September 30, 2020

VIA EMAIL: jhill@kingcounty.gov; richard.rodriguez@doh.wa.gov and U.S. MAIL

Cascadia Law Group
ENVIRONMENTAL ATTORNEYS

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Re: City of North Bend Water Supply

Dear Messrs. Hill and Rodriguez:

This letter sets forth comments to the most recent draft Water System Plan (WSP) submitted by the City of North Bend (City). I am providing these comments on behalf of my client Friends of the Snoqualmie Valley Trail and River (Friends).

I understand that the King County UTRC has a meeting scheduled this October to review the WSP, and I request these comments be considered as part of that process. I further request that the Department of Health (Department) take these comments into consideration in reviewing the most recent draft of the WSP. Based on these comments, the current draft of the WSP should not be approved and there should be a moratorium on the City approving any further development that requires new water supply until real additional mitigation to impacts on the Snoqualmie River are firmly in place.

I recognize that under a Memorandum of Understanding (MOU)[1] regarding available water supply for a public water system, the Department considers the Department of Ecology's (Ecology) advisory letters regarding the City's mitigated water supply, and the City's response to the advisory letters. Based on this information, the Department still makes the final decision to approve or not approve the WSP based on the standards set forth in state statutes and regulations.

[1] Memorandum of Understanding between the State of Washington Department of Health and Department of Ecology Related to the Coordination Between Planning, Engineering, Public Health and Safety Processes, and Water Resources. DOH Contract #16099.

In the UTRC's letter dated August 3, 2020 to the City, and in Ecology's advisory letters of May 22, 2020 and July 29, 2020, both agencies recognize the serious problem of available water supply based on the City's failure to obtain the adequate mitigation for the Centennial Well. Yet, both the UTRC and Ecology accept an outdated and inaccurate analysis that there is available water for up to five years of growth, to 2025. Based on this reliance, the UTRC suggested that without additional mitigation water the City may have an option for a five-year water system plan. We believe this is ill advised and needs to be revisited. This is not in compliance with water system planning policies and procedures. Further, when this letter was written, the UTRC did not have the full set of comments on the WSP that had just been amended with approximately 900 additional pages.

The five-year plan is based on a conclusion in a 2019 Golder Report, Appendix F to the WSP, and the UTRC as well as Ecology have simply adopted it without apparent critical review of the evidence supporting Golder's determination that there is available mitigation water supply for projected growth to 2025. The Golder conclusion does not accurately state the current mitigation water supply. It does not include the current baseline, which is mitigation from Hobo Springs only. Rather, it includes a mitigation supply from the Cascade Golf Course water right, for which the City has yet to file an application to change. Gray & Osborne recognized this in the Executive Summary of the August 2020 draft WSP, which states:

> *Under present peak summer demand, if a drier summer were to occur, the flows at Hobo Springs would be at or just below those required to properly mitigate water demand*.

Gray & Osborne's more recent assessment supports the analysis that this year--in 2020--the City is at risk of inadequate mitigation water given a dry year. The year 2015 was not an anomaly, and it will only occur more often with climate change, coupled with the increased demand with over 350 new residential units added since 2015[2]. For more specifics and background, see letter from me to Ria Berns, dated May 1, 2020, which is enclosed and incorporated herein by reference.[3] To emphasize, the City is acknowledging that the problem is not five years in the future, it is now. Acknowledgment of this is fundamental in the UTRC's and the Department's responsibility to ensure safe and reliable drinking water for the people of Washington State as required under chapters 70.119A and

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[2] *See* Washington State Office of Financial Management report at: https://ofm.wa.gov/sites/default/files/public/dataresearch/pop/april1/ofm_april1_housing.xlsx

[3] S*ee also,* Friends comment letters to UTRC with copies to the Department, dated June 17, 2020 and August 3, 2020. For convenience I am enclosing the August 3, 2020 comments with attachments because it appears these were not considered by UTRC before it issued its August 3, letter.

43.20 RCW. The MOU provides that Ecology shall support this effort and, under RCW 90.03.386(2) and 90.03.570, determine a municipal water supplier's compliance with its approved water system plan or small water system management program regarding water rights. Ecology's advisory letters are telling, although in our opinion they are wrong in deferring to the Golder finding that there is currently adequate mitigation available, especially when Golder did not consider the reliability of mitigation solely from Hobo Springs, the only current mitigation.

In its letters, Ecology states that until the City secures additional mitigation, there is vulnerability in its continued reliance on the Centennial Well. Ecology further states that sources of mitigation ***"is essential for North Bend's ability to accommodate near-term growth… North Bend should take clear and measured steps in the short term to build mitigation capacity or plan to curtail growth."*** (Emphasis in original.) The UTRC and the Department must recognize that, based on these comments, the water supply is at risk today and that approval of even a five-year plan does not comply with the law to ensure the City has a safe and reliable source of supply.

The City's response to Ecology's letters provided only speculative actions. The City states that it will control and lower distribution leakage, rely on a conservation plan, and increase and diversify the number of mitigation sources. Future, unproven, and uncertain savings from lower distribution leakage and a new conservation plan cannot be relied on as additional sources of water for the approval of a plan today. These savings must be proven over time. In fact, the City has had years to control its leakage and has not done so, and the conservation plan is unpopular and controversial--it is the subject of a significant dispute between the City and Sallal Water District (Sallal) customers within the City. It appears the City wishes to rely on water savings by the Sallal customers under Sallal's water rights, although the City has no interest and control over Sallal's rights. Ironically, in considering diversifying its mitigation sources, the City emphasized that it is not required to contract with Sallal.

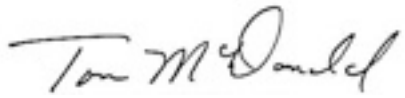
The City also states it will have the Cascade Golf Course water right as mitigation in early 2021, it will make improvements to Hobo Springs, it will seek additional supply from Seattle, and it will do studies on a mitigation reservoir. The City has yet to file an application to change the Golf Course water right and it, and the UTCR and the Department should not make any assumption that it will be a mitigation source because the actual quantity of water available for change will likely be limited and the quality of the water for mitigation may not be adequate. The WSP provides no detail on the Hobo Springs Improvement and the quantity of water it would make available as additional mitigation. It is also part of a Capital Improvement Plan for proposed projects with cost projections, and it is not

clear whether the City has committed and appropriated the funds for this specific improvement. In summary, the City's response to Ecology is woefully inadequate, and the proposed actions cannot be relied upon for additional water supply and additional mitigation.

Finally, it should be noted that the increase in demand from 2018-2022 documented in the Golder Report dated Oct. 19, 2019, Table A-16 (Permitted Land Development Projects), totals almost 1,000 homes. In examining increases in water demand cited in WSP Appendix F, Table 5 and Appendix F, Figure ES-2, it is not at all apparent that these units are included in the appropriate time frame. This consideration is critical to determining the adequacy of committed mitigation capacity in the near term.

The WSP should not be approved and the City should be placed on a moratorium for any further permitting of development until there is firm and sufficient additional mitigation. Please note that Friends only just received a copy of the fourth WSP draft with the tracked changes and comparisons with the earlier drafts and, therefore, Friends may submit additional comments after its review of the changes.

Sincerely,



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TM:en

Enclosures: Letter from Tom McDonald to Ria Berns dated May 1, 2020, with Attachments 1-4
Letter from Friends to King County UTRC dated August 3, 2020, with Attachment 1

cc: Jean Buckner, EdD, Friends of the Snoqualmie Valley Trail and River *(via email)*
Ria Berns, Department of Ecology, NWRO *(via email)*
Michael R. Kenyon, City Attorney, City of North Bend *(via email)*
M. Patrick Williams, attorney for the Tulalip Tribes *(via email)*

May 1, 2020

VIA EMAIL: ria.berns@ecy.wa.gov

Cascadia Law Group
ENVIRONMENTAL ATTORNEYS

Ria Berns, Program Manager
Water Resources
Department of Ecology
Northwest Regional Office
3190 - 160th Ave. SE
Bellevue, WA 98008-5452

Re: City of North Bend Water Supply

Dear Ria:

Last month, you and I had a discussion regarding the authorized water supply for the City of North Bend. We also discussed the potential use of water from the Sallal Water Association and Cascade Golf Course wells as mitigation for North Bend's Water Right Permit No. G1-26617(A) (Permit). I reviewed your letter to Mayor McFarland that makes the finding that the Sallal Water Right Certificate No. G1-24671 may be used for mitigation of North Bend's water right without any further action by Ecology. As you know, I believe this decision is not legally sound and sets new precedent. I briefly address this in more detail below.

The primary purpose of this letter is to address the current status of the City's mitigation. At this time there is no mitigation water other than Hobo Springs. Hobo Springs is not an adequate source for current water demand and, on behalf of my client, I respectfully request that Ecology inform North Bend that it must cease committing water for new development until a second adequate mitigation source is firmly available.

From our discussion I understand that while the Report of Examination for the Permit requires mitigation in addition to Hobo Springs, Ecology now believes that Hobo Springs has shown to be more reliable than earlier thought, and in the short term Ecology does not have the same concern it had when the Permit was first issued. However, there is not an understanding of the short term. In fact, based on Golder's own data, mitigation is not available for any additional water withdrawals under the Permit. The recent draft Water System Plan supports this conclusion. Your letter to the Mayor acknowledges that there is vulnerability for the City in its reliance on the Permit. In my opinion, based on the real data, a stronger and proactive approach by Ecology is necessary.

Ecology must protect the minimum flows of the Snoqualmie River under Ch. 173-507 WAC and should not take a reactive approach by again waiting for unauthorized impairment to the flows before taking appropriate action. Ecology

has the authority to take action if there is impending violation under RCW 43.27A.190. The additional demand on water supply because of the City of North Bend's approval of plats and building permits under RCW 58.17.110 and RCW 19.27.097 will cause impairment to the minimum instream flows.

If the City is allowed to continue to commit water for new development without a second mitigation source, Ecology will be in the untenable position of making a decision to regulate North Bend's withdrawal of water under the Permit that would shut off water supply for domestic purposes. Yet, we know the regulation of potable domestic water use will not occur, and the Snoqualmie River will take the impact from the lack of proper planning. In Ecology's regulatory capacity, the proper approach that is protective of the residents and the minimum instream flows is to consider the available water supply and demand during a dry year. The year 2015 was a dry year that should be used as the base year for determining adequate mitigation. This year should not be ignored as an anomaly, considering weather patterns and climate change.

My client's position is supported by Golder's own data. In its October 2019 Water Supply and Mitigation Report (Golder Report), Golder surprisingly did not run the model regarding impacts on the Snoqualmie River with only Hobo Springs as mitigation. Therefore, the Golder Report fails to provide the crucial analysis of the current mitigation scenario which determines the water available under the Permit. Although we do not have access to the Golder database and GoldSim Model, we have used Golder data to provide a snapshot of what likely occurred in 2015 and will occur in the future during peak demand months, July – September, with Hobo Springs as the sole mitigation source.

Based on the analysis, North Bend does not have sufficient mitigation water until another source is found. *Please see* chart at Attachment 1. Attachment 1 is a projection of North Bend's water demand vs. available water supply with only Hobo Springs as mitigation in peak demand months under the conditions of 2015. For this comparison, Scenario 5 in the Golder Report was used because it excludes the City's Potential Annexation Area (PAA). During the critical period of time in a 2015 dry-year scenario, the demand is exceeding the supply of water available based on the available mitigation from Hobo Springs.

There should be no dispute that the flow of water available from Hobo Springs is currently not an adequate and reliable supply during the critical period if there is a dry year like 2015. We know that Hobo Springs does go dry at times when instream flows can be below threshold. In 24 years of records there were six years when flow was below 0.5 cfs, and three years where it was essentially zero. *See* Golder Report Summary, Table A-3 and Figure A-4, at Attachments 2 and 3.

Figure A-4 also shows that the minimum daily flows from 2007 to 2018 have decreased, and we should expect this trend to continue with climate change.

In 2015, City water demand was 629 afy (205 mgy). *See* Golder Report Table A-9. Attachment 1 compares this to projected growth this year, 2020, and future growth in 2025. It is clear that current mitigation is not adequate if a weather year like 2015 were to be repeated. The projected demand in the Golder Report for 2020 is approximately 765 afy (250 mgy), which represents a 22% increase over 2015. *See* Golder Report, Figure B-1, at Attachment 4. The projected demand for 2025 is approximately 1,350 afy (440 mgy), which represents a 115% increase over 2015. Golder Figure B-1 is concerning because it indicates a relatively slow rate of growth in demand from 2000 to 2024, then a dramatic ramp up in demand, contrary to other sources of growth predictions. Attachment 1 illustrates a marginal deficiency in supply versus demand in 2015 with increasing deficiency in 2020 and 2025 for the same type of dry year. The City's recently filed a Draft Water System Plan update supports this conclusion. The Plan finds that the City is at or near its mitigation capacity limits and when a drier summer occurs the flows at Hobo Springs would be at or below the required mitigation. *See* Executive Summary of Water System Plan, pages 3-30.

The Mount Si Springs source of supply is generally going to be very limited in flow during the critical time period. Mount Si Springs is operating more efficiently now with the new variable flow pumps; however, with the 3 cfs bypass requirement Centennial Well must provide more than twice as much as the Springs during this critical time of the driest months. Again, this is confirmed in the Draft Water System Plan update, which states during the summer months the high demand coincides with the severely limited withdrawal capacity from Mount Si Springs. *See* Executive Summary of Water System Plan, pages 3-30.

Further, as you know, the City's use of Hobo Springs is only as reliable as the contract it has with the City of Seattle. It is not a guaranteed source. How Seattle manages the Masonry Pool impacts seepage and amount of water available to Hobo Springs. Seattle operates and may make improvements to Masonry for the benefit of all ratepayers even though it may have impacts on the Springs. The contract between Seattle and North Bend further specifies that Seattle may curtail delivery of water in the event of related water shortages regardless of the cause. Seattle may in its sole discretion also "interrupt or reduce deliveries" of water to North Bend for several reasons, including demands of federal and state agencies, investigations, inspections, and maintenance. In other words, Seattle is not required to make sure Hobo Springs provides full mitigation for the Permit.

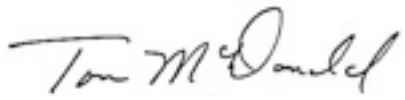
I also would like to respond to your findings in your letter to Mayor McFarland. Ecology has made the decision that in issuing North Bend's Water Right Permit

No. G1-26617(A), it authorized Sallal's Water Right Certificate G1-24671 as mitigation for the North Bend Permit. While it did find that the Sallal wells are a source of mitigation, I respectfully disagree that this finding did nor could it have amended Sallal's water right to allow a new use or manner of use such as mitigation.

The purpose of use of a groundwater right may only be amended under 90.44.020, .100. An application to Ecology and review under RCW 90.03.380 as well as RCW 90.44.100 is required. I did not find any of the water rights referenced by Mr. Pors to have these same facts, where one municipal water supplier was using its water right to augment another municipal water supplier's water right when the mitigating water right does not authorize such purpose and does not authorize the place of use. Please note, contrary to Mr. Pors' statement, the place of use for the mitigation is not merely at Boxley Creek; rather, it is the Snoqualmie River from Boxley Creek downstream. Otherwise it would not be providing required mitigation in the Snoqualmie River.

Ecology has yet to issue a change and a superseding water right for Sallal's Water Right Certificate No. G1-24671. Until this is done, Sallal's use of its water right for mitigation of Water Right Permit No. G1-26617(A) is simply not authorized. This problem also cannot be dismissed based on the failure of an appeal of Ecology's decision to issue Water Right Permit No. G1-26617(A). The fact is that there must be another action taken as described above. In addition, as your letter states, Sallal must approve a contract based on its current obligation to act in the best interest of its members.

Sincerely,



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Attachments 1-4

cc: Jean Buckner, EdD, Friends of The Snoqualmie Valley Trail and River
Thomas Pors, Attorney at Law
Richard Jonson, Attorney at Law
Robert James, Department of Health

ATTACHMENT 1

NORTH BEND DRY YEAR WATER SUPPLY/DEMAND ESTIMATION

PROJECTED NORTH BEND WATER DEMAND (PEAK MONTHS JULY-SEPTEMBER) VS. WATER AVAILABILITY

DEVELOPED BY THE FRIENDS OF THE SNOQUALMIE VALLEY TRAIL AND RIVER 4/4/2020

The draft report *City of North Bend Water Supply and Mitigation Forecast* by Golder Associates (October 2019) does not include a scenario for evaluating mitigation adequacy using only the current mitigation sources available for the City's water supply. All scenarios discussed in the report (Table ES-1) include theoretical mitigation from Sallal Wells and/or the Cascade Golf Course, which are currently not available for use.

Without access to the database and the GoldSim model, it was not possible to determine adequacy of current available mitigation on an annual basis, if there were a dry year such as 2015. Thus the following table summarizes the analysis that was performed to determine if there would be adequate mitigation during the dry time of the year using the data from the draft Golder report. This is a snapshot in time, but demonstrates whether adequate mitigation is an issue.

The following table summarizes this analysis given North Bend's current water and mitigation supply. All three years selected (2015, 2020 and 2025) show insufficient mitigation water available during peak demand months (July-September) given a dry weather year like 2015. The table is followed by an explanation and/or source of the data. **The final column of the table shows negative values which means that for all three years there is insufficient mitigation supply for a dry year.**

YEAR	CITY WATER DEMAND (WSA)				CITY WATER SUPPLY					10 SUPPLY VERSUS DEMAND (CFS)
	1 DEMAND (MGY)	2 AVERAGE DAILY DEMAND (MGD)	3 PEAK DAY DEMAND (MG)	4 PEAK DAY DEMAND (CFS)	5 Mt SI SPRINGS (CFS)	6 HOBO SPRINGS MITIGATION (CFS)	7 WWTP MITIGATION (CFS)	8 CENTENNIAL MITIGATED DRAW (CFS)	9 TOTAL MITIGATED SUPPLY (CFS)	
2015	205	0.562	1.17	1.82	0.5	0.5	0.53	1.03	1.53	-0.29
2020	250	0.685	1.43	2.22	0.5	0.5	0.69	1.19	1.69	-0.53
2025	440	1.21	2.53	3.92	0.5	0.5	1.37	1.87	2.37	-1.55

KEY

MGY = million gallons per year

MGD = million gallons per day

CFS = cubic feet per second

WSA = North Bend Water Supply Area as used in the Golder report

PROJECTED CITY WATER DEMAND

Column 1: Water Demand for the City of North Bend. Year 2015 from Table A-9 in draft Golder Report (October 2019). Years 2020 and 2025 estimated from Figure B-1, Scenario 5, in the draft Golder Report (October 2019).

Column 2: Average daily water demand = Column 1/365 (days in a year).

Column 3: Peak Day MG per day = Column 2 X 2.09, which is Peaking Factor from North Bend's 2010 Water Supply Plan.

Column 4: Peak Day CFS = Column 3 X 1.55 (converting MG/day to CFS).

PROJECTED WATER SUPPLY FOR PEAK MONTHS JULY – SEPTEMBER

Column 5: 0.5 CFS from Mt. Si Springs for supply. Estimated from Figure A-2 in draft Golder Report. Graph shows Mt. Si Springs flow is low during this time of year. During a dry year we are estimating it could go as low as 3.5 CFS, thus only 0.5 CFS available for supply with City's new pumps (as 3 CFS required for by-pass). Note: it could possibly go lower.

Column 6: 0.5 CFS from Hobo Springs available for mitigation. Estimate based on minimum daily flow during September as shown in Figure A-4 in draft Golder Report. Figure is attached. Note y-axis in acre feet per day which is equal to 0.5 CFS.

Column 7: Wastewater Treatment Plant (WWTP) return flow credit for mitigation = 40% of projected peak day demand (Column 4). Based on review of WWTP credit during peak time of year as reported in 2009 – 2019 Golder annual mitigation system reports for City of North Bend a factor of .4 (40% of Centennial withdrawals) was determined. Again, we believe this is a conservative factor (conservative meaning that it is allowing for high end of estimated water available) for this time of year mainly because WWTP return is based on average of previous 365 days of Centennial withdrawals. The total WWTP return flow has been factored up proportionate to the growth in demand.

Column 8: Centennial Mitigated Draw = the amount of water that can be drawn from the Centennial Well based on the amount of mitigation available, which is equal to Column 6 + Column 7 (Hobo Springs plus WWTP credit).

Column 9: Total Mitigated Supply = Column 8 + Column 5 (Centennial Mitigated Draw plus Mt. Si Springs).

SUPPLY VS DEMAND

Column 10: Total Mitigated Supply of Water versus Peak Day Demand = Column 9 minus Column 4. Negative numbers indicate insufficient mitigation available.

CAVEAT REGARDING THE DATA USED IN ANALYSIS

Our analysis is based on the same data provided by Golder in their DRAFT October 2019 Mitigation Report as well as annual Golder Mitigation Reports and therefore inherits any limitations their base data may present. Three examples of possible data limitations follow:

- Golder states that "At the time the model was constructed, records were not sufficient to understand the seasonal limitations of Mt Si Spring source." (See Golder Report section 5.1) Being able to account for seasonal variations is important to assessing what is occurring during low-flow months. Also, this quote appears to be inconsistent with information in Figure A-2 which graphs seasonal differences.
- Hobo Springs had 18 missing years of data (1982-2000) Numerous failures could have occurred in these 18 years for which there are no records. The relative importance of this data gap is unknown.
- We've been unable to account for 160 residential units which may be missing from Golder's demand calculations. Due to the way the data are presented, vetting these numbers is impossible.

POSTSCRIPT REGARDING JUST RELEASED 2020 NORTH BEND WSP

The 2020 North Bend Water System Plan (WSP) has been so recently released for review that no data from the document was used in this assessment. However it is worth noting that the Executive Summary states:

"The City anticipates growth of approximately 2.5 percent over the 10-year planning period and has adequate water rights, source, and storage capacity to meet the water demand projected over the next 10 years. However, the City is at or near its mitigation capacity limits. Mitigation capacity dictates how much water can be withdrawn from the Centennial Well. Unfortunately, during the dry summer months high overall water demand coincides with a severely limited withdrawal capacity from Mount Si Springs. As a result, the City must depend on the Centennial Well for the majority of its water production. This often coincides with low instream flows in the Snoqualmie River which leads to increased mitigation requirements. Under present peak summer demand, if a drier summer were to occur, the flows at Hobo Springs would be at or just below those required to properly mitigate water demand. The City must therefore increase its mitigation capacity by implementing two measures. 1. Enact water conservation policies that curb peak season water use….. 2. Obtain additional sources of mitigation water….."

The WSP entirely supports our conclusion that the City has inadequate supply at the present time to meet demands in the event of a dry year.

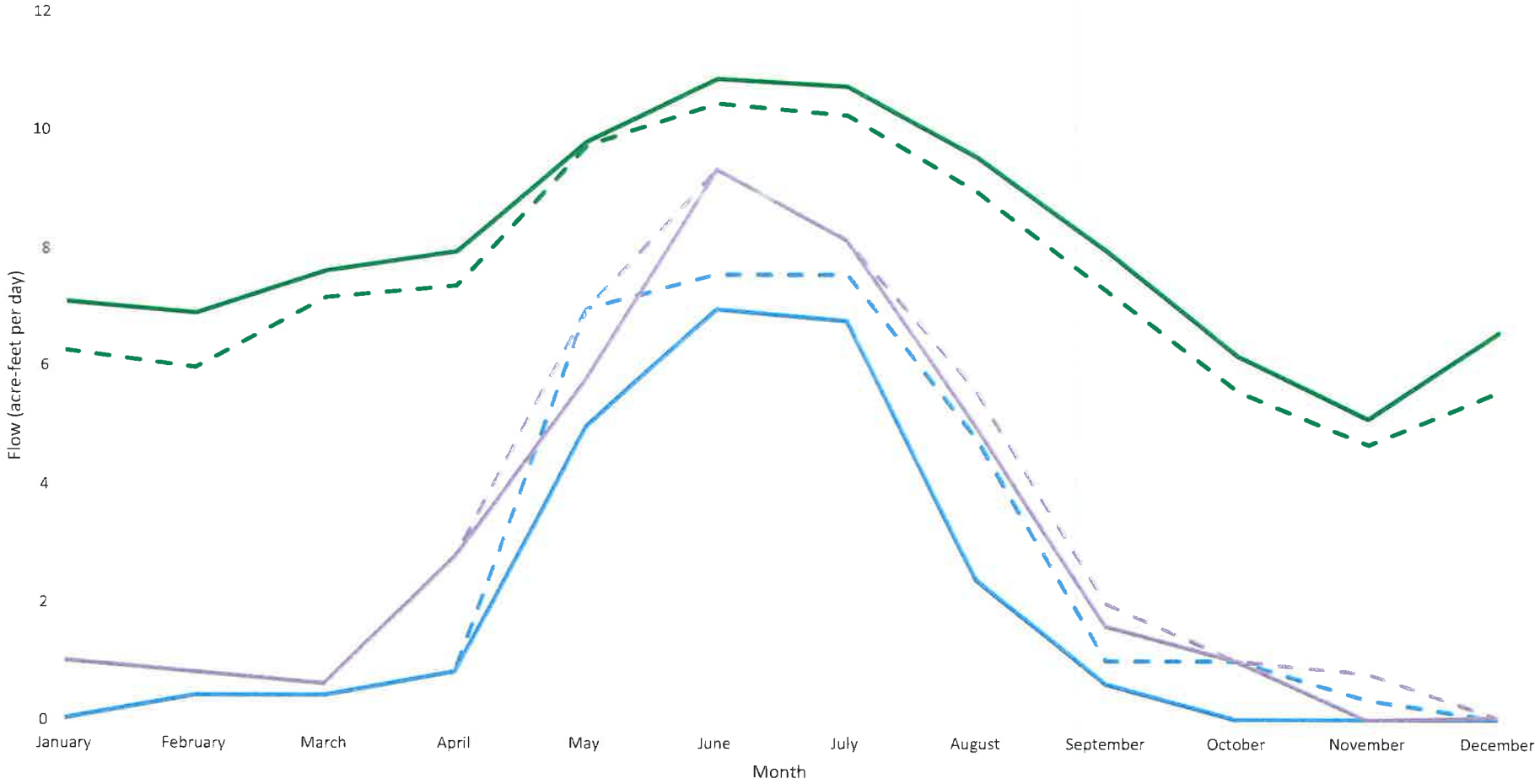
ATTACHMENT 2

Table A-3: Monthly Discharge through the Hobo Springs Weir (cubic feet per second [cfs])

Month	1976-1981[1]			2001-2005[2]			June 2006 - Dec. 2018[3]			All three periods of record[4]	
	Average Monthly	Minimum Average Monthly[5]	Minimum Daily[5]	Average Monthly	Minimum Average Monthly[5]	Minimum Daily[5]	Average Monthly	Minimum Average Monthly	Minimum Daily	Minimum Average Monthly[5]	Minimum Daily[5]
January	3.4	0.9 (1977)	0.007 (1977)	2.9	0.5 (2003)	0.5 (2003)	4.4	3 (2012)	2.7 (2012)	0.5 (2003)	0.007 (1977)
February	3.3	2.4 (1979)	2 (1977)	2.7	0.4 (2001)	0.2 (2001)	4.4	3.3 (2013)	3.1 (2013)	0.4 (2001)	0.2 (2001)
March	3.5	2.7 (1980)	2.4 (1978, 1979, 1980)	3.7	0.3 (2001)	0.2 (2001)	4.3	3.2 (2008)	2.8 (2008)	0.3 (2001)	0.2 (2001)
April	3.6	3 (1978)	2.4 (1978)	3.8	1.4 (2001)	0.4 (2001)	4.6	2.7 (2008)	2.6 (2008)	1.4 (2001)	0.4 (2001)
May	5.0	4.7 (1980)	3.8 (1976, 1978)	4.8	3.5 (2002)	3.5 (2002)	5.0	2.9 (2012)	2.5 (2008)	2.9 (2012)	2.5 (2008)
June	5.4	5 (1977)	3.8 (1978)	5.1	4.7 (2004)	4 (2002)	5.9	4.9 (2012)	3.5 (2012)	4.7 (2004)	3.5 (2012)
July	4.9	4.1 (1978)	3.8 (1979)	5.4	5 (2005)	5 (2005)	5.9	4.1 (2015)	3.4 (2015)	4.1 (1978)	3.4 (2015)
August	4.2	2.8 (1978)	2.4 (1978)	4.8	4.2 (2003)	4.2 (2003)	5.4	2.5 (2015)	1.2 (2015)	2.5 (2015)	1.2 (2015)
September	3.2	1 (1978)	0.5 (1978)	4.1	3.1 (2003)	3.1 (2003)	4.7	0.8 (2015)	0.3 (2015)	0.8 (2015)	0.3 (2015)
October	2.3	0.5 (1978)	0.5 (1978)	3.3	1.4 (2003)	1.4 (2003)	3.7	0.5 (2015)	0 (2015)	0.5 (1978)	0 (2015)
November	1.8	0.4 (1979)	0.17 (1979)	2.9	1.5 (2003)	1.5 (2003)	3.0	0 (2015)	0 (2015)	0 (2015)	0 (2015)
December	2.1	0.02 (1979)	0 (1979)	3.5	1.2 (2002)	1.2 (2002)	4.3	3.3 (2011)	1.3 (2015)	0.02 (1979)	0 (1979)

Notes:
1. The 1976-1981 data were provided by Seattle Public Utilities (Golder 2007). The data were provided as a table of average and minimum monthly values. The number of measurements and sampling frequency of the data used to calculate the average and minimum values is unknown.
2. The number of measurements and sampling frequency of the 2001-2005 data for each month is inconsistent. The number of monthly measurements ranges from zero to eleven. Some measurements have a weekly sampling frequency and others do not have a consistent period of time between measurements. Calculating monthly averages using data with an inconsistent sampling frequency can skew the results. See Golder (2007) for the complete dataset.
3. The 2006 data were collected on an hourly basis from June 20 to December 13 using a transducer to measure the depth of the water flowing through the weir. The rating curve used to convert the feet of water measured by the transducer into the depth of water flowing through the weir has not been perfected yet.
4. Includes the 1976-1981, 2001-2005, and June 2006 - December 2018 data.
5. The number in parentheses is the year in which the measurement was made.

ATTACHMENT 3



DRAFT

LEGEND

- Minimum Daily Flow (Golder 2007)
- Minimum Daily Flow (through 2018)
- Minimum Monthly Flow (Golder 2007)
- Minimum Monthly Flow (through 2018)
- Average Monthly Flow (Golder 2007)
- Average Monthly Flow (through 2018)

CLIENT
CITY OF NORTH BEND

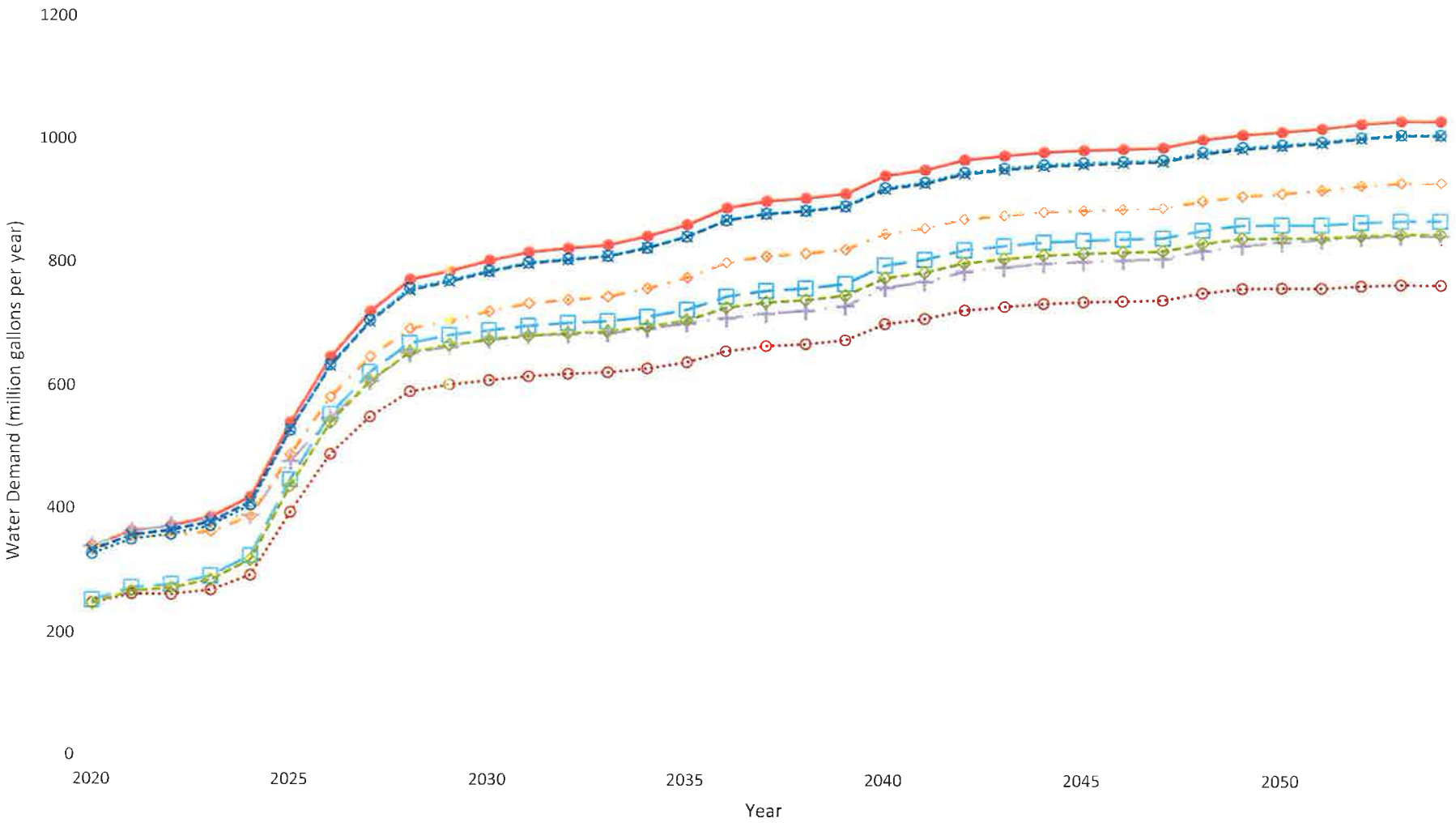
CONSULTANT
GOLDER

PROJECT
WATER AND MITIGATION DEMAND ASSESSMENT

TITLE
HOBO SPRINGS WEIR FLOWS
MINIMUM DAILY, MINIMUM MONTHLY, AVERAGE MONTHLY
2007 ANALYSIS AND 2018 UPDATE COMPARISION

PROJECT NO	PHASE	REV.	FIGURE
13-00218-10	002	A	A-4

ATTACHMENT 4



DRAFT

LEGEND

- Scenarios 1, 2, 3, 10
- Scenario 4 (remove undeveloped permit exempt wells)
- Scenario 5 (remove Sallal demands and mitigation supply)
- Scenario 6 (decrease DSL)
- Scenario 7 (water conservation)
- Scenario 8 (exclude Sallal, and decrease DSL)
- Scenario 9 (exclude Sallal and water conservation)
- Scenario 11 (add CGC and reduce Sallal demands Aug-Oct)

CLIENT
CITY OF NORTH BEND

CONSULTANT
GOLDER

PROJECT
WATER AND MITIGATION DEMAND ASSESSMENT

TITLE
FORECAST ANNUAL WATER SYSTEM DEMANDS, 2020 TO 2054 FOR CITY OF NORTH BEND WATER PRODUCTION SOURCES DETERMINISTIC MEAN

PROJECT NO	PHASE	REV	FIGURE
13-00218-10	002	A	B-1

Monday, August 3, 2020

To City of North Bend

Subject: Friends of the Snoqualmie Valley Trail and River Comments on North Bend 2020 Draft Water System Plan (WSP)

INTRODUCTION

Friends of the Snoqualmie Valley Trail and River (Friends) has been closely following the evolution of municipal water system planning in the North Bend area since 2017. That effort has involved gaining a thorough understanding of the operation of North Bend Public Works (City) and Sallal Water Association (Sallal). The effort has also involved extensive coordination with the responsible governmental Agencies including the Department of Ecology (DOE), the Department of Health (DOH), and the Utilities Technical Review Committee (UTRC). Through the Public Records Request (PRR) process Friends has obtained extensive relevant information from the City and the Agencies noted above. Because Sallal is a member owned cooperative Friends has access to relevant information from that source as well.

Consequently, Friends became aware early on that Sallal had, at least on paper, exhausted its Annual Water Right back on October 13, 2016, when on the same day it issued 110 Water Certificates for Phase 1 of the Cedar River Apartments project and an additional 106 *Conditional* Water Certificates for Phase 2 of the same project. This means Sallal was not in a position to take advantage of inchoate water rights for any other purpose such as mitigation for the Centennial Well. No water right was reserved for that purpose.

The conditional provision related to Sallal having to obtain water from the City to serve Phase 2. And this alerted Friends (and Sallal member owners) to the fact that back in the 2007 timeframe when the Centennial Well was issued a Water Right by the DOE there was the assumption that Sallal would in effect trade up to 35% (243.6 acre feet) of its Annual Water Permit in exchange for wholesale water to serve development in Sallal's Service Area within the City/UGA. The intent had been for the parties to agree to a contract for that to happen, but it never occurred apparently because the conditions imposed by the City were not acceptable to Sallal.

In effect what was being proposed is a "merger" of City/Sallal water supply and demand considerations. The crux issue driving it all is that the Centennial Well's very large Water Right can only be exploited if withdrawals are mitigated (in kind, in time) during low instream flow periods which may occur more than 50% of the calendar year. The primary source for such mitigation was designated to be Seattle Public Utilities (SPU) Hobo Springs below Chester Morse Lake and Masonry Dam. However it was recognized in 2007 that Hobo Springs was not sufficiently reliable short term or particularly longer term and the Sallal Wells nearby were designated as an alternate/supplemental mitigation source. The Centennial Well was approved on the assumption that a contract between City and Sallal would be forthcoming which never happened. The City's 2010 WSP was approved on that basis.

The proposed City 2020 WSP carries on counting on an agreement with Sallal. And the City carries on approving development dependent on that outcome. Friends believes this approach is fundamentally

wrong. Water certificates should not be issued unless the water is currently available or else there is an additional source of that water identified that has no permitting roadblocks to have online in a timely manner to serve the development. So much hinges on a contract between City and Sallal that no WSP should be approved by the DOE, DOH, and UTRC. Friends has a number of individual concerns with the draft WSP and we note that inputs made by the latter agencies as well as the Tribes reflect some of these same concerns. Friends will be following the review/approval process ongoing and taking careful note of how these concerns are addressed.

EXECUTIVE SUMMARY COMMENTS:

1. It states that City anticipates growth of 2.5% over 10-year planning period. This appears inconsistent with the October 2018 City of North Bend Economic Profile which Gray and Osborne has characterized as 12% (2019), 15% (2020), 10% (2021), 5% (2022), and for following years 3.1% declining to 1.9% by 2038. How can the 2.5% constant growth rate be justified? Furthermore there does not appear to be an incremental ramping up of growth accompanying the recent explosion of residential housing in North Bend.

2. The emphasis herein is on the eventuality of a "drier summer" being the reason for a potential water shortage. That is oversimplifying the problem. For example in the 2015 water year the summer water shortage was a direct effect of a massive "blob" of unusually warm ocean water in the norther Pacific which raised the winter temperature averages by 5 degrees in the Cascades resulting in a huge reduction in snowpack. Precipitation was actually above normal for the water year, but snowpack was far below normal, and the fairly warm dry summer aggravated the problem. The random statistical analyses run by Golder and used within this WSP cannot characterize this threat.

3. The City acknowledges *"Under present peak summer demand, if a drier summer were to occur, the flows at Hobo Springs would be at or just below those required to properly mitigate water demand. The City must therefore increase its mitigation capacity by implementing two measures".*

a. Adopt an onerous water conservation/rationing plan to cut demand back to meet supply during third quarter accepting the fact this means new development automatically results in less water available per capita. Friends does not agree with this approach, longstanding residents should not be punished to accommodate growth.

b. Procure additional mitigation resources to supplement Hobo Springs. The Executive Summary goes on to state "This plan is predicated on the City reaching an agreement with Sallal Water Association to obtain additional mitigation water within the next 2 years". Given that 13 years have passed with no such agreement, we believe the agencies involved (DOE, DOH, and UTRC) should not approve the WSP until the agreement issue is resolved.

CHAPTER 1 DESCRIPTION OF WATER SYSTEM COMMENTS:

4. Under "Applications for New Service" it is made plain that new development must pass the concurrency test. It states, "The concurrency test determines if the capacity of available public facilities is equal to or greater than the capacity required *to maintain the City's level of service standard* for the

impact of the development". And it elaborates that service standard includes among other aspects "Water Supply and Mitigation". It would seem obvious to Friends that the City is issuing development approval without meeting appropriate concurrency requirements as defined by the WSP. Is there a way to justify this?

CHAPTER 2 BASIC PLANNING DATA (AND APPENDIX F) COMMENTS:

5. Conventionally this section would present historical supply/demand data for the previous ten years, with demand related as gallons per Equivalent Residential Unit (ERU). Supply would be related to average daily demand (ADD) and maximum daily demand (MDD) which considers a derived peaking factor involved in typical summer months. The annual and peak numbers would be compared to annual and instantaneous water rights respectively. And the supply would then be compared to a projection of growth in demand related to increase in ERU's.

This WSP deviates significantly from that approach. Table 2-15 represents a mix of historical data already presented combined with demand related numbers taken from the Oct. 2019 Golder Report and summarized in Appendix F. Golder does assume that Sallal will mitigate for Centennial while buying water wholesale to serve the UGA within Sallal's RSA. The 2019 Golder Report made it very clear that without Sallal mitigation (or an equivalent source), and even assuming Cascade Golf Course with pond, the City water supply would only be sufficient thru 2024/2025. The WSP should represent the status quo as a baseline and not assume either of the above possibilities.

Because the Golder Report is in effect the foundation of projected supply and demand it is a fundamental element of the WSP. Friends therefore believes that approval of the WSP has to go hand in hand with approval of the Golder Report which means the DOE, DOH, and UTRC should conduct a thorough review of the Report and formally approve it in an equivalent manner to the standards imposed on the WSP for approval.

The WSP does not begin to really address the complexity of a potential City/Sallal agreement to exchange water. This would require manipulating the withdrawal from Mt Si Springs, Centennial, Sallal Wells, and Hobo Springs day by day throughout the year to maximize use of Centennial (through mitigation) while operating within water rights for all sources on an annual and instantaneous basis. This would typically mean Sallal buying water from the City when instream flows are above threshold and selling water to City for mitigation of Centennial when instream flows are low. Mt Si Springs would be managed in a way that uses up its annual water right but offloaded Centennial when instream flows are low. All this water supply orchestration would have to be accomplished by extrapolating ahead to determine the optimum strategy and that will obviously be problematic. There would need to be very close coordination between the City and Sallal on a very regular basis, something that has never been the practice. Predicting weather patterns weeks or months in advance in our region is inherently unreliable. However it is very predictable that instream flows will be below threshold much of the year (up to more than 200 days), and typically almost the entire third quarter. Even if this complex plan were to be executed it will by definition result in more removal of water from the River during low instream flow times as discussed later in Closing Comments.

The challenge will be mostly getting through the third quarter, but that is going to be very dependent on what has been done in the first and second quarters. Mt Si springs flow is not a function of winter snowpack so is predictably low in third quarter. Hobo Springs is directly related to level of Chester Morse Lake and Masonry Pool, and also predictably drops in third quarter, particularly in low snowpack years. And the Sallal Wells are vulnerable to a reduction of water availability since they are sustained by the same groundwater flow through the Cedar Moraine that supplies Hobo Springs. There is a proposal in the WSP to enhance output of Hobo Springs by capturing nearby groundwater emergence from the Moraine. This flow will be subject to the same influence that reduces Hobo Springs flow, however. Finally daily demand is on the order of 2.5 times average and maximum hourly demand will be on the order of 2.0 times maximum daily. What is missing in the WSP is a tabulation on at least a weekly basis of how all elements of supply and demand would balance out during worst-case weather-related scenarios. It is disturbing that the Golder Report unconventional handling of peaking factors associated with maximum daily and hourly use (particularly in third quarter) is apparently showing unconservative values. In the City 2010 WSP the daily peaking factor was 2.0 consistent with DOH guidance and the hourly peaking factor was 1.7 again consistent with DOH equation. For comparison the 2020 Sallal Draft WSP indicates 2.58 for a daily peaking factor and 1.7 for an hourly peaking factor. The Golder Report deals with peaking in Appendix A and Figure A-5 indicates daily peaking factors for Sallal and the City that are much lower (about 1.5 in August). This consideration is absolutely critical to properly assessing supply/demand in the third quarter. And this also reinforces the statement made above regarding how the Golder Report is essentially equivalent to the WSP and should require equivalent review and approval by the responsible Agencies.

The October 2019 Golder report addressed different weather scenarios and their effect on key water supply/demand parameters. This subject relates back to the “drier summer” reference discussed in item 2 above. In WSP Appendix F, Figure ES-2, Scenario 12 is shown which represents a Monte Carlo simulation covering the City RSA and the UGA within the Sallal RSA projected out to 2058. The agreement between City and Sallal is assumed to be in effect as well as availability of CGC for mitigation. For “Climate Options for Flows (Mt Si Springs, Hobo Springs, instream flows)” Golder states “randomly repeat historical data”. Friends has a problem with that supposition. Treating the relevant factors as “random” simply does not make sense. Every consideration that really matters is related to every other consideration that matters. One must consider that a single event (cause) like the “blob” in the Pacific Ocean resulting in higher than normal regional temperatures can have multiple simultaneous effects with regard to water supply and demand. For example reduced snowpack, low instream flows, low flow at Mt Si Springs in third quarter, low levels of Chester Morse and Masonry Pool with Hobo Springs potentially going dry, high summer temperatures, and high third quarter demand are a common effect of a singular climatic event. There is nothing at all random about this combination of circumstances. Friends has estimated that if the circumstances of the third quarter 2015 were repeated today with the increase in population demand that it would not be sustainable.

Friends maintains that if a specific combination of circumstances has happened on the record then it will happen again and even worse will happen. This is particularly true because Climatologists generally regard warming of the Pacific Ocean to be an expected fallout of Global Warming. The WSP should

supplement the complex Monte Carlo analyses with some reality check like looking at real combinations of data on the record.

CHAPTER 5 WATER USE EFFICIENCY PROGRAM COMMENTS

6. In the City's 2010 WSP it was acknowledged that the City was greatly exceeding the allowable Distribution System Leakage stipulated by regulations (10% as a rolling three-year average) by having a rolling average of 27.1% in 2008. As required by regulations the WSP presented a plan and commitment to achieve an annual DSL of 10% by 2014 and a rolling average of 11% by 2015. Per the 2020 WSP the DSL in 2014 was 16.3% and the rolling average in 2015 was 15.6% both well above the plan. The 2020 WSP indicates a DSL of 25.9% for 2019 and rolling average of 22.4%. Now there is another "plan" to lower those values to 10% in 2026 and a rolling average of 10% in 2028. The goal would be achieved by 1) Increased consumer conservation and 2) system infrastructure/monitoring enhancements. The first goal would be facilitated by the new controversial North Bend Water Conservation Ordinance "

Friends is not opposed to voluntary water conservation since all consumptive use comes directly or indirectly out of the River. However we oppose approving increases in demand (new development) when that increase is sustained by such an inefficient water system and an aggressive and mandatory water conservation ordinance which impacts existing residents. In 2019 the City recorded a metered usage of 152 MG. This was accompanied by a DSL of 48 MG. Every bit of new development brought online through 2019 accounted for its share of that wastage of water."

It must be emphasized that the City's water sources are in essentially direct hydraulic continuity with the River. Golder's 2/28/2007 Report (023-1271-100.007) documented results from a one-day drawdown test of the Centennial Well showing that the typical (median) time for well withdrawal equates to 90% of the impact being realized by the River within four days. And Mt Si Springs withdrawals represent a direct diversion from the North Fork. Furthermore a disproportionate share of this impact will occur during the third quarter when demand is high and streamflows will be consistently low. Given the near-term impact of DSL wastage of water on the River there is no excuse for increasing that excess wastage by continuing to approve new water demands until the basic system is fixed. And it is not appropriate to shift any of the burden of dealing with the excess leakage to longstanding customers by in effect rationing their usage.

Given the established lack of credibility on the part of the City in controlling DSL Friends believes the Agencies should more forcefully demand accountability from the City before approving this WSP.

CHAPTER 7 CAPITAL IMPROVEMENTS PLAN (MITIGATION IMPROVEMENTS) COMMENTS:

7. MT-1 Golf Course Mitigation Well Improvements. The Tribes have had concerns with the proximity of this well to the South Fork going back to the time the water right was converted from the old Stearns water right to the Golf Course water right. They still have concerns and the DOE has not at this time to our knowledge approved a change in usage from irrigation to mitigation. Furthermore there is a concern with using the pond as a reservoir to store water until later in third quarter because of the water temperature. Mitigation must be "in kind, in time" and temperature does relate to the "in kind"

consideration. In fact DOE's 2011 "Total Maximum Daily Load" (TMDL) report on the Snoqualmie Basin cites three Federal Clean Water Act Category 5 (303(d)) river locations and "38 additional impaired areas that should be in Category 5" (the worst category for fish habitat). And the problem is all due to excessive water temperature. The City definitely has knowledge of this based on constraints for effluent release from the WWTP. The total third quarter allocation from the water permit is 11.1-acre feet so the ability to hold the 7-acre feet pond in reserve is significant. Even with the pond the mitigation contribution is relatively small. However change of usage for this water right must be sanctioned by DOE and it should not be presented so prominently as the first improvement without that approval.

8. MT-2 Hobo Springs Improvements. This proposal has not been approved by SPU and a number of conditions must be met before that can happen. It should be noted that this source is directly related to Masonry Pool levels just like the current Hobo Springs is. The Centennial ROE documented that Hobo Springs flow varies from 0-6 cfs dictating a backup/supplemental mitigation source. This improvement would not meet that objective. It should be noted that the level of Masonry Pool can drop to an elevation of 1500 feet (penstocks). In 2015 it dropped to 1511 feet, in 2003 to 1509 feet, in 1992 to 1512 feet, and in 1987 to 1500 feet. It should also be noted that Masonry Dam is 100 years old and subject to maintenance which may require drawdowns and the most practical time to do this is the third quarter. It is a given that 2015 resulted in no flow at Hobo Springs. The City Contract with SPU also makes it very plain that mitigation is out-prioritized by a number of other considerations.

9. Mt-3 Mitigation Well. This proposed well located about 2 miles upstream from the Centennial being used for mitigation makes no sense at all. Any water right approved current day would require mitigation just like Centennial even if it were originally submitted prior to the 1979 WRPP.

10. Mt-4 Sallal Mitigation Intertie. As stated, this proposal is subject to an agreement for water exchange between Sallal and City. And as discussed herein it is premature after 13 years of negotiation to count on that happening.

11. Mt-5 Mitigation Reservoir. This 10 MG reservoir would chip away at the problem but to put it in perspective the City has from day one (ROE) insisted on Sallal committing to 243.6-acre feet (79.4 MG) for mitigation. This reservoir does not even come close to replacing the Sallal contribution demanded.

12. The Tolt Reservoir. For some reason this option was not mentioned even though when Nicole DeNovio (Golder) gave a City Town Hall presentation on Oct. 18, 2018 it was shown on slide 24 as a viable option just as it was considered at time of ROE. SPU even encouraged it and did their own cost estimate, cited in the contract with City, as 1.7-2.3 million dollars. Why has the City not considered this option instead of Sallal?

APPENDIX P: WELL HEAD PROTECTION PLAN (APPENDIX P):

Starting with a little history on the subject the 2010 WSP opted to use the most crude of methodologies available, the Calculated Fixed Radius approach. This was in spite of the fact that earlier studies chartered by the City had characterized Centennial to be in the high-risk category for contamination. The 2010 WSP had the 10-year contamination radius at 3700 feet, or about 25% of the way to the Truck Stop. The 2020 number is over 20,000 feet, far past the Truck Stop. The new number is determined by Numerical Ground

Water Flow Modeling which takes into account the significant upward hydraulic gradient east of Centennial coupled with the hydraulic conductivity of the soil involved. Consequently ten years of planning, zoning, and permitting has gone on based on highly un-conservative important data. Furthermore the new study illustrates just how much the entire UGA is hydraulically interconnected to so many miles of the River which is subject to contamination as well. How will the City alter their future practices with this new knowledge in hand, for example will this influence constraining the industrialization of the Truck Stop area?

APPENDIX R: WATER SHORTAGE PLAN (APPENDIX R):

A key element of the Water Conservation Ordinance (WCO) is the establishment of three stages for water usage restrictions starting every year on August 15. Baseline is stage 1, when Masonry Pool drops to 1523 feet stage 2 will be in effect, and when Masonry Pool drops below 1517 feet stage 3 will be in effect. Now there is no question in this timeframe instream flows will be low, demand will be high, and all Centennial withdrawals will have to be fully mitigated by Hobo Springs or an alternative mitigation source which has yet to be developed. There is no question that Hobo Springs flow is a function of Masonry Pool level and to illustrate this Attachment 1 is included. This shows levels of Chester Morse, Masonry Pool, and Rattlesnake Lake during May-December 2015. Hobo Springs flow is also shown in cfs. So it is apparent that there is lag time of around 30 days from the Masonry Pool to Hobo Springs and Rattlesnake lake associated with groundwater flow through the Cedar Moraine. On the right side of the graph the stage levels are noted to put in perspective the relatively brief period in stage 2. There are all kinds of variables at play here and each year will look different. And the rate of change in Masonry Pool level at a given point in time is just as important as the level. Going back to 1990 there have been 16 years where stage 2 would have been in effect and 11 years when stage 3 would have been in effect. Obviously the WCO is not planning for just unusual occurrences. Friends requests that the City explain the science involved in this approach.

CLOSING COMMENTS:

Friends was founded to be an advocate for the health of the Snoqualmie River System. And this goal will commonly place us at odds with certain development that has singular impacts related to impairment of the river. Hence Friends is branded by the City as simply being anti-development. And that argument is unfairly used to diminish our concerns. When Senate Bill 6091 was passed in January 2018 it was recognized that WRIA 7 (Snohomish/Skykomish/Snoqualmie System) would be required to develop in the near term a Watershed Restoration and Enhancement Plan. The point is that the River health is such that it is not good enough to simply cease further impairment and maintain status quo, there must be proactive measures to restore and enhance the River. As just one tangible example of the negative impact of human intervention on the River is the documented decline in Chinook Salmon. And now it is recognized that the latter is a key element in the decline of the Southern Puget Sound Orca whale. Friends believes this WSP is not consistent with the premises of restoration and enhancement, it basically uses the smokescreen of minimizing future degradation as its implicit selling point.

In Postema vs Pollution Control Board before the State Supreme Court in 2000 the Court clearly had enough of developers attempting to nuance the "de minimis" constraint on river impairment by downplaying the amount of water involved. The Court then made the finding:

"The majority assumes that any diversion of surface water, no matter how slight, is an "impairment" as long as it can be measured. As such, the majority adopts the thrust of the "qualitative" hydraulic continuity argument proffered by the Department of Ecology, which is satisfied by the mere interaction between ground and surface water resulting in the slightest diminution of the quantity of surface water through pumping of groundwater. In essence, the rule proffered by the majority allows the Department of Ecology to deny a groundwater permit if Ecology proves only a single molecule of surface water was lost to the stream-assuming such a molecule is "ascertainable," although perhaps not quantifiable, using the best available science"

The so-called "one molecule standard" was the rule of law when the Centennial Well was approved, and every aspect of this standard applies to the Centennial mitigation considerations. Friends believes that the use of Sallal Wells which the DOE has acknowledged as "probably being in direct and immediate hydraulic continuity with the South Fork of the Snoqualmie River" for mitigation in the orchestrated manner described above results only in "a paper shuffle to allow more water to be pulled from an already impaired river". The latter quote is from a DOE source in the context of assessing a proposal by the City to use their old (non-interruptible) water right at Mt Si Springs only when instream flows are not met and use their new (interruptible) water right at Centennial when flows are met. The Sallal/Centennial overall mitigation scenario is a "paper shuffle" and likewise will result in more water being taken from the river system during low instream flows than ever before.

Note that this version of Friend's inputs regarding WSP replaces the previous version dated July 24. Because the WSP update amounted to a change from 824 pages to 1750 pages we are only highlighting some high-level concerns with the new material in the Appendices prior to the August 4 Council Meeting.

Sincerely,

Jean Buckner and The Friends of the Snoqualmie Valley Trail and River

Facebook: **The Friends of The Snoqualmie Valley Trail and River**
Website: http://fosvtr.org/

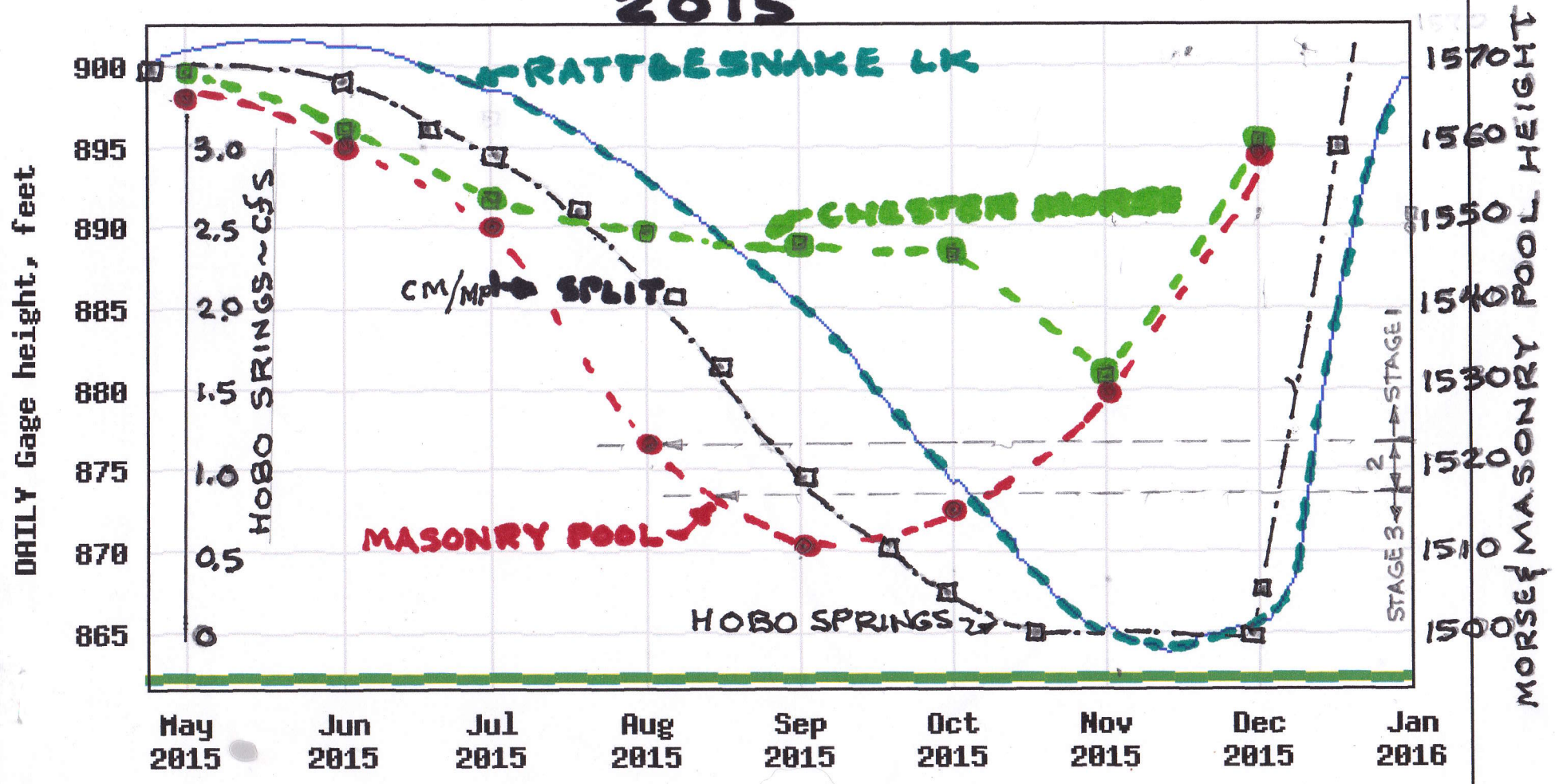
Attachment (1)

ATTACHMENT 1

USGS

USGS 12143800 RATTLESNAKE LAKE AT CEDAR FALLS, WA

2015



2015 WATER DATA CHESTER MORSE LAKE, MASONRY POOL, RATTLESNAKE LAKE, HOBO SPRINGS

NORTH BEND ORDINANCE 1723 (WCO) STAGE DEFINITIONS INCLUDED