

Addendum to White River Spring Chinook Salmon HGMP
DRAFT February 25, 2010

The following information should be added to the White River spring Chinook Salmon Hatchery and Genetic Management Plan (HGMP), dated 9/15/09 in order to provide further information to evaluate take of listed species and also to update the HGMP with new information that was not available at the time that the draft HGMP was submitted to National Marine Fisheries Service (NMFS).

Facilities

Alternatives - Modification of existing facilities

Potential facilities that were described in the Draft HGMP included adult holding and spawning at a facility on Nason Creek or other suitable facilities. To support adult holding and spawning for the White River program at a Nason Creek facility, full hatchery facilities would be required. Eggs will be incubated, and juveniles reared at the Little White Salmon National Fish Hatchery or another suitable location. Pre-smolts will be acclimated throughout the winter and spring at an acclimation facility or semi-natural habitats on the White River, or net pens in Lake Wenatchee at the mouth of the White River. To capitalize on existing opportunities in the region, Chelan PUDs Eastbank Hatchery is being pursued as an alternative to adult holding and spawning facilities on Nason Creek and possibly early rearing at the Little White Salmon National Fish Hatchery. This approach has many desirable features such as 1) an ability to start the program earlier, 2) ability to have all of the adult spring Chinook salmon collected at Tumwater Dam go to one place (e.g., Eastbank Hatchery), 3) consistency in fish production that would benefit evaluation of the monitoring plan, and 4) reduction in ground disturbance, water withdrawal, and other potential impacts at the Nason Creek site. Overwinter acclimation would occur on the White River, regardless of where other life-stages are cultured.

Some of the factors that will be considered in deciding whether to modify existing facilities or to develop a full hatchery facility on Nason Creek include: 1) ability to find candidate facilities and get agreement to modify existing facilities (e.g., Eastbank Hatchery - in this case the critical questions will be water conservation and suitable agreements between Grant PUD and Chelan PUD), 2) support from the Priest Rapids Coordinating Committees Hatchery Sub-committee to proceed with a long-term agreement, and 3) time till implementation. Grant PUD and Chelan PUD are in the process of evaluating the feasibility of these options at Eastbank Hatchery. Until agreements about existing facilities are made, Grant PUD will continue to work in parallel on a full facility at Nason Creek and evaluation of modifying existing facilities.

More detail to determine construction effects on listed species

Current plans are for a long-term hatchery facility on Grant PUD owned property (i.e. Boyce/Youngsman and Cascade Gardens) on Nason Creek at approximately RM 9.3. It is anticipated that this facility will meet all of the needs for the Nason Creek supplementation program and the spawning and incubation needs for the White River program. It is difficult to separate impacts of the White River spawning components from those of the full Nason Creek facility. Thus, basic details of the full Nason Creek facility are described below with more detailed descriptions found in the Nason Creek HGMP and its associated addendum. Planning and site evaluations for design and construction are advancing but full facility designs are not yet available. Thus, specific details about impacts from development and operation are unavailable. Plans for the Boyce/Youngsman site include year around use or rearing and acclimation of fish on surface water from November through May of each year. The Cascade Gardens property would be used for hatchery staff housing and/or storage. This site was previously a residence and no instream or riparian vegetation disturbance is expected, so further impacts to listed species are expected to be minimal at this site.

Negative impacts to ESA listed fish species from construction and operation of facilities at the Boyce/Youngsman site are expected to be minimal. The primary factors that may influence listed species include: water withdrawal, in-creek work, sedimentation, riparian vegetation disturbance, and hatchery effluent water.

Water withdrawal will depend upon the number and size of fish that are on station. However, it is anticipated that surface water withdrawal will range between 2 and 9.5 cfs during periods of adult holding, spawning, and incubation. Based on stream discharge data from 2003-2009, the range in withdrawal amount is anticipated to be approximately 0.3 (June) to 11 (September) percent of mean monthly discharge and 3 (June, 2005) to 33 (September, 2005) percent of minimum daily discharge. The water right will be non-consumptive and the bypass reach (distance between the intake and outfall) will be limited. The exact bypass distance will be determined during development of facility designs but will be as short as possible while preventing the outfall from influencing the intake (e.g. less than 100 feet). The intake will be screened according to Washington Department of Fish and Wildlife and NMFS screening criteria. In-water work for facility development will include the intake and outfall structures with associated bank stabilization, grade control, and stream restoration work. and will be conducted within all local, state, and federal permit conditions (e.g. work windows, equipment limitations, etc).

The Boyce/Youngsman parcel is approximately 11 acres and is located between the United States Highway 2 and the Burlington Northern Santa Fe Railroad tracks. Roughly half of the property is in the floodplain and the other half is approximately 12 feet above the floodplain. Most of the parcel contains mature trees and undergrowth. Riparian habitat throughout the entire site is in good condition downstream of the riprap bank along the railroad and upstream of the highway bridge abutment. The site has approximately 480 linear feet of shoreline. A minimal amount of mature trees will be removed from the riparian corridor during development of the site and the riparian corridor will be planted to accelerate riparian habitat restoration.

It is anticipated that the total footprint for the Nason Creek facility will be approximately 6.5 acres. Mitigation for floodplain development will meet all local, state, and federal permit conditions (e.g. restoration ratios). In addition to mitigation for development of the facility, plans are to partner with interested entities (e.g. non-governmental organizations, state and tribal entities, etc) to develop and implement habitat enhancement projects that will improve conditions throughout the site.

The construction activities of the project are likely to have low impacts to listed species because the scope of the project is relatively small, construction practices will be done within permit conditions, and mitigation activities for construction activities will be implemented. Construction activities will pose fewer risks to listed species if all life-stages are held at a location away from Nason Creek (e.g., Eastbank Hatchery).

While adult holding, spawning, incubation, and early rearing activities will occur outside of the White River Basin, acclimation will be required within the basin. Current plans are for a long-term acclimation facility on the Grant PUD owned property (i.e. McComas short plat) at approximately RM 1.1 of the White River. Planning and site evaluations for design and construction are advancing but facilities are not yet available. Thus, specific details about impacts from development and operation are unavailable. Plans for this site are limited to rearing and acclimation of fish on surface water from November through May of each year. Fish will be acclimated at alternative locations (e.g. net pens or enclosures created in natural features) until this facility is operational.

Negative impacts to ESA listed species from construction and operation of acclimation facilities at the McComas site are expected to be minimal. There is no known spawning or rearing occurring in the immediate vicinity of the site for spring Chinook, steelhead, or bull trout. This section of the river is primarily a migratory corridor.

Water withdrawal will depend upon the number and size of fish that are on station. However, it is anticipated that water withdrawal will range between 4 and 7 cfs during periods of rearing and acclimation. The withdrawal amount is anticipated to be approximately 0.5 to 2.3 percent of mean monthly discharge (1954-1983) and 1 (June 1979) to 11 (November 1979) percent of the minimum mean daily discharge (1954-1983). The water right will be non-consumptive and the bypass reach (distance between the intake and outfall) will be limited. The exact bypass distance will be determined during development of facility designs but will be as short as possible while preventing the outfall from influencing the intake (e.g. less than 300 feet). The intake will be screened according to WDFW and NMFS screening criteria. In-water work for facility development will be limited to the intake and outfall structures and will be conducted within all local, state, and federal permit conditions (e.g. work windows, equipment limitations, etc).

The McComas parcel is approximately 17 acres, however, less than 10 percent of the parcel contains mature trees. Previous owners of the parcel cleared and drained much of the property for pasture and cultivation of cereal crops. Riparian habitat throughout the

entire site is in poor condition. The site has approximately 850 linear feet of shoreline, of which, less than half has any mature trees in the riparian corridor. Where present, the mature trees in the riparian corridor are sparse and contained within a narrow band (approximately 0.5 acre total). The remaining riparian vegetation is dominated by perennial grasses with sparse shrubs and small trees. Few if any mature trees will be removed during development of the site and the riparian corridor will be planted to accelerate riparian habitat restoration.

The White River channel is deeply incised at this site with approximately 300 linear feet having severe erosion issues and an additional 150 linear feet armored with boulder rip rap. Severe channel incision results in poor floodplain interaction and plans are to mitigate for floodplain development by creating projects that will reduce channel incision to improve floodplain interaction. It is anticipated that the total footprint for the facility will be less than three acres. Mitigation for floodplain development will meet all local, state, and federal permit conditions (e.g. restoration ratios). In addition to mitigation for development of the facility, plans are to partner with interested entities (e.g. NGOs, state and tribal entities, etc) to develop and implement habitat enhancement projects that will improve conditions throughout the site. Mitigation and habitat enhancement projects will focus on supporting Short-term Recovery Actions for the lower White River that were identified in the Upper Columbia Spring Chinook Salmon and Steelhead Recovery Plan (i.e. floodplain interaction and off-channel habitats, page 206).

Because upland habitats will be improved, floodplain interaction will be increased, and in-water work is expected to be limited, it is anticipated that negative impacts to ESA listed species will be minimal. It is anticipated that habitat at the McComas site will be dramatically improved during development of the acclimation facility.

Facility Maintenance

Grant PUD believes that the existing hatchery facilities that are used for the programs are maintained such that rearing conditions for program fish meet all standard fish health guidance or program-specific criteria as described in the HGMP and this addendum.

During 2009, Grant PUD co-funded purchase, installation, and operation of the PIT-tag arrays in the White and Little Wenatchee rivers. It appears the arrays will provide useful information for monitoring and evaluation, so Grant PUD will continue cost sharing with other partners to ensure continued operation and data collection.

White River trap

If the parental-based tagging approach is determined to be insufficient as a broodstock collection technique, traps on the White River may be built and operated to collect broodstock for the hatchery program. Grant PUD funded an evaluation of various collection methods and it appears a fish wheel, Merwin trap, or hook-and-line angling are the most feasible options. The fish wheel would likely be a floating structure that would be installed and removed seasonally at the Grant PUD owned site. The Merwin trap

would be installed and removed seasonally at the mouth of the White River. Individuals would be targeted for angling throughout the White River Basin. Any angling would occur in a controlled manor and environment to ensure maximum survival of captured adults. When ever possible, all fish caught would be retained for broodstock to limit impacts to naturally spawning adults. Angling within the White River would be limited to broodstock collection and would cease when broodstock goals are achieved. Construction, installation, and trap operations will be conducted within all local, state, and federal permit conditions (e.g. work windows, equipment limitations, etc).

The traps have the potential to delay upstream migration, displace spawners, and harm fish that are caught in the trap. The traps will be operated from June thru August and operational protocols will be similar to those that are used for other adult traps in the Upper Columbia River and its tributaries. The trap may be operated for 7 days a week with a maximum of 1 of 3 fish taken for broodstock. Alternatively, the trap may be operated 4 days a week with every fish taken up to a maximum of 33% of the run. A maximum of 100% of the fish run will be intercepted at the trap.