

## **SULTAN CITY COUNCIL AGENDA ITEM COVER SHEET**

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**ITEM NO:** A-7

**DATE:** October 8, 2009

**SUBJECT:** Jackson Hydroelectric Project Settlement Agreement

**CONTACT PERSON:** Deborah Knight, City Administrator

**ISSUE:**

The issue before the city council is to authorize the Mayor to sign the Settlement Agreement for the Henry M. Jackson Hydroelectric Project (Settlement Agreement).

**STAFF RECOMMENDATION:**

1. Review the Jackson Project Settlement Joint Explanatory Statement (Attachment A)
2. Ask questions regarding the impacts to Sultan and Sultan's obligations under the Agreement
3. Authorize the Mayor to sign the Settlement Agreement for the Henry M. Jackson Hydroelectric Project (Settlement Agreement)

**SUMMARY:**

The Snohomish County Public Utility District No. 1 (PUD) has been working with stakeholders including Sultan and Fire District 5 since 2005 to renew the federal license to operate the PUD hydroelectric dam on the Sultan River.

The City council has discussed the Settlement Agreement at a number of meetings throughout 2009. Most recently, the City passed Resolution 09-14 urging the PUD to consider the impacts on downstream property owners of the Culmback Dam.

The city was notified by e-mail on Tuesday, October 6, 2009 that the Settlement Agreement was finalized. The Agreement will be filed with the Federal Energy Regulatory Commission (FERC) on Tuesday, October 13, 2009. FERC will then begin its internal review of the document and necessary federal public hearings. FERC may not issue a renewed license to operate the project until later in 2010.

In order to be a "partner" to the Agreement, the city must sign the Settlement Agreement and send the signed copy to PUD no later than Friday, October 9, 2009.

The city's off-license agreement with PUD is predicated on the city signing the Settlement Agreement. The city council will review the draft off-license agreement for approval at the council meeting on October 22, 2009. Authorization to sign the Settlement Agreement does not preclude the city from continuing to negotiate the specific details of the off-license agreement.

City staff have provided the 46 page Joint Explanatory Statement (JES) for council review (Attachment A). The JES is the overview of the Settlement Agreement and License Articles. The Settlement Agreement is more than 180 pages. The document of License Articles is 55 pages. These documents are available for review upon request.

## **DISCUSSION:**

The Settlement Agreement includes a number of proposals that may impact the City of Sultan and other downstream property owners:

- Aquatic Resources Committee (ARC) - members of the ARC include the City of Sultan, Tulalip Tribes, National Marine Fisheries, Washington Dept. of Fish and Wildlife, and American White Water. This committee is responsible for assisting in the implementation of aquatic resource related license articles including mitigation at the Marsh Creek slide, white water boating flows in the river, the placement of large woody debris in the portion of the Sultan River in the city limits, and side channel projects on city property.
- Marsh Creek Slide Modification and Monitoring – On December 11, 2004 the slide blocked or reduced the upstream passage of adult salmon. The PUD will work with the ARC to remove and/or modify the slide to improve fish passage.
- Lower water temperatures in the Sultan River to attract more fish.
- Schedule whitewater boating flows in the river under very restricted conditions. Under the License Articles, whitewater flows cannot create a flood situation for downstream property owners within the city limits.
- Enhance aquatic habitat to the lower Sultan River (inside the city limits) by adding large woody debris. Three of the proposed eight structures will be associated with the side channels on city property.
- Side channel projects – Purchase city property and secure easements on city property to reconnect the Sultan River with side channels to improve off-channel habitat.

## **FISCAL IMPACT:**

At Sultan's request, the city is included as a member of the Aquatic Resources Committee.

The city will need to make staff available to attend the ARC meetings to represent Sultan's interests and ensure proposed projects do not negatively impact the city or its residents.

**ALTERNATIVES:**

1. Authorize the Mayor to sign the Settlement Agreement. This action implies the City does not have serious concerns regarding material issues outlined in the Joint Explanatory Statement. The Council is prepared to be a partner to the Agreement and participate as a member of the Aquatic Resources Committee.
2. Do not authorize the Mayor to sign the Settlement Agreement. This action implies the City Council has serious concerns regarding the Settlement Agreement and do not support the city's participation as a partner to the Agreement.

**RECOMMENDED ACTION:**

Authorize the Mayor to sign the Settlement Agreement for the Henry M. Jackson Hydroelectric Project (Settlement Agreement).

**ATTACHMENT**

A – Jackson Project Settlement Joint Explanatory Statement



Commission's jurisdiction and are more appropriately addressed in off-license agreements. These agreements are attached to the Settlement for the Commission's information.<sup>2</sup>

## **II. ACTION SOUGHT FROM THE COMMISSION**

The Settlement Parties request that the Commission issue a new forty-five (45) year License for the Project. The Settlement Parties respectfully request that the Commission accept and incorporate, without material modification, all of the Proposed License Articles in Appendix 1 of the Settlement in the new Project License. The Settlement Parties further request that the Commission not include any other article, term, condition, recommendation or requirement that materially modifies the Proposed License Articles or is otherwise inconsistent with the Settlement. If the new Project License materially modifies the Proposed License Articles, the Settlement includes procedural provisions for dispute resolution and subsequent withdrawal, and the Settlement may be terminated.<sup>3</sup>

## **III. REQUEST FOR TECHNICAL CONFERENCE**

The Settlement Parties recognize that many of the Proposed License Articles included in this filing are highly complex. The Settlement Parties therefore respectfully request that the Commission schedule a technical conference prior to issuing a new Project License, at which any concerns it may have about the Proposed License Articles can be addressed.

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<sup>2</sup> See Settlement Attachments A and B.

<sup>3</sup> See Settlement §§ 5 and 6.

A technical conference would enable the Settlement Parties to explain anything that is unclear, and familiarize Commission Staff with the relationship between specific provisions and the overall Settlement. A conference would also help prevent any misunderstanding of the proposed language and thereby avoid threatening the Settlement. It would be most efficient to address and resolve any of Commission Staff's questions now in a technical conference rather than in lengthy post-license proceedings that result in uncertainty for all the Parties.

#### **IV. BACKGROUND**

The District's current License for the Project, issued by the Federal Power Commission on June 16, 1961,<sup>4</sup> expires on May 31, 2011. After consultation with state and federal resource agencies, Native American tribes, local governments, non-governmental organizations, and members of the public, the District filed a Notice of Intent and Pre-Application Document with the Commission on December 1, 2005. Thereafter, extensive consultation meetings were held, study plans were finalized, and the District filed a preliminary licensing proposal with the Commission pursuant to the Integrated Licensing Process under Part 5 of the Commission's regulations. The District filed its Final License Application ("License Application") on May 29, 2009.

As an outgrowth of these collaborative efforts and conduct of detailed studies, the District and the settlement negotiation group began seeking agreement on protection, mitigation and enhancement ("PM&E") measures for the Project.

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<sup>4</sup> *Pub. Util. Dist. No. 1 of Snohomish County & City of Everett*, 25 F.P.C. 1160 (1961).

Since its commencement in 2004, the process for relicensing the Project has been broad-based, collaborative and representative of a wide array of stakeholder interests, including affected federal and state agencies, local governmental entities, tribal interests, and non-governmental organizations. As a result, the participants in the relicensing process were extensively involved in scoping issues, submitting study requests, formulating study scopes, reviewing study data and commenting on the draft technical reports and Preliminary Licensing Proposal. The Settlement Parties have invested considerable time and resources in finalizing the Settlement. The Settlement represents the culmination of the cooperative effort that began in January 2009 and achieves an overall balance among the interests of the various stakeholders and Project purposes and resources.

## **V. OVERVIEW OF SETTLEMENT**

### **A. Settlement Agreement**

The Settlement Agreement and Proposed License Articles are a comprehensive settlement package that by its terms resolves all relicensing issues among the Settling Parties associated with the District's pending License Application for continued operation of the Project. The package has been carefully crafted to be consistent with the Commission's Policy Statement on Hydropower Licensing Settlements<sup>5</sup> so that the Commission may adopt the Proposed License Articles without material modification in the new Project License. The Commission's adoption of the Proposed License Articles without material modification is viewed by the Parties as essential for orderly and timely implementation of the Settlement. The Parties believe that the Settlement is consistent

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<sup>5</sup> Settlements in Hydropower Licensing Proceedings Under Part I of the Federal Power Act, 116 FERC ¶ 61,270 (2006).

with the approach the Commission has taken in other relicensing proceedings involving settlement.

The Settlement will implement a complex and interrelated suite of protection, mitigation and enhancement measures that will result in improved resource conditions and ecological processes in the Sultan River Basin over the term of a new License. These measures, including the resource restoration or enhancement measures that will be undertaken with mitigation funds, implemented in their entirety, will ensure that the Project is operated in a manner consistent with applicable comprehensive plans on file with FERC.

The Settlement also establishes procedural obligations and commitments among the Settlement Parties, such as consultation among Parties, and dispute resolution provisions intended to maintain the collaborative approach during implementation of the new Project License. Such commitments/obligations include:

- Supporting the Settlement Agreement terms in FERC filings and making efforts to act consistently with its terms;
- Settling any inconsistencies, where they arise, through a collaborative process or dispute resolution;
- Committing to resolution of all regulatory reviews in a timely fashion (while respecting the integrity of the review process); and
- Establishing procedures for dispute resolution and License amendments.

The Settlement forms a package that will be incorporated, as appropriate, into the Settlement Parties' recommendations, terms and conditions and prescriptions for the new Project License. There are several provisions which clarify the limits of the Settlement

among the Parties. For example, section 3.2 states that the Settlement does not affect any Party's water rights. Provisions in section 4, pertaining to consultation under the Endangered Species Act and Clean Water Act Section 401, clarify that the consulting agencies retain the ability to take actions that are inconsistent with the Settlement, in keeping with their statutory responsibilities.

Another primary function of the Settlement is to describe how the Parties intend to respond to inconsistencies. These could arise from the Commission issuing a License that omits or alters the Proposed License Articles, from the outcome of the aforementioned regulatory reviews, or from Parties departing from the agreed-upon conditions of the Settlement. While not every change affecting the Settlement can be anticipated, the Settlement does contain specific provisions for responding to particular inconsistencies, and a general commitment that to the extent possible the Parties will strive to preserve the Settlement as filed. In the case of uncertainty, the Parties can utilize the Aquatic Resource Committee ("ARC") to discuss matters, and where appropriate submit issues to dispute resolution. All of these provisions are a means of keeping the Settlement Parties in close collaboration and committed to the Settlement over the course of the License term.

#### B. Proposed License Articles

The Proposed License Articles mainly address flows, fish passage, fish and wildlife habitat enhancement and protection, water quality, municipal water supply, rule curves for reservoir operation, fish supplementation, recreation, historic properties, and noxious weeds.

The flow regime will consist of reach-specific minimum flows for the purposes of anadromous and resident fish spawning and rearing, as well as other flow elements to achieve specific purposes, including: facilitating the outmigration of smolts; upstream migration of spawning adults; achieving geomorphic (physical process) goals and achieving recreational goals. Several elements of the flow regime will remain consistent from year to year and others will be variable in both frequency and magnitude. Decisions regarding the flow regime will be informed by a committee composed of federal and state agencies, the Tulalip Tribes, and the Licensee. In addition to a combination of channel flushing, maintenance, and forming flows, specific physical and mechanical improvements will occur through requirements that the Licensee improve heterogeneity of habitat in the mainstem and lateral connectivity. This comprehensive approach will help to ensure that adequate flows will be available to meet the needs of anadromous and resident fish at different times of the year, to support aquatic habitats, and to improve channel function. The Licensee will develop stream flow management and monitoring plans to evaluate the effectiveness of these measures and to provide information needed for adaptive management.

Fish protection, mitigation and enhancement will be accomplished through a number of measures. The above-mentioned flows will support spawning, incubation, rearing and migration and improve water quality. Modifying the City of Everett's Diversion Dam to provide volitional fish passage will support the reintroduction of anadromous fish in the Sultan River above the Diversion Dam. Until volitional fish passage at the Diversion Dam is provided, the Licensee will continue to provide support to WDFW for its Sultan River steelhead planting program. Stringent ramping rates will

protect fry and juvenile salmonids by minimizing the potential for fish stranding. A water temperature conditioning program for water released from Culmback Dam will improve water temperature conditions for aquatic biota within the Sultan River above the Diversion Dam. Habitat enhancement and restoration work will benefit anadromous and resident fish by: improving instream habitat through installation of large woody debris structures; increasing lateral habitat area and connectivity through side-channel enhancement projects; modifying a natural passage impediment to improve upstream migration conditions near Marsh Creek; and implementing other aquatic habitat enhancement projects in the Sultan River basin. The Licensee will monitor the effectiveness of these PM&E measures and determine if modifications may be necessary.

The management of the physical storage capacity of Spada Lake and the hydrology of the Sultan Basin will be accomplished by implementing rule curves that will govern Project operation. The rule curves will allow the Licensee to provide a balance of reliable municipal water supply, instream flows, incidental winter flood storage, higher lake levels for early summer recreation, power production, and prevention or reduction of risk of spill following spawning during both fall and spring.

Wildlife habitat enhancement will be accomplished by implementing the Terrestrial Resource Management Plan (“TRMP”). The TRMP will require the Licensee to manage specific properties for wildlife habitat. The TRMP is attached as Appendix E to the District’s License Application filed on May 29, 2009. Marbled Murrelet habitat will be protected by implementing a Marbled Murrelet Habitat Protection Plan (“MMHPP”). The MMHPP is attached as Appendix G to the License Application.

Recreation enhancement will be accomplished by implementing a Settlement Agreement Recreation Resource Management Plan (“RRMP”). The RRMP is attached as Appendix 5 to the Settlement. In addition, whitewater boating opportunities will be enhanced by the Licensee providing flows for whitewater boating events. The Licensee will also implement various management measures and actions designed to enhance recreational fishing opportunities at Spada Lake Reservoir.

Historic properties will be managed and protected by implementing a Historic Properties Management Plan (“HPMP”). The HPMP<sup>6</sup> is attached as Appendix 6 to the Settlement.

Noxious Weeds will be managed by implementing a Noxious Weed Management Plan (“NWMP”). The NWMP is attached as Appendix D to the District’s License Application.

C. Appendices to the Settlement

The Settlement includes several Appendices, which are integral parts of the Settlement itself. They include Proposed License Articles (Appendix 1), Authorized Representatives of the Parties (Appendix 2), provisions related to the Aquatic Resource Committee (Appendix 3), the Licensee’s Early Implementation Measures (Appendix 4), the Recreation Resources Management Plan (Appendix 5), the Historic Properties Management Plan (Appendix 6), and the Forest Service’s proposed 4(e) terms and conditions (Appendix 7).

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<sup>6</sup> Previously filed with FERC in October 2008, e-library accession number 20081006-5104.

D. Early Implementation Measures

The Settlement Parties agreed to several early implementation measures based on the Effective Date of the Settlement (i.e., signing of the Settlement), rather than the date of issuance of a new License. These measures include establishing and convening the ARC. They also include beginning to develop the Marsh Creek Slide Plan (“MCS Plan”), the Water Temperature Conditioning Plan (“WTC Plan”), the Whitewater Recreation Plan (“WR Plan”), the Process Flow Plan (“PF Plan”) and the Fisheries and Habitat Monitoring Plan (“FHM Plan”) (all within 45 days of the Effective Date). The District also agreed to endeavor to complete the MCS Plan and the WTC Plan within 180 days of the Effective Date, and to endeavor to complete the WR Plan, the PF Plan, and the FHM Plan within 1 year of the Effective Date. The District will develop these plans in consultation with the ARC. Upon Commission issuance of a Project License and approval of the appropriate plans, the District will implement these plans. Pending Commission review of each of these plans, the District intends to commence, as time allows, preliminary design and permitting to further expedite the implementation of these plans upon License issuance.

The primary benefit of this commitment is the rapid implementation of measures designed to improve aquatic habitat conditions in the lower Sultan River.

E. Off-License Agreements

Attachments A and B are off-license agreements included for FERC's information only.<sup>7</sup> In addition to the Proposed License Articles, certain Settlement Parties have executed these off-license agreements, which do not address the Licensee's obligations under the FPA and are not subject to FERC's jurisdiction under the Commission's Policy Statement on Hydropower Settlements.<sup>8</sup>

1. Lake Chaplain Tract Land Management Off-License Agreement

Attachment A to the Settlement is an off-license agreement between the District, the City of Everett and WDFW pertaining to the management of the Lake Chaplain Tract. The District, the City of Everett, and WDFW characterize the agreement as follows:

This Agreement establishes by contract the City's obligation to manage the Lake Chaplain Tract, and the District's and WDFW's support of such management obligations. The License Application does not include the Lake Chaplain Tract in the TRMP because it is no longer necessary.

2. WDFW Hatchery Funding Agreement

Attachment B to the Settlement is an off-license supplementation program agreement with WDFW. The District and WDFW characterize the agreement as follows:

The District has agreed to provide an annual payment to WDFW to reimburse WDFW for a portion of WDFW's expense incurred in providing increased recreational angling opportunity in Snohomish County. WDFW and the District entered into that

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<sup>7</sup> Attachment A is the Agreement between the Licensee, the City of Everett, WDFW and the Tulalip Tribes regarding the future management of the City of Everett's Lake Chaplain Tract. Attachment B is the Agreement between the Licensee and WDFW for Resident Fish Stocking.

<sup>8</sup> Settlements in Hydropower Licensing Proceedings Under Part I of the Federal Power Act, 116 FERC ¶ 61,270 (2006).

agreement separately from the FERC Settlement because, while WDFW and the District agree these commitments are appropriate, certain lakes where resident fish are planted may be at distances from the Project.

F. Compliance with other Environmental Statutes and FERC Policies

1. Endangered Species Act

The Settlement contemplates that the Commission will initiate consultation pursuant to section 7(a)(2) of the Endangered Species Act based on the Settlement. By separate filing, the District will request to be designated the non-federal representative for purposes of this consultation.

2. Clean Water Act Section 401 Certification and Coastal Zone Management Act Determination

The Settlement contemplates that, pursuant to FERC regulations, the District will request a Section 401 Water Quality Certification from WDOE.

3. Resource Protection Funds

Proposed Aquatic License Article 12 requires the District to establish a fund to pay for certain resource protection measures. The Settlement Parties understand that FERC's present policy is to retain funding limits in the license articles but reserve its authority to reopen if necessary.<sup>9</sup> The Settlement Parties do not object to the Commission reserving such authority. Section 4.16 of the Settlement provides, however, that no Settlement Party will petition FERC to raise these dollar amounts. The Settlement further allows the Settlement Parties to seek a reopener or amendment under

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<sup>9</sup> *PacifiCorp*, 123 FERC ¶ 62,260, at P 21 (2008); *Pub. Util. Dist. No. 1 of Chelan County*, 117 FERC ¶ 62,129 at P 43 (2006), *order on reh'g*, 119 FERC ¶ 61,055 at PP 12-17 (2007); *Va. Elec. Power Co.*, 110 FERC ¶ 61,241 at P 10 (2005).

Section 4.11.1 to require the District to undertake additional or different measures. Accordingly, because these provisions are essential to the Settlement, the Settlement Parties request that the Commission include funding amounts in the Project License without modification.

Providing for resource protection measures through use of these funds is the best approach in this situation because at this time, it is difficult to assess the exact resource needs for the next 45 years. This is especially relevant because the District will be implementing measures for resource protection purposes and the Settlement Parties need to determine the effects of these measures and add to their resource value. For example, over time, as the District begins implementing certain flows and passage measures, it will become clear where additional mitigation is needed to further the anadromous fish reintroduction efforts. This might take the form of enhancing spawning habitat, which should be done after the fish begin returning and the Settlement Parties determine locations best suited for this purpose. Therefore, providing funds for future, as yet to be determined, mitigation is the best way to assure that Project impacts on resources are properly addressed throughout the term of the License. The Parties intend to seek, as appropriate, FERC approval of these projects as they are identified.

G. Record of Support

The Proposed License Articles are based on information contained in the voluminous administrative record for this relicensing. The record evidence has helped form the foundation for substantive measures in the Settlement.

The Settlement Parties believe that this record provides a reasoned basis upon which the Commission can determine that the Settlement, including the Proposed License

Articles, will serve the public interest. The License, as proposed in the Settlement, would serve the public interest because it addresses a variety of interests by including significant measures to provide environmental, recreational, and tribal benefits, while also providing municipal water supply and low-cost, emissions-free, and renewable power.

## **VI. LICENSE ARTICLES PROPOSED BY THE SETTLEMENT**

This Section explains the Proposed License Articles and provides a justification for each.

### **A. Article Aquatic License Article (A-LA) 1: Aquatic Resource Committee**

In its License Application (*see* Appendix B at 8), the District proposed to establish and convene an ARC for the purpose of consultation to assist in the implementation of aquatic resource-related License Articles. Proposed A-LA 1 is generally consistent with the PM&E presented in the License Application; however, it includes additional details describing committee membership and participation, meeting provisions, committee deliberations, and dispute resolution.

Members of the ARC will include the District, the Tulalip Tribes, NMFS, FWS, USFS, WDFW, WDOE, the City of Everett, the City of Sultan, Snohomish County, and American Whitewater. In the event that an entity subsequently joins the Settlement and the ARC approves its membership on the ARC, such entity will become a member of the ARC. Each member will select a representative with relevant training or experience to sit on the ARC. The ARC will consult, review plans, and advise the District as expressly provided in specific License Articles. The District will arrange, administer, and chair all meetings, unless otherwise agreed. The ARC will attempt to reach consensus on all matters before it. The District will implement a consensus decision on any given matter,

subject to the relevant License Article requirements and any necessary regulatory approval. The District will provide draft meeting minutes for concurrence by the ARC members prior to final distribution, which will include action items, a summary of issues discussed, decisions reached, and member concerns.

The Proposed License Article is important because it provides a forum for the federal and state agencies, local governments, the Tulalip Tribes and the District to collaborate on implementation of the Proposed License Articles. The Settlement Parties envision that the ARC will act in an advisory role on capital improvements, monitoring, Project operations, plan development and other matters related to the implementation of the new License.

B. Article A-LA 2: Marsh Creek Slide Modification and Monitoring

On December 11, 2004, the Marsh Creek Slide (“MCS”) blocked or reduced the upstream passage of adult anadromous salmonids upstream of River Mile (“RM”) 7.6. Since then, the characteristics and geometry of the landslide have changed and currently allow some fish passage in part due to high flows. A Marsh Creek Slide Modification and Monitoring PM&E was not included in the License Application, but as a result of settlement negotiations, the District is proposing to consult with the ARC to develop a MCS Monitoring and Modification Plan (“MCS Plan”).

If the ARC determines that the use of dynamite, expandable grout, or comparable methods to modify the MCS are necessary to enhance and maintain anadromous fish passage at the MCS, the District will implement such modification pursuant to a plan, a schedule approved by the ARC and the Commission, and all necessary regulatory permits.

The Marsh Creek Slide Plan will include provisions to survey the MCS during low flow conditions and to annually monitor escapement in the reach upstream of the slide, as the District has done since the 1990s. The District will use funds from the Habitat Enhancement Account (“HEA”) (as described in A-LA 12) to implement additional, similar modifications to the MCS if the ARC concludes that an additional modification to the MCS is necessary to enhance fish passage and 1) initial or subsequent modifications cause further slides or blockages or 2) the annual escapement of Chinook salmon and steelhead trout in the spawning habitat within the Diversion Dam Index Area (RM 9.2 to 9.7) does not exceed 10 percent of the total annual escapement of Chinook or steelhead in all index areas in the Sultan River in any year. The Settlement Parties intend that if additional modifications are necessary, an additional modification will be made no earlier than six years after the initial modification. This timeframe will allow the Parties time to evaluate the effectiveness of the initial modification after process flows and several fishery life cycles occur. Additional modifications approved by the ARC will be funded out of the A-LA 12 habitat fund.

Modification of the slide as described above (if deemed necessary by the ARC) will provide safe, timely, and effective access to 2.1 miles of salmon and steelhead habitat up to the Diversion Dam, and an additional 6.6 miles of historically available habitat upstream of the Diversion Dam after passage is provided at that structure (as described in A-LA 13). It is anticipated that this measure will increase salmon and steelhead production in the Sultan River by allowing these species to fully utilize available habitat and production capacity upstream of the Marsh Creek Slide.

C. Article A-LA 3: Temperature Conditioning in Reach 3

In its License Application (*see* Appendix B at 6), the District proposed to condition the temperature of the water released from Culmback Dam to provide a seasonally appropriate water temperature regime that would improve aquatic habitat conditions in Reach 3 of the Sultan River through the implementation of a Water Temperature Conditioning Plan (“WTC Plan”). The District will implement the program within the constraints of the Project’s existing infrastructure (i.e. the 10-inch cone valve, the hydro unit, and the 16-inch auxiliary release line) and plans to monitor water temperatures in Reach 3 annually for the term of the License.

The proposed Reach 3 temperature conditioning License Article (A-LA 3) modifies the temperature conditioning PM&E outlined in the License Application to include the installation and operation of a new temperature conditioning structure at Culmback Dam (by 2020, or within 2 years after the date that the District completes the Diversion Dam’s volitional fish passage modifications as described in A-LA 13). All of the flow components for this structure, except for the valves, shall have a hydraulic capacity to allow the District to provide no less than 165 cfs (at Spada Lake elevation of 1430 feet msl) of temperature-conditioned water immediately below Culmback Dam. This capacity may allow for higher spawning flows in Reach 3 after the expiration of the License. When the reservoir is above 1380 feet msl, this structure will allow the Licensee to temperature condition the flows released from Culmback Dam pursuant to the minimum flow regime described in A-LA 9 (Minimum Flows). The temperature conditioning program will not contribute to exceedance of State numeric water quality criteria.

In addition to annual temperature monitoring, A-LA 3 also requires the District to monitor the biological response of salmonids, macroinvertebrates and other aquatic resources to the temperature conditioning. The Settlement Parties intend that this biological monitoring will begin before the new License period by establishing baseline population distributions for resident fish and a macroinvertebrate survey. The monitoring program will include a spatial (two sites) assessment of baseline resource conditions and conditions after the first year and subsequent years at a sampling interval determined by the ARC. Surveys during the first and subsequent years of the temperature conditioning program will be compared to baseline data.

The overall goal of A-LA 3 is to provide a seasonally-appropriate water temperature regime to improve conditions for salmonids and other aquatic species (including fish and macroinvertebrates) in Reach 3 of the Sultan River. Conditioning of water temperature in Reach 3 is expected to result in a more normative water temperature regime (similar to the temperature regimes in Reaches 1 and 2) that will increase macroinvertebrate production, improve fish growth, fish distribution and population dynamics, and facilitate fish survival in Reach 3. Temperature conditioning would comply with applicable state water quality standards.

The installation of a new temperature control structure at Culmback Dam, as proposed in A-LA 3, will improve the District's ability to attain appropriate water temperature targets below Culmback Dam using lower reservoir surface elevations compared to what could be achieved using the existing infrastructure. The biological response monitoring included in A-LA 3 will be used to help verify that this measure is

meeting biological goals and, if necessary, to adaptively adjust temperatures to meet its biological goals.

D. Article A-LA 4: Whitewater Boating Flows

The proposed whitewater boating flows proposed within License Article 4 (A-LA 4) are more robust than the whitewater boating flow PM&E that was presented in the License Application.

A-LA 4 specifies that the District will provide flows for twelve (12) viable whitewater boating events every three years for the duration of the License with sufficient advance notice to whitewater boaters. The intent is to provide an average of four flows per year for the life of the License. The whitewater events will be provided either as scheduled events or viable unscheduled whitewater events. A minimum of two whitewater events each year will be scheduled events, with one event occurring in April or May and one occurring in September. The Settlement Parties intend to prioritize higher flows for these scheduled events to provide for optimal standard flow to maximize participation, within the constraints of the water budget. If, in order to meet whitewater boating interests the duration of a scheduled whitewater event is scheduled to be longer than three daylight hours excluding time for downramping, the event will be counted as two events.

The Settlement Parties intend that, where possible, scheduled whitewater events will be scheduled in conjunction with process flow component events (pursuant to A-LA 8). However, if a whitewater event is scheduled for less than three hours, but the District provides a process flow on that same day for longer than three hours, the whitewater event will only be counted as one event. If the whitewater event is scheduled to be longer

than three hours, it will be counted as two events, regardless of the length of the process flow.

The Parties recognize that given the length of the boating reach, it is not possible to complete two runs in a single day. The Parties believe that three hours is enough time to provide a viable whitewater opportunity and to accommodate the number of users that may be present for those events. The whitewater plan will address the potential for crowding and the duration of boater travel time.

It is the goal of the Parties to plan coordination of whitewater boating and process flows annually through the ARC.

The License Article defines the minimum amount of notice that needs to be provided for scheduled and unscheduled whitewater events, although the District will strive to provide greater advanced notice to whitewater boaters.

A viable unscheduled whitewater event is defined as a calendar day (a) occurring between March 15 and November 30 or at times agreed to by the District and American Whitewater in consultation with the ARC, (b) with controlled and uncontrolled flow releases (i.e. spill) and accretion flows between 600 and 2,000 for at least three hours, (c) during a time of day that supports whitewater boating, at conditions that allow access to the reach (as defined by the WR Plan), and (d) with at least 48 hours notice. The Parties recognize that weekend days are preferred by whitewater boaters. The Settlement Parties intend that the maximum number of viable unscheduled whitewater events per year will be addressed in the Whitewater Recreation Plan (“WR Plan”).

To ensure that twelve (12) viable whitewater events occur, during each three-year period, the Licensee will provide a firm water budget of 2,100 acre-feet of water to be

available to release, an increase of 1,200 acre-feet from the water budget identified in the License Application. In addition, a reserve budget of 1,200 acre-feet will be available if the 2,100 acre-feet is inadequate to ensure that a total of twelve (12) viable whitewater boating events are conducted over the three-year period.

The District will consult with the ARC, NPS and American Whitewater on an annual basis to determine if the Whitewater Recreation Program (“WR Program”) is providing a meaningful whitewater experience (as further defined in the WR Plan) and if the program should be modified, within the constraints of the water budget. The District, in consultation with the ARC and American Whitewater, may request that the Commission temporarily suspend or reduce the WR Program based upon lack of meaningful whitewater boating experience. In the event that the WR Program is temporarily suspended or reduced, the District will consult annually with the ARC, NPS and American Whitewater concerning whether the WR Program shall resume. The Settlement Parties included provisions that allow for the temporary suspension or reduction of the WR Program to take into account inadequate participation, safety considerations, or non-portable blockages that may prevent boating.

The greatest benefit of the larger water budget and reserve water budget is to provide an opportunity to conduct more flow events during each year of the three-year period. This will give the District and the stakeholders more options to provide different levels of flows at different times of the year, to evaluate seasonal demand for flow events on the river, and identify flow levels that provide opportunities for boaters of different skill levels. The WR Plan will guide the evaluation of these opportunities.

The License provisions that define drought or weather-related water shortages are beneficial to ensure that the District provides priority use to the municipal water supply system and instream flows for fisheries where the use of water for recreational flows will conflict. The Settlement Parties intend that any drought release schedule be proportionate to the severity of the drought.

The reservation system as described in A-LA 4 will ensure that water is not released for recreational flows when demand for the flows is below a minimum level. In the event that a whitewater event is cancelled, the District will notify people with reservations. The Settlement Parties intend that the WR Plan include the mechanism for proportional reduction of the water budget for cancelled events.

The District will consult with American Whitewater and NPS in developing an appropriate amount of whitewater boating information to post to the District's web site. Information will include flow data, rain data, reservoir elevation data, river segment, skill level, put-in and take-out locations, date/time of flow releases, flow announcements and cancellations, and reservation information.

E. Article A-LA 5: Downramping Rate Conditions

The downramping rate conditions outlined in A-LA 5 are the same as those proposed in the License Application (*see* Appendix B at 12); however, A-LA 5 also includes a measure to evaluate whether additional ramping rate restrictions are necessary to protect juvenile salmonids following the completion of the side channel enhancement projects pursuant to A-LA 7 (see below).

Modifying the Project ramping rate requirements, implementing the ramping frequency limitations, and installing the Pelton unit flow continuation system (as

described in the License Application) are expected to improve Project operations and reduce the risk of fish stranding in the Sultan River compared to existing conditions. Implementing the proposed cap on flows during the Chinook salmon spawning period along with monitoring of spawning locations is also expected to minimize the potential for redd dewatering. Re-evaluating these ramping rates following the completion of the side channel habitat enhancements (*see* A-LA 7) and implementing any new measures that may be needed to protect juvenile salmonids, will minimize fish stranding and other potential negative effects on aquatic biota.

F. Article A-LA 6: Large Woody Debris

In its License Application (*see* Appendix B at 14), the District proposed to enhance aquatic habitat diversity in the lower Sultan River through the implementation of a large woody debris (“LWD”) plan. The proposed LWD plan included the installation of up to eight LWD structures in the Sultan River between RM 0 and RM 16. Up to five of the eight structures would be placed in the main channel and would be designed to improve main channel habitat complexity and to decrease pool spacing in the main channel. Up to three of the eight structures would be associated with side channels and designed to improve mainstem / side channel connectivity by directing part of the flow into the side channel, as feasible and where appropriate.

The intent of A-LA 6 is generally the same as that described in the License Application, but it includes the installation of up to four additional LWD structures in the Sultan River after 10 years from License issuance (a total of 12 structures). In addition, throughout the License term, the District will move woody debris accumulated in Spada Lake between Culmback Dam and the log boom to areas targeted for habitat restoration.

The four additional LWD structures included in A-LA 6 are expected to further increase habitat diversity in the Sultan River (compared to what was proposed in the License Application), reduce pool spacing and create and maintain higher value habitat for resident and anadromous fish and other aquatic biota. Increased LWD could also substantially increase nutrients available to the aquatic environment. These additional four structures could also be used to replace any of the original structures that are destroyed during high flow events.

Installation of LWD structures is intended to increase habitat productivity and diversity and is expected to increase salmon and steelhead production and contribute to the recovery of ESA listed fish species in the Snohomish River basin.

During settlement negotiations, the Aquatic Resources stakeholders identified this measure as a high priority item; therefore, the District will prioritize the implementation of this measure upon License issuance.

G. Article A-LA 7: Side Channel Projects

The side channel habitat enhancement measures presented in A-LA 7 are the same as those proposed in the License Application (*see* Appendix B at 15). Under A-LA 7, the District will consult with the ARC to develop a Side Channel Enhancement Plan (“SCE Plan”). The SCE Plan will include provisions that describe: (1) the method and schedule for restoring and maintaining flow connectivity between the mainstem Sultan River and Side Channels 1, 2, 3, A, and B; (2) the method and schedule for excavating or using other means to redirect and maintain flow in Side Channels 1, 2, 3, A, and B; (3) the method and schedule for identifying, enhancing and maintaining other off channel habitat suitable for enhancement; (4) the use of LWD or other flow re-direction means to re-

direct a portion of the mainstem flow into the side channels; (5) the use of large woody debris collected at Culmback Dam to add structure and function within the side channel; and (6) the method and schedule for monitoring (including reporting requirements) and maintaining side channel enhancements throughout the term of the License and any subsequent annual Licenses.

Specifically, the District will enhance the habitat function in a minimum of 10,000 linear feet of side channel in the lower Sultan River (to provide a minimum of 3 acres of additional habitat area). This enhancement will be achieved through projects that improve side channel flow connectivity or other habitat modification projects located within the wetted area of the Sultan River downstream of the Powerhouse that is defined by a flow of 4,100 cfs.

The existing side channels in the lower Sultan River provide important spawning and rearing habitats for numerous salmonids and other aquatic species. Enhancement of habitat within side channels and maintenance of year-round connectivity will substantially increase the amount and quality of habitat available to anadromous and resident fish particularly during the summer and early fall low flow period. This increase in critical side channel habitat area is expected to increase the survival and production of resident and anadromous salmonids, particularly for coho, Chinook and cutthroat rearing, and pink and chum salmon spawning.

#### H. Article A-LA 8: Process Flow Regime

The process flow regime proposed within the Process Flow Regime License Article (A-LA 8) is considerably more robust than the process flow regime presented in the License Application (*see* Appendix B at 17). A-LA 8 specifies that the District will

discharge water from the Project to ensure that the magnitude, duration, timing and frequency of the process flow components specified within Section 1 through 5 of the Article (as summarized in A-LA 8 Table 1) are achieved. Except as provided within the Article, the District can achieve these components through any combination of controlled (including whitewater boating releases) and uncontrolled flow releases (i.e. spill), and accretion flow downstream of Culmback Dam.

The intent of A-LA 8 is the same as the Process Flow Release Plan PM&E presented in the License Application, but it does not include a water budget. A-LA 8 includes flows to periodically mobilize bedload and stream bank materials. In addition, A-LA 8 provides for timing of events to use or augment naturally-occurring accretion events, a more detailed definition of flow levels in specific reaches and frequency, and a discussion of how these special purpose flow releases will be coordinated with other License Articles. Flows provided in A-LA 8 can be released by existing Project facilities.

A-LA 8 includes provisions which will allow for interim modifications (including changes in timing or reductions in flow magnitude) to the process flow components described in the Article to manage water supply during periods of weather-related shortages. The Settlement Parties intend that that any drought release schedule for modification of process flow components prepared by the District will be proportionate to the severity of the drought. For example, the District, in consultation with the ARC, will have flexibility to respond to drought events, depending upon the drought's severity, by delaying, reducing, or changing the timing of process flow components. The Settlement Parties intend that the drought release schedule takes into account the efficacy of voluntary reductions in domestic water consumption, and consider contingencies to

address lower than expected voluntary reductions in domestic water consumption.

Regardless, any drought release schedule may not undermine the stated purposes of this License Article.

With respect to A-LA 8 Upstream Migration Flow Component (A-LA 8 Section 4) and Outmigration Flow Component (A-LA 8 Section 5), each of these components includes a range of flow magnitudes. For example, A-LA 8 Section 4.1 specifies that the upstream migration flow is achieved when a minimum flow between 800 and 1,200 cfs as determined by the ARC is maintained or exceeded for six (6) consecutive hours. By providing a range, the Settlement Parties intend that the District, in consultation with the ARC, will test different flow magnitudes within that range during the first ten years of the License. At the end of this initial period and based upon that testing, the Settlement Parties intend that the District, in consultation with the ARC, will recommend a permanent flow level within the range specified in the flow component for FERC approval. Upon approval, the District will implement that permanent flow level.

The channel maintenance, channel forming, and sediment flushing flows outlined in A-LA 8 will likely contribute to the formation and movement of physical habitat features in the Sultan River including riffles, pools, runs, and point bars; increase LWD and sediment transport; remove interstitial fine sediment from spawning gravels; and maintain connectivity to existing side channels. In addition to initiating significant changes to in-channel habitat, regular process flows are expected to slightly alter the channel form, and limit riparian vegetation encroachment.

Although extreme high magnitude flow events during the salmon and steelhead incubation period have been linked with reduced egg-to-fry survival, short duration flow

events of lesser magnitudes (pulsed flows) in the spring may trigger juvenile salmonid outmigration and increase the survival of juvenile out-migrants. In addition to benefiting juvenile outmigrants, short duration high flow events in the late summer and fall are known to initiate the upstream migration of adult salmon, limit straying to other river basins, and facilitate swimming past natural and artificial barriers. Overall, implementing the District's proposed juvenile outmigration and adult upstream migration flow releases will result in a more normative hydrograph in the lower Sultan River compared to existing conditions. This more normative hydrograph is expected to increase the survival of juvenile salmon and steelhead outmigrants during drought years and may also facilitate upstream migration of returning adults.

I. Article A-LA 9: Minimum Flows

The proposed A-LA 9 minimum flows are the similar as those proposed in the License Application (*see* Appendix B at 8) for Reaches 1 and 2; however, the A-LA 9 minimum flows are higher and more variable in Reach 3. In Reach 3, minimum flow releases will be substantially higher than the 20 cfs proposed in the License Application and will be based on an annual water budget of 20,362 acre-feet prior to 2020 and 23,831 acre-feet for the remaining term of the License. These flows were designed to be within the capacity that can be released with existing Project facilities. They will increase the Weighted Usable Area and will contribute to meeting temperature objectives in Reach 3. Flows in Reach 3 are shaped to address the habitat requirements of resident fish; after volitional fish passage, flows will be shaped to address the habitat requirements of anadromous fish. The District will release the annual water budget as instantaneous minimum flows (from Culmback Dam) according to an annual release schedule

developed prior to each water budget year (July 1 – June 30) in consultation with the ARC. In the event that the ARC is unable to reach consensus regarding the release of the water budget, the Article provides a default schedule and the District will release monthly minimum flows ranging from 20 to 65 cfs prior to the 3,469 acre-foot water budget increase, and 20 to 70 cfs after the 3,469 acre-foot water budget increase.

Compliance with the minimum instream flow schedule will be monitored using established USGS Gage Nos. 12138160 and 12137800 for component releases for Reaches 1 and 2 respectively, and using calibrated valve curves for component releases for Reach 3. The District will fund the operation of these two gaging stations in the lower river downstream of Culmback Dam for the License term.

A-LA 9 includes provisions which will allow for interim modifications to the release schedule for the minimum flow regime described in the License Article to manage water supply during periods of weather-related shortages. The Settlement Parties intend that the drought-controlled flow release schedule be proportionate to the severity of the drought. For example, the District, in consultation with the ARC, will have flexibility to respond to these drought events, depending upon the drought's severity, by reducing or changing aspects of the flow regimes. The Settlement Parties intend that the drought release schedule take into account voluntary and involuntary municipal water use reductions in domestic water consumption, and consider contingencies to address lower than expected voluntary reductions in domestic water consumption. Regardless, any drought release schedule modification may not undermine the stated purposes of this License Article.

Increased flow releases to Reach 3, in combination with water temperature conditioning, will increase habitat for trout and will increase salmon and steelhead habitat if fish passage is provided at the Diversion Dam. Overall, the improved instream flow conditions in Reaches 1 and 2 as a result of this proposed License Article, working in conjunction with other habitat improvement measures, are anticipated to increase wild salmon and trout production in the Sultan River.

J. Article A-LA 10: Spada Lake Recreational Fishery

In its License Application (*see* Appendix B at 17), the District proposed to develop and implement a program to enhance the Spada Lake recreational resources. Specifically, the Spada Lake Recreational Fishery Plan (“SLRF Plan”) would remove existing man-made barriers to fish passage within tributaries along South Shore Road (beyond South Shore Recreation Site No. 3), improve the Recreation Site 2 boat launch by providing boat trailer access, and develop a recreational fishing brochure for Spada Lake that describes effective fishing techniques.

A-LA 10 includes the same measures that were proposed in the License Application, but also includes a measure to monitor trout relative abundance and population metrics in Spada Lake every five years for the term of a new License. A-LA 10 also includes a measure to maintain a target minimum impoundment elevation at or above approximately 1,430 feet msl from July 1 until August 15 to enhance recreational opportunities.

While no detailed field surveys were conducted to inventory the number and location of potential fish migration barriers located along the South Shore Road, removing the culverts may provide fish access to about 1.5 miles of stream habitat (based

on map analysis). This increase in the amount of available trout spawning and early rearing habitat could potentially increase the abundance of cutthroat and rainbow trout residing in Spada Lake, increasing the number of trout available for recreational harvest. Improving angler access at Recreation Site 2 and providing a brochure to anglers detailing techniques to target Spada Lake trout is expected to promote increased angler effort and may contribute to increased harvest and improved angler satisfaction. The additional A-LA 10 measures will provide valuable monitoring data to fishery managers to inform future decisions on trout management in Spada Lake and will facilitate angler access to Spada Lake during the summer recreational fishing season.

K. Article A-LA 12: Fish Habitat Enhancement Plan

A Fish Habitat Enhancement Plan (“FHE Plan”) was not included in the License Application. Proposed A-LA 12 requires the District to consult with the ARC to develop and implement a comprehensive FHE Plan to enhance fish habitat in the Sultan River basin. The purpose of the FHE Plan is to guide the implementation of projects designed to provide additional Project-related enhancements to aquatic resources and hydrologic processes in the Sultan River basin.

To fund the FHE Plan, the District will deposit \$2.5 million (\$2,500,000) into a District-managed, interest-bearing account (“Habitat Enhancement Account,” or “HEA”) within 30 days after issuance of the License. In addition, starting the tenth anniversary after issuance of the License and annually for the term of the License, the District will deposit \$200,000 into this account. Based upon a forty-five year License, this will result in the District contributing \$9.5 million to the HEA. The Settlement Parties recognize that the District may, at its discretion, frontload payments into the Account by making

payments ahead of the schedule described within the License Article. The District will use this account to fund projects developed pursuant to this License Article and will not use the funds for its administration or oversight of these projects.

Throughout the term of the License and any subsequent annual Licenses, the District will consult with the ARC to develop and implement specific HEA-funded aquatic habitat enhancement and restoration projects within and adjacent to the Sultan River. Such projects may include, but not be limited to: (1) instream structure enhancements; (2) side-channel habitat development; (3) removal, maintenance or construction of large woody debris; (4) removal of barriers to upstream migration such as future slides; (5) gravel augmentation; (6) land purchases related to aquatic habitat enhancement; (7) purchase of additional water for process or special purpose flows; and (8) other projects such as maintaining a Snotel site in the basin, that provide for adaptive management in the Sultan basin. In addition, throughout the term of the License, if available funds remain within the account, the District will implement other appropriate aquatic habitat enhancement and restoration projects developed by the ARC within the Snohomish River Basin.

The District will employ measures to minimize the take of Chinook salmon, steelhead, and bull trout associated with in-water work during development of any physical structures and facilities pursuant to other PM&Es, consistent with the agencies' incidental take statements.

A-LA 12 requires the District to undertake projects that will provide considerable aquatic habitat benefits within the Sultan River basin throughout the License term. These additional habitat enhancement projects, working in conjunction with other Settlement

measures such as improved side channel connectivity, increased instream flows, and the anticipated fish passage at the Diversion Dam will likely substantially increase the quantity and quality of aquatic habitat available to anadromous and resident fish in the lower Sultan River. Establishment of the ongoing FHE Plan and HEA will also allow for adaptive management as conditions change in the basin and guide in the implementation of the most effective resource protection measures throughout the life of the License. The mitigation provided through the fund will best address habitat enhancement and restoration needs throughout the License term by allowing flexibility to ensure that these other habitat enhancement and restoration projects are developed and implemented during the License term.

L. Article A-LA 13: Diversion Dam Volitional Passage

A PM&E to provide fish passage at the City's Diversion Dam was not included in the License Application, but as a result of Settlement negotiations, the District is proposing to develop and implement a Diversion Dam Volitional Passage Plan ("DDVP Plan") (A-LA 13). The goal of the DDVP Plan is to provide safe, timely, and effective upstream and downstream volitional fish passage at the Diversion Dam through structural modifications to the Diversion Dam. The District will file the DDVP Plan with the Commission within one year of License issuance, and will implement the plan upon Commission approval. The Settlement Parties currently envision that modifications will involve changes to the sluice slot and gates, although other alternatives will be considered.

The District's obligation regarding volitional passage is subject to (1) the ARC's determination that spawning escapement of either Chinook salmon or steelhead trout

within the Diversion Dam Index Area equals or exceeds in any one year 10 percent of the combined total spawning escapement for either Chinook salmon or steelhead trout within the four index areas of the Sultan River downstream of the Diversion Dam, and (2) the District obtaining all necessary regulatory approvals.

Upon the ARC determining that the spawning escapement above the Diversion Dam exceeds six anadromous redds in any one year, the District will not divert flow or authorize the diversion of water from the Sultan River at the Diversion Dam to Lake Chaplain unless required for the City of Everett's water supply needs. Conditions that would require diversion of water at the Diversion Dam would include but not be limited to a "power off" situation where the reservoir is below elevation 1380 for an extended period and an emergency that disables the Jackson Powerhouse water conveyance system to Lake Chaplain. The District estimates that events that disable or preclude the Jackson Powerhouse water conveyance system operation due to low reservoir elevations of Spada Lake will occur no more than two times in 45 years at the City of Everett's current water use rate. The number of events is estimated to increase to 19 times in 45 years at Everett's forecasted water use rate in 2056. The average annual duration of these events is predicted to be 33 days and range from 22 to 43 days. This assessment does not account for any effect of additional conservation measures that the City of Everett might employ under dire drought conditions which would likely reduce the frequency and magnitude of water releases solely from Culmback Dam. If this water supply requirement is triggered, the District, in consultation with the ARC, will take appropriate measures to protect ESA-listed fish. Notwithstanding, in the event that the District installs and operates a fish screen at the outlet pipe, the District may resume the diversion

of flow or may authorize the diversion of water to Lake Chaplain from the Sultan River at the Diversion Dam.

Providing access to historical spawning and rearing habitat upstream of the Diversion Dam is expected to increase salmon and steelhead production in the Sultan River by allowing these species to fully utilize available habitat and potential production capacity. The reintroduction of anadromous salmonids to this reach is also expected to benefit resident rainbow trout and other aquatic and terrestrial species by increasing primary productivity through the addition of marine derived nutrients (i.e. salmon carcasses).

M. Article A-LA 14: Reservoir Operations

Proposed A-LA 14 is basically consistent with the Reservoir Rule Curves presented in the License Application, with some minor modifications to allow more latitude for filling the reservoir by June 1 instead of July 1 (*see* Appendix B at 1). This License Article defines the over-arching reservoir management framework that allows the Project to provide water allocations for all of the competing needs in the Sultan River basin. These include municipal water supply, electricity production, recreation, ecological function, and incidental flood control.

Benefits from implementing this License Article include the ability to provide a balance of reliable municipal water supply, instream flows to provide for aquatic habitat, incidental winter flood storage, high lake levels for early summer recreation, and reduced risk of uncontrolled spill following Chinook salmon fall spawning and steelhead spring spawning.

N. Article A-LA 15: Adaptive Management Plan

An Adaptive Management Plan (“AM Plan”) was not included in the License Application. Proposed A-LA 15 requires the District to consult with the ARC to develop an AM Plan. The District will file the AM Plan with the Commission within 180 days of License issuance, and will implement the plan upon Commission approval. The goal of the AM Plan is to address key operational constraints over the term of a new License. The AM Plan will document how the District will: (1) address water use issues (specifically relating to Spada Lake) when refill, Project operations, flow releases, and Spada Lake water surface elevations may conflict; and (2) address the process for evaluating and adaptively managing within the constraints of the specific License Articles.

Operational and environmental conditions in the Jackson Project area and the Sultan River basin are likely to change through the term of a new License, as a result of natural processes, increased demand for water, and implementation of the PM&Es described in these License Articles. Developing and implementing the AM Plan will provide a structured, iterative process that the District and the ARC can follow to make decisions regarding Project operations in the face of uncertainty, with an aim to reduce uncertainty over time via monitoring. The adaptive management program at the Project is expected to result in the most effective resource protection through the term of the Project License.

O. Article A-LA 16: Steelhead Planting Program

A-LA 16 is consistent with the Steelhead Planting Program presented in the License Application (*see* Appendix B at 19), except that the License obligation ceases

when the District completes the Diversion Dam’s volitional fish passage modification. As explained in the License Application, under the existing License the District supports hatchery winter steelhead programs in the Snohomish River system by compensating WDFW for planting roughly 30,000 smolts annually to enhance the fisheries in the lower Sultan River. This support is being provided as mitigation for fish passage barriers at the City of Everett’s Diversion Dam. After the District completes the Diversion Dam’s volitional fish passage modification, this mitigation will no longer be provided. The District will fund the planting consistent with the current funding methodology.

P. Article A-LA 17: Fisheries and Habitat Monitoring Plan

The Fisheries and Habitat Monitoring Plan (“FHM Plan”) (A-LA 17) was not included in the License Application; however, it does incorporate several monitoring PM&Es that were proposed in the License Application (e.g., annual salmon and steelhead spawning surveys and water temperature monitoring). Specifically, the FHM Plan will include provisions to (1) periodically monitor and characterize riverine fish habitat (including side channel, riparian, and floodplain habitats) in the Sultan River to determine how habitat restoration efforts and Project operations affect fish habitat conditions; (2) monitor water temperature in the Sultan River to help analyze the biological information collected through separate monitoring efforts (i.e., spawning timing, emergence timing, juvenile size or growth rates, distribution, habitat utilization, and species interactions); (3) conduct annual surveys using standard methods employed in the region to assess spawner abundance, spawner distribution, spawning timing, and species composition; and (4) install and operate a juvenile fish trap in the lower Sultan River to assess juvenile salmonid production, distribution, and habitat utilization in the Sultan River.

With respect to the juvenile fish trap, the Settlement Parties anticipate that the District will operate the trap during the juvenile outmigration process flow component (and any associated whitewater boating event).

The monitoring pursuant to this License Article will be in addition to any monitoring required by other License Articles. For example, as a component of its monitoring pursuant to the Recreation Plan, the District will post the Spada Lake Reservoir elevation data on its website. The posting of this data will not only inform the use of the reservoir's boat ramps, but also provide important information for flood (spill) awareness and whitewater boaters.

The District will file with the Commission, by June 30 of each year, an annual report fully describing the monitoring efforts of the previous calendar year. By December 1 of each year, the District will file an annual plan with the Commission describing the monitoring activities required for the following year. The District will also provide copies of the annual report and annual plan to the ARC.

Monitoring long-term changes in fish habitat, water temperatures, adult salmon and steelhead distribution and abundance, and juvenile salmonids production, distribution and habitat utilization over the term of a new License will enable the District and the ARC to evaluate the effectiveness of habitat modifications and/or alterations in Project operations outlined in the aquatic resource License Articles. In addition, information resulting from monitoring will likely generate a library of data that can be used to inform decisions about Project operations throughout the new License period, and to evaluate the need for future habitat enhancements or modifications.

Q. Article A-LA 18: Water Supply

The Water Supply License Article provides that water supply and quality requirements shall have precedence over power generation, and is based on a longstanding contractual understanding between the City of Everett and the District that was most recently re-stated in the Supplemental Agreement Between Public Utility District No. 1 of Snohomish County and the City of Everett, Washington.<sup>10</sup> It is intended to set forth the relationship between Project operations to generate hydropower and the City of Everett's water supply and quality needs except to the extent those power operations are simultaneously necessary to comply with FERC-prescribed environmental requirements. The Article is expressly subject to all other License Articles, such as those providing for instream fisheries flows.

R. Article C-LA 1: Historic Properties Management Plan

There are no changes to the Historic Properties Management Plan (“HPMP”) in the Settlement from the HPMP described in the License Application, with the exception of including the Diversion Dam as a Project facility. This plan addresses the treatment of historic properties by providing guidelines for evaluation, monitoring, management and avoidance of potential adverse effects. It also includes a mechanism for identifying and developing specific actions to address effects on known or yet to be discovered sites. With these elements, the HPMP will provide protection for cultural resources throughout the new License period.

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<sup>10</sup> Dated October 17, 2007, Part E. 1. & Exhibit 1. Filed with FERC November 7, 2007, e-library accession number 20071107-5057.

S. Article R-LA 1: Recreation Resources Management Plan

The Recreation Resource Management Plan measure is the same as presented in the License Application with the exception of two items that have been added to the Settlement. These include development and maintenance of a Sultan River Canyon Trail (addressed in the Recreation Sites and Use Areas Program, or RSUAP); and posting of information about whitewater boating at the trailhead and on the District's website (addressed in the Interpretation and Education Program, or IEP).

The Sultan River Canyon Trail will provide administrative and recreational access to the Sultan River. From Culmback Road, the trail will be designed to allow mining claimant and administrative off-road vehicle ("ORV") access, as well as bicycle and pedestrian access, to a beginning point for a pedestrian-only trail that leads to the Sultan River. The trail will be designed and constructed consistent with USFS current trail standards from the District's property line on the proposed trail converted from the 6122 Road to the Sultan River (this trail would supplement the existing user-defined river access trail off of the 6122 road).

The Sultan River Canyon Trail will increase the benefits of the RSUAP by providing multi-purpose public access to the Sultan River and Sultan River Canyon, as determined by Project recreational goals, and consistent with USFS standards (e.g., hiking, recreational mining, wildlife viewing, whitewater boating access, etc.). The trail will be gated at the Culmback Dam Road. Mining claimants, USFS, Washington Department of Natural Resources, District and City of Everett personnel requiring administrative access will be issued keys to open the gate for ORV use. The specific location of the pedestrian-only access trail that leads to the Sultan River will be

determined in cooperation with the USFS in order to locate the trail in the most stable and safe location and prevent impact to occupied marbled murrelet habitat. A trail designed to USFS standards for the intended users will minimize the potential for environmental damage and potential conflict between users.

Information posted at the Sultan River Canyon trailhead and on the District's website as part of the IEP will identify the skill levels required for whitewater boating in the Sultan River Canyon, and will present the difficulty ratings of each whitewater segment. Providing this information will assist recreational users in making choices about their recreational activities, which is expected to promote safety and increase enjoyment of boating opportunities.

T. Article T-LA 1: Terrestrial Resource Management Plan

There is no change in the proposed Terrestrial Resources Management Plan ("TRMP") between the License Application and the Settlement. The TRMP provides for protection, mitigation and enhancement of wildlife habitat on 4,456 acres of land and water within the Sultan River basin. The objectives and priorities of the TRMP are consistent with the existing Wildlife Habitat Management Plan ("WHMP") for the Project. Thus, the TRMP continues the WHMP, incorporating all the modifications to the WHMP and Supplemental Plan that were made through the adaptive management process and documented in annual reports prepared by the District between 1989 and 2007; and updates based on current regional priorities and the District's recent review of the habitat management literature.

The TRMP calls for forest management activities, snag and coarse woody debris management, protection of wetland and riparian buffers, right-of-way management, and

installation of nest boxes for cavity-nesting waterfowl. Implementation of this combination of measures will provide increasing benefits over time to wildlife species that are associated with late-successional and old-growth forest; and continue to maintain habitat for wildlife species that use wetlands and riparian zones. Through monitoring and adaptive management, the plan can be modified, as needed, to respond to changing conditions and new opportunities.

U. Article T-LA 2: Noxious Weed Management Plan

There is no change in the Noxious Weed Management Plan (“NWMP”) between the License Application and the Settlement. Implementation of the NWMP will build on the District’s current approach to weed management, placing new emphasis on preventive measures, new sites identified in the 2007 inventory, training for District personnel, and weed prevention management practices for ground-disturbing activities. Implementing this plan will provide a comprehensive, systematic approach to weed management on Project lands and areas that may be affected by Project operations or Project-related activities throughout the new License period. It will also help to protect native plant communities, including those that support plants and wildlife of cultural importance to the Tulalip Tribes.

V. Article T-LA 3: Marbled Murrelet Habitat Protection Plan

There is no change in the Marbled Murrelet Habitat Protection Plan (“MMHPP”) between the License Application and the Settlement. Implementation of the MMHPP will provide a means of planning and scheduling Project-related operations and maintenance, forest management activities, and recreation resource enhancements that might otherwise have the potential to adversely affect marbled murrelets. Information

contained in the MMHPP will be updated at regular intervals, to ensure continued protection for marbled murrelets throughout the new License period.

W. Article W-LA1: Water Quality Monitoring License Article

The water quality protection plan conditions outlined in W-LA 1 are similar to those proposed in the License Application (*see* Appendix B at 3). Within 180 days of issuance of the FERC License, the District will file with the Commission, for approval, a Water Quality Protection Plan (“WQPP”). This WQPP will document how the District will implement a program to ensure compliance with Washington State water quality standards (as codified in WAC 173-201A) in the Sultan River. At a minimum the WQPP will include the following components:

1. water quality protection measures related to Project construction or maintenance activities (includes Best Management Practices (“BMPs”) for in-water and upland construction and maintenance activities);
2. spill prevention and containment procedures;
3. procedures for application of herbicides, pesticides, fungicides, and disinfectants; and
4. compliance monitoring and reporting procedures for select water quality parameters, such as temperature and turbidity.

The WQPP will follow the Guidelines for Preparing Quality Assurance Project Plans (“QAPP”) for Environmental Studies (July 2004 Ecology Publication Number 04-03-030) or its successor.

The District will prepare an annual report based on data collected. The District will review and update the WQPP as needed and provide the updated WQPP to Ecology.

## VII. 45-YEAR LICENSE TERM

As a result of the significant investment the District is making for the new Project License through the comprehensive package of PM&E measures, the Settlement Parties agree that the Commission should grant a 45-year new License term for the Project. This is consistent with the Commission's policy on license terms as articulated in *Mead Corp.* There, the Commission stated that it will grant:

30-year terms for the licenses for projects with little or no proposed redevelopment, new construction, new capacity or environmental mitigative and enhancement measures; 40-year terms for projects with a moderate amount of proposed redevelopment, new construction, new capacity or mitigative and enhancement measures; and 50-year terms for projects with proposed extensive redevelopment, new construction, new capacity, or mitigative and enhancement measures.<sup>11</sup>

The Settlement Parties believe that the significant PM&E measures set forth in the Settlement package call for a 45-year license. Indeed, the District estimates, assuming that the Settlement warrant a 45-year term for the new Project License and such License becomes effective in 2011, that the total capital costs of the measures set forth in the Settlement and incorporated into the new 45-year License would exceed \$21.4 million (in 2011 dollars). The District will expend an estimated \$1.1 million (in 2011 dollars) annually in implementing measures under the Settlement. In total, the District's post-licensing costs for implementing PM&E measures at the Project over a 45-year period will exceed \$69.5 million (in 2011 dollars). For a 123-MW project of moderate size, such measures greatly exceed the "moderate redevelopment, new construction, new

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<sup>11</sup> 72 FERC ¶ 61,077 (1995).

capacity, or mitigative and enhancement measures” test under *Mead Corp.* for a 40-year license term and certainly justify a 45-year license term.<sup>12</sup>

It is also important to note that a 45-year License term is a negotiated and agreed-upon term of the Settlement Parties in the Settlement (Section 4.6.1). During the pre-filing collaboration, the District consulted extensively with state and federal agencies, the Tulalip Tribes, local governments, non-governmental organizations and the public. In an attempt to promote long-term settlement of the relicensing of the Project, and to avoid any protracted, costly litigation, the District consistently supported wide participation in the collaboration, which ensured representation from many stakeholder interests. As a result of these efforts, the collaboration successfully identified and reviewed scores of potential improvement and mitigation measures, many of which ultimately became the subject of this Settlement. All measures proposed in the Settlement were negotiated, developed and analyzed based upon a 45-year new License term, which led to unanimity among the Settlement Parties that the Commission should issue a new License with a 45-year term.

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<sup>12</sup> See *Puget Sound Energy, Inc.*, 125 FERC ¶ 62,064, at PP 132-33 and n.79 (granting 50-year license to 200 MW Baker Project where Settlement Parties recommended a new license of “up to 45 years” but “[did] not object to a term of 45 years or more.”); see also *Entergy Arkansas, Inc.*, 101 FERC ¶ 62,201 (2002) (granting a 50-year license to operate the 65.3 MW Carpenter-Rommel Project); *Public Utility District No. 1 of Chelan County*, 117 FERC ¶ 62,129 (2006) (granting 50-year license to 48 MW Lake Chelan Project where Settlement Parties recommended a new license of 45-years but would not oppose a 50-year license).

## VIII. CONCLUSION

WHEREFORE, for the reasons stated above, the Settlement Parties believe that the public interest will best be served if the Commission: (1) approves the Settlement as filed; (2) adopts the Proposed License Articles identified in Appendix 1 of the Settlement, without material modification; and (3) issues a new 45-year License for the Project. To answer any questions that Commission Staff may have regarding this Settlement, the Settlement Parties request that the Commission convene a technical conference.

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