



Cascade Transmission and Supply Plan Extension

Review Draft

October 10, 2018

Cascade Water Alliance Members

City of Bellevue

City of Issaquah

City of Kirkland

City of Redmond

Sammamish Plateau Water

Skyway Water & Sewer District

City of Tukwila

Certification

Cascade Water Alliance

2019 Transmission and Supply Plan Extension

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Resolution Adopting Transmission and Supply Plan

Extension

The Board of Directors of Cascade Water Alliance adopted the 2019 Transmission and Supply Plan Extension contained in Appendix J, by Resolution No. _____ on November __, 2018

Acknowledgements

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Table of Contents

| | |
|--|----|
| Cover Sheet..... | 01 |
| Certification..... | 02 |
| Acknowledgements..... | 03 |
| Table of Contents..... | 04 |
| Introduction..... | 05 |
| Current Conditions | |
| Water Supply and Operations..... | 05 |
| Public Outreach and Consumer Engagement..... | 06 |
| Water Right Self-Assessment..... | 06 |
| SEPA Checklist..... | 06 |
| Water Demand and Production..... | 07 |
| Capital Improvement Plan..... | 09 |
| Water Efficiency Program..... | 11 |
| Financial Programs | |
| Rate Impact & Developer Fees..... | 11 |
| Appendices | |
| A. Water Shortage Management Plan | |
| B. Local Government Consistency for Wholesale Customers | |
| C. List of Wholesale Customers and Documentation of Outreach | |
| D. Adjacent Water Purveyor Outreach | |
| E. Public Customer Meeting | |
| F. Comment and Response Letters | |
| G. List of Water Rights | |
| H. SEPA Addendum | |
| I. Organizational Chart | |
| J. Resolution Adopting 2019 Transmission and Supply Plan Extension | |

Introduction

The Cascade Water Alliance (“Cascade”) is a Washington municipal corporation formed under authority of the Joint Municipal Utilities Authority Act (Chapter 39.106 RCW) to provide water supply to its Members; the Cities of Bellevue, Issaquah, Kirkland, Redmond and Tukwila, Sammamish Plateau Water and Skyway Water and Sewer District. Cascade’s primary role is to contract, plan and develop regional water supplies and programs on behalf of its Members.

The Cascade Board of Directors adopted the Cascade Transmission and Supply Plan by Resolution 2012-15 in July 2012. The plan was subsequently approved by the King County Council (Ordinance 17528) in February 2013 and by the Washington State Department of Health (DOH) in March 2013. For the purpose of this document, we will refer to it as 2013 Cascade Transmission and Supply Plan (“2013 TSP”)

The purpose of the 2019 Transmission and Supply Plan Extension (2019 TSP Extension) to the 2013 TSP is to provide a summary update to both the 2013 TSP and the subsequent, August 2, 2013 letter amendment to the DOH so that the 2013 TSP can be extended through 2022.

The 2013 TSP presents a Water Supply Portfolio which includes a combination of Member Independent Supplies (groundwater supplies), wholesale water supply purchases from Seattle Public Utilities (SPU), Tacoma Public Utilities (TPU) and water efficiency programs to provide for the projected needs of Cascade Members through 2030. Projected demand through the remainder of the 50 year planning period would be met through the development of White River - Lake Tapps Reservoir Project (WRLTRP) as a municipal water supply. The 2019 TSP Extension documents changes to Cascade’s demand forecast and resultant changes to the Water Supply Portfolio presented in the 2013 TSP. The major result of the changes described in the 2019 TSP Extension is to postpone the need to develop the Lake Tapps Reservoir as a municipal water supply for at least another 10 years.

Current Conditions

Water Supply and Operations

Water Supply. Cascade contracts with Seattle Public Utilities (SPU) for delivery of water to seven Cascade Members. The SPU supply contract provides for a “declining block” of supply that will be reduced in annual increments beginning in 2040. This changed from the 2013 plan and adds an additional 15 years of supply from SPU. Under the Block Contract, SPU is responsible for maintaining and operating source, treatment, transmission and storage facilities needed to deliver the contracted supply, as well as regulatory compliance for those facilities.

Operations. Cascade selected Veolia Water NA (Veolia) as its contract operator for the White River-Lake Tapps Reservoir Project in 2011, for an initial term of 5 years (through 2016). Cascade has extended the contract operations and maintenance agreement with Veolia for additional 5 years through the end of 2021. No other operational changes from 2013 TSP is anticipated.

Member Engagement

Cascade reached out to its seven members in a variety of ways. Together, those customers serve almost 400,000 residents and 22,000 businesses. Beginning in June, 2108, Cascade met with its members and their key utility staffs through a series of regular monthly meetings:

- Member Staff (staff to staff meeting)
- Public Affairs Committee
- Finance and Management Committee,
- Resource Management Committee
- Cascade Board Meetings

An executive summary prepared was shared with key staff, elected officials and public information officers so they could share with their constituencies. All materials are posted on Cascade's website. News releases outlining key aspects of the draft report are circulated and all input is gathered through Cascade's contact point, contact@cascadewater.org

Water Right Self-Assessment

Cascade's Water Right Self-Assessment remains valid and continues to meet our needs for the planning period based on the reduced demand forecast. Cascade is actively engaged with the Washington State Department of Ecology (DOE) and other governmental entities (the Muckleshoot Indian Tribe, the Puyallup Tribe of Indians, the Cities of Auburn, Bonney Lake, Buckley and Sumner and the Lake Tapps community) regarding implementation of the lake Tapps Water Rights.

Appendix G contains Lake Tapps Water Rights Issued to Cascade in 2010 from 2013 Cascade Transmission and Supply Plan.

SEPA Checklist

Cascade has determined that the Determination of Non Significance (DNS) and Environmental Checklist issued for the TSP in December 2011 is still valid for the TSP Extension. Cascade has prepared a SEPA Addendum and Revision to the Checklist to cover the new information and changes described in the TSP Extension Appendix H.

For any project specific actions, Cascade will conduct appropriate project level environmental review.

Water Demand and Production

Review and report the 2013 plan demand forecasting and compare to the actual demand of the past six years (tabular data with discussion)

Supply and Demand Update

Since 2012, Cascade's demand forecast has been adjusted downwards due to:

- 1) The departure of Covington Water District in 2013
- 2) Confirmation of lower demand trends moving forward from actual use during several years of warm, dry summers
- 3) Growing experience on actual population growth and impacts on water demand, and
- 4) Continued success and improved cost-effectiveness of our water efficiency program.

As a result, current demands in 2017 were roughly 3 mgd below the 2012 forecast, and the current demand forecast for 2040 is now roughly 9 mgd lower than 2012 forecast.

In addition to the changes in demand, the supply portfolio has also changed. This is the result of the departure of Covington Water District and its independent supplies and the execution of supply alternatives delineated in the plan. Specifically, Cascade has modified and extended its supply contract with Tacoma, which now provides 8 mgd (peak and average) through 2042. Cascade also modified and extended its supply contract with Seattle, which now provides 33.3 mgd average (66.6 mgd peak) through 2039. The Seattle contract extends to 2064 with declining supply commitments after 2039.

As a consequence of these changes, Cascade now enjoys adequate supplies for a 20 year period without development of White River – Lake Tapps Reservoir Project (WRLTRP) or other sources. The development of WRLTRP may occur as early as the mid- to late 2030's, although continued pursuit of contractual commitments from existing regional supplies could further delay this project.

Table 1-1 below provides a tabulated comparison between 2013 TSP and this update

Table 1-1 Summary Comparison of Water Demands

| Cascade Water Alliance | | | | | | | |
|---|--|--------|--------------------------|--|---|----------------------------------|--------------------------|
| Summary of Water Demands (Average Day Demands in MGD) | | | | | | | |
| | Projected Supply and Demand 2013 TSP (Includes Covington supplies and demands) | | | | Current Forecast of Supply and Demand 2018 Forecast (Not including Covington) | | |
| Year | Supply | Demand | Net Surplus (Deficit) | | Supply | Demand (Actuals thru 2017) | Net Surplus (Deficit) |
| 2013 | 45.80 | 39.66 | 6.14 | | 41.72 | 34.04 | 7.68 |
| 2014 | 45.89 | 39.74 | 6.15 | | 41.75 | 34.92 | 6.83 |
| 2015 | 45.97 | 39.81 | 6.16 | | 41.77 | 36.48 | 5.29 |
| 2016 | 46.06 | 39.82 | 6.24 | | 41.80 | 35.48 | 6.32 |
| 2017 | 46.15 | 39.84 | 6.31 | | 41.83 | 37.07 | 4.76 |
| 2018 | 48.23 | 39.85 | 8.38 | | 41.85 | 36.17 | 5.68 |
| 2019 | 48.32 | 39.87 | 8.45 | | 41.88 | 36.19 | 5.69 |
| 2020 | 48.41 | 39.89 | 8.52 | | 41.91 | 36.19 | 5.72 |
| 2021 | 48.48 | 40.34 | 8.14 | | 41.93 | 36.24 | 5.69 |
| 2022 | 48.56 | 40.79 | 7.77 | | 41.96 | 36.42 | 5.54 |
| 2023 | 48.64 | 41.25 | 7.39 | | 41.99 | 36.59 | 5.40 |
| 2024 | 48.71 | 41.70 | 7.01 | | 42.01 | 36.75 | 5.26 |
| 2025 | 51.44 | 42.16 | 9.28 | | 42.04 | 36.92 | 5.12 |
| 2026 | 51.52 | 42.59 | 8.93 | | 42.06 | 37.08 | 4.98 |
| 2027 | 51.60 | 43.03 | 8.57 | | 42.09 | 37.25 | 4.84 |
| 2028 | 51.68 | 43.46 | 8.22 | | 42.12 | 37.41 | 4.71 |
| 2029 | 51.75 | 43.90 | 7.85 | | 42.14 | 37.57 | 4.57 |
| 2030 | 70.90 | 44.33 | 26.57 | | 42.17 | 37.73 | 4.44 |
| 2031 | 71.00 | 44.73 | 26.27 | | 42.20 | 37.88 | 4.32 |
| 2032 | 71.09 | 45.12 | 25.97 | | 42.22 | 38.03 | 4.19 |
| 2033 | 71.19 | 45.51 | 25.68 | | 42.25 | 38.19 | 4.06 |
| 2034 | 71.29 | 45.90 | 25.39 | | 42.28 | 38.34 | 3.94 |
| 2035 | 66.38 | 46.29 | 20.09 | | 42.30 | 38.48 | 3.82 |
| 2036 | 66.48 | 46.66 | 19.82 | | 42.33 | 38.63 | 3.70 |
| 2037 | 66.58 | 47.03 | 19.55 | | 42.36 | 38.77 | 3.59 |
| 2038 | 66.67 | 47.39 | 19.28 | | 42.38 | 38.91 | 3.47 |
| 2039 | 66.77 | 47.76 | 19.01 | | 42.41 | 39.05 | 3.36 |
| 2040 | 61.86 | 48.13 | 13.73 | | 40.43 | 39.18 | 1.25 |

Capital Improvement Program for Existing Water System

Projects Completed Since 2013 TSP:

1. Lower conveyance system condition assessment focused on the facilities necessary for the long term operations of Lake Tapps.
2. Tunnel Intake and Intake Building improvements that replaced trash rack, stop logs, tunnel intake decking and fill gate.
3. Powerhouse Improvements that removed lead paint, replaced windows, replaced roof and rehabilitation of valve 1 and replaced valve 3.
4. Dam Safety improvement that include Dike 3 and Dike 13 improvements. Dike 3 includes installation of a grout seepage barrier to reduce seepage and regrade dike slope to improve seismic stability. Dike 13 replaced failing ecology block wall with natural rock wall
5. Timber flume replacement project replaced the last remaining section of the flume with reinforced concrete flume.
6. Headworks head gate improvement project rehabilitation and replaced both head gates and their controlling mechanisms.
7. Wolslegal Basin sediment removal removed 72,000 cubic yards of sediment
8. Barrier structure apron repair project repaired the severely damaged apron on the Barrier Structure.
9. Penstock 3 annular space grouting project grouted the annular space between the concrete tunnel and penstock 3 to improve stability and reliability of penstock 3.
10. Security Phase I improve project installs access monitoring and control equipment at three key locations.

Future Planned Capital Projects:

Planned Projects Through 2022

Purpose: Cascade's Capital Improvement Program (CIP) through the extension period (2022) does not invest in new infrastructure that will be needed once we begin to use Lake Tapps as a water supply source (in about the 2030s or 2040s.) In order to acquire and keep Lake Tapps as a supply option, Cascade agreed contractually to operate the reservoir for recreation purposes. This includes maintaining infrastructure integrity and functionality for current operations and for future use as a supply source.

Objectives: The primary objectives of the CIP plan are: to protect existing assets from failure; to ensure the highest value to member organizations through safe and efficient management; and to operate existing infrastructure while meeting all regulatory requirements and operating agreements.

Program Approach: Cascade's systematic approach to its CIP includes: developing a good understanding of the condition of its 113-years old infrastructure and subcomponents that were originally designed and operated for the purpose of hydroelectric power production instead of drinking water production; evaluating the trade-offs between repair, rehabilitation and replacement option; developing a plan of action and a list of projects grouped by implementation timelines; obtaining funding; and implementation.

Capital Projects

1. White River diversion intake modifications project will replace the existing head gates with new gates to be completed in conjunction with Army Corp of Engineer's Mud Mountain Fish Passage Project.
2. SCADA Upgrade Project to improve SCADA control and reliability of the system
3. Powerhouse and standpipes seismic analysis to evaluate risk during a seismic event
4. Tailrace and spillway improvements to replace aging timber retaining walls in the tail race
5. Valve no. 2 and flow tube replacements
6. Security Improvement phase 2
7. Facilities Master Plan project to develop a master plan for future facilities improvements
8. Facilities improvement project to improve aging and unsafe building and facilities
9. Penstock 1 butter fly valve replacement
10. Forebay corrosion protection system

Future Projects Beyond 2022

This period covers the new infrastructure that will be needed once we begin to use Lake Tapps as a water supply source (in about 2040s.) The list of projects has not changed from the 2012 Plan but the time period has been pushed back an additional 10 years.

Water Efficiency Program

Purpose: The water efficiency program serves Cascade’s mission by lowering regional water demand so that Cascade may delay or defer development of the WRLTRP or other sources of water supply. By utilizing existing water supplies more efficiently, Cascade will save millions of dollars for its ratepayers, leave more water in streams for fish, and reduce the region’s carbon footprint through decreased energy usage involved in the treatment, transmission and distribution of drinking water.

Program Objectives: Cascade’s 2019 – 22 Regional Water Efficiency Program will:

1. Achieve the necessary savings to meet Cascade’s adopted Water Use Efficiency Rule savings goal.
2. Pursue cost-effective program measures that provide the greatest benefit for the greatest number of rate-payers.
3. Offer program measures that represent all Cascade members in the distribution of program resources.
4. Create innovative and impactful education opportunities and campaigns that promote the value of water and the conservation ethic.
5. Enable high-volume peak season water users to help themselves use water more efficiently and integrate sustainable landscaping techniques.

Savings Goal: Cascade Water Alliance will dedicate the necessary staffing and financial resources to achieve a cumulative savings of 0.4 million gallons per day of drinking water from January 1, 2019 to December 31, 2022. (100,000 gallons per day each year)

Financial Programs

Rate Impacts & Developer Fees

Rate and RCFC trends

The deferral of the WRLTRP has resulted in both lowered Cascade charges for ongoing service (rates to members) and new development charges (Regional Capital Facilities Charges (RCFC)). The RCFC has not increased since 2009, and will face only inflation-like increases for a number of years to come.

Wholesale rates also generally face inflation-level increases until the cost of Lake Tapps development approaches. In both cases, the trends are extremely favorable as compared to projections developed for the 2013 TSP.

Appendix A

Cascade Water Shortage Management Plan

Cascade Water Alliance Shortage Management Plan

Resolution 2016-18

October 26, 2016

Table of Contents

| | | |
|-----|--|---|
| 1.0 | Introduction and Purpose | 3 |
| 2.0 | Related Agreements and Water Rights | 3 |
| 2.1 | Cascade Joint Municipal Utilities Authority Agreement | 3 |
| 2.2 | Seattle Block Contract | 5 |
| 2.3 | Tacoma Public Utilities Water Supply Agreement | 5 |
| 2.4 | White River-Lake Tapps Water Rights | 6 |
| 2.5 | Member Water Audit Agreements | 6 |
| 3.0 | Plan Activation and Applicability to Cascade Members | 6 |
| 3.1 | Activation of SMP | 6 |
| 3.2 | Water Shortage Management Committee | 7 |
| 3.3 | Coordination with SPU and Members | 7 |
| 3.4 | Applicability to Cascade Members | 8 |
| 3.5 | Member Shortage Plans | 8 |
| 3.6 | Communications During Water Shortages | 8 |
| 3.7 | Relief of Conflicting Obligations During Water Shortages | 8 |

| | | |
|-----|-----------------------------|----|
| 4.0 | Stages of Water Curtailment | 9 |
| 4.1 | Advisory Stage | 10 |
| 4.2 | Voluntary Stage | 11 |
| 4.3 | Mandatory Stage | 13 |
| 4.4 | Emergency Stage | 15 |

Tables

| | |
|---|----|
| Table 1: Triggers for Plan Activation and of Curtailment Stages | 17 |
| Table 2: Four Stages of Curtailment | 18 |

List of Appendices

| |
|---|
| Appendix A: Actions that Can Reduce Water Usage by Distribution Systems and Customers |
|---|

1.0 Introduction and Purpose

Municipal water suppliers must be prepared for water shortages in order to minimize effects on the communities they serve. This Shortage Management Plan (“SMP”) outlines how Cascade Water Alliance (“Cascade”) will respond to a water supply shortage affecting its regional water supply.

At the present time, Cascade purchases all of its water from Seattle Public Utilities (“SPU” or “Seattle”). Various events could cause a shortage in the SPU water supply system. These include reduced snowpack in the Cascade Range due to a dry winter or early spring melt; an earthquake or other event that damages reservoirs, treatment facilities or transmission lines; water quality problems; or intentional destructive acts. These different kinds of events may cause shortages with different characteristics in terms of advance warning, severity and duration. The SMP offers flexibility for a range of appropriate responses.

As required under Washington State Department of Health (“DOH”) regulations, SPU and each Member of Cascade has its own shortage management plan to guide water system operations and interaction with end-use customers in each community during a water shortage. Cascade's SMP complements the SPU and Member SMPs.

Cascade's primary role in the event of a water shortage is to coordinate responses among the Cascade Member water systems that receive water from the regional supply and SPU, as the source of the regional supply. Therefore, this SMP focuses on the communication and coordination activities to be carried out by Cascade staff during a water shortage.

2.0 Related Agreements and Water Rights

2.1 Cascade Joint Municipal Utilities Authority Agreement

The Cascade Water Alliance Joint Municipal Utilities Authority Agreement (“Joint Agreement”, 2012) established Cascade as a municipal corporation and provides the agreement of the Cascade Members on operations. Section 7.3 of the Joint Agreement provides (emphasis added):

7.3 Shortages and emergency.

A. Shortages. Members must respond to water shortages in a collective, shared fashion under a Cascade Shortage Management Plan adopted by the Board. Resources must be shared in a manner that reduces the risk of severe shortages to each Member. **Cascade's Shortage Management Plan may include without limitation, a definition and classification of shortages, a shortage contingency plan including mandatory programmatic actions among all Members in the event of shortages, allocation of authority for determining and responding to shortages, and a communications and outreach program for the public.** Members shall not be required to implement Cascade's Shortage Management Plan in areas not served by the Supply System.

In the event of shortages, Cascade shall reduce or halt Interruptible Supply before invoking the Shortage Management Plan with respect to all Members with a Full Supply Commitment. However, the Board may, by 65% Dual Majority Vote, continue service in the amounts it deems appropriate to one or more Members receiving Interruptible Supply.

The Board may require that Members failing to comply with mandatory shortage management programs implemented under Cascade's Shortage Management Plan assume a disproportionate reduction in supply or pay penalty charges, or both.

In the event of a Cascade-wide water shortage, Members with Independent Supply may, without penalty, decline to participate in the shortage management program for that shortage by foregoing all supply from Cascade for the duration of the emergency or shortage.

To avoid shortages resulting from emergencies or the inability to develop sufficient supplies, **the Board may, by 65% Dual Majority Vote, establish moratoria on connections or additional commitments for future water services by the Members.** A moratorium may be discontinued by a Dual Majority Vote of the Board.

B. Emergency. The Board shall include in Cascade's Shortage Management Plan policies and procedures for addressing short-term disruptions of water supply.

The Joint Agreement also provides Cascade with the authority to impose minimum demand charges on Members (which Cascade has implemented in certain instances) as follows:

A Member shall be assigned a Demand Share based on the Board's best estimate of capacity to be used by that Member. The Demand Share shall be established based on an audit of that Member's past three (3) years of water use. After three (3) years as a Member, the baseline demand and capacity obligation for that Member shall be fixed based on actual experience as a Member. **A specific Demand Share may be set by the Board to account for circumstances, such as (by way of example and not by limitation) costs of extending the Supply System to a Member, or when Independent Supplies affect regional demand patterns.**

Section 7.5 (in part and emphasis added).

2.2 Seattle Block Contract

The 2013 2nd Amended and Restated Declining Block Water Supply Agreement Between the City of Seattle and Cascade Water Alliance ("Block Contract") provides for shortage management. Section 7.2 provides:

Cascade and Seattle shall coordinate the development, adoption and implementation of their respective Water Shortage Management Plans. Before invoking its Water Shortage Management Plan, the Parties shall communicate with each other concerning current and projected water supply conditions.

Section 12.1 of the Block Contract recognizes that unilateral actions by Seattle may be needed at times due to unforeseen and unavoidable events, including water shortages. It provides (emphasis added):

The Parties recognize that unforeseen and unavoidable events may occur which would require Seattle to act unilaterally for what it deems to be in the best interest of the general public served by the Seattle Water System; including water shortages resulting from drought circumstances and temporary reduction in water supply associated with turbidity events. **Upon the occurrence of an unforeseen or unavoidable event, Seattle shall, to the extent practicable, treat its wholesale and retail customers equally and any curtailment of supply shall be imposed proportionately among these customers.** This authority to act unilaterally carries with it a unilateral responsibility of Seattle to restore, expeditiously, the Seattle Water System to its pre-emergency capability to supply the region.

As a separate matter, Section 7.3 of the Block Contract provides that if water use restrictions are imposed on SPU by the terms of its agreements with Federal and State agencies and Tribes, such restrictions will be borne proportionally by SPU and its other wholesale customers, and Cascade with respect only to the size of the Cascade Block at the time curtailment is required. In this event, Cascade and its Members will need to review the restrictions and determine appropriate short-term or long-term actions.

2.3 Tacoma Public Utilities Water Supply Agreement

Cascade entered into an *Agreement for the Sale of Wholesale Water* (2005) with Tacoma Public Utilities (TPU). In 2012, Cascade and TPU amended the *Agreement* to require Cascade to make specified supply capacity reservation payments to TPU, in lieu of the minimum purchase payments provided for in the 2005 agreement. Through 2042, Cascade may request that TPU provide up to 8 MGD wholesale water supply, and TPU has sole discretion to determine the availability, disruption, interruption, suspension and curtailment of such supply. At this time, Cascade is not using this supply source. At such time as Cascade begins receiving regional water supply from Tacoma, the need to incorporate shortage response actions in coordination with TPU will be reviewed.

2.4 White River-Lake Tapps Water Rights

The Water Right Permit No. S2-29920(A), issued in 2010 to Cascade for the withdrawal or diversion of water from the White River into Lake Tapps for municipal purposes, is subject to conditions including the maintenance of minimum flows in the White River and the maintenance of specified lake levels during a specified recreational period. These conditions are not considered in the SMP at this time for the following reasons: Cascade is not currently using Lake Tapps for municipal supply and Cascade's current planning vision indicates that Cascade's use of Lake Tapps is at least 20 years away. Cascade will update the SMP to include lake level triggers at such time as Lake Tapps is brought on line for municipal supply purposes.

2.5 Member Water Audit Agreements

Each Member has executed a water audit agreement with Cascade. For those Members with independent supply, that agreement defines and quantifies independent supplies, documents member utilization of those supplies, and establishes production requirements imposed on Members as related to those supplies.

3.0 Plan Activation and Applicability to Cascade Members

3.1 Activation of SMP

Cascade may activate its SMP under the following circumstances:

- 1) When SPU activates its Water Shortage Contingency Plan, the Cascade CEO may activate the SMP and determine the appropriate stage of curtailment and, at its next meeting, the Cascade Board will take action to end or continue activation at the appropriate stage of curtailment;
- 2) In the event that a supply shortage or threat of a supply shortage requires immediate action to prevent risks to public health and safety, the Cascade CEO may declare an emergency and activate the SMP and determine the appropriate stage of curtailment and, at its next meeting, the Cascade Board will take action to end or continue activation at the appropriate stage of curtailment; or
- 3) For any other reason through action of the Cascade Board.

Unless otherwise directed by the Cascade Board, the Cascade CEO, in consultation with the Water Shortage Management Committee (Section 3.2 below), may elevate or diminish the stage of curtailment from one stage to another as appropriate.

3.2 Water Shortage Management Committee

The Cascade CEO shall designate a Water Shortage Management Committee consisting of Cascade staff and Member staff to advise the Cascade CEO on implementation of the SMP. The Water Shortage Management Committee may be designated at any time, but no later than immediately following SMP activation and shall exist the duration of the water shortage. The existing Member staff committee may be designated as the Water Shortage Management Committee. The Cascade CEO may consult with the Water Shortage Management Committee by any means including in-person, by phone or by email.

3.3 Coordination with SPU and Members

As provided in the Block Contract with SPU, Cascade will coordinate and communicate closely with SPU regarding activation of the SMP and a change in the stage of shortage as indicated in Section 4 below.

Cascade and its Members have a key role in the communications strategy during a regional water shortage. It is anticipated that SPU will communicate with its own retail customers, wholesale customers, large retail customers, regional stakeholders, state/federal resource agencies, and regional media. Cascade encourages its Members to communicate with retail customers, wholesale customers, local stakeholders, and local media. Cascade will help to coordinate and facilitate communications among the Members and between the regional level and the local level.

Cascade will strive to make its public messaging at each stage of curtailment consistent with SPU's messaging during the shortage event.

Cascade will maintain a current copy of SPU's Water Shortage Contingency Plan on file at Cascade offices, and encourages Members that receive water from Cascade's regional water supply system maintain a copy of both the Cascade SMP and SPU Water Shortage Contingency Plan readily available with their own Member SMP.

In addition, the Block Contract with SPU contains provisions related to SPU's supply commitment and Cascade's participation in shortages. These include financial provisions that, in the event of a voluntary or mandatory curtailment, require revision to the cost borne by Cascade. Whenever SPU moves a shortage to the voluntary, mandatory or emergency stage, Cascade will initiate discussion with SPU regarding adjustments to the supply commitment and payments due from Cascade. Cascade will inform the Members of any proposed financial treatment regarding SPU charges occurring as a result of the shortage and these discussions.

3.4 Applicability to Cascade Members

Consistent with the Section 7.3 of the Joint Agreement, activation of the SMP applies to Cascade Members as follows:

- **Members receiving all of their water supply from Cascade:** Required to comply with Cascade's SMP.

- **Members receiving partial supply from Cascade:** Required to comply, in portions of their service areas that receive regional supply; *or* to discontinue use of Cascade supply during the water shortage.
- **Members not receiving Cascade supply.** Not required to comply with Cascade's SMP.
- **Members with interruptible supply.** *None at this time.*

3.5 Member Shortage Plans

DOH regulations at WAC 246-290-100(4)(f) require water utilities to have their own water shortage response plan. These are typically submitted to DOH every six years with their comprehensive water system plan update. Cascade recommends that Members review and revise their water shortage response plans to ensure the Member plans use similar stages of curtailment as listed in the Cascade SMP, and that provisions in the Member SMPs support effective coordination with SPU and Cascade during a water shortage.

3.6 Communications During Water Shortages

In addition to the communication actions listed for each curtailment stage in Section 4, in the event of a water shortage that requires this SMP to be activated, Cascade will coordinate closely with its Members and SPU regarding public communications. It is anticipated that SPU will take the lead on communications involving regional media such as major radio, television and newspaper outlets. Members will have the primary responsibility for communicating directly with their own customers and local communities. Cascade will coordinate communications among Members and SPU and will assist its Members issue consistent and effective communications to the communities that they serve.

3.7 Relief of Conflicting Obligations During Water Shortages

When the SMP is activated, and with each stage of curtailment, Cascade will review and adjust production requirements and minimum demand shares to avoid potentially contradictory obligations of members. Since minimum production requirements may be inconsistent with desired or mandated demand reductions, and since minimum demand shares provide financial disincentives to demand reduction, Cascade will determine necessary and appropriate adjustments to provide for consistent incentives and impacts among members. Specifically:

- The Cascade CEO, in consultation with the Water Shortage Management Committee and each affected Member, will recommend to the Board to amend or suspend production requirements so that demand reduction and supply production objectives are not in conflict, while recognizing that increased reliance

on independent supplies is a desirable outcome when addressing a shortage from Cascade's regional sources.

- The Cascade CEO, in consultation with the Water Shortage Management Committee and each affected Member, will recommend to the Board to amend or suspend minimum demand shares in order to encourage reduced demand on impacted regional sources.
- In the event that a shortage is caused by a shortage in independent supply resulting in a shortage that Cascade chooses to share in, the Cascade CEO, in consultation with the Water Shortage Management Committee and each affected Member, will recommend to the Board to make adjustments specific to each Member to reflect the unique circumstance of the shortage.

The recommended adjustments will be taken to the Board for approval or adjustment.

4.0 Stages of Water Use Curtailment

Cascade's SMP has four stages of curtailment that coincide with the stages of curtailment in SPU's Water Shortage Contingency Plan:

- Advisory Stage
- Voluntary Stage
- Mandatory Stage
- Emergency Stage

These four stages are designed for progressive implementation during a drought or other long-range disruption of water supply. However, any of the four stages can be activated from the outset of the event as appropriate and the stage of curtailment maybe elevated or diminished from one stage to another as appropriate.

Sections 4.1 through 4.4 provide details in each of the four stages of curtailment. Table 1 provides a summary of the triggers of each stage. Table 2 provides a summary of actions to be taken in each stage.

4.1 Advisory Stage

This stage is advisory only, and does not require curtailment actions by water users. The public is informed as early as meaningful data are available that a water shortage may occur.

4.1.1 Objectives of Advisory Stage

- Prepare Cascade, its Members and water users for a potential water shortage, thereby allowing for adequate planning and coordination.
- Support distribution system management actions by Cascade Members that can help to forestall or minimize the need for more stringent demand or supply management actions.

4.1.2 Triggers of Advisory Stage

- 1) Upon notice from SPU that it has activated the Advisory Stage of their Water Shortage Contingency Plan, the Cascade CEO may activate the SMP and the Advisory Stage and, at its next meeting, the Cascade Board will take action to end or continue activation; or
- 2) In the event that a supply shortage or threat of a supply shortage requires immediate action to prevent risks to public health and safety, the Cascade CEO may declare an emergency and activate the SMP and the Advisory Stage and, at its next meeting, the Cascade Board will take action to end or continue activation; or
- 3) The Cascade Board may act to authorize activation of Cascade's Advisory Stage.

4.1.3 Communication Actions During Advisory Stage

Once the Advisory Stage has been activated by Cascade, Cascade will:

- Inform Cascade Members that they are required to activate their Advisory Stage (or equivalent actions per each Member's individual SMP). This will not apply to Cascade Members exempted per Section 3.4 of this SMP.
- Establish a regular communication mechanism to keep Cascade Members and the Cascade Board informed regarding stages of curtailment; water supply conditions; actions taken by Cascade Members and others in the region; and information that should be communicated to the public, local

parks departments, large customers, landscape industry professionals and others.

- Request Cascade Members carry out supply-side management actions they will take during the Advisory Stage to reduce use of water for local water distribution system operations, and compile information on the actions taken. For Members that have independent supply, this may include relying more heavily on these supplies where feasible, to reduce pressure on the Cascade regional supply.
- If requested by SPU, participate on SPU's Water Shortage Advisory Group to help develop public information messages and materials and to provide input on Cascade Member actions.
- Assist Cascade Members acquire and distribute public information materials as needed. This may include materials from SPU or other sources, as appropriate. Post information on Cascade's web site regarding the Advisory Stage.

4.1.5 Operating Actions of Advisory Stage

- Cascade will initiate planning and preparation for actions under an elevated stage of curtailment, including an assessment of potential staffing impacts, training needs and communications strategies.
- Cascade will assist Members plan specific actions under an elevated stage of curtailment, including distribution system actions by the Member and voluntary water use curtailment actions Members can suggest to their end-use customers if the elevated stage of curtailment is activated.

4.2 Voluntary Stage

If supply conditions indicate the need for actions greater than those in the Advisory stage, the plan moves to the Voluntary Stage which relies on voluntary cooperation and support of customers to meet target consumption goals. During this stage, specific voluntary actions are suggested for residential and commercial customers.

4.2.1 Objectives of Voluntary Stage

- Encourage Members to take distribution system management actions to further stretch available supply.
- Encourage customer voluntary actions to maintain or reduce demand to meet target consumption levels.

- Forestall or minimize need for later more stringent demand or supply management actions.
- Maintain drinking water quality at acceptable levels throughout the shortage.

4.2.2 Triggers of Voluntary Stage

- 1) Upon notice from SPU that it has activated the Voluntary Stage of their Water Shortage Contingency Plan, the Cascade CEO may activate the Voluntary Stage and, at its next meeting, the Cascade Board will take action to end or continue activation; or
- 2) In the event that a supply shortage or threat of a supply shortage requires immediate action to prevent risks to public health and safety, the Cascade CEO may declare an emergency and activate the Voluntary Stage and, at its next meeting, the Cascade Board will take action to end or continue activation; or
- 3) The Cascade Board may authorize activation of Cascade's Voluntary Stage.

4.2.3 Communication Actions of Voluntary Stage

Once the Voluntary Stage has been activated by Cascade, Cascade will:

- Inform Cascade Members that they are required to activate their Voluntary Stage (or equivalent actions per each Member's individual SMP). This will not apply to Cascade Members exempted per Section 3.4 of this SMP.
- Request Cascade Members report to Cascade regarding supply-side management actions they will take during the Voluntary Stage. For Members that have independent supply, this may include relying more heavily on these supplies where feasible, to reduce pressure on the Cascade regional supply.
- Request Cascade Members communicate with their largest customers to request percentage reductions.
- Communicate regularly with Cascade Members regarding information that should be communicated to the public, local parks departments, large customers, landscape industry professionals and others. At the Voluntary Stage, this will include specific recommendations on how customers can reduce water consumption, including links to the *savingwater.org* website or equivalent information resources.
- Communicate with the Washington State Department of Health regarding actions being taken by Cascade and its Members.

- If requested by SPU, participate on SPU's Water Shortage Advisory Group to help develop public information messages and materials and to provide input on Cascade Member actions.
- Assist Cascade Members acquire and distribute public information materials as needed. Review information from SPU, including materials in the Water Shortage Contingency Plan, regarding actions customers can take to reduce their water consumption. As appropriate, post information for Cascade Members and their customers on Cascade's web site regarding the Voluntary Stage. Appendix A provides examples of water saving actions customers can take.

4.2.4 Operating Actions in Voluntary Stage

- Cascade will assess revenue implications and potential remedies and report to the Cascade Board.
- Cascade will initiate planning and preparation for actions under an elevated stage of curtailment, including an assessment of potential staffing impacts, training needs and communications strategies. Assist Cascade Members to identify mandatory restrictions that may apply during the Mandatory Stage, if it is needed.

4.3 Mandatory Stage

If supply conditions indicate a need for actions greater than those in the Voluntary stage, the Mandatory Stage would be implemented. This stage prohibits or limits certain water actions. Cascade will rely on its Members to enforce mandatory actions, using techniques as appropriate to each service area or jurisdiction.

4.3.1 Objectives of Mandatory Stage

- Achieve targeted goals for reducing consumption, by restricting certain water uses.
Goals will be determined in consultation with SPU, based on the characteristics and severity of the water shortage.
- Ensure that adequate water supply will be available for the duration of the supply shortage.
- Minimize the disruption to customers' lives and businesses while meeting target consumption goals.
- Maintain drinking water quality at acceptable levels throughout the shortage.
- Promote equity among Cascade Members in responding to the supply shortage.

4.3.2 Triggers of Mandatory Stage

- 1) Upon notice from SPU that it has activated the Mandatory Stage of their Water Shortage Contingency Plan, the Cascade Board will consider activation of the Mandatory Stage; or
- 2) In the event that a supply shortage or threat of a supply shortage requires immediate action to prevent risks to public health and safety, the Cascade CEO may declare an emergency and activate the Mandatory Stage and, at its next meeting, the Cascade Board will take action to end or continue activation; or
- 3) The Cascade Board may authorize activation of Cascade's Mandatory Stage.

4.3.3 Communication Actions of Mandatory Stage

Once the Mandatory Stage has been activated by Cascade, Cascade will:

- Inform Cascade Members that they are required to activate their Mandatory Stage (or equivalent actions per each Member's individual SMP). This will not apply to Cascade Members exempted per Section 3.4 of this SMP. Enforcement actions may be needed in the Mandatory Stage. Cascade expects each Member to enforce restrictions in a manner suitable to the local service area or to work with other local governments having enforcement powers to do so.
- Gather information from SPU regarding any water quality or water pressure problems, if any, that are identified or that may possibly occur at the mandatory stage, and communicate these to Cascade Members management, operations staff and public affairs staff.
- Continue communication actions from the Voluntary Stage, with modifications as appropriate for the Mandatory Stage (as determined in consultation with SPU and Cascade Members).

4.3.4 Operating Actions of Mandatory Stage

- Cascade will continue operating actions from the previous stages, and:
- Cascade will initiate planning and preparation for Emergency Stage actions, including an assessment of potential staffing impacts, training needs, communications strategies. Cascade will assist Members to plan specific actions that may be needed if the Emergency Stage is activated.

- If necessary the Board will consider enforcement actions against any Members who do not comply with Mandatory Stage actions, as allowed under the Cascade Joint Agreement.

4.4 Emergency Stage

At this stage Cascade and its Members recognize that a critical water situation exists and that, without additional significant curtailment actions a shortage of water for public health and safety is imminent. This would be used as the last stage of a progressive drought or similar situation, or to address an immediate crisis such as a disruption to water sources, treatment or transmission facilities. This type of situation has never occurred in Cascade or SPU history, but could occur during a very severe drought or under emergency conditions such as a major earthquake that ruptures transmission pipelines.

4.4.1 Objectives of Emergency Stage

- Strive to meet the water use goals established for this stage, recognizing that customers' lives and businesses may be significantly impacted in order to achieve necessary water savings. Goals will be determined in consultation with SPU, based on the characteristics and severity of the water shortage.
- Promote equity among Cascade Members in responding to the supply shortage.

4.4.2 Triggers of Emergency Stage

- 1) Upon notice from SPU that it has activated the Emergency Stage of their Water Shortage Contingency Plan, the Cascade Board will consider activation of the Emergency Stage; or
- 2) In the event that a supply shortage or threat of a supply shortage requires immediate action to prevent risks to public health and safety, the Cascade CEO may declare an emergency and activate the Emergency Stage and, at its next meeting, the Cascade Board will take action to end or continue activation; or
- 3) The Cascade Board may authorize activation of Cascade's Emergency Stage.

If SPU activates its Emergency Stage, Cascade anticipates that Section 12.1 (Emergency Events) of the Block Contract would also be triggered. This section permits SPU to curtail supplies to Cascade, on a proportional basis with its retail customers and other wholesale customers. In the event of significant curtailment, Cascade and its Members would need to activate their SMPs in order to manage the situation effectively.

4.4.3 Communication Actions of Emergency Stage

Once the Emergency Stage has been activated by Cascade, Cascade will:

- Inform Cascade Members that they are required to activate their Emergency Stage (or equivalent actions per each Member's individual SMP). This will not apply to Cascade Members exempted per Section 3.4 of this SMP. Enforcement actions may be needed in the Emergency Stage. Cascade anticipates each Member will enforce restrictions in a manner suitable to the local service area or will work with other local governments having enforcement powers to do so.
- Continue and intensify communication actions from the previous stages, with modifications as appropriate for the Emergency Stage (as determined in consultation with SPU and Cascade Members). This includes, but is not limited to, Cascade's role in supporting effective communications between individual Cascade Members and SPU.
- For Members that have independent supply, request they rely as much as possible on these supplies, to reduce pressure on the Cascade regional supply.
- Alert Members of particular operational problems that may occur with system-wide reduced water consumption, and communicate these to Cascade Members management, operations staff and public affairs staff and on the Cascade website. These could include, for example, taste and odor problems; and reduced pressures in Member distribution systems.
- Assist Cascade Members to define and communicate exemptions for medical facilities and other facilities having key responsibilities for public health and safety.

4.4.5 Operating Actions of Emergency Stage

- Cascade will continue to monitor staffing impacts, training needs and communications strategies and make adjustments where feasible to enhance effectiveness of the regional water shortage response.
- If feasible and applicable, Cascade will make staff resources available to Cascade Members to assist them in the water shortage response. This may include temporary reassignment of Cascade staff; and/or outsourcing of specialized functions or additional staffing resources that could provide assistance to

Cascade Members.

- If volunteer services are available and deemed valuable to the water shortage response, and if desired by the Members, Cascade will coordinate volunteers on behalf of its Members.
- If necessary the Board will consider enforcement actions against any Members who do not comply with Emergency Stage actions, as allowed under the Cascade Joint Agreement.

TABLE 1: Triggers for Plan Activation and of Curtailment Stages

| TRIGGERS | CASCADE SMP/Stage | MEMBERS |
|---|--|--|
| <p>SPU activation <u>plus</u></p> <p>CEO activation Cascade (Board confirmation); or</p> <p>CEO declaration of emergency (Board confirmation at next meeting); or</p> <p>Board Action</p> | <p>Activation to any of the 4 Stages</p> | |
| <p>SPU activates to Advisory Stage <u>plus</u></p> <p>CEO activation (Board confirmation at next meeting); or</p> <p>CEO declaration of emergency (Board confirmation at next meeting); or</p> <p>Board Action</p> | <p>Advisory Stage</p> | <p>Cascade inform and advise Members</p> |
| <p>SPU activates to Voluntary Stage <u>plus</u></p> <p>CEO activation (Board confirmation at next meeting); or</p> <p>CEO declaration of emergency (Board confirmation at next meeting); or</p> <p>Board Action</p> | <p>Voluntary Stage</p> | <p>Member compliance required</p> |
| <p>SPU activates to Mandatory Stage <u>plus</u></p> <p>Board Action; or</p> <p>CEO declaration of emergency (Board confirmation at next meeting). or</p> | <p>Mandatory Stage</p> | <p>Member compliance required</p> |

| | | |
|---|-----------------|----------------------------|
| Board Action | | |
| SPU activates to Emergency Stage <u>plus</u> Board Action; or CEO declaration of emergency (Board confirmation at next meeting); or Board Action | Emergency Stage | Member compliance required |

Table 2: Four Stages of Curtailment

| | Advisory | Voluntary | Mandatory | Emergency |
|--|--|---|---|--|
| Theme of Public Messages from SPU | A shortage may occur soon; get ready. | A shortage has occurred. We are requesting voluntary curtailment to reduce demand by x percent. | A severe shortage has occurred. Mandatory curtailment is necessary and specific uses of water are restricted. | An emergency shortage has occurred. Mandatory curtailment is necessary and public health and safety uses are the priority. |
| Cascade Communication Actions | <ul style="list-style-type: none"> • Inform Members they are required to activate their Advisory Stage (see exemptions). • Establish a regular communication mechanism with Members. • Request Cascade Members carry out supply-side management actions. • Participate on SPU's Water Shortage Advisory Group. • Assist Members to acquire and distribute public information materials. | <ul style="list-style-type: none"> • Inform Members they are required to activate their Voluntary Stage. • Request Cascade Members report to Cascade regarding supply-side management actions. For Members that have independent supply, this may include relying more heavily on these supplies. • Request Cascade Members communicate with their largest customers. • Communicate regularly with Cascade Members. • Communicate with the Washington State Department of Health. • Participate on SPU's Water Shortage Advisory Group. • Assist Cascade Members to acquire and distribute public information materials. | <ul style="list-style-type: none"> • Inform Cascade Members that they are required to activate their Mandatory Stage, including enforcement as appropriate. • Gather information from SPU on water quality or pressure problems, and communicate these to Members. • Continue communication actions from the Voluntary Stage, with modifications as appropriate for the Mandatory Stage. | <ul style="list-style-type: none"> • Inform Cascade Members that they are required to activate their Emergency Stage, including enforcement as appropriate. • Continue and intensify communication actions from the Mandatory Stage. • For Members that have independent supply, request they rely as much as possible on these supplies. • Alert Members of particular operational problems that may occur with system-wide reduced water consumption. • Assist Cascade Members to define and communicate exemptions for public health and safety. |
| Cascade Operating Actions | <ul style="list-style-type: none"> • Initiate preparation for Voluntary Stage. | <ul style="list-style-type: none"> • Assess revenue implications remedies. • Initiate preparation for Mandatory Stage. | <ul style="list-style-type: none"> • Continue operating actions from the Voluntary Stage • Initiate preparation for Emergency Stage. • If necessary consider enforcement actions against any non-complying | <ul style="list-style-type: none"> • Continue operating actions from Mandatory Stage. • Make staff resources available to Cascade Members. • Coordinate volunteers on behalf of Members. |

APPENDIX A to Shortage Management Plan

POSSIBLE ADVISORY STAGE WATER CONSERVATION TIPS FOR CUSTOMERS

(Adapted from SPU 2006 WSCP)

Conserve Inside

For most households, the vast majority of water is used indoors. Taking conservation actions and installing efficient fixtures help reduce your water use year-round. There are also ways to conserve water in outdoor uses and at work. Below are suggested actions:

- Fix leaking faucets and toilets.
- Wash only full loads in the dishwasher and clothes washer.
- Minimize faucet use when brushing your teeth, shaving and washing dishes.
- Don't pre-rinse dishes unless you need to. Most new dishwashers don't require pre-rinsing.
- Save lukewarm water for watering plants, etc. while you wait for hot water in kitchens and showers.
- If you are buying a new toilet, look for a WaterSense model.
- If you are buying a new washing machine, purchase a high-efficiency model. WashWise rebates may be available for qualified machines.

Conserve Outside

Make the most of the water you will use in the spring and summer:

- Aerate lawns in the spring to better absorb water.
- Mulch planting beds to decrease evaporation.
- Select the right plants for the right place –contact SPU or see our website for information.
- Tune-up and improve your irrigation system-rebates may be available.
- Wash your cars at locations that recycle their water.

Note: For more information on home water conservation tips for inside and out, visit www.savingwater.org or call 684-7283 (684-SAVE)

Conserve at Work

Businesses and institutions can reduce water use and lower utility costs by adopting conservation practices and replacing inefficient equipment or operations.

- Check for leaks.
- Use a broom, instead of a hose, to routinely clean driveways and sidewalks
- Turn off water-using equipment when not in use, including dishwashers, garbage disposals, and food troughs.
- Upgrade equipment efficiency -rebates may be available.
- Increase employee awareness of water conservation.

POSSIBLE VOLUNTARY STAGE CUSTOMER WATER SAVING ACTIONS

(Adapted from SPU 2006 WSCP)

The following voluntary actions are being requested of all customers:

SET A GOAL: Such as use 10% less water

Most customers can easily save 10% by choosing several items from the menu of water saving actions below. If you routinely do outdoor watering, select those actions first. Set a goal to reduce your water use by 10% from the amount you used during the same billing period last year. Most utility bills contain your water consumption for each billing period. Much of the 10% can probably be achieved through conservation actions that are wise to do all the time. If that is not sufficient, then the special curtailment actions listed here can be implemented during the duration of the supply problem.

REDUCE OUTDOOR WATER USE

Conservation Actions:

- **Avoid watering** between 10 AM and 7 PM to reduce evaporation.
- **Stop obvious water waste** such as gutter flooding, sidewalk and street watering, and fix leaks.
- **Never leave a hose running**, always use a shut-off nozzle.
- **Use a broom** rather than a hose or pressure washer to clean sidewalks and driveways.

Curtailment Actions:

- **Reduce lawn watering** (twice a week or less if possible).
- **Let your lawn go dormant.** Customers who choose to not water their lawns should water deeply once each rainless month to keep grass roots alive. To avoid runoff when you water, if the water puddles, cycle your sprinkler on and off until water is absorbed.
- **Refrain from filling** empty pools and hot tubs.
- **Turn off water features** and fountains.
- **Wash vehicles only at car washes that recycle their water.**

REDUCE INDOOR WATER USE

Conservation Actions:

- **Install a water efficient WaterSense toilet.** These toilets have proven to perform well and give long-term water savings. Replacing a frequently used old toilet with a new efficient toilet can save most households in utility bills. Check www.savingwater.org for WaterSense toilet models.
- **Install a high-efficiency clothes washer.** New washers are typically one-third more water efficient than old washers.
- **Wash only full loads in the clothes washer and dishwasher,** or choose an appropriate load-size setting for the number of items in the washer.
- **Turn off the tap** while brushing your teeth, hand-washing dishes or shaving.
- **Fix leaky faucets and toilets.** Put several drops of food coloring in your toilet tank. After 20 minutes, if you have color in the bowl, you have a slow leak that over time can amount to a lot of water.
- **Install an efficient showerhead.** New showerheads work well and use much less water than old high-flow models.
- **Install an efficient faucet aerator.** Replace your older bathroom faucet nozzle (aerator) with one that

uses one gallon per minute or less.

Curtailment Actions:

- **Spend one minute less in the shower.** Try to limit showers to five minutes or less.
- **Flush your toilet less often.** Toilet flushing is the largest water use inside the home. As the saying goes, "If it's yellow, let it mellow."

REDUCE WATER USE AT WORK

There are a wide variety of opportunities for businesses and agencies to reduce their water use and operating expenses.

Conservation Actions:

- **Check cooling towers.** Cooling towers - and the ways that they regulate water use – represent real opportunities for improving water efficiency.
- **Check for and fix leaks.** Toilet and urinal leaks are very common. Investigate obvious or suspected leaks.
- **Use a broom,** instead of a hose or pressure washer, to routinely clean driveways and sidewalks.
- Turn off water-using equipment when not in use, including open hoses, dishwashers, garbage disposals, and food troughs.
- **Check air conditioners, refrigerators, and ice machines.** If your company's air conditioners or refrigerators use water-cooled condensers, investigate air-cooled equipment for possible efficiencies. Rebates are available. Visit www.savingwater.org.
- **Install water-efficient toilets, urinals and faucets** in public and employee restrooms. Replacing old toilets, urinals, and faucet aerators with efficient ones can produce substantial savings. Rebates are available. Visit www.savingwater.org.
- **Reuse process water.** Water used in industrial and manufacturing processes should be reused as often as possible. Rebates are available. Visit www.savingwater.org.
- Hospitality businesses can offer guests the option of clean linens each day.
- **Increase employee awareness of water conservation** through management memos or newsletter messages. Install signs that encourage water conservation in restrooms or work areas where water is used. For additional work-related conservation tips, call (206) 343-8505.

Curtailment Actions:

- **Reduce outdoor watering** (twice a week or less if possible). Rebates are available for smart irrigation technologies. Visit www.savingwater.org.
- **Minimize vehicle washing,** defer or use a water recycling car wash.
- **Turn off** decorative water fountains.
- **Serve water only on request** at restaurants. Avoid thawing with running water.

For home water conservation tips, visit www.savingwater.org or call (206) 684-7283 (684-SAVE)

Appendix B

Local Government Consistency for Wholesale Customers

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Local Government Consistency for Wholesale Customers

Cascade Water Alliance is requesting from the Department of Health a four-year extension (2019 Transmission and Supply Plan Extension) of our 2012 Transmission and Supply Plan (approved in 2013). An extension would allow Cascade to continue to plan and develop regional water supplies and programs on behalf of its Members through 2022.

Cascade will submit the 2019 Transmission and Supply Plan Extension request to the Department of Health. Pursuant to WAC 246-290-108(2), although Cascade is required to request each local government with jurisdiction over the service area to provide a consistency review, wholesale areas may be excluded from the consistency review provided the water system receiving the wholesale water complies with the requirements for a consistency review when developing a water system plan for any new connection within the service area of the system receiving the wholesale water. Cascade's service area falls within the exclusion of WAC 246-290-108(2). Cascade sought comment from the Cascade Members and adjacent water purveyors.

Appendix C

Wholesale Customers Outreach

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VIA EMAIL TO MEMBER STAFF FROM CHUCK CLARKE

October 10, 2018

Cascade Member Staff (City of Bellevue, City of Issaquah, City of Kirkland, City of Redmond, Sammamish Plateau Water, Skyway Water & Sewer District and City of Tukwila)

Re: Cascade Water Alliance Draft 2019 Transmission and Supply Plan Extension (2019 TSP Extension)

Cascade Water Alliance is requesting of the Washington Department of Health, a four-year extension (2019 TSP Extension) of our 2012 Transmission and Supply Plan (approved in 2013). An extension would allow Cascade to continue to plan and develop regional water supplies and programs on behalf of its members through 2022.

The purpose of a water system plan is to demonstrate a water system's ability to provide timely and reasonable water service to its current and future customers. Cascade Water Alliance is not proposing any substantive changes to its 2013 Transmission and Supply Plan (available online at www.cascadewater.org) and believes the plan will continue to serve this purpose for the foreseeable future.

Cascade will submit the 2019 TSP Extension request to the Department of Health. Although your area is excluded from consistency review under WAC 246-290-108(2), we would appreciate review and comment of the attached information by Friday, Oct. 26. The actual plan extension can be found on pages 5-11, with the remainder of the attached document being supporting documentation.

In addition, a public hearing will be held in Cascade's offices on Nov. 6, 2018. Cascade will consider no response as a confirmation of local government support.

If you have any further questions regarding this letter, please contact Henry Chen, Cascade's Engineering and Capital Projects Director, at 425.453.0930 or at hchen@cascadewater.org

Attachment: Cascade Water Alliance Draft 2019 Transmission and Supply Plan Extension

10/22/2018

Appendix D

Adjacent Water Purveyors Outreach

Adjacent Water Purveyors

| | | |
|-----------------------|-----------------|---|
| SPU | Kathy Curry | Kathy.curry@seattle.gov |
| TPU | Chris McMeen | cmcmeen@cityoftacoma.org |
| Northshore | Alan Nelson | anelson@nud.net 6830 BE 185 th St. Kenmore WA 98052 |
| Woodinville | Pat Sorenson | psorenson@woodinvillewater.com 17238 NE Woodinville Duvall Road Woodinville WA 98072 |
| Union Hill | Teresa Fowlkes | teresa@uhwd.org 5020 236 th Ave NE Redmond WA 98053 |
| NE Sammamish | Laura Keough | Laura@nesswd.org 940 1 st Ave NE Issaquah WA 98027 |
| Coal Creek | Robert Russell | rrussell@ccwd.org 6801 132 nd Pl SE Newcastle WA 98059 |
| Renton | Gregg Zimmerman | gzimmerman@rentonwa.gov City of Renton 1055 S Grady Way Renton WA 98057 |
| Highline | Matt Everett | meverett@highlinewater.org 23828 30 th Ave. SE Kent WA 98032 |
| Kent | Shawn Bauer | sbauer@kentwa.gov 220 4 th Ave S Kent WA 98032 |
| Ames Lake | Bob Pancoast | compass@nwlink.com 27905 NE 33 rd St Redmond WA 98053 |
| Fall City | Terry Divers | fcw@isomedia.com 33015 SE 43 rd Fall City 98024 |
| KC Water District 125 | Shane Young | shaneyoung@waterdistrict125.com 3460 S 148 th St #110 Tukwila WA 98168 |
| KC Water District 20 | Michael Martin | kcwd20@kcwd20.com 12606 1 st Ave S. Seattle WA 98168 |

Water District 127

Soos Creek Ron Speer Rspper@sooscreek.com

King County Steve Hirschey steve.hirschey@kingcounty.gov

201 S Jackson St, Seattle, WA 98104

Pierce County Dennis Hanberg dennis.hanbert@piercecountywa.gov

Pierce County PPW Tacoma Mall Plaza 2702 S. 42nd St. Tacoma WA 98409

Tribes—mg and tc share this information with them on the regular call

EMAIL MESSAGE from CHUCK CLARKE

October 24, 2018

Re: Cascade Water Alliance Draft 2019 Transmission and Supply Plan Extension (2019 TSP Extension)

Dear xxxxx

Cascade Water Alliance is requesting of the Washington Department of Health, a four-year extension (2019 TSP Extension) of its 2012 Transmission and Supply Plan (approved in 2013). An extension would allow Cascade to continue to plan and develop regional water supplies and programs on behalf of its members through 2022.

The purpose of a water system plan is to demonstrate a water system's ability to provide timely and reasonable water service to its current and future customers. Cascade Water Alliance is not proposing any substantive changes to its 2013 Transmission and Supply Plan (available online at www.cascadewater.org) and believes the plan will continue to serve this purpose for the foreseeable future.

The attached draft is for your information. A hard copy will follow in the mail. The actual plan extension can be found on pages 5-11, with the remainder of the attached document being supporting documentation. If you have any comments or concerns please share them with Cascade by Nov. 2, 2018. A public hearing will be held in Cascade's offices Nov. 6, 2018.

If you have any further questions regarding this letter, please contact Henry Chen, Cascade's Engineering and Capital Projects Director, at 425.453.0930 or at hchen@cascadewater.org

Attachment : Cascade Water Alliance Draft 2019 Transmission and Supply Plan Extension

10/22/2018

Appendix E

Public Customer Meetings

DRAFT



For Release: October 25, 2018

Contact:

Elaine Kraft, Intergovernmental and Communications Director
425.283.0364 | ekraft@cascadewater.org | www.cascadewater.org

Cascade Water Alliance Issues Draft 2019 Transmission and Supply Plan Extension; Public Hearing Set

Bellevue, WA - Cascade Water Alliance today issued its draft 2019 Transmission and Supply Plan Extension (the 2019 TSP Extension). The 2019 TSP Extension, once adopted by the Cascade Board and approved by the State Department of Health, will fulfill Cascade's responsibility to have an approved water system plan through 2022. The 2019 TSP Extension updates the 2012 Transmission and Supply Plan that was originally approved in 2013. No significant changes are expected to occur in that time, and forecasts indicate sufficient water supply to meet current and future needs.

The draft 2019 TSP Extension has been released for public comment, and interested individuals should direct comments, and questions to Henry Chen, Engineering and Capital Projects Director, at hchen@cascadewater.org. A public hearing is set for Nov. 6, 2018 at Cascade's offices, 520 112th Ave. NE Suite 400, Bellevue, WA.

Cascade Water Alliance is a municipal corporation comprised of five member cities and two special districts within King County: the cities of Bellevue, Issaquah, Kirkland, Redmond and Tukwila and Sammamish Plateau Water and the Skyway Water and Sewer District. It serves about 400,000 residents and 22,000 businesses.

Cascade will continue to purchase water from Seattle Public Utilities. In addition, individual members own and operate their own water distribution systems. Some have their own independent groundwater supplies.

"With the current demands remaining flat, and investments in water efficiency continuing, the demand for water in Cascade's service area is forecast to remain relatively constant for several years. Thus, the current supply as stated in the 2012 TSP will carry Cascade and its Members through at least 2040," said John Stokes, Cascade Chair, who is a Bellevue City Council member.

The 2012 Transmission and Supply Plan and the draft 2019 TSP Extension can be viewed at www.cascadewater.org

For more information visit www.cascadewater.org

Appendix F

Comment and Response Letters

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Appendix G

List of Water Rights

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Table 6.1: Lake Tapps Project Water Rights Issued to Cascade in 2010 (From 2013 TSP)

| | |
|-------------------------|--|
| Permit No. S2-29920(A): | Authorizes diversion of up to 54,300 acre feet per year from the White River for municipal supply, including industrial and commercial purposes. Maximum flow rate varies seasonally from 150 to 1,000 cfs. Subject to minimum flows in the White River. Priority date: June 20, 2000. |
| Permit No. R2-29935 | Authorizes storage of water from the White River in the Lake Tapps Reservoir, limited to 46,700 acre feet. Priority date: September 15, 2000. |
| Permit No. S2-29934 | Authorizes withdrawal of up to 54,300 acre feet per year from Lake Tapps for municipal water supply, including industrial and commercial purposes. Maximum flow rate of 135 cfs. Priority date: September 15, 2000. |
| Claim No. 160822 | Authorized withdrawal of 931,281 acre feet per year to provide recreational water levels in Lake Tapps, maintain the reservoir in the winter, and to protect and enhance fish and wildlife. Maximum flow rate of 1,988 cfs, subject to minimum flows in the White River. Priority date: 1895. |
| Permit No. S2-29920(B): | Establishes a Regional Reserved Water Program to be used by the Cities of Auburn, Bonney Lake, Buckley, and Sumner to mitigate impacts to the mainstem White River and Puyallup River in connection with future water right applications. Authorizes diversion of up to 5,060 acre feet per year from the White River for municipal water supply, including industrial and commercial purposes. Maximum flow rate of 10 cfs. Subject to minimum flows in the White River. Priority date: June 20, 2000 (but junior to Permit S2-29920[A]). |

Appendix H
SEPA Addendum
Environmental Checklist and DNS

DRAFT

**CASCADE WATER ALLIANCE
TRANSMISSION AND SUPPLY PLAN
ENVIRONMENTAL CHECKLIST
(2018 REVISION)**

A. BACKGROUND

1. Name of proposed project, if applicable:

Cascade Water Alliance Transmission and Supply Plan

2018 Revision: Cascade Transmission and Supply Plan 4-Year Extension

2. Name of applicant:

Cascade Water Alliance

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

11400 SE 8th Street, Suite 440
Bellevue, WA 98004
Phone: (425) 453-0930
Attn: Michael Gagliardo, Director of Planning

2018 Revision:
520 112th Ave. Suite 400
Bellevue, WA 98004
Phone: (425) 453-0930
Attn: Michael Gagliardo, Director of Planning

4. Date checklist prepared:

December 16, 2011,

Revised, October 12, 2018.

5. Agency requesting checklist:

Cascade Water Alliance

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

It is anticipated that the Transmission and Supply Plan (hereafter, “Plan”) will be in effect for six years and will then be updated.

2018 Revision: The 2012 Plan will be updated and extended through 2022.

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

Cascade’s transmission and supply needs and system components may change from time to time. Such revisions will be incorporated in future updates of the Plan.

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

Environmental information has been prepared previously for several projects described in the Plan. Examples include the Tacoma Second Supply Project (a.k.a. Regional Water Supply System), the Tacoma-Cascade Pipeline and the Lake Tapps – White River Reservoir. Documents are listed as follows:

Cascade Water Alliance

Lake Tapps Reservoir Water Supply Project

- Environmental Checklist and State Environmental Policy Act (SEPA)
Mitigated Determination of Nonsignificance (MDNS) – February 22, 2008

Cascade Water Alliance

Lake Tapps Reservoir, Issuance of New Municipal Water Rights and Change of Use for Existing Claim No.60822

- Determination of Significance and Request for Comments on Scope of
Environmental Impact Statement and Environmental Checklist – June 30,
2008

Cascade Water Alliance

Lake Tapps Reservoir Water Rights and Supply Project

- Draft Environmental Impact Statement – January 29, 2010
- Final Environmental Impact Statement – June 16, 2010

Cascade Water Alliance

Cascade Regional Water Supply System, Tacoma-Cascade Pipeline

- Determination of Significance and Request for Comments on Scope of Environmental Impact Statement and Environmental Checklist – July 21, 2006
- Draft Environmental Impact Statement – December 21, 2006
- Final Environmental Impact Statement – April 26, 2007

City of Tacoma and King County, Washington

Pipeline No.5

- Draft Environmental Impact Statement – August 1987
- Final Environmental Impact Statement – June 1988

Tacoma Public Utilities

Second Supply Project (Pipeline No.5)

- Draft Supplemental Environmental Impact Statement – August 10, 1994
- Final Supplemental Environmental Impact Statement – October 18, 1994
- Addendum to Supplemental Environmental Impact Statement – April 28, 1995

2018 Revision:

Cascade Water Alliance

SEPA Checklist for 2012 Transmission Supply Plan, dated December 2011

Cascade Water Alliance

Addendum to 2010 The Final Environmental Impact Statement for Lake Tapps Reservoir Water Rights and Supply Project, dated February 28, 2014

Seattle Public Utilities

2019 Water System Plan SEPA Environmental Checklist, dated March 6, 2018

2019 Water System Plan SEPA Determination of Nonsignificance, dated March 12, 2018

Tacoma Water

2018 Water System Plan SEPA Environmental Checklist, dated May 2018

2018 Water System Plan SEPA Determination of Nonsignificance, dated May 2018

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

No specific applications for governmental approvals of other proposals are known at this time.

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

The Plan will be submitted to King County and the Washington Department of Health (WDOH) for review under King County Code (Title 13.24) and Washington Administrative Code (WAC) 246-290, respectively.

2018 Revision: The Plan will be submitted for review to the Washington Department of Health (WDOH) under Washington Administrative Code (WAC) 246-290. A copy will be sent to King County Utilities Technical Review Committee

- 11. Give brief, complete description of your proposal, including the proposed uses and the size of the project and site. There are several questions later in this checklist that ask you to describe certain aspects of your proposal. You do not need to repeat those answers on this page. (Lead agencies may modify this form to include additional specific information on project description.)**

Cascade Water Alliance

The Cascade Water Alliance (Cascade) was created on April 1, 1999, through an Interlocal Agreement (Interlocal) among certain cities and special districts that own and operate public water systems (Members) in King County. Cascade was formed by its Members to jointly plan, develop and operate a water supply system for its Members. Each of these public water systems is authorized to provide water within its designated service area.

The Members of Cascade have entered into the Interlocal to enhance their ability to supply water to their respective service areas and the region by developing, owning, and operating regional water supply assets. Cascade serves solely as a regional supplier to its Members. Cascade does not serve water directly to the public, and does not plan to own or operate local distribution facilities. Cascade serves as an instrument of its Members by exercising certain essential governmental functions on their behalf as authorized by the Interlocal Cooperation Act (Chapter 39.34 RCW).

Members of Cascade include:

- ☐ City of Bellevue (Bellevue)

- ❑ City of Issaquah (Issaquah)
- ❑ City of Kirkland (Kirkland)
- ❑ City of Redmond (Redmond)
- ❑ City of Tukwila (Tukwila)
- ❑ Covington Water District (Covington)
- ❑ Skyway Water and Sewer District (Skyway)
- ❑ Sammamish Plateau Water and Sewer District (Sammamish Plateau)

2018 Revision: Covington Water District withdrew as a member of Cascade Water Alliance in 2012.

Cascade is a non-profit corporation composed of municipal corporations and special purpose municipal corporations in King County that are party to an Interlocal Agreement entered into under the authority of the Interlocal Cooperation Act (Chapter 39.34 RCW) for the purpose of its Members working together to plan, develop and operate a water supply system and regional assets that will meet Cascade's Members' current and future drinking water needs.

The Interlocal identifies the purposes underlying the formation of Cascade, a few of which include:

- ❑ Provide a safe, reliable and high quality drinking water supply to meet the current and projected demands of its Members serving the Central Puget Sound Region and for non-Members as determined by Cascade, and to carry out this task in a coordinated, cost-effective and environmentally sensitive manner.
- ❑ Develop, contract for, manage, acquire, own, maintain, and operate water supply assets including, without limitation, surface water supplies, groundwater supplies, reclaimed water supplies and other water supply resources as determined by the Board;
- ❑ Contract with Seattle to transfer to Cascade and to modify Seattle's rights and duties with respect to Seattle Contract Purveyors;
- ❑ Contract for, or assume certain contractual rights and duties related to the Tacoma Second Supply Project;
- ❑ Purchase and provide water supply, transmission services, treatment facilities and other related services.

2018 Revision: Cascade became a municipal corporation under Chapter 34.106 RCW, the Joint Municipal Utilities Services Act ("Act"). The Interlocal Agreement was replaced by an Agreement in compliance with the Act stating purposes as follows:

- a. Provide a safe, reliable and high quality drinking water supply to meet the current and projected demands of Cascade Members, and for non-Members as determined by Cascade, and to carry out this task in a coordinated, cost-effective, and environmentally sensitive manner;**

- b. Develop, contract for, manage, acquire, own, maintain and operate Water Supply Assets, including without limitation, surface water supplies, groundwater supplies, reclaimed water supplies, and other water supply resources as determined by the Board;
- c. Purchase and provide water supply, transmission services, treatment facilities and other related services;
- d. Provide conservation programs to promote the wise and efficient use of resources;
- e. Carry out emergency water supply and shortage management programs for its Members when demands exceed available supply;
- f. Coordinate and plan cooperatively with other regional or local water utilities and other entities to maximize supply availability and to minimize system costs;
- g. Develop a Water Supply Plan addressing the needs of Cascade and its Members and Cascade itself and develop a regional water supply plan with other water providers as Cascade may find convenient or necessary to meet regional, state and federal planning requirements, and to take a leadership role in developing and coordinating those supply plans;
- h. Share costs and risks among Members commensurate with benefits received; and
- i. Carry out, or to further other water supply purposes that the Members determine, consistent with the provisions of this Agreement.

Cascade and its Members currently utilize a variety of water supply sources, including Members' independent supplies, wholesale water purchased by Cascade from Seattle Public Utilities (SPU), wholesale water purchased by Members from non-Member water purveyors, and a small amount of reclaimed water. Cascade has a wholesale purchase contract with Tacoma Public Utilities (TPU) but does not currently use water from this source. Cascade also holds water rights for the use of Lake Tapps, located in Pierce County, and anticipates developing Lake Tapps in the future for municipal water supply.

Cascade began providing wholesale water to its Members on January 1, 2004, via the wholesale agreement with SPU. Cascade will provide water to its Members through a combination of owned and contracted supply and transmission resources. Individual Members having ground water sources will continue to produce water to meet a portion of Cascade's needs. Together, these sources will provide supply for the immediate needs of Cascade Members. Over the long term, supply received from SPU will be partially replaced by other supplies such as wholesale purchases from TPU, water from Lake Tapps, reductions in demand from water conservation and/or other sources.

The overall goal of the Plan is to provide secure and reliable water supplies to Cascade Members through at least year 2050, in a fiscally responsible fashion. The Plan builds on the existing water supply management planning efforts included in the individual Members' water system plans and the King County Comprehensive Plan. The Plan is updated periodically (typically every six years) in accordance with state requirements for water system planning at Chapter 246-290-100 RCW.

Cascade Planning Process

The Plan is focused on specific goals for water supply and water resource management, while seeking to foster regional water planning partnerships. The primary steps in the Plan development process included:

- ☐ Develop planning objectives.
- ☐ List potential supply options.
- ☐ Screen for “fatal flaws.”
- ☐ Evaluate remaining source options.
- ☐ Prepare 50-year demand forecast.
- ☐ Select options for further consideration.
- ☐ Assemble and evaluate combinations of sources (portfolios).
- ☐ Select preferred supply portfolio.

The planning process has included Cascade’s Board committees, technical, financial and management staff from the Members, Cascade staff, and consultants retained to assist in the process. Cascade also convened the Cascade Connections Working Group comprised of a range of stakeholders, to provide input for Cascade’s development of the Plan. The Working Group met six times during 2009 and 2010 to review Plan elements and provide input.

The Plan is a Non-Project Action under SEPA. Project Actions referenced by the Plan that have environmental impacts associated with the construction, maintenance, and operation of those site-specific projects either have been or will be evaluated under SEPA during the project review process.

- 12. Location of the proposal. Give sufficient information for a person to understand the precise location of your proposed project, including a street address, if any, and section, township, and range, if known. If a proposal would occur over a range of area, provide the range or boundaries of the site(s). Provide a legal description, site plan, vicinity map, and topographic map, if reasonably available. While you should submit any plans required by the agency, you are not required to duplicate maps or detailed plans submitted with any permit applications related to this checklist.**

The location covered by the Plan includes the Cascade Water Alliance Service Area (which is the service area of its Members: the Cities of Bellevue, Issaquah, Kirkland, Redmond and Tukwila; the Covington Water District; and the Sammamish Plateau and Skyway Water and Sewer Districts); facilities Cascade owns (including the White River-Lake Tapps Reservoir Project (the Reservoir Project) and the Bellevue-Issaquah Pipeline; and the Place of Use associated with the Reservoir Project water rights (the combined service areas described in the most recent Water System Plans approved by the Washington State Department of Health for Cascade, the City of Seattle and the City of Tacoma).

2018 Revision: Covington Water District withdrew as a member of Cascade Water Alliance in 2012.

B. ENVIRONMENTAL ELEMENTS

The proposed adoption of Cascade's Plan is a Non-Project Action under SEPA, which includes decisions on policies, plans and programs, and is intended for long term planning purposes. The Plan refers to the development and utilization of transmission and water supply projects that either are, or may become components of the Cascade water supply system in the future.

Project Actions referenced by the Plan that have environmental impacts associated with the construction, maintenance, and operation of those site-specific projects either have been or will be evaluated under SEPA during the project review process.

Section B, Environmental Elements, which applies to specific Project Actions is not applicable to the proposed adoption of Cascade's Plan. Please refer to Section D, Supplemental Sheet for Non-Project Actions, which provides general programmatic-level environmental impact information.

1. Earth

- a. General description of the site (circle one): Flat, rolling, hilly, steep slopes, mountainous, other**
- b. What is the steepest slope on the site (approximate percent slope)?**
- c. What general types of soils are found on the site (for example, clay, sand, gravel, peat, muck)? If you know the classification of agricultural soils, specify them and note any prime farmland.**
- d. Are there surface indications or history of unstable soils in the immediate vicinity? If so, describe.**
- e. Describe the purpose, type, and approximate quantities of any filling or grading proposed. Indicate source of fill.**
- f. Could erosion occur as a result of clearing, construction, or use? If so, generally describe.**
- g. About what percent of the site will be covered with impervious surfaces after project construction (for example, asphalt or buildings)?**
- h. Proposed measures to reduce or control erosion, or other impacts to the earth, if any:**

Sections 1(a) through 1(h) do not apply to the proposed adoption of Cascade's Plan. Please refer to Section D, Supplemental Sheet for Non-Project Actions, which provides general programmatic-level environmental impact information.

2018 Revision: No Change.

2. Air

- a. What types of emissions to the air would result from the proposal (i.e., dust, automobile, odors, industrial wood smoke) during construction and when the project is completed? If any, generally describe and give approximate quantities if known.**
- b. Are there any off-site sources of emissions or odor that may affect your proposal? If so, generally describe.**
- c. Proposed measures to reduce or control emissions or other impacts to air, if any:**

Sections 2(a) through 2(c) do not apply to the proposed adoption of Cascade's Plan. Please refer to Section D, Supplemental Sheet for Non-Project Actions, which provides general programmatic-level environmental impact information.

2018 Revision: No Change.

3. Water

- a. Surface:**
 - 1) Is there any surface water body on or in the immediate vicinity of the site (including year-round and seasonal streams, saltwater, lakes, ponds, wetlands)? If yes, describe type and provide names. If appropriate, state what stream or river it flows into.**
 - 2) Will the project require any work over, in, or adjacent to (within 200 feet) the described waters? If yes, please describe and attach available plans.**
 - 3) Estimate the amount of fill and dredge material that would be placed in or removed from surface water or wetlands and indicate the area of the site that would be affected. Indicate the source of fill material.**

- 4) **Will the proposal require surface water withdrawals or diversions? Give general description, purpose, and approximate quantities if known.**
- 5) **Does the proposal lie within a 100-year floodplain? If so, note location on the site plan.**
- 6) **Does the proposal involve any discharges of waste materials to surface waters? If so, describe the type of waste and anticipated volume of discharge**

b. Ground:

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

c. Water runoff (including stormwater):

- 1) **Describe the source of runoff (including storm water) and method of collection and disposal, if any (include quantities, if known). Where will this water flow? Will this water flow into other waters? If so, describe.**
- 2) **Could waste materials enter ground or surface waters? If so, generally describe.**

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

Sections 3(a) through 3(d) do not apply to the proposed adoption of Cascade's Plan. Please refer to Section D, Supplemental Sheet for Non-Project Actions, which provides general programmatic-level environmental impact information.

2018 Revision: No Change.

4. Plants

- a. **Check or circle types of vegetation found on the site:**
 _____ deciduous tree: alder, maple, aspen, other
 _____ evergreen tree: fir, cedar, pine, other
 _____ shrubs
 _____ grass
 _____ pasture
 _____ crop or grain
 _____ wet soil plants: cattail, buttercup, bullrush, skunk cabbage, other
 _____ water plants: water lily, eelgrass, milfoil, other
 _____ other types of vegetation
- b. **What kind and amount of vegetation will be removed or altered?**
- c. **List threatened or endangered species known to be on or near the site.**
- d. **Proposed landscaping, use of native plants, or other measures to preserve or enhance vegetation on the site, if any:**

Sections 4(a) through 4(d) do not apply to the proposed adoption of Cascade's Plan. Please refer to Section D, Supplemental Sheet for Non-Project Actions, which provides general programmatic-level environmental impact information.

2018 Revision: No Change.

5. Animals

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

 birds: hawk, heron, eagle, songbirds, other:
 mammals: deer, bear, elk, beaver, other:
 fish: bass, salmon, trout, herring, shellfish, other:
- b. **List any threatened or endangered species known to be on or near the site.**
- c. **Is the site part of a migration route? If so, explain.**

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

Sections 5(a) through 5(d) do not apply to the proposed adoption of Cascade's Plan. Please refer to Section D, Supplemental Sheet for Non-Project Actions, which provides general programmatic-level environmental impact information.

2018 Revision: No Change.

6. Energy and natural resources

- a. What kinds of energy (electric, natural gas, oil, wood stove, solar) will be used to meet the completed project's energy needs? Describe whether it will be used for heating, manufacturing, etc.**
- b. Would your project affect the potential use of solar energy by adjacent properties? If so, generally describe.**
- c. What kinds of energy conservation features are included in the plans of this proposal? List other proposed measures to reduce or control energy impacts, if any:**

Sections 6(a) through 6(c) do not apply to the proposed adoption of Cascade's Plan. Please refer to Section D, Supplemental Sheet for Non-Project Actions, which provides general programmatic-level environmental impact information.

2018 Revision: No Change.

7. Environmental Health

- a. Are there any environmental health hazards, including exposure to toxic chemicals, risk of fire and explosion, spill, or hazardous waste, that could occur as a result of this proposal? If so, describe.**
 - 1) Describe special emergency services that might be required.**
 - 2) Proposed measures to reduce or control environmental health hazards, if any:**
- b. Noise**
 - 1) What types of noise exist in the area which may affect your project (for example: traffic, equipment, operation, other)?**

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

Sections 7(a) through 7(b) do not apply to the proposed adoption of Cascade's Plan. Please refer to Section D, Supplemental Sheet for Non-Project Actions, which provides general programmatic-level environmental impact information.

2018 Revision: No Change.

8. Land and shoreline use

- a. **What is the current use of the site and adjacent properties?**
- b. **Has the site been used for agriculture? If so, describe.**
- c. **Describe any structures on the site.**
- d. **Will any structures be demolished? If so, what?**
- e. **What is the current zoning classification of the site?**
- f. **What is the current comprehensive plan designation of the site?**
- g. **If applicable, what is the current shoreline master program designation of the site?**
- h. **Has any part of the site been classified as an "environmentally sensitive" area? If so, specify.**
- i. **Approximately how many people would reside or work in the completed project?**
- j. **Approximately how many people would the completed project displace?**
- k. **Proposed measures to avoid or reduce displacement impacts, if any:**
- l. **Proposed measures to ensure the proposal is compatible with existing and projected land uses and plans, if any:**

Sections 8(a) through 8(l) do not apply to the proposed adoption of Cascade's Plan. Please refer to Section D, Supplemental Sheet for Non-Project Actions, which provides general programmatic-level environmental impact information.

2018 Revision: No Change.

9. Housing

- a. Approximately how many units would be provided, if any? Indicate whether high, middle, or low-income housing.**
- b. Approximately how many units, if any, would be eliminated? Indicate whether high, middle, or low-income housing.**
- c. Proposed measures to reduce or control housing impacts, if any:**

Sections 9(a) through 9(c) do not apply to the proposed adoption of Cascade's Plan. Please refer to Section D, Supplemental Sheet for Non-Project Actions, which provides general programmatic-level environmental impact information.

2018 Revision: No Change.

10. Aesthetics

- a. What is the tallest height of any proposed structure(s), not including antennas; what is the principal exterior building material(s) proposed?**
- b. What views in the immediate vicinity would be altered or obstructed?**
- c. Proposed measures to reduce or control aesthetic impacts, if any:**

Sections 10(a) through 10(c) do not apply to the proposed adoption of Cascade's Plan. Please refer to Section D, Supplemental Sheet for Non-Project Actions, which provides general programmatic-level environmental impact information.

2018 Revision: No Change.

11. Light and Glare

- a. What type of light or glare will the proposal produce? What time of day would it mainly occur?**
- b. Could light or glare from the finished project be a safety hazard or interfere with views?**

- c. **What existing off-site sources of light or glare may affect your proposal?**
- d. **Proposed measures to reduce or control light and glare impacts, if any:**

Sections 11(a) through 11(d) do not apply to the proposed adoption of Cascade's Plan. Please refer to Section D, Supplemental Sheet for Non-Project Actions, which provides general programmatic-level environmental impact information.

2018 Revision: No Change.

12. Recreation

- a. **What designated and informal recreational opportunities are in the immediate vicinity?**
- b. **Would the proposed project displace any existing recreational uses? If so, describe.**
- c. **Proposed measures to reduce or control impacts on recreation, including recreation opportunities to be provided by the project or applicant, if any:**

Sections 12(a) through 12(c) do not apply to the proposed adoption of Cascade's Plan. Please refer to Section D, Supplemental Sheet for Non-Project Actions, which provides general programmatic-level environmental impact information.

2018 Revision: No Change.

13. Historic and cultural preservation

- a. **Are there any places or objects listed on, or proposed for, national, state, or local preservation registers known to be on or next to the site? If so, generally describe.**
- b. **Generally describe any landmarks or evidence of historic, archaeological, scientific, or cultural importance known to be on or next to the site.**
- c. **Proposed measures to reduce or control impacts, if any:**

Sections 13(a) through 13(c) do not apply to the proposed adoption of Cascade's Plan. Please refer to Section D, Supplemental Sheet for Non-Project Actions, which provides general programmatic-level environmental impact information.

2018 Revision: No Change.

14. Transportation

- a. Identify public streets and highways serving the site, and describe proposed access to the existing street system. Show on site plans, if any.**
- b. Is site currently served by public transit? If not, what is the approximate distance to the nearest transit stop?**
- c. How many parking spaces would the completed project have? How many would the project eliminate?**
- d. Will the proposal require any new roads or streets, or improvements to existing roads or streets, not including driveways? If so, generally describe (indicate whether public or private).**
- e. Will the project use (or occur in the immediate vicinity of) water, rail, or air transportation? If so, generally describe.**
- f. How many vehicular trips per day would be generated by the completed project? If known, indicate when peak volumes would occur.**
- g. Proposed measures to reduce or control transportation impacts, if any:**

Sections 14(a) through 14(g) do not apply to the proposed adoption of Cascade's Plan. Please refer to Section D, Supplemental Sheet for Non-Project Actions, which provides general programmatic-level environmental impact information.

2018 Revision: No Change.

15. Public services

- a. Would the project result in an increased need for public services (for example: fire protection, police protection, health care, schools, other)? If so, generally describe.**
- b. Proposed measures to reduce or control direct impacts on public services, if any.**

Sections 15(a) through 15(b) do not apply to the proposed adoption of Cascade's Plan. Please refer to Section D, Supplemental Sheet for Non-Project Actions, which provides general programmatic-level environmental impact information.

2018 Revision: No Change.

16. Utilities

- a. **Circle utilities currently available at the site: electricity, natural gas, water, refuse service, telephone, sanitary sewer, septic system, other.**
- b. **Describe the utilities that are proposed for the project, the utility providing the service, and the general construction activities on the site or in the immediate vicinity which might be needed.**

Sections 16(a) through 16(b) do not apply to the proposed adoption of Cascade's Plan. Please refer to Section D, Supplemental Sheet for Non-Project Actions, which provides general programmatic-level environmental impact information.

2018 Revision: No Change.

C. SIGNATURE

The above answers are true and complete to the best of my knowledge. I understand that the lead agency is relying on them to make its decision.

Signature: _____
Michael Gagliardo, Director of Planning

Date Submitted: **October 12, 2018**



SEPA Addendum

Transmission and Supply Plan Extension

Description of Proposal: Adoption of the 2018 Cascade Water Alliance Transmission and Supply Plan Extension. It is an extension of the 2012 Cascade Transmission and Supply Plan and establishes Cascade's water service area, sources of supply, conservation policies and capital program. The capital projects will generally require supplemental project-level SEPA review prior to final design and construction

Proponent: Cascade Water Alliance, 520 112th Avenue NE, Suite 400, Bellevue, WA 98004

Location of Proposal, including street address, if any: Includes the Cascade Water Alliance Service Area (which is the service area of its Members: the Cities of Bellevue, Issaquah, Kirkland, Redmond and Tukwila, and the Sammamish Plateau and Skyway Water and Sewer Districts; facilities Cascade owns, including the White River-Lake Tapps Reservoir Project (the Reservoir Project) and the Bellevue-Issaquah Pipeline; and the Place of Use associated with the Reservoir Project water rights (the combined service areas described in the most recent Water System Plans approved by the Washington State Department of Health for Cascade, the City of Seattle and the City of Tacoma).

Title of Document To Which this Addendum Adds Information and Analysis: December 30, 2011 Determination of Nonsignificance, Cascade Water Alliance for the 2012 Transmission and Supply Plan ("2011 DNS").

Lead Agency: Cascade was the Lead Agency for the 2011 DNS and for this Addendum.

Assessment of Additional Information and Modifications to Proposal:

The scope of the activities proposed by 2018 Transmission and Supply Plan 6-year Extension are identical to the 2012 Transmission and Supply Plan for which the 2011 DNS was issued. SEPA encourages use of addenda to avoid duplication and excess paperwork. The purpose of this Addendum is to add information and analysis of impacts to the original proposal description as noted above.

Changes since 2011 are as follows:

1. Cascade's demand forecast has changed downwards due to:

- The withdrawal from Cascade of former Cascade Member Covington Water District;
- Confirmation of lower demand trends from actual use during several years of warm, dry summers;
- Growing experience on actual growth rates and impacts on water demand; and
- Continued success and improved cost-effectiveness of our water efficiency program.

As a result, the current demand forecast for 2040 is now roughly 9 mgd lower than that earlier projection.

2. Cascade's supply portfolio has changed due to:

- The withdrawal from Cascade of former Member Covington Water District and its independent supplies
- The modification and extension of Cascade's supply contract with Tacoma, which now provides 8 mgd (peak and average) through 2042
- The modified and extension of Cascade's supply contract with Seattle, which now provides 33.3 mgd average (66.6 mgd peak) through 2039 with an extended declining supply commitment until 2064.

3. As a consequence of the changes described in 1 and 2 above, Cascade now enjoys adequate supplies for a 20 year period without development of the Lake Tapps Water Rights Project (LTWRP) or other sources. The development of LTWRP may occur as early as the mid- to late 2030's. This is a delay of approximately 10 years from the schedule described in 2012; and continued pursuit of contractual commitments from existing supplies could further delay this project.

Based on its review, the lead agency has determined that the additional information related to the modifications and details of the 2018 Transmission and Supply Plan Extension do not substantially change the analysis of significant impacts and alternatives in the 2011 DNS.

The following environmental documents meet Cascade's environmental review for the current proposal:

Cascade Water Alliance
SEPA Checklist for 2012 Transmission Supply Plan – 2018, dated December 30, 2011,
Revision, October , 2018.

Issuance of this Addendum does not constitute approval of the proposal for construction. This proposal will also require approvals by other agencies as listed in the SEPA environmental checklist for the modified proposal. These approvals and requirements are not inclusive, as some approvals and requirements can only be confirmed and/or reviewed upon submittal of applicable permits.

Circulation and Comment: This addendum is issued under WAC 197-11-600(4)(c) and WAC 197-11-625. An addendum may be used if the proposal does not substantially change the analysis of significant impacts and alternatives contained in the existing environmental document. While this addendum does not require circulation or a comment period, this addendum has been circulated to interested parties and comments requested and considered.

Responsible Official: Michael A. Gagliardo, Director of Planning, Cascade Water Alliance

Signature: _____

Date: _____

Appendix I

Organizational Chart

DRAFT



STAFF

Chief Executive Officer

Chuck Clarke

Strategic Policy Advisor

Ray Hoffman

Director of Planning

Michael Gagliardo

Engineering and Capital
Projects Director

Henry Chen
P.E., PMP

Operations Manager

Joe Mickelson
WDM4

Intergovernmental and
Communications Director

Elaine Kraft

Water Resources Manager

Mike Brent

Management Assistant

Linda Moreno

Chief Economist/Treasurer

Ed Cebon

Finance and Administration
Manager

Chris Paulucci
CPA, CGMA

Program and Policy Assistant

Paula Anderson

Appendix J

2019 Transmission and Supply Plan Extension Resolution

Resolution XXXX-18

November XX, 2018