City of Snoqualmie Comments

Draft Fact Sheet and Draft NPDES Permit for Snoqualmie Water Reclamation Facility ("SWRF")

WA0022403

Legal Background

Ecology issues Snoqualmie's NPDES Permit pursuant to the federal Clean Water Act, 33 U.S.C. § 1251 *et seq.*, as delegated to the Department of Ecology by the Legislature in RCW 90.48.260, and specifically with respect to wastewater discharge permits, in RCW 90.48.160 and .162.

When Ecology issues or renews state and federal wastewater discharge permits, Ecology must "review the applicant's operations and incorporate permit conditions which require all known, available, and reasonable methods to control toxicants in the applicant's wastewater." This standard is colloquially referred to as "AKART," which is an acrononym for "all [K]nown, [A]vailable and [R]easonable methods of prevention, control and [T]reatment." Ecology's rules establishing water quality limitations for surface waters of the state define AKART as "the most current methodology that can be *reasonably* required for preventing, controlling, or abating the pollutants associated with a discharge." WAC 173-201A-020 (italics added).

Ecology must apply AKART when issuing or renewing a state waste discharge permit such as an NPDES permit for a municipal sewerage system such as the SWRF. *See* WAC 173-216-110(1)(a). However, while the purpose of the AKART requirements stated in RCW 90.48.520 is to foster the use of new control technology, it does "not necessarily require using the best control technology," and it "neither requires applicants to develop new technology nor limits DOE to numeric conditions on NPDES permits." *Puget Soundkeepers Alliance v. Dept. of Ecology*, 102 Wn.App. 783, 793, 9 P.3d 892 (Div. I 2000). Instead, Ecology may translate engineering determinations into narrative standards (*e.g.*, best management practices) to include in wastewater discharge permit standards, in lieu of (or in combination with) specific numeric effluent discharge limits. *Id.* at 794-95; see also *Puget Soundkeepers Alliance v. Department of Ecology*, PCHB No. 98-50, Findings of Fact and Conclusions of Law Re Issue No. 6 (AKART) (April 15, 1999) at Concl. VI. Where there are significant variables outside of a permittee's control, Ecology may choose not to impose numeric effluent limits. *Washington State Dairy Federation et al. v. Department of Ecology*, PCH No. 17-016c, Findings of Fact, Conclusions of Law and Order (October 25, 2018) at Concl. 18, *citing Port of Seattle v. Pollution Control Hr'gs Bd.*, 151 Wn.2d 151 568, 593-94, 90 P.3d 659 (2004). Ecology may rely upon the issuance of future NPDES Permits, as well as monitoring and adaptive management requirements, to satisfy AKART and provide reasonable assurance that state water quality requirements will be met. *Port of Seattle*, 151 Wn.2d at 604-06, *citing Friends of the Payette v. Horseshoe Bend Hydroelectric Co.*, 988 F.2d 989, 993 (9th Cir.1993).

The "reasonableness" prong of AKART limits Ecology "to requiring a system that is both economically and technically feasible." *Puget Soundkeeper Alliance*, 102 Wn. App. at 792-793. Thus, where Ecology does decide to impose numeric effluent limits, it is *not* required to set those limits at a facility's historical performance levels where doing so would be economically infeasible. Instead, Ecology may allow discharge limits *higher* than the facility's historic performance or discharge levels, where such higher limits in combination with other, narrative permit conditions allow the permittee to reduce pollution overall. *Id.* at 794. And, because Ecology is required by RCW 90.48.010 to balance water quality protection with other state goals, such as "the industrial development of the state," Ecology must also consider the burden of potential permit conditions on regulated entities. *Community Association for Restoration of Environment v. Dept. of Ecology ("CARE")*, 149 Wn.App. 830, 847, 205 P.3d 950 (Div. II 2009).

Draft Permit Temperature Waste Load Allocation

The draft Permit sets forth a table of effluent discharge limits in Section S1.A, p. 6. For a number of parameters, the draft Permit identifies both an "average monthly" and "maximum daily" limit. Note "g" to the effluent limits table defines "maximum daily" as "the highest allowable daily discharge," with "daily discharge" defined as "the average discharge of a pollutant measured during a calendar day."

With respect to temperature, the draft Permit identifies maximum daily temperature of 24.7 degrees Celsius. Per the definition in Note "g," this means that 24.7 degrees C is the "highest allowable daily discharge" temperature, averaged over a calendar day. This temperature is incorrect and technically infeasible, because the City has not been able to demonstrate that it can meet the 24.7 degrees C limitation at all of the flow conditions anticipated to occur at the SWRF during the Permit renewal period, including at the design flow condition. Therefore, as explained in more detail below, the draft Permit's temperature effluent limit is not reasonable, does not constitute "AKART," and may not lawfully be imposed as an effluent limit.

By way of background, the draft Permit's maximum daily temperature of 24.7 C appears to have been set based on Ecology's June, 2011 Snoqualmie River Basin Temperature Total Maximum Daily Load Water Quality Improvement Report and Implementation Plan ("Temperature TMDL Report"). The Temperature TMDL Report includes "load allocations" that "set limits on allowable heat coming from all areas except WWTPs [wastewater treatment plants]." Temperature TMDL Report at 100. For the WWTPs, the Temperature TMDL Report recommends certain "waste load allocations" that can be incorporated as conditions in NPDES Permits in order to meet state surface water quality (temperature) requirements in WAC 173-201A. Temperature TMDL Report at 102-03. The Temperature TMDL Report acknowledges, with respect to the North Bend WWTP and the State's Tokul Creek Hatchery, that wastewater flows during summer months tend to be much lower than treatment plant design flows, and therefore different flow and dilution factors, that generate a higher allowable effluent temperature, are appropriate. Temperature TMDL Report at 104-05. For the North Bend WWTP and the State's Tokul Creek Hatchery, the Temperature

TMDL Report performs this additional analysis, utilizing the highest monthly average plant effluent flow only for June-September of the three years prior to the Report, which generates a higher allowable temperature limit. *Id.,* esp. Table 29.

For other WWTPs, however, the Temperature TMDL Report simply asserts -- without any documentation whatsoever -- that "Three WWTP facilities, Snoqualmie, Carnation, and Duvall can meet the design condition discharge temperatures," and that "[t]hese dischargers can adopt the wasteload allocation into their permits with the knowledge that they will be in compliance until such a date when their design capacity is increased," even while admitting acknowledging that "further calculations were not done for these facilities." Temperature TMDL Report at 104. Even so, Table 28 of the Temperature TMDL Report indicates that the temperature waste load allocation for the Snoqualmie WWTP, at current flow of 1.24 MGD, should be 31.1 degrees C, a temperature that the Report notes is a "conservative effluent temperature that [is] protective of temperature on a year-round basis."

Despite the Temperature TMDL Report's admitted lack of additional data and analysis for Snoqualmie, Ecology's Draft NPDES Permit Condition S1.A suggests a one-size-fits-all maximum daily temperature of 24.7 C at all flows. It appears Ecology drew this straight from Table 27, p. 103 of the Temperature TMDL Report, without recognition of the higher temperature recommended for lower flows in Table 28, and without recognition of the need for further data and analysis as was obtained for North Bend and set forth in Table 29. The maximum daily temperature included in Condition S1.A of the Draft Permit is unreasonable and not technically or economically feasible.

Historical data for the SWRF's flow and effluent temperature over the course of the last five calendar years are shown in the chart attached to this letter as Exhibit A. During the period of the TMDL, it is not correct to state that the City has shown they can meet both the 24.7 degrees temperature limit and the design flow condition. The Design Effluent Flow condition in the Temperature TMDL Report study is 2.15 MGD, and its corresponding temperature limit (conservative effluent temperature) is 24.7 degrees at that design flow (2.15 MGD).

As is shown in the historical data chart in Exhibit A, the City pumps reclaimed water during the time period of peak temperatures. During that time, effluent flows discharged to the Snoqualmie River are very low. It would be more appropriate, and in keeping with the TMDL recommendations (as shown in Table 28 of the study), to assign the City a flow-based temperature limit that is protective of the river but not unreasonably low. This is the exact approach recommended by the Temperature TMDL Report for the North Bend WWTP, based on that plant's actual historical data. See Temperature TMDL Report at 105 and Table 29. Similarly, for Snoqualmie, during the period of late July to early August of 2018, the highest daily temperature was 23.84 degrees C, but effluent flows discharged to the River during that period ranged from *only 0 gallons to 40,000 gallons per day* – a quantity unlikely to result in *any* measurable

temperature impact to the River, let alone in excess of the 0.3 degree C 7-day average daily maximum temperature limit in WAC 173-201A-200(1)(c).

The Temperature TMDL Report appears to justify its lack of data-driven analysis for Snoqualmie, and erroneous reliance use of the plant's theoretical maximum design flow, with the backhanded phrase, "to be protective of the river in the event of a failure the reclaimed water facility." Temperature TMDL Report at 108. However, even when not reclaiming any water, the Snoqualmie WRF flows during the River low flow periods rarely exceed even 1 MGD, let alone 2 MGD. Even with projected population growth, the City's average wastewater discharge flows are projected to go only to 1.6 MGD, and dry weather flows during peak temperature periods will be well below that flow rate (1.6 MGD). So even assuming a hypothetical reclaimed water system failure, the SWRF effluent flow will not approach 2.15 MGD during the low river temperature periods, except in cases of exceptional rain which would be expected to mitigate the river temperatures. Meanwhile, the City has observed daily effluent discharge temperatures rise to 23.8 degrees C historically, when the City is producing reclaimed water and the volume of effluent discharge is very low. The proposed Condition S1.A maximum daily temperature of 24.7 C is a temperature based on load, which means flow is a component. However, the Draft Permit would apply that temperature uniformly, based on an unrealistic flow as the baseline regulatory number. This deprives the City any flexibility to adapt to changing climate conditions, which are anticipated to include increased sun and increased ambient air temperatures during summer months, which will increase temperature in the City's outdoor wastewater treatment plant components. Further, the City has made and will continue to make changes to its wastewater treatment processes, to increase aerobic digestion, which will add heat to the effluent. The only known methods to offset these temperature increases are to construct expensive shading and/or to electronically chill effluent, both of which are expensive. It is economically unreasonable to have the City spend any money on temperature reduction in the future if the effluent climbs over 24.7 degrees, when estimated effluent discharge flows are not predicted to increase to the threshold (2.15 MGD) corresponding to Table 28's 24.7 degree C wasteload allocation.

The NPDES Permit maximum daily temperature included in Condition S1.A should be corrected to reflect the flow-based T(NPDES) limits shown in Table 28 of the TMDL. All effluent flows up to 1.24 MGD should have a limit of 31.1 degrees C, with a linear temperature *decrease* from 31.1 degrees C to 24.7 degrees C corresponding to an effluent discharge flow *increase* of 1.24 MGD to 2.15 MGD, and 24.7 degrees C for all flows greater than 2.15 MGD. This approach will also address a potential reclaimed water production system failure hypothesized at page 108 of the Temperature TMDL Report, because a reclaimed system failure will result in an increased effluent discharge to the River that, if it exceeds 1.24 MGD, will trigger a corresponding reduction in the temperature limit.

This proposed correction does not constitute "backsliding." Instead, it would represent an expansion of a limitation (to year-round), and correct it to correspond to flow as necessary so that

the limitation complies with AKART requirements. Further, Ecology is *not* required to set the maximum temperature limit at the SWRF's historic performance limit if at higher level will reasonably assure the facility's compliance with state water quality standards. *Puget Soundkeeper Alliance*, 102 Wn.App. at 794. Here, the proposed correction (31.1 degrees at a discharge flow rate of 1.24 MGD or below) by definition will assure compliance with water quality degrees – the Temperature TMDL Report says so. Temperature TMDL Report at 106, Table 28 ("This table generates conservative *effluent temperatures that are protective of temperature on a year-round basis*.") (italics added).

Draft Permit Ammonia (NH_3) and CBOD Waste Load Allocations

The draft Permit, Condition S1.A, also includes waste load allocations for ammonia (NH_3) and carbonaceous biochemical oxygen demand ("$CBOD_5$"). The draft Fact Sheet states:

> The proposed permit changes the total ammonia average monthly effluent limit (August – October) from 21.9 lbs/day to 21.6 lbs/day. This change is due to effluent variability observed during the last permit cycle and it was computed using the coefficient of variance (CV). The proposed permit also changes the minimum pH limit from 6.3 to 6.5. The effluent limits for Carbonaceous Biochemical Oxygen Demand ($CBOD_5$), Total Suspended Solids (TSS), temperature and fecal coliform bacteria are the same as the limits included in the previous permit."

As shown in the attached summary of Waste Load Allocations ("WLAs") applied by Ecology in Snoqualmie's past three NPDES permits (2002, 2008, and 2014), Ecology has modified the WLA for ammonia and CBOD each permit cycle. The Fact Sheet accompanying each permit offers a different rationale for each of Ecology's prior WLA decisions. In the draft Fact Sheet and Permit, Ecology appears to rely upon the EPA's Technical Support Document for Water Quality-based *Toxics Control* (1991) guidance to establish the Average Monthly and Maximum daily limits. This statistical methodology for determining a monthly average limit for *toxics* is not technologically suited or appropriate for application to generic "far field" wastewater constituents, and Ecology's reliance on it is in the draft NPDES Permit for the SWRF is unreasonable and therefore does not constitute AKART.

For example, the draft Permit proposes an average daily maximum WLA for $CBOD_5$ of 206 pounds per day ("lbs / day") but a monthly average of only 51.6 lbs / day. The practical effect of this approach means that the SWRF will have to operate *more than 4 times* more efficiently on most days than the allowable 206 pounds / day maximum daily WLA. While the SWRF may be able to achieve this level of performance today, such limitations are impractical and unreasonable because they do not account for anticipated growth in the SWRF's service area, which will

contribute additional $CBOD_5$ which will count toward the monthly average if computed on a daily basis.

As explained on page 29 of the draft Fact Sheet, Ecology's approach relies upon guidance documents prepared for *toxics* control, not general wastewater NPDES permits. Such an approach is not appropriate, from a scientific or engineering perspective, for "far-field" constituents such as nutrients in wastewater. A "far-field" pollutant is one that does not exert a direct toxic effect on aquatic organisms at the discharge point or edge of the acute or chronic mixing zones, but rather has the potential to impact water quality over a greater distance downstream from the point of discharge. Examples of far-field pollutants would be CBOD and NH3 which cause depletion of dissolved oxygen (DO) in the stream which can potentially be detrimental to aquatic life. Nutrients (especially nitrogen and phosphorus) are also considered far-field pollutants. Toxic compounds, on the other hand exert a direct harmful effect on aquatic organism which is most acute right at the point of discharge. Acute and chronic mixing zones are typically allowed to mitigate the effects of such toxics.

In NPDES Permits for facilities in other jurisdictions, *e.g.*, Spokane County 2011 and Peshastin 2019, Ecology recognized that the appropriate approach to regulation of far-field pollutants was to apply TMDL-based WLAs as *monthly or seasonal averages* – not as maximum daily or monthly average daily limit. Ecology's approach in the Spokane County and Peshastin permits is supported by 40 CFR122.45(d) and EPA technical guidance memoranda dating back to 2004 (J. Hanlon to J. Capasca) and 2006 (B. Grumbles) (attached). As Ecology's Peshastin WWTP Fact Sheet explains:

> The Total Phosphorus WLA for the Peshastin POTW was established in the 2009 TMDL report as a maximum daily limit. The draft permit takes a different approach, implementing the WLA as an average monthly limit to achieve the objectives of the TMDL.
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> As explained at the beginning of this section, nutrients are far-field pollutants whose adverse effects occur away from the discharge even after dilution has occurred.
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> Thus, for compliance with the WLA, Ecology determined an average monthly Total Phosphorus loading is appropriate. This approach is necessarily different from a WLA needed for a toxic pollutant where a maximum daily limit is more appropriate.
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> The draft permit determines compliance with the average monthly limit, based on eight monthly phosphorus sampling events, thus providing a sound statistical basis for meeting the WLA.

> To illustrate support for the average monthly determination of the Total Phosphorus WLA, consider the following information.
>
> A similar approach was used in when Ecology implemented a seasonal average to determine compliance with the Spokane River and Lake Spokane (Long Lake) Dissolved Oxygen TMDL in the 2011 permit issued for the Spokane County Regional Water Reclamation Facility. The seasonal average was based on an eight-month period (245 days) to determine compliance with the Total Phosphorus loading WLA in the TMDL. The Peshastin draft permit utilizes a monthly or 30-day average.
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> A longer-term averaging approach for a WLA is allowed in federal regulation: 40 CFR122.45(d) allows that if daily maximum limits are impractical, longer-term averaging alternatives such as monthly, seasonal, or annual limits may be appropriate.
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> Additionally, the EPA has approved longer term averaging for nutrient-based wasteload allocation in various TMDLs, documents, and memos (see section VII. References for Text and Appendices).
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> • 2004 EPA Memo; James Hanlon
>
> • 2006 EPA Memo; Benjamin Grumbles

Fact Sheet for NPDES Permit WA0052175, Peshastin POTW (May 15, 2019) at 30 (attached).

To ensure that the SWRF Permit includes AKART, Ecology should amend Section S1.A for CBOD5 and NH3 to read as follows:

Parameter:	**Average Monthly:**
$CBOD_5$	206 lbs / day
NH_3	68.7 lbs / day

This request does not constitute "backsliding"; instead, it requests a correct application of the of wasteload allocations for CBOD5 and NH_3 drawn from the TMDL study, as far-field pollutants, not toxics. The approach that would be consistent with other recent permits and applicable EPA guidance that apply the TMDL WLA only as a monthly or seasonal average.

Reclaimed Water Non-Impairment

To address RCW 90.46.130, the draft Fact Sheet and draft Permit include sections addressing the fact that renewal of the NPDES for the SWRF will not impair any senior water rights downstream of the plant. However, the Fact Sheet contains a critical typographical error, and omits other important information explaining the Departments of Health's and Ecology's application of the non-impairment requirement. The draft Permit, for its part, also omits information concerning the Departments of Health and Ecology's application of relevant requirements, but, unlike the draft Fact Sheet, lacks any the straightforward statement indicating Ecology's determination that the SWRF NPDES Permit renewal will not impair any senior water rights. These deficiencies in both the Fact Sheet and Permit must be corrected in order to provide compliance with RCW 90.46.130.

a. Draft Fact Sheet

The draft Fact Sheet's discussion of reclaimed water non-impairment is set forth at pages 12-13 and 17.

The discussion in the last paragraph on page 12 sets for the legal context for the non-impairment determination that follows. It omits, however, key information concerning how the Departments of Health and Ecology interpret and apply RCW 90.46.130. This omission is easily remedied by addition of the following two sentences at the end of the last paragraph of page 12:

> The joint Departments of Ecology and Health Reclaimed Water Facilities Manual, Publication No. 15-10-024, known as "the Purple Book," states that the "purpose of the impairment analysis is to evaluate the potential for impairment of existing water rights when a new reclaimed water project is planned." Accordingly, the Purple Book indicates, "the Reclaimed Water Rule, WAC 173-219-090(1), requires that an applicant for a reclaimed water permit demonstrate compliance with RCW 90.46.130 for all new reclaimed water projects, and for existing reclaimed water permits when permit modifications that change capacity and/or discharge volume are proposed."

This information is important to the general public, because it provides key context for the draft Fact Sheet's next statement that follows in the first sentence of the first paragraph on page 13. This describes the City's commitment, made in its formal submittal on the non-impairment issue, to maintain City reclaimed water production within the SWRF's existing capacity in order to comply with the Purple Book. The sentence at the top of page 13, which provides the basis for a determination of non-impairment, is best understood in context of a brief explanation of the Purple Book and its application of the non-impairment rule to new or expanded reclaimed water projects. The suggested sentences indicated above should also be added to the one-paragraph

reclaimed water discussion in Section 4, page 17. They should be inserted just prior to the last sentence of that paragraph, so that it reads in its entirety (inserts shown in underscore):

> **F. Water rights impairment analysis**
> As the generator of reclaimed water, RCW 90.46.120 gives the Snoqualmie WRF exclusive right to any water produced through the facility's reclamation process. However, the diversion of reclaimed water from a surface water discharge must not adversely impact other water users downstream. RCW 90.46.130 prohibits facilities that reclaim water from impairing existing downstream water rights without compensation or mitigation. The joint Departments of Ecology and Health Reclaimed Water Facilities Manual, Publication No. 15-10-024, known as "the Purple Book," states that the "purpose of the impairment analysis is to evaluate the potential for impairment of existing water rights when a new reclaimed water project is planned." Accordingly, the Purple Book indicates, "the Reclaimed Water Rule, WAC 173-219-090(1), requires that an applicant for a reclaimed water permit demonstrate compliance with RCW 90.46.130 for all new reclaimed water projects, and for existing reclaimed water permits when permit modifications that change capacity and/or discharge volume are proposed." Based on information supplied in the Reclaimed Water Permit Application, the diversion of reclaimed water produced at the City of Snoqualmie WRF does not impair downstream water rights.

In addition, the last sentence of the first paragraph on page 13 omits the key word, "not." To be accurate, and match the concluding sentence on page 17, the last sentence of the first paragraph on page 13 must be corrected to read as follows (insertion shown in underscore):

> Therefore, the production of reclaimed water will *not* cause water rights impairment.

(Emphasis added).

b. Draft NPDES Permit

The draft Permit's discussion of the SWRF's non-impairment of water rights is contained in Section R4.D, page 44 of the draft Permit, entitled "Water rights protection." Like the draft Fact Sheet, the first paragraph of Section R4.D briefly discussed the legal context of the non-impairment requirement. Like the draft Fact Sheet, this discussion also omits key statements concerning how the Departments of Health and Ecology construe and apply RCW 90.46.130 to new or expanded reclaimed water production projects. The first paragraph of Section R4.D should be supplemented with the same language indicated above for the Fact Sheet, to reference the Purple Book.

More important, unlike the draft Fact Sheet, the second paragraph of Section R4.D omits any statement whatsoever concerning Ecology's determination that the SWRF will not cause water rights impairment. Instead, the draft Permit merely indicates that the Permittee must document in the next application for permit renewal how the SWRF's reclaimed water production and use complies with WAC 173-291-090 and RCW 90.46.130. While this statement is technically accurate, it goes without saying – all Permit renewals are required to comply with the referenced statute and regulation. Meanwhile, as written, the draft Permit could unintentionally create the impression that Ecology has neglected to make the required determination as part of *this* Permit that the SWRF reclaimed water production and use will not impair any senior water rights.

To remedy the above deficiencies, Section R4.D should be revised to read as follows (additions shown in underscore):

> **R4.D. Water rights protection**
> The use of reclaimed water produced at the permitted facility must not impair any existing water right downstream of the freshwater discharge point(s) of the facility unless the Permittee makes appropriate compensation or mitigation to the affected right holder. Existing water rights include any permits, claims, certificates, or instream flows established pursuant to RCW 90.22 and RCW 90.54, along with all federally reserved water rights existing at the time the Permittee completed their initial impairment analysis. The joint Departments of Ecology and Health Reclaimed Water Facilities Manual, Publication No. 15-10-024, known as "the Purple Book," states that the "purpose of the impairment analysis is to evaluate the potential for impairment of existing water rights when a new reclaimed water project is planned." Accordingly, the Purple Book indicates, "the Reclaimed Water Rule, WAC 173-219-090(1), requires that an applicant for a reclaimed water permit demonstrate compliance with RCW 90.46.130 for all new reclaimed water projects, and for existing reclaimed water permits when permit modifications that change capacity and/or discharge volume are proposed."
>
> Based on information supplied in the Reclaimed Water Permit Application, the diversion of reclaimed water produced at the City of Snoqualmie WRF does not impair downstream water rights.
> In addition, ~~T~~the Permittee must document in the next application for permit renewal how the use of reclaimed water from the permitted facility complies with the water rights protection provisions in WAC 173-219-090 and RCW 90.46.130

Reclaimed Water Distribution and Customers

The draft Fact Sheet erroneously states that the City has made a determination to cease utilizing reclaimed water to supply the City's municipal irrigation needs and, for the first time in over 20 years since the City began producing reclaimed water, the draft Permit *removes* the City's municipal irrigation as an allowed use of reclaimed water. The draft Fact Sheet's incorrect statements must be deleted, and the City should be reinstated in the Permit as an allowed user of its own municipally-produced reclaimed water.

a. Draft Fact Sheet

At page 12, under the second full paragraph below the heading "Reclaimed water distribution and use area," the draft Fact Sheet erroneously states that "In 2019, the City decided to discontinue the transmission of reclaimed water for irrigation of athletic fields at Snoqualmie Community Park, plants in the Snoqualmie Parkway median strip and landscape planters around businesses along Snoqualmie Parkway." The draft Fact Sheet goes on to erroneously state what the City will do to connect irrigation customers to the City's potable water supply.

b. Draft Permit.

The draft Permit, at the cover page and at Section R4, pages 38-40, deletes the City of Snoqualmie and related irrigation customers from the approved areas of use for reclaimed water. This deletion occurs for the first time in the SWRF's 23-year history of producing and distributing reclaimed water for City and Snoqualmie Ridge irrigation use.

For the reasons explained below, the entire second paragraph on page 12 of the Fact Sheet should be deleted, and language from prior NPDES Permits authorizing City use of its allotment of reclaimed water must be restored.

First, no City of Snoqualmie elected official or elected body – not the Mayor, City Council, Council Parks & Public Works Committee – has determined that the City will discontinue use of the City's allotment of its own municipally-produced reclaimed water for irrigation of publicly-owned parks and landscaped property. Similarly, no such decision was made by a City department head, such as the Director of Parks & Public Works, or even the Wastewater Superintendent, Thomas Holmes. Importantly, the draft Fact Sheet correctly lists me, Mayor Matthew Larson, as the SWRF's "Responsible Official." The City of Snoqualmie is a noncharter code city operating under Title 35A RCW, under the mayor-council (aka "strong mayor") form of government in which the Mayor serves as the City's chief executive officer. *See* SMC Section 1.08.010; RCW 35A.12.100 (Mayor "shall have general supervision of the administration of city government and all city interests.").

Although I am the "Responsible Official" for the NPDES Permit, I have not made any decision to discontinue the City's use of its own reclaimed water for municipal irrigation. Nor has the elected Snoqualmie City Council made such a decision, and the project that the draft Fact Sheet describes is not included in the City's adopted Utility Capital Improvement Program ("CIP"). Ecology appears to be incorrectly relying on an August 1, 2019 letter to Ecology's Lazario Eleuterio from the City's engineering consultants, RH2, which was not copied to me (or even Wastewater Superintendent Thomas Holmes), and for which approval from me, the City Council and/or Director Krause was not obtained. The incorrect statements in the Fact Sheet should be deleted in their entirety.

The drastic result described in the draft Fact Sheet – termination of the City's use of reclaimed water and replacement of it with scarce, valuable potable water – is not economically reasonable or feasible, and therefore Ecology may not mandate the switchover as part of AKART.

The City's utility capital planning is governed by its adopted Water System Plan and Sewer General Plan. *See* WAC 173-240-050 and 246-290-100. The City also adopts a Capital Improvement Program ("CIP") for its utilities, and non-utility capital assets, which are then incorporated by reference into the City's GMA Comprehensive Plan Capital Facilities Element. None of these currently-adopted plans include any provision for the reclaimed-to-potable switch described in the draft Fact Sheet. The Project itself would cost money and, more important, the use of potable water by itself would be very expensive. To provide an economic incentive in favor of reclaimed water use over potable water, the City's adopted utility rates price municipal irrigation at approximately 20% less than potable water. A shift to potable water for parks and publicly-owned right-of-way irrigation would immediately cost the City 20% more – a cost that would be borne by the general fund whose revenue sources are already stretched thin.

Moreover, a switch to potable water would put additional pressure on a limited resource – potable water – that the City is mandated by the Growth Management Act to provide to existing customers as well as to plan to provide for anticipated new residential customers. *See, e.g.*, RCW 36.70A.070(3); RCW 43.20.260. While the City does currently have active water rights applications pending with Ecology, and has applied for an Ecology grant to study other water supply options, new, legally available water supplies are not available "off the shelf." Any wastewater permit decision that would force the City to consume expensive and scarce potable water for irrigation purposes is *per se* unreasonable, and cannot be mandated by Ecology as part of waste discharge / NPDES Permit subject to AKART requirements.

Nor is such a result compelled by the chlorine residual requirement in WAC 173-219-370, which became effective in February, 2018. That regulation requires a generator / distributor of reclaimed water to maintain a specified chlorine residual "in pipeline distribution systems conveying the reclaimed water from the facility to the point of use. . . ." WAC 173-219-370(1). However, "a chlorine residual is not required in reclaimed water impoundments, storage ponds, and storage tanks at the point of use, or for conveyance along natural streams, lakes, surface waters, or

groundwaters of the state." WAC 173-219-370(2). As discussed in multiple prior Fact Sheets and prior SWRF NPDES Permits, the SWRF produces and distributes reclaimed water to the Eagle Lake storage impoundment, whose place of use is "Snoqualmie Ridge I" generally, and more specifically at the golf course and nearby municipally- and commercially-owned properties.[1] Thus, the point of compliance for any chlorine residual requirement was, originally, "at the point of discharge into Eagle Lake." 2008 Fact Sheet at 40. Per WAC 173-219-370(2), "a chlorine residual is not required in reclaimed water impoundments, storage ponds, and storage tanks at the point of use," and no residual chlorine requirement is specified downstream of any such impoundment or storage tank. Therefore, the residual chlorine requirement, if it applies at all, only applies to the discharge of reclaimed water *prior to* Eagle Lake – *not in Eagle Lake itself, nor after withdrawal from it*. Ecology has already recognized that, due to the short force main transmission distance from the SWRF to Eagle Lake and significant UV system upgrades at the plant itself, the City may demonstrate residual chlorine at a point immediately downstream of the UV disinfection system, not further up the line or at Eagle Lake.

Regardless of the location of the compliance point, however, there is simply no legal basis for Ecology to use WAC 173-219-370 to require the City to disconnect its municipal or commercial irrigation systems from the reclaimed water supply coming from Eagle Lake. The regulation requires chlorine residual in distribution lines to the place of use – which is Eagle Lake on Snoqualmie Ridge – and not in the Lake itself, or in user lines after withdrawal from the Lake. If the regulation required chlorine residual downstream of a storage impoundment, Ecology would need to test every line and every sprinkler head downstream of the lake. That would not only be impracticable, it would unreasonable, given that the regulation expressly exempts storage impoundments (like Eagle Lake) from the requirement to demonstrate chlorine residual in the first place.

Even if Ecology's application of WAC 173-219-370 was correct – and it is not -- a more reasonable course of action would be for Ecology to provide the City a reasonable compliance schedule, during which the City could explore various alternatives, propose a project to Ecology, and obtain Ecology engineering document and plans and specifications approval. The draft Permit's approach – a Permit renewal that immediately cuts the City off from reclaimed water usage – is entirely unreasonable, and therefore not legally supportable.

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[1] *See, e.g.*, 2008 Fact Sheet at 1 ("During the summer months (July to September), the facility produces Class A reclaimed water that is distributed to Snoqualmie Ridge for irrigation."); 2008 NPDES Permit at 37 ("The Permittee may produce and distribute Class A reclaimed water to the Eagle Lake storage reservoir at the Snoqualmie Ridge Golf Course. The Permittee may enter into end user agreements that allow withdrawal of water from the storage reservoir for use as landscape and turf irrigation."); 2011 NPES Permit modification at 37 (same); 2014 NPDES Permit at 31 ("the Permittee is authorized to produce and distribute Class A reclaimed water to various public and private locations in the vicinity of the TPC Snoqualmie Ridge Golf Course."); at 36 ("The Permittee may produce and distribute Class A reclaimed water to the Eagle Lake storage reservoir at the Snoqualmie Ridge Golf Course. The Permittee may enter into end user agreements that allow withdrawal of water from the storage reservoir for use as landscape and turf irrigation."); 2014 Fact Sheet at 10 ("Class A product water is blended with well water then pumped approximately one mile to the Eagle Lake storage reservoir at the TPC Snoqualmie Ridge Golf Course."); Id. at 11 ("Individual end users withdraw water from this storage reservoir for seasonal landscape irrigation.").

The draft Fact Sheet should be revised to delete the second paragraph under the heading "Reclaimed water distribution and use area," and the draft Permit should be revised to restore previously-existing language authorizing City use of its own reclaimed water stored in Eagle Lake, for irrigation of municipal property and medians, planter strips and landscape areas in the Snoqualmie Ridge I use area.

Permit report submittals regarding DMR QA/QC report – Response to Ecology's Comments

The DMR QA / QC report was required as a part of the last permit cycle and the City did not experience any issues submitting the monthly report on time. The City has filled additional FTE positions since the last permit cycle, and any prior issues with timely report submittals have long been corrected. This Permit requirement is no longer needed and should be deleted from the current Permit renewal.