*

- e. What is the current zoning classification of the site? *Not applicable*
- f. What is the current comprehensive plan designation of the site? *Not applicable*
- g. If applicable, what is the current shoreline master program designation of the site? *Not applicable.*
- h. Has any part of the site been classified as a critical area by the city or county? If so, specify. *Unknown.*
- 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.*
- m. Proposed measures to reduce or control impacts to agricultural and forest lands of long-term commercial significance, if any: *None.*

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

- a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing. *Not applicable. Housing not needed or impacted by proposed work.*
- 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 [\[help\]](#)

- a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed? *The height of the engineered logjam would be no greater than 6 feet, extending to the base of Colonial Creek and no higher than the existing bank. It would not be visible from the shoreline.*
- b. What views in the immediate vicinity would be altered or obstructed? *No views would be altered or obstructed.*
- b. Proposed measures to reduce or control aesthetic impacts, if any: *None.*

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

- a. What type of light or glare will the proposal produce? What time of day would it mainly occur? *None anticipated.*

- b. Could light or glare from the finished project be a safety hazard or interfere with views? *No impacts anticipated as no lighting or reflective material will be installed as part of this proposal.*
- c. What existing off-site sources of light or glare may affect your proposal? *There is a camp tender station within 1,000 feet of the project that may have some nighttime lighting, but it is not expected to impact this proposal or vis versa.*
- d. Proposed measures to reduce or control light and glare impacts, if any: *None.*

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

- a. What designated and informal recreational opportunities are in the immediate vicinity? *The project site is within a National Park Service Campground within Ross Lake National Recreation Area and immediately adjacent to a campsite (#24) that is eroding into Colonial Creek. The project area is also within 500 feet of a popular day hike, the Thunder Knob trail and its parking lot.*
- b. Would the proposed project displace any existing recreational uses? If so, describe. *No. Project is scheduled for when the north end of the campground (where the project is proposed) will be closed for the season. Some visitors hiking Thunder Knob may see and hear the work going on, but they should not be displaced by the work.*
- c. Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any: *None identified.*

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.*
- 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. Studies and inventories include: NOCA Historic Structures Inventory, Luxenberg 1984, NOCA Cultural Landscape Inventory, Gilbert and Luxenberg 1985, Reconnaissance Survey for Cultural Resources in Diablo Lake, Mierendorf 1987, Park staff surveys RRM-86, NOCA 1995-04, NOCA 1996-02, and NOCA 1996-22.*
- 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. *See studies mentioned above. The NPS consulted with the following agencies/tribes on both the APE (letters sent April 17, 2017) and determination of effects (letters sent on June 1, 2017): Washington State Department of Archeology and Historic Preservation (SHPO), the Swinomish Indian Tribal Council, the Sauk-Suiattle Indian Tribe, and the Upper Skagit Indian Tribe. The SHPO concurred with the APE on May 4, 2017 and concurred with the determination of no historic properties affected on June 5, 2017.*

- 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.
None.

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. *There is a NPS loop road (shape of a figure 8) that goes through the campground, within several feet of the site. This road will need to be closed during project implementation, but the campground itself will be closed during project implementation as well; so no impacts to transportation anticipated.*
- 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? *No.*
- c. How many additional parking spaces would the completed project or non-project proposal have? How many would the project or proposal eliminate? *No changes proposed to 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.*
- e. Will the project or proposal 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 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? *An excavator will be transported to site at the beginning of the project (during the week and during day light hours) and at the end of the project. This transport will occur between Marblemount to Diablo Lake along Highway 20. One dump truck load will also be needed to transport a load of material to site on one day during project implementation. This will also be along Hwy 20, between Marblemount and Diablo Lake.*
- 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.*

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** [\[help\]](#)

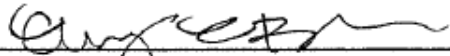
- a. Circle utilities currently available at the site: [\[help\]](#)

electricity, natural gas, **water**, refuse service, telephone, sanitary sewer, septic system, other **pit toilets, recycling and trash disposal**_____

- 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. *No utilities are proposed for the project and no disturbance to existing utility lines anticipated.*

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: Elizabeth Boerke

Position and Agency/Organization: Environmental Protection Specialist, North Cascades National Park Service Complex, Ross Lake National Recreation Area

Date Submitted: July 13, 2017