

WDFW Review of Public Comments Received on Cowlitz River HGMPs .

WDFW provided 15 Hatchery Genetic Management Plans (HGMPs) covering Cowlitz River artificial production programs for comment in the period from April 20, 2005 through June 20, 2005. These included twelve (12) anadromous programs and three (3) resident trout plants made to the Tilton River, Skate Creek and Mayfield Lake. A number of HGMPs involve cooperative partnerships with local citizen organizations including Friends of the Cowlitz and the Cowlitz Game and Anglers. Public comments, WDFW's response, and any resultant modifications to HGMPs will subsequently be posted on the WDFW website and provided to National Oceanic and Atmospheric Administration Fisheries (NOAA) for its consideration after the comment period.

The HGMPs describe, in a format prescribed by NOAA Fisheries, the operation of each artificial production program for salmon and steelhead in the Lower Columbia River Evolutionary Significant Unit (ESU).

A total of 1 organization subsequently provided comments to WDFW to the Draft HGMPs. Tacoma Power's comments are included in their entirety below, with the WDFW responses to each. All comments and the WDFW responses are available in their entirety on the WDFW website at the following address: <http://www.wa.gov/wdfw/hat/hgmp/>. The public comment period resulted in numerous valuable comments and suggestions.

WDFW has provided a response to each of the summarized comments and identified, as needed, enhancements to HGMPs. These enhancements will be provided to NOAA Fisheries during the next year in an interactive, ongoing process leading to a Final Environmental Impact Statement. The HGMPs are Draft documents only and will be updated to capture new information, program proposals and subsequent policy changes in the future.

June 16, 2005

Dr. Jeff Koenings
Washington Department of Fish and Wildlife
600 Capitol Way North
Olympia, WA 98501

RE: Comments on the Cowlitz River Salmon and Trout Hatchery and Genetic Management Plan programs

GENERAL COMMENTS: Tacoma Power (Tacoma) has reviewed the fifteen (15) Hatchery and Genetic Management Plans (HGMPs) for the Cowlitz River Salmon and Trout Hatchery programs currently available for public review. Many of the comments submitted by Tacoma on the Cowlitz spring Chinook program can be applied to the other Cowlitz HGMPs. We would ask WDFW to do so were applicable. The format and content in certain sections for the Cowlitz HGMPs is identical and the WDFW can apply the comments submitted for the spring Chinook program to the identical sections in the other Cowlitz HGMPs.

WDFW General Response: A final Fisheries and Hatchery Management Plan (FHMP) draft has been submitted to the Federal Energy Regulatory Commission (FERC) by Tacoma Power as stipulated under Section 8 of the Cowlitz River Hydroelectric Project Settlement Agreement (SA) dated August 10, 2000. FERC is in the process of reviewing the document and will make the final determination as to what components will become part of the license. WDFW, and others have submitted comments to Tacoma and FERC expressing several points of disagreement with the final draft FHMP. At such time that FERC makes their determination, those elements will become part of the SA. There are certain timelines for implementation described in the Plan for those changes. Appropriate changes in fish production levels will be initiated once the FHMP is finalized.

Cowlitz River Spring Chinook

Section 1.6

Type of Program – A definition of an *Integrated Harvest Program* is needed. The program as described is not an *Integrated Program* as described by the Hatchery Science Review Group (HSRG). The program more closely resembles a *Segregated Program* per the HSRG.

WDFW Response: See WDFW General Response (above).

Section 1.7

Purpose (Goal) of Program - The program goal in the Final 2004 Cowlitz River Fisheries and Hatchery Management Plan (FHMP) does not include the production of juveniles for upper basin recovery. The FHMP very specifically recommends against continuing with juvenile hatchery releases in the upper Cowlitz River basins.

WDFW Response: The NOAA prescribed format for HGMPs requires a description of the existing program. WDFW believes that NOAA needs an accurate description of the existing program in order to make a determination on the impacts. As shown below, in part, the description of the Cowlitz Spring chinook program found in the HGMP does describe the future goals under the FHMP.

“Under the new license, the primary objective of the new Cowlitz River Hydroelectric Project Settlement Agreement is ecosystem integrity and the restoration and recovery of wild, indigenous salmonid runs, including ESA-listed and unlisted stocks, to harvestable levels (FERC No. 2016, August 2004). River objectives above Mayfield Dam will be achieved through the reintroduction of Chinook, coho, steelhead and cutthroat into the upper Cowlitz River above Lake Scanewa and Tilton River (Mayfield Lake) basins. In addition, habitat improvements are planned to increase fish passage/collection efficiencies at key locations in the Cowlitz River Basin to increase fish survival through the Project area.”

“This program will be providing adults and *if needed*, (emphasis added) continued fingerlings for upriver recovery goals as outlined in the Final 2004 Cowlitz River Fisheries and Hatchery Management Plan (FHMP).” (Spring Chinook; Phase 2 Objectives, Item 2) of the FHMP.”

By listing both the current and potential future programs, WDFW hopes to reduce the number of HGMP modifications needed over time, while providing NOAA Fisheries with an accurate description of the program for their analysis.

Section 1.8

Justification for the program - Tacoma Power (Tacoma) has recently filed a resource paper entitled *Proposed Cowlitz Complex Integrated and Segregated Hatchery Program, May 2005* with the Federal Energy Regulatory Commission (FERC) and the resource agencies. This paper proposes a schedule for changing the Cowlitz hatchery programs from segregated to integrated programs, starting with the sea-run cutthroat trout stock.

WDFW Response: Comment noted.

The hatchery production levels post-rebuild (>2008) for the Cowlitz hatcheries are already established in the FHMP. The WDFW proposal to continue with marked fry and fingerling plants in the upper Cowlitz River basin is counter to the recommendations in the FHMP that WDFW assisted in developing.

WDFW Response: By listing both the current and potential future programs, WDFW hopes to reduce the number of HGMP modifications needed over time, while providing NOAA Fisheries with an accurate description of the program for their analysis. (see above).

Similarly, the WDFW proposal to continue transporting all adult spring Chinook above hatchery needs (AHN) into the upper Cowlitz River basins is counter to the recommendations in the FHMP. The FHMP recommends limits on the number of hatchery-origin adults released in the upper river basins while attempting to re-establish a self sustaining run of spring Chinook.

WDFW Response: See WDFW General Response above.

Spring Chinook releases into the lower Cowlitz River from the hatchery are released at 5, 8 and 16 fish per pound per the current WDFW Brood Document.

WDFW Response: WDFW is unsure of the nature of the above comment: Section 1.11.2 lists the size of spring chinook juveniles at release which match the above.

Section 1.9

List of program “Performance Standards” – The FHMP also contains performance standards related to the Cowlitz hatcheries.

WDFW Response: Comment noted. The Performance Standards in the FHMP were referenced in the document: (see below): From Section 1.9

“Note: Performance Standards below pertain to the hatchery production at Cowlitz Salmon Hatchery only and do not contain complete indicators for the upriver reintroduction program. For further information on upriver performance indicators and standards, refer to the Final Draft FHMP (August 2004).”

Section 1.10

Performance Indicator-Support Upper Cowlitz basin restoration and recovery – There are no fry/fingerling release goals established by the Cowlitz FTC. All FTC recommendations are included in the FHMP and the comments upon the plan.

WDFW Response: The production of fry/fingerling spring chinook is on an *as needed bases* (emphasis added) and is described in the Spring Chinook; Phase 2 Objectives, Item 2) of the FHMP.

“2) Implement a juvenile supplementation program in the Tilton River and upper Cowlitz River.”

Performance Indicator- Assure that hatchery operations support Columbia River fish Mgt. Plan... – The escapement level of 3,690 at current production levels is not supported in this plan. Elsewhere in this HGMP it is stated 2,000 hatchery and natural origin fish are needed for the upper basin escapement, 712 fish are needed for

hatchery smolt production and 372 adults are needed for other production needs. In addition, a 10-year average of a 0.4 per cent smolt-to-adult survival rate (SAR) as a goal is too conservative. Hatchery operations, river management and harvest management actions can be shaped to improve this SAR regardless of ocean and lower Columbia River conditions.

WDFW Response: Comment noted.

Performance Indicator- Ensure hatchery operations comply with state and federal water quality standards... – Tacoma Power holds the water rights for the Cowlitz Salmon Hatchery, **not** the WDFW. WDFW and the Washington Department of Ecology (WDOE) ensure the water right permit compliance at the Cowlitz hatcheries.

WDFW Response: The document will be altered to reflect this fact.

Section 1.11

Original WDFW/TPU mitigation goal – It is irrelevant to express the current program performance in comparison to the original mitigation goal, as those goals expired with the expiration of the original hydroelectric project license for the Cowlitz Project on December 31, 2001. Current (and future) performance is defined by the production levels from the hatcheries and the progress towards the restoration of self-sustaining stocks of naturally produced salmonids in the Cowlitz River basin.

WDFW Response: It appears this comment is relevant to Section 1.12, rather than Section 1.11. WDFW believes it is important to describe the current adult performance in relation to historical adult production for clarity. A similar approach was taken when describing smolt to adult performance. This section will be reworded to describe historical adult production without referencing the expired mitigation agreement.

Section 1.16.2

Under Note: – Define “management”. Does this mean the WDFW Fish Program or WDFW in general?

WDFW Response: Management is defined as WDFW, not specifically the Fish Program.

Modifications of hatchery practices or reductions in lower river production – this comment that these factors must be evaluated is consistent with the FHMP. The reduction in hatchery production for the lower Cowlitz River is proposed in the FHMP post-remodel Cowlitz Complex production table (Appendix 5.).

WDFW Response: Comment noted.

Potential Reforms and Investments: Chapter 6.0 of the FHMP contains an adaptive management plan (AMP) that it is to be conducted by policy and technical teams to implement and learn by doing the tasks in the FHMP.

WDFW Response: Comment noted.

Section 2.2.2

Status of ESA-listed salmonid population(s) affected by the program. – The minimum abundance targets (500 adults for all indigenous salmonids) are levels set by the National Marine Fisheries Service (NMFS) and the U.S. Fish and Wildlife Service (USFWS) **not** by Tacoma Power. The authorship of that section of the FHMP was specifically reserved for and fulfilled by the federal fisheries agencies.

WDFW Response: Comment noted. The document will be altered to reflect this fact.

Table 4 and text – The Chinook production from the upper Cowlitz River basins are not smolts, rather best expressed as pre-smolts. All other downstream migrants listed in Table 4 would be smolts.

WDFW Response: Comment noted. While the size of the juvenile spring chinook produced in the upper river is less than those released from the hatchery, both the condition factor (K), and the behavior, downstream migration, would indicate a “smolt”. In addition, multiple life stage trajectories (yearling and sub-yearling smolts) are known to occur in spring chinook, including Cowlitz spring chinook.

Table 7- completed numbers for adult coho salmon are available in the Cowlitz Salmon and Trout Hatchery annual reports (WDFW and Tacoma, June 2003 and August 2004).

WDFW Response: Comment noted. Updated coho numbers will be included in the document.

Lower Columbia River Coho (Oncorhynchus kisutch) – What is the reference for the Northwest Power Planning Council model that estimates smolt production capacity of 155,018 coho smolts above Cowlitz Falls? The WDFW model used in the *Cowlitz Falls Project Fisheries Management Plan: Anadromous Fish Reintroduction Program, December 1993* estimates an upper Cowlitz River basin coho smolt production capacity of 628,000.

WDFW Response: Comment noted. A more complete reference will be added to the text.

Section 2.2.3

Release: Hatchery Production/Density-Dependent Effects: – Future lower Cowlitz River production levels are dependent upon the application of a credit mechanism

specifically included in the Cowlitz Project Settlement Agreement (SA), and included in the FERC license for the Cowlitz Project. The development and application of this credit mechanism is to be done in collaboration with the Cowlitz Fisheries Technical Committee (FTC) **not** just the WDFW. The WDFW has representation on the FTC.

WDFW Response: Comment noted. The statement: “Lower river production is also dependent on agreement of future upriver credit mechanisms between WDFW and (emphasis added) Tacoma Power (Section 3.7).” will be modified to reflect the role of the Cowlitz Fisheries Technical Committee (FTC).

Table 12 and text – The Chinook production from the upper Cowlitz River basins are not smolts, rather best expressed as pre-smolts. All other downstream migrants listed in Table 12 would be smolts. Note the size of hatchery release smolts (136mm – 200mm) exceeds the sizes of Chinook smolts from the upper basin released in the lower Cowlitz River from 1997-2004.

WDFW Response: Comment noted. While the size of the juvenile spring chinook produced in the upper river is less than those released from the hatchery (as noted in comment above), both the condition factor (K), and the behavior, downstream migration, would indicate a “smolt”. In addition, multiple life stage trajectories (yearling and sub-yearling smolts) are known to occur in spring chinook, including Cowlitz spring chinook.

Provide projected annual take levels for listed fish by life stage (juvenile and adult) quantified (to the extent feasible) by the type of take resulting from the hatchery program (e.g. capture, handling, tagging, injury, or lethal take). – Due to the highly uncertain nature of the indirect take by hatchery releases and the inability to quantify those factors hatchery program releases should be managed in a highly conservative manner. The FHMP takes this conservative approach to lower river production levels in the future due to this scientific uncertainty.

WDFW Response: Comment noted.

Section 3.2

List all existing cooperative agreements, memoranda of understanding, memoranda of agreement, or other management plans or court orders under which the program operates. – It is irrelevant to list the original mitigation agreement, as that agreement expired with the expiration of the original hydroelectric project license for the Cowlitz Project on December 31, 2001. Much more detail should be listed under the FHMP as that is the most relevant current plan put forth for the operation of the Cowlitz hatcheries. Current (and future) hatchery performance is defined by the production levels from the hatcheries, and the progress towards the restoration of self-sustaining stocks of naturally produced salmonids in the Cowlitz River basin.

WDFW Response: Comment noted. Addition text will be added to the document describing the FHMP.

Section 3.3

Relationship to harvest objectives. – Harvest restrictions on spring Chinook are proposed in the FHMP if the monitoring study results indicate fishing mortality on naturally-produced spring Chinook exceeds 4.0 per cent.

WDFW Response: Comment noted.

Section 5.1

Broodstock collection facilities (or methods) – The circular separator tanks (n = 6) are 13.5' in width (diameter) with an available flow rate of 800 gpm.

WDFW Response: Comment noted. The document will be altered to reflect these facts.

Section 5.4

Incubation facilities – The ConWed substrate placed in each vertical incubator tray after shocking and picking the eggs is to discourage excessive swimming and to provide the hatched salmonid fry with a tactile environment prior to swim-up.

WDFW Response: Comment noted. The document will be altered to reflect this fact.

Section 7.5

Disposition of hatchery-origin fish collected in surplus of broodstock needs – The FHMP recommends the release of all adult spring Chinook in the upper Cowlitz River at a single release location close to the confluence of the Cowlitz and Cispus rivers so the adult fish can select the sub-basin. The FHMP does have an adaptive management plan that could consider an alternative distribution of adult Chinook in the upper basin.

WDFW Response: Comment noted.

Current fish passage survival (FPS as defined in the SA and Cowlitz license article 1 is currently 47.2 per cent, which exceeds the restriction on placing hatchery-origin adult spring Chinook upstream. Thus hatchery-origin spring Chinook releases in the upper Cowlitz River will be limited at the start of the implementation of the FHMP.

WDFW Response: Comment noted.

Section 7.6

Fish transportation and holding methods – Under Equipment Type Tacoma has three (3) tanker trucks with 1,500 gallon capacity available for transporting adult and juvenile fish on the Cowlitz Project.

WDFW Response: Comment noted. The document will be altered to reflect this fact.

Section 7.9

Indicate risk aversion measures that will be applied to minimize the likelihood for adverse genetic or ecological effects to listed natural fish resulting from the broodstock collection program. – Fifth bullet. Clarify which year the spring Chinook tested positive for IHN.

WDFW Response: Comment noted. The document will be altered to clarify this point.

Section 9.1.1

Number of eggs taken and survival rates to eye-up and/or ponding. – The most recent version of the Draft Brood Document for the Cowlitz Salmon Hatchery lists the egg take goal for spring Chinook at 1,523,000.

WDFW Response: Comment noted. The document will be altered to reflect this fact.

Section 10.8

Disposition plans for fish identified at the time of release as surplus to programmed or approved levels – The concept of releasing juvenile spring Chinook that exceed certain pathogen (*Ceratomyxa shasta*) levels, and therefore deemed unacceptable in other river basins, into the upper Cowlitz River basin where natural stock restoration is underway is unacceptable to Tacoma. The FHMP recommends ending juvenile releases in the upper basin for this, and other, reasons.

WDFW Response: Comment noted.

Section 10.11

Indicate risk aversion measures that will be applied to minimize the likelihood for adverse genetic and ecological effects to listed fish resulting from fish releases – Fifth bullet. In addition to the innovative measures listed, the concept of mimicking the size at migration, and timing of migrant (*sic*) for natural outmigrants will be attempted.

WDFW Response: Comment noted. The document will be altered to reflect this fact.

Section 11.1.1

Describe plans and methods proposed to collect data necessary to respond to each “Performance Indicator” identified for the program – The smolt trap at Mayfield Dam receives emigrant juveniles from the Tilton River watershed **and** the upper Cowlitz River basin (primarily Chinook).

WDFW Response: Comment noted. The document will be altered to reflect this fact.

Tacoma has not provided any funding to WDFW specifically to monitor the productivity of spring Chinook, late winter steelhead, coho and cutthroat trout. The

Bonneville Power Administration (BPA) funds the WDFW to evaluate the productivity of these species in the upper Cowlitz River basins.

WDFW Response: Comment noted. The document will be altered to reflect this fact.

Tacoma is not currently providing any funding to the WDFW to 1.) Monitor warm water fish population compositions and abundance surveys on Mayfield Lake and Swofford Pond, or 2.) To evaluate the reintroduction of coho, steelhead and cutthroat in the Tilton River.

WDFW Response: Comment noted. The document will be altered to reflect this fact.

Section 12.1

Objective or purpose – A large evaluation program conducted by the WDFW Fish Pathology section entitled **Spring Chinook Size at Release Evaluation** should be included in this list. This is an ongoing research project expected to continue through brood year 2005 and adult returns through 2009.

WDFW Response: Comment noted. The document will be altered to include this study.

Section 13

Attachments and Citations – A reference to Tacoma Power was not included in this list.

WDFW Response: WDFW is unclear as to what specific references are lacking.

Cowlitz River Fall Chinook

GENERAL COMMENTS: Tacoma has reviewed the fifteen (15) Hatchery and Genetic Management Plans (HGMP) for the Cowlitz River Salmon and Trout Hatchery programs currently available for public review. Many of the comments submitted by Tacoma on the other programs can be applied to all Cowlitz HGMPs. The format and content in certain sections for the Cowlitz HGMPs is identical and the WDFW can apply the comments submitted for each Cowlitz program to the identical sections in the other Cowlitz HGMPs.

WDFW General Response: A final Fisheries and Hatchery Management Plan (FHMP) draft has been submitted to the Federal Energy Regulatory Commission (FERC) by Tacoma Power as stipulated under Section 8 of the Cowlitz River Hydroelectric Project Settlement Agreement (SA) dated August 10, 2000. FERC is in the process of reviewing the document and will make the final determination as to what components will become part of the license. WDFW, and others have submitted comments to Tacoma and FERC expressing several points of

disagreement with the final draft FHMP. At such time that FERC makes their determination, those elements will become part of the SA. There are certain timelines for implementation described in the Plan for those changes. Appropriate changes in fish production levels will be initiated once the FHMP is finalized.

Section 1.12

Table 2 – The 2001 hatchery return of fall Chinook to the Cowlitz Salmon Hatchery was 8,062 adults.

WDFW Response: Comment noted. The document will be altered to reflect this fact.

Section 3.1

Describe alignment of the hatchery program with any ESU-wide hatchery plan or other regionally accepted policies... – The Wild Salmonid Policy should be included in the list of plans that govern WDFW Columbia River hatchery operations.

WDFW Response: Comment noted. The document will be altered to reflect this fact.

Cowlitz River Type N Coho

GENERAL COMMENTS: Tacoma has reviewed the fifteen (15) Hatchery and Genetic Management Plans (HGMP) for the Cowlitz River Salmon and Trout Hatchery programs currently available for public review. Many of the comments submitted by Tacoma on the other programs can be applied to all Cowlitz HGMPs. The format and content in certain sections for the Cowlitz HGMPs is identical and the WDFW can apply the comments submitted for each Cowlitz program to the identical sections in the other Cowlitz HGMPs.

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Section 1.12

Table 2 – The hatchery returns of adult coho salmon to the Cowlitz Salmon Hatchery were

:	1999 – 40,321
	2000 – 49,341
	2001 – 79,395

2002 – 85,632
2003 – 39,636
2004 – 49,673

WDFW Response: Comment noted. The document will be altered to reflect these facts.

Section 13

Attachments and Citations – A reference to DeVore (1987) was not included in this list.

WDFW Response: Comment noted. The document will be altered to include this reference.

Cowlitz River Early Winter Steelhead

GENERAL COMMENTS: Tacoma has reviewed the fifteen (15) Hatchery and Genetic Management Plans (HGMP) for the Cowlitz River Salmon and Trout Hatchery programs currently available for public review. Many of the comments submitted by Tacoma on the other programs can be applied to all Cowlitz HGMPs. The format and content in certain sections for the Cowlitz HGMPs is identical and the WDFW can apply the comments submitted for each Cowlitz program to the identical sections in the other Cowlitz HGMPs.

WDFW General Response: A final Fisheries and Hatchery Management Plan (FHMP) draft has been submitted to the Federal Energy Regulatory Commission (FERC) by Tacoma Power as stipulated under Section 8 of the Cowlitz River Hydroelectric Project Settlement Agreement (SA) dated August 10, 2000. FERC is in the process of reviewing the document and will make the final determination as to what components will become part of the license. WDFW, and others have submitted comments to Tacoma and FERC expressing several points of disagreement with the final draft FHMP. At such time that FERC makes their determination, those elements will become part of the SA. There are certain timelines for implementation described in the Plan for those changes. Appropriate changes in fish production levels will be initiated once the FHMP is finalized.

Section 1.8

Justification for the Program – Washington Department of Game records from 1961-62 through 1966-67 (prior to the construction of the Cowlitz Trout Hatchery) show that an annual average of 100 steelhead were harvested per year in the Cowlitz River during the June to October time period. Tacoma Power records from the same time period show that an annual average of 120 steelhead returned to the Cowlitz River counting facilities. The summer-run steelhead run was extremely sub-dominant on the Cowlitz River prior to the Cowlitz Trout Hatchery construction, and may have been entirely comprised of stray steelhead from other lower Columbia River tributaries.

WDFW Response: Comment noted. WDFW concurs with the sub-dominant nature of the Cowlitz Summer run steelhead and discusses that point in both the Early Winter and the Summer Run Steelhead HGMPs for this facility. Neither WDFW (SaSI 2002), or the Population Identification Subcommittee of the Willamette/Lower Columbia Technical Recovery Team (WLC-TRT) recognize a summer run component in the Cowlitz River system. HGMPs sections such as those dealing with steelhead (see below) will be changed to only recognizing winter run stocks as identified in the upper and lower Cowlitz River system by the WLC-TRT.

“The Cowlitz River Basin supported both winter and summer steelhead runs, although historically, winter steelhead were the dominant form.” (Section 1.8; Cowlitz Early Winter Steelhead HGMP).

“The Cowlitz River Basin supported mostly winter steelhead runs, although historically some summer timed fish were recorded although only 75 of 54,044 steelhead counted past Mayfield Dam from 1962 through 1966 were observed from July through October (Thompson and Rothfus 1969).” (Section 1.8; Cowlitz Summer Steelhead HGMP)

Hatchery production for all species will be established in the FHMP after review and recommendation from the Cowlitz FTC. The WDFW, NMFS, USFWS, Yakama Tribe and Trout Unlimited/American Rivers and Tacoma are the members of the FTC.

WDFW Response: Comment noted.

Section 1.16.1

Brief Overview of Key Issues – The impacts of the early winter-run steelhead hatchery smolts in the lower Cowlitz River will be upon all ESU listed stocks – Chinook, late winter steelhead and chum salmon as well as coho salmon.

WDFW Response: Comment noted. The section 1.16 did not include this language although in other sections of the HGMP (sections, 2.2.2 and 2.2.3), chum are identified as stocks listed as being indirectly impacted by the early winter steelhead program.

Section 1.16.2

Alternative 1: Eliminate the program. – The primary goals of the FHMP will still be met even if the early winter-run steelhead hatchery program were eliminated. Significant salmonid harvest opportunities will remain in the Cowlitz River basin without the presence of the early winter-run steelhead run.

WDFW Response: Comment noted.

Section 2.2.3

Predation Risk Factors: Residualism: – The current practice at the Cowlitz Trout Hatchery is to force out all steelhead remaining in the lakes (5 acre ponds), thus residualized or non-migratory smolts are not planted into anadromous waters, rather they are released directly into the lower Cowlitz River.

WDFW Response: Comment noted. WDFW assumed the comment should read: “non-migratory smolts are not planted into non-anadromous waters, rather they are released directly into the lower Cowlitz River.” The document will be altered to reflect this fact.

Section 3.2

List all existing cooperative agreements, memoranda of understanding, memoranda of agreement, or other management plans or court orders under which the program operates. – It is irrelevant to list the original 1967 mitigation agreement, as that agreement was for salmon only, and did not address steelhead or trout mitigation on the Cowlitz Hydroelectric Project. Also that agreement expired with the expiration of the original hydroelectric project license for the Cowlitz Project on December 31, 2001. Much more detail about the steelhead program should be listed under the FHMP as that is the most relevant current plan put forth for the operation of the Cowlitz Trout Hatchery.

WDFW Response: Comment noted. Addition text will be added to the document describing the FHMP in this section.

Cowlitz River Late Winter Steelhead

GENERAL COMMENTS: Tacoma has reviewed the fifteen (15) Hatchery and Genetic Management Plans (HGMP) for the Cowlitz River Salmon and Trout Hatchery programs currently available for public review. Many of the comments submitted by Tacoma on the other programs can be applied to all Cowlitz HGMPs. The format and content in certain sections for the Cowlitz HGMPs is identical and the WDFW can apply the comments submitted for each Cowlitz program to the identical sections in the other Cowlitz HGMPs.

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Section 1.12

Table 2 – The late winter-run hatchery steelhead plants should be included in this table for the years 2001 to 2004. The contents of the table are miss-leading without including those releases, or alternatively, the table does not reflect the necessary information to report on the late winter-run steelhead stock in the Cowlitz River.

WDFW Response: Comment noted. The data for 2001 through 2004 Late Winter Steelhead release numbers will be added to Table 2.

Section 9.2.4

Growth information table – The Cowlitz Trout Hatchery is unable to achieve a final weight of 5.0 fish per pound (fpp) by the April release date. Cowlitz Complex annual reports for 2002 and 2003 show the final release sizes for yearling late winter-run steelhead smolts are 8.0 – 9.3 fpp.

WDFW Response: Comment noted. The target goal for late winter steelhead is 5.5 fpp. Late Winter Steelhead are usually released on or about May 15th. The document will be altered to reflect this fact.

Section 11.1.1

Describe plans and methods proposed to collect data necessary to respond to each “Performance Indicator” identified for the program. – After extensive Cowlitz FTC and multiple public review and comment opportunities, the Cowlitz Fisheries and Management Plan (FHMP) was finalized and filed with FERC in August 2004.

WDFW Response: Comment noted. The document will be altered to reflect this fact.

Section 13

Attachments and Citations – The references to Groot and Margolis (1991) and to Rawding (2004) are not included in this list.

WDFW Response: Comment noted. The document will be altered to include these references.

Cowlitz River Summer Steelhead

GENERAL COMMENTS: Tacoma has reviewed the fifteen (15) Hatchery and Genetic Management Plans (HGMP) for the Cowlitz River Salmon and Trout Hatchery programs currently available for public review. Many of the comments submitted by Tacoma on the other programs can be applied to all Cowlitz HGMPs. The format and content in certain sections for the Cowlitz HGMPs is identical and the WDFW can apply the comments submitted for each Cowlitz program to the identical sections in the other Cowlitz HGMPs.

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Section 1.8

Justification for the program – The concerns about genetic introgression effects of the hatchery summer steelhead stock in the lower Cowlitz River are sufficient that the genetic analysis necessary to discern these effects should be conducted. The FHMP evaluation plan includes a lower river steelhead genetic study.

WDFW Response: Comment noted.

Section 13

Attachments and Citations – The references to Cannamela (1993) and to Jonasson et al (1995) are not included in this list.

WDFW Response: Comment noted. The document will be altered to include these references.

Cowlitz River Sea-Run Cutthroat

GENERAL COMMENTS: Tacoma has reviewed the fifteen (15) Hatchery and Genetic Management Plans (HGMP) for the Cowlitz River Salmon and Trout Hatchery programs currently available for public review. Many of the comments submitted by Tacoma on the other programs can be applied to all Cowlitz HGMPs. The format and content in certain sections for the Cowlitz HGMPs is identical and the WDFW can apply the comments submitted for each Cowlitz program to the identical sections in the other Cowlitz HGMPs.

WDFW General Response: A final Fisheries and Hatchery Management Plan (FHMP) draft has been submitted to the Federal Energy Regulatory Commission (FERC) by Tacoma Power as stipulated under Section 8 of the Cowlitz River Hydroelectric Project Settlement Agreement (SA) dated August 10, 2000. FERC is in the process of reviewing the document and will make the final determination as to what components will become part of the license. WDFW, and others have submitted comments to Tacoma and FERC expressing several points of disagreement with the final draft FHMP. At such time that FERC makes their determination, those elements will become part of the SA. There are certain

timelines for implementation described in the Plan for those changes. Appropriate changes in fish production levels will be initiated once the FHMP is finalized.

Section 1.8

Justification for the program – The integrated sea-run cutthroat program at the Cowlitz Trout Hatchery will begin upon the remodel of the facility and with whatever numbers of wild fish are available for broodstock. Thus the program may be initiated at less than 50,000 smolts due to broodstock limitations. The estimated return of 5,000 adults to the hatchery in the short-term is not supported by long-term survival rates (see Table 2). The estimated return level would be approximately 2,000 adults per year.

WDFW Response: Comment noted.

The August 9, 1967 mitigation agreement between Tacoma and the State of Washington **did not** include the Cowlitz Trout Hatchery. Separate agreements dated June 26, 1986 and November 23, 1988 between Tacoma and the State of Washington established and confirmed the previous mitigation levels of 38,600 fish for the Cowlitz Trout Hatchery.

WDFW Response: Comment noted. The document will be altered to reflect this fact.

Section 1.16.1

Brief Overview of Key Issues – The long-term objective of the integrated sea-run cutthroat program at the Cowlitz Trout Hatchery is **not** to produce smolts, rather it is to assist in and recovery the natural-origin cutthroat populations in the Cowlitz River. The FHMP calls for an ending of the integrated program of sea-run cutthroat trout at the hatchery when the self-sustaining adult level goals are achieved.

WDFW Response: See WDFW General Response, above.

Section 5.6

Acclimation/release facilities – The size of the smaller lake at the Cowlitz Trout Hatchery is 3.4 acres. It was reduced in size from 5.0 acres to accommodate a pollution abatement pond constructed at one end of the lake.

WDFW Response: Comment noted. The document will be altered to reflect this fact.

Mayfield Lake Rainbow Trout

GENERAL COMMENTS: Tacoma has reviewed the fifteen (15) Hatchery and Genetic Management Plans (HGMP) for the Cowlitz River Salmon and Trout Hatchery programs currently available for public review. Many of the comments submitted by Tacoma on the other programs can be applied to all Cowlitz HGMPs. The format and content in certain sections for the Cowlitz HGMPs is identical and the WDFW can apply the

comments submitted for each Cowlitz program to the identical sections in the other Cowlitz HGMPs.

WDFW General Response: A final Fisheries and Hatchery Management Plan (FHMP) draft has been submitted to the Federal Energy Regulatory Commission (FERC) by Tacoma Power as stipulated under Section 8 of the Cowlitz River Hydroelectric Project Settlement Agreement (SA) dated August 10, 2000. FERC is in the process of reviewing the document and will make the final determination as to what components will become part of the license. WDFW, and others have submitted comments to Tacoma and FERC expressing several points of disagreement with the final draft FHMP. At such time that FERC makes their determination, those elements will become part of the SA. There are certain timelines for implementation described in the Plan for those changes. Appropriate changes in fish production levels will be initiated once the FHMP is finalized.

Section 1.8

Justification for the program – Plants of rainbow trout to Mayfield Lake were **not** part of the agreement between Tacoma and the State of Washington in 1986 (nor the supplemental agreement signed in 1988). All resident fish stocking references in those two agreements were into Riffe Lake above Mossyrock Dam. WDFW began Mayfield Lake resident fish plants in 1994 without consulting Tacoma. Prior to that year mitigation trout plants were into Cowlitz River basin streams and small ponds.

WDFW Response: Comment noted. The document will be altered to reflect this fact.

Mayfield Lake is a migration corridor for all downstream juvenile salmonid migrants from the Tilton River system, as well as from above Mossyrock Dam in the Cowlitz River system. Besides steelhead (the ESA-listed late winter-run stock), Chinook (ESA-listed), coho and cutthroat trout juveniles are present migrating through Mayfield Lake.

WDFW Response: Comment noted.

Section 1.14

Expected duration of program – The future of the Mayfield Lake rainbow trout program will be determined by the implementation actions included in the FHMP, not as the result of discussions between Tacoma and WDFW.

WDFW Response: Comment noted. The language will include the FTC which will determine implementation actions in the FHMP and also be involved with decisions on future resident trout plants in the system.

Section 1.16.2

DRAFT ALTERNATIVE 1: Eliminate the resident trout program – *Cons-* The Mayfield Lake rainbow trout program is not a longstanding angling harvest opportunity in Lewis County. The WDFW began the program with plantings only in

1994. The WDFW could terminate the program and replace the angling opportunity by planting the rainbow trout in non-anadromous waters, and avoiding all unnecessary impacts to anadromous fish.

WDFW Response: Comment noted.

DRAFT ALTERNATIVE 3: Review the success or failure of the program – Pros- The approach to evaluation, indeed the need for evaluations of the rainbow trout program, is not supported by all members of the Cowlitz FTC. Tacoma, American Rivers, Trout Unlimited and many other wild fish advocacy groups support terminating the rainbow trout program in Mayfield Lake.

WDFW Response: Comment noted. The Settlement Agreement calls for a review of the resident trout program after 2004 and the FTC has approved a comprehensive study to investigate competition and predation issues. Tacoma has declined to fund such a study.

Section 2.2.3

DISEASE - The Mayfield Lake rainbow trout program in the net pens represents a disease risk to the large salmonid hatcheries downstream on the Cowlitz River – the Cowlitz Salmon Hatchery and the Cowlitz Trout Hatchery.

WDFW Response: Comment noted.

Section 3.1

Describe alignment of the hatchery program with any ESU-wide hatchery plan or other regionally accepted policies... - Tacoma will follow the dictates of the FHMP implementing actions as required by the FERC order addressing the FHMP. The future of the Mayfield Lake rainbow trout program will be determined by the implementation actions included in the FHMP, not as the result of discussions between Tacoma and WDFW.

WDFW Response: Comment noted. The language will include the FTC which will determine implementation actions in the FHMP and also be involved with decisions on future resident trout plants in the system.

Section 3.3

Relationship to harvest objectives – All WDFW policies listed and detailed in this section support terminating the Mayfield Lake rainbow trout program to protect ESA-listed stocks, and given the uncertainties that exist without evaluation results.

WDFW Response: Comment noted. The Settlement Agreement calls for a review of the resident trout program after 2004 and the FTC has approved a comprehensive study to investigate competition and predation issues. Tacoma has declined to fund such a study.

Section 4.1

Provide a quantitative and narrative description of the water source (spring, well, surface), water quality profile and natural limitations to production attributable to the water source. – The Friends of the Cowlitz (FOC) Mayfield Lake net pen complex are permitted by Tacoma. The permit expires on June 30, 2005 and the pens are required to be removed from Mayfield Lake by that date.

WDFW Response: Comment noted. The document will be altered to reflect this fact.

Skate Creek Rainbow Trout Plants

GENERAL COMMENTS: Tacoma has reviewed the fifteen (15) Hatchery and Genetic Management Plans (HGMP) for the Cowlitz River Salmon and Trout Hatchery programs currently available for public review. Many of the comments submitted by Tacoma on the other programs can be applied to all Cowlitz HGMPs. The format and content in certain sections for the Cowlitz HGMPs is identical and the WDFW can apply the comments submitted for each Cowlitz program to the identical sections in the other Cowlitz HGMPs.

WDFW General Response: A final Fisheries and Hatchery Management Plan (FHMP) draft has been submitted to the Federal Energy Regulatory Commission (FERC) by Tacoma Power as stipulated under Section 8 of the Cowlitz River Hydroelectric Project Settlement Agreement (SA) dated August 10, 2000. FERC is in the process of reviewing the document and will make the final determination as to what components will become part of the license. WDFW, and others have submitted comments to Tacoma and FERC expressing several points of disagreement with the final draft FHMP. At such time that FERC makes their determination, those elements will become part of the SA. There are certain timelines for implementation described in the Plan for those changes. Appropriate changes in fish production levels will be initiated once the FHMP is finalized.

Section 1.14

Expected duration of program – The future of the Skate Creek rainbow trout planting program will be determined by the implementation actions included in the FHMP, not as the result of discussions between Tacoma and WDFW.

WDFW Response: Comment noted. The language will include the FTC which will determine implementation actions in the FHMP and also be involved with decisions on future resident trout plants in the system.

Section 2.2.3

HARVEST AND FISHING MORTALITY – Prior to and during the 2001 survey of Skate Creek trout stomachs the incidence and density of salmonid prey species may have been very low due to low stocking levels and few steelhead adults released

above Cowlitz Falls Dam (see Table 3). This may account for the low incidence of salmonid prey items found during the survey.

WDFW Response: Comment noted.

Tilton River Rainbow Trout Plants

GENERAL COMMENTS: Tacoma has reviewed the fifteen (15) Hatchery and Genetic Management Plans (HGMP) for the Cowlitz River Salmon and Trout Hatchery programs currently available for public review. Many of the comments submitted by Tacoma on the other programs can be applied to all Cowlitz HGMPs. The format and content in certain sections for the Cowlitz HGMPs is identical and the WDFW can apply the comments submitted for each Cowlitz program to the identical sections in the other Cowlitz HGMPs.

WDFW General Response: A final Fisheries and Hatchery Management Plan (FHMP) draft has been submitted to the Federal Energy Regulatory Commission (FERC) by Tacoma Power as stipulated under Section 8 of the Cowlitz River Hydroelectric Project Settlement Agreement (SA) dated August 10, 2000. FERC is in the process of reviewing the document and will make the final determination as to what components will become part of the license. WDFW, and others have submitted comments to Tacoma and FERC expressing several points of disagreement with the final draft FHMP. At such time that FERC makes their determination, those elements will become part of the SA. There are certain timelines for implementation described in the Plan for those changes. Appropriate changes in fish production levels will be initiated once the FHMP is finalized.

Section 1.14

Expected duration of program – The future of the Tilton River rainbow trout planting program will be determined by the implementation actions included in the FHMP, not as the result of discussions between Tacoma and WDFW.

WDFW Response: Comment noted. The language will include the FTC which will determine implementation actions in the FHMP and also be involved with decisions on future resident trout plants in the system.

END OF COMMENTS

Thank you for this opportunity to comment.

Sincerely,

Mark LaRiviere

Senior Fisheries Biologist

Natural Resources Section

Tacoma Power

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