WAC 197-11-960 Environmental checklist.

ENVIRONMENTAL CHECKLIST

Purpose of checklist:

The State Environmental Policy Act (SEPA), chapter 43.21C RCW, requires all governmental agencies to consider the environmental impacts of a proposal before making decisions. An environmental impact statement (EIS) must be prepared for all proposals with probable significant adverse impacts on the quality of the environment. The purpose of this checklist is to provide information to help you and the agency identify impacts from your proposal (and to reduce or avoid impacts from the proposal, if it can be done) and to help the agency decide whether an EIS is required.

Instructions for applicants:

This environmental checklist asks you to describe some basic information about your proposal. Governmental agencies use this checklist to determine whether the environmental impacts of your proposal are significant, requiring preparation of an EIS. Answer the questions briefly, with the most precise information known, or give the best description you can.

You must answer each question accurately and carefully, to the best of your knowledge. In most cases, you should be able to answer the questions from your own observations or project plans without the need to hire experts. If you really do not know the answer, or if a question does not apply to your proposal, write "do not know" or "does not apply." Complete answers to the questions now may avoid unnecessary delays later.

Some questions ask about governmental regulations, such as zoning, shoreline, and landmark designations. Answer these questions if you can. If you have problems, the governmental agencies can assist you.

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.

Use of checklist for nonproject proposals:

Complete this checklist for nonproject proposals, even though questions may be answered "does not apply." IN ADDITION, complete the SUPPLEMENTAL SHEET FOR NONPROJECT ACTIONS (part D).

For nonproject actions, the references in the checklist to the words "project," "applicant," and "property or site" should be read as "proposal," "proposer," and "affected geographic area," respectively.

A. BACKGROUND

1. Name of proposed project, if applicable:

Washington State Department of Fish and Wildlife Modrow Trap Upgrade

2. Name of applicant:

Washington State Fish and Wildlife

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

Washington State Fish and Wildlife
Cindy Knudsen
Washington State Fish and Wildlife - CAMP
600 Capitol Way North
Olympia, WA. 98501
360 902 8422

4. Date checklist prepared:

July 11, 2013

5. Agency requesting checklist:

Washington State Fish and Wildlife

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

August, 2014, or as approved by required permits.

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

No.

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

This project proposes renovation of the Modrow Trap and installation of LWM in a side channel of the Kalama River at River mile 0.7. These same sites are listed as renovation projects in The Lower Columbia Salmon Recovery and Fish and Wildlife Subbasin Plan as a part of a watershed recovery plan (LCFRB 2004).

The Lower Columbia Fish Recovery Board (LCFRB 2009)[1] commissioned a Habitat Recovery Plan and a Watershed Assessment Report to provide hydro modification data and a habitat assessment report for the Kalama, Washougal and Lewis River. These studies are titled: Kalama, Washougal and Lewis River Habitat Assessments, Chapter 1, Introduction and Methods, and Chapter 2, The Kalama River Basin[2]. These two chapters include environmental data specifically related to the proposed project[3]. These reports provide specific riparian, floodplain, stream survey data, hydrologic, and habitat connectivity data for the Modrow Trap and the proposed off-site mitigation.

The Modrow Trap and off site-site mitigation data can be found on the Washington State Recreational Conservation website[4] (PRISM Project #06-2181 and 12-1728E). Water surface level and temperature data for both project sites are in Appendix B of the LCFRB basin study. Location "RMS1" is data for the offsite mitigation study and "RMS6" represents data for the Modrow Trap site. Groundwater pumping and recovery rate data is in Appendix D: test pit 4: R.M. 0.4 is the off-site mitigation data, R.M. 2.5, Test pit 1, is data for the Modrow Trap site.

The Modrow Trap collects broodstock for the WDFW Fallert Creek and Kalama Falls Hatchery. Proposed design modifications will allow onsite sorting of hatchery and wild fish and support the release of wild fish upstream. The modifications proposed for the Modrow Trap project are directly related to Washington State Hatchery Genetic Management Plans (HGMP) to better meet watershed restoration goals and escapement plans. Hatchery data representing fish capture at the Modrow Trap is available in the http://www.fpc.org/hatchery/Hatchery_Queries_v2.html). *Weekly fish management escapement reports for the WDFW Kalama Falls and Fallert Creek Hatchery facilities are at* http://wdfw.wa.gov/hatcheries/escapement/.

For the Modrow Trap, a Wetlands Delineation, Hydrogeological Assessment, and a Geotechnical/Geological assessment have been prepared. A Biological Assessment will also be prepared including both the Modrow Trap and the off-site mitigation site.

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

No. No known applications are pending for governmental approvals of other proposals directly relating to either proposed project.

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

This project will require a USACE permit, an HPA, a substantial development permit, a critical areas permit, a building permit, and a floodplain permit from Cowlitz County. A Kalama River Aquatics Lease[5] will be updated to include the Modrow Trap and the offsite mitigation.

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[1] Lower Kalama River Off-Channel Habitat Assessment Project Final Report, April 2009

[2] Chapter 1 and Chapter 2: Prepared for Lower Columbia Fish Recovery Board by R2 Resource Consultants.

[3] Chapter 1 ("Mainstem Kalama: Kalama 1 - Tidal" section; 1 R.M. 0 to R.M. 2.3), and Chapter 2: (Kalama 2a and 2b; R.M. 2.3 – R.M. 3.).

[4] https://secure.rco.wa.gov/prism/search/projectsearch.aspx

[5] DNR Aquatics Lease No. 20-086129

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.)

Modrow Trap: This project upgrades an existing fish ladder and weir structure. The major elements of the project include an expanded fish trap, a fish lift vault, bank stabilization, and a fish sorting facility. The new design allows for enhanced fish trapping, on site sorting and release of wild fall Chinook and coho. Modifications will allow for adult processing on site and the ability to extract hatchery adults and provide passage for wild fish upstream. The size of the existing trap will be expanded from 720 square feet; to 1,295 square feet.

The total project area is expected to be approximately 8,000 square feet. This area includes the coffer cell and bank stabilization area below OHW (3,500 square feet), and the uplands area above OHW (4,500 square feet). Bank modifications and stabilization are included as part of the proposed project.

Water will be prevented from entering the construction area by the placing super sacks (sealed in place) around the existing fish trap. Groundwater seepage into the construction area during construction activities will be removed from the area by pumping it into filtration sacks at the edge of the construction area.

The precast concrete fish lift vault will be attached perpendicularly from the existing concrete trap wall with concrete. Concrete will be used for construction of the fish lift vault floor.

For construction inside the trap, a steel floor will be installed at the downstream end of the trap over an existing concrete slab. To stabilize the steel plate, concrete will be pumped into the void between the steel plate and the stream bed below.

Grading activities include excavation in the fish lift vault and truck loading area. Precast concrete ecology blocks and large rocks will be used to stabilize the banks both upstream and downstream of the new Modrow Trap. A gravel/soil mix will be used as backfill as needed to stabilize the vault location. Large rock will be obtained from a local quarry and from bank materials found on site. Gravel will be obtained from a local quarry or from materials excavated on site. Precast concrete and cast in place concrete will be obtained from a local supplier. All filling and grading will be conducted above OHW using a tracked excavator positioned on the hydraulic left bank of the Kalama River.

Off Site Mitigation: This project installs LWM at a side channel near the mainstem of the Kalama River near the WDFW Sportsman's Loop Access area. The area was created in 2009 by dredging the side channel and placing LWD to create habitat. This proposed project will add supplemental LWM to the area positioned more than 100 feet landward from the Kalama River, in areas that do not impede flow from tidal changes or disturb LWM already in place in the upper 300 feet of the existing channel.

Construction methods: Equipment used to place the LWM will be an excavator and dump truck and some hand tools. The heavy equipment will enter the project site from the Sportsman's Loop parking lot and adjoining access road above the site. The material will be moved to each location as directed by the engineer on site. The same route for delivery of LWM will be used to minimize riparian disturbance. Approximately 7 alder and/or maple trees may be removed for site access. Additional trees may be trimmed to allow heavy equipment access. Ramps may be placed down the hillside and alongside and possibly in the channel area for minimal disturbance of riparian vegetation and safer installation of the LWM. Ramps will be removed at project completion. Logs used will be 12 – 24 inch in diameter and placed so that 20 to 30 % of the log is visible at low tide. Logs will be pushed into place with the excavator anchored in place with mantaray anchors. No impact driving will be used.

All access points and disturbed areas will be replanted with native plants. Erosion prevention jute mat materials such as "Geogute" and coir logs will be used to minimize erosion during construction. Construction activities will last approximately two weeks, and it will occur within the in-water work window during low tide, and in accordance with approved permit windows. Fish removal will be done before construction, and nets will be placed at both ends of the project to isolate the area.

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.

Modrow Trap: The WDFW Modrow Trap is located on river mile 2.5 of the Kalama River, off Kalama River Road in Cowlitz County. At this site there is a fish trap and seasonal fish weir. The site is reached by taking exit 32 off Interstate 5. Turn East on Kalama River Road.

Go 1.2 miles. Turn east across Modrow bridge on Modrow Road. Continue less than a quarter mile to 151 Modrow Trap Rd, Kalama, WA 98625. The Modrow Trap is located at an access road on the right. T7N, R1W, S 32, (46.044 57,-122.83701).

Off-site Mitigation: The off-site mitigation is located near the mainstem of the Kalama River near Kalama River mile .07 in Cowlitz County. The site is reached through the WDFW Sportsman's Loop Access area. From Interstate 5, take exit 32 towards Kalama River Road. Turn right on Kalama River road for 0.3 miles. Take the 3rd left onto N. Hendrickson Drive after 0.3 miles After 456 feet; turn in to the Sportsman's Loop, Lower Kalama Access site. To reach the mitigation site take the footpath at the end of the WDFW parking lot. The trail ends at the off-site mitigation area after approximately 1,600 feet. The site can also be accessed from an unpaved road near the end of the parking lot that is on a hillside parallel to the site T06N, R1W, S05, (46.038064,-122.863726).
Log placement sites include these approximate locations: (46.0378,-122.0863629, 46.037691,-122.863551, 46037609,-122.863408, 46.037541,-122.863252).

B. ENVIRONMENTAL ELEMENTS

1. **Earth**

a. General description of the site (circle one): Flat, rolling, hilly, steep slopes, mountainous, other . . . . . .

The Modrow Trap is a wooded riverine area, with mountainous areas nearby.
The off-site Mitigation site is in a tidally influenced wooded riverine area.

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

Modrow Trap: 0 – 2% slope
Off-site Mitigation: 0 – 3% slope

c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any prime farmland.

The Modrow Trap: Riverwash soils
The off-site Mitigation site: Maytown silt loam

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

The Modrow Trap: Riverwash soils typically have severe erosion hazard capability.
The off-site Mitigation site: The site is located in a tidal area with erodible soils.

e. Describe the purpose, type, and approximate quantities of any filling or grading proposed. Indicate source of fill.

Modrow Trap:

Below OHW	***Above OHW***
102 cy bank excavation	*44 cy bank excavation*
234 cy bank excavation	*135 cy bank excavation*
10 cy bank backfill	*18 cy fish lift vault excavation*
93 cy bank back fill	*736 cy grading excavation*
67 cy fish lift vault excavation	*255 Site grading backfill*
	41 cy bank backfill
	6 cy fish lift vault backfill
	5 cy fill to support steel plate
640 cy Total Below OHW	*1,257 cy Total Above OHW*

Total estimated fill for above and below OHW will be estimated at 1,897 cubic yards. Fill materials will come from materials excavated on site, and from a local quarry.

The off-site Mitigation site

No fill is expected for the proposed off-site mitigation site.

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

The Modrow Trap
Yes, erosion could occur from construction, grading, water removal, and water filtration activities.

Off-site Mitigation Site
Yes, erosion could occur from construction activities.

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

Modrow Trap: New impervious surfaces will be approximately 800 square feet, including landward fish processing surfaces, and some waterward railing structures.

Off-site Mitigation site; No additional impervious surfaces will be added to this site.

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

Modrow Trap
All Best Management Practices will be used to prevent erosion resulting from construction activities from entering the water. The Modrow Trap will place heavy rock to reinforce the bank below and above the trap site to protect the bank and avoid erosion. Turbidity curtains will be used if required to prevent siltation from entering the water during bank excavation.

Off-site Mitigation:
Travel at the off-site mitigation area will be confined to the access road above the site, and to ramps placed alongside the channel to avoid introduction of erosion to the stream channel from heavy equipment tracks and construction activities. The off-site mitigation site will also use all best management such as coir mats, and coir logs placed to avoid introducing erosion to the channel.

2. Air

a. What types of emissions to the air would result from the proposal (i.e., dust, automobile, odors, industrial wood smoke) during construction and when the project is completed? If any, generally describe and give approximate quantities if known.

Modrow Trap and Off-site Mitigation:
Typical heavy equipment emissions during construction will occur from construction, but no emissions will come from the finished project.

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

Modrow Trap and Off-site Mitigation:

None are known.

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

No emission control measures are proposed for either project.

3. **Water**

a. Surface:

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.

Modrow Trap:
This project is located on the Kalama River. There are no wetlands present at the project location.

Off-site Mitigation:
The project sites are located at a freshwater side channel with some spring inputs immediately adjacent to the Kalama River. The Kalama River flows into the Columbia River. Wetlands are present in the general area.

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.

Modrow Trap:
The major elements of the project include a fish trap, a fish lift vault, bank stabilization, and a fish sorting facility in and next to the Kalama River. Please refer to attached site drawings.

Off-site Mitigation:
Major elements include installation of LWM, and restoration plantings in and next to an unnamed side channel off of the mainstem Kalama River. Please see attached site drawings.

2) 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.

Modrow Trap : (estimated)
Below OHW:
102 cy bank excavation
234 cy Bank excavation
10 cy bank backfill
93 cy bank backfill
67 cy fish lift vault excavation
640 cy Total Below OHW

The fill material comes from a local quarry.

Off-site Mitigation:
No fill will be required for the proposed off-site mitigation.

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

Modrow Trap:
Instead of water flowing through the trap area during construction, water will be excluded from entering the Modrow Trap with super sacks. During construction, water will stay in the Kalama River bed, and not be routed landward. During construction, water that seeps into the construction area will be pumped out of the work area, diverted landward, and filtered before returning it to the Kalama River.

Off-site Mitigation site:
No water diversions are planned for the offsite mitigation area. Work will be performed during low tide and low water conditions and in accordance with required permits.

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

The Modrow Trap and the Off-site Mitigation site are both within the 100 year floodplain. Please refer to the permit drawings.

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.

Modrow Trap:
The Kalama River is excluded from entry into the construction area by using supersacks used to create a coffer dam. Any water removed from the construction area during construction activities will be pumped landward and filtered before returning it to the Kalama River. There could be some sediment entering the Kalama River during removal of the supersacks and during bank excavation. Turbidity curtains, if required, will be installed to prevent turbidity effects from entering the Kalama River during bank excavation and installation of the Modrow Trap.

Off-site Mitigation:
No materials will be discharged to surface areas. There could be some incidental sediment entering the water during installation of the LWM, however these materials will be installed at low tide to minimize effects from sediment entering the channel or to the Kalama River.

Equipment will be fueled away from the project locations.

b. Ground:

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

Modrow Trap and Off-site Mitigation site:
For both sites no ground water will be withdrawn, and no water will be discharged to ground water.

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.

Modrow Trap:
There is (one) existing septic tank at the Modrow Trap that will remain on site in the same location after project completion. This septic tank is connected to the trailer parked on site and it is used during seasonal trap operation that serves from 1to 3 staff at any given time. No waste materials from construction will be discharged into the ground from the septic tank or from any construction activity.

Off-site Mitigation:
No waste materials will be discharged into the ground from construction activities.

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 Modrow Trap:
Water runoff such as precipitation will continue to follow natural patterns, by infiltration into the ground and by natural sheet flow from the area to the Kalama River, and eventually entering the Columbia River.

The off-site Mitigation site:
Water runoff will follow natural patterns and sheet flow from the construction area to the stream channel, and into the Kalama River, eventually entering the Columbia River.

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

The Modrow Trap
Yes, waste materials associated with this project could possibly enter the surface water. These materials include excavation material (gravel/soil mix) and water pumped from the coffer cell impoundment. These materials will be properly handled and stored such that contamination of ground and surface waters is unlikely. Best Management Practices such as water filtering, hay bales and straw mats will be used to avoid introduction of sediment or effects from turbidity to the Kalama River.

The off-site Mitigation site
No waste materials associated with this project are expected to enter the channel. The only materials used will be the LWM that will stay in the channel. No waste materials will enter ground water or surface waters.

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

The Modrow Trap
Measures to reduce and control surface, ground, and runoff water impacts include: conducting all project work in dry conditions through the use of a cofferdam, diverting water away from the construction area, and removing sediment and other foreign materials before returning it to the Kalama River. All excavation equipment and dump trucks will work from the top of the hydraulic left bank with upslope digging to minimize ground disturbance, no equipment will enter the water. All excavated materials will be placed directly into dump trucks, maintenance and fueling of equipment will be off site in a manner that will minimize potential water and soil contamination. Best Management Practices will be used to minimize erosion during construction.

Off-site Mitigation
Erosion prevention jute mat materials and coir logs will be used to minimize erosion during construction. Construction activities will be conducted on ramps to avoid driving machinery on the stream banks to avoid excessive effects from erosion. Construction may last two weeks, within the in-water work window during low tide, and in accordance with approved permit windows. Fish removal will be done before construction during low tide. Fish exclusion nets will be placed to isolate the work area. All site access points and disturbed areas will be replanted with native plants.

4. Plants

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

___x___ deciduous tree: alder, maple, aspen, other

_____ evergreen tree: fir, cedar, pine, other

___x___ shrubs

___x___ grass

_____ pasture

_____ crop or grain

_____ 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?

The Modrow Trap
All herbaceous vegetation, grasses, blackberries covering the hydraulic left bank of the river within the project area will be removed during construction activities involving bank excavation and rock placement activities. Other vegetation requiring removal may include one willow tree and one big leaf maple tree.

Off-site Mitigation:
Approximately 7 alder and/or maple trees may be removed for site access. Additional trees may be trimmed to allow heavy equipment access. A ramp may be placed down the hillside and alongside and possibly through the channel area for minimal disturbance of riparian vegetation and safer installation of the LWM. Any disturbed areas will be replanted with native species.

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

No native or threatened plants are known to be on or near either site.

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

Modrow Trap
Any disturbed plants will be replanted with native species.

Off-site Mitigation site
Any disturbed plants will be replanted with native species.

5. **Animals**

a. Circle any birds and animals which have been observed on or near the site or are known to be on or near the site:

birds: hawk, heron, eagle, songbirds, other:
mammals: deer, bear, elk, beaver, other:
fish: bass, salmon, trout, herring, shellfish, other: *Pacific eulachon: Southern DPS in the Kalama River*

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

Modrow Trap
Eulachon, Southern DPS (Thaleichthys pacificus) – Threatened
Chinook salmon, Lower Columbia River ESU (Oncorhynchus (=Salmo) tshawytscha) – Threatened
Chum salmon, Columbia River ESU (Oncorhynchus (=Salmo) keta) – Threatened
Coho salmon, Lower Columbia River ESU (Oncorhynchus (=Salmo) kisutch) – Threatened
Steelhead, Lower Columbia River DPS (Oncorhynchus (=Salmo) mykiss) – Threatened

Off-site Mitigation site
Eulachon, Southern DPS (Thaleichthys pacificus) – Threatened
Chinook salmon, Lower Columbia River ESU (Oncorhynchus (=Salmo) tshawytscha) – Threatened
Chum salmon, Columbia River ESU (Oncorhynchus (=Salmo) keta) – Threatened
Coho salmon, Lower Columbia River ESU (Oncorhynchus (=Salmo) kisutch) – Threatened
Steelhead, Lower Columbia River DPS (Oncorhynchus (=Salmo) mykiss) – Threatened

The US Fish and Wildlife Service identify the following species as having at least one documented location within Cowlitz County and could possibly be found within the vicinity of either site:

Bull Trout: (salvelinus confluentus)
Columbian White Tailed Deer (Odocoileus virginianus leucurus)
Marbled Murrelet (Brachyramphus marmoratus)
Northern Spotted Owl (Strix occidentalis caruina)
Nelson's Checker-mallow (Sidalcea nelsoniana)

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

The Modrow Trap monitors the spawning migrations on the Kalama River for several salmon and trout species including: hatchery and wild spring and fall Chinook salmon, hatchery and wild early- and late-run coho salmon, hatchery and wild summer and winter steelhead, wild chum salmon, and wild coastal cutthroat trout. Modrow Trap is operated annually from August 1 to October 15 in order to collect adult salmon and steelhead for the Kalama River hatchery programs. Adults migrating upstream during this period are directed by the weir into the fish trap and then transported to the Kalama Falls Hatchery for sorting. At the time of sorting, broodstock are moved to holding ponds, and fish in excess of broodstock needs are transported back to the Kalama River for release.

Modrow Trap
The proposed Modrow Trap project eliminates the need for transporting (by fish hauling truck) all captured fish to the Kalama Falls Hatchery. After project completion, wild fish will be released directly into the Kalama River to continue natural migration routes.
Off Channel Mitigation

The off channel mitigation area is a tidally influenced side channel off the mainstem of the Kalama River used as a rearing area for migrating and rearing salmon and trout.

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

The Modrow Trap and sorter upgrades were developed based on WDFW hatchery protocols for handling and sorting. Impacts from fish collection, handling, and transport will be reduced. The trap design allows immediate release of wild fish upstream that will increase habitat opportunities for migrating wild salmon and steelhead.

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.

Modrow Trap
The Modrow Trap will require electricity for fish holding and processing equipment. Electricity will be used for the vertical and horizontal fish crowders, pescalator, DC electro-anesthesia system, and area lighting.

Off-site Mitigation
The completed project will not require any source of energy.

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

No. Either site will not affect the potential use of solar energy by adjacent properties.

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:

The number of fish transport trips from the Modrow Trap to the Kalama Falls Hatchery will decrease as a result of the proposed on-site sorting feature. This will save fuel.

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.

Modrow Trap
The only environmental health hazards that could occur as a result of this proposal are associated with fueling and maintenance of construction equipment. The impacts may include spill of and exposure to fuels, hydraulic fluids, and lubricants. During construction, refueling of machines will be done away from the site.

Off-site Mitigation
No environmental health hazards will occur at this project site.

1) Describe special emergency services that might be required.

No special emergency services will be required at either site for this proposal.

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

Modrow Trap and Off-site Mitigation
Proposed measures to reduce and control environmental health hazards at both sites include the use of best management practices associated with construction equipment fueling and maintenance that minimizes the potential for on-site contamination. Spill containment and cleanup kits will be maintained onsite, and spills of fuel, hydraulic fluid, lubricants, or other hazardous materials will be cleaned up immediately with proper disposal. A spill plan has been prepared for the Modrow Trap site.

b. **Noise**

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

Both components of this project are located in a wooded rural area with light traffic. No noise will affect this project in either area.

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

Short term noise will be generated by equipment during project construction. Post-construction noises would be limited to fish transport trucks accessing the site. Trap operation and vehicular access to the site would occur only during daylight hours.

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

Project construction, vehicular access to the site, and trap operation will occur only during daylight hours and thus will not involve night-time noise disturbances. In addition, the reduction in fish transport trips will result in less vehicular noise disturbance.

8. **Land and shoreline use**

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

Modrow Trap
The project site is currently used as a fish trapping facility. Fish are trapped, crowded, hoisted, and transported to the Kalama Hatchery for sorting. The adjacent properties are for residential use with some livestock grazing. The City of Kalama Water intake structure is nearby. Adjacent properties are rural, forested. Recreational opportunities are available at the Modrow Access site a few hundred yards away from the Modrow Trap.

Off-site Mitigation
The off- site mitigation area is a side channel off the Kalama River mainstem, and next to the WDFW Sportsman's Loop Access site. The side channel is used for juvenile fish rearing. Adjacent properties are rural and commercial.

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

Both of the project locations are not used for agriculture.

c. Describe any structures on the site.
Modrow Trap
The project site is currently used as a fish trapping facility. Infrastructure is on site for fish trapping, hoisting, crowding, and sorting. Seasonally, there is a fish weir in the Kalama River. A small trailer is stationed on site, used as temporary housing during seasonal operations.
Off-site Mitigation
No structures exist at this off- site mitigation location.

d. Will any structures be demolished? If so, what?
Modrow Trap
The existing mechanical equipment such as the monorail, hoist, fish brail, and crowder will be demolished. Existing structural components will be incorporated into the new facility. Demolished structures will be taken to a disposal facility out of the flood zone.

Off-site Mitigation
No structures exist at the off-site mitigation site. No structures will be demolished.

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

Modrow Trap
Currently, there is no Cowlitz County zoning classification for the Modrow Trap site.

Off-site Mitigation
Urban Zoning

f. What is the current comprehensive plan designation of the site?
Modrow Trap:
Conservancy

Off-site Mitigation:
Heavy industrial

g. If applicable, what is the current shoreline master program designation of the site?
Modrow Trap:
Rural/Conservancy
Off-site Mitigation:
Urban

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

Modrow Trap:
This site is in a riverine riparian corridor, with erosive soils, located within a flood zone and a critical aquifer recharge area.

Off-site Mitigation:
This site is in a riverine riparian corridor, with flood zone erosion hazards, and in a critical aquifer recharge area. Wetlands are present.

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

Modrow Trap:
No persons would reside permanently at the completed project, however trap operators and maintenance personnel could temporarily reside onsite during trap operation from August 1 to October 15 in a small trailer parked on site. Approximately 2 to 3 people would work at the completed project site; job positions would include trap operators, fish sorters, and truck drivers.

Off-site Mitigation:
No persons would reside at the completed off site mitigation project.

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

Modrow Trap: No people would be displaced as a result of the completed project.

Off-site Mitigation: No people would be displaced as a result of the completed project.

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

Modrow Trap: There are no displacement impacts as a result of this project.

Off-site Mitigation: There are no displacement impacts as a result of this project.

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

Modrow Trap:
Land use of the project site will not change as a result of the proposed Modrow Trap project. The proposal is compatible with existing and projected land uses and plans, including the environmental restoration goals from The Lower Columbia Salmon Recovery and Fish and Wildlife Subbasin Plan (LCFRB 2004).

Off-site Mitigation:

Land use of the project site will not change as a result of the Modrow Trap Upgrade. The proposal is compatible with existing and projected land uses and plans, including the environmental restoration goals from The Lower Columbia Salmon Recovery and Fish and Wildlife Subbasin Plan (LCFRB 2004).

9. **Housing**

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

Modrow Trap:
No housing units will be provided as a result of the project.
Off-site Mitigation:
No housing units will be provided as a result of the project.

b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.
Modrow Trap:
No housing units will be eliminated as a result of the project.
Off-site Mitigation:
No housing units will be eliminated as a result of the project.

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

Modrow Trap:
There are no housing impacts as a result of this project.
Off-site Mitigation:
There are no housing impacts as a result of this project.

10. **Aesthetics**

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

The Modrow Trap
The tallest height of any proposed structure is associated with the fish lift, which will be 13 feet above the existing ground during trap operation. When not in operation (November – July) the majority of the trap components will be dismantled and removed to off-site storage, during this time period the tallest structure would be 5-ft above the existing ground. The principal building material to be used for the fish lift will be either aluminum or fiberglass, depending on the contract bid awarded.

Off-site Mitigation site
The LWM will be installed so that it is mostly submerged during high tide and 20 to 30 % of the log is visible at low tide. Logs will be below the water surface elevation most of the time.

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

Modrow Trap:
The existing hoist assembly, which has a height of 25 feet above the existing ground, currently obstructs a small portion of the river view from the residence located to the north of the project site and property. The hoist assembly will be demolished and replaced with a fish lift and sorting platform located landward of the Kalama River, with a maximum height of 13 feet during trap operation. The project will improve the river view for the nearby residence.

Off-site Mitigation:
No views in the vicinity will be altered.

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

Modrow Trap:
The proposed project results in improved views of the river by reducing the height of the tallest structure on the project site.

Off-site Mitigation:
No measures are proposed to reduce or control aesthetic impacts.

11. **Light and glare**

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

Modrow Trap:
The proposal replaces current lighting that is directed at the work area and diverted area and from the nearby residence. No glare or additional light effects are anticipated during daylight hours. Typically the area lighting is off during night time hours.

Off-site Mitigation:
No measures are proposed that will produce light or glare.

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

Modrow Trap:
Light and glare from the finished project will not present a safety hazard or interfere with views.
Off-site Mitigation:
Light and glare from the finished project will not present a safety hazard or interfere with views.

c. What existing off-site sources of light or glare may affect your proposal?
Modrow Trap:
There are no existing off-site sources of light or glare that would affect the proposal.
Off-site Mitigation:
There are no existing off-site sources of light or glare that would affect the proposal.

d. Proposed measures to reduce or control light and glare impacts, if any:
Modrow Trap:
The proposal will not have any light and glare impacts and no measures have been taken to reduce or control light and glare impacts.
Off-site Mitigation:
The proposal will not have any light and glare impacts and no measures have been taken to reduce or control light and glare impacts.

12. **Recreation**

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

Modrow Trap:
Recreational activities in the vicinity of Modrow Trap include angling and boating. Public river access is available approximately 0.2 miles upstream of Modrow Trap at the WDFW Modrow Access site.

Off-site Mitigation:
Public recreational activities available in the vicinity of the off-site mitigation on the Kalama River is the WDFW Sportsman's Loop Access area, located approximately 100 feet away from the off-site mitigation area.

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

Modrow Trap:
The proposed project would not displace any existing recreational uses.

Off-site Mitigation:
The proposed project would not displace any existing recreational uses.

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

Modrow Trap:

The proposed Modrow Trap project enhances the survival of adult salmonids in the Kalama River, with an anticipated beneficial impact on recreational fisheries in the Kalama River.
Off-site Mitigation:
The proposed mitigation area provides additional off channel rearing opportunities for juvenile salmon and steelhead in the Kalama River that will have an anticipated beneficial impact on juvenile salmon survival and an improvement to recreational fisheries in the Kalama River.

13. **Historic and cultural preservation**

a. Are there any places or objects listed on, or proposed for, national, state, or local preservation registers known to be on or next to the site? If so, generally describe.
Modrow Trap:
There are no known landmarks or evidence of historic, archaeological, scientific, or cultural importance on or next to the site.
Off-site Mitigation:
There are no known landmarks or evidence of historic, archaeological, scientific, or cultural importance on or next to the site.

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

Modrow Trap:
There are no known landmarks or evidence of historic, archaeological, scientific, or cultural importance on or next to the site.
Off-site Mitigation:
There are no known landmarks or evidence of historic, archaeological, scientific, or cultural importance on or next to the site.

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

Modrow Trap:
The proposal is not expected to have any cultural impacts on the project site or nearby properties.
Off-site Mitigation:
The proposal is not expected to have any cultural impacts on the project site or nearby properties.

14. **Transportation**

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

Modrow Trap:
Access to Modrow Trap will not change as a result of the proposed project. The site is currently accessible from Modrow Road via a gravel access road.
Off-site Mitigation:
Access to the mitigation site after completion is either via the unpaved access roadway above the site, or 1000 feet away by a foot trail at the edge of the WDFW Sportsman's Loop Access area. No access to the site will change as a result of this project.

b. Is the site currently served by public transit? If not, what is the approximate distance to the nearest transit stop?

Modrow Trap:
The site is not currently served by public transportation. The Modrow Trap is located approximately 10 miles from the nearest transit stop, which is located at Kelso High School and part of the Longview-Kelso public transportation system.
Off-site Mitigation:
The site is not currently served by public transportation. The nearest transit site is unknown.

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

Modrow Trap:
Parking for the Modrow Trap is currently limited to a single parking location below the hoist assembly, which is used for loading fish into the fish transport truck. A gravel/dirt area at the site can also be used for parking. The completed project would alter the current configuration by adding a second defined truck loading location. No parking spaces will be eliminated as a result of the project.

Off-site Mitigation:
There are no parking spaces available at the proposed mitigation site. This project will not add parking space to the project site.

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

Modrow Trap:
The proposal does not require any new roads or streets, or improvements to existing roads or streets.
Off-site Mitigation:
The proposal does not require any new roads or streets, or improvements to existing roads or streets.

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

Modrow Trap:
The project will not use or occur in the immediate vicinity of water, rail, or air transportation.

Off-site Mitigation:
The project will not use or occur in the immediate vicinity of water, rail, or air transportation.

f. How many vehicular trips per day would be generated by the completed project? If known, indicate when peak volumes would occur.

Modrow Trap:
The number of vehicular trips per day is expected to decrease as a result of the new fish sorting feature. Fish transport trucks will only access the site during trap operation from August 1 to October 15. Peaks in the number of vehicular trips per day will coincide with peak daily fish returns, which usually occur in mid-September for fall Chinook salmon, and in mid-October for early and late coho salmon runs combined.
Off-site Mitigation:
No vehicle trips are generated by the completed project.

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

Modrow Trap:
The increased capacity of the fish trap and the new sorting facility are expected to reduce transportation impacts by reducing the number of trips needed for hauling fish to the Kalama Falls Hatchery.
Off-site Mitigation:
There are no proposed measures to reduce or control transportation impacts.

15. **Public services**

a. Would the project result in an increased need for public services (for example: fire protection, police protection, health care, schools, other)? If so, generally describe.

Modrow Trap:
The project will not result in an increased need for public services.
Off-site Mitigation:
The project will not result in an increased need for public services.

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

Modrow Trap:
The proposed measures will not have an impact on public services.
Off-site Mitigation:
The proposed measures will not have an impact on public services.

16. **Utilities**

a. Circle utilities currently available at the site: electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other.

Modrow Trap:
*Utilities currently available at the site include **electricity** and **septic system**.*

Off-site Mitigation:
No utilities are currently available at the mitigation site.

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.

Modrow Trap:
The existing utilities will be maintained during and after construction. The septic line may need reinstallation if the on-site staff trailer requires repositioning to a slightly different orientation after project completion.

Off-site Mitigation:
No utilities exist at the mitigation site.

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: Cynthia Knudsen

Date Submitted: 7/11/2013