February 6, 2019

Director Maia Bellon

Washington State Department of Ecology

PO Box 47600

Olympia, WA 98504-7600

Subject: Water Management/Mitigation Concerns in North Bend

Dear Director Bellon:

1. INTRODUCTION

(a) I am writing you on behalf of Friends of the Snoqualmie Valley Trail and River (Friends). We are hoping you might be willing to help us with our concerns which relate very much to the jurisdictional domain of the Department of Ecology (DOE). Friends is a non-profit corporation of more than 400 concerned citizens in the North Bend area. Our concerns focus on how the explosion of near term growth will threaten our water supplies and force actions by local water purveyors to take measures that will increase impairment to the Snoqualmie River when instream flows are already well below minimum standards. Many of us have been in the area for decades and already see evidence of the climate change which is only going to exacerbate the water supply considerations. Over-development has already resulted in irreparable damage to riparian zones and as a result contributed significantly to decimated populations of anadromous fish species. For example, in 2017 the Snoqualmie River experienced only 10% of its recovery target for Chinook Salmon (6,000 versus 60,000). This example has further significance because the species is critical for the survival of the Southern Puget Sound Orca population. Friends considers anadromous species in particular to be in effect “indicator species” for the viability of the entire river ecosystem and there already clearly is a significant problem with that ecosystem.

(b) Through the Freedom of Information Act Friends has obtained a large volume of internal communication and documents from the DOE. We have real concerns regarding whether the direction taken by the City of North Bend (City) is a valid one. We believe in fact it does not comply with the letter and intent of the 1979 Instream Resource Protection Plan (IRPP) which established in effect a water right for minimum instream flows. There is quite a bit of background necessary to present for the reader to be able to relate to our specific concerns.

2. NORTH BEND AREA

(a) North Bend is situated just upstream of the confluence of the North, Middle, and South Forks of the Snoqualmie River which is part of the Snohomish Watershed (Water Resource Inventory Area 7, WRIA7). Municipal water in the North Bend area is supplied by two Class A water purveyors, North Bend Public Works (City Water) and Sallal Water Association. See Attachment 1 for a map identifying respective coverage areas.

3. SALLAL WATER ASSOCIATION

(a) The Sallal Water Association was established in 1976 as a private, member owned coop of approximately 2300 connections serving around 5000 people. The coop is overseen by a Board of Trustees consisting of 7 members elected by the membership. Its coverage is most of the eastern North Bend area (see Attachment 1). For a time Sallal purchased water from Seattle Public Utilities (SPU) from the Masonry Pool above Rattlesnake Lake. In 1985 Sallal secured a water right for 696 Acre Feet per Year (AFY) for its new wells #1 and #2 just north of Rattlesnake Lake. The Sallal wells are sustained by ground water seepage through the Cedar Moraine from Chester Morse Lake and the Masonry Pool behind the Masonry Dam, all at an elevation about 600 feet above Rattlesnake Lake. Ground seepage from Chester Morse and Masonry Pool divides within the Cedar Moraine with about 75% going to the Cedar watershed to the south, and 25% going to the Snoqualmie watershed to the north. Part of the latter flow is what sustains the Sallal wells. Drawing water from these wells equates to intercepting water that is headed for the South Fork of the Snoqualmie.

(b) Given Sallal’s priority date one could certainly argue that there should have been a mitigation requirement stipulated. However, in 1980 the DOE released its “Guideline for Determining Significant Hydraulic Continuity” which contained two very unconservative criteria which could allow a new water right to avoid mitigation. The first criteria allowed mitigation avoidance if the well is no closer than one half foot for each instantaneous GPM allowed by water right. For the Sallal wells at around 9000 feet from the South Fork and having a 2000 GPM water right it passed easily. The second criteria allowed mitigation avoidance if the instantaneous GPM did not exceed 5% of the minimum flow at the closest designated USGS streamflow gage. For Sallal wells this equates to 5% of 600 cfs or 30 cfs which equates to 13,500 GPM. The latter is far larger than the 2000 GPM water right so the wells passed easily. It is obvious that the (“5% rule”) will always be highly unconservative when applied to a river of any significant size. The only “science” behind the approach was the premise that river gages are only accurate within 5%, and if you cannot accurately measure impairment then there is no impairment. This is an absurd criteria and was thoroughly discredited in Postema v Pollution Control Board decision in 2000. To this day Sallal continues to operate without mitigation, having been “grandfathered” in based on the arbitrary 1980 guidelines.

4. NORTH BEND PUBLIC WORKS

(a) The City has a senior water right for Mt Si Springs which is situated very close to, and diverts water headed for the North Fork. It is a 336 AFY water right with an instantaneous right to 5 cfs, however it must let 3 cfs bypass to North Fork before taking any of the 5 cfs, and any flow over 8 cfs must be allowed to bypass to the river. Somewhere around 1990 the City supposedly began mistakenly mixing up their annual and instantaneous water rights resulting in an egregious exceedance of its annual right. This lasted until 2009 when the Centennial Well came on line and the exceedance had topped 130%. A building moratorium was declared in 1999 but the exceedance continued to climb. Desperate to lift the moratorium and get back into compliance the City pursued the Centennial Well (NB-3) water right but the big stumbling block was mitigation water. The well is situated between Middle and South Forks and highly connected hydraulically with both, so much so that the position was taken that 100% of well removals would be felt by the river in relative near term. Drawdown testing of the Centennial well and recorded data from observation well indicated that 50% of impairment effect would be felt in only 6 days.

(b) The City considered a number of mitigation options but chose to use Hobo Springs, located between Rattlesnake Lake and the Masonry Pool, as the mitigation source. Water from the Springs would otherwise flow into Rattlesnake Lake. Hobo Springs, like the Sallal wells, is sustained by seepage through the Cedar Moraine from the Masonry Pool and Chester Morse Lake. Hobo Springs is a very old water right owned by SPU, so the City and SPU entered into a contract for the City to purchase up to an average of 1.1 MGD for mitigation water which would be piped from the Springs to Boxley Creek which drains into the South Fork. Mitigation from Hobo Springs has been represented as diverting water from the Cedar Watershed but given the overlap of watersheds it is likely some of the diversion is headed for the Snoqualmie Watershed. Rattlesnake Lake has no surface water exiting the lake most of the time. However when the lake level rises the only surface water exiting is headed from north end of lake directly toward the South Fork of Snoqualmie. It is believed that when lake water is lower seepage is predominately toward the south into the Cedar watershed.

(c) From early on Hobo Springs was recognized as having a wide variation of available flow (ref. Centennial ROE stating 0-6 cfs). Therefore the ROE and water right required a backup, supplemental source of mitigation. Because of the proximity of the Sallal wells they were chosen to be the backup. There was to be a contract between the City and Sallal to pave the way for implementing an intertie between the Sallal wells and the Hobo Springs mitigation line to Boxley Creek. The City never negotiated the contract and the intertie was never installed. The City was seeking to commit Sallal to 35% of its annual water right for mitigation. Furthermore the City was seeking to have Sallal commit 100% of either well #1 or #2, and 25% of the other, more than 60% of Sallal’s instantaneous capacity. These numbers were cited in the Centennial ROE as the basis for authorizing the water right. To date Hobo Springs has been adequate for mitigation with the exception of 2015 when something like 15-25 days went unmitigated. The main cause of that was SPU lowering the water behind the Masonry Dam (Masonry Pool) in September for planned dam maintenance. The flow at Hobo Springs is directly related to the water level of the Masonry Pool so Hobo Springs flow dropped to zero for a period of time. The contract between the City and SPU makes it plain that the order of SPU and Hobo Springs priority are 1) address emergency dam maintenance, 2) serve SPU rate payers, 3) conduct routine dam maintenance, and finally 4) provide mitigation for Centennial Well. This reinforces the need for a mitigation backup source for Hobo Springs. Even though Hobo Springs has been generally meeting needs the imminent growth explosion is certain to require Sallal to be increasingly relied upon as a mitigation source in the near future. The City has basically acknowledged that fact.

5. GMA/UGA/ANNEXATION CONSIDERATIONS

(a) The 1990 Growth Management Act required counties to take proactive steps to manage urban sprawl. As a result a stretch from City core east to the Truck Stop was designated Urban Growth Area (UGA) in 2009 and the area was then annexed by the City. The complication associated with this was that most of the area is in the Sallal water service coverage area. Sallal originated and has carried on since inception as a water supplier for more rural, King County zoning oriented development. The UGA/City suddenly becoming part of their service area changed all that, but it has taken until recent years and the development boom for that change to be felt.

(b) The GMA/UGA planning established a target for North Bend of 665 new dwelling units for 2031. Counting recently built and approved development in the pipeline the new dwelling units currently stand at about 1348, more than twice the long-term target in current day. The City has taken the stand that the “target” only represents a minimum and there is no maximum. People we talk to in the County government say otherwise. They maintain the target was supposed to be a real number give or take, not one that should be significantly deviated from in either direction. The City is now being overwhelmed with requests to build higher density residential developments (see Attachment 2 map for a status in 2018). Even though the water supply plan is long outdated and involves an intricate merging between the City and Sallal, the City is plunging ahead without any basis for that merge established.

6. WATER CASE LAW PRECEDENCE IN WASHINGTON

(a) Friends is not a frivolous group of local North Bend citizens trying to obstruct development. In fact, before discovering the serious water issues outlined in this letter, some of us worked closely with The City of North Bend to bring in development that fit within North Bend’s vision and mission. We are concerned about real issues involved with the over-development trend that has so obviously impaired our rivers and fish health. We are made up of professional people, including engineering expertise (with graduate study level hydrogeology/hydrology background), law expertise, etc. In an effort to exercise due diligence in researching our concerns we have spent considerable time examining water law and case law that is related to water law in order to support the credibility of our concerns. Following are some of the water law and case law we find relevant:

(b) In 1972 the Federal Clean Water Act was passed. While the focus of the act was to address water “quality” the foundation was set for the need to address water “quantity” as a key consideration.

(c) In 1979 the State passed the Instream Resource Protection Plan (IRPP) rules establishing minimum instream flows for streams which effectively equated to a water right for each river of that priority date.

(d) In 1980 the DOE published its Guideline For Determining Significant Hydraulic Continuity to facilitate

Applicants planning compliance with the IRPP.

(e) In 1994 PUD No 1 of Jefferson County v Washington Department of Ecology made its way to SCOTUS. This involved a proposal by Tacoma to build the Elkhorn Dam on the Dosewallips River for power generation. Under contest was the DOE’s authority to levy minimum flow requirement below the dam to protect fish. The State’s case was argued at the State level by Jay Manning (future Director of DOE) and at the SCOTUS level by Christine Gregoire (Attorney General and future Governor). Sandra Day O’Conner wrote the very eloquent majority (7-2) opinion which was pivotal in Washington law and even national water law. The ruling decisively established that although the Federal Clean Water Act mostly spoke of water quality there is an inescapable and critical relationship between “quality” and “quantity”. In her own words “any difference between water quality and water quantity is an artificial distinction”, and further “in many cases water quantity is closely related to water quality”. And she reinforced the fact that section 401 of the Federal Clean Water act includes as a means of defining pollution “the man-made or man induced alteration of the chemical, physical, biological, and radiological integrity of water”.

(f) In 2000 Postema v Pollution Control Board finally confronted the issue of previous practices that derived from the 1980 DOE guidelines above. The Supreme Court had tired of attempts to nuance river impairment by hiding behind the “5% rule”. The Court established the “one molecule standard”, “water for water” as the only clear, definitive, and legal means of relating to a “de minimus” impairment of the rivers. The Postema case was actually a consolidation of other similar cases including Jorgensen v Pollution Control Board. Coincidentally this case related to approval of a golf course irrigation well (on the basis of the 5% rule) only a mile upstream of the Centennial Well and even closer to the South Fork. Jorgensen was therefore denied and then acquired a senior residential water right to serve the Cascade Golf Course. This water right has now been acquired by the City for intended future mitigation purposes of the Centennial Well and it is even more hydraulically connected to the South Fork than the Centennial Well.

(g) In 2013 Swinomish v DOE the Supreme Court for the first time directly confronted the Overriding Consideration of Public Interest (OCPI) premise for finding a way around “water for water” mitigation. Skagit County had done a cost/benefit study indicating that the benefit from all the development would be on the order of $30-$50 million over 20 years whereas the impact to the fish would be only on the order of $5 million. So development won hands down and the DOE approved the wells in 2006 timeframe. Unfortunately for the 475 homeowners and 8 businesses that relied on the 2006 erroneous decision they are now faced with having their water source reclassified as interruptible. Consideration has even been given to trucking in water for mitigation. The Court made it plain that law does not allow use of an OCPI in routine water rights authorizations, only in situations deemed to be of an emergency or transient nature. Furthermore the Court made the obvious observation that any cost benefit study involving placing a value on the fish is destined to lose when pitted against development valuation. The DOE was very wrong in this matter and a lot of people are suffering as a result.

(h) In 2015 Foster v DOE the Supreme court again confronted the OCPI approach being proposed by the city of Yelm. Sarah Foster, a home/land owner adjacent to the massive development and new wells associated with it brought the case to the Court with the aid of the Center for Environmental Law & Policy (CELP). The OCPI premise this time was to substitute riparian enhancements for actual “water for water” mitigation. Again the Court shot down the OCPI basis for much of the same reasoning as used in the Swinomish case, even making reference to the Swinomish case. The Court again stressed the need for “water for water” mitigation consistent with the Postema ruling.

(i) In 2016 the “Hirst Decision” established a county responsibility to ensure compliance with the IRPP and the direction to be taken was basically to force previously exempt private well applicants to prove by expensive hydrogeology evaluation that their well would not impair local bodies of water. This was particularly onerous for those small land owners on the east side of state.

(j) In 2018 Engrossed Senate Bill 6091 (“the Hirst fix”) was passed. The state budget approval was held hostage by east side senators pending approval of SB6091. The bill provided relief for east side exempt wells but did establish a new initiative to form WRIA committees to determine a path forward by 2021 mostly focusing on west side WRIAs. But the bill also set the stage for potential future use of OCPIs by in section 3 authorizing five pilot programs to gain experience with alternatives to “water for water” mitigation. One of those pilot programs is Yelm which effectively reversed the outcome of the Foster case and leaves a potential path open for riparian enhancements and other options instead of “water for water”.

(k) Friends sees a trend here in the evolution of water laws. First a river environmental impairment is recognized, then rules are established to protect the rivers, then the rules become inconvenient to satisfy the hunger for rural development, and then the rules are incrementally eroded at the expense of the rivers. Sometimes the DOE is on the right side and sometimes they are on the wrong side. We also believe that it is far better to be proactive doing the right thing in the first place rather than engage in years long court battles to get to the right place. Just consider what the latter approach did to all those folks in Skagit County. The other takeaway from case law history is the *quantity matters*, volumetric flow is the life blood of our rivers and that premise is recognized by the Courts.

7. CURRENT WATER MANAGEMENT CONUNDERUM IN NORTH BEND AREA

(a) By 2017 Sallal was looking at a “first in line, first in time” developer applicant queue of 1000 new Equivalent Residential Units (ERUs) representing a relatively sudden 44% increase over its existing 2300 base. In October of 2016 Sallal exhausted its water right after issuing about 700 new water certificates up to and including Phase 1 of Cedar River Apartments, a 212 unit apartment/condo complex of 35 building in the UGA/City domain. Having exhausted its water rights Sallal continued to issue “conditional” water certificates contingent on buying water from Centennial Well. The latter water certificates started with Phase 2 of Cedar River Apartments. Because no agreement existed between Sallal and the City to buy water from the Centennial well, Friends challenged the arrangement on the basis of not meeting concurrency standards. The Hearing Examiner ruled that before final site plan approval was issued that one single water purveyor had to be legally committed to serve both phases of the development.

(b) This led to a recent intensification of contract negotiations between the City and Sallal. Original contract discussions between the two parties began around the time of the Centennial Water Right due to its inclusion of a requirement to attain mitigation water from Sallal. The two sides have remained at an impasse for about a decade now. Friends has had access to those iterations through FOIA protocols. The premise of recent drafts of the contract is that the City will sell water to Sallal from the Centennial Well for use in the UGA, if Sallal will sell water from its wells to the City for Centennial Well mitigation. And the mitigation commitment level as of December 2018 has remained at 35% of Sallal’s water right even though technically on paper Sallal has exhausted its water right with no mitigation included. Furthermore the prospect of Sallal mitigating for the Centennial Well while relying on the same well to serve its members in the UGA is obviously contradictory. Meeting notes from Sallal/City/DOE discussions indicate that in order to make this even potentially feasible Sallal would have to buy water from the City during high water periods, thus preserving its water right for being able to sell water to the city for mitigation during low water times. This means that during the really critical low instream times during summer that the Centennial well could continue to operate relying on the mitigation water provided by the Sallal wells. This means in the summer Sallal members in general will likely become dependent on the Centennial Well. The problem with this is addressed in Section 8 below.

(c) Yet another problem with a Sallal/City merge is that Sallal distributes 100% untreated water based on the high quality of water derived from Sallal wells, and members really appreciate that water quality. The City distributes 100% treated water from Mt Si Springs and the Centennial Well. It is problematic using untreated water from the Centennial Well as previous studies chartered by City have concluded there is a high risk of contamination. This is taking into consideration such a relatively shallow well, in the typical highly permeable alluvium soil, a water table of only 15-20 feet below ground, and long history of agricultural/industrial activities in area of Upper Snoqualmie Valley Aquifer. Notwithstanding the latter, the plan is to send untreated water to the Sallal/UGA area which then could potentially be mixed with Sallal’s own distribution system. Sallal members are very concerned about this aspect.

(d) Sallal members are sufficiently alarmed by the direction being taken that the membership is currently in the process of forcing a change to the bylaws requiring membership approval of any contract involving Sallal buying and/or selling water rights. In a recent all member meeting 83% voted against this type of arrangement. There is no certainty at all that a contract with the City/Sallal is going to happen, yet the City continues to charge ahead with giving preliminary approval for development after development. (See Attachment 2).

8. FRIENDS SPECIFIC CONCERNS WITH MITIGATION CONSIDERATIONS

(a) It seems clear the intent of the IRPP, and case law at the point in time the Centennial Well water right was authorized by DOE, was to require “water for water” mitigation for water drawn from the Centennial well during low instream flow periods to prevent further impairment of the river. Friends believes that the path being taken amounts to more of a water “shuffle” around the upper basin combined with bogus mitigation to in effect “game” the system.

(b) Starting with Mt Si Springs back in 2006, when the DOE was developing the Centennial ROE, an internal memo (see Attachment 3) addressed one aspect dealing with how the City was planning to exploit Mt Si Springs once the Centennial Well was operational. The DOE observed that the City’s proposal to “alter their Mt Si Springs water right to only divert on days when instream flows are not met” was unacceptable “because in essence it would just be a paper shuffle to allow more water to be pulled from an already impaired river”. This is exactly the conceptual path we are going down, and when considering the combined manipulation of the Sallal wells and Centennial and Mt Si Springs it becomes a water shuffle of a much larger scale.

(c) Exacerbating that water shuffle is the Sallal wells being a mitigation source which makes the problem get much worse. The Sallal wells escaped mitigation by virtue of a technicality involving the early guidelines and the “5% rule”. However, there is no question of their hydraulic linkage to the South Fork. During the DOE internal deliberations regarding the Centennial ROE we see clear evidence of the DOE actually contemplating the possibility of reclassifying the Sallal wells as interruptible due to this fact. However those involved deferred to the 5% rule in force at the time and chose not to make an issue of it. But then the DOE turned around and sanctioned the Sallal wells as a mitigation source. Friends sees that as in effect “doubling down” on the early mistake of not making those wells subject to mitigation. Any water removed from the Sallal wells and sent to Boxley Creek and South Fork for mitigation is water that was otherwise headed to the South Fork. So what you have is a little loop of water circulation between the Sallal wells and the South Fork with no net benefit below the Centennial well to offset the water it is drawing.

(d) Now this might raise the question of flow times since part of the loop referred to above is the travel of groundwater from the Sallal wells to South Fork. There is a methodology to estimate the significance of that aspect. The groundwater travel time from the Masonry Pool to Hobo Springs has been studied in order to gain a way to predict in advance Hobo Spring flow for mitigation management planning. The flow time is in the 20 to 30 day range. Using Darcy’s Law which relates groundwater flow rate to hydraulic gradient, permeability, and distance we have estimated that flow time for water from the Sallal wells to South Fork is very likely to be in the same time range. The significance of this relates to the Centennial mitigation algorithm which uses a 30 day “look back” in time to determine each following day’s mitigation requirements. *So the bottom line is that the Sallal wells should not be used as a mitigation source.* See Attachment 4 for a USGS map which includes hydrogeology considerations for the area of Hobo Springs and Sallal wells.

(e) It is worth noting that back in 2007, and still today, the City has a highly viable alternative for mitigation of the Centennial Well. That alternative is to tap into SPU’s water lines (SL-1 or SL-2) a mile below the Tolt Reservoir dam. SPU encouraged this option from day one. The water would be piped over a low divide between the Tolt basin and North Fork basin down to a release point in the North Fork. The Tulalip Tribe was very concerned about the mitigation aspect of the Centennial Well (part of reason for it being a “protested” ROE), and this was definitely their preferred option at the time. They however yielded under pressure from the City. The only drawback was the cost involved, $1.7-$2.3 million as costed by SPU. But it would have been, and still would be, a very robust option relying on a reservoir that is much bigger than Chester Morse and very underutilized (only 30% of Seattle’s water as opposed to 70% from Chester Morse). There would be no need for any backup and it would be a simple gravity flow system unlike Hobo Springs. The City was unwilling to spend the money on the right solution at the time even though mitigation of the Centennial Well has singularly opened up the door to hundreds of millions of dollars in development.

(f) In support of acquiring approval for the Centennial Well water right the City hired Golder Associates of Redmond to do comprehensive supply, demand, mitigation studies and projections for 50 years of growth. Those studies were largely based on water data prior to 2004 and had no basis to project the type of growth explosion currently underway and the type of merge currently envisioned between the City and Sallal. Under pressure the City finally relented in July of 2018 chartering a new $133,000 study by Golder that for the first time ever would actually address the proposed City/Sallal merge, and comingling water supplies to maximize water availability while meeting mitigation requirements. The study is by now long overdue. Friends believes that this study, after being subjected to impartial peer review, is essential before any talk of a contract based merger of Sallal/City can take place. Yet in spite of what seem to be clear concurrency violations, the development dependent on the merger continues to gain tentative approval by the City. The City issues water certificates from its Centennial Well (even within Sallal’s coverage area) disregarding the fact that it has no assurance at all of an adequate mitigation source in the future and no data to even show the extent of that deficiency.

(9) CURRENT STATE OF THE SNOQUALMIE RIVER

(a) The 2011 Total Maximum Daily Load (TMDL) for the Snoqualmie River is very illuminating with regard to the health of the river. As the abstract summarizes, the river has three stretches below Snoqualmie Falls which are Category 5 (worst rating possible), and are on the Clean Water Act 303(d) list. And it goes on to state “there are 38 other areas that should be in Category 5”. The problem is predominately temperature, and temperature is highly affected by volumetric flow. The threatened Chinook Salmon typically have two returns each year spanning the months of June to September when streamflows are at their lowest levels. And there are a number of other species in jeopardy including the threatened steelhead and bull trout. And the report also emphasizes how much worse things could get with the further onset of global warming.

(b) Looking at the USGS Snoqualmie gage (12144500) below Falls (see Attachment 5), which is the most upstream gage that can trigger mitigation, the pattern of low summer flows is clear. In 15 of the last 21 years the instream flow has fallen below the minimum threshold of 600 cfs. For the last four consecutive years it is has been below, by as much as equaling only 45% of the threshold.

10. CLOSING COMMENTS

(a) Friends is very concerned that from our perspective North Bend is almost in a state of chaos in trying to keep up with the development explosion. We fear that bad decisions are going to be made in haste under the pressure of schedules and growth that will haunt the residents in the community for years and do irreparable damage to the river ecosystem and the fish that are so dependent on it. We have no confidence in the leadership of the City as they have established a long pattern of disregard for water rights obligations. Combining the time they were egregiously exceeding their Mt Si Springs water right, and the time they have ignored their obligation to have a backup mitigation source for Hobo Springs as required by the ROE, the City has been non-compliant for almost 30 years. And where was the DOE in all this? We are relying on the DOE to make the right decisions, and then follow through with monitoring and enforcing those decisions.

(b) Although Senate Bill 6091 was politically motivated there was some good foundation laid down to address the health of the rivers. Recognizing the current state of the rivers the Watershed Restoration and Enhancement Committees are chartered to establish ground-rules that are not intended to just prevent future impairment, or even maintain current levels of impairment, but *to focus on reducing levels of impairment*. By appearances there is currently a stampede of rural growth to get a foot in the door with development at the wrong end of that priority hierarchy, finding ways to finesse the added impairment to the rivers. Why should we wait until 2021 to start the enhancement emphasis while in the meantime creating more inertia towards further impairment that ultimately will have to be overcome?

(c) Throughout all our research there has been one recurring element of concern that keeps coming up and that is the inevitability and unknown severity of global warming and its effect on water supply in the future. There are a lot of unknowns in terms of timing and severity however the consensus is clear that there will be a diminishing winter snowpack in the central Cascades and increasing spring rains which will prematurely melt the snowpack that is present. The Centennial well is sustained by the Upper Snoqualmie Valley Aquifer which is almost entirely dependent on winter snowpack. We are of the opinion the City is struggling to balance the supply/demand/mitigation scenario just by extrapolating past hydrological records. Any planning should also include a generous margin of safety to address global warming and there is no evidence of that happening at all.

(d) We are appealing directly to you for help for more than one reason. First we worked with the Northwest Regional office for a time and they were helpful, polite, and respectful. However, in December of 2017 we were told, while pleading manpower shortages, “Any future requests for information from us about North Bend or Sallal’s water system will require a formal public records request, and we will provide materials, if present, with no further analysis or comments”. We were cut off from email, phone, or face to face contact. We have diligently pursued the PRR approach suggested but I am sure you can understand that is not at all as informative as actual dialogue. So we have no recourse other than to go right to the top. We also understand your extensive background in water law which is a real asset for addressing the very unusual situation we are dealing with in North Bend. And finally we are aware of your Native American heritage which views the earth and all natural aspects of the earth in a reverent manner. It has even come up in our discussions how the 1855 Port Elliot treaty has sadly not been lived up to. Consistent with your heritage are you really confident you can look seven generations into the future and feel comfortable extrapolating the current state of the rivers, the Chinook Salmon, the Orcas, and any number of other species including humans that are so vitally dependent on the quality and availability of bodies of water? How about just looking two or three generations into the future? We feel if anyone could relate to and be sympathetic to our concerns it would be you.

 (e) We apologize for the length of this letter however we wanted to share enough of the background driving our concerns that you would be able to look at the facts and hopefully understand where we are coming from and reach the same conclusions. As I mentioned at the beginning, I am writing this on behalf of the more than 400 members of Friends of the Snoqualmie Trail and River, a number of whom have thankfully contributed to the information provided herein. If you again hopefully have taken the time to read this, we appreciate it very much, thank you. Friends believes that in light of the conflict of the Sallal wells being a mitigation source in the first place, and in light of the fact there have been ten years of unsuccessful negotiations of a contract between Sallal and the City, and the uncertainty of whether there will ever be such a contract, that the DOE re-examine its authorization of the Centennial well.  Is there a justification for the DOE to amend and/or reinforce certain stipulations in the ROE and water right before expanded use of that water right is allowed? Will you help us?

Sincerely,

Jean Buckner, EdD

President, Friends of the Snoqualmie Trail and River

Attachments (included with electronic version of letter sent via email on February 6th):

1) North Bend area map with water coverage areas

2) North Bend 2018 development map

3) 4/27/2006 Dunn to Swenson et al memo related to 4/27/2006 meeting with North Bend

4) USGS Report 1839-J “Figure 2 Physiographic setting and generalized geology of the Cedar falls- North Bend area”.

5) Map showing USGS river gages linked to mitigation requirement