

## SEPA ENVIRONMENTAL CHECKLIST

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

1. Name of proposed project, if applicable:

**Kittitas Reclamation District 2023 Tributary Supplementation Program – North Branch Canal 27.5 to 30.3 Canal Lining and Manastash Ridge Trail South Branch Canal Extension Safety Improvement Project**

2. Name of applicant:

**Kittitas Reclamation District (KRD)**

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

**Kittitas Reclamation District  
Contact: Urban Eberhart  
315 N Water St.  
Ellensburg, WA 98926  
(509) 925-6158**

4. Date checklist prepared:

**October 27, 2023**

5. Agency requesting checklist:

**Kittitas Reclamation District**

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

**Work will occur from November 2023 – March 2024 while irrigation water is off and the canals are dry. If work is needed over multiple years, the timing will be the same seasonal months (November to March) sequentially by year. Construction for the South Branch Canal Extension is scheduled for February – March 2024.**

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

**Improvements to the KRD canal system are in support of the on-going KRD Conservation Program and 2023 Tributary Supplementation Project. There is the potential for improvements to other segments of KRD canals. If funded, these projects will undergo separate SEPA review and approvals.**

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

**The Project is directly related to the conservation objectives of the Yakima Basin Integrated Water Resources Management Plan (YBIP) as outlined in the US Bureau of Reclamation (Reclamation)**

and Department of Ecology (Ecology) 2012 Final Programmatic Environmental Impact Statement. The Project meets the YBIP objective – *Enhanced Water Conservation*.

Documentation that has been prepared directly related to this proposal includes:

***South Branch Canal Lining Project, South Branch Canal Extension Piping Project, and the North Branch Staging Areas Project Cultural Resources Assessment (Jacobs 2017)***

***North Branch Canal 27.5 to 30.3 Canal Lining Cultural Resources Assessment (Finley and Gray 2023)***

9. Do you know whether applications are pending for governmental approvals of other proposals directly affecting the property covered by your proposal? If yes, explain.

**None.**

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

**None.**

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.)

**KRD proposes one canal lining project on the North Branch Canal (NBC) and one canal piping project on the South Branch Canal Extension (SBCE), both to be constructed November 2023-March 2024:**

- **The North Branch Canal 27.5 to 30.3 Canal Lining Project includes lining approximately 3 miles (milepost 27.5 to milepost 30.3) of earthen canal between Vantage Highway and Stevens Road. The Project includes lining the canal with concrete covered geomembrane, replacing concrete turnout structures, installing fencing on either side of the canal within the existing right-of-way (ROW) and installing approximately 400 feet of elk fence at the south end of the Project along Stevens Road near Interstate 90 (I-90). This Project is a continuation of the previous NBC lining in 2016 and 2022 and would line the NBC from Stevens Road to Vantage Highway.**
- **The Manastash Ridge Trail South Branch Canal Extension Safety Improvement Project is a safety project intended to remove a water hazard near a popular hiking trail. The Project will pipe approximately 1,120 feet of the South Branch Canal Extension (SBCE). The piping will be 30- to 42-inch diameter plastic pipe and will be buried with up to 12 inches of soil. Anticipated safety improvements include a screened inlet feeding enclosed piping and upwell energy dissipators replacing two existing high energy drop chutes. Additional improvements include a drainage swale along the southern (right bank) side of the backfilled canal, incorporating a walking trail across the top of pipeline backfill, and adding a fence as a barrier to separate pedestrians on the trail from the adjacent existing operations and maintenance (O&M) roadway.**

**Staging for the SBCE work may occur on the KRD O&M road within the Project Area or on an adjacent field. There are three potential staging areas that may be used during construction for the NBC Lining—one along the NBC near Boylston Road to the south of I-90 (Staging Area 1), one south I-90 next to the NBC near milepost 32.1 (Staging Area 2), and a third area (Staging Area 3) west of the canal near milepost 30.6. Staging Area 3 is expected to be the primary staging area for**

the Project. Staging areas 1, 2 and 3 are the same staging areas that were used in the 2022-2023 NBC lining project.

The purpose of this Project is to implement the goals and objectives of the KRD 2023 Tributary Supplementation Project, which provides benefits for fish, wildlife, and the environment through a water conservation program that restores instream flows in over-appropriated or flow-impaired tributaries to the Upper Yakima River. Implementing measures designed to reduce canal seepage allows the previously lost water to be delivered to the Yakima River, providing immediate instream benefits to the Yakima River basin and downstream water users.

The Project will allow more instream flows to reach the Yakima River during the irrigation season (spring through fall) when flows are most beneficial to Endangered Species Act-listed species. The Project implements conservation measures that are in line with the goals of the YBIP and KRD 2023 Tributary Supplementation Program which was spearheaded by the KRD in partnership with the Yakama Nation, Washington State, and federal agencies to use KRD infrastructure to aid threatened and endangered fishes during periods of drought. Increasing efficiency within the canal will allow for a greater amount of tributary supplementation, if necessary, during future drought years, and immediate instream benefits in the Yakima River basin.

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.

**NBC:** The Project is located along the eastern side of the Kittitas Valley, approximately 5 miles east of the town of Kittitas, Washington. The Project is located in Sections 2, 3, 11 and 17 of Township 17 North, Range 20 East, Willamette Meridian; S17, 20, 21, 28, 29, 33, and 43, T18N R20E. The Project lining will follow the existing canal alignment for a distance of approximately 3 miles from Vantage Highway at milepost 27.5 at 120.3151783°W, 47.0012574°N at the north end of the Project to milepost 30.3 at Stevens Road at 120.3007547°W 46.9718994°N at the south end of the Project. Fencing will follow the canal starting at the Vantage Highway crossing and extending south to the Stevens Road crossing. The elk fencing will be installed along Stevens Road between the KRD O&M road turnoff to the I-90 overpass.

**SBCE:** This segment of the Project is located along the southwest side of the Kittitas Valley near the trailhead for hiking Manastash Ridge, approximately 3.5 miles southwest of Ellensburg. The Project is located in S13, T17N, R17E and S18, T17N, R18E. The piping would follow the existing canal alignment from approximately 120.6481886°W, 46.9653132°N at the west end and 120.6481886°W, 46.9653132°N at the east end of the Project.

Several staging areas may be utilized for the Project. Staging Area 1 is located along the NBC near Boylston Road to the south of Interstate 90 at 46.9550699°N, 120.3095032°W. Staging Area 2 is located southwest of the Johnson Siphon Inlet at 46.9567316°N, 120.3054684°W. Staging Area 3 is located west of the canal at 46.9645439°N, 120.3020340°W. Staging for the SBCE work may occur on the adjacent KRD O&M road or in a nearby field.

The width of the Project limits will encompass the entire NBC and SBCE ROW which is on an easement, and the potential staging areas.

See the Vicinity and Project Extent maps (Attachment 1).

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

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

a. General description of the site:

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

**The Project footprint is relatively flat within the canal, but the Project corridor crosses through hilly terrain, and rolling slopes.**

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

**25 percent.**

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.

**Several of the soils in the Project area are considered prime or unique farmland; however the Project will not alter or remove nearby soils since the Project primary work activity is modifying existing infrastructure. The Natural Resources Conservation (NRCS) Service Web Soil Survey maps the following soils within the NBC portion of the Project area:**

- **Argixerolls**
- **Benwy silt loam**
- **Brickmill gravelly ashy loam**
- **Durtash gravelly loam**
- **Manastash-Durtash complex**
- **Marlic-Zen-Laric complex**
- **Nack-Opnish complex**
- **Pits, mine**
- **Selah loam**
- **Terlan gravelly loam**
- **Ternan-Durtash-Selah complex**

**NRCS maps two soils within the Project area at SBCE:**

- **Millhouse cobbly ashy loam**
- **McDaniel very stony ashy loam**

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

**No.**

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

**North Branch Lining: Prior to applying the liner, the interior of the canal will be reshaped to its original design as the interior has subsided/smoothed out in the past 90 years. This involves skinning the existing canal surface with 4 inches on the sides and up to 10 inches on the bottom. Gravel will be placed under the concrete lining and used for bedding, which will be obtained from nearby commercially-available and permitted gravel pits or screened on site. Excavated material that cannot be incorporated into the Project will be hauled offsite to an approved location. A geomembrane lining will be placed and keyed into the canal, which will then be covered in**

approximately 3 to 6 inches of concrete to prevent punctures to the geomembrane. Underdrains will be installed up to 2 feet below the existing canal, where a 2- by 2-foot trench will be excavated prior to installation. The Project will require approximately 250 cubic yards of excavation and 10,000 cy of fill in the dry canal. Material quantities are approximate and subject to change based on conditions encountered during construction. There is no excavation or fill associated with elk fence installation.

**SBCE:** Approximately 1,120 feet of existing canal (720 feet of original earthen canal and 400 feet of previously piped unpressurized conversion) will be converted to 30- to 42-inch diameter pressurized plastic pipe and will be buried with up to 12 inches of soil. Anticipated safety improvements include forming a drainage swale along the southern (right bank) side of the backfilled canal, incorporating a walking trail across the top of pipeline backfill, and adding a fence as a barrier to separate pedestrians on the trail from the adjacent existing O&M roadway. The Project will require approximately 1,150 cubic yards of excavation primarily for the 400 feet of existing pipe replacement. Approximately 800 cubic yards of fill will be required to prepare the earthen canal and backfill the area for the new piping. An additional 250 cubic yards of gravel surfacing improvement are anticipated for creation of the integrated walking path connecting the trailheads.

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

**Minimal erosion is possible for the Project after clearing and grubbing work commences. Best management practices (BMPs) for erosion/sediment control will be in place to mitigate erosion during construction. There will be no increase in erosion from the long-term use of the system. Additionally, most of the Project area within 75 feet of the canal has been significantly disturbed by construction and canal maintenance, cutting and grading O&M roads, associated infrastructure, and road crossings.**

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

**NBC:** The existing earthen canal will be lined with three to six inches of concrete which will overlay approximately 600,000 square feet of impervious membrane.

**SBCE:** There will be no change to the area of impervious surface.

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

**Vegetation removal will be kept to the minimum area necessary to complete the Project. Disturbed areas will be replanted with native vegetation or approved species. Project-specific BMPs will be implemented to avoid and prevent erosion associated with construction.**

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

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

**Typical construction activities are expected to cause minor and temporary increases in fugitive dust and exhaust. The completed Project will not result in increased traffic volumes or air emissions.**

- 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:

**Dust control measures during construction, such as watering exposed soil or road surfaces, placing clean rock on road surfaces, or other commercial dust abatement applications to road surfaces will be implemented as needed. Machinery, equipment, and support vehicles used for the Project will be maintained in proper working order and shut off when not in use.**

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

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

1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into.

**The NBC and SBCE are the main surface waterbodies within the Project area and were constructed in uplands for the purpose of irrigation water conveyance. The Project will not impact any adjacent streams, waterbodies or wetlands, and the NBC and SBCE are the only aquatic features that will be impacted by the project.**

**NBC: Three laterals branch off the west side of the NB Canal within the Project area. The National Hydrography Dataset (NHD) shows 2 unnamed perennial streams flowing west under the canal from the slopes above the canal to the east; however, aerial imagery indicates these drainages are not perennial and if present, are likely ephemeral. NHD also maps two intermittent drainages flowing east to west across the canal; one of the intermittent drainages appears to terminate on the east side of the canal while the other crosses under the canal. Both of the drainages mapped as intermittent are likely ephemeral. Additionally, NHD shows an unnamed perennial stream flowing east to west under Stevens Road through the area where elk fencing will be installed.**

**SBCE: NHD shows two intermittent drainages flowing north toward the canal and an unnamed perennial stream flowing west to east approximately 750 feet north of the canal.**

**NBC: The National Wetland Inventory (NWI) maps riverine wetlands associated with the four drainages mapped by NHD. NWI also maps two freshwater ponds and three freshwater emergent wetlands near the canal to the east. Additionally, NWI maps riverine wetlands associated with the canal and laterals.**

**SBCE: NWI maps one of the intermittent drainages and the canal as riverine wetlands. No additional wetlands are mapped in the immediate vicinity of the Project area.**

**These canal lining and piping projects will allow more instream flows within the Yakima River during the irrigation season (spring through fall) when flows are most beneficial to ESA-listed species and other water users by decreasing water lost from canals due to seepage. These conservation measures are in line with the goals of the YBIP and KRD 2023 Tributary Supplementation Program which was spearheaded by the KRD in partnership with the Yakama Nation, Washington State, and federal agencies to improve KRD infrastructure to aid threatened anadromous fish during periods of drought. Increasing efficiency within the canals will allow for a greater amount of tributary supplementation if necessary, during future drought years, and immediate instream benefits in the Yakima River basin.**

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 Project will occur primarily within the non-jurisdictional, existing NBC and SBCE when irrigation is turned off (October – March) and there is no water within the canals. Construction of the elk fence along Stevens Road will occur near an unnamed perennial stream. Fencing will be driven in place and should not require additional ground disturbance. There will be no impacts to drainages or wetlands within 200 feet of the project. Appropriate BMPs will be implemented to avoid unanticipated impacts to nearby aquatic resources.**

- 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 filling or dredging will occur within any wetlands or adjacent aquatic resources. Excavation and placement of material will occur within the existing alignments of the NBC and SBCE.**

- 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.

**No.**

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

**No.**

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

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

**No.**

- 2) Describe waste material that will be discharged into the ground from septic tanks or other sources, if any (for example: Domestic sewage; industrial, containing the following chemicals. . . ; agricultural; etc.). Describe the general size of the system, the number of such systems, the number of houses to be served (if applicable), or the number of animals or humans the system(s) are expected to serve.

**N/A.**

c. Water runoff (including stormwater):

- 1) Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.

**Runoff during construction will be managed by using BMPs to contain all sedimentation and prevent discharge to adjacent drainages and wetlands. After construction, all disturbed areas and roadsides will be reseeded to prevent any long-term impacts.**

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.

Lining a section of the NBC and converting a portion of SBCE from open canal to a piped canal will reduce infiltration loss from the existing KRD canal system. Based on the location of the canals on elevated slopes above the Kittitas Valley floor, it is likely this infiltration loss has historically provided surface water to down-gradient wetlands where at least some of the hydrology was lost through evapotranspiration. The remaining water associated with infiltration loss would have infiltrated and may have provided recharge benefit to shallow groundwater. There is the potential that some of this groundwater recharge would eventually reach the Yakima River; however, this return of hydrology to the system would be less than what was lost through infiltration. Water retained in the canal that would have otherwise infiltrated would be "retimed" such that the return of flows to the river would be months after it was lost from the canal system.

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

The Project will not impact drainage patterns. Approved BMPs will be in place in the event a precipitation event results in short duration runoff of surface water during construction. BMPs will contain sediment and prevent discharge to adjacent drainages and wetlands. After construction, disturbed areas and roadsides will be reseeded to prevent any long-term impacts.

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

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

deciduous tree: alder, maple, aspen, other

evergreen tree: fir, cedar, pine, other

shrubs

grass

pasture

crop or grain

Orchards, vineyards or other permanent crops.

wet soil plants: cattail, buttercup, bullrush, skunk cabbage, other

water plants: water lily, eelgrass, milfoil, other

other types of vegetation

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

Grasses, weedy species, and potentially upland shrubs surrounding the canal and roadside may be removed during the Project. Disturbed areas outside the KRD road and canal will be seeded.

At the SCBE, a gravel trail will be added over the existing earthen canal and will likely be seeded on either side of the path.

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



**NBC:** A population of pauper milkvetch (*Astragalus misellus* var. *pauper*) has been documented in the shrub-steppe slope southwest of the Project. This species occurs in relatively undisturbed shrub steppe habitat. The Project will occur within the existing KRD ROW and most of the Project area within 75 feet of the canal has been significantly disturbed by construction and canal maintenance, cutting and grading O&M roads, associated infrastructure, and road crossings. The Project will not impact any threatened or endangered plant species.

**SBCE:** There are no known threatened or endangered plant species in the vicinity of this segment of the Project.

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

**Disturbed areas will be replanted or reseeded with approved native species.**

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

**Cheatgrass and tumble mustard.**

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

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

Examples include:

birds: , , , , other:

mammals: , bear, , beaver, other: Bighorn sheep (SBCE)

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

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

**None.**

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

**NBC:** The Quilomene elk and mule deer winter range is located northeast of this segment of the Project and herds are known to move down into the Kittitas Valley.

**SBCE:** The segment of the project is adjacent to the L T Murray Wildlife Area which has populations of elk, mule deer and bighorn sheep; however, this area has a lot of activity along the popular adjacent hiking trail and it is unlikely these species utilize the Project area.

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

**This water conservation project meets objectives of the Yakima River Basin Integrated Plan by enhancing the instream flow of the Yakima River and improving the quality of the water that is discharged from the irrigation system into the Yakima River. This will lead to improved aquatic habitat. In addition, KRD will provide enhanced protection through adding additional livestock fencing around the perimeter of the canal where necessary.**

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

**None.**

## 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.

**None.**

- 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.**

## 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.

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

**One Department of Ecology facility/site (ID 3339) occurs on the parcel west of the NBC south of Stevens Road at Staging Area 3. The site was a hazardous waste generator (EPA Site ID WAH000059085) associated with a wrecking yard. Ground disturbance is not anticipated at Staging Area 3. There are no additional known sources of potential contamination in the Project vicinity.**

- 1) 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.

**None.**

- 2) 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.

**Toxic or hazardous chemicals that may be on-site during construction include but are not limited to vehicle and equipment fuel, oil, and hydraulic fluid. Equipment staging and fueling will occur more than 50 feet from wetlands and adjacent drainages.**

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

**It is not anticipated that special emergency services will be required.**

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

**These actions are not anticipated to create an environmental health hazard. Appropriate BMPs for spill prevention will be in place, and clean up measures will be taken if necessary.**

## b. Noise

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

**None.**

2) What types and levels of noise would be created by or associated with the project on a short-term or a long-term basis (for example: traffic, construction, operation, other)? Indicate what hours noise would come from the site.

**Equipment associated with construction such as backhoes, bulldozers, and excavators will raise noise levels during construction. Construction will take place from approximately 8 am to 5 pm on weekdays. Noise levels will return to previous levels upon completion of the Project.**

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

**Equipment will be operational during normal working days and during daylight hours and shut off when not in use.**

## **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.

**Currently the site is the KRD NBC, KRD South Branch Canal and O&M roads. Adjacent properties are used for agriculture and rural residences. The L T Murray Wildlife Area is adjacent to the SBCE segment of the Project.**

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

**No, the site has not been used as farmland or forest lands and no agricultural or farmland will be converted to another use as a result of the Project.**

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:

**No, the Project will not affect or be affected by normal farm or business operations in the area.**

c. Describe any structures on the site.

**NBC: Structures on the site include turnouts, siphons, KRD O&M roads, security gates, footbridge, cattle guards on the KRD O&M roads and a road crossing over the canal.**

**SBCE: Structures on the site include turnouts, KRD O&M roads, security gates, and a culvert which serves as a bridge for pedestrian access over the canal.**

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

**NBC: Seven turnouts and three siphons will be removed. Six of the turnouts will be replaced in-kind and the three siphons will be replaced with a single new turnout.**

**SBCE: The segment of the South Branch Canal within the project area will be converted to a piped canal. The existing tiered concrete drop structure with weir will be removed and turnouts will be modified.**

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

**The area is zoned as Agriculture 20.**

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

**The project area is within the Rural Working land use designation.**

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

**There are no designated shorelines within the project area.**

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

**Per the County critical areas ordinance (Title 17A of the Kittitas County Code), critical aquifer recharge areas and wetlands are critical areas.**

***Critical aquifer recharge areas:* Both Project sites are within an area of unconsolidated deposits within Kittitas and Roslyn Basins which is considered a critical aquifer recharge area by Kittitas County.**

***Wetlands:* The NBC and SBCE were constructed in uplands for the purpose of irrigation water conveyance. The National Wetland Inventory maps several riverine wetlands which are KRD irrigation canals within and adjacent to the Project. The Project disturbance will be limited to the KRD easement on either side of the canals. There are no wetland adjacent to the NBC and work along SBCE will be within the existing canal and O&M road and no work will occur within wetlands. If any wetland are present in the vicinity of to the project areas, there will be no impacts to wetland buffers as work is occurring in areas where the only vegetation present is weedy roadside grasses and forbs adjacent to KRD O&M roads that do not provide any buffer function.**

**No other critical areas are known to occur within the Project area.**

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:

**N/A.**

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

**This area is primarily used for agriculture and the project will enhance the continuation of this land use.**

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

N/A

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

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

None.

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

None.

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

None.

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

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

**NBC: Standard fencing will be installed along either side of the canal within the ROW. Elk fencing will be installed along approximately 400 feet of Stevens Road adjacent to I-90. Elk fence is typically 8 feet high and would be constructed of steel posts and steel mesh fence fabric.**

**SBCE: Currently the site is an earthen canal and KRD O&M road. The canal will be filled and a buried pipeline will be added to convey irrigation water through the site. A gravel trail will be added over the top of the buried pipeline and a fence will be constructed between the existing KRD O&M road and the new gravel trail.**

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

**NBC: Addition of the fence around the canal and elk fence along Stevens Road is the only alterations to views associated with the project. The fence along the canal would be visible from Stevens Road to the south and of the Project, Vantage Highway to the north and Sunset Drive to the northeast. The elk fencing would be visible from Stevens Road and I-90.**

**SBCE: Currently this segment of the SBCE is an earthen canal with pedestrian crossing to provide access to hiking trails.**

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

**Work will occur primarily within the existing NBC, SBCE and along existing KRD O&M roads. Once construction is complete, disturbed areas outside KRD roads and canals will be seeded.**

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

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

**No light or glare producing activity is proposed.**

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

**No.**

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

None.

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

None.

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

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

**NBC:** There are no recreational opportunities in the immediate vicinity of this segment of the project.

**SBCE:** Access to the Manastash Ridge Trails crosses the South Branch Canal at two locations within this segment of the Project area. The Westberg Trail crosses the canal at the east end of the Project area via a culvert that serves as a pedestrian bridge. The Boy Scout Trail begins at the west end of the Project area and is currently accessed by walking the KRD O&M road to a primitive footbridge over the canal. Both trails connect to a network of trails on the north face of Manastash Ridge. The Manastash Ridge Trails are popular trails used for hiking, mountain biking and horseback riding and that provide access to the top of Manastash Ridge with views of Kittitas Valley.

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

**NBC:** N/A

**South Branch Canal:** Access to the Manastash Ridge Trails will be maintained during construction via the Westburg Trail. Access to the Boy Scout Trail will be closed during construction with detour information near the top of the ridge where the two trails connect. Access to the Boy Scout Trail will be restored after construction is complete. The Boy Scout Trail will be accessed via a new gravel trail overtopping the buried pipeline which will be separated from the KRD O&M road by fencing.

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

**NBC:** N/A

**SBCE:** According to the Washington Department of Fish and Wildlife's 2022 *Manastash Ridge Trail Management Plan*, use of the trails peaks in August and September and is consistently lower in the late fall and winter. Construction will occur in the fall or winter when use of the Manastash Ridge Trails is low. Closure of the Boy Scout Trail will be kept to the minimum time necessary to complete the Project and maintain the safety of recreationalists.

## 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.

**NBC:** One historic structure within the Project Area of Potential Effects (APE) was identified as previously determined eligible for the National Register of Historic Places (NRHP) (the Kittitas Division North Branch Canal and segment within the APE). The Kittitas Division North Branch Canal consists of a 36-mile-long canal inventoried and evaluated by Reclamation and determined eligible in 2016 for listing in the NRHP (under Criterion A for its significant association with the

irrigation and development of the Kittitas Valley and under Criterion C for its engineering), by the Washington State Historic Preservation Office (SHPO) (Finley and Gray 2023).

**SBCE:** Two previously recorded historic structures within the combined South Branch Canal Lining and the South Branch Canal Extension-Manastash Ridge Trail Piping and Project APEs were identified as eligible for listing in the NRHP. The Kittitas Division South Branch Canal (HPI # 708748) was previously recorded and determined eligible for the NRHP under Criteria A and C, by the SHPO in 2017. A historic farm bridge located at Station 416+75 on the South Branch Canal (HPI # 7089585) was previously recorded and determined eligible for listing under NRHP Criteria A and C, by the SHPO in 2017. An additional historic structure was newly identified and recorded as part of the Project cultural study, the South Branch Canal Extension and recommended eligible for the NRHP under Criteria A and C and as a contributor to the NRHP determined eligible Kittitas Division South Branch Canal (Jacobs 2017).

- 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.

**Based on review of the setting, landforms, and previous disturbance, the Project location was judged to have a low to moderate potential for archaeological resources. Analysis of the local topography during the pedestrian survey confirmed that most of the Project area within 75 feet of the canal had been significantly disturbed by construction and canal maintenance, cutting and grading access roads, associated infrastructure, and road crossings. Substantial fill deposits and rock ballast additions to the landscape were apparent throughout the surface survey. No intact areas of the APE were identified for subsurface testing. No cultural materials and evidence of Indian or historic use/occupation were observed during survey on the disturbed surfaces of the length of the canal ROW.**

**NBC:** The background record search identified archaeological resources within a 1-mile radius of the APE consisting of precontact lithic scatter and historic refuse. Removal and/or disturbance to the ground surface throughout the APE resulting from the construction of the canal and associated access road would have removed or substantially altered precontact and historical archaeological deposits that may have been present. Subsurface testing was considered for the cultural study of the Project, however, due to the soil nature noted during the background research, intact subsurface deposits were likely not within the narrow APE. No cultural materials and evidence of Indian or historic use/occupation were observed during survey on the disturbed surfaces of the length of the canal ROW (Finley and Gray 2023).

**SBCE:** A pedestrian survey and Shovel Test (ST) investigation were designed and implemented to assess the potential for intact archaeological deposits present in the APE. STs were selectively placed in those locations within the APE that appeared to have the least disturbance and the higher. Analysis of the local topography, pedestrian survey, and review of ST data indicates that the APE was heavily disturbed by construction of the canal in the late 1920s. The survey revealed the presence of extensive landform modifications from cutting and grading that have caused substantial disturbance to the area, resulting in a limited potential for archaeological sites. No cultural materials and evidence of Indian or historic use/occupation were observed during survey on the disturbed surfaces of the length of the canal ROW (Jacobs 2017).

- 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.

**NBC: Methods included record search of the Washington Information System for Architectural and Archaeological Records Data (WISAARD), archaeological pedestrian surveys and a built environment survey. Additional sources of background research and information included historic maps and General Land Office records, NRHP-listed properties, historic U.S. Geological Survey topographic maps, and modern aerial photographs and topographic maps. Consultation with affected tribes remain under the purview of Reclamation. Further methods are described in Finley and Gray (2023).**

**SBCE: Methods included background record search of the APE and 1-mile radius, archival research and pedestrian field surveys, subsurface testing, and built environment survey. Consultation with affected tribes remain under the purview of Reclamation. Further methods are described in Jacobs Cultural Report (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.**

**NBC: A finding of no adverse effects to historic properties was recommended for the Project. The proposed undertaking would not diminish the NRHP-determined eligible North Branch Canal's integrity of materials, design, and workmanship. No new archaeological resources were identified within the APE during fieldwork. The Inadvertent Discovery Plan implemented for the previous NBC project would apply to this project as a mitigation measure for encountering significant cultural materials during construction activities.**

**SBCE: A finding of adverse effect to historic properties was recommended for this undertaking as the Project activities would alter the character-defining features of the South Branch Canal segment and the South Branch Canal Extension segment within the APE, as well as diminish the integrity of these historic properties. Several mitigation measures were implemented and completed as part of the 2018 Memorandum of Agreement signed between the Columbia-Cascade Area Office of the Bureau of Reclamation and the Washington SHPO, to reduce the adverse effects of the undertaking to the historic canals. The mitigating measure included a digitization of historic KRD photographs housed permanently on the KRD website, a live presentation of the "Lost Photographs of the Kittitas Division of the Yakima Project," at a public venue by Reclamation in consultation with SHPO, and two interpretive signage at high use public access sites along the SBC/SBCE.**

#### **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.

**NBC: Access to the Project site will be from the existing KRD O&M road that parallels the canal and is accessed from Stevens Road to the south or Vantage Highway to the north. The area where elk fencing will be installed will be accessed from Stevens Road or the KRD access road. Staging Area 2 is also accessed from the existing KRD O&M road off of Stevens Road. Access to Staging Area 1 will be from Boylston Road. Both Stevens Road and Boylston Road are maintained by Kittitas County. Access to Staging Area 3 will be from an existing gravel road on the western side of the canal.**

**South Branch Canal: Access to the South Branch Canal segment of the canal will be from the existing KRD O&M road that parallels the canal and is accessed from Cove Road.**

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

**No. The nearest transit stop is in the City of Ellensburg.**



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

**None.**

- 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).

**The project will require slight modifications to KR D O&M roads to allow large equipment access. This is a private road that will not affect public use. No modifications to public roads are proposed. The KR D O&M road will be improved with approximately 12-inch crushed road gravel.**

- 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 non-passenger vehicles). What data or transportation models were used to make these estimates?

**There will be no increase in vehicular trips per day associated with the completed Project.**

- 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:

**The Project will have no transportation impacts.**

## **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.

The Project will not impact public services.

## **16. Utilities** [\[help\]](#)

- a. Circle utilities currently available at the site:

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

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

**Electrical power will be necessary for construction of the Project, as well as for contractor and construction manager trailers, and potentially pumps. No new utilities are proposed for this Project.**

**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: **Urban Eberhart**

Position and Agency/Organization: **Secretary Manager; Kittitas Reclamation District**

Date Submitted: *October 31, 2023*