

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

1. Name of proposed project, if applicable:

Icicle Creek Water Resource Management Strategy (Icicle Strategy)

2. Name of applicant:

Chelan County Department of Natural Resources

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

Mike Kaputa, Director
Chelan County Natural Resources Department
411 Washington Street, Suite 201
Wenatchee, WA 98801

4. Date checklist prepared:

January 2016

5. Agency requesting checklist:

Chelan County and Washington State Department of Ecology (Ecology), Office of Columbia River

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

February 2016	Submit Checklist and Issue Threshold Determination of Significance, Launch Programmatic SEPA Scoping
April 2016	Public Meeting
May 2016	End of SEPA Comment Period for Threshold Determination
June 2016	Develop Draft Programmatic Environmental Impact Statement (PEIS)
Summer 2017	Publish Draft PEIS
Fall 2017	Issue Final PEIS
Fall 2017	Begin project level environmental review

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

Yes. The purpose of this SEPA checklist is to help clarify resources that will inform programmatic environmental review for the Icicle Strategy. Each individual project proposed under the Icicle Strategy will have its own environmental review process.

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

Alpine Lakes Optimization and Automation Appraisal Study, 2015, Aspect Consulting/Anchor QEA

Leavenworth National Fish Hatchery (LNFH) Effluent Pump Back Preliminary Assessment, 2015, Anchor QEA.

Icicle Peshastin Irrigation District (IPID) Pump Exchange (Dryden Alternative) Summary of Additional Analyses, 2015, Anchor QEA

Eightmile Lake Restoration and Expansion Appraisal Study, 2015, Anchor QEA/Aspect Consulting

Icicle and Peshastin Irrigation Districts Pump Exchange, Summary of Potential Operations and Maintenance Funding Strategies, 2015 (draft), Anchor QEA

LNFH Tribal Fishery Analysis, 2015 (draft), Anchor QEA

LNFH Icicle Creek Rapid Geomorphic Assessment, 2014, US Bureau of Reclamation (USBR)

LNFH Groundwater Model Update Technical Memorandum, 2014, USBR

Conservation Plan Survey, 2014, Aspect Consulting

Climate Change Vulnerability and Adaptation in the North Cascades Region, 2014, USDA

Upper Klonaqua Lake Conceptual Review, 2014, Aspect Consulting

IPID Instream Flow Improvement Options Analysis, 2014, Trout Unlimited/Forsgren Associates

Icicle Creek Boulder Field Fish Passage Assessment, 2013, EcoAssets and Associates

Icicle Creek Fish Passage Evaluation for LNFH, 2013, US Fish and Wildlife Service (USFWS)

Icicle Creek Instream Flow and Fish Habitat Analysis for LNFH, 2013, USFWS

IPID Pump Exchange Project Appraisal Study, 2012, Anchor QEA

Leavenworth National Fish Hatchery Final Value Analysis, 2012, USBR

Leavenworth National Fish Hatchery, National Pollutant Discharge Elimination System Discharge Monitoring Reports, 2012, USFWS

Water Storage Report, Wenatchee River Basin, 2011, Anchor QEA

Seasonal Movements of Adult Fluvial Bull Trout and Redd Surveys in Icicle Creek, 2009 Annual Report, 2011, Mark C. Nelson, Andy Johnsen, and R.D. Nelle

Groundwater Conditions at LNFH, 2010, USBR

Draft Feasibility Study, Campbell Creek Reservoir, 2010, Washington State Department of Ecology & Anchor QEA, LLC

Seasonal Movements of Adult Fluvial Bull Trout and Redd Surveys in Icicle Creek, 2009 Annual Report, 2011, Mark C. Nelson, Andy Johnsen and R.D. Nelle

Leavenworth National Fish Hatchery, Proposed Flow Management Operations for 2009-2014, January 2009

Wenatchee Watershed Planning, Phase IV—Detailed Implementation Plan, 2008, Wenatchee Watershed Planning Unit

Peshastin Subbasin, Needs and Alternatives Study, 2007, Chelan County Natural Resources Department & Anchor Environmental, LLC

Preliminary Draft, Needs and Alternatives Analysis, Icicle Creek Sub-Basin Storage Study, 2007, Anchor Environmental, L.L.C.

Wenatchee Watershed Management Plan, 2006, Wenatchee Watershed Planning Unit

Progress Report, Icicle Creek Water Temperatures, November 1, 2005 - October 31, 2006, Barbara Kelly Ringel

Biological Assessment for Operations and Maintenance of Leavenworth National Fish Hatchery, 2006, USFWS

Multi-Purpose Water Storage Assessment in the Wenatchee River Watershed, 2006, Montgomery Water Group

Technical Memorandum, Instream Flow Assessment of Icicle Creek, Washington, 2005, Ron Suttton and Chelsie Morris

Lower Icicle Creek Reach Level Assessment, 2005, The Watershed Company

WRIA 45 Summary of Groundwater/Surface Water Interaction and Groundwater Resource Reference, 2005, Golder Associates

Icicle Creek Target Flow Report For Leavenworth national Fish Hatchery, 2004, Montgomery Water Group

Water Management Plan for Leavenworth National Fish Hatchery, 2004, Montgomery Water Group

Wenatchee Subbasin Plan, 2004, Northwest Power and Conservation Council

Wenatchee River Basin, Watershed Assessment, 2003, Montgomery Water Group, Pacific Groundwater Group, and EES

City of Leavenworth, Water System Plan, 2011, Varela and Associates

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.

There are no known pending governmental approvals of other proposals directly affecting the properties covered by the proposed programmatic Icicle Strategy.

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

- ESA Section 7 Consultation (Biological Assessment)
- Clean Water Act (Section 404)
- Water Quality Certification (Section 401)
- National Pollutant Discharge Elimination System (NPDES) Permit
- Hydraulic Project Approval/Joint Aquatic Resource Permit Application
- USFS Special Use Permit
- NHPA Section 106 Concurrence
- Executive order 05-05 consultation
- Reservoir Storage Permit
- Dam Construction Permit
- Water Right Permit
- County Shorelines Management Act Permit (Shoreline Substantial Development or Conditional Use Permit)
- Critical Areas Review
- Building, Fill and Grading Permits
- Water System Plan Update
- Instream Flow Rule Amendment
- Construction Stormwater General Permit
- Stormwater Pollution Prevention Plan

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

The Icicle Strategy is an integrated water resource management strategy proposed to enhance instream flows, water supplies and aquatic habitat by implementing projects that fulfill nine Guiding Principles established by the Icicle Work Group:

- Improve Instream Flows in Icicle Creek Historic Channel
 - 60 cfs minimum flows (drought years)
 - 100 cfs minimum flows (non-drought years), short-term goal
 - 250 cfs minimum flows (non-drought years), long-term goal
 - 2,600 cfs maximum flows in historic Icicle Channel to preserve habitat function
- Improve sustainability of Leavenworth National Fish Hatchery (LNFH):
 - Meet U.S. v. Oregon and other agreements specifying fish production requirements
 - 57 cfs supply protected long-term, with at least 20 cfs conservation goal
 - Diverse source availability (temperature, pathogen-free) to maximize fish health
 - Structures that minimize unintended fish passage impediments
- Protect Tribal and Non-Tribal harvest
 - Catch per unit of effort (CPUE) improved
 - Maintain multi-species harvest opportunities
 - Tribal Impacts Assessment and Adaptive management Plan being implemented, addressing attraction flows, sediment transport, fish migration/straying, site access and amenities
- Improve Domestic Supply
 - 2,300 to 4,100 acre-feet of reliable year-round supply (3 to 6 cfs peak), with lower magnitude conditioned upon Legislative protection of existing reserve in WAC 173-545-090
- Improve Agricultural reliability
 - Automate/Optimize Alpine Lakes for improved reliability (plus instream flow benefit)
 - Restore/repair Eightmile lake/reservoir up to 2,500 acre-feet (225 acre-foot agricultural benefit, 900 acre-foot additional instream flow/municipal benefit)
 - Current interruptible agricultural users have firm supply in average water years/agriculture water bank (2 to 4 cfs)

- Enhance Icicle Creek Habitat
 - Improve fish passage
 - Make investments in physical habitat improvements with consideration for high flow habitat and low flow refuge, remove fish passage impediments, and improve limiting factors for spawning/rearing
 - Offset project-related terrestrial impacts with land acquisition/easements
- Comply with State and Federal Law, and Wilderness Acts
 - Identify and engage regulators in the process
 - Environmental review completed (compliance to be verified for each project)
 - All projects appropriately permissible (compliance to be verified for each project)
 - All diversions (LNFH, IPID, COIC) appropriately screened (compliance to be verified for each project)

To meet the goals established in these guiding principles, a base package of projects have been agreed to and moved forward by the Icicle Work Group for environmental review in a programmatic environmental impact statement (PEIS). The PEIS will describe both the base package, and other alternative projects that could meet the Guiding Principles. The base package includes:

IPID Irrigation Efficiencies

Update IPID comprehensive plan and identify efficiency projects to fund. The assumed water savings is 3,000 acre-feet, or about 10% of IPID's water rights. Flow benefit is non-consumptive, reach specific, and during the irrigation season.

COIC Irrigation Efficiencies

Update COIC comprehensive plan and identify efficiency projects to fund. The assumed water savings is 1,000 acre-feet, or about 25% of COIC's water rights. Flow benefit is non-consumptive, reach specific, and during the irrigation season.

Domestic Conservation Efficiencies

Implement domestic conservation projects for City of Leavenworth and Chelan County consisting of metering, pipe replacement, and rural conservation designed to achieve domestic savings of 400 acre-feet.

LNFH Conservation and Water Quality Improvements

This project will combine on-site reuse, effluent pump-back, and wellfield enhancements to increase water quality and conserve approximately 14,454 acre-feet. Flow benefit is non-consumptive and reach-specific and year round.

Alpine Lakes Optimization, Modernization, and Automation

Automate and optimize releases out of reservoirs on up to seven lakes located in the Alpine Lakes Wilderness: Upper Snow, Lower Snow, Nada, Square, Colchuck, Eightmile and Klonaqu Lakes. This could provide a flow benefit for an estimated 92 days, although it can be adapted to shorter durations and higher peak flows. Increased stream flow would benefit instream and out-of-stream uses, such as irrigation supply and municipal supply, in normal years and improve water supply to IPID in drought years.

Eightmile Lake Restoration Project

Restore Eightmile Lake/Reservoir from its existing volume of 1,375 acre-feet to the normal permitted pool volume of 2,500 acre-feet. This restored storage volume would provide up to 60 days of flow benefit for both instream flows and domestic use. The flow benefit can be adapted to shorter duration with higher peak flows.

Water Markets

Create an Icicle Water Bank and initially seed the water bank with 1,000 acre-feet for interruptible agricultural water use in both the Icicle and Wenatchee basins during times of shortage.

Habitat Improvements and Land Acquisition

Improve stream habitat with riparian plantings, engineered logjams; conservation easements, fish passage and other habitat projects. Additionally, land acquisitions will be coordinated with the Upper Wenatchee Community Lands Plan and other opportunities identified in the Icicle Basin.

Rehabilitate LNFH Intake, Operational Improvements at Structure 2, Icicle Creek Passage, and Tribal Fisheries Improvements

Replace dilapidated sections of intake piping, improved passage in Icicle Creek, and improve operation of Structure 2 and the Hatchery Channel, while increasing tribal fishing access/amenities.

Screening Improvements

Improve existing diversion screens to current standards at the LNFH/COIC and the IPID/City of Leavenworth diversions on Icicle Creek. Screening will improve fish passage and hatchery operations.

Instream Flow Rule Amendment

Modify the Icicle Reserve set in the Wenatchee Instream Flow Rule (WAC 173-545) from the interim level of 0.1 cfs to the final level of 0.5 cfs.

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.

Figure 1 shows the general location of the proposal and affected environment. A summary of the locations associated with each Guiding Principle is provided below:

- IPID Irrigation Efficiencies: IPID service area and Icicle Creek from IPID diversion to the downstream (east) end of the IPID system on the Wenatchee River.

- COIC Irrigation Efficiencies: COIC service area and Icicle Creek from COIC diversion to the downstream (north) end of the COIC system near the confluence of Icicle Creek with the Wenatchee River.
- Domestic Conservation Efficiencies: City of Leavenworth service area and rural lots in Icicle Creek basin.
- LNFH Conservation and Water Quality Improvements: LNFH Facility and Icicle Creek from Intake through historic channel.
- Alpine Lake Optimization, Modernization, and Automation: Nada Lake, Upper Snow Lake, Lower Snow Lake, Square Lake, Colchuck Lake, Eightmile Lake and Klonaqu Lake, Icicle Creek and its tributaries fed by Alpine Lakes, Wenatchee and Columbia Rivers.
- Eightmile Lake Restoration Project: Eightmile Lake, Icicle Creek, City of Leavenworth service area, and rural lots in Icicle Creek basin.
- Water Markets: Agricultural lands in the Icicle Creek and Wenatchee basins, generally within 1 mile of the Wenatchee River.
- Habitat Improvements and Land Acquisition: Icicle Creek, the Icicle Creek Basin, the Icicle Creek headwaters and connected habitat and migration corridors.
- Rehabilitate LNFH Intake, Operational Improvements at Structure 2, Icicle Creek Passage, and Tribal Fisheries Improvements: LNFH Facility, Icicle Creek, and Tribal Fishing Area near LNFH.
- Screening Improvements: IPID, Leavenworth, COIC, and LNFH Intakes, Icicle Creek.
- Instream Flow Amendment: Icicle Creek, City of Leavenworth Service Area, rural lots in Icicle Creek basin.

In the PEIS, maps of specific project areas will be provided, including topographic map using LiDAR or National Elevation Dataset-derived topographic contours.

B. ENVIRONMENTAL ELEMENTS

1. Earth

a. General description of the site:

The proposed program area's topography ranges from mountainous to generally flat. Topographic maps and LiDAR will be consulted for specific descriptions for each Guiding Principle and the Base Package.

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

The proposed program area's topography ranges from mountainous to generally flat. Topographic maps and LiDAR will be consulted for specific descriptions for each Guiding Principle and the Base Package.

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 federal SSURGO database will be used to determine soil makeup in the proposal area.

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

The Chelan County GeoHazards GIS layer will be consulted to determine specific issues relating to soil stability within the program area. Additionally, geologic maps will be used to determine the location of any QIs soil units, which are mass-wasting deposits usually associated with landslide.

- 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.

Construction activities associated with project improvements such as canal-to-piping improvements, new home construction that will result from improved domestic water supply, construction of hydraulic structures, installation of monitoring and control equipment, and upgrades to existing dam structures may include filling, excavation, and grading. The PEIS will estimate quantity ranges.

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

The PEIS will describe project construction activities that could lead to soil erosion and associated mitigation measures and best management practices.

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

Impervious surfaces may be associated with new home construction, hydraulic structures, access facilities, and construction-related buildings. The PEIS will describe amounts of impervious surfaces.

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

The PEIS will identify best management practices to reduce or control erosion.

2. Air

- 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.

Construction of projects to meet the Guiding Principles could temporary impact emissions. If construction activities will lead to emissions, the approximate quantities and type of emissions will be addressed in the PEIS or project level environmental review.

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

Ecology's Major Facilities Air Emissions Map and the EPA's list of nonattainment areas will be reviewed to determine if there are any off-site sources of emission that may affect the proposed program area.

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

The PEIS will identify emission control measures for projects meeting the Guiding Principles.

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.

Using Washington State Department of Natural Resources (DNR) Chelan County Hydrography GIS dataset, the PEIS will provide a list of all named watercourses and waterbodies within the project area. Key features include the Alpine Lakes, Icicle Creek, Icicle Creek tributaries, the Wenatchee River, and the Columbia River.

- 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 proposal would increase stream flow and water supply by encouraging and funding conservation measures, restoring storage capacity, and improving reservoir operations. Additionally, the proposal would improve habitat, remove passage barriers, and improve diversion screening. The LNFH Pumpback was piloted in the 2015 drought in the Hatchery Channel which is within 200 feet of the historic Icicle Channel. These projects will require work in or adjacent to water sources within the Icicle Creek drainage. Project specific plans have not been fully developed. The PEIS will provide a complete list of waterways within 200 feet of proposed base package project locations and alternatives using the DNR Hydrography layer.

- 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 proposal does not include any plans for dredging and filling waterways or wetlands. If any dredge and fill activities are identified for project construction, the PEIS or project level environmental review will include details on the activities and mitigation measures.

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

While one of the primary goals of the Icicle Strategy is stream restoration, implementation of some projects to fulfill the Guiding Principles (discussed above in Section A, item 11) may include new surface diversions or relocating existing surface diversions, including downstream point of diversion changes. The PEIS will describe these alternatives.

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

The affected geographic area includes all of the Icicle Creek basin and portions of the greater Wenatchee basin. The Federal Emergency Management Agency Floodplain GIS dataset will be used to describe areas of the proposal within the 100-year floodplain.

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

Fulfillment of the Guiding Principles may involve the permitting of discharges of waste materials to surface waters. These could include NPDES discharges at the LNFH and the City of Leavenworth. The PEIS will describe these alternatives.

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.

Projects constructed to meet the Guiding Principles may include groundwater withdrawals. These may be associated with new rural domestic wells that will likely occur in response to increasing the domestic reserve under the Wenatchee Instream Flow Rule. Additionally, as part of conservation and water quality goals at LNFH groundwater augmentation wells may be installed. The PEIS will include potential locations and quantities.

- 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.

Some of the Guiding Principles may involve permitting of discharges of waste materials to groundwater. These could include septic tank discharges associated with new rural lots. The PEIS will describe the magnitude and location of such discharges.

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.

The PEIS will describe the potential for runoff related to project construction and the Guiding Principles, and best management practices to minimize potential impacts.

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

Some waste materials may be associated with improvement projects to meet the Guiding Principles, including permitted discharges at LNFH, the City of Leavenworth, and rural domestic lots.

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

The program will increase flow in Icicle Creek and the Wenatchee Basin. This will include a change in storage and release patterns in Nada, Upper Snow, Lower Snow, Square, Colchuck, Eightmile, and Klonaqua Lakes, and different groundwater augmentation methods at LNFH. The PEIS will describe these alternations and affected environment.

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

The PEIS will describe options for water controls associated with projects that meet the Guiding Principles.

4. Plants

- a. Check the types of vegetation found on the site:

Washington Native Plant Society's Chelan County dataset will be used to list the types of vegetation found within the proposal area.

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

One of the Guiding Principles is habitat enhancement, which may include alteration of vegetation. Vegetation removal may be required for project construction, and may be associated with new home construction. Magnitudes and potential locations of vegetation removal or alteration will be described in the PEIS.

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

To determine whether threatened and/or endangered plants may be present within the affected geographic area, the PEIS will provide information from the DNR's list of rare plants and USFWS' Environmental Conservation Online System, as well as consultation with tribes and other state and federal agencies.

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

Habitat enhancement in Icicle Creek will be described in the PEIS.

- e. List all noxious weeds and invasive species known to be on or near the site.

The PEIS will provide information from Ecology's Aquatic Plant monitoring GIS datasets and Chelan County's Noxious Weed Control Board's weed list.

5. Animals

- 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.

The PEIS will use Chelan County's Icicle Creek Landowner Stewardship Guide, the Washington Department of Fish and Wildlife (WDFW) Salmon Scape database, the WDFW Priority Habitat Species webmap, and the WDFW GoHunt webmap to provide a description of the known and common fauna in the area.

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

The PEIS will use Chelan County's Icicle Creek Landowner Stewardship Guide, the WDFW Salmon Scape database, and the WDFW Priority Habitat Species webmap to provide a description of the threatened and endangered species in the area.

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

The PEIS will use the WDFW Salmon Scape database and the WDFW Priority Habitat Species database along with interviews from local land managers to determine what species migrate through the affected geographic area.

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

The Guiding Principles are designed to enhance aquatic species, including ESA-listed salmonids, by increasing streamflow, improving instream and riparian habitats, improving fish passage, and improving screening on several water diversions. The following base package items or similar alternatives designed to meet the Guiding Principles would benefit aquatic wildlife:

- Alpine Lakes Optimization, Modernization, and Automation
- IPID Irrigation Efficiencies
- Cascade Orchards Irrigation Efficiencies
- LNFH Conservation and Water Quality Improvements
- Eightmile Lake Restoration
- Habitat Improvements
- Land Acquisition
- LNFH, COIC, IPIC, City of Leavenworth Screening Improvements

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

To determine if invasive animal species may occur within the affected geographic area, the PEIS will document information from the U.S. Geological Survey non-indigenous aquatic species GIS layer and the Washington Biodiversity Status and Threats report by the Washington Biodiversity Council.

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.

Projects designed to meet the Guiding Principles will require energy. For example, projects in the Alpine Lakes may utilize storage. Pump projects will likely use electric power. The PEIS will describe potential power uses associated with projects designed to meet Guiding Principles.

- 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:

Construction projects in the Alpine Lakes Wilderness Area may use low-energy, low-visibility, and low-impact construction. High-efficiency water pumps may be used on projects to minimize operation and maintenance needs.

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.

No, none anticipated.

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

The PEIS will use Ecology's Underground Storage Tanks and Areas of Concern database to document underground storage tanks, state cleanup sites, federal superfund sites, hazardous waste generators, solid waste facilities, dairies, and enforcement areas within the affected geographic area. The PEIS will also document waterways within the affected geographic area that are included on Ecology's 303(d) list.

- 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 PEIS will document information from Ecology's Hazardous Site list to determine any potential hazardous conditions within the affected geographic area.

- 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.

The PEIS will describe the types of projects that could meet the Guiding Principles and will describe whether any toxic or hazardous chemicals may be used or stored in association with those projects.

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

None anticipated.

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

No environmental health hazards are anticipated to occur as a result of the proposal. The PEIS will identify best management practices for minimizing and avoiding any potential environmental health hazards associated with elements of project construction.

b. Noise

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

Existing noises within the affected area are not anticipated to impact potential projects.

- 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.

Projects designed to meet the Guiding Principles may result in a temporary and localized increases in noise levels in the affected geographic area. All noise associated with project activities would comply with local noise ordinances.

The PEIS will describe types and duration of noise, and potential mitigation measures. Short-term increases in noise levels associated with construction activities may result from vehicle traffic, use of hand and power tools, and operation of earth-moving equipment. Permanent project elements such as pumps and associated mechanical and electrical equipment may generate intermittent or ongoing noise concurrent with operation of those systems.

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

The PEIS will describe types and duration of noise, and potential mitigation measures.

8. Land and Shoreline Use

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 affected geographic area is currently used for a variety of agricultural, recreational, domestic, commercial, and natural uses. Specific uses associated with each project area will be described in the PEIS. Chelan County's Shoreline Master Plan, aerial photography, property records, and land use data will be used to describe land and shoreline uses. The proposal will increase instream flow, which will provide beneficial results for a variety of agricultural, recreational, domestic, commercial, and natural uses on 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?

There are working farmlands and forest lands within the affected geographic area. The Guiding Principles identify land acquisition for environmental protection and restoration as a potential project, which could result in land use changes. The PEIS will use Chelan County's Zoning GIS layer to determine the area of working farmland and forest lands that may be affected by proposed projects designed to meet the Guiding Principles.

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:

The Guiding Principles include a goal of providing a more secure supply of water for agricultural users, including IPID, COIC, and interruptible water right holders.

c. Describe any structures on the site.

The project area includes homes, businesses, and a variety of institutional structures. Key structures contemplated for improvement to meet the Guiding Principles include the LNFH, IPID, City of Leavenworth and COIC infrastructure, and Alpine Lake reservoirs. The PEIS will describe the location and nature of site infrastructure that may be affected to meet the Guiding Principles.

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

Some of the projects designed to meet the Guiding Principles may require structure demolition and reconstruction. Any demolition and reconstruction would secure applicable local, state, or federal permits and approvals. Projects involving elements of demolition work may include:

- Eightmile Lake Restoration
- Fish Screen Improvements
- LNFH Intake Rehabilitation
- IPID and COIC canal replacement with piping
- City of Leavenworth pipeline replacement

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

The PEIS will use Chelan County's Zoning GIS layer to identify current zoning classifications within the program area.

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

The Chelan County Comprehensive Plan dated January 1, 2015, includes a mix of designations. The PEIS will address comprehensive plan designations within the affected geographic area at the site-specific scale.

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

The PEIS will reference Chelan County's most recent Shoreline Master Program to determine the designation of areas within the program area.

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

The PEIS will use Chelan County's Zoning GIS layer to determine if any areas within the affected geographic area are classified as critical areas.

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

Not applicable. The proposal would increase stream flow and water supply in the Icicle Creek basin by encouraging and funding conservation measures, restoring storage capacity, and improving reservoir operations. Projects associated with the proposal would not provide new housing or workspace for people.

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

None anticipated. As discussed above, the proposal would increase stream flow and water supply in the Icicle Creek basin by encouraging and funding conservation measures, restoring storage capacity, and improving reservoir operations. Projects associated with the proposal would not result in new land-use changes which could result in the displacement of people.

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

Not applicable (see item 'j' above).

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

The PEIS will review the most recent Shoreline Master Program and Chelan County Comprehensive plan to ensure compatibility with the Guiding Principles.

- m. Proposed measures to ensure the proposal is compatible with nearby agricultural and forest lands of long-term commercial significance, if any:

The PEIS will describe compatibility measures between agricultural and forest lands and the Guiding Principles.

9. Housing

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

Improvements to the domestic water supply is one of the Guiding Principles. The PEIS will describe the number and potential locations of new home construction based on planning documents such as the City of Leavenworth's Water System Plan and GMA and watershed planning for Chelan County.

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

None anticipated. As discussed above, projects associated with the proposal would not result in any new land-use changes which would directly impact the availability of housing stock.

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

None anticipated. As discussed above, projects associated with the proposal would not result in any new land-use changes which would directly impact the availability of housing stock.

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?

Structures that may be constructed to meet the Guiding Principles would repair, replace, or enhance existing infrastructure associated with the collection, storage, and conveyance of water. These may include:

- Upgraded fish screens
- Piping upgrades
- Restored Eightmile dam
- Small structure or upgrades to existing structures needed to house control and monitoring equipment for optimization of on Klonaqu, Eightmile, Colchuck, Square, Upper Snow, Lower Snow, and Nada Lakes
- Pump/equipment buildings

The height and aesthetic of new structures would be consistent to those of existing structures. Any specific height and aesthetic issues will be addressed in the PEIS.

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

The proposal is expected to improve views of Icicle Creek, Eightmile Lake, and the Alpine Lakes. The historic channel of Icicle Creek will benefit from increased flows if the Guiding Principles are met. This will improve views for recreationalists and adjacent landowners. The Alpine lakes optimization, modernization, and automation and the Eightmile Lake restoration project are potential projects that could meet the Guiding Principles and have the potential to affect recreational aesthetics by altering lake levels. The PEIS will describe view alterations that could occur if Guiding Principles are met.

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

Specific aesthetic impacts and measures to control impacts associated with projects designed to meet the Guiding Principles will be addressed in the PEIS.

11. Light and Glare

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

The proposal would not produce any lasting sources of new light or glare in the affected geographic area. Some light or glare may be associated with temporary construction activities. These activities would be highly localized and of relatively short duration. The PEIS will describe types and timing of light and glare and list BMPs for avoiding and minimizing potential impacts.

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

Not applicable. The finished project would not introduce any new sources of light or glare into the affected geographic area.

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

We do not anticipate any off-site light or glare to affect the proposed program.

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

The PEIS will describe best management practice for reducing light and glare during construction activities.

12. Recreation

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

The affected geographic area includes national forest, wilderness area, and several rivers and streams. This area is a popular fishing, rafting, mountain biking, hiking, camping, backpacking, skiing, and snowshoeing area.

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

The proposal would improve some recreational opportunities by enhancing the natural aesthetic of the affected geographic area through increased streamflow in Icicle Creek. Changes to shoreline areas surrounding the Alpine Lakes could result in minor alteration of existing camping areas. The PEIS will include a complete review of the number and location of affected campsites and present project alternatives

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

Projects that meet the Guiding Principles would create enhanced river recreation opportunities as a result of fishery benefits and increased stream flow. Additional recreational impacts and alternatives will be explored in the PEIS.

13. Historic and cultural preservation

- 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 located on or near the site? If so, specifically describe.

The PEIS will review the National Register of Historic Places database (NPS) to determine significant sites located within the program area. Some of the IPID and LNFH may be historically significant.

- 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.

Tribal consultation will occur during the PEIS. Surveys will be conducted under applicable Executive Order 05-05 and Section 106 requirements during project level planning and environmental review.

- 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.

Chelan County and Ecology will consult with local tribes, the Department of Archeology and Historic Preservation, available archaeological surveys, Chelan County historical society, historic maps, and the National Register of Historic Places database to determine potential impacts within the program area.

- 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.

Measures to minimize disturbance associated with project construction will be discussed in the Programmatic EIS and during project level environmental review.

14. Transportation

- 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.

The PEIS will use the Washington State Department of Transportation's highway and public roads GIS layers to identify highways and streets within the affected geographic area.

- 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 Washington State Department of Transportation's Transit Systems database will be used to determine public transit within the program area.

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

Not applicable. The proposal would not affect parking in the affected geographic area.

- 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).

Not applicable. The proposal would not affect existing roads, streets, pedestrian, bicycle, or state transportation facilities in the affected geographic area.

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

Projects constructed to meet the Guiding Principles are not expected to use water or rail transport. A limited number of helicopter trips may be utilized for the transport of personnel and equipment to and from the Alpine Lakes.

- 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?

Not applicable. The completed proposal would not affect vehicular traffic in the affected geographic area.

- 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. The completed proposal would not affect vehicular traffic in the affected geographic area.

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

Not applicable.

15. Public Services

- 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.

The Guiding Principle seek to improve domestic water supply to provide for projected growth. Domestic use growth has been forecasted for the Icicle Basin and City of Leavenworth through 2050. Some associated public services will be needed to support this population, which will be addressed in County and City Comprehensive Plans. The PEIS will describe the magnitude and types of public services.

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

None proposed.

16. Utilities

a. Circle utilities currently available at the site:

The PEIS will base utility service at potential project locations (e.g. LNFH, City, irrigators, Alpine Lakes) based on input from local utility providers.

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 increased utility service has been identified for project development to meet the Guiding Principles.

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: Mike Kaputa

Position and Agency/Organization: Director, Chelan County Department of Natural Resources

Date Submitted: 2/9/16

D. supplemental sheet for nonproject actions

(IT IS NOT NECESSARY to use this sheet for project actions)

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

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

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

Implementation of Guiding Principles is intended to improve the environment, and provide reliable domestic and agricultural water supplies. Limited discharges associated with construction-related activities and new home construction are anticipated.

Proposed measures to avoid or reduce such increases are:

The PEIS will describe mitigation measures and BMPs for each type of potential discharge.

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

The program is designed to improve instream flow and habitat for fish. Proposed land acquisition is expected to benefit terrestrial species.

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

The proposed program is designed to enhance habitat quality and quantity for aquatic species, including ESA-listed salmonids, by increasing streamflow, improving instream and riparian habitat, removing passage barriers, and improving screening on several water diversions. The base package includes several projects that would benefit aquatic wildlife, including:

- Alpine Lakes Optimization, Modernization, and Automation
- IPID Irrigation Efficiencies
- Cascade Orchards Irrigation Efficiencies
- LNFH Conservation and Water Quality improvements
- Eightmile Lake Restoration
- Habitat Improvements
- Land Acquisition
- LNFH, COIC, IPIC, City of Leavenworth Screening Improvements

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

The proposal is not expected to result in any depletion of energy resources or lasting impacts to natural resources. Repair, replacement, and improvement of existing infrastructure for the storage and conveyance of water is expected to increase efficiency of electrical power usage in comparison to existing conditions.

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

The PEIS will describe renewable power opportunities (e.g. solar), high efficiency pumps and motors, and other conservation techniques, which would conserve energy (electrical) resources, in comparison to existing conditions.

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

Implementation of the Guiding Principles would not result in any long-term changes, new construction, or lasting disturbance to any environmentally sensitive areas. Activities which would occur in sensitive areas would be limited to the repair, replacement, or enhancement of existing infrastructure associated with the collection, storage, and conveyance of water. These may include:

- Upgraded fish screens
- Piping upgrades
- Restored Eightmile dam
- Dam optimization structures on Klonauqua, Eightmile, Colchuck, Square, Upper Snow, Lower Snow, and Nada Lakes
- Pump/equipment buildings

Construction activities which would occur in the Alpine Lakes Wilderness Area would include changes to the management of the reservoirs within the wilderness area, restoring storage capacity at Eightmile Lake, and changing drawdown scheduling at Nada, Upper Snow, Lower Snow, Square, Colchuck, and Klonauqua Lakes. The goal of the changed management regime is

to improve instream habitat for ESA-listed salmonids and other aquatic species in the Icicle Basin. This will promote additional recreational and aesthetic benefits in Icicle Creek and its tributaries. Alpine Lake shoreline changes may affect the views and experiences of recreational visitors.

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

The PEIS will identify construction and operation techniques and BMPs designed to avoid and minimize potential impacts.

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

The plan will increase flows within Icicle Creek and the Wenatchee River. Additionally, it will affect water supply available for agricultural and domestic uses. Effects to shoreline areas surrounding the Alpine Lakes may occur, but would be highly localized in terms of their effects on recreational use. The PEIS will review Chelan County's Shoreline Master Program and Comprehensive Plan to ensure compatibility.

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

The PEIS will identify construction and operation techniques designed to avoid and minimize potential impacts.

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

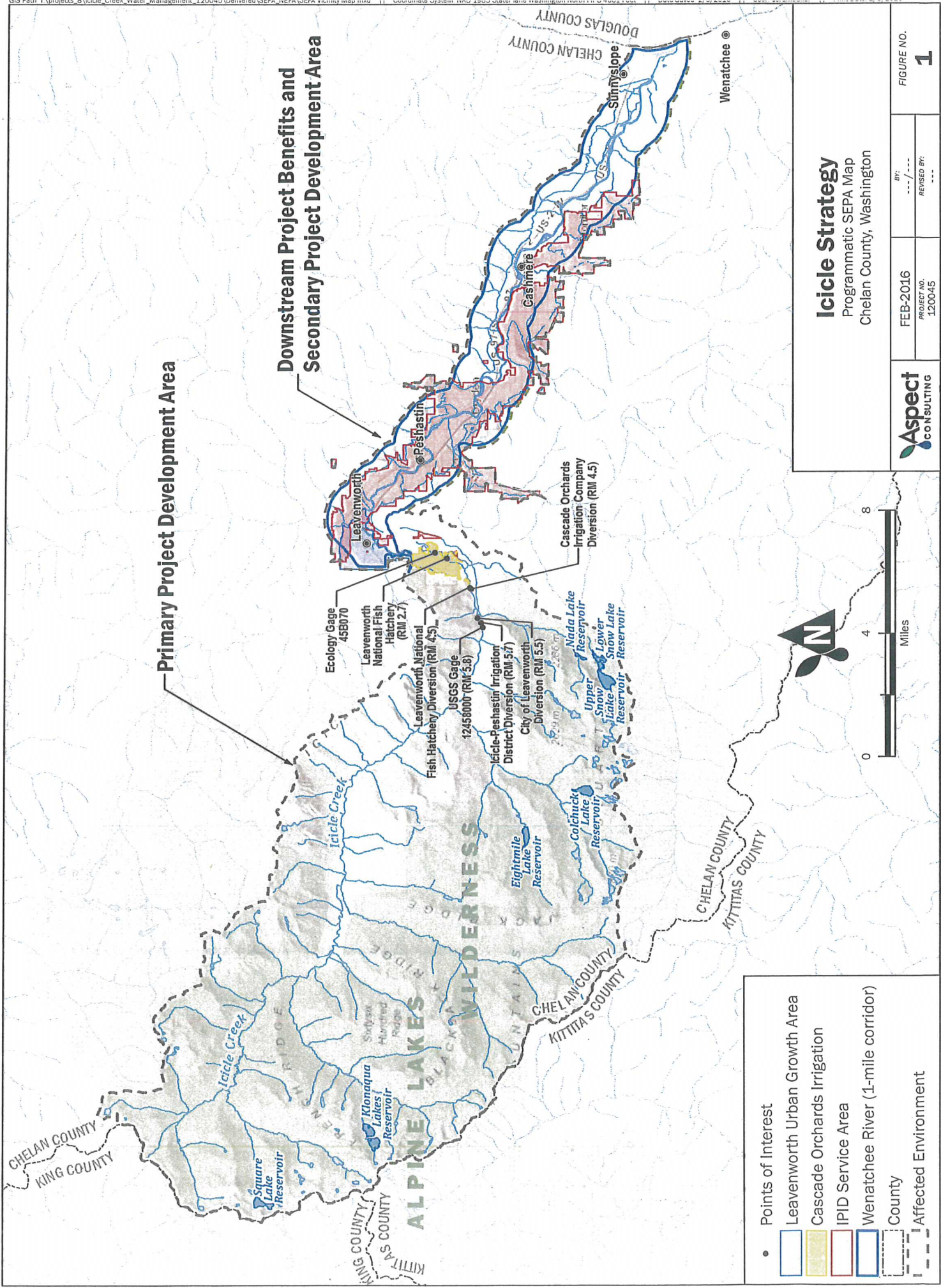
Not applicable. The completed proposal would not affect vehicular traffic or public services and utilities in the affected geographic area.

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

Not applicable.

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

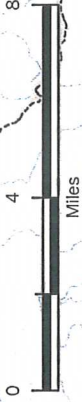
Compliance with local, state and federal laws is one of the Guiding Principles. Implementation of the Guiding Principles is designed to increase regulatory compliance in the Icicle Creek basin.



Primary Project Development Area

Downstream Project Benefits and Secondary Project Development Area

- Points of Interest
- Leavenworth Urban Growth Area
- Cascade Orchards Irrigation
- IPID Service Area
- Wenatchee River (1-mile corridor)
- County
- Affected Environment



	FEB-2016	BY: / /	FIGURE NO. 1
	PROJECT NO. 120045	REVISED BY: / /	

Icicle Strategy
Programmatic SEPA Map
Chelan County, Washington

Basemap Layer Credits | Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, Geobase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, MapmyIndia, © OpenStreetMap contributors, and the GIS User Community Copyright © 2014 Esri