Brenda Martinez

From:	p51must@comcast.net
Sent:	Thursday, August 04, 2011 4:15 PM
To:	Steve Pilcher
Cc:	Andy Williamson; Brenda Martinez; Stacey Borland
Subject:	Input for MPD and DA Hearings
Follow Up Flag:	Follow up
Flag Status:	Flagged

Dear Mr. Phil Olbrechts,

We are concerned about the Master Plan Developments and the Development Agreements that Yarrow Bay has proposed to the City of Black Diamond.

With the amount of earth that has been proposed to be removed, potentially 6,000,000 cubic yards, in preparation for building the 6,000 homes there will be more than 200 dump truck loads of dirt leaving our small city every day.
The amount of dirt being removed from Black Diamond is equivalent to the amount of dirt removed at SeaTac airport in preparation for the third runway, and it took 200 dump trucks a day for over 2 years to remove all that dirt.

Traffic is a huge concern, that many dump trucks and the additional traffic from the new development traveling through Black Diamond will make our transportation system grind to a halt, and the state of Washington says there is no money for road improvement, so we will be stuck with gridlock on Highway 169 between Black Diamond and Renton and surrounding areas.

The MPD's would cause land owners that have paid taxes on existing building lots to pay excessive permit and building fees.

It is totally unacceptable to have 2,500 apartments built out immediately. Approximately 5000 + residents to fill the apartments and our streets. Black Diamond will be burdened with apartments which would not be conducive to Rural by Design.

Jobs that are supposed to be created with the growth will not be family sustaining jobs, only part time with no benefits. No anchor stores have agreed to come into Black Diamond to help fill up the million square feet of commercial space that is going to be built up inside of this development

When Lawson Hills were Annexed, under the assumption that Black Diamond would be able to control it, when in reality Yarrow Bay has guided its use.

We entrusted the city council and city government to look out for the citizens best interest, but they are favoring the big developer and not taking our input to heart.

With the Transfer of Development Rights Yarrow Bay can now buy the existing TDR's and use the development rights to build more houses in an already crowded MPD, and building these additional houses on property that was initially designated wet lands or open space.

EXHIBIT
129

Quality of life for existing and future residents of Black Diamond will be diminished by this massive development, this is not Rural by Design it is Urban by Mistake.

Dennis & Diana Boxx, PO Box 123
32517 2nd Ave
Black Diamond Wa 98010
Brock & Tamie Deady, PO Box 523
32424 1st Ave
Black Diamond Wa 98010

CARRIER EXHIBIT A

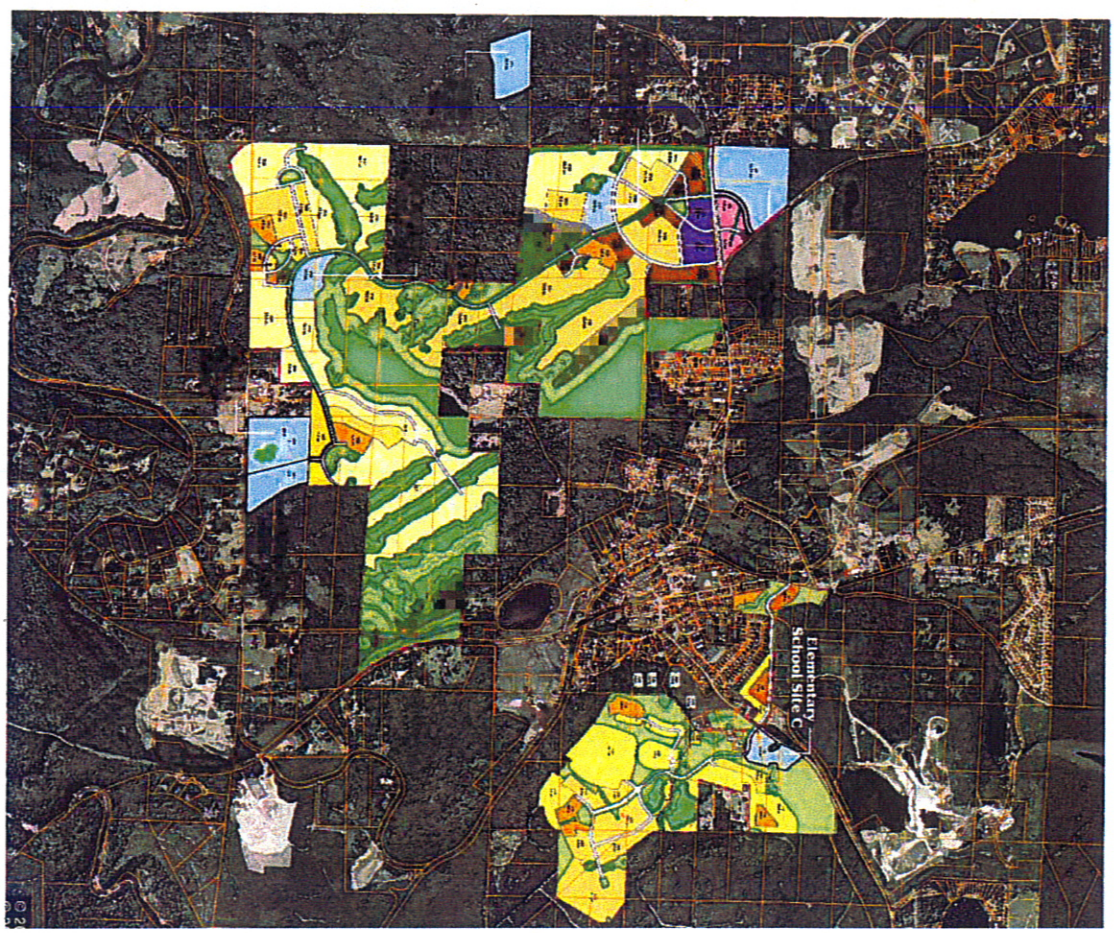
BLACK DIAMOND SCHOOL SITES MAP FALL, 2009 TRI-PARTY AGREEMENT

FROM ENUMCLAW SCHOOL DISTRICT WEBSITE August, 2011

SITE A MIDDLE SCHOOL

SITE D ELEMENTARY SCHOOL IN RURAL AREA ON SE GREEN VALLEY ROAD

(Rotate clockwise once for easier viewing: north is on the right side.)



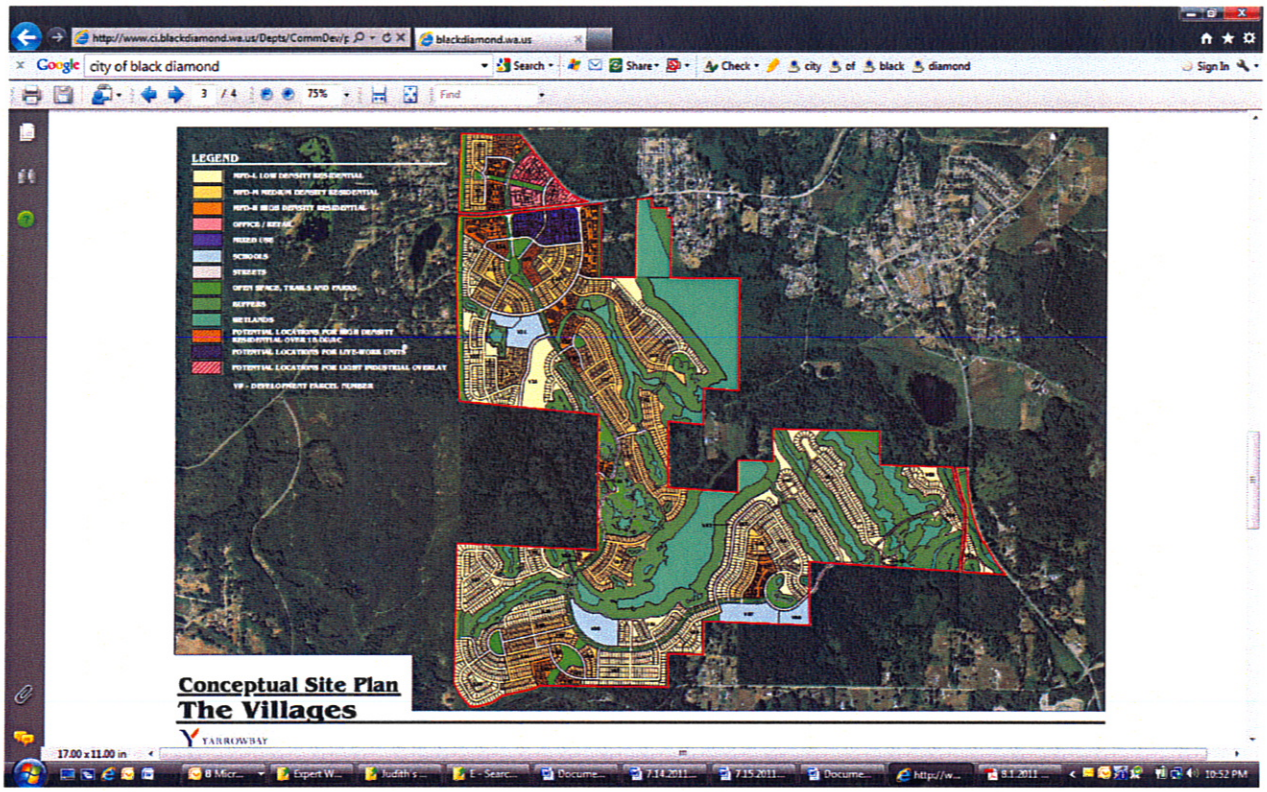
EXHIBIT

130

CARRIER EXHIBIT B

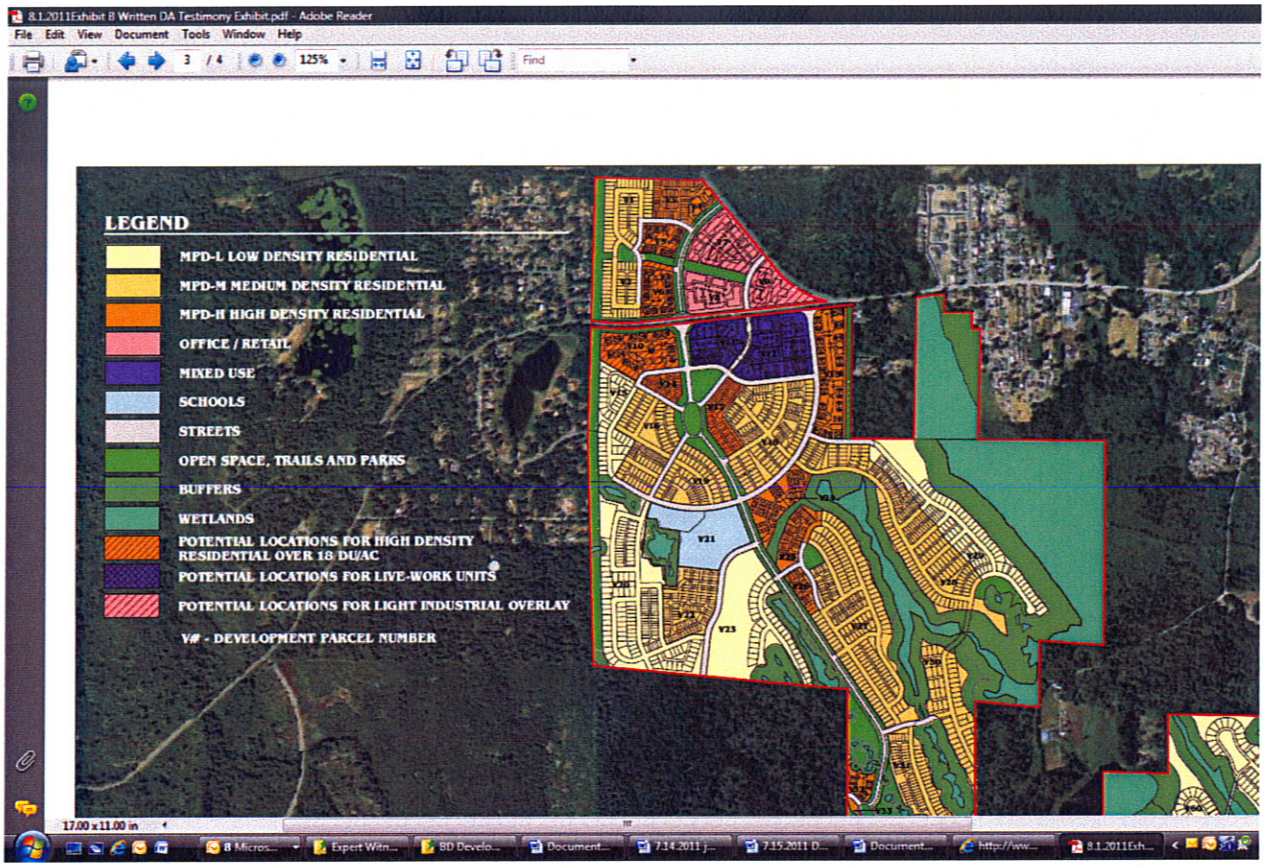
DEVELOPMENT AGREEMENT EXHIBIT B: VILLAGES CONCEPTUAL SITE PLAN

(See CARRIER EXHIBIT C for legible legend)



CARRIER EXHIBIT C

LEGEND FROM DEVELOPMENT AGREEMENT EXHIBIT B: CONCEPTUAL SITE PLAN



Written Testimony to His Honor Phil Olbrechts

City of Black Diamond Development Agreement Hearings

August, 2011

Judith Carrier

24305 SE Green Valley Road

Auburn, WA

Honorable Mr. Olbrechts:

When the Black Diamond City Council included in the MPD Approval Ordinances 10-946 and 10-947, Exhibit C, Conditions of Approval, Condition 33 a and b following your MPD Application Recommendations for a Green Valley Road Traffic Calming Study and a Green Valley Road Review Committee, road residents had some hope that there would be consideration from YarrowBay for protecting the quality of life here. We felt fortunate because during deliberations prior to the Approval, the Council tabled many of your fine recommendations for this Development Agreement (DA) process. They did not table us. You have heard orally from a number of us how our post-Ordinance-Approval expectations were dashed!

While reading the DAs proposed by the City and YarrowBay, I have been repeatedly amazed at how much crucial information is incomplete, mediocre, or sorely lacking! Green Valley Road citizens waited for safeguards after the MPD Application deliberations. Possibly, if there had been more <u>details</u> in Conditions 33 a and b in the Ordinances, there might have been some!

All of us in SE King County and the City of Black Diamond who have been aware of these giant developments have waited, too, since the Draft Environmental Impact Statement for the details that would indicate the predictable impacts and how, when, or if they could possibly be mitigated and financed. Unfortunately, a great deal of work still needs to be done!

Hopefully, learning from the MPD Ordinance deliberations and the sad happenings to the conditions for Green Valley Road (among others), the City Council will pay closer attention to details. There are sketchy, unclear, or just-plain –absent kinds of details to which Council members should be alert this next time around: analyses, definitions or descriptions, explanations or incompatibilities, purposes or procedures, results or requirements, timelines, and wording. I'm sure there are many more that will be found and mentioned by those citizens who are far more knowledgeable than I about this DA process and the many technicalities of these gigantic, first-of-its-kind developments.

DEVELOPMENT AGREEMENT CONTRACT TRANSPORTATION NEEDS

In your words from your MPD Application Recommendations, Section IV, Findings of Fact, Subsection B, Traffic and Parking: ***"This scale of development justifies the creation of a project specific transportation demand model that accounts for*** *all existing and planned local land uses, is validated for local traffic, contains an appropriately fine grained transportation analysis zone network, considers existing peak hour factors, considers both funded and unfunded transportation improvements that coincide with the build out timeframe for the project, considers safety concerns, attempts to preserve the rural Heritage Corridor, provides a realistic mode split analysis for both transit and non-motorized uses and determines a reasonably accurate internal trip capture rate. Therefore, the project applicant will be required to create a new transportation model that incorporates all the controls identified above and subject that model to peer review and periodic updates." (***My underlining for DA topics needing additional attention.)**

A new transportation demand model was a requirement in the MPD Approval Ordinances (MPDAOs) 10-946 and 10-947, Exhibit C, Conditions of Approval,

Condition 11, but it is not described anywhere in the DAs. In documents that are supposed to be giving details, how can there be no description of something so fundamentally needed for evaluating the tremendous increase of traffic?

In the DAs, Exhibit F, Traffic Monitoring Plan, Section A, the "model" that will be applied "before submitting land use applications for each Phase" and in the "middle of each Phase" has no description of that model. Where are the details?

Anticipating the conditioned study of Green Valley Road as I testified orally, I was hoping for a model that was both regional and fine-meshed to be locally used to analyze traffic and be validated on current volumes for meaningful future traffic predictions. In the proposed DAs, Exhibit F, Traffic Monitoring Plan, Section A, only a "regional" model is spoken of. Is only a regional model being planned for all the two-laned, rural roads that will swell with traffic from these developments as well as the streets in the City of Black Diamond? To me, this seems to stray widely from the purpose of a new traffic demand model as you clearly and repeatedly explained in your MPD Application Recommendations.

There are several significant traffic pathways from heavily used thoroughfares to narrow roads never analyzed by a transportation model or even mentioned during or after the EIS process: Plass Road/257th Ave. SE (still a possible indirect connection to Green Valley Road); Lake Holm Road suggested to take traffic instead of Green Valley Road in the published study SE Green Valley Road-Traffic Calming Strategies; nearby and ignored Lake Moneysmith Road; Auburn/Black Diamond to Covington-Sawyer Road's hazardous connector, Thomas Road; the Black Diamond-Ravensdale-Hobart-Issaquah Road connector to heavily-used, east/west I-90; and major SR 18 in SE King County whose LOS is expected to fail by 2015 according to a City of Auburn testifier. Hopefully, the DA Contract will include thorough study using a new, well- defined, traffic model for Ordinance Condition 11.

Another need for the DAs besides a specific description of the new traffic model is an explanation of analyses and procedures for its use in conjunction and compatibility with other transportation projects in the future in SE King County. MPDAO 10-946 and 10-947, Exhibit C, Conditions of Approval, Condition 12 speaks to this concern for including "...transportation projects shown in the applicable 20-year Transportation Improvement Plans..."

Additionally, if an improved model is run but has disregarded not only possible, neighboring transportation projects; but, also, apparently expected growth from nearby areas, how can the results accurately verify and evaluate impacts?

In quoting you above, regarding a project specific transportation demand model, you recommended it determine "a reasonably accurate internal trip capture rate". There are no details about how accuracy will be established for this information and, when it is, there are no explanations of procedures for deciding at what intervals the rates will be reevaluated and run in the model. MPDAO 10-946 and 10-947, Exhibit C, Conditions of Approval, Condition 14 call for this.

Reading the DAs Exhibit F, Traffic Monitoring Plan, Section C, I gasped with incredulity to find that projects in "outside jurisdictions" (which could someday include Green Valley Road in unincorporated King County) where a "mitigation agreement" has been achieved would not be privy to ongoing analysis! What if mitigations do not solve a particular traffic problem or unforeseen other impacts occur as time passes and further construction causes traffic increases? The traffic impacts from these Developments will crop up for years. A solution is needed here to continue adequate and timely application of the traffic model on a regular basis.

Specific, definite timelines for the "preparation of a revised transportation demand model" (MPDAO 10-946 and 10-947, Exhibit B, Conclusions of Law, Paragraph 23 B) are not in the DAs. Neither is explicit scheduling for analyzing traffic with an exacting, improved model before 850 homes are built to proactively identify and find funding for mitigations that will be needed when

they are occupied. Timelines need to be in place in the DAs for discovering and analyzing transportation impacts in the short and the long run with the finest possible transportation demand model or we will all be suffering on our roadways while waiting for the fixes to take place including the search for funds for them!

Thank you for recommending, in the quote above, the preservation of "the rural Heritage Corridor". MPDOA, Condition 33 and 34b should be fultilled: *"The Committee shall also meet to review the plan to prohibit or discourage the use of Plass Road".* (The committee is the Green Valley Road Review Committee that has never convened yet.) "The *Applicant agrees to work in good faith with the City, King County and residents on Plass Road to develop a plan to prohibit or discourage the use of Plass Road as connection to Green Valley Road. The Applicant will agree to vacate a portion of Plass Road through the Villages property to assure no connectivity to the South Connector roadway towards Green Valley Road, provided the City, King County and Plass Road residents support the road vacation. "*

New Condition: If a majority of Plass Road residential property owners oppose an agreement that will still allow a direct or indirect connection to Green Valley Road, the applicant will work in good faith with the committee to find another alternative besides total vacation of Plass Road.

As another new condition: a legally binding, written agreement that there will be no direct or indirect connection from the Developments to Green Valley Road for any reason by current or future property owner(s) of The Villages MPD would be another major traffic calming "device". A possible connection could still happen if schools are located outside the UGA so that emergency access for EMS, fire, and safety vehicles would be needed. Definite locations for schools are still undecided. Carrier Exhibits A, B, and C (attached) show two maps with schools designated in light blue, but placed differently in proximity to Green Valley Road in the rural area. Carrier Exhibit A was printed in the fall of 2009; Carrier Exhibits B and C are from the proposed DAs, 2011. Please plan building sites that will locate schools in the UGA so that no emergency connection to

Green Valley Road will ever be necessary. Please plan construction of residential and commercial units for seven UGA school sites to be available.

After the DEIS comment period was closed and while the FEIS was being drafted, Colin Lund, in a YarrowBayHoldings letter dated October 27, 2009, to Leonard Smith, City of Black Diamond, spoke of the difficulties in connecting to SR 169 that he thought could be overcome: ".....we have taken a more critical look at extending this secondary access to State Route 169 rather than to Green Valley Roadway (sic). With the City's assistance on potential deviations to horizontal roadway alignments, reduced amenities in limited areas and coordination with King County for a short segment of the alignment, we believe the roadway can be extended to State Route 169 with only a marginal difference in wetland impacts. The alignment would extend more northerly than originally thought (sic) but it is the path of least resistance to make it through this highly constrained area." (My underlining) It would be a considerable concern for the applicants and all of us, especially those of us on Green Valley Road, if the problems crossing Plass Road to SR 169 have become more complicated!

King County, through oral testimony by Paul Reitenbach--DDES Sr. Policy Analyst and Matthew Nolan--Manager of the KC Traffic Engineering Section on July 21, asked for clarity for MPDOA, Condition 33 with no connection to Green Valley Road (GVR). For MPDOA, Condition 98, schools should be "located inside the UGA".

Further, for Condition 33, the County recommends a new Condition: Monitor traffic volumes quarterly throughout the life of the MPD build out. If volumes exceed a 50% increase from 2012 levels, no additional lots may be recorded. New road improvements should be reviewed by all the jurisdictions.

For MPDOA, Condition 128, the South Connector Road from the Villages should be connected to SR 169, but the King County Comprehensive Plan does not allow construction of any additional capacity in the Rural Area. DA Provision 6.4.1a should read that no implementing project shall be approved until the South Connector Road is completed and joined with SR 169 within the UGA.

I agree with these County suggestions. They would help protect Green Valley Road from an inundation of traffic by direct or indirect connection that will change its unique qualities in many ways. It follows that safety concerns would also be reduced. We would all hope the optimism of Mr. Lund in the fall of 2009 still holds. If not, the DA provisions for the South Loop Connector need to studied, analyzed, and worded most carefully.

At this point, to my mind, one of the few traffic calming "devices" for Green Valley Road is lowering the amount of traffic from the Black Diamond/YarrowBay Developments by decreasing the size of them and lessening the density. Your above- quoted transportation recommendations and their corrected flaws or omissions added to others dealing with only Transportation mitigations, monitoring, and funding, entered into the Development Agreement Contract or through new conditions, will slow the progress of the MPDs. By doing so, the new plans, analyses, procedures, and timelines, etc., could be tested in increments of development and, hopefully, adjusted when needed.

The public has and will testify about a myriad of necessary proposed DA inclusions, deletions, and modifications in regard to expansion parcels, other funding and fiscal impacts, environment, land use, schools, public utilities, and more. You, your Honor, and the Black Diamond City Council, through your diligent consideration of their work and deep concern have an opportunity to shape the largest MPDs ever proposed in King County into a positive model for future developments in our County and, indeed, the State of Washington. The citizens on Green Valley Road and their neighbors in the City of Black Diamond will be grateful and appreciative

Brenda Martinez

From: Gwyn T VUKICH <gvukich@msn.com>
Sent: Thursday, August 04, 2011 4:45 PM
To: Steve Pilcher
Cc: Andy Williamson; Brenda Martinez; Stacey Borland
Subject: Written Testimony

Dear
Sir,
Aug. 4th. 2011

I have lived on the Green Valley Road for 79 years. I have raised turkeys,sheep had a "Jersey" dairy and now raise sweet corn and flowers to sell on a roadside stand. My nephew raises beef and hay on the rest of our family farm. We are very concerned about the development that is being planned for Black Diamond. The Green Valley is a very precious area to all of us that live here,and the people of Washington State, now and for generations to come. We all need to be good stewards of the land. Because of this there really are no mitigations to enable the proposed traffic to come down our road. Because of the farmlands the road can NOT be widened.... Speed bumps are not practical because they would be difficult and not safe for the farm equipment to go over. There is not enough money in the King County budget to have a Sherriff down here all the time and that is the only way to enforce a speed limit. Even now the motorcycles ignore the one we have. The only mitigation would be to allow a lesser number of housing units to
built. **The Traffic Demand Model needs to be redone.**

Concerning the MPD Condition 33b The GVR Committe needs to be reconfigured and the purpose of it changed. The people need to have their voices heard and it not just a committee to rubber stamp what Yarrow Bay wants done.

Garth Ray

EXHIBIT
131

15502 S.E. 352 St. Auburn WA 98092

Testimony for Development Agreement Hearings – City of Black Diamond, "The Villages" and "Lawson Hills" applications.

August 4, 2011

Kristen Bryant, 1006 139th Pl NE, #C-4. Bellevue, WA 98005

Contents:

1. First, this document depicts a failed stormwater system in the development of Grand Ridge. This site was clear cut and during the construction period serious problems occurred. Then, related clarifications and requirements to be added to the Development Agreement are stated.
2. Next, this document includes some issues from another development, the Issaquah Highlands. These items will be relevant to decision makers as they try to form a vision of the twenty years of the Development Agreement in Black Diamond.

1. Regarding Mitigations over the Twenty Year Contract

Following is an example of something that happened in a recent local development:

This 150-acre site on Grand Ridge was cleared of all trees and top layer of gravel, down to clay several years ago. The Issaquah Highlands site was one of the major recharge areas for the Issaquah Aquifer, which supplies drinking water to the residents of Issaquah. With the forest cover and soils gone, almost double the rainfall now hits that ground. Furthermore, without vegetation and soils to absorb the rain water, it runs off at a faster rate. Apparently, the engineered system of stormwater detention ponds and constructed infiltration was overwhelmed. During the construction of the new Sunset Interchange, the State Department of Transportation had moved a lot of earth from below. Numerous new springs are now weeping and cascading out of the hillside below the cleared areas and above the new road. Previously, this hillside had been very dry, as shown by the grasses, scotch broom and firs growing on it.

This event triggers some interesting issues, **some raised more than a decade earlier by community members** during the Environmental Impact review process .

The Issaquah Aquifer could be impacted and affect

EXHIBIT

132

Issaquah's water supply.

Similar issues could happen in Black Diamond, especially near Lawson Hills.

Blowout

The undermined retaining wall

The city of Black Diamond should require the following to protect itself and residents:

> "In the event any environmental mitigations fail, it is required that an independent investigation and mitigation plan be created by different people than those who created the original plan. In addition, the permitting shall be done by different individuals than those who permitted the original plan. This new plan will be adopted subject to applicable laws and regulations. Where changes are recommended by the new plan, the old plan will no longer be valid."

It is unlikely that those who designed, reviewed and permitted the failed system would be able to look at it in a fresh and objective fashion.

In addition, the city of Black Diamond's Municipal Code that no clearing and grading be done in winter. In the Development Agreements are provisions seeking to change this. Instead, the correct interpretation should be as follows:

The BDMC regulates and restricts clearing and grading within the wet season. The code's provisions can be read as a prohibition against clearing and grading where the conditions and the weather would likely result in high risk of erosion, sediment, flooding, or landslides. The Development Agreement's provisions to allow clearing and grading during the wet season do not reflect the Municipal Code's intent and language. The provisions in the Development Agreement to mitigate potential damage will likely be ineffective because they do not require 3rd party review. They do not require a pre-development and monitoring plan, and they do not provide for instant reaction to deal with emergencies or issues.

The problems associated with rainy season clearing and grading are well-documented and well-known. Certain "best management" practices have been shown to be reasonable effective at controlling these problems. Thus, the following condition is proposed:

> "Clearing and grading during the rainy season from October 1 thru April 1 is prohibited. "

We offer an alternative condition as follows:

Clearing and grading October 1 through April 1 shall be prohibited unless all of the following conditions are met:

1. The developer can document substantial financial hardship
2. The developer has prepared an erosion control plan that includes flow control and storage equal to the storage and flow control requirement of the state 2005 stormwater manual to handle flows during the clearing and grading.
3. The erosion and flow and flood control plan has been reviewed by a competent 3rd party selected by the city.
4. A 24-hour emergency response crew and equipment are on standby to deal with any emergencies.

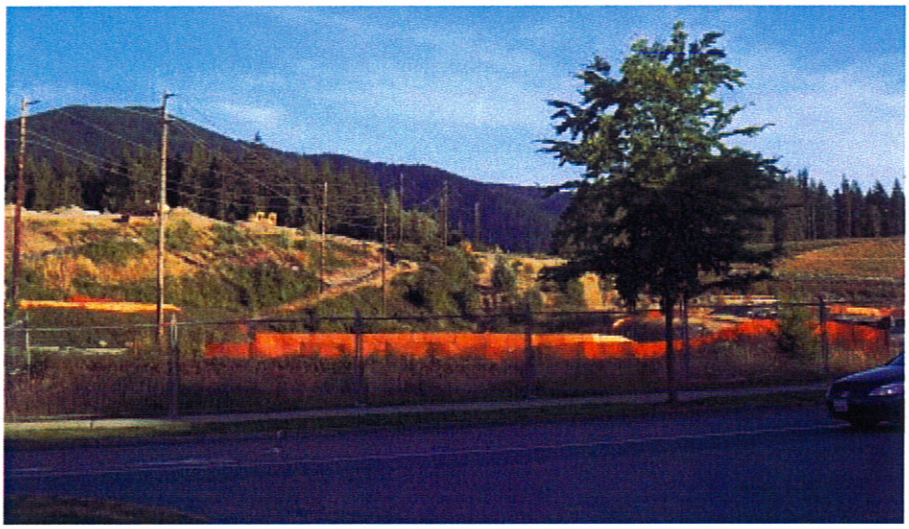
2. Development Examples from Issaquah Highlands

Construction

Although the Issaquah Highlands has been going on for a long time and Issaquah has recently grown by about 20,000 people, there is still a lot of construction visibility in people's daily lives.

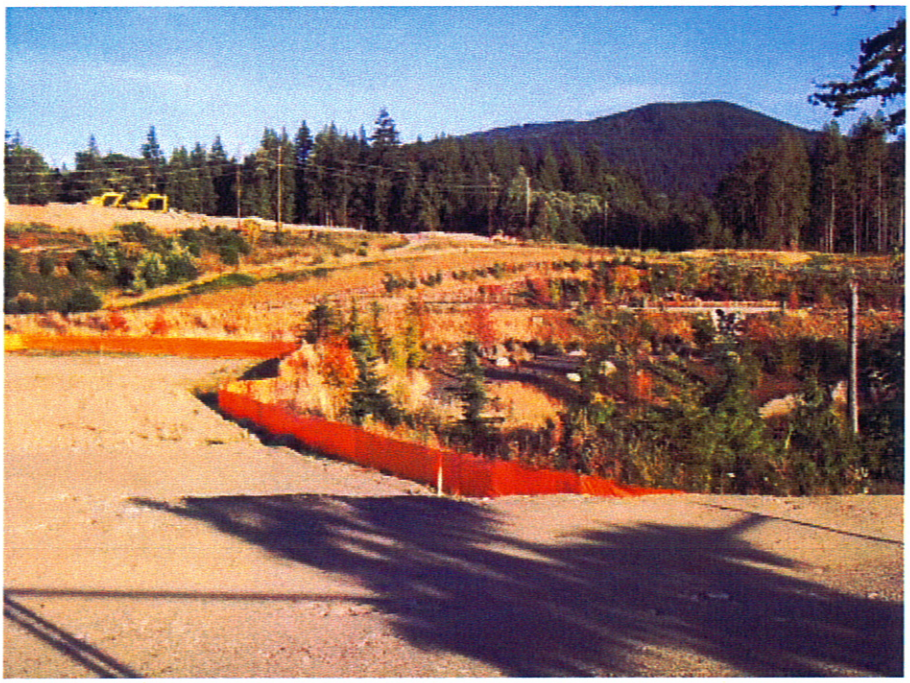
This construction zone is advertised as planned for 2011... It does not look like it will be ready.

Notice the trees in the background, while the same trees that once covered the construction area have been removed. In the highlands living areas, there are no old trees, only new ones planted after construction.



The construction zone is blocked by chain-link fence.

It is hard to see, but there is a trail through this development. The developer must have been required to put the trails in first, which is a good thing and I recommend Black Diamond do `the same.

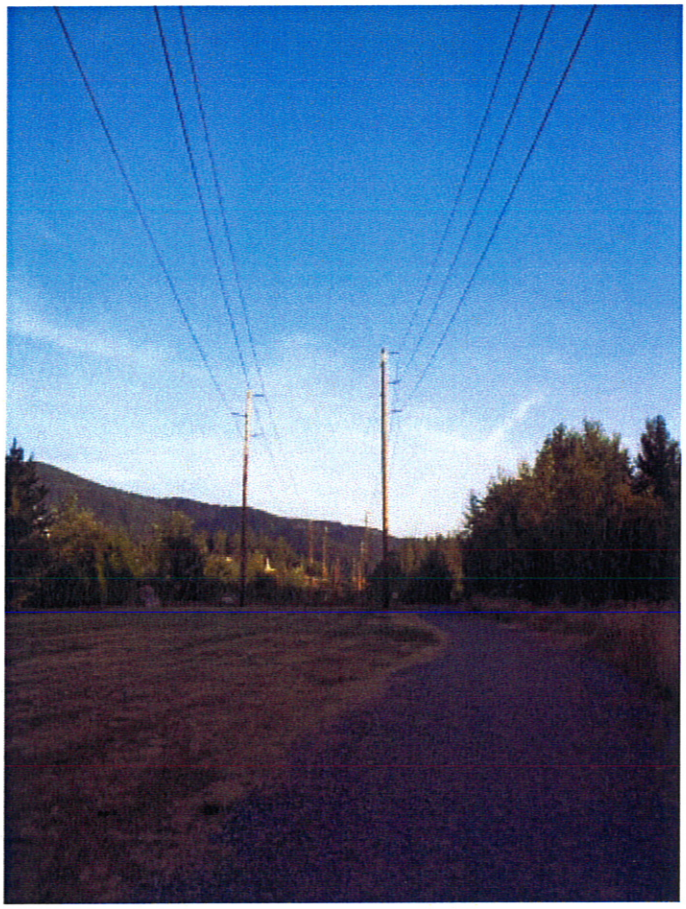


Open Space and the Environment

This is an example of open space with powerlines crossing through. Black Diamond should make sure that its opens pace is protected and more attractive and environmentally friendly than this.

It appears to be bordered by wetlands, where the tall trees have fallen and some replaced.

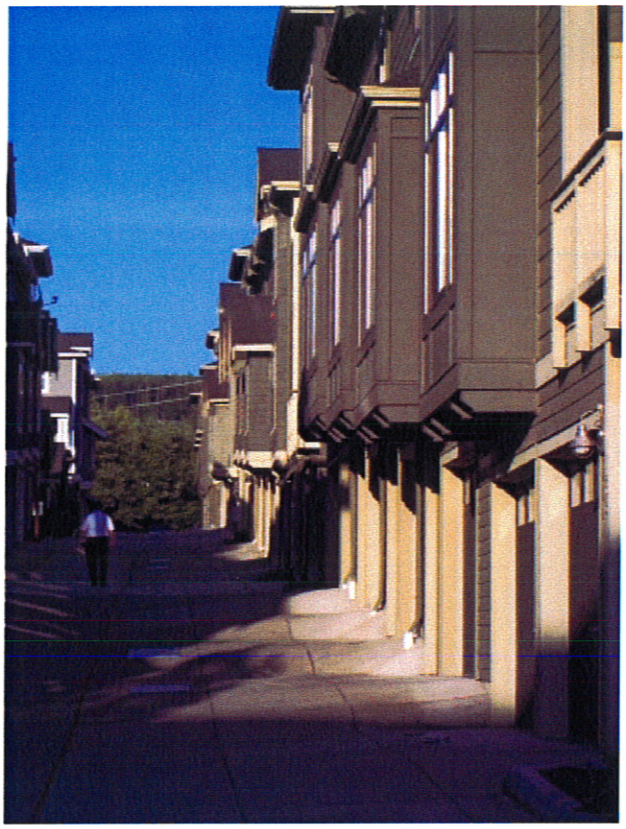
More open/trail space. We must prevent this from being the only type of opens space Black Diamond has.

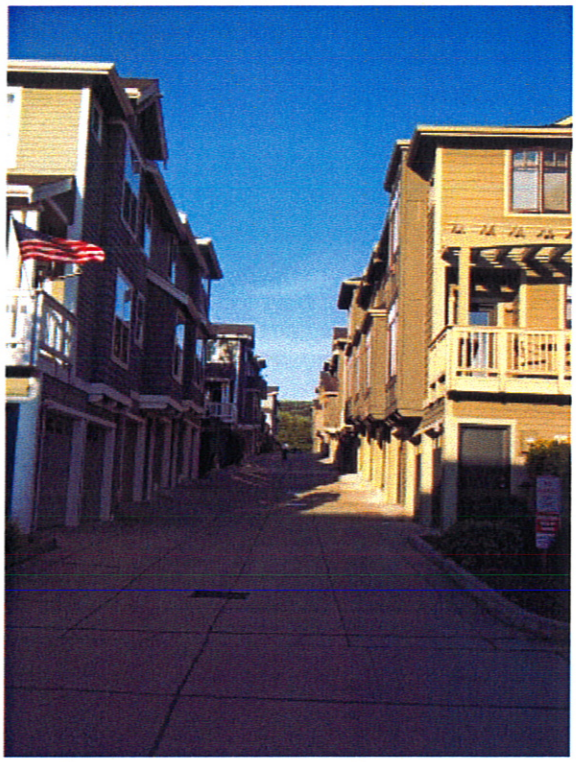


Some Parking examples

This is a back-loaded alley in Issaquah Highlands.

These still seem new and fairly nice, but it does not seem fitting with the character of Black Diamond.





In this area residents use a lot of street parking. Note the new trees. The previous evergreen forest was not left behind.

More street parking and small trees. Black Diamond has a tree protection ordinance and a lot of evergreens. Getting rid of the evergreens to switch to this kind of street isn't right for Black Diamond.

Homes for Sale.

There are above 80 homes for sale in the Issaquah Highlands. Many were completed in 2011, leaving those who bought in the previous 10 years and now face a slow market to compete with new homes.

Office Businesses

In the business area of Issaquah Highlands, it appears there is some office space still under construction, and not occupied. Some kind of construction project continues.

To: Hearing Examiner:

Subject: Development Agreement Villages and Lawson MPDs
Tri Party School Agreement hearing

I attended a public informational meeting regarding the Tri-Party Agreement in the fall of with Enumclaw School Board at Black Diamond Elementary School. The ESD and City Attorney were "presenting" the Agreement, however they wouldn't let us ask questions out loud or in front of City Council regarding the agreement as they said they were under Quasi restrictions. We were unable to talk with our legislative officials; we were required to write questions on cards and submit for answer, but it was clear that the ESD Board, the City Attorney and Yarrow Bay had created the ENTIRE agreement without public input, especially from taxpayers in Enumclaw.

We never heard anything more about the agreement. After the Quasi restriction was lifted no public hearing was held to inform us what the *final* agreement contained. Yet, we, the public are expected to pay property taxes to build the schools.

After attending over 40 meetings we only see (4) schools within the MPD, even though they all are supposed to be withing walking distance. It must be addressed that Lake Sawyer belongs to the Tahoma and Kent School Districts. Black Diamond belongs to Enumclaw School District and NOT ONE CHILD from Enumclaw attends Black Diamond School. Discussion at a meeting revealed one school may be built in the Tahoma district, one in the Auburn district, and five in Enumclaw School Districts. That would consist of seven schools. Auburn School District DOESN'T HAVE ONE CHILD in Black Diamond School. I personally saw 4 school sites on a Yarrow Bay map, but I have never seen Yarrow Bay list all 7 schools. (I might add that Auburn area proposal site is not within the MPD)

October 2009 meeting referred to 4 Elementary school sites with 43 acres.
2 Middle school sites with 44 acres
1 High school site with 35 acres, plus 6 acres of City park land (no stadium)
Reference to walking distance for students draws questions with current maps.

Not one school in Washington voted for or passed a bond issue at the last election. Common sense says that taxpayers in Enumclaw and Auburn, needing their own schools, will not pay for schools their children do not attend. .

This construction is asking that outside sources such as Auburn (unincorporated King County); Enumclaw, support and pass and pay for levies to build Black Diamond Schools. If the schools aren't built in a time frame according to contract, the property reverts back to Yarrow Bay. Then the ESD will be burdened with extraordinary transportation cost to bus even more children to Enumclaw.

Also, comes to mind we may have to form our own school district, as we had in the past, and fought to keep. Or, join school district closer to Black Diamond/Lake Sawyer, such as Kent or Tahoma

We feel it is important to be informed about what the School Board agreed to and we would like the Tri-Party Agreement sent back for a public hearing both in Enumclaw and Black Diamond.

Respectfully,

Donna Gauthier
32427 6th Avenue
Black Diamond, Wash 98010

EXHIBIT

133

EXHIBIT
134

Brenda Martinez

From: Sierra Club <information@sierraclub.org> on behalf of Stacy Karacostas <stacy@success-stream.com>
Sent: Thursday, August 04, 2011 4:34 PM
To: Brenda Martinez
Subject: Rewrite MPD agreements with sufficient information for decision makers

Aug 4, 2011

Brenda Martinez
Black Diamond, WA

Dear Martinez,

The Black Diamond MPD Development Agreements should be rewritten to ensure the city Conditions of Approval are met, and to provide sufficient information for the public and elected officials to make informed decisions.

I regularly mountain bike in the Lake Sawyer area, and it is indeed an area filled with pristine forests, crystal clear streams and quite a bit of wildlife (while undocumented, I believe I have seen a spotted owl out there...It did not appear to be the more common barred owl!).
Unfortunately, there has already been a good bit of residential development.

The idea of building more large scale new home projects in an area that is such a natural treasure seems shortsighted at best. Particularly when many cities have proven that recreation brings in more net dollars than residential development.

I know that I, and my friends and family, regularly spend money in Black Diamond and 4 Corners because we come out there to ride. If that forest continues to be eaten up by these large scale developments and the roads congested with so many more cars, I can tell you we won't be spending our money in your town any longer.

And it sounds like that's exactly what is likely to happen as too many project impacts are not adequately mitigated to meet the Conditions of Approval established by Black Diamond. For example:

* Traffic mitigation is grossly inadequate; many major southeast King County roads will be clogged with traffic. An estimated 10,000+ vehicles per day on already constrained two-lane roads will exacerbate greenhouse gas emissions as many people face much longer and time-consuming commutes.

* The developments will cause 750 acres of pristine forest to be clear-cut and wildlife habitat lost. Proposed wildlife corridors do not even connect some of the wetlands.

* Water and air quality will be adversely affected. All residents will bear these impacts and will have the long-term responsibility of dealing with these problems.

* Potential impacts to Lake Sawyer are significant: flooding and decreased water quality both in the lake and in streams throughout the Green River Watershed due to increased phosphorus loading.

You lack sufficient information to determine whether the Conditions of Approval have been met for many of the separate discipline reports. The Development Agreements must be rewritten to include sufficient information for decision makers and the Public.

The impacts of these MPDs are enormous given the scale of the planned developments and their locations on the fringes of the urban areas, far from major job centers and commercial hubs. Permitting of such massive MPDs would set a bad precedent for all future development in western Washington. Placing such developments where little or no infrastructure exists in locations that are likely to

increase reliance on fossil fuels would hinder our attempts to become more sustainable and resilient in the face of climate change. The size of the MPDs is so immense that adequate mitigation is impossible, and they must be down-sized.

Sincerely,

Stacy Karacostas
11611 23rd Ave SW
Burien, WA 98146-2504

Hearing Examiner

Re: Development Agreement

I believe we have TAXATION WITHOUT REPRESENTATION:

1. We, the taxpayers and citizens were not free to talk to council during the hearing procedure.

2. The council received advise from attorneys and Steve Pilcher, all paid high wages by Yarrow Bay. Two of the council said in public meetings that they didn't like reading all the paperwork (so they turn to these people for advice.)

3. Three council members voted for MPD proposal not hearing both sides of the argument, even though they had been dismissed from voting due to conflict of interest under the Appearance of Fairness Act.
   A. Recently, Yarrow Bay announced at a council meeting they would buy up wet lands in Black Diamond to reach their 50% goal. One of the council members owns wet lands.

4. During the 40 plus meetings, we, taxpayers, were never represented by the city attorneys! In fact, they took opposition to all questions we citizens put forward and defended Yarrow Bay. We had to fight for notification of meeting data, time to digest what was being put forward, request of time to be heard at meeting, given three minutes to discuss contents of hundreds of pages. We had to hire an attorney to force the City and Yarrow Bay to listen to our appeals. Testimonies of facts running from EIS to MPD structure came from the citizens-not city employees or attorneys. (Attorneys who were paid under the Funding Agreement to review the legal paperwork and advise the council accordingly.)

5. A water tower has been constructed on Lawson Hill for five and a half million dollars to supply water to the Yarrow Bay sites. This is to be paid back by Black Diamond to Yarrow Bay when building permits are issued at a lesser cost to Yarrow Bay. If the sewer and water construction costs exceed the sewer and water permit costs, we taxpayers will be required to pay the difference.

6. When the building permits exceed the Spring Water agreement that Black Diamond presently has, the City will be required to buy water from Tacoma Water sheds raising the cost of water to all citizens of Black Diamond.

7. Black Diamond voted in a school maintenance extension in 2009 and raised our personal property taxes by $300- same year County lowered our valuation by $65,000. Our property taxes are over $4200 today. We presently pay $6300 for medical coverage plus $500 deductible, and any charges insurance doesn't cover Federal Government took away cost of living for retired people. And they are talking about cuts to Medicare. Five schools proposed will be in Black Diamond area, where we live. at a prohibitive cost and very high property taxes. Gas, food, lights, heat, are also costs that are rising and have to be met. I list these items because they are <u>true</u> <u>facts</u>, not guesses about what exists today. (Lake Sawyer and Auburn will each have one school added to their taxes)

EXHIBIT

135

8. Construction and running water, removing of trees, etc. can create a problem later on, as it did at our home. (See previous testimony during MPD hearings) Construction of the city sewer raised the street in front of house directing water off city street onto our property. City insurance says the city is not responsible and the damage to our home is not the city's fault. Yet it is the direct result of water running off the city street and into our property. Over the years, three different city superintendents applied asphalt to control the water streams onto our property. Water originated from the land development on upper Lawson Hill. Lawson Hill Estates was not required to ditch for heavy accumulation of water from the 150 homes they built. Today they use private basketball court to collect water and release the accumulation by way of lifting a gate. The water flows downhill! If not the city, who is responsible for streets in Black Diamond? We citizens aren't allowed to lower streets.

9. King County, Maple Valley, Covington, Enumclaw, Auburn, Ravensdale, Green River Valley are all touched by either traffic or school issues and have expressed their deep concerns. They could chose to sue Black Diamond at any time, resulting in further cost to Black Diamond taxpayers. City employees are paid by Yarrow Bay, and they have proven their loyalty is with Yarrow Bay at the public meetings. City employees (except 1 or 2) don't live in Black Diamond and don't pay B.D. taxes, but they can impose taxes on citizens of Black Diamond. Present attorneys are also paid by Yarrow Bay and one even threatened to sue one speaker representing citizens of Green Valley during the MPD hearings.

10. The above items represent the current past and point to the future brought on by the Mayor and Council with little regard to the monetary costs of their decisions. For instance, no one has mentioned the signed agreement with Yarrow Bay about the water tower plus the costs of providing sewer and water for each building site. In general it has been referred that Yarrow Bay will have the purchasers of the houses pay for any costs. To my knowledge King County's accounting system distributes taxes across the city and involves all the property within the city. Presently the city has a business rate and a home rate for water, would they include a YB home owners rate to pay the increase costs for water from Tacoma on a continuing monthly basis? And when they enlarge the sewer system what costs are involved? We don't have any idea how many sewer connections are required for the proposed new sites and the existing buildable sites in Black Diamond. We know we have 1429 sites on the Spring Water agreement and over half of them dedicated to the current owners of Black Diamond lots.

11. Trusting what has transpired from beginning of MPD hearings is one of the main contentions. Clarity going from EIS to MPD to Development Agreement with constant changes from original design – you cannot even recognize the pattern – let alone follow the continuation. For instance, nestled homes built in the existing land, rural, what is it? It exists, it doesn't exist!! We started out by asking how much noise would we have, how would the traffic be handled, our traffic has increased tremendously over the years-skiers to the slopes in winter, tourist to the mountains in summer, and increased work commuters. How many ancient trees will disappear, effecting water control when their roots aren't absorbing the excess. Then, in turn, the threat of water runoff continuing to Lake Sawyer affecting the PH level. Very little has been said about the dust level, or how many actual years this project will take.

12. What rights or what guarantees do we have? What protections are given us? Who gets the Tacoma water that requires a filtering system? Who continues to get the spring water?

13. Put yourself in our shoes. Suppose where you live someone has decided to build a three or four Story house next to your home and they showed you plans of what they will build , taking 15 to 20 years to construct. Then they talked to John Do and you couldn't ask any question of John, and hearsay says John gave permission to build the house bigger, taking away more land, effecting the

landscape, effecting your property. Also allowing wild animals to roam your yard, and getting out of your driveway would be more difficult, the time it takes to get to work and back increases. Property tax is raised when new homes bring up values, Water and sewer charges would increase. And while construction takes place your house would be covered by dirt, you would have to put up with noise every day, maybe you can sleep and maybe you can't. The beautiful trees that surrounded your property would be gone. And you don't know if John Do is going to allow someone to add more buildings. Plus, someone can sell the site and you would have to deal with a new owner. Maybe he would finish the house and maybe not. Your neighbor would have gained a new home to sell and make profit and you would be left with more taxes. He doesn't live here anyhow and isn't personally affected by his actions. The portion of the taxes you have been paying for 55 plus years are suppose to go for legal representation to defend you-IT SIMPLY ISN'T BEING DONE! You are forced to privately hire an attorney as you have no one to defend you.

14. Common sense tells us that property around Black Diamond would one day be developed, it was predicted in the 50's and the rush went north to Mill Creek. We have been expecting property to be developed. We never dreamed the city would hand the key over to big business and take away all our rights today and in the future! Citizens with extensive degrees have volunteered to help on critical issues, asking for meetings, trying to open doors of communication to little or no avail.

Developers should not be paying city employees' wages!! The citizens elected to do that when the City was formed. If the city cannot afford the salaries, the City should not have given away the right of all the people in the city to be legally represented. WE, THE CITIZENS HAVE NOT BEEN REPRESENTED ALTHOUGH WE ARE THE ONES THAT PAY THE TAXES FOR CITY OF BLACK DIAMOND.

Respectfully,

Donna Gauthier
32427 6th Avenue
Black Diamond, Wash 98010

To the City of Black Diamond,

I am concerned about the Development Agreements for both Lawson Hills and The Villages from Yarrow Bay. I support testimony urging the city to be cautious and protect its existing residents, those living nearby, the environment, our tax dollars, our peace and tranquility, and our historical heritage.

I include by reference the testimony by organizations and individuals such as Save Black Diamond, others who testified against the agreements, and the Citizens Technical Action Team. Please consider me a party of record for the Development Agreement Hearings for both the Lawson Hills and The Villages Master Planned Developments.

Sincerely,

Name	Address
Marciel Quaale	32705 1st Ave, Black Diamond, WA 98010
Joe Mascis Marilyn Mascis	25603 Cumberland Way, Black Diamond, WA 98010
Bill McDermand Mary Ann McDermand	P.O. Box 435, Black Diamond, WA 98010 (32632 1st Ave, Black Diamond, WA 98010)
Cathy Berkey	24728 Morgan St., Black Diamond, WA 98010
Steve Marshall	P.O. Box 307, Black Diamond, WA 98010 (25631 SE 310 St, Black Diamond)
Rebecca Sullivan Dewey Sullivan	24321 Morgan Street, Black Diamond, WA 98010
Melanie Locke	29322 216th Ave SE, Black Diamond, WA 98010
Rose Wentz	25724 Pacific St, Black Diamond, WA 98010
Angela Fettig	25423 Kanasket Drive, Black Diamond WA 98010
Howard Meece Sharon Meece	24515 SE Green Valley Road, Auburn, WA 98092
Andy Benedetti Karen Benedetti	24215 SE Green Valley Rd, Auburn, WA 98092
Dana Zemke Russell Zemke	P.O. Box 1100, Black Diamond, WA 98010 (34850 Enumclaw-Black Diamond Rd SE, Black Diamond, WA)
Sheila Swofford Jason Swofford	34803 215th Ave SE, Auburn, WA 98092

EXHIBIT

136

To: Steve Pilcher (spilcher@ci.blackdiamond.wa.us)

Cc: Andy Williamson (AWilliamson@ci.blackdiamond.wa.us)
Brenda Martinez (bmartinez@ci.blackdiamond.wa.us)
Stacy Borland (sborland@ci.blackdiamond.wa.us)

From: Mike Irrgang (mike@irrgang.net)
Subject: Transportation and Gridlock

The development agreements as currently written and the MPDs as passed set up an inevitable situation whereby YarrowBay's 6,050 homes will produce an impossible gridlock which could result in two-hour or longer commutes each way to Seattle, Bellevue and Tacoma, where most of the MPDs' residents will probably work. In fact, this situation may very well be produced after only the first 1,000 or so homes are built, as will be discussed below.

The Development Agreements list Mitigation Agreements with outside jurisdictions that do not include mitigations that are technically defensible, let alone adequate, as they are based on the Hearing Examiner-ruled flawed model and analyses. Consequently, those negotiations have no common database with which to work and, thus, are meaningless as a starting point, let alone an ending point.

There are no effective mitigation plans for these effects – the "mitigation" proposed by YarrowBay to Black Diamond and the surrounding communities is a joke – it only provides "window dressing" by treating traffic as a problem of intersections, etc. and also as a problem of only the immediately adjacent communities. Traffic will be a regional issue, affecting all of southeast King County.

Traffic will be an issue because Black Diamond and the YarrowBay MPDs are only served by roads which are only two lanes, or roads which are already problematic, and because it is either prohibited to widen these roads, or there is no available funding for widening in the coming decades.

Why was this issue not addressed in the MPD agreements? Simply, because the traffic modeling done for YarrowBay by Parametrix relied on faulty assumptions, and was grossly inadequate, as will be discussed further below.

The Development Agreements are grossly deficient in addressing Transportation issues directly and indirectly attributable to the proposed MPDs. The Traffic Model is insufficient in scope and character. The proposed Traffic Monitoring program is totally *re-active* and, thus, will not provide timely mitigation as required by Black Diamond City Code *18.98.020(G)*. The proposed Mitigations are not supported by critical analyses and no methodology is

EXHIBIT
137

proposed to address mitigation concepts that are insufficient or fail outright to mitigate the coming gridlock.

The mitigations outside Black Diamond and agreed to with the City of Maple Valley as part of the *MPD Approval Ordinances 10-946 & 10-947* appear to address today's existing congestion problems and not the massive traffic volumes yet to come with the MPDs.

The Development Agreements do not describe a Baseline Traffic Model that provides predictions with which the Hearing Examiner and the Public have any confidence. Consequently, the City of Black Diamond, adjacent cities, King County, WSDOT, and the Developer have no idea what future scenarios will look like, nor what mitigations could even work or cost. The Traffic Demand Model contracted by the City with Parametrix will not produce a Baseline Model that is substantially better than that rejected outright by the Hearing examiner, if it doesn't address myriad deficiencies previously identified such as the boundaries of the model, key assumptions, and timing of verification and validation.

- The Hearing Examiner in the MPD hearings said in his final report that transportation was not sufficiently studied and modeled. Things we have learned since then:
    - The city did not follow his recommendations
    - Parametrix did not model the impact to surrounding region
    - Parametrix used highly questionable demographics to figure the recapture rate. The demographics was based on the 2000 census. Not projecting logical demographic changes resulting from the MPDs was extremely self-serving and inaccurate on the part of YarrowBay. How? Consider: Black Diamond today is a community largely comprising retired people, the unemployed, people working from their homes. Many residents are here because their families have lived here for generations. Accordingly, it is in their nature to stay close to Black Diamond. Residents who do not fit this demographic are people who came to Black Diamond looking for an idyllic life in the countryside. But any logical approach to the demographics of the residents of 6,050 new homes would be that they would primarily be bought by working families in the Seattle-Bellevue-Redmond area who are looking for a less expensive place to live than closer to their work. Let's face it – the MPDs transform Black Diamond into purely a bedroom community.
    - The reality of the MPDs is that perhaps 10,000 to 15,000 more cars would commute. 10,000 given current demographics of bedroom communities, assuming 1.5 working adults per household. But for the future, it is more reasonable to use a number of 15,000 – 2.5 working adults per household. This is assuming trends well-documented by sociologists of more adults sharing living quarters in America, as our future economic prospects decline. This is a trend which has

accelerated during the Great Recession – adult children living with their parents.

The solution to these problems is to convert 169 into a freeway all the way to I-405. According to the mayor of Maple Valley, this was studied in 2004, and costed at over $300 million. While the state will not fund such a project for decades, such a project could certainly be funded by YarrowBay as a condition of the development agreements.

The Developer proposes to rely primarily on <u>other people's money</u> to fund needed infrastructure. Both the State and the County have precious little funds to allocate out here on the Rural/Suburban Fringe and the Alaska Viaduct Tunnel and the 520 Bridge projects will drain already-stretched funding coffers for a very long time. PSRC's *Transportation 2040* makes this abundantly clear. **The Development Agreements fail to provide a credible financial plan to pay for all the traffic mitigations that will be required by such a massive undertaking as the proposed MPDs in an area possessing little or no major transportation infrastructure.**

The immense size--6,050 homes and 1.1 million sq ft of commercial--proposed <u>cannot</u> be adequately mitigated from a practical standpoint given all the financial and land constraints that exist. Consequently, our infrastructure will suffer gridlock for generations.

And how can I say that such an amount as $300 million could be funded by YarrowBay? Well, first of all, because in other parts of the United States, such as Texas, developers are required either to pay for infrastructure impacts caused by their developments, or they are not allowed to build until such time as taxpayer-funded infrastructure is in place.

YarrowBay expects to sell their 6,050 homes for in excess of $2 billion dollars. In fact, when they were talking about this development in community meetings in 2008, they quoted an "average home price" of over $400,000, which would mean more than $2.5 billion in total sales. Why can't they pay for all the costs of infrastructure associated with their project? A $300 million highway project could certainly be absorbed by these MPDs.

The Hearing Examiner should recommend that the City Council require them to pay for ALL impacts to the surrounding region from their $2 billion plus revenues!

The Development Agreements don't tell me **when levels of traffic will be even looked at**. The MPD Approval Ordinances and Conditions require this to be described in the Development Agreements, so that any needed changes in our roads can be done. The Development Agreements **do not even describe how future traffic will be modeled.** The Conditions of the MPD Approval Ordinances require this as well.

The Development Agreements **don't explain how important assumptions will be made**, such as how much traffic stays in the City and how much leaves. The Conditions of the MPD Approval Ordinances require this.

How will we know if any **estimates of future traffic levels** makes any sense, if it's not compared to anything and validated? The Development Agreements do not address this and fail to meet several of the Conditions of the MPD Approval Ordinances.

I commute through Maple Valley to go to work. There are Mitigation Agreements mentioned with other cities that will affect me, but how do we know if those agreements will fix the future traffic tie-ups? This is required in the Conditions of the MPD Approval Ordinances. In fact, *Exhibit F--Traffic Monitoring Plan*, **states that projects in these "mitigation agreements" are exempt from later monitoring and analysis of traffic impacts**. Why are they exempt? Those agreements don't protect the citizens. They need to be fixed in the Development Agreements.

I feel the Development Agreements require a lot more detail to even begin to address my concerns about traffic. As they stand now they are grossly lacking and fail to even meet most of the Traffic Conditions of the MPD Approval Ordinances.

But I emphasize, understanding the flaws in the traffic analysis done for the MPDs is not rocket science. A traffic simulation is nothing but the visualization of a series of simple calculations all being done at the same time. The individual calculations are mostly simple and mostly common sense, IF AND ONLY IF nobody plays games with the assumptions that go into the calculations. The assumptions are critical, and need to be all-inclusive, since they drive the results. There were invalid assumptions last year, and not enough was included, as you can see in the first point below. Let's go through it, step-by-step:

1. The most basic simple flaw in what we saw last year is that all the models that were used assumed that each of the communities surrounding Black Diamond is a traffic sink. What is a "sink"? In engineering terms, this means that the assumption was made that each community could accept and pass through an infinite number of cars, without effect. This is to say, for instance, that cars leaving Maple Valley on Highway 169 at the Testy Chef would just keep on going and never back up. But all of us know that even today cars back up at the various traffic lights between the Testy Chef and 405, especially before the road becomes four lane, almost all the way to the golf course. You put more traffic on that road and you very well can produce gridlock. This is called *"Queueing."* WSDOT testified that *"Queueing analysis must be done, even in a programmatic FEIS."*
2. So the next question is, what produces gridlock? Well, on a two lane road anytime you have an intersection with a light, or a place where a lot of people

will make a left turn, traffic will start to back up as soon as the flow of traffic exceeds the number of cars that can pass through the light or make the turn in any given time period. This is easiest to calculate with a traffic light. After a presentation to the Black Diamond City Council this past March, which included the attached color graphic document labeled "**YarrowBay Traffic.pdf**", and a subsequent letter by YarrowBay to attempt to refute my contentions, also attached to this document and labeled "**Yarrow Bay traffic letter 5-4-11.pdf**", I realized that what I needed to do was to pick a gridlocked intersection and count cars. I made some estimations of traffic flow that were slightly inaccurate, but empirical evidence is always better in any case. I decided to use the intersection to which they referred in their letter. They contended that the intersection of 169 and SE 240th street was a good case and can sustain a very high flow rate. As this intersection is on my daily commute, I noted that this intersection is gridlocked ***today***, ***before*** YarrowBay constructs their 6,050 homes. It is generally gridlocked every Tuesday, Wednesday and Thursday southbound, from about 4 pm to 6 pm. It is actually a better case than the worst chokepoints on 169, as it has left turn lanes and a speed limit of 45 mph. The worst chokepoint is northwest of the Testy Chef, after 169 crosses under highway 18. So now to my gridlock test. The traffic light at 240th St. changes every two to two and a half minutes (inconsistently). Counting cars during gridlock (defined as traffic backed up to the prior light at Witte Road), the average flow rate is 17 cars per minute, observed on multiple days, or one car every 3.5 seconds. Again, this is gridlocked rush hour traffic ***today***!

3. The next question is, how many cars will the MPDs produce at rush hour? Once again, let's apply common sense. The absolute and unlikely best case would be 5,000 cars. This would assume that many households were for retired people and that those that were not only had one breadwinner in the house. This is unlikely on both counts. Once YarrowBay is built, who on earth would want to retire in Black Diamond, after it loses its "rural by design" character and becomes wall-to-wall houses and apartments with gridlocked traffic? It is ridiculous to think that the MPDs will be anything more than a bedroom community, since there will never be more than a few hundred jobs in Black Diamond. This is why Internal Capture Rate assumptions and verification are so critical in any traffic analysis. Now let us look at the worst case scenario of 15,000 cars. This would assume that every household had two breadwinner commuters, and that some would also have an adult child living with them and also commuting, a scenario you read about more and more in today's troubled economic times. The graphic accompanying this email takes that scenario, but if you disagree somewhat, when you look at the graphic, just scale back the traffic flows proportionately on each of the roads I have shown.
4. The next question, what flow rate will the MPDs produce at rush hour? Again, this is a reasonably simple calculation. Let's say that rush hour lasts from 6 am to 9 am? Regardless of what start time or end time you use, I think it is being charitable to say it will last 3 hours. The less time it lasts, the more

problems it produces. So if it lasts 3 hours, then using the 15,000 figure, this is 5,000 cars per hour. There are 60 x 60 seconds in an hour, or 3,600 seconds. Therefore the MPDs produce one car every 0.72 seconds in this scenario.

5. Now, we get to one of the key issues – which way will the traffic go? This involves assumptions, which I have an opinion on that I will share, but that you would want to do a study TODAY to validate – not after we have 850 homes. Also, however, there is a conclusion that can be drawn about the effects of traffic flow on gridlock, which is eminently logical:
    a) My assumptions are that nearly half of the traffic is headed toward the region's major employers: Boeing, Microsoft, Starbucks, Amazon; i.e. northward up 169. I believe that one third of the traffic will head westward, and perhaps 10-15% will head southward. Some of the westbound traffic will eventually end up in Seattle or Tacoma. Why do I believe this? Because this is what I see when I take different roads every day (for variety) to get to Boeing. If you disagree with the assumptions, you can do the calculations with your own.
    b) BUT, one must conclude that as soon as gridlock develops on one road, people seek another to find the "path of least resistance." This was testified by many people last summer, and was the basis for the concern about Green Valley Road.
6. So what now is the gridlock calculation? Well, if half of the traffic goes north, then YarrowBay will send a car north every 1.4 seconds, with the 15,000 car assumption. With the BEST CASE and unrealistic 5,000 car assumption, a car would go north about once every 4 seconds. So you can see, since the flow rate of the two lane road is about a car every 3.5 seconds, then ANY scenario will produce gridlock northbound, which will then re-direct westbound, and then produce gridlock in all directions. The same situation would occur southbound in the afternoon. Please refer to the picture "**YarrowBay Traffic.pdf**" to further illustrate a very likely traffic scenario.
7. How fast will gridlock build? In the worst case, every minute you would be adding 42 cars to the northbound lineup. In the best case you would be adding 14 cars to the lineup every minute.
8. Now what does "adding to the lineup" really mean. Well, look in your garage. A typical garage allows 20-22 feet for cars. A Ford F150 pickup is 17 feet long. A Ford Crown Victoria is 18 feet long. A Honda Civic is 15 feet long. In a traffic lineup, cars are not going to be touching. If you assume that there are at least 3-6 feet between each car, then let's say that in gridlock cars would occupy 21 feet of roadway. This means that 21 x 1000 = 21,000 feet, or that a gridlock of 1,000 cars is 4 miles long! 15,000 cars? Even 5,000 cars? FORGET IT!

So what does this all mean? The numbers above show that in effect to take the ***currently gridlocked*** (at certain hours) 169 and add YarrowBay MPD cars to it would require ***adding two more lanes all the way to Renton***, and it would likely ***STILL*** be gridlocked! In other words, there needs to be a freeway!

So what are the possible solutions? My view – and if there are alternatives, I would like to hear about it – is that there is only one solution: Based on the GMHB findings, rescind the MPD ordinances, and restart the process with interactive Public participation to look at all alternatives and determine what is best for the greater Black Diamond area and its residents.

But since the Hearing Examiner does not have the ability to rescind these ordinances, then I would say that the Hearing Examiner needs to set some new traffic conditions as follows:

1. develop a new traffic model, using more realistic demographics, a more realistic internal capture rate, and most importantly with full regional impact
2. benchmark the current traffic environment, both to validate the new model as well as to identify current gridlock situations. Identify current areas that are at maximum capacity without additional lanes. Define maximum capacity as being gridlocked in either direction more than an hour per day. Anything beyond that is unreasonable and should be mitigated by additional lanes.
3. require that the model be re-run once per year, with model validation by further empirical tests each time. Since the Black Diamond MPDs will not be the only construction in SE King County, it is imperative for such revalidation to occur
4. impose conditions in the development agreements to ***require all construction to cease at any point that gridlock has not been mitigated***, until such mitigation occurs
5. YarrowBay, of course, should be free at any time to pay for construction of a freeway from Black Diamond to I-405 from their billions of dollars in expected sales revenue.

As I would expect that YarrowBay in their rebuttal of this statement will include their letter of May 4, I have attached that letter and I will comment on each of their points:

- Maximum Flow Rate: They are correct in that I made an error in my calculations. In my above analysis I have corrected this error by empirical observation ***using the intersection they refer to***, which moreover is ***much worse than they claim***.
- MPD traffic: As I stated above, their projections are based on the absolutely ridiculous assumption that Black Diamond will not be a bedroom community, but will continue to be a community of isolated people whose families have lived here for 100 years. This is patently ridiculous! They are adding at least 20,000 new residents, for goodness sake! This will not be a retirement community – it will be a large town of people who have to work, and there are ***no*** jobs locally, and never will be, certainly not on that scale.

- Presumed gridlock: See my above analysis, and my empirical car-counting data. It is an insult to all of our intelligence that YarrowBay pretends that improving a few intersections solves the problem of 15,000 additional cars a day commuting to the big employment areas.
- Conclusion: They have done no real analysis (i.e. non-self-serving) and no real mitigation. Their conclusions are ridiculous.

As none of this is addressed either in the MPDs or the development agreements, the Hearing Examiner needs to require that it be addressed.

In fact, *Black Diamond City Code (BDCC) 18.98.020(G)* requires: *"Timely provision of all necessary facilities, infrastructure and public services, equal to or exceeding the more stringent of either existing or adopted levels of service, as the MPD develops...."*

Further, the ***Black Diamond City Code (BDCC) 18.98.080(A)(4)*** **requires: *"A phasing plan and timeline for the construction of improvements...."***

Last year the Hearing Examiner rejected the analysis that was used to develop transportation mitigations and, thus, rejected those mitigations. Yet the Development Agreements still contain those rejected transportation mitigations! That alone is a basis for rejecting these Development Agreements.

I understand major developments such as the MPDs are required to meet Transportation Concurrency so that our road system can handle the new levels of traffic as required in the City's Comprehensive Plan and the State's RCW 36.70A.070. **The Development Agreements don't even discuss how Transportation Concurrency will be assessed.**

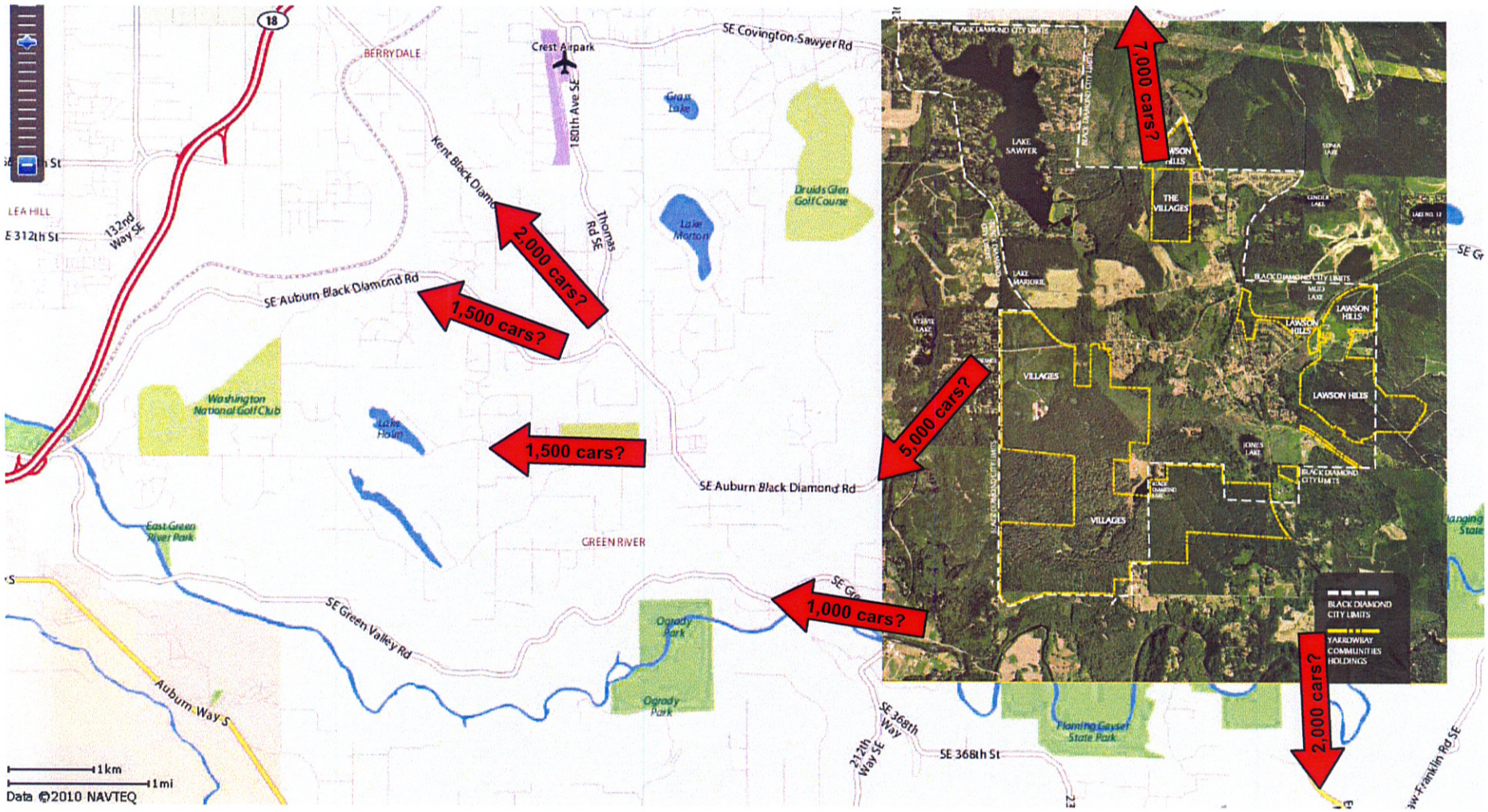
There are no provisions to handle those mitigations that are insufficient. How will *"an unsatisfactory level of mitigation"* be fixed as required by *the Ordinances' Condition 17 f*? I for one do not look forward to endless gridlock whether I'm going to work or to the grocery store!

These Development Agreements need a lot more detail on how the massive amounts of increased traffic in southeast King County will be mitigated. They also clearly fail to address many of the Transportation Conditions in the City Council's Ordinances.

YarrowBay Development

4 Miles from Lake Holm, Thomas Road, 4 Corners!

How will 15,000 new commuters be distributed every morning?
1,000 cars can make a 4 mile long bumper-to-bumper gridlock!



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May 4, 2011

The Honorable Rebecca Olness and Members of the Black Diamond City Council
City of Black Diamond
24301 Roberts Drive
P.O. Box 599
Black Diamond, WA 98010

Subject: The Villages and Lawson Hills Master Planned Developments (MPDs)—Response to Mr. Irrgang's Traffic Tutorial

Dear Mayor Olness and City Council Members:

This letter was prepared in response to a letter Mr. Michael Irrgang addressed to the Black Diamond City Council in March, titled "A Traffic Tutorial." In his letter, Mr. Irrgang offers his own traffic analysis with the caveat that he is not a traffic engineer. His analysis concludes that the Villages and Lawson Hills MPDs will create "HORRENDOUS gridlock in all directions."

By way of introduction, I am a traffic engineer, working on behalf of Yarrow Bay. Yarrow Bay asked me to review Mr. Irrgang's analysis and conclusion. Mr. Irrgang's conclusion of gridlock is unfounded because, as demonstrated below, his analysis significantly *underestimates* the number of cars per hour that a lane of traffic can handle (which is known as the "maximum flow rate") and significantly *overestimates* the number of cars coming from the two MPDs (which is referenced in this letter as the "MPD traffic").

Maximum Flow Rate. Mr. Irrgang states that "traffic will start to back up as soon as the flow of traffic exceeds the number of cars that can pass" and states his opinion that a two-lane road posted at 35 mph has "a flow rate of 5 cars per minute, or one car every 12 seconds." This equates to a maximum flow rate of 300 cars per hour. He also recommends that each Councilmember observe for themselves the flow rate for "a two-lane road…at the 35 mph speed limit."

The maximum flow rate (or "capacity") of a two-lane road is dependent on many variables, including the variability in traffic flow, road grade, number of large trucks, etc. and is much greater than 300 cars per hour. For example, existing traffic flow is documented in Figure 3b of the *Transportation Technical Report (TTR)* for the Lawson Hills MPD (Parametrix).[1] This figure illustrates that south of the traffic signal at SE 240th Street in Maple Valley, nearly 800 cars per hour flow northbound on SR 169 and roughly 1,080 cars per hour flow southbound.[2] This existing flow rate is approximately 2.5 to 3.5 times greater than the maximum flow rate cited in Mr. Irrgang's traffic analysis and does not reflect the capacity of the road nor the maximum flow rate. In fact, Table 4 of the *TTR* shows that the number of cars at the intersection of SR 169 and SE 240th Street is more than 30 percent below capacity and thus, the maximum flow rate on SR 169 is much greater than 1,080 cars per hour.

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1 The *TTR* was prepared by the City's traffic engineers at Parametrix. This report can be found on the City's website here: http://www.ci.blackdiamond.wa.us/Depts/CommDev/planning/The%20Villages%20FEIS/Appendices/Appendix%20B-Final%20Lawson%20TTR%2012-01-09.pdf

2 SR 169 south of SE 240th Street includes two lanes of traffic and is posted at 35 mph. These are the same conditions Mr. Irrgang recommends each Councilmember observe for themselves.

MPD Traffic. Mr. Irrgang believes the two MPDs could collectively generate as many as "5,000 cars per hour" and assumes that one-half of these cars would travel "northward up 169," presumably during the morning commute. He goes on to say that there are 3,600 seconds in one hour and "[t]herefore, the MPDs produce one car every 1.4 seconds." His mathematical error aside[3], the only basis for this estimate of MPD traffic is his assumption that "every household had two breadwinner commuters, and that some would also have an adult child living with them and also commuting." Rather than assumptions, traffic engineers use methodologies developed by the Institute of Transportation Engineers (ITE) to determine the traffic generation rates for specific types of real estate development projects. These methodologies are used by transportation professionals throughout the country and are based on actual, measured trip generation from projects of similar types. Parametrix estimated MPD traffic based on the size of new development, ITE-published trip rates for residential and commercial development of this type, and the knowledge that during the morning commute, some cars will never travel beyond the MPD limits given the mix of land uses. Estimates of MPD traffic are presented in Table 10 of the *TTR*. During the morning commute, Parametrix estimated that the two MPDs would collectively generate approximately 3,490 cars per hour traveling away from the MPDs and that 700 of these cars would likely travel northbound on SR 169 north of Black Diamond. Mr. Irrgang's estimate of MPD traffic on SR 169 is approximately 3.5 times greater than this figure.

Presumed Gridlock. Mr. Irrgang's traffic analysis predicts gridlock in all directions. This prediction is not surprising to me based on his inaccurate prediction of MPD traffic and inaccurate calculation of maximum flow rate. I also was concerned to see that Mr. Irrgang either chose not to mention or, worse, may be unaware of the numerous transportation improvements that the MPDs are required to implement. As you know, the City Council for Black Diamond imposed numerous conditions on each MPD approval. Those conditions include many transportation improvements, including improvements which the Cities of Covington and Maple Valley have imposed via their agreements with Yarrow Bay. Through these conditions, including the agreements, Yarrow Bay is required to construct new lanes, new roads, and intersection improvements throughout the City of Black Diamond and the region as well as contribute substantial funds to the Cities of Covington and Maple Valley. A copy of a recent mailer describing the location of all of these improvements is enclosed.

Conclusion. Simply put, using an appropriate maximum flow rate for area roads, a professionally supported assumption for MPD traffic generation, and the knowledge that substantial additional roadway and intersection improvements will be constructed justifies the conclusions in the *TTR*. Understandably, transportation infrastructure is one of the most important aspects to any community and it is recognized that the issues addressed in this letter are not always easy to understand. Yarrow Bay is committed to getting the most accurate information on transportation and other MPD-related issues to the community. It's on that same note that Yarrow Bay asked that I extend an open invitation to Mr. Irrgang as well as any other member of the community who wish to meet to discuss transportation or other MPD issues. Interested individuals are encouraged to contact Yarrow Bay's Colin Lund at (425) 898-2100.

Sincerely,
Transpo Group

Kevin L. Jones, P.E., PTOE
Associate Principal

Enc.: Transportation Flyer

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3 Dividing 5,000 cars by 3,600 seconds results in approximately 1.4 cars per second, *not* one car every 1.4 seconds as calculated by Mr. Irrgang.

City of Black Diamond
25510 Lawson St.
Black Diamond, Washington

August 4, 2011

Mr. Phil Olbrechts, Hearing Examiner
Mr. Steve Pilcher
Mr. Andy Williamson
Ms. Brenda Martinez
Ms. Stacy Borland

Re: Comments on Development Agreements for "The Villages" and "Lawson Hills" Master Planned Developments

Please include in my written comments, by reference, those written comments submitted by the following individuals:

Mr. Peter Rimbos
Dr. Gil Bortleson
Mr. Jack Sperry
Mr. Bob Rothschilds
Ms. Cindy Proctor
Mr. Bob Edelman
Ms. Carol Benson
Ms. Kristen Bryant
Ms. Judith Carrier
Ms. Sarah Cooke
Ms. Lisa Schmidt
Mr. Chris Breeds
Ms. Lynn Doremus
Mr. Monica Stewart
Mr. John Jennings
Ms. Angie Jennings

Thank you,

Brian Derdowski
On behalf of "Save Black Diamond", "The Sensible Growth Alliance" and several individuals who reside in and around the City of Black Diamond

EXHIBIT

138

MPD Approval Requires Permit Approval and Development Agreement

The BDMC (18.98.050 (A)) states:
"An approved MPD permit and Development Agreement shall be required for every MPD."

The City's approval of the MPD permit conveyed no entitlement to the Applicant unless and until a Development Agreement is approved.

The Development Agreement is a Voluntary Legislative Contract

The Development Agreement is a "voluntary" contract as defined by State law.

The City has no obligation and cannot be compelled to adopt a Development Agreement.

The Growth Management Hearings Board has ruled that the MPD permit approval was a legislative action.

Unlike an administrative act such as a building permit, the Applicant has no fundamental right to the conclusion of a *contract*, as Development Agreements are defined in the Statute.

The City cannot be restricted in its consideration of a *voluntary contract* Development Agreement in the same way that an administrative review of a building permit can be. The exercise of the City's contracting authority is legislative and discretionary.

The Council has the authority to amend the Development Agreement based on its own legislative judgment.

Quasi-Judicial Process Doesn't Alter Fundamental Legislative Character of a Development Agreement

The City may review and process the Development Agreement using a method that is similar to that used for quasi-judicial proceedings.

The City may limit the Hearing Examiner's work scope and Hearing to the conduct of a quasi-judicial hearing on a narrow aspect of the Development Agreement, such as whether or not it complies with the MPD permit approval.

However, the Council's consideration of the Development Agreement is fundamentally legislative, and cannot be bound by the record or quasi-judicial processes.

During Council review, the Development Agreement is subject to the public participation requirements governing land use planning and other notice, hearing and due process requirements of law.

The Development Agreement is a "Stand-Alone" Document

The Development Agreement is a "stand-alone" document. The authority to adopt a Development Agreement is established and defined in State law. The City cannot change the fundamental State-defined legal characteristics of Development Agreements

The Development Agreement must be consistent with the Black Diamond Municipal Code (BDMC).

Whether the Development Agreement is consistent with the BDMC is a determination that is independent of the MPD approval.

MPD approval conditions are not subject to review during the Development Agreement review process. However, any Development Agreement provision can be challenged as to its consistency with the BDMC.

The Development Agreement Can Have Its Own Conditions Based On Code or FEIS

If a provision of the Black Diamond Municipal Code (BDMC) is violated by the draft Development Agreement, then the Agreement must be amended to comply with the code.

If the MPD approval is silent on an issue that is addressed in the BDMC, the Development Agreement may include conditions that conform with the code.

The Development Agreement may include conditions that are based on an adverse environmental impact that has been identified in a prior adopted SEPA document.

The Development Agreement Should Include Conditions To Mitigate It's Own Environmental Impacts

The Development Agreement's environmental impacts are not necessarily the same as those that were examined during the MPD permit review.

The prior adopted environmental documents were developed many months ago, and since then the MPD's impacts have changed.

The Development Agreement has a different force and effect than the MPD permit approval. For example, key provisions regarding design criteria, funding, vesting, phasing, and other issues are different or go beyond the MPD permit approval. Some of these new provisions potentially pose adverse environmental impacts that were not evaluated in the prior adopted environmental documents.

The Development Agreement's new provisions regarding additional accessory dwellings and attached single family housing units were not evaluated in the prior adopted environmental documents.

The Development Agreement's maps and exhibits have provisions that were not evaluated in the prior adopted environmental documents.

The Development Agreement is Subject to SEPA

The Development Agreement is subject to its own separate SEPA review.

The SEPA Responsible Official has determined that prior environmental documents are sufficient.

The SEPA Responsible Official's determination is subject to appeal.

These proceedings are the best and possibly only opportunity for parties to establish a record as to whether or not the prior environmental documents are sufficient to address issues posed by the Development Agreement.

Offering information that documents that the prior environmental documents have not addressed all SEPA related issues posed by the Development Agreement is relevant and useful to inform the Council.

Offering information that documents the probability of a significant adverse environmental impact if the Development Agreement is adopted is relevant and useful to inform the Council.

The Development Agreement's Terms and Conditions are Fundamentally Affected By The Vesting of Three Implementing Subdivisions

The City's approval of the MPD included a condition that a Development Agreement had to be approved "prior to any approval of subsequent implementing permits or approvals." (Condition Number 2).

The City received and deemed complete applications for three implementing subdivisions for the Lawson Hills MPD, (Phase 2, Preliminary Plat B), and The Villages MPD, (Phase 1A Preliminary Plat and Phase 2, Preliminary Plat A).

The determination of a complete application is an "approval". It is an important "approval" because it determines vesting.

The City's approval of applications for the purpose of vesting violates the BDMC and the MPD approval. However, that issue is not under review during the Development Agreement Hearing.

What is under review, however, are the terms and conditions of the Development Agreement Contract. Those terms and conditions cannot apply to the implementing subdivisions if they are vested as of the date of their application.

If the terms and conditions of the Development Agreement do not apply to the three subdivisions, then its environmental mitigations and standards for large areas of the MPD don't apply. This constitutes a fundamental inconsistency with the BDMC, the MPD approval, and SEPA.

The Following Sections of the Development Agreement* Should Be Amended

2.3.1
This provision states that the MPD Site Plan is "too small a scale to depict surveyed boundaries on the ground". The Development Agreement should include a larger scale map. Moreover, the constraints map is also not sufficiently detailed to depict environmentally sensitive areas adequately, especially considering that the mapped boundaries are deemed final and complete regardless of detailed surveys and construction level review in the future.

3.0
This provision states the Development Agreement will supercede all previous agreements. This provision violates State laws that require Development Agreements to be consistent with development regulations, municipal codes, and ordinances. Even if the parties to these prior agreements agree, any modification to these agreements require amendments to the City ordinances which adopted them.

4.1
This provision amends the Land Use Plan Map. While the MPD approval stated that "all *other s*pecifics shall be resolved through the Development Agreement process" (emphasis added), it did not permit an amendment to the Land Use Plan Map outside of the MPD amendment process.

This provision also alters sensitive buffer widths without any discussion about how this was accomplished. Oral testimony from the Applicant suggests that the Constraints map is currently under review and modification by staff.

The details outlined by this provision rise to the level of project level, but they have not been evaluated as such. The prior adopted environmental documents were programmatic by definition, and as such, have not evaluated these detailed impacts.

4.2
This provision allows single-family *attached* units up to four-plexes. This is not consistent with the MPD approval or the City's development regulations.

4.4.8
This provision allows amendments to the Design Concept and the Land Use Plan to be made without any amendment process whatsoever. This violates the MPD permit approval, the BDMC, and the Growth Management Act; creates a potential SEPA gap, and is poor policy.

4.4.9
This provision allows amendments to the roadway alignments without any amendment process whatsoever. This violates the MPD permit approval, the BDMC, creates a SEPA gap and is poor policy.

4.7
This provision allows any development parcel to be converted to school use with only a minor amendment, administrative review. This conflicts with provisions to modify the Land Use Plan Map, creates a potential SEPA gap, is inconsistent with the BDMC, and is poor policy.

4.5
This provision eliminates compatibility mitigations between the MPD and adjoining properties in cases where the property is undeveloped at the time of Implementing Project application. This provision should provide for a way to address circumstances where the adjoining property has a pending application, or when the City is aware of the intent to develop.

4.6
This provision allows for the concurrent development of all Expansion Parcels, subject to review processes outlined in Sections

10 and 12. The Expansion Parcels should be required to go through a planning and rezone process.

4.7.1
This provision allows for construction and field offices without defining their size or other characteristics. This provision violates BDMC.

4.7.2
This provision allows for commercial development within any neighborhood by minor amendment, administrative review. Though gas stations are limited to four thousand square feet, other commercial development appear to have no limit in terms of size or usage.

4.7.3
This provision allows accessory dwelling units. This provision was not included in the MPD permit approval, and the additional dwelling units were not evaluated in the prior adopted environmental documents.

4.8
This provision establishes "target" unit counts by Phase. There is no definition of what a "target" is. It appears that any phase could exceed the unit counts without regulatory limit.

4.10
This provision states that for the life of the MPD, any and all environmental impacts will assume to have been fully mitigated. While including the disclaimer that implementing projects will require SEPA review, this disclaimer does not correct the defect in the proposition that a programmatic FEIS can identify and fully mitigate all impacts including those that may be identified at the project level.

5.2
This provision establishes residential standards that create too small setbacks, allow encroachments, allow 55 foot (including authorized extensions) tall structures, zero lot line single family development, and other design standards that are inconsistent with the letter, intent and vision of the BDMC and the MPD permit approval.

5.4
This provision establishes sign standards that are weak, vague, and inconsistent with the intent and vision of the BDMC and the MPD permit approval.

5.5.1
This provision exempts schools and utility structure from landscape requirements. It would exempt transformers and utility vaults. This is inconsistent with the intent and vision of the BDMC and the MPD permit approval.

5.5.2
This provision fails to establish the standards for Mast producing species as required by the MPD permit approval requirements.

5.5.5
This provision is very weak. Street trees on 30-foot centers, and the loophole allowing groves would negate the intent and vision of the BDMC and the MPD permit approval.
The provision for "low growing plant palette" (grass) is laughable.

5.5.7
This provision would allow the Applicant to delay landscape plantings for three years by bonding. The establishment of landscaping takes time, and the visual impact of new development especially needs the benefit of landscaping. The Applicant should be required to actually plant the landscaping concurrent with development.

6.4.2
This provision allows for the design and location of off-site connection roads to be determined by a "collaborative process". This provision is vague, and in conflict with the BDMC, the MPD permit approval, and SEPA.

6.4.3
The threshold dwelling number for the Pipeline Road completion is too high and arbitrary. There is no evidence that any technical consideration went into this number.

7.1.5
This provision requires the City to inspect all improvements within one day, and provide a comprehensive written report within seven days. These time limits are arbitrary, and undifferentiated between simple and complex projects.

7.1.6
This provision requires the City to release bonds within 14 days of acceptance. There is no provision for holdbacks to cover performance monitoring over time. Designs do fail, and the City should set aside a reasonable contingency to ensure that there are funds to correct deficiencies that may emerge after acceptance.

7.1.9
This provision provides that if the Council fails to exempt the Applicant from Capital Facility Charges, then the Applicant will receive a credit for its system improvements. There should be a provision for a "hybrid" where a modified or contingent Capital Facility Charge can be imposed in addition to the Applicant financed system improvements.

7.2.1
This provision accepts the Applicant's contention that it owns the rights to 1.08 million gallons of water per day. There is no documentation as to whether these rights are valid or are able to be perfected. The source of some of this water is based on the increased water level at the Hanson Dam; a level that is currently in doubt. Moreover, this provision eliminates the need for water certificates for implementing projects, in violation of State law and the BDMC. The Development Agreement should have a provision that requires firm water certificates at the time of implementing project applications.

7.3.1
This provision guarantees sewer availability for the entire build-out and eliminates the requirement for a certificate of sewer availability for implementing projects. This provision is irresponsible and in violation of State law, Public Health codes, and the BDMC.

7.4.3
This provision sets forth stormwater management "goals". What effect are these goals?
These goals should be rewritten as performance standards that have equal effect as specific design standards. Where there is a conflict between these goals and specific deign standards, the more restrictive should apply.

7.4.4
This provision establishes vesting to stormwater standards by phase rather than implementing project. Phases are too general and undefined to properly establish impacts and enable vesting. Vesting of stormwater standards should apply to implementing projects. An alternative would be to specifically require the use of the latest standards as applied by SEPA review.

8.2
This provision 'freezes' sensitive area review for the life of the project to that which has already been accomplished. There are many problems with this approach. Sensitive areas, especially wetlands, change over time. The level of existing review was not as detailed as a project level review. The constraint maps are too large a scale to accurately depict facts on the ground. The provision violates State law and the BDMC. Federal and State regulatory agencies that have jurisdiction do not recognize this approach. There are profound SEPA problems since new data could not be considered, and vesting under SEPA is not allowed. Moreover, the prior adopted environmental documents specifically relied on project level review to determine detailed impacts...project level review that would be prohibited by this provision.

Additionally, sensitive areas should not merely be field marked. They should be protected with temporary barriers and silt fences.

Additionally, geologic and landslide areas should not be "altered or eliminated". This provision was never even contemplated by the prior adopted environmental documents.

Additionally, the hazardous tree provisions could allow extensive alterations of sensitive areas. Leaving only "the majority" of the sensitive areas alone is a gross violation of the BDMC and other legal requirements.

9.2
This provision delays the construction of parks until Certificates of Occupancy are issued for 60% of each Phase (40% for Phase 3). Note that this provision delays the *construction*, not the *completion*. Note also, that this provision applies to *Phases*, not *Implementing Projects*. This provision violates the BCMC and is extremely poor policy.

9.3
This provision allows trails, crossings and encroachments into sensitive areas as a blanket provision. This is a violation of the BDMC and other laws.

9.4
This provision allows for stormwater facilities to be considered open space even if it is inundated 9 months out of the year. This violates the intent of the BDMC.

9.5
This provision undermines the Recreational Facility standards of the BDMC and the MPD permit approval. The applicant may locate facilities off site, negating the intent of providing recreational facilities within the MPD, internalizing impacts and minimizing off-site vehicle trips. The applicant may pay a fee lieu of providing the facilities. The procedure for establishing the fee pre-empts legislative authority. The LOS for recreational facilities is based on population generation rates that are unsubstantiated and standards that are not suitable for the MPD.

9.6
This provision allows the Trails Plan to be built on an implementing project basis. This defeats the intent of providing interconnectivity and a regional trail system. Many years will likely pass before the trails actually lead anywhere. The Trails Plan should be built on a Phase-by-Phase basis.

The "should" standards for sensitive area, dead end, and incomplete segment avoidance should be "shall".

9.7.3
This provision makes trail "amenities" like restrooms and drinking fountains subject to veto by the Applicant. These amenities should be specified and required.

9.9.1
This provision makes the dedication of conservation easements optional for sensitive areas. These dedications should be mandatory.

10.3
The dispute resolution process described in this provision leaves out any public involvement. The public is a beneficiary of the Development Agreement, and should have the right to initiate and participate in appeals of interpretational determinations.
The Council is also cut out of these determinations. There should be a provision for appeal to Council.

10.4
The criteria that this provision applies for determining "Major" or "Minor" amendments to the Development Agreement is vague.

The administrative and appeal process illegally cuts out the Council on what is essentially an amendment to a legislatively approved contract.

There is no provision for legislation that could modify the procedure by which various classes of land use actions are processed. For example, these provisions vest considerable authority with the Mayor, but what if the City's form of government changes?

10.5
This provision would allow the addition of Expansion Parcels to be by Minor Amendment. This violates the BDMC, the MPD permit approval, and State law.

Addition of Expansion Parcels should require a Comprehensive Plan Amendment and Rezone.

11.1
This provision allows all infrastructure and timing of development to be changed without amendment to the MPD permit approval or the Development Agreement! This is an astonishing violation of the MPD permit approval, the BDMC, and State law.

11.3B
The Applicant will be constructing public facilities to benefit its development, and future non-MPD development will have to pay the Applicant for the use of those facilities. This provision determines the method by which those payments would be calculated. The example given in this provision does not seem to address instances in which more than 10,500 units are benefited. Moreover, there is no provision for cost containment. Should surrounding non-MPD development be required to pay a share of facilities that may have had large cost over-runs or profit to the Applicant?

Table 11.3.1
This table shows On-Site Regional Facilities, but doesn't appear to be tied to any applicability text language.

11.4
This provision allows development to be *occupied* as soon as needed Regional Facilities are *permitted*. Obviously this creates the problem of a gap during the construction of the Regional Facilities. This needs to be corrected.

12.3
This provision creates a Design Review Committee. It is totally under the control of the Applicant. This is an extraordinary provision in this regard. To the extent that the Design Review Committee has review authority, it is an illegal delegation. The Design Review Committee should be created and staffed by the City.

12.5
This provision establishes the procedures for reviewing Implementing Projects. It appears to bias the City's review by stipulating that the City "shall take a collaborative approach to addressing any issues." This provision may violate due process and equal protection laws, as well as standards of administrative conduct.

12.8.2
This provision attempts to vest to the existing code certain applications that are not subject to vesting, or which have vesting periods different from the Development Agreement.

12.8.15
This provision links together the MPD permit and Development Agreement Amendment review process. The problem with this is that the MPD permit amendment might be a quasi-judicial administrative review, while the Development Agreement Amendment would be a legislative decision.

12.9.1
This provision allows the Applicant to "defer any required improvement" if bonded. This is a highly unusual provision that violates the BDMC, the MPD permit approval, and State law.

12.10.2
This provision requires the City to not issue a permit if the City of Maple Valley files a breach of contract lawsuit against the MPD developer. However, this provision is only triggered if the City files for injunctive relief. This provision should be changed to include halting the acceptance and review of permits whether or not injunctive relief is sought.

13.3
This provision allows amendments to the Comprehensive School Mitigation Agreement to be processed as a minor amendment. This violates the MPD permit approval. Moreover, the availability of schools and their location are important matters that should require public participation and adoption by the Council. Additionally, the School Mitigation Agreement was adopted legislatively, and can only be amended legislatively.

13.4
This provision fails to fully address the BDMC and the MPD permit approval that require that public safety LOS be maintained and concurrent with project build-out.

13.6
This provision addresses fiscal impacts. The following problems apply:

"Comparable City" should not be based primarily on population. An established city that is growing slowly is not comparable to a city that is quadrupling its population in 15 years. There are many factors other than population that determine municipal finances.

Privatization of facilities is highly speculative and poses legal issues.

No appropriate allowance for inflation.

Questionable methodology regarding intergovernmental transfers.

No third party review by experts in municipal finance of the annual analysis.

No third party review by experts in municipal finance of the Development Agreement provision.

13.7
This provision details noise mitigation standards. The following problems apply:

There is inadequate provision for the application of King County and Washington State Health Department noise standards and requirements.

The provision of a 100-foot buffer may not adequately mitigate noise problems.

No provision detailing the method of measurement, time averaging and other methodology

No firm performance standards, monitoring, or enforcement plan

13.9
This provision requires the City to adopt a general government facilities mitigation fee within three years or else the Master Developer's obligation is void. Since the fee is paid at the time of building permit issuance, it is likely that this fee will never be collected and the identified impact not mitigated.

15.1
This provision states that the MPD permit application was vested on June 28, 2009, while the implementing projects are vested as of the date of MPD permit approval.

This provision should be amended to reflect the following:

This matter is under litigation.

The MPD requires both an MPD permit approval and a Development Agreement. Thus, the vesting date for the MPD should be when the Development Agreement is approved.

Implementing projects such as subdivisions vest when they are applied for.

Certain other applications are not subject to vesting.

Projects do not vest under SEPA.

Certain Federal and State regulations do not recognize vesting.

15.3
This provision addresses the issue of Assignment. The following problems apply:

The City is required to release the Applicant of liability whether or not the release is stated in the assignment document.

The provision does not address the status of outstanding performance bonds.

The provision has no protections for the City from third parties.

The provisions should include conditions under which the City could deny an assignment.

15.7
The Exhibit list only includes a Summary of Prior Agreements. It should include the actual agreements.

This provision allows for the amendment of Exhibits H, J, K, M, N, Q, R, by minor amendment. This violates the MPD permit approval, the BDMC, and State law.

15.11
This provision excludes third party beneficiaries. The residents of Black Diamond should be included as third party beneficiaries. One reason for this admittedly novel suggestion is that if the City were to dis-incorporate, and the powers and authority of the City transferred to the County, the residents would need to be able to asset their rights under the contract.

15.12
This provision should specifically exclude any instruments and documents that require legislative action.

Submitted by Brian Derdowski
70 E. Sunset Way #254
Issaquah, Washington 98027

brian@derdowski.com

On behalf of "Save Black Diamond", "The Sensible Growth Alliance" and several individuals who reside in and around the City of Black Diamond

*Condition numbers are taken from The Villages, companion conditions for Lawson Hills also apply

City of Black Diamond
25510 Lawson St.
Black Diamond, Washington

May 23, 2011

Mr. Phil Olbrechts, Hearing Examiner

Re: Pre-hearing Conference for Development Agreements for "The Villages" and "Lawson Hills" Master Planned Developments

Please enter into the record our comments below:

1

The City's authority to enter into a Development Agreement is described in WAC 365.196:

(17) Development agreements. Counties and cities are authorized by RCW 36.70B.170(1) to enter into ***voluntary contractual*** *agreements to govern the development of land and the issuance of project permits. These are referred to as development agreements. (Emphasis added)*

Note that these are voluntary contractual agreements. The Legislature contemplated that these agreements would be reviewed legislatively, in contrast with administrative decisions that are reviewed using a quasi-judicial process.

Given their voluntary nature, the City has no obligation and cannot be compelled to adopt a Development Agreement. Unlike an administrative act such as a building permit, the Applicant has no fundamental right to the conclusion of a *contract*, as Development Agreements are defined in the Statute.

The City cannot be restricted in its consideration of a *voluntary contract* Development Agreement in the same way that an administrative review of a building permit can be. The exercise of the City's contracting authority is clearly legislative and discretionary.

The Applicant's own actions testify to the separate and independent nature of the Development Agreement. Despite the fact that the MPD approval defers many important issues and details to the Development Agreement, the

Applicant attempted to pre-empt the Development Agreement process by submitting implementing applications for subdivisions. How can the Development Agreement be tied to the MPD approval in a quasi-judicial process when a development application can be submitted prior to its adoption?

The Hearing Examiner should rule that the Applicant's proposal to restrict the issues that can be considered is contrary to the purposes set forth in the State laws and rules that authorize and govern Development Agreements. Any issue that the City determines to be appropriate may be considered and included in the Development Agreement. Moreover, any issue that any interested party considers important may also be considered in the Development Agreement.

2

The review and adoption of a Development Agreement is subject to SEPA. How will these proceedings be incorporated in the SEPA review? The Hearing Examiner should make a finding on this matter.

3

The use of formal motions and responses is inappropriate in these proceedings. Unlike an appeal hearing in which there are named parties, these proceedings are open to any member of the public, at any time. It is unfair for individuals who may not be present at this pre-hearing conference to be restricted by previous motions. Any individual has the right to offer testimony on this legislative matter *on the hearing date.* That individual's right to due process is not predicated on his participation in this pre-hearing conference.

We request an alternative procedure that would protect the rights of all participants. The Hearing Examiner should prepare a *draft* set of rules and procedures for review *at the hearing.* At that time, all parties could testify as to the rules and procedures. The Hearing Examiner would consider this testimony and issue his final rules after an appropriate recess.

4

The Hearing Examiner should proactively "build the record" in these proceedings. The City Council will be better served if the record is as complete as possible. Testimony from the public may not be adequate to address all of the relevant issues.

5

The Hearing Examiner should request documentation from staff as to the issues raised by the existence of vested plat applications. Are these plats dependent and governed by the Development Agreement or not? What issues in the MPD approval are rendered moot by the existence of these vested plats? What issues should the Development Agreement address in order to close regulatory and mitigation gaps that those vested plats may have created? We request a ruling from the Hearing Examiner on these matters.

6

The Hearing Examiner should find that the Development Agreement may contain additional conditions beyond those defined in the MPD approval. Development Agreements are stand alone documents with an independent authority defined in State law. Any topic that can legally be included in a Development Agreement can be considered at any time. The statute requires Development Agreements to be consistent with existing development regulations, but they do not limit the inclusion of *additional* conditions or regulations. Again, these are "voluntary contractual" agreements.

7

The Applicant's request that he alone have the right to cross-examine expert witnesses is absurd and unfair on its face. The Hearing Examiner should deny this request. The request to restrict expert testimony to written testimony is unduly restrictive, unnecessary, and harmful to the interest of creating a full and complete record.

8

the Applicant's request for severe limits on public testimony together with extensive opportunities for itself to make its case and rebut is absurd and unfair on its face. The Hearing Examiner should deny this self-serving request.

9

The Hearing Examiner should rule that any written transcript be a public record.

Thank you for considering my comments, and for your service to the Public.

Sincerely,

Brian Derdowski
70 E. Sunset Way #254
Issaquah, Washington 98027

On behalf of "Save Black Diamond", "The Sensible Growth Alliance" and several individuals who reside in and around the City of Black Diamond

YARROWBAY HOLDINGS

MEMORANDUM

To: **The Black Diamond Hearing Examiner**

From: **Megan Nelson, Director of Legal Affairs, YarrowBay Holdings** MN

cc: **Nancy Bainbridge Rogers, Counsel for YarrowBay Holdings**

Re: **YarrowBay's Written Testimony Pursuant to Hearing Examiner's Pre-Hearing Order II**

Date: **August 4, 2011**

I. INTRODUCTION

BD Village Partners, LP and BD Lawson Partners, LP (collectively, "YarrowBay") submit these written comments "In re: The Matter of Development Agreement Hearings Related to The Villages MPD Approved in Ord. No. 10-946 and Lawson Hills MPD Approved in Ord. No. 10-947" pursuant to the Black Diamond Hearing Examiner's Pre-Hearing Order II dated July 6, 2011.[1]

As a preliminary matter, YarrowBay would like to refocus the Hearing Examiner on the scope of these Development Agreement Hearings. The development agreements for The Villages and Lawson Hills MPDs are required under BDMC 18.98.090. The purpose of the MPD development agreements is to achieve the following:

- To ensure that the "MPD conditions of approval [are] incorporated" into a development agreement;
- To ensure that the Development Agreement is "binding on all MPD property owners and their successors;" and
- To ensure that the MPD project sites are developed "only in accordance with the terms of the MPD approval."[2]

As the Hearing Examiner correctly noted in his Pre-Hearing Order II, what is specifically not within the scope of these Development Agreement Hearings is the validity of the MPD Conditions of Approval.[3] Instead, the "primary and ideally exclusive focus of the

[1] The Hearing Examiner's Pre-Hearing Order II dated July 6, 2011 is hereinafter referred to as the "Pre-Hearing Order II."
[2] BDMC 18.98.090.
[3] See page 3.

EXHIBIT 139

development agreement hearings should be on whether the terms of the agreements implement the MPD conditions of approval."[4] Using the standards outlined above, YarrowBay again respectfully requests that the Examiner recommend approval of The Villages and Lawson Hills Development Agreements.

Second, over YarrowBay's objections to relevance, the Hearing Examiner has allowed the public and experts to testify about State Environmental Policy Act, Ch. 43.21C RCW ("SEPA") issues, the adequacy of the MPDs' Final Environmental Impact Statements ("FEISs"), the Comprehensive School Mitigation Agreement, transportation mitigation, and MPD Permit criteria. As the Examiner previously recognized:

> Since the City has made approval of a development agreement a requirement for MPD approval, it arguably cannot condition participation in a development agreement upon terms that the Applicant would not otherwise be compelled to accept by state law. At this stage of permit review it appears that the only requirements that can be imposed in the development agreements is implementation of MPD permit conditions.[5]

YarrowBay respectfully renews it objection to inclusion of this irrelevant information in the record of the Development Agreement Hearings. Nevertheless, given the Examiner's grant of broad leeway to the public to date, YarrowBay sought to respond in these written comments to various issues raised that are outside the scope of The Villages and Lawson Hills Development Agreements. YarrowBay's response to such irrelevant issues, however, should not be viewed as a waiver of our objections.

Third, YarrowBay again reiterates that The Villages and Lawson Hills Development Agreements are not just YarrowBay's proposal. As noted by Mr. Steve Pilcher on July 16, 2011, during his rebuttal comments, Black Diamond City Staff and YarrowBay spent many months reviewing and negotiating to reach mutual agreement on the Development Agreements that have been submitted to the Hearing Examiner. The Development Agreements as written already include substantial additional voluntary agreements from YarrowBay on a number of issues, including:

- No net increase in phosphorus;
- A general government mitigation fee;
- A fire mitigation fee and construction of a satellite fire station; and
- A new funding agreement that goes beyond the scope of the earlier Funding Agreement

Finally, in an attempt to be responsive to statements made by the Hearing

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[4] Id.
[5] Id. at pages 2-3.

Examiner during the public testimony portion of the Development Agreements, these written comments are formatted as follows. In Section II, YarrowBay responds development agreement section-by-development agreement section to public comments specific to The Villages and Lawson Hills Development Agreements. In Section III, YarrowBay responds to various legal arguments raised regarding the Development Agreements. In Section IV, YarrowBay provides responses by subject matter to more general comments made in the hearing. And, finally, in Section V, YarrowBay provides a short summary. Throughout these written comments, references to alphabetical exhibits, e.g., Exhibit "A", are references to exhibits attached to The Villages and Lawson Hills Development Agreements themselves; whereas references to numerical exhibits, e.g., Exhibit 4, are references to exhibits admitted during the Development Agreement hearings in front of the Black Diamond Hearing Examiner.[6]

[6] Per the Hearing Examiner's Pre-Hearing Order II, YarrowBay reserves the right to provide further written response to oral and written testimony submitted to the Examiner prior to and on August 4, 2011.

II. YARROWBAY'S SECTION-BY-SECTION RESPONSE TO DEVELOPMENT AGREEMENT COMMENTS

SECTION 2.3.1 (The Villages and Lawson Hills)

Comments:

Brian Derdowski (July 16, 2011, Exhibit 40): "This provision states that the MPD Site Plan is "too small a scale to depict surveyed boundaries on the ground". The Development Agreement should include a larger scale map."

YarrowBay Response:

The Villages and Lawson Hills Development Agreements do, in fact, already incorporate by reference a "larger scale map" as requested by Mr. Derdowski. As noted in the third sentence of this Section 2.3.1: "A large version of the MPD Site Plan, with surveyed exterior boundaries and sensitive areas, shall be kept on file with the City." YarrowBay has provided this large scale version of the MPD Site Plans (Exhibit "A") to the City and they are available for public review at the City's Community Development Department during business hours. There is no need or basis to revise this section of the Development Agreements.

SECTION 2.3.2 (The Villages and Lawson Hills)

Comments:

Brian Derdowski (July 16, 2011, Exhibit 40): "Moreover, the constraints map is also not sufficiently detailed to depict environmentally sensitive areas adequately, especially considering that the mapped boundaries are deemed final and complete regardless of detailed surveys and construction level review in the future."

YarrowBay Response:

The boundaries and categories of sensitive areas shown on the Constraint Map (Exhibit "G") of each development agreement are based on actual field data presented in The Villages Final Environmental Impact Statement and the Lawson Hills Final Environmental Impact Statement. Section 2.3.2 of both The Villages and Lawson Hills Development Agreements provides, in part: "The full size version of the Constraints Map shall be kept on file with the City." YarrowBay has provided these full size versions of the Constraints Maps (Exhibit "G") to the City and they are available for public review at the City's Community Development Department during business hours. There is no need or basis to revise this section of the Development Agreements.

SECTION 3.0 (The Villages and Lawson Hills)

Comments:

Brian Derdowski (July 16, 2011, Exhibit 40): "This provision states the Development Agreement will supercede all previous agreements. This provision

violates State laws that require Development Agreements to be consistent with development regulations, municipal codes, and ordinances. Even if the parties to these prior agreements agree, any modification to these agreements require amendments to the City ordinances which adopted them."

Kristen Bryant (July 14, 2011): In her testimony on July 14th, Kristen Bryant expressed concerns regarding Section 3.0 of the Development Agreements.

On July 14, 2011, the Hearing Examiner also asked a question regarding how Section 3.0 of The Villages and Lawson Hills Development Agreements would work.

YarrowBay Response:

First, Washington state law and the BDMC require that development agreements be "consistent with applicable development regulations" not ordinances at large. *See* RCW 36.70B.170(1); BDMC 18.66.020(B). As stated in Section 1.2, The Villages and Lawson Hills Development Agreements are consistent with the City's Comprehensive Plan and development regulations.

Second, Section 3.0 entitled "Prior Agreements" of The Villages and Lawson Hills Development Agreements only apply to the prior agreements explicitly listed in Section 3.1 not "all previous agreements" as alleged by Mr. Derdowski.

Third, as noted in the last paragraph of Section 3.1 of both Development Agreements: "To the extent there is any conflict between this Agreement and any of the Prior Agreements, the terms of this Agreement shall control, as between the City and the Master Developer" (emphasis added). Thus, if there is a third or multiple parties to a prior agreement, the Development Agreements will not govern the obligations of the City and/or Master Developer vis a vis such party.

Finally, contrary to Mr. Derdowski's assertions, The Villages and Lawson Hills Development Agreements are not amending any of the prior agreements. Instead, the development agreements represent the City staff's and YarrowBay's mutually agreed interpretation of the provisions and obligations of the specific prior agreements identified in Section 3.1. Again, such interpretations are not binding on any third parties.

In practice, this Section 3.0 is intended for users and readers of the Development Agreements ten or even fifteen years down the road. Given the numerous prior agreements affecting the MPD project sites, the City and YarrowBay felt it was appropriate to consolidate the rights and obligations set forth in the identified prior agreements in one document. That way a City planner, ten years from now, will not have to locate the referenced prior agreements and decipher their meaning thereby avoiding conflicting interpretations of obligations. This section provides certainty for both the City and YarrowBay.

There is no need or basis to revise this section of the Development Agreements.

SECTION 4.1 (The Villages and Lawson Hills)

Comments:

Brian Derdowski (July 16, 2011, Exhibit 40): "This provision amends the Land Use Plan Map. While the MPD approval stated that "all *other* specifics shall be resolved through the Development Agreement process" (emphasis added), it did not permit an amendment to the Land Use Plan Map outside of the MPD amendment process.

This provision also alters sensitive buffer widths without any discussion about how this was accomplished. Oral testimony from the Applicant suggests that the Constraints map is currently under review and modification by staff.

The details outlined by this provision rise to the level of project level, but they have not been evaluated as such. The prior adopted environmental documents were programmatic by definition, and as such, have not evaluated these detailed impacts."

YarrowBay Response:

Contrary to Mr. Derdowski's assertions, Section 4.1 of the Development Agreements does not amend the Land Use Plan (Figure 3-1) and does not alter the sensitive area buffer widths applicable to the MPDs. The approved Land Use Plan for both The Villages and Lawson Hills MPDs are included without amendment in Exhibit "L" of each Development Agreement.

Sensitive area buffer widths are shown on the Constraint Maps set forth in Exhibit "G" of both Development Agreements and the buffer widths are established by the City's Sensitive Areas Ordinance, Chapter 19.10 BDMC (included as part of Exhibit "E"). The Constraint Maps are not undergoing any review between City Staff and Yarrow Bay; rather, as described in response to Mr. Derdowski's comments on Section 2.3.2, the Constraint Maps are both attached as Exhibit "G" to each Development Agreement, and exist in a large plan set format on file with the City.

It may be that Mr. Derdowski's allegation that the sensitive area buffer widths have been amended arises from the description in Section 4.1 that the MPD Site Plan (Exhibit "A") shows a site plan that was refined so as to "shift and improve road alignments to further minimize impacts on sensitive area buffers, to reflect more accurately, sensitive area buffer widths," and other matters. YarrowBay understood that stating that roads have moved slightly to better protect sensitive area buffers and that buffer widths are shown in some locations with greater accuracy would be supported and embraced by a community intent on protecting environmental assets. In addition, such refinements are well within Conditions of Approval Nos. 128 (The Villages) and 132 (Lawson Hills) of the MPD Permit

Approvals allowing that "all other specifics shall be resolved through the Development Agreement process." Regardless of the source of Mr. Derdowski's concern, the more important point is that the buffers may only be modified from those shown on Exhibit "G" if allowed by and in compliance with the City's Sensitive Areas Ordinance, and sought together with an Implementing Project application. See Section 2.3.2 of The Villages and Lawson Hills Development Agreements.

Implementing Projects for each of the MPDs will be subject to further SEPA review. As provided in Section 4.10 of The Villages and Lawson Hills Development Agreements: "Nothing in this section applies to preclude subsequent environmental review of Implementing Projects under the [SEPA], and Implementing Projects are expected to undergo additional SEPA review."

There is no need or basis to revise this section of the Development Agreements.

SECTION 4.2 (The Villages and Lawson Hills)

Comments:

Brian Derdowski (July 16, 2011, Exhibit 40): "This provision allows single-family *attached* units up to four-plexes. This is not consistent with the MPD approval or the City's development regulations."

YarrowBay Response:

Mr. Derdowski cites no specific provision within the MPD Permit Approvals (Ord. Nos. 10-946 and 10-947) or the City's development regulations that is inconsistent with single-family attached units up to four-plexes. Contrary to his assertions, the BDMC, the MPD Framework Design Standards & Guidelines, and The Villages and Lawson Hills MPD Permit Approvals fully contemplate single-family attached housing within the City of Black Diamond and in the MPDs. BDMC 18.32.020(A)(1) provides as a permitted use: "Single-family structures on individual lots, whether attached or detached." The City's MPD Framework Design Standards & Guidelines (included as part of Exhibit "E") on page 7 provide: "MPD's shall include various types of housing, such as: (a) Single Family, detached, on various sized lots; (b) Single Family, attached: duplexes, townhouses (semi-attached); row houses (attached, common walls); courtyard houses…" Finally, Conditions of Approval Nos. 129 (The Villages) and 134 (Lawson Hills) state: "The project shall provide a mix of housing types in conformance with the MPD Design Guidelines." As noted above, one of the housing types included in the MPD Design Guidelines is single-family *attached* units. Therefore, the MPDs provide, as part of the required "mix", single-family attached units. There is no need or basis to revise this section of the Development Agreements.

SECTION 4.4 (The Villages and Lawson Hills)

Comments:

Robin Taylor (July 11, 2011): In her oral testimony on July 11th, Robin Taylor alleged that Section 4.4 of the Development Agreements violates the BDMC because it fails to require a site-specific rezone for MPD Site Plan Amendments.

YarrowBay Response:

Contrary to Mrs. Taylor's assertions, a site-specific rezone under BDMC 18.08.070 is not required for MPD Site Plan Amendments. Both MPD Project sites are zoned entirely MPD. Before and after a Site Plan Amendment per Section 4.4, the MPD project sites (and every development parcel therein) will remain MPD zoned. While the use of a given development parcel may change following a Site Plan Amendment, the MPD zoning will not. The Site Plan Amendment process outlined in the DAs is precisely what was contemplated in the MPD Permit Approvals (Ord. Nos. 10-946 and 10-947). See Conclusion of Law 8 of both The Villages and Lawson Hills MPD Permit Approvals. There is no need or basis to revise this section of the Development Agreements.

While Development Parcels internal to the MPD may be adjusted up and down one residential density range using an administrative process, no Development Parcel abutting the perimeter of the Project Site can increase its density range without a Major Amendment (which is a new public process) per the terms of Conditions of Approval Nos. 137 and 167 (Lawson Hills) and Conditions of Approval Nos. 161 and 132 (Villages). In no case can a MPD Site Plan Amendment increase the total number of Dwelling Units or square feet of non-residential development allowed in either MPD without a Major Amendment. See Section 4.4 of the Development Agreements.

As for school designated development parcels, the City Council specifically approved the reversion of school parcels to MPD-M in Conditions of Approval Nos. 132 (Lawson Hills) and 128 (Villages). See language within Exhibit "L" which was part of Chapter 3 of the MPD Permit Application for both The Villages and Lawson Hills. Again, revision of school parcels to MPD-M does not allow the Master Developer to build any more dwelling units or commercial square footage than the caps established in the MPD Permit Approvals (Ord. Nos. 10-946 and 10-947). All School-designated Development Parcels within the MPDs may be reverted to MPD-M without triggering a MPD Permit or Development Agreement amendment process. See Section 4.4.5 of The Villages Development Agreement and Section 4.4.3 of the Lawson Hills Development Agreement.

There is also no allowance in the Site Plan Amendment process described in Section 4.4 for Development Parcels to be converted from a residential designation to Office/Retail. Such a conversion request would be analyzed under subsection 4.4.10 of The Villages Development Agreement and subsection 4.4.8 of the Lawson Hills Development per the amendment criteria outlined in BDMC

18.98.100.

Again, there is no need or basis to revise any of the subsections of in this Section 4.4 of the Development Agreements.

SECTION 4.4.5[7] (The Villages) & SECTION 4.4.3 (Lawson Hills)

Comments:

Brian Derdowski (July 16, 2011, Exhibit 40): "This provision allows any development parcel to be converted to school use with only a minor amendment, administrative review. This conflicts with provisions to modify the Land Use Plan Map, creates a potential SEPA gap, is inconsistent with the BDMC, and is poor policy."

YarrowBay Response:

Contrary to Mr. Derdowski's assertions, Section 4.4.5 of the Villages Development Agreement and Section 4.4.3 of the Lawson Hills Development do not allow Development Parcels to convert to Schools. Instead, and as was specifically approved in the MPD Permit Approval Ordinances, these sections authorize Development Parcels designated as "School" on the MPD Site Plans to revert to the MPD-M density range pursuant to a Minor Amendment to the MPD Permit Approval. See page 3-20 of Exhibit "L" of The Villages Development Agreement and page 3-9 of Exhibit "L" of the Lawson Hills Development Agreement. However, consistent with the BDMC, schools are a permitted use in other areas of the MPD project sites as described in Table 4-1 of both Development Agreements. There is no need or basis to revise these sections of the Development Agreements.

SECTION 4.4.6 (The Villages) and SECTION 4.4.4 (Lawson Hills)

Comments:

Sheila Hoefig (July 16, 2011): In Sheila Hoefig's testimony on July 16th, Ms. Hoefig expressed concerns that Section 4.4.6 of The Villages Development Agreement could be used to reduce the total amount of open space provided by the Master Developer in the MPDs.

YarrowBay Response:

While Section 4.4.6 of The Villages Development Agreement allows amendments to the open space areas shown on the MPD Site Plan (Exhibit "A"), such amendments cannot reduce the total amount of open space provided by the Master Developer. Collectively, Section 4.2 and Section 4.4 prohibit the Master Developer from reducing the total amount of open space provided as a

[7] Mr. Derdowski's written testimony identifies this Section as 4.7 (see Exhibit 40); however, given his reference to school use conversions, YarrowBay believes Mr. Derdowski is in fact referring to Section 4.4.5 of The Villages Development Agreement and Section 4.4.3 of the Lawson Hills Development Agreement.

requirement of either MPD. If, pursuant to Section 4.4.6 (The Villages) or Section 4.4.4 (Lawson Hills), the Master Developer reduces the amount of open space provided in one area of the MPD Site Plan (Exhibit "A"), it will have to increase the amount of open space it provides in another area of the MPD Site Plan. There is no need or basis to revise these sections of the Development Agreements.

SECTION 4.4.8 (The Villages) & SECTION 4.4.6 (Lawson Hills)

Comments:

Brian Derdowski (July 16, 2011, Exhibit 40): "This provision allows amendments to the Design Concept and the Land Use Plan to be made without any amendment process whatsoever. This violates the MPD permit approval, the BDMC, and the Growth Management Act; creates a potential SEPA gap, and is poor policy."

YarrowBay Response:

The Land Use Maps for The Villages and Lawson Hills MPDs that were approved by the Black Diamond City Council and are contained within Exhibit "L" to each Development Agreement, were not specifically surveyed maps and the acreages shown therein were only approximate. Note that the maps themselves state "Approx. AC." See Exhibit "L" of each Development Agreement. Therefore, contrary to Mr. Derdowski's assertions, Sections 4.4.8 (The Villages) and 4.4.6 (Lawson Hills) do not alter the Land Use Maps, but merely recognize the approximate nature of the stated acreages and provide a process to adjust the acreage of a given Development Parcel to adapt to realities on the ground. Both these sections explicitly note that in no case may the adjustment of any Development Parcel's acreage increase the total dwelling units or commercial square footage allowed on the MPD project sites. There is no need or basis to revise these sections of the Development Agreements.

SECTION 4.4.9 (The Villages) & SECTION 4.4.7 (Lawson Hills)

Comments:

Brian Derdowski (July 16, 2011, Exhibit 40): "This provision allows amendments to the roadway alignments without any amendment process whatsoever. This violates the MPD permit approval, the BDMC, creates a SEPA gap and is poor policy."

YarrowBay Response:

The Black Diamond City Council did not specifically approve Chapter 4 of The Villages and Lawson Hills MPD Permit Applications consisting of YarrowBay's proposed circulation plans. See Condition of Approval No. 1 of both MPD Permit Approvals (Ord. Nos. 10-946 and 10-947): "Approval of the MPD is limited to the terms and conditions set forth in the City Council's written decision, and does not include approval of any other portion of the MPD set forth in the application." In addition, as described in response to concerns raised regarding Section 4.4.8

(The Villages) and Section 4.4.6 (Lawson Hills), the approved Land Use Maps were not surveyed maps. Thus, modifications to roadway alignments do not constitute an amendment to either The Villages or Lawson Hills MPD Permit Approval. Implementing Projects consisting of road improvements will be subject to SEPA review. See Section 4.10 of The Villages and Lawson Hills Development Agreements. Again, Mr. Derdowski fails to specify how road alignment amendments violate the MPD Permit Approvals (Ord. Nos. 10-946 and 10-947), the BDMC, or SEPA. There is no need or basis to revise these sections of the Development Agreements.

SECTION 4.5 (The Villages and Lawson Hills)

Comments:

Brian Derdowski (July 16, 2011, Exhibit 40): "This provision eliminates compatibility mitigations between the MPD and adjoining properties in cases where the property is undeveloped at the time of Implementing Project application. This provision should provide for a way to address circumstances where the adjoining property has a pending application, or when the City is aware of the intent to develop."

YarrowBay Response:

In response to Mr. Derdowski's comments above, YarrowBay requests the following revisions to Section 4.5 (as show in underlined and ~~strike-through~~ text).

> When an Implementing Project application for a Development Parcel along the Project Site perimeter is submitted, and the abutting property outside the MPD to such Development Parcel is ~~already developed on that submittal date~~not owned by the Master Developer, then the Development Parcel is subject to the section of the MPD Framework Design Standards and Guidelines entitled "Interface with Adjoining Development," which provides guidelines to ensure a transition between the Development within The Villages MPD that abuts Development outside the Project Site but within the City limits.

There is no need or basis to make any further revisions to this section of the Development Agreements.

SECTION 4.6 (The Villages and Lawson Hills)

Comments:

Brian Derdowski (July 16, 2011, Exhibit 40): "This provision allows for the concurrent development of all Expansion Parcels, subject to review processes outlined in Sections 10 and 12. The Expansion Parcels should be required to go through a planning and rezone process."

YarrowBay Response:

Mr. Derdowski's comment is addressed in Section 10.5 of both The Villages and Lawson Hills Development Agreements: "If a defined Expansion Parcel is neither designated with a MPD Overlay on the City's Comprehensive Plan Future Land Use Map nor is zoned MPD, then a Comprehensive Plan Amendment and rezone shall be required." There is no need or basis to revise this section of the Development Agreements.

SECTION 4.7.1 (The Villages and Lawson Hills)

Comments:

Brian Derdowski (July 16, 2011, Exhibit 40): "This provision allows for construction and field offices without defining their size or other characteristics. This provision violates BDMC."

YarrowBay Response:

Section 4.7.1 of The Villages and Lawson Hills Development Agreements is consistent with the Black Diamond Municipal Code. BDMC 18.52.040 at subsection (A) authorizes "Mobile homes, residences or travel trailers used for occupancy by supervisory and security personnel on the site of an active construction project" and at subsection (D) authorizes "Contractor's office, storage yard, and equipment parking and servicing on the site of an active construction project." No temporary use permit is required for either of these identified construction and field office uses. See BDMC 18.52.040. There is no need or basis to revise this section of the Development Agreements.

SECTION 4.7.2 (The Villages and Lawson Hills)

Comments:

Brian Derdowski (July 16, 2011, Exhibit 40): "This provision allows for commercial development within any neighborhood by minor amendment, administrative review. Though gas stations are limited to four thousand square feet, other commercial development appear to have no limit in terms of size or usage."

YarrowBay Response:

MPD Permit Conditions of Approval Nos. 128 (The Villages) and 132 (Lawson Hills) provide in relevant part: "Corner store-style neighborhood commercial uses within residential land use categories shall be defined in the Development Agreement and shall only be allowed through minor amendment of the MPD." (Emphasis added).Thus, the MPD Permit Approval Ordinances (Ord. Nos. 10-946 and 10-947) explicitly required a minor amendment process for neighborhood commercial and such minor amendment process is explicitly defined as administrative in BDMC 18.98.100(I). Contrary to Mr. Derdowski's assertions, such commercial uses are in fact limited in terms of both size and usage in BDMC 18.36.020, which is explicitly cross-referenced in Section 4.7.2 of both

development agreements. For example, grocery stores are limited to 40,000 gross floor area (gfa), general offices to no more than 4,000 gfa, and entertainment/culture uses to no more than 5,000 gfa or capacity of not more than 100 patrons, whichever is greater. See BDMC 18.36.020(A), (C), and (D). There is no need or basis to revise this section of the Development Agreement.

SECTION 4.7.3 (The Villages and Lawson Hills)

Comments:

Brian Derdowski (July 16, 2011, Exhibit 40): "This provision allows accessory dwelling units. This provision was not included in the MPD permit approval, and the additional dwelling units were not evaluated in the prior adopted environmental documents."

YarrowBay Response:

As described in the City's Staff Report (Exhibit 3) at page 8 subsection C,[8] YarrowBay has voluntarily limited itself to 300 ADUs in The Villages MPD and 150 ADUs for the Lawson Hills MPD. The existing City code to which Implementing Projects within the MPDs are vested would allow YarrowBay to build an ADU for every detached single-family dwelling within the project site. See BDMC Chapter 18.56. Moreover, the City's MPD Framework Design Standards & Guidelines at page 7, Section E.1.e expressly includes "accessory dwelling units" as one type of housing an MPD should include. There is no need or basis to revise this section of the Development Agreements.

SECTION 4.8 (The Villages and Lawson Hills)

Comments:

Brian Derdowski (July 16, 2011, Exhibit 40): "This provision establishes "target" unit counts by Phase. There is no definition of what a "target" is. It appears that any phase could exceed the unit counts without regulatory limit."

YarrowBay Response:

Section 4.8 of The Villages and Lawson Hills Development Agreement mirrors the requirement set forth in the MPD Permit Approval Ordinances. See Exhibit "C" of the Development Agreements. Conditions of Approval Nos. 129 (The Villages) and 134 (Lawson Hills) require: "The Development Agreement shall set targets for various types of housing for each phase of development." (Emphasis added). Thus, housing "targets" are explicitly what was required in the development agreements by the Black Diamond City Council. While any Phase of the MPDs may be slightly above or below these "targets," in no case shall either MPD exceed its total dwelling units as set forth in Section 4.2 of each Development Agreement. There is no need or basis to revise this section of the Development Agreements.

[8] The Staff Report was corrected in an Errata filed as Exhibit 4.

SECTION 4.10 (The Villages and Lawson Hills)

Comments:

Brian Derdowski (July 16, 2011, Exhibit 40): "This provision states that for the life of the MPD, any and all environmental impacts will assume to have been fully mitigated. While including the disclaimer that implementing projects will require SEPA review, this disclaimer does not correct the defect in the proposition that a programmatic FEIS can identify and fully mitigate all impacts including those that may be identified at the project level."

YarrowBay Response:

The MPD Permit Approvals (Ord. Nos.10-946 and 10-947) and the Development Agreements include all the mitigation that was necessary and identified in the FEISs for The Villages and Lawson Hills MPDs, as well as additional mitigation which YarrowBay voluntarily agreed to accept during the MPD permit hearing and Development Agreement hearing process. As was fully disclosed at page 6-1 of the FEIS for each The Villages and Lawson Hills, "[a]t the time future implementing applications are submitted, and approvals sought, the City will determine whether and what type of additional environmental review is required to address any additional identified impacts." Consistent with that disclosure, as described in Section 4.10 of the Development Agreements, "[n]othing in this section applies to preclude subsequent environmental review of Implementing Projects under the [SEPA], and Implementing Projects are expected to undergo additional SEPA review." *Future* Implementing Projects will be reviewed under SEPA, which may result in additional mitigation for those more specific actions. There is no need or basis to revise this section of the Development Agreements.

SECTION 5.2 (The Villages and Lawson Hills)

Comments:

Brian Derdowski (July 16, 2011, Exhibit 40): "This provision establishes residential standards that create too small setbacks, allow encroachments, allow 55 foot (including authorized extensions) tall structures, zero lot line single family development, and other design standards that are inconsistent with the letter, intent and vision of the BDMC and the MPD permit approval."

YarrowBay Response:

Mr. Derdowski fails to identify how any of the provisions in Section 5.2 of The Villages and Lawson Hills Development Agreements are inconsistent with the BDMC, including the MPD Framework Design Standards and Guidelines, and the MPD Permit Approval Ordinances (Ord. Nos. 10-946 and 19-947). This section of the Development Agreements sets additional standards that impose restrictions *beyond* the City's applicable codes that the MPDs must comply with, and meets the express terms of The Villages Condition of Approval No. 144 and Lawson Hills Condition of Approval No. 149. There is no need or basis to revise this

section of the Development Agreements.

SECTION 5.4 (The Villages and Lawson Hills)

Comments:

Brian Derdowski (July 16, 2011, Exhibit 40): "This provision establishes sign standards that are weak, vague, and inconsistent with the intent and vision of the BDMC and the MPD permit approval."

YarrowBay Response:

Section 5.4 of The Villages and Lawson Hills Development Agreements states in relevant part: "[a]ll Implementing Projects within [The Villages MPD and Lawson Hills MPD] shall be subject to the definitions, standards, requirements and processes found within BDMC Chapter 18.82. . ." BDMC Chapter 18.82 is the City's Sign Ordinance. Mr. Derdowski fails to identify how compliance with the City's signage provisions is "inconsistent with the intent and vision of the BDMC and the MPD permit approval." There is no need or basis to revise this section of the Development Agreements.

SECTION 5.4.3 (The Villages and Lawson Hills)

Comments:

Robin Taylor (July 11, 2011): In her oral testimony on July 11th, Mrs. Robin Taylor expressed concerns regarding the Real Estate and Construction Sign Program described in Section 5.4.3 of The Villages and Lawson Hills Development Agreements.

YarrowBay Response:

First, while the City may not typically enforce private signage programs on private property, The Villages and Lawson Hills Development Agreements specifically give the City permission to enter onto private property and enforce a private signage program. Mrs. Taylor cites no law or statute that prohibits such a contractual agreement between a municipality and land owner. Moreover, the City's obligation to enforce the Construction and Real Estate Sign Program within the MPD project sites is purely voluntary on behalf of the City. While the City "shall" enforce the program within the public right-of-way per Section 5.4.3, it only "may" enforce the Construction and Real Estate Sign Program on private property.

Second, while the BDMC defines real estate and construction signs as "temporary signs" and does not require sign permits for temporary signs, the municipal code does establish standards for both real estate and construction signs. See BDMC 18.82.060. Per Section 5.4.3 of both Development Agreements, The Villages' and Lawson Hills' sign programs will have to comply with the City's real estate and construction sign standards set forth in BDMC 18.82.060(B) and (C). Thus, there is no need or basis to revise this section of the Development Agreements.

SECTION 5.5.1 (The Villages and Lawson Hills)

Comments:

Brian Derdowski (July 16, 2011, Exhibit 40): "This provision exempts schools and utility structure from landscape requirements. It would exempt transformers and utility vaults. This is inconsistent with the intent and vision of the BDMC and the MPD permit approval."

YarrowBay Response:

Contrary to Mr. Derdowski's assertions, Section 5.5.1 of The Villages and Lawson Hills Development Agreements does not exempt schools and utility structures from landscape requirements. This section states in relevant part: "All Implementing Projects . . . are still subject to review by the Design Review Committee (except for Utility Permits and permits for Schools as set forth in the School Agreement) and to any applicable landscape proportion and percentage requirements of BDMC 18.72.030 (Exhibit "E")." Thus, schools and utility structures are exempt from review by the Design Review Committee but are not exempt from the landscape requirements set forth in the City's code. There is no need or basis to revise this section of the Development Agreements.

SECTION 5.5.2 (The Villages and Lawson Hills)

Comments:

Brian Derdowski (July 16, 2011, Exhibit 40): "This provision fails to establish the standards for Mast producing species as required by the MPD permit approval requirements."

YarrowBay Response:

The only reference to "Mast-producing species" in the MPD Permit Approvals is contained in Conditions of Approval Nos. 124 (The Villages) and 129 (Lawson Hills), and the condition language arose from a recommended FEIS mitigation measure. See Exhibit "C" of the Development Agreements; p. 6-12 The Villages FEIS and p. 6-14 the Lawson Hills FEIS. The MPD Conditions of Approval state:

> Mast-producing species (such as hazelnut) and such other native, preferred vegetation as may be specified by the Development Agreement shall be used to mitigate for reduced food sources resulting from habitat reductions when designing landscape plans for development parcels adjoining wetland buffers, or for wetland buffer enhancement plantings. [FEIS Mitigation Measure 1] The Development Agreement shall specify a process by which such landscape plans are to be reviewed and approved by-the Director of Natural Resources and Parks for compliance with the mitigation requirement herein.

The only development agreement requirement in these conditions is the specification of a process by which landscape plans are to be reviewed for compliance with the identified FEIS mitigation measure. Section 5.5.2 of The Villages and Lawson Hills Development Agreements does just that. It requires that prior to approval of any landscape plan for an Implementing Project, the City's Director of Natural Resources and Parks must review such plan for compliance with the specific FEIS mitigation measure. There is no need or basis to revise this section of the Development Agreements.

SECTION 5.5.5 (The Villages and Lawson Hills)

Comments:

Brian Derdowski (July 16, 2011, Exhibit 40): "This provision is very weak. Street trees on 30-foot centers, and the loophole allowing groves would negate the intent and vision of the BDMC and the MPD permit approval. The provision for "low growing plant palette" (grass) is laughable."

YarrowBay Response:

Mr. Derdowski fails to show how Section 5.5.5 of The Villages and Lawson Hills Development Agreements negates "the intent and vision of the BDMC and the MPD permit approval. In fact, BDMC 18.72.030(F) specifically requires that street trees be provided at a ratio of one tree per 30 lineal feet of frontage. The referenced low growing plant palette (see, e.g., Section 5.5.5.C) does include grasses as well as other plants and is required to be low growing to assure visibility and safety. Moreover, landscape plans are to be prepared by licensed landscape architects or Washington State Nurserymen.

YarrowBay respectfully requests the following revisions to Section 5.5.5 (show in underline and ~~strike-through~~ text):

A. Consistent with BDMC 18.72.030(F) (Exhibit "E"), the Master Developer shall provide trees at a ratio of one tree for each 30 lineal feet of street frontage. In addition, trees can be staggered, and/or planted in drifts or groves so long as the total number of required trees is provided. Street trees in non-residential site perimeters and parking lots, per BDMC 18.72.030(F)(1)(e), must be a minimum caliper of 3~~2~~-inches diameter at breast height (DBH).

There is no need or basis to make any further revisions to this section of the Development Agreements.

SECTION 5.5.7 (The Villages and Lawson Hills)

Comments:

Brian Derdowski (July 16, 2011, Exhibit 40): "This provision would allow the

Applicant to delay landscape plantings for three years by bonding. The establishment of landscaping takes time, and the visual impact of new development especially needs the benefit of landscaping. The Applicant should be required to actually plant the landscaping concurrent with development."

Hearing Examiner (Monday, July 11, 2011): The Hearing Examiner asked a question regarding transference of landscape maintenance obligations from the Master Developer.

YarrowBay Response:

Contrary to Mr. Derdowski's assertions, Section 5.5.7 of The Villages and Lawson Hills Development Agreements does not allow YarrowBay to delay landscape plantings for three years by bonding. Instead, Section 5.5.7 requires that YarrowBay provide the City with a maintenance bond for a period of three years from the date of landscape installation to ensure that landscaping remains healthy and attractive.

Section 5.5.8, however, does allow YarrowBay to bond its landscaping within right-of-ways or associated landscape tracts pursuant to a performance bond in the form set forth in the City's Engineering and Design Standards at page 8-14. Based on past development experience, the City and YarrowBay agreed that newly installed right-of-way landscaping tends to be harmed and/or destroyed by ongoing adjacent construction activities and that, depending on location, it may be the most efficient and practical to bond the landscaping improvements until construction in the immediately surrounding area has been completed. This approach is consistent with the BDMC and there is no need or basis in law to revise this section of the Development Agreement.

In addition to Mr. Derdowski's written comments above, on Monday, July 11, 2011, the Hearing Examiner asked a question regarding transference of landscape maintenance obligations from the Master Developer. Section 5.5.7 of both Development Agreements requires that the Master Developer maintain all public and private landscape improvements for a period of three years (including a bonding requirement). After that three-year period, the Master Developer may transfer the landscape maintenance obligation to the applicable Home Owners' Association ("HOA"). In either case, the Development Agreements grant the City the right to perform the maintenance if the HOA or Master Developer fails to perform and to then lien the applicable property if the City's total cost of such performance is not repaid in full by the applicable party.

In summary, there is no need or basis to revise this section of the Development Agreements.

SECTIONS 6.2 (The Villages and Lawson Hills)

To clarify some testimony YarrowBay heard during the verbal testimony portion of the

Development Agreement hearing, the internal street standards outlined in Section 6 of both Development Agreements are applicable only to all streets, alleys, private drives and other vehicular access ways within the MPDs. See Section 6.2. These standards are not applicable to intersections of MPD streets with other City of Black Diamond streets, which are governed by the City's Street Standards (as set forth in Exhibit "E"). There is no need or basis to revise this section of the Development Agreements.

SECTION 6.4.1 (The Villages)

Comments:

Matt Nolan (July 21, 2011 in oral testimony and July 21, 2011 via email correspondence): In both his expert testimony on July 21, 2011, and in an email to Steve Pilcher dated Thursday, July 21, 2011 3:59 PM, Matt Nolan, King County Traffic Engineer, requested the following revisions to the third sentence of The Villages Development Agreement Section 6.4.1.A: "As required by Condition of Approval No. 28 of the MPD Permit Approval, no implementing projects located east of the MPD Site Plan Development Parcel V48 shall be approved prior to the completion of the South Connector Roadway along an alignment entirely within the urban growth boundary, to its intersection with SR 169, provided single point of access street standards are met. ~~or alternative secondary access is provided.~~"

YarrowBay Response:

There are three reasons why Mr. Nolan's requested revision to Section 6.4.1 of The Villages Development Agreement is misplaced. First, the South Connector Roadway alignment proposed by YarrowBay, as shown on the MPD Site Plan contained in Exhibit "A", includes a segment between Development Parcels V58 and V59 that runs through unincorporated King County. YarrowBay proposed this alignment because it follows an old logging road/trail thereby utilizing an existing sensitive areas crossing and minimizing wetland impacts. Designing an alternative alignment entirely within the Black Diamond UGA necessarily entails more sensitive areas impacts. Second, before YarrowBay can build such a road segment within King County, it has to submit a grading application to the County and such application has to be approved. Thus, King County has the ultimate authority to decide whether or not such a road segment gets built in its jurisdiction, and it is at that time that the County can evaluate Mr. Nolan's suggested "wonky" policy reasons for locating the South Connector fully inside the UGA. Third, and last, the City of Black Diamond has no authority to prohibit YarrowBay from building a road segment within King County. YarrowBay owns the subject parcel and has the right, as a landowner, to apply for a grading permit. The City cannot prohibit a landowner from seeking development permits on land not within the City's geographic jurisdiction. Because, the existing, proposed South Connector Roadway alignment: (1) minimizes impacts to wetlands; (2) must be approved by King County prior to construction; and (3) is not within the City's jurisdiction to prohibit, there is no need or basis to revise this section of the Development Agreements.

SECTION 6.4.2 (The Villages and Lawson Hills)

Comments:

Brian Derdowski (July 16, 2011, Exhibit 40): "This provision allows for the design and location of off-site connection roads to be determined by a "collaborative process". This provision is vague, and in conflict with the BDMC, the MPD permit approval, and SEPA."

YarrowBay Response:

Mr. Derdowski fails to identify how Section 6.4.2 of The Villages and Lawson Hills Development Agreements is conflict with the BDMC, the MPD Permit Approvals, and SEPA. Conditions of Approval Nos. 158 (The Villages) and 163 (Lawson Hills provide:

> The Development Agreement shall document a collaborative design/review/ permitting process that allows City staff to participate in the conceptual stage of project planning in order to provide input on designs and choices that benefit the City as well as the applicant.

Thus, collaboration is exactly what the MPD Permit Approvals require. Moreover, the connection points proposed in subsequent Implementing Project applications will be subject to SEPA. See Section 4.10 of The Villages and Lawson Hills Development Agreements. There is no need or basis to revise this section of the Development Agreements.

SECTION 6.4.3 (The Villages)

Comments:

Brian Derdowski (July 16, 2011, Exhibit 40): "The threshold dwelling number for the Pipeline Road completion is too high and arbitrary. There is no evidence that any technical consideration went into this number."

YarrowBay Response:

Mr. Derdowski fails to substantiate his assertion that the "threshold dwelling number for Pipeline Road completion is too high and arbitrary." The City's and YarrowBay's transportation consultants agreed as to the propriety of the threshold dwelling unit triggers for preliminary design and complete construction contained in this Section 6.4.3. Nevertheless, to further alleviate Mr. Derdowski's concerns, YarrowBay respectfully requests the following revisions to Section 6.4.3 of The Villages Development Agreement (as show in the underlined text):

> The design of Pipeline Road is to extend from Parcel C at the intersection of the Community Connector and Lake Sawyer Rd SE, easterly towards SR-169, intersecting SR-169 in the vicinity of

> Black Diamond-Ravensdale Rd, or where the future improved intersection of SR-169 and Black Diamond-Ravensdale Road lies, as determined by the City. Pursuant to Condition of Approval No. 31 of the MPD Permit Approval, the preliminary design and alignment of the Pipeline Road shall be completed by the Master Developer and the right of way dedicated to the City prior to the City's approval of a building permit for the 1200th Dwelling Unit of The Villages MPD. The Pipeline Road shall be constructed by the Master Developer and open for traffic prior to the earlier of: (i) City's approval of a building permit for the 1746th Dwelling Unit of The Villages MPD; or (ii) when the Traffic Monitoring Plan (Exhibit "F") shows that construction is necessary to prevent a significantly adverse degradation of Level of Service on Roberts Drive.

The addition of this clause further ensures that Pipeline Road will be constructed by the Master Developer before Level of Service on Roberts Drive is significantly adversely affected by MPD traffic. There is no need or basis to further revise this section of The Villages Development Agreement.

SECTION 7.1.4 (The Villages and Lawson Hills)

Comments:

Melanie Gauthier (July 16, 2011): In her oral testimony on July 16th, Ms. Melanie Gauthier requested that Section 7.1.4 be revised to clarify that it applies to the Master Developer and assignees and transferees.

YarrowBay Response:

Pursuant to Section 15.3 of each Development Agreement, any Master Developer Transferee is subject to all obligations under the Development Agreement. There is no need or basis to revise this section of the Development Agreements.

SECTION 7.1.5 (The Villages and Lawson Hills)

Comments:

Brian Derdowski (July 16, 2011, Exhibit 40): "This provision requires the City to inspect all improvements within one day, and provide a comprehensive written report within seven days. These time limits are arbitrary, and undifferentiated between simple and complex projects."

YarrowBay Response:

Contrary to Mr. Derdowski's allegations, Section 7.1.5 only requires that the City "make a reasonable effort to inspect improvements within one (1) business day of the inspection request, as long as the improvements are complete." The written report, referenced in Mr. Derdowski's written comment, must be provided within seven days. City staff negotiated this provision and, as the entity responsible for

conducting such inspections, would seem to be the most appropriate party to determine what timeframes are in fact reasonable and realistic. There is no need or basis to revise this section of the Development Agreements.

SECTION 7.1.6 (The Villages and Lawson Hills)

Comments:

Brian Derdowski (July 16, 2011, Exhibit 40): "This provision requires the City to release bonds within 14 days of acceptance. There is no provision for holdbacks to cover performance monitoring over time. Designs do fail, and the City should set aside a reasonable contingency to ensure that there are funds to correct deficiencies that may emerge after acceptance."

YarrowBay Response:

Section 7.1.6 of The Villages and Lawson Hills Development Agreements only requires that the City "made a reasonable effort" to release bonds within 14 days of the City Council's acceptance of the bonded improvements pursuant to the standards set forth in the City's Engineering Design and Construction Standards. Again, City staff negotiated this provision and, as the entity responsible for conducting such inspections, would seem to be the most appropriate party to determine what timeframes are in fact reasonable and realistic. In addition, per Chapter 8 of the City's Engineering Design and Construction Standards ("EDCS"), the City will only release a performance bond when a bond guaranteeing maintenance of all improvements for a period of twenty-four (24) months from acceptance has been submitted to the City. See EDCS (Exhibit "E"), page 8-16. Thus, the concerns expressed by Mr. Derdowski are addressed by reference to the City's regulations. There is no need or basis to revise this section of the Development Agreements.

SECTION 7.1.9 (The Villages and Lawson Hills)

Comments:

Brian Derdowski (July 16, 2011, Exhibit 40): "This provision provides that if the Council fails to exempt the Applicant from Capital Facility Charges, then the Applicant will receive a credit for its system improvements. There should be a provision for a "hybrid" where a modified or contingent Capital Facility Charge can be imposed in addition to the Applicant financed system improvements."

Melanie Gauthier (July 16, 2011): During her oral testimony on July 16th, Ms. Gauthier noted that the statement in Section 7.1.9 that the "Master Developer [] will not be using the City's existing system to serve the MPD's Implementing Projects, other than on a limited basis and will instead be constructing the water and sewer infrastructure necessary to serve the Project Site" was questionable because the new infrastructure built by YarrowBay would have to connect somewhere.

YarrowBay Response:

Mr. Derdowski fails to cite any requirement in the BDMC, MPD Permit Approval Ordinances (Ord. Nos. 10-946 and 10-947) or Washington State law that requires a "hybrid" approach to Capital Facility Charges.

As to Ms. Gauthier's remarks, YarrowBay recognizes that its water and sewer infrastructure will have to connect to the City's existing systems; however, both we and City Staff felt that this connection was covered by the phrase "other than on a limited basis." More importantly, however, the alternate basis for not collecting Capital Facilities Charges (CFCs) from YarrowBay is that the cost of infrastructure constructed by the Master Developer will likely far exceed the CFCs to be collected thereby requiring under Washington State law that the City pay, or provide a credit to, the Master Developer for the cost of infrastructure facilities in excess of the CFCs. In both City Staff and YarrowBay's view, waiving the CFCs was a far better outcome for the City than owing YarrowBay a reimbursement.

YarrowBay respectfully requests the following changes to Section 7.1.9 to correct certain scrivener's errors:

> Pursuant to BDMC 13.04 and 13.20 (Exhibit "E"), the purpose of the City's water capital facilities charge and sewer connection and reserve capacity capital charges (the "Capital Facilities Charges") is to collect funds to assure new users pay an equitable share of the City's water and sewer facilities. The Master Developer, however, will not be using the City's existing system to serve the MPD's Implementing Projects, other than on a limited basis and will instead be constructing the water and sewer infrastructure necessary to serve the Project Site. Further, if the City were to assess Capital Facilities Charges against the Implementing Projects and then, as required by state law, provide a credit to the Master Developer for the cost of its facility infrastructure construction, the total amount of the credit due would exceed the total Capital Facilities Charges to be collected. Therefore, in consideration for the Master Developer's construction of the water and sewer infrastructure necessary to serve the Project Site, the City shall not collect Capital Facilities Charges for Implementing Project approvals sought for [The Lawson Hills MPD/The Villages MPD] provided the City Council adopts an ~~resolution~~ordinance exempting Implementing Projects from the City's Capital Facilities Charges, and the Master Developer shall not seek credit or reimbursement from the City under the Water Supply and Facilities Funding Agreement. If the City Council does not adopt such an ~~resolution~~ordinance, general facilities charges will be assessed against Implementing Projects of [The Lawson Hills MPD/The Villages MPD] and the Master Developer will receive a

> credit against such charges for the cost of its construction of facility infrastructure.

There is no need or basis to further revise this Section 7.1.9 of the Development Agreements.

SECTION 7.2.1 (The Villages)

Comments:

Brian Derdowski (July 16, 2011, Exhibit 40): "This provision accepts the Applicant's contention that it owns the rights to 1.08 million gallons of water per day. There is no documentation as to whether these rights are valid or are able to be perfected. The source of some of this water is based on the increased water level at the Hanson Dam; a level that is currently in doubt. Moreover, this provision eliminates the need for water certificates for implementing projects, in violation of State law and the BDMC. The Development Agreement should have a provision that requires firm water certificates at the time of implementing project applications."

Gwenn Maxfield, Covington Water District (July 14, 2011, Oral Testimony and Exhibit 25) and Eric C. Frimodt (Exhibit 50): Gwenn Maxfield, General Manager of the Covington Water District ("CWD"), and Eric Frimodt, the CWD's legal counsel, both provided testimony that CWD's service area overlaps a portion of The Villages MPD project site and submitted proposed revisions to The Villages Development Agreement Section 7.2.1 and a new Section 7.2.7 to include an acknowledgement of CWD as a potential water service provider in a portion of the project site.

Peggy Sperry (July 13, 2011, Oral Testimony and Exhibits 18 and 52): In both her oral testimony and written comments (Exhibit 52), Mrs. Peggy Sperry asserts that Section 7.2.2 and 7.2.A violates Covington Water District's boundaries for The Villages water system.

YarrowBay Response:

Section 7.2.1 of The Villages Development Agreement provides that YarrowBay controls property with rights to approximately 1.08 million GPD pursuant to the "Three Party Agreement" between Plum Creek Land Company, Black Diamond Associates, Ltd., and Palmer Coking Coal Company dated August 8, 2003. Thus, contrary to Mr. Derdowski's assertions, such water rights are documented by reference in the development agreement. Moreover, this section does not eliminate the need for water certificates for Implementing Projects. Instead, this section provides that any Implementing Project application criterion that requires a water availability certificate will be satisfied by reference to The Villages Development Agreement. Sufficient water capacity for each Implementing Project is explicitly required by the second paragraph of this Section 7.2.1.

In response to the comments submitted by the CWD and Peggy Sperry, YarrowBay requests the following revisions to Section 7.2.2 of The Villages Development Agreement (shown in underlined and ~~strike-through~~ text) as well as the addition of a new Section 7.2.7:

> The Master Developer controls property with the rights to approximately 1,080,310 gallons of water per day ("GPD"). This is determined through the "Three Party Agreement" between Plum Creek Land Company, Black Diamond Associates, Ltd., and Palmer Coking Coal Company dated August 8, 2003.
>
> ~~Any~~The Master Developer may satisfy any Implementing Project application ~~process that calls~~requirement for a certificate of water availability ~~shall be satisfied~~ by reference to this Agreement, or by providing a certificate of water availability issued by a special purpose district that has formally established a right to provide service. Improvements necessary to provide water service to each Implementing Project must be provided by the Master Developer consistent with this Agreement, and the MPD Conditions of Approval. Connections are allowed up to the point of existing capacity as arranged for in the Water Supply and Facilities Funding Agreement dated August 11, 2003, as amended by the First Addendum dated July 22, 2004 ("WSFFA"). If there are insufficient facilities or capacity to serve some or all of a proposed Implementing Project, then the Designated Official may require the Master Developer to obtain such additional water supply capacity and/or design and construct new water mains, upgrades to existing mains, a reservoir, pressure reducing valves or such other facilities necessary to serve the Implementing Project. In addition, consistent with MPD Condition of Approval Nos. 51 and 52, in the event functionally equivalent water distribution facilities are proposed by the Master Developer, for example, to accommodate service from another provider, and those new distribution alternatives necessitate an amendment to the City's Water System Plan, the Master Developer shall be responsible to pay for the cost of that update.
>
> . . .
>
> **Section 7.2.7**
> This Agreement governs MPD Development and, as such, nothing in this Agreement shall have any effect on, nor constitute legal support for, any right of either the Covington Water District to provide water service to that portion of the MPD Development lying within Covington Water District's water service area boundaries as shown in the South King County Coordinated Water System Plan (SKCCWSP), or the City of Black Diamond to

> provide water service to that same area as shown in the City's Water System Plan.
>
> All MPD Development that is located within Covington Water District's water service area boundaries and that is ultimately connected to and physically served by Covington Water District facilities shall comply with the District's adopted standards, procedures and system extension requirements for water service and connection to District facilities.

YarrowBay understands that City Staff will be submitting written comments to the Hearing Examiner as well requesting the same revisions to Section 7.2.2 and the addition of new Section 7.2.7 as outlined above.

These revisions satisfy the concerns expressed by the CWD and Mrs. Sperry in Exhibits 18, 25, 50, and 52. YarrowBay has two potential water providers for a portion of The Villages MPD. The Hearing Examiner should recommend the above proposed revisions that accommodate that potential. However, the Examiner has no jurisdiction or basis to actually review or decide the water service issue in the context of these Development Agreement Hearings. With the addition of references to the CWD in these sections of The Villages Development Agreement, there is no need or basis to further revise this Section 7.2.1.

SECTION 7.2.3 (The Villages and Lawson Hills)

YarrowBay respectfully requests the following clerical changes to Section 7.2.3 (as shown in underlined and ~~strike through~~ text):

> Pursuant to Section 7.1.9 above and in recognition: (i) that [The Lawson Hills MPD's/The Villages MPD's] water system and the improvements to the City's water system necessary for Development have been or will be installed at the Master Developer's cost; ~~and~~ (ii) of the substantial investment in water infrastructure resulting from the WSFFA; and (iii) that the Master Developer shall not seek credit or reimbursement from the City under the Water Supply and Facilities Funding Agreement, Implementing Projects within [The Lawson Hills MPD/The Villages MPD] shall not be required to pay the City's general facilities charges, connection charges, or system development charges, including any amendments thereto except as provided for in Section 7.2.1.

SECTION 7.2.5 (The Villages and Lawson Hills)

Comments:

Peggy Sperry (July 13, 2011, Oral Testimony and Exhibit 52): In both her oral testimony and written comments (Exhibit 52), Mrs. Peggy Sperry asserts that Section 7.2.5 of both Development Agreements does not satisfy the MPD Permit

Approvals' Conditions of Approval and/or BDMC 18.98.190(B) regarding water conservation.

YarrowBay Response:

In order to address Mrs. Sperry's concerns, YarrowBay requests the following revisions to Section 7.2.5 of The Villages and Lawson Hills Development Agreements (shown in underlined and ~~strike-through~~ text:

. . .

In order to ensure the water conservation techniques proposed for The Villages MPD will in fact obtain a 10% reduction, a monitoring plan will be implemented by the Master Developer. Monitoring residential water use can only be attained through direct meter reading of individual homes. Pursuant to Condition of Approval No. 54 of the MPD Permit Approval, following the City's issuance of a certificate of occupancy for or final inspection of the 500th Dwelling Unit, a representative block of homes, representing 5% of the total (25 Dwelling Units), will be selected by the Designated Official from the different home types. Water use for those 25 Dwelling Units shall be tracked for a period of one year. If the Designated Official determines, in his reasonable discretion, that the water monitoring plan described above is not adequately tracking MPD water usage, the Designated Official may select a method for monitoring water use including review of City meter records. The resulting data will be compared to the baseline of 230 gallons per day to determine if the 10% reduction is being achieved. The results of the water monitoring plan shall be completed within thirty (30) days following the conclusion of meter reading and be maintained by the Designated Official.

This same monitoring method will be repeated following the completion of future Phases. If the data results show water use of any particular Phase has not been reduced by at least 23 GPD (10% below the City's current existing City use standard of 230 GPD), then an updated mitigation plan reasonably acceptable to the City will be developed by the Master Developer at that time to bring the future Development within the required standard and to offset any excess water usage from prior Development that did not meet this standard.

SECTION 7.3.1 (The Villages)

Comments:

Brian Derdowski (July 16, 2011, Exhibit 40): "This provision guarantees sewer

availability for the entire build-out and eliminates the requirement for a certificate of sewer availability for implementing projects. This provision is irresponsible and in violation of State law, Public Health codes, and the BDMC."

YarrowBay Response:

This Section 7.2.1 of The Villages Development Agreement does not eliminate the requirement for a certificate of sewer availability for MPD Implementing Projects. Instead, the continuing requirement for obtaining a certificate of sewer availability is satisfied for Implementing Project applications by reference to the development agreement. Again, Mr. Derdowski fails to cite any specific State law, public health code or BDMC provision that is in fact violated by this section. There is no need or basis to revise this section of The Villages Development Agreement.

SECTION 7.3.1 (Lawson Hills)

YarrowBay respectfully requests the following addition (shown in underlined text) to Section 7.3.1 of the Lawson Hills Development Agreement that was included within The Villages Development Agreement but inadvertently left out of the Lawson Hills document:

> This Agreement provides sewer availability to service 1,250 Dwelling Units on the Lawson Hills MPD (930 Single Family and 320 Multi-family) as well as 390,000 square feet of commercial/office/retail/light industrial uses, plus additional Public Uses and schools as defined in part by the School Agreement. Any Implementing Project application process that calls for a certificate of sewer availability shall be satisfied by reference to this Agreement.

SECTION 7.4.3 (The Villages and Lawson Hills)

Comments:

Brian Derdowski (July 16, 2011, Exhibit 40): "This provision sets forth stormwater management "goals". What effect are these goals? These goals should be rewritten as performance standards that have equal effect as specific design standards. Where there is a conflict between these goals and specific design standards, the more restrictive should apply."

YarrowBay Response:

Per the Errata submitted to the Hearing Examiner by City Staff on July 11, 2011, the term "Goals" has been deleted from Section 7.4.3 and replaced with the word "provisions" (see Exhibit 4). Thus, Mr. Derdowski's concern regarding use of the term "goals" has been addressed. Mr. Derdowski also appears to overlook the very first sentence of this section, which clearly states that "The Master Developer shall comply with the stormwater management ~~goals~~provisions below." As stated, these provisions do act as standards to which the Master

Developer must comply. There is no need or basis to further revise this section of the Development Agreements.

SECTION 7.4.4 (The Villages and Lawson Hills)

Comments:

Brian Derdowski (July 16, 2011, Exhibit 40): "This provision establishes vesting to storm water standards by phase rather than implementing project. Phases are too general and undefined to properly establish impacts and enable vesting. Vesting of stormwater standards should apply to implementing projects. An alternative would be to specifically require the use of the latest standards as applied by SEPA review."

YarrowBay Response:

BDMC 18.98.195(B) specifically sets forth that vesting to stormwater regulations for MPDs shall be "on a phase by phase basis." This is echoed in Condition of Approval Nos. 75 (The Villages) and 78 (Lawson Hills) of the MPD Permit Approvals (Ord. Nos. 10-946 and 10-947). Thus, this Section 7.4.4 of The Villages and Lawson Hills Development Agreements is consistent with City code as required by both RCW 36.70B.170 and BDMC 18.66.020(B), and incorporates the MPD Permit Conditions of Approval. There is no need or basis to revise this section of the Development Agreements.

SECTION 8.2 (The Villages and Lawson Hills)

Comments:

Brian Derdowski (July 16, 2011, Exhibit 40): "This provision 'freezes' sensitive area review for the life of the project to that which has already been accomplished. There are many problems with this approach. Sensitive areas, especially wetlands, change over time. The level of existing review was not as detailed as a project level review. The constraint maps are too large a scale to accurately depict facts on the ground. The provision violates State law and the BDMC. Federal and State regulatory agencies that have jurisdiction do not recognize this approach. There are profound SEPA problems since new data could not be considered, and vesting under SEPA is not allowed. Moreover, the prior adopted environmental documents specifically relied on project level review to determine detailed impacts ... project level review that would be prohibited by this provision.

Additionally, sensitive areas should not merely be field marked. They should be protected with temporary barriers and silt fences.

Additionally, geologic and landslide areas should not be "altered or eliminated". This provision was never even contemplated by the prior adopted environmental documents.

Additionally, the hazardous tree provisions could allow extensive alterations of sensitive areas. Leaving only "the majority" of the sensitive areas alone is a gross violation of the BDMC and other legal requirements."

YarrowBay Response:

Pursuant to Conditions of Approval Nos. 155 and 159 of The Villages and Lawson Hills MPD Permit Approvals, respectively, "[o]nce the mapped boundaries of sensitive areas have been agreed to, the Development Agreement shall include text that identifies that these areas are fixed. If during construction it is discovered that the actual boundary is smaller or larger than what was mapped, the mapped boundary shall prevail. The applicant shall neither benefit nor be penalized by errors or changes in the sensitive area boundaries as the projects are developed." These Conditions of Approval are reflected in the language of Section 8.2.

With the exception of certain mine hazard areas discussed under Section 8.2.3 of this document, all sensitive areas described in Section 8.2 of The Villages and Lawson Hills Development Agreements received a full analysis and delineation matching the level of work conducted for site-specific permitting. This work is reflected in extensive detail in the FEISs for The Villages and Lawson Hills MPDs, including Appendices D (Earth), M (Water), O (Wetlands), and P (Fisheries), as well as Exhibit F to each MPD Permit Application, as well as the surveyed topography and boundaries shown on the Constraint Maps that are now attached as Exhibit "G" to the Development Agreements. As described under our response to concerns raised about Section 2.3.2, a surveyed, large scale, plan size set of drawings providing the appropriate level of detail for constraints boundaries is on file with the City Community Development Department and will remain on file throughout the life of the Development Agreements.

Mr. Derdowski fails to cite any specific provision of State law, the BDMC, or federal and state regulatory agencies' rules, or to explain his alleged "profound" SEPA[9] problems, that would preclude the City from fixing the sensitive area boundaries now. Given the level of detailed work performed, it is appropriate to fix these boundaries today. Just because the boundaries of these sensitive areas and their large buffers are fixed, does not mean that project level review of impacts will not occur. As explained in Section 4.10 of the Development Agreements, additional environmental review of the impacts of any Implementing Project on sensitive areas is expected.

Pursuant to the City's Engineering Design & Construction Standards Sections

[9] Mr. Derdowski also alleges that "vesting under SEPA is not allowed." As the Hearing Examiner knows, SEPA is a review process, not a separate permit. Actions reviewed under SEPA do vest to the land use control ordinances in effect at the date of application, or pursuant to the vesting provisions of an adopted development agreement under RCW 36.70B.170 and .180. Finally, pursuant to WAC 197-11-660(1)(a), SEPA mitigation measures or denials shall be based on the formally designated SEPA policies in effect when either a DNS or DEIS is issued.

2.2.02.6, 2.3.01.2 and 2.6.2, during construction, any sensitive areas adjoining an Implementing Project will be designated with appropriate construction fencing and erosion controls.

The alteration of geologic and landslide hazard areas is expressly anticipated by the City's Sensitive Areas Ordinance, Chapter 19.10 BDMC. As stated during the environmental review process for the MPDs, and as stated in Section 8.1 of the Development Agreements, all Development within each MPD is "subject to the standards, requirements and processes of the City's Sensitive Areas Ordinance, Chap. 19.10 BDMC.

Finally, the allowance (actually raised in Section 8.4 of each Development Agreement) for removal of hazardous trees in sensitive areas and buffers does not authorize alterations of sensitive areas. If a tree is in a wetland buffer and poses a hazard, for example because it could fall and harm someone walking nearby or damage private property, it should be removed to eliminate that hazard. The Development Agreements require that any such hazard tree so removed be replaced at a 2:1 ratio. Thus, more trees will result.

There is no need or basis to revise this section of the Development Agreements.

SECTION 8.2.1 (The Villages and Lawson Hills)

Comments:

Sarah Cooke (Oral Testimony on July 21, 2011): In her expert testimony on July 21st, Ms. Sarah Cooke asserted that the Constraint Maps contained in Exhibit "G" of both The Villages and Lawson Hills Development Agreements are not specific enough and do not conform to City code.

YarrowBay Response:

In follow-up to Sarah Cooke's testimony, YarrowBay requested that its wetland expert, Scott Brainard of Wetland Resources, Inc., prepare a response to Ms. Cooke's allegations regarding insufficient detail and conformance to applicable standards. Mr. Brainard's response is attached hereto as Attachment 1. In summary, Mr. Brainard concludes that the Constraints Maps are indeed consistent with BDMC 19.10.210(B)(1) and provide sufficient detail to: (i) meet the requirements of BDMC 19.10.230; and (ii) make accurate review/development decisions when future Implementing Permit applications are submitted to the City.

Two additional comments made by Ms. Cooke during her testimony also merit response. First, Ms. Cooke alleged that the Constraint Maps were deficient because they did not include building footprints. Neither the MPD Permit Approvals (Ord. Nos. 10-946 and 10-947) nor the Development Agreement authorize the construction of any structures. The footprints of any proposed future structures within the MPDs will reviewed pursuant to the submittal of an

Implementing Project application and subject to SEPA. See Section 4.10 of The Villages and Lawson Hills Development Agreements. The inclusion of building footprints on the Constraint Maps in Exhibit "G" is premature.

Second, Ms. Cooke asserted during her testimony that the constraint maps used in the City of Issaquah's Talus and Issaquah Highlands MPDs were more detailed that the Constraint Maps included in Exhibit "G" of The Villages and Lawson Hills Development Agreements. The wetland map and critical areas maps for the Talus and Issaquah Highlands Development Agreements, respectively, are attached hereto as Attachment 2. Contrary to Ms. Cooke's assertions, the Hearing Examiner will note that no greater level of detail is shown in these maps than the Constraint Maps contained in Exhibit "G".

In the Issaquah Highlands Development Agreement, a memorandum of agreement of which is record at King County No. 9606251228, the City of Issaquah and developer agree that all critical areas on the project site are shown on the critical areas map, that no further critical area studies are required for implementing projects, and that, in the event of any conflict, the critical areas map shall control. See Issaquah Highlands Development Agreement, Appendix E, Sections 4.0(B) and 7.0(A) and (D). In contrast, in the Talus Development Agreement, a memorandum of agreement of which is record at King County No. 20000209001923, the City of Issaquah and developer agree that only the approximate location of critical areas were identified in the applicable EIS, that critical areas not shown were presumed to exist, and, as a result, additional critical area studies may be necessary. See Talus Development Agreement, Appendix E, Sections 4.0 and 8.0.

Here, YarrowBay explored and delineated sensitive areas up front and the City has reviewed and confirmed that work. See, for example, Appendix F to MPD Permit Applications for The Villages and Lawson Hills attached hereto as Attachment 3. The work was sufficiently detailed to field verify the edges of wetlands and set their buffers. Per Mr. Brainard's response included as Attachment 1, the wetlands were rated and typed in conformance with the City's SAO. Therefore, the Constraint Maps and Development Agreement provisions make sense. Talus may have done it differently, but all that matters is that the work to delineate wetlands on The Villages and Lawson Hills has been done to assure protection of sensitive areas and conforms to the level of detail required by the BDMC.

In summary, to the extent Ms. Cooke believes the Constraints Maps in Exhibit "G" and the Development Agreements fail to protect wetland resources because of an alleged lack of detail based on failure to include lot lines and building footprints, she is overlooking the way the City of Black Diamond requires MPD Development to be constructed. Future applications will be made for subdivisions and binding site plans to divide the MPDs' Development Parcels into buildable lots. Those applications are required by both State law and City code to include

surveys. Those surveys will reflect the surveyed wetland boundaries shown on the Constraints Maps in Exhibit "G" (which again, exists as a multi-page plan set at a much more legible scale in the City's offices). Thus, the MPDs' wetland areas will be protected.

SECTION 8.2.3 (Lawson Hills)

Comments:

Chris Breeds (Oral Testimony on July 21, 2011 and submittal of Exhibit 45): In his expert testimony on July 21st, Mr. Breeds proposed supplemental conditions to Section 8.2.3 of the Lawson Hills Development Agreement.

YarrowBay Response:

In follow-up to Mr. Breeds' testimony, YarrowBay requested that its geologist, James Johnson of Golder Associates, Inc., review and prepare a response to Mr. Breeds' proposed supplemental conditions. Mr. Johnson's response is attached hereto as Attachment 4.

In addition to Mr. Johnson's response, it is important to highlight several aspects of Mr. Breeds' testimony. First, Mr. Breeds admitted that he had not read the City's 2009 SAO. Therefore, he has no idea what level of protection the SAO affords MPD Development or what mine hazard regulations or mitigations future MPD Implementing Projects will be required to comply with since the SAO applies to the MPDs.

Second, in the last paragraph of page 3 of Exhibit 45, Mr. Breeds misquotes Section 8.2.3 of the Lawson Hills Development Agreement. In fact, the Development Agreement language quoted in Exhibit 45 is entirely dissimilar from the actual Section 8.2.3 proposed in the June 2011 version of the Lawson Hills Development Agreement. Therefore, YarorwBay has no idea what version of the Lawson Hills Development Agreement Mr. Breeds in fact reviewed and therefore how relevant (or irrelevant) his testimony is to the Hearing Examiner's formation of a recommendation on the June 2011 version.

Third, in the last paragraph of page 4 of Exhibit 45, Mr. Breeds notes that "the city should consider utilizing a process similar to the one developed by the City of Issaquah for reviewing submittals for Issaquah Highlands, including procedures for evaluating abandoned mine hazard reports. We reviewed submittals as a member of Issaquah's MDRT and found this process to work very well." YarrowBay would like to point out that establishment of an MDRT, based on the City of Issaquah's model, has already been included in the Development Agreements at Exhibit "N". Thus, Mr. Breeds' recommendation is extraneous and draws into question the thoroughness of his review of his review of the Development Agreement proposals.

Finally, Mr. Breeds' testimony was explicitly limited to the Lawson Hills MPD

and related Development Agreement. See Exhibit 45, page 1 ("This section briefly reviews the work that has been undertake so far to evaluate mine hazards for the Lawson Hills MPD. . .") and Exhibit 45, page 4 ("It is our opinion that more work is required to complete the evaluation of mine hazards on the Lawson Hills MPD . . ."). Therefore, Mr. Breeds' comments are not applicable to The Villages MPD.

Regardless, based on YarrowBay's geologist's review of Chris Breeds' testimony and Exhibit 45, YarrowBay proposes the following revisions (shown in underlined text) to Section 8.2.3. These proposed revisions mirror the attachment to the Declaration of James G. Johnson attached hereto as Attachment 4.

> Mine hazard areas for The Lawson Hills MPD were evaluated in the EIS's Appendix D and are shown on the Constraints Maps. ~~These~~Subject to the exceptions described below, these mine hazard areas for The Lawson Hills MPD as surveyed on 7/27/09, including the High Mine Hazard area buffer which the Master Developer mapped to protect even though such a buffer is not required in the City's Sensitive Areas Ordinance, BDMC 19.10 (Exhibit "E"), are deemed final and complete through the term of this Agreement. Pursuant to Condition of Approval No. 159 of the MPD Permit Approval, except as provided below, if during construction it is discovered that the actual boundary is smaller or larger than what was mapped, the mapped boundary shall prevail.
> As of the time of execution of this Agreement, the mine hazard area boundaries for the following areas have been generally agreed to by the Designated Official, but additional subsurface exploration and analysis is necessary in order to further evaluate: (1) the location and extent of the Macks Mine hazard area near the northern end of the Project Site; (2) the mine hazard boundary for the McKay Section 12 Surface Mine and older underground mines beneath it; and (3) the width of the Moderate Mine Hazard zone above the Lawson Mine. Additional work to identify the Macks Mine hazard zone, the McKay Section 12 area, and the width of the Moderate Mine Hazard area for the Lawson Mine was described in the MPD materials as to be conducted pursuant to the standards set in the City's Sensitive Areas Ordinance, BDMC 19.10 (Exhibit "E"). That work will be conducted together with Implementing Project applications involving Development in or near these locations, and will define the nature and extent of those mine hazard areas. Once the boundaries of (1) the location and extent of the Macks Mine hazard zones near the northern end of the Project Site; (2) the location of the hazard zone for the McKay Section 12 Surface Mine and older underground mines beneath it; and (3) the width of the Moderate Mine Hazard above the Lawson Mine have been agreed to, these boundaries shall also be fixed.

Finally, based on the level of surface exploration, historical document review, and mine exploration work conducted at the Project Site, it is unlikely that any new mine hazard areas will be discovered outside those areas mapped and referenced in this section. However, in the event that a new mine hazard area is discovered during Development, that area will be assessed and protected pursuant to the City's Sensitive Areas Ordinance, BDMC 19.10 (Exhibit "E").

Any additional work provided with Implementing Project applications shall be reviewed by an independent qualified third party reviewer as part of the MDRT review process described in Exhibit "N", at the Implementing Project applicant's expense, to perform peer review of mine hazard reports.

SECTION 9.1 (The Villages and Lawson Hills)

Comments: Throughout the public testimony portion of the Development Agreements Hearings, several people commented that the Lawson Hills and The Villages Development Agreements should be rejected by the Hearing Examiner because YarrowBay does not provide 50% open space and because too much of the MPDs' open space consists of sensitive areas. In addition, Bob Edelman and Brian Derdowski objected to the total open space percentages set forth on page 38 of Yarrow Bay's Guide to MPD Design and Build-Out as Envisioned by the Development Agreements (Exhibit 8).

YarrowBay Response:

The Villages MPD's and Lawson Hills MPD's open space percentages and locations were approved with the MPD Permit Approvals (Ord. Nos. 10-946 and 10-947) . See Exhibit "L" of the Development Agreements; see also Condition of Approval 145 of the Lawson Hills MPD Permit Approval. As such, the quantity, locations, and types of open space are not a proper subject of the Development Agreement Hearings. Moreover BDMC 18.98.140(A) defines open space to include "environmentally sensitive areas and their buffers." The Villages and Lawson Development Agreements cannot be found noncompliant for complying with the City's code.

Fifty Percent Open Space Requirement. Only portions of the MPDs are subject to the 50% open space requirement set forth in BDMC 18.98.020. See Conclusion of Law 20 from Exhibit B of both The Villages and Lawson Hills MPD Permit Approvals. The open space percentage of MPD areas subject to prior agreements are governed by the specific provisions of the prior agreements (such as the BDUGAA or Black Diamond Open Space Agreement). The Villages MPD will provide 505 acres of Open Space within its perimeter and Lawson Hills will provide 153.3 acres of Open Space within its perimeter.

Total Open Space. Both Bob Edelman and Brian Derdowski objected to the total

open space percentages set forth on page 38 of Yarrow Bay's Guide to MPD Design and Build-Out as Envisioned by the Development Agreements (Ex. 8). Both objections are misplaced. As explained on page 38 of Exhibit 8, The Villages and Lawson Hills MPDs are subject to the requirements of prior open space agreements plus the 50% open space requirement for those portions of the MPDs not subject to the prior agreements. When taken all together, the total amount of Open Space that has been dedicated or will be dedicated associated with the MPDs is 1895.3 acres or 67% of all MPD-related land area being retained as open space. People often forget that the open space inside the MPD perimeters is not the only open space that is being protected and preserved as a result of the MPDs. This section of the Guide tells the whole story.

There is no need or basis to revise this section of the Development Agreements.

SECTION 9.2 (The Villages and Lawson Hills)

Comments:

Brian Derdowski (July 16, 2011, Exhibit 40): "This provision delays the construction of parks until Certificates of Occupancy are issued for 60% of each Phase (40% for Phase 3). Note that this provision delays the *construction,* not the *completion*. Note also, that this provision applies to *Phases,* not *Implementing Projects*. This provision violates the BCMC and is extremely poor policy."

YarrowBay Response:

Mr. Derdowski overlooks that parks are required to meet level of service standards. In addition, this Section 9.2 specifically provides that the "Master Developer may elect to build Parks in advance of the triggers set forth in this subsection." So, parks are to be provided to meet level of service standards and triggers, and may be provided early. There is also an allowance that a park facility can be bonded for slightly later construction, but any such bonded park must be "completed when Certificates of Occupancy or final inspection has been issued for 60% of the Dwelling Units located within ¼ mile of a given Park in any Phase," and this is merely an absolute deadline, not the normal deadline. Mr. Derdowski again fails to identify any BDMC provision that is violated by this Section 9.2 of The Villages and Lawson Hills Development Agreements. There is no need or basis to revise this section of the Development Agreements.

SECTION 9.3 (The Villages and Lawson Hills)

Comments:

Brian Derdowski (July 16, 2011, Exhibit 40): "This provision allows trails, crossings and encroachments into sensitive areas as a blanket provision. This is a violation of the BDMC and other laws."

YarrowBay Response:

Contrary to Mr. Derdowski's assertions, this Section 9.3 of The Villages and

Lawson Hills Development Agreements does not authorize encroachments into sensitive areas as a "blanket provision." Instead, this section only allows trails, crossings, and encroachments within sensitive areas and buffers if such placement is consistent with: (i) the City's Sensitive Areas Ordinance ("SAO"), Chapter 19.10 BDMC (Exhibit "E") and (ii) appropriate mitigation is identified pursuant to the SAO. Given the required consistency with the City's SAO, there is no violation of the BDMC or other (unidentified by Mr. Derdowski) laws. There is no need or basis to revise this section of the Development Agreements.

SECTION 9.4 (The Villages and Lawson Hills)

Comments:

Brian Derdowski (July 16, 2011, Exhibit 40): "This provision allows for stormwater facilities to be considered open space even if it is inundated 9 months out of the year. This violates the intent of the BDMC."

YarrowBay Response:

BDMC specifically allows stormwater detention/retention ponds to be counted as open space, provided they "have been developed as a public amenity and incorporated into the public park system." See BDMC 18.98.140(A). Further, MPD Permit Approval Condition Nos. 69 (The Villages) and 71 (Lawson Hills) specifically require that stormwater facilities must be "suitable for active recreational use during at least 3 months per year" to even be considered by the Public Works and Natural Resources Directors as open space. See Exhibit "C" of the Development Agreements. Thus, this Section 9.4 of The Villages and Lawson Hills Development Agreements incorporates the MPD Permit Conditions of Approvals (Ord. Nos. 10-946 and 10-947) and the BDMC. Mr. Derdowski fails to cite any specific violation of the BDMC created by this Section 9.4. There is no need or basis to revise this section of the Development Agreements.

SECTION 9.5 (The Villages and Lawson Hills)

Comments:

Brian Derdowski (July 16, 2011, Exhibit 40): "This provision undermines the Recreational Facility standards of the BDMC and the MPD permit approval. The applicant may locate facilities off site, negating the intent of providing recreational facilities within the MPD, internalizing impacts and minimizing off-site vehicle trips. The applicant may pay a fee lieu of providing the facilities. The procedure for establishing the fee pre-empts legislative authority. The LOS for recreational facilities is based on population generation rates that are unsubstantiated and standards that are not suitable for the MPD."

YarrowBay Response:

MPD Permit Approval Conditions Nos. 91-93 (The Villages) and 93-95 (Lawson Hills) specifically contemplate off-site recreational facilities. These same Conditions of Approval require the City and YarrowBay to re-evaluate fee in-lieu

values for park facilities as part of the development agreements. Most importantly, per subsections 9.5.2 9.5.3 of each development agreement, the City retains the sole discretion to determine if recreational facilities may be constructed off-site and if fees in-lieu of construction will be accepted. The Level of Service (LOS) for recreational facilities outlined in Section 9.5 of The Villages and Lawson Hills Development Agreements is derived directly from the City's adopted LOS standards set forth in the City's Park and Open Space Plan dated December 18, 2008. And, the population generation rates come directly from the FEISs that were deemed adequate by the Hearing Examiner. See Exhibit 1-4 of Chapter 1 of the Villages and Lawson Hills FEISs. There is no need or basis to revise this section of the Development Agreements.

SECTION 9.5.2 (The Villages and Lawson Hills)

Comments:

Sheila Hoefig (July 16, 2011): In her oral testimony on July 16th, Ms. Hoefig expressed concern that the Master Developer would receive open space credit for Lake Sawyer Park.

YarrowBay Response:

Section 9.5.2 of the Development Agreements does not authorize the Master Developer to receive open space credit for Lake Sawyer Park. With the City's permission, the Master Developer may construct Recreational Facilities in Lake Sawyer Park that would count towards the Master Developer's Recreational Facilities requirements as set forth in Table 9-5 of both Development Agreements. There is no need or basis to revise this section of the Development Agreements.

SECTION 9.6 (The Villages and Lawson Hills)

Comments:

Brian Derdowski (July 16, 2011, Exhibit 40): "This provision allows the Trails Plan to be built on an implementing project basis. This defeats the intent of providing interconnectivity and a regional trail system. Many years will likely pass before the trails actually lead anywhere. The Trails Plan should be built on a Phase-by-Phase basis.

The "should" standards for sensitive area, dead end, and incomplete segment avoidance should be "shall"."

YarrowBay Response:

This Section 9.6 of The Villages and Lawson Hills Development Agreements incorporates the MPD Permit Conditions of Approval (Ord. Nos. 10-946 and 10-947). Conditions of Approval Nos. 95 (The Villages) and 96 (Lawson Hills) require that trail construction be completed on an implementing project basis as proposed in each MPD Permit application. There is no requirement within the BDMC, the MPD Permit Approvals, or Washington State law that the word

"should" be replaced with "shall" as requested by Mr. Derdowski. There is no need or basis to revise this section of the Development Agreements.

SECTION 9.7.3 (The Villages and Lawson Hills)

Comments:

Brian Derdowski (July 16, 2011, Exhibit 40): "This provision makes trail "amenities" like restrooms and drinking fountains subject to veto by the Applicant. These amenities should be specified and required."

YarrowBay Response:

Mr. Derdowski cites no requirement in the BDMC, the MPD Permit Approvals, or Washington State law that requires any specific trail amenities to be identified in the Development Agreements. There is no need or basis to revise this section of the Development Agreements.

SECTION 9.9.1 (The Villages and Lawson Hills)

Comments:

Brian Derdowski (July 16, 2011, Exhibit 40): "This provision makes the dedication of conservation easements optional for sensitive areas. These dedications should be mandatory."

YarrowBay Response:

Section 9.9.1 of The Villages and Lawson Hills Development Agreement provides in part: "ownership and maintenance of sensitive areas and buffers shall be consistent with the requirements of the [City's] Sensitive Area Ordinance, which allows sensitive area tracts to be held in undivided ownership by all lots within [The Villages/Lawson Hills] MPD, dedicated to the City or other governmental entity, protected with conservation easements or conveyed to a non-profit land trust." Thus, conservation easements are only one option under the City's SAO for protection of sensitive areas. Making such easements mandatory in the development agreements would be inconsistent with City code. There is no need or basis to revise this section of the Development Agreements.

SECTION 10.1 (The Villages and Lawson Hills)

Comments:

Ron Taylor (July 11, 2011): Mr. Taylor noted in his testimony on that he believed the sections in the Development Agreements marked "RESERVED" were in fact intended to be "saved for later."

YarrowBay Response:

This is incorrect. The term "RESERVED" is a standard method in which legal contracts are revised so that parties do not have to change all cross references in a document. The term "Intentionally Deleted" is used for the same purpose. This

response is also applicable to Sections 12.4 and 12.8.9 of The Villages and Lawson Hills Development Agreement and Section 5.3.1(B) of the Lawson Hills Development Agreement.

SECTION 10.3 (The Villages and Lawson Hills)

Comments:

Brian Derdowski (July 16, 2011, Exhibit 40): "The dispute resolution process described in this provision leaves out any public involvement. The public is a beneficiary of the Development Agreement, and should have the right to initiate and participate in appeals of interpretational determinations. The Council is also cut out of these determinations. There should be a provision for appeal to Council."

YarrowBay Response:

Contrary to Mr. Derdowski's assertions, the public is not a third party beneficiary of The Villages and Lawson Hills Development Agreements. See Section 15.11 of each Development Agreement. The Development Agreements are contracts between the City of Black Diamond and Yarrow Bay. Any interpretational determinations are between the parties to the contract – not the public at large. There is no need or basis to revise this section of the Development Agreements.

SECTION 10.3 (Lawson Hills)

There is a scrivener's error is Section 10.3 of the Lawson Hills Development Agreement. YarrowBay respectfully requests that the following revisions (as shown in underlined text) to the last sentence of this section:

> . . . The appealing party shall exhaust its remedies as set forth herein prior to exercising its remedies as set forth in Subsection 15.13.

SECTION 10.4 (The Villages and Lawson Hills)

Comments:

Brian Derdowski (July 16, 2011, Exhibit 40): "The criteria that this provision applies for determining "Major" or "Minor" amendments to the Development Agreement is vague.

The administrative and appeal process illegally cuts out the Council on what is essentially an amendment to a legislatively approved contract.

There is no provision for legislation that could modify the procedure by which various classes of land use actions are processed. For example, these provisions vest considerable authority with the Mayor, but what if the City's form of government changes?"

YarrowBay Response:

BDMC 18.66.020(B)(11) states that a development agreement may include "[a] process for amending the development agreement." Pursuant to this authority, City staff and YarrowBay negotiated and agreed to the process outlined in Section 10.4.2 for the amendment of the Development Agreements. The minor amendment process for the Development Agreements mirrors the minor amendment process for MPD Permits outlined in BDMC 18.98.100(I).

Per BDMC 18.98.100(I), "[m]inor amendments [of MPD Permits] may be approved administratively in accordance with the procedure set forth in the MPD development agreement. . . . The final determination regarding whether an amendment is "minor" or "major" shall rest with the director, subject to appeal to the hearing examiner." The minor amendment criteria for MPD Permits are set forth in BDMC 18.98.100(A)-(H). In addition, the Conditions of Approval of the MPD Permit Approvals (Ord. Nos. 10-946 and 10-947) specifically contemplate minor amendments of the MPD. See, e.g., Condition of Approval Nos. 128 (The Villages) and 137 (Lawson Hills).

Thus, the administrative minor amendment processes contained in the Development Agreements conform to the BDMC and incorporate the MPD Permit Conditions of Approval. There is no need or basis to revise this section of the Development Agreements.

SECTION 10.5 (The Villages and Lawson Hills)

Comments:

Brian Derdowski (July 16, 2011, Exhibit 40): "This provision would allow the addition of Expansion Parcels to be by Minor Amendment. This violates the BDMC, the MPD permit approval, and State law. Addition of Expansion Parcels should require a Comprehensive Plan Amendment and Rezone."

Joe May (July 16, 2011): In his oral testimony, Mr. Joe May expressed confusion regarding the Expansion Parcel Review Process and YarrowBay's ability (or inability) to add more dwelling units to the MPDs by adding an Expansion Parcel.

YarrowBay Response:

Contrary to Mr. Derdowski's assertions, Section 10.5 of The Villages and Lawson Hills Development Agreements does not make the addition of Expansion Parcels *de facto* Minor Amendments to the MPD Permit Approvals. Instead, each Expansion Proposal will be reviewed against the Minor and Major Amendment criteria set forth in Section 12.8.14 and BDMC 18.98.100 to determine which process will be followed. Per BDMC 18.98.100(A), if the Master Developer seeks an amendment that would "increase the total number of dwelling units in an MPD above the maximum number set forth in the approved MPD permit," it must be considered a Major Amendment. Thus, if the Master Developer seeks to add more dwelling units to a MPD pursuant to the inclusion of an Expansion Parcel (i.e.,

above the total dwelling unit count set forth in Section 4.2 of each Development Agreement), the proposal will be considered a Major Amendment of the MPD Permit Approval and be reviewed by the same procedures applicable to new MPD Permit requests. See BDMC 18.98.100(I).

Moreover, pursuant to the provisions of this section: "If a defined Expansion Parcel is neither designated with a MPD Overlay on the City's Comprehensive Plan Future Land Use Map nor is zoned MPD, then a Comprehensive Plan Amendment and rezone shall be required."

There is no need or basis to revise this section of the Development Agreements.

SECTION 11.1 (The Villages and Lawson Hills)

Comments:

Brian Derdowski (July 16, 2011, Exhibit 40): "This provision allows all infrastructure and timing of development to be changed without amendment to the MPD permit approval or the Development Agreement! This is an astonishing violation of the MPD permit approval, the BDMC, and State law."

YarrowBay Response:

Per Condition of Approval No. 3 of The Villages and Lawson Hills MPD Permit Approval, the MPD Phasing Plan contained in Chapter 9 of the MPD Permit Applications, and attached as Exhibit "K" to both development agreements, was specifically approved by the Black Diamond City Council with the exception of the bonding proposal at p. 9-3, the proposal for off-site trails p. 9-2 (to the extent not already considered a regional facility), and the proposal for parks at p. 9-10. Exhibit "K" shows as stricken the portions of Chapter 9 not approved by the City Council.

As noted on the approved MPD Phasing Plan on p. 9-1 (Exhibit "K") of both development agreements, the MPD Phasing Plan is "subject to change" and is only "an estimate of the improvements that will be needed for the project. It may change as a result of final mitigation agreements resulting from the MPD..." The Villages Conditions of Approval Nos. 10, 49, 51, 52, and 58 and the Lawson Hills Conditions of Approval Nos. 9, 49, 53, 54, and 59 all anticipate that alternative or functionally equivalent transportation, water, and sewer infrastructure improvements may be approved by City Staff.

As explicitly noted on p. 9-1 of the approved MPD Phasing Plan (Exhibit "K") in The Villages and Lawson Hills:

> The order is not intended to be absolute and represents likely phases based on current market conditions. Phases may be started concurrently. . . . In general, the infrastructure necessary for each

> phase for each MPD is dependent on the infrastructure built in preceding phases for that MPD. . .

Accordingly, infrastructure and timing of development different from the MPD Phasing Plans (Exhibit "K") in both The Villages and Lawson Hills Development Agreements may be proposed by the Master Developer, without an amendment to the MPD Permit Approval or the Development Agreements, based on the needs and timing of specific Implementing Projects and technological advancements.

To provide certainty to the City, pursuant to The Villages Conditions of Approval Nos. 29 and 164 and Lawson Hills Conditions of Approval Nos. 27 and 169, before the first Implementing Project of any Phase is approved by the City, a more detailed implementation schedule of the Regional Facilities supporting that Phase shall be submitted to the City for approval. The timing of construction of the Regional Facilities shall be tied to the number of Dwelling Units and/or square feet of commercial in Implementing Projects.

Therefore, Section 11.1 incorporates The Villages and Lawson Hills MPD Permit Conditions of Approval (Ord. Nos. 10-946 and 10-947), and Mr. Derdowski cites no specific violations of the permit approvals, the BDMC, or State law. There is no need or basis to revise this section of the Development Agreement.

SECTION 11.3B (The Villages and Lawson Hills)

Comments:

Brian Derdowski (July 16, 2011, Exhibit 40): "The Applicant will be constructing public facilities to benefit its development, and future non-MPD development will have to pay the Applicant for the use of those facilities. This provision determines the method by which those payments would be calculated. The example given in this provision does not seem to address instances in which more than 10,500 units are benefited. Moreover, there is no provision for cost containment. Should surrounding non-MPD development be required to pay a share of facilities that may have had large cost over-runs or profit to the Applicant?"

YarrowBay Response:

Mr. Derdowski's comment appears to make an assumption that more than 10,500 units may be benefitted by improvements that are provided by the Master Developer. As provided in Attachment #11 to the Staff Report (Exhibit 3), RH2 has provided the rationale as to why the number of benefitted units is capped at 10,500, which is specifically tied to existing development, the MPDs' planned development, and projected additional future development in the City that is not part of The Villages or Lawson Hills. Mr. Derdowski's assumption that there could be more development is just that – an assumption not supported by any analysis or data. The Development Agreements assume building the necessary infrastructure that will support nearly all future growth within the City, including within the MPDs. If it were to be assumed that there is more growth within the

City but outside the MPDs, additional infrastructure would be necessary. In that case, that additional development should be obligated with building that additional necessary infrastructure and that additional development would not be contributing to the infrastructure built by an MPD Master Developer. There is no basis to assume a larger benefitted group in the Development Agreements.

Furthermore, Mr. Derdowski's assertion that the Master Developer will be lackadaisical and allow cost over-runs is contrary to running a profitable business. First and foremost a priority of the Master Developer is to assure that projects are completed in a timely fashion and for a reasonable cost. The Master Developer does not profit from allowing cost overruns to occur, especially since the Master Developer would have to pay those cost overruns and would only recover a small percentage in the event the additional growth factored into the 10,500 number occurred.

There is no need or basis to revise this section of the Development Agreements.

SECTION Table 11.3.1 (The Villages and Lawson Hills)

Comments:

Brian Derdowski (July 16, 2011, Exhibit 40): This table shows On-Site Regional Facilities, but doesn't appear to be tied to any applicability text language.

YarrowBay Response:

Table 11-3-1 is referenced in both The Villages and Lawson Hills Development Agreement text language at Sections 11.3(B). There is no need or basis to revise this section of the Development Agreements.

SECTION 11.4 (The Villages and Lawson Hills)

Comments:

Brian Derdowski (July 16, 2011, Exhibit 40): "This provision allows development to be *occupied* as soon as needed Regional Facilities are *permitted.* Obviously this creates the problem of a gap during the construction of the Regional Facilities. This needs to be corrected."

YarrowBay Response:

The Master Developer does not control the construction of all Regional Facilities. Outside agencies, such as King County, may be responsible for constructing some improvements with the Master Developer's proportionate share provided. It is not reasonable to withhold development permits or even occupancy of buildings or structures when the Master Developer is incapable of correcting an outside agency's construction schedule. In fact, it is arguably illegal to withhold such occupancy when the Master Developer would be able to show that they have mitigated their impacts by providing their proportionate share of the facility either in the form of payment or actual construction of some portion of the Regional

Facility. There is no need or basis to revise this section of the Development Agreements.

SECTION 11.4(A) (Lawson Hills)

There is a scrivener's error is Section 11.4(A) of the Lawson Hills Development Agreement. YarrowBay respectfully requests that the following revisions (shown in underlined text) be made to this subsection:

> **Phasing.** Off-Site Regional Facilities are Regional Facilities that are located outside the Project Site and the boundaries of The Villages MPD. Off-Site Regional Facilities necessary to serve the Lawson Hills MPD and The Villages are described in ~~Tables 11-3-1 through 11-3-4~~ Tables 11-4-1 through 11-4-4. Transportation improvements located in the Cities of Maple Valley and Covington, however, are not included in Table 11-5-1 and 11-5-2 because these improvements are addressed in the separate mitigation agreements attached as Exhibits "Q" and "R", respectively.

SECTION 12.3 (The Villages and Lawson Hills)

Comments:

Brian Derdowski (July 16, 2011, Exhibit 40): "This provision creates a Design Review Committee. It is totally under the control of the Applicant. This is an extraordinary provision in this regard. To the extent that the Design Review Committee has review authority, it is an illegal delegation. The Design Review Committee should be created and staffed by the City."

YarrowBay Response:

The Design Review Committee (DRC) required in both The Villages and Lawson Hills Development Agreements at Section 12.3 has no municipal review authority. Thus, Mr. Derdowski's concerns regarding "illegal delegation" are misplaced. The DRC is tasked with reviewing and ensuring that Implementing Projects conform to the design guidelines set forth in Exhibits "H" and "I" of the development agreements. Section 12.3 provides that all Implementing Project applications must be accompanied by written documentation of DRC approval at the time of submittal to the City. The DRC, however, in no way supersedes the City's independent review authority to ensure that an application conforms to the City's design guidelines and Exhibits "H" and "I". Given its absence of municipal review authority, there is no justification in State law or the BDMC that the DRC must be created and staffed by the City. There is no need or basis to revise this section of the Development Agreements.

SECTION 12.5 (The Villages and Lawson Hills)

Comments:

Brian Derdowski (July 16, 2011, Exhibit 40): "This provision establishes the

procedures for reviewing Implementing Projects. It appears to bias the City's review by stipulating that the City "shall take a collaborative approach to addressing any issues." This provision may violate due process and equal protection laws, as well as standards of administrative conduct."

YarrowBay Response:

As noted above, The Villages Condition of Approval No. 158 and the Lawson Hills Condition of Approval No. 163 specifically require:

> The Development Agreement shall document a collaborative design/review/ permitting process that allows City staff to participate in the conceptual stage of project planning in order to provide input on designs and choices that benefit the City as well as the applicant.

Thus, the "collaborative approach" described in Section 12.5 of both development agreements specifically incorporates the language of the MPD Permit Conditions of Approval (Ord. Nos. 10-946 and 10-947). Again, no specific violations are asserted by Mr. Derdowski. There is no need or basis to revise this section of the Development Agreements.

SECTION 12.8.2 (The Villages and Lawson Hills)

Comments:

Brian Derdowski (July 16, 2011, Exhibit 40): "This provision attempts to vest to the existing code certain applications that are not subject to vesting, or which have vesting periods different from the Development Agreement."

YarrowBay Response:

Section 12.8.2 of both The Villages and Lawson Hills Development Agreements is consistent with BDMC 18.98.195(A). The code provision states: ". . . the MPD permit approval vests the applicant . . . to the development regulations in effect on the date of approval." (Emphasis added). The City's regulations cited in this Section 12.8.2, i.e., those regulations governing lot line adjustments, short subdivisions, subdivisions, and plat alterations/vacations, are in fact development regulations contained within BDMC Chapter 17 and thus subject to vesting. There is no need or basis to revise this section of the Development Agreements.

SECTION 12.8.13 (The Villages and Lawson Hills)

Comments: During the Development Agreement Hearings, YarrowBay heard testimony that Master Developer would be engaging in construction on Sundays.

YarrowBay Response:

This testimony is contrary to work hour provisions set forth in Section 12.8.13 of the Development Agreements. On page 39 of the Guide YarrowBay submitted to

the Hearing Examiner (Exhibit 8), we describe the construction hours for The Villages and Lawson Hills MPDs.
Again, YarrowBay has agreed to limit construction hours to fewer hours than allowed by the City's work hour standards in construction of the MPDs. The hours are as follows:

- 7am through 7pm, Monday through Friday; and
- 9am through 5pm on Saturday
- On a case by case basis, construction work may be permitted on Sundays if authorized by the Noise Review Committee, however, no work shall occur outside the hours of 9am through 5pm on Sundays.

Thus, the only way YarrowBay can construct at all on Sundays is if it is approved by the Noise Review Committee, which contains two citizen representatives. Moreover, even if approved, such construction can only occur within the hours of 9am and 5pm. Again, this is more restrictive than the City code which allows construction on Sundays (without any committee authorization) and until 6pm. See BDMC 8.12.040.C.

SECTION 12.8.15 (The Villages and Lawson Hills)

Comments:

Brian Derdowski (July 16, 2011, Exhibit 40): "This provision links together the MPD permit and Development Agreement Amendment review process. The problem with this is that the MPD permit amendment might be a quasi -judicial administrative review, while the Development Agreement Amendment would be a legislative decision."

YarrowBay Response:

Pursuant to BDMC 18.08.130, "[i]f a project requires more than one type of land use application, the applications shall be processed concurrently unless the applicant demonstrates that separate processing will result in a more efficient or effective review process." Thus a consolidated permit process is required by City code. The existing City code (which is not subject to appeal and therefore deemed valid) makes the review of Major Amendments to both MPD Permits and Development Agreements a Type 4, quasi-judicial process. See BDMC 18.08.030, BDMC 18.66.020(E), and BDMC 18.98.100. Also, Section 12.8.15 authorizes the Designated Official to determine that "separate processing will result in a more efficient or effective review process." There is no need or basis to revise this section of the Development Agreements.

SECTION 12.9.1 (The Villages and Lawson Hills)

Comments:

Brian Derdowski (July 16, 2011, Exhibit 40): "This provision allows the

Applicant to "defer any required improvement" if bonded. This is a highly unusual provision that violates the BDMC, the MPD permit approval, and State law."

YarrowBay Response:

Bonding provisions are typical throughout the State of Washington, and are even expressly referenced in the subdivision statutes at RCW 58.17.130. Section 12.9.1 of The Villages and Lawson Hills Development Agreements is consistent with the BDMC and the City's Engineering Design and Construction Standards. The development agreements authorize YarrowBay to "defer any required improvement" provided "actual construction and installation of such improvements shall be completed within a time frame to be set by the Designated Official consistent with [BDMC 17.20.050(B) or the City's Engineering Design and Construction Standards]." BDMC 17.20.050(B) authorizes performance bonding for improvements but notes that construction and installation must occur "in no event more than one year after final plat approval" and prohibits the issuance of building permits for development within a subdivision until all required improvements have been completed to city standards. The City's Engineering Design and Construction Standards at page 8-15 require the Designated Official to establish a time certain in which any bonded improvements must be completed. Thus, the City has standards in place, which are incorporated by reference within this Section 12.9 of The Villages and Lawson Hills Development Agreements, that assure required improvements will be constructed. Again, Mr. Derdowski cites no specific violations of the BDMC, the MPD Permit Approvals, or State law as a result of this Section 12.9.1. There is no need or basis to revise this section of the Development Agreements.

SECTION 12.10.2 (The Villages and Lawson Hills)

Comments:

Brian Derdowski (July 16, 2011, Exhibit 40): "This provision requires the City to not issue a permit if the City of Maple Valley files a breach of contract lawsuit against the MPD developer. However, this provision is only triggered if the City files for injunctive relief. This provision should be changed to include halting the acceptance and review of permits whether or not injunctive relief is sought."

YarrowBay Response:

This Section 12.10.2 of The Villages and Lawson Hills Development Agreements is consistent with paragraph 10(A) of the Maple Valley Transportation Mitigation Agreement. See Exhibit "Q" of both development agreements. The language of this section has also been independently approved by the City of Maple Valley. See Exhibit 6. Moreover, paragraph 10(C) of the Maple Valley Transportation Mitigation Agreement (Exhibit "Q") prohibits YarrowBay from filing any additional applications for subdivisions, binding site plans, design review, clearing and grading, or other land use or building permits or approvals after the date Maple Valley files any lawsuit until that lawsuit is resolved. Therefore, the

City of Maple Valley has negotiated adequate protections for enforcement of YarrowBay's agreement with Maple Valley. There is no need or basis to revise this section of the Development Agreements.

SECTION 13.3 (The Villages and Lawson Hills)[10]

Comments:

Brian Derdowski (July 16, 2011, Exhibit 40): "This provision allows amendments to the Comprehensive School Mitigation Agreement to be processed as a minor amendment. This violates the MPD permit approval. Moreover, the availability of schools and their location are important matters that should require public participation and adoption by the Council. Additionally, the School Mitigation Agreement was adopted legislatively, and can only be amended legislatively."

Rich Ostrowski (July 12, 2011): On July 12th, Mr. Ostrowski testified regarding his concerns with the School Agreement incorporated by reference in Section 13.3 of both Development Agreements.

Cindy Proctor (July 13, 2011): On July 13th, Ms. Proctor testified that there had been no public hearing on the School Agreement, that the School Agreement does not meet the City's walkable school standard, that the School Agreement does not meet BDMC requirements, and that the School Agreement does not adequately mitigate school impacts as a result of the MPDs.

YarrowBay Response:

Section 13.3 of The Villages and Lawson Hills Development Agreement are consistent with Mr. Derdowski's comments. This section allows amendments to the Comprehensive School Mitigation Agreement to be processed as Minor Amendments to The Villages and Lawson Hills Development Agreements only if the following two criteria are met: (1) such amendments are "executed by the City, the Enumclaw School District, [and YarrowBay]"; and (2) the amendments otherwise satisfy Conditions of Approval Nos. 98 (The Villages) and 99 (Lawson Hills) of the MPD Permit Approvals. Thus, this Section 13.3 recognizes that the Comprehensive School Mitigation Agreement can only be amended legislatively (i.e., executed by the City) and must meet the MPD Permit Approval criteria related to the establishment of identified school sites. There is no need or basis to revise this section of the Development Agreements.

In addition, because the Comprehensive School Mitigation Agreement is a separate document from the Development Agreement, the reasons the Development Agreement would need to be revised to reflect an amended

[10] Exhibit 3-13t is a letter from the Enumclaw School District's legal counsel. The letter was submitted prior to the publication of the final versions of the Development Agreements that were ultimately submitted to the Hearing Examiner. The concerns regarding certain sections of the Development Agreements expressed in the letter have been resolved in the final versions dated June 2011. No further revisions to the relevant sections are necessary.

Comprehensive School Mitigation Agreement would be to show, for example, a different date for the School Agreement. That is a minor matter.

In addition to Mr. Derdowski's written comments above, YarrowBay heard a lot of general comments during the public testimony portion of the Development Agreement open record public hearings regarding the Comprehensive School Mitigation Agreement incorporated by reference in Section 13.3 of both Development Agreements. In particular, comments were made alleging that the Comprehensive School Mitigation Agreement lacked public review. We also heard testimony that, despite the allegations to the contrary, there actually were public notices and meetings associated with the negotiation and execution of the School Agreement. Evidence supporting those facts was submitted in the record. See Exhibit 28; see also Attachment 5 to this submittal.

However, YarrowBay believes it is important to focus on what is really relevant to the Hearing Examiner's recommendation to the City Council regarding the School Agreement. The School Agreement is final and executed. What is relevant is whether Section 13.3 of the Development Agreements properly incorporates the MPD Permits' Conditions of Approval related to schools thereby satisfying City code requirements.

BDMC 18.98.080(A)(14) provides:

> School sites shall be identified so that all school sites meet the walkable school standard set for in the comprehensive plan. The number and sizes of sites shall be designed to accommodate the total number of children that will reside in the MPD through full build-out, using school sizes based upon the applicable school district's adopted standard. The requirements of this provision may be met by a separate agreement entered into between the applicant, the city and the applicable school district, which shall be incorporated into the MPD permit and development agreement by reference.

Emphasis added. The City Council determined in its MPD Permit Approvals (Ord. Nos. 10-946 and 10-947) that The Villages and Lawson Hills MPDs met the City's walkable school standard. See Conclusion of Law 40 from both The Villages and Lawson Hills MPD Permit Approval. We will address this requirement in more detail in Section IV below.

Therefore, the only other requirement set forth in BDMC 18.98.080(A)(14) is that the number and size of school sites designated in the School Agreement accommodate the total number of children that will reside in the MPD through full build-out. The School District and City recognize in the School Agreement that the seven designated sites meet this criterion.

Finally, BDMC 18.98.080(A)(14) authorizes that the City's MPD Ordinance school requirements may be met by a separate agreement entered into between the applicant, the City, and the applicable school district.

This BDMC code provision was addressed in the MPD Permits' Conditions of Approval Nos. 98 (Villages) and 99 (Lawson Hills). These conditions state that the

> Applicant shall enter into a separate school mitigation agreement, with substantially the same key terms as the agreement in the record as Exhibit 6, so long as such agreement is approved by the City and the Enumclaw School District which approval provides adequate mitigation of impacts to school facilities. If approved, such agreement shall be incorporated into the Development Agreement by reference. Alternatively, school mitigation may be addressed in the Development Agreement, using terms similar to those contained in Exhibit 6, or through a combination of (1) school impact fees under a City-wide school impact fee program for new development or a voluntary mitigation fees agreement and (2) the dedication of land for school facilities (subject to credit under State impact fee laws). The agreed number of school sites and associated minimum acreage, both as set forth in Exhibit 6, shall be used to guide any school mitigation alternative. To the extent reasonable and practical, elementary schools shall be located within a half-mile walk of residential areas. All school sites shall be located either within the MPDs or within one mile of the MPDs.

Exhibit 6 referenced in Conditions of Approval Nos. 98 and 99 is a draft copy of the Comprehensive School Mitigation Agreement that is substantially similar to the final executed copy incorporated by reference in Section 13.3 of the Development Agreements. Between the version contained in the referenced Exhibit 6 and the final executed version, no changes were made to the number of school sites and associated minimum acreage in the School Agreement.

Thus, the BDMC and the MPD Conditions of Approval do <u>not</u> require some additional "adequate mitigation of impacts to schools." Rather, the MPD Permits' Conditions of Approval are an announcement of the Black Diamond City Council's determination that, for the MPDs the School Agreement is adequate mitigation.

Finally, arguments regarding RCW 58.17.110, the State's subdivision statute, are simply not relevant to the Development Agreement hearings. Such arguments can be addressed during the City Staff's and Hearing Examiner's review of preliminary plat applications for The Villages and Lawson Hills MPDs.

Thus, there is no reason or basis for revisions or the addition of supplemental conditions for Section 13.3 of the Development Agreements. The Black Diamond City Council determined that the School Agreement provided adequate mitigation for the MPDs. This determination cannot be revisited during the Development Agreement Hearings.

SECTION 13.4 (The Villages and Lawson Hills)

Comments:

Brian Derdowski (July 16, 2011, Exhibit 40): "This provision fails to fully address the BDMC and the MPD permit approval that require that public safety LOS be maintained and concurrent with project build-out."

Ron Taylor (July 11, 2011): Mr. Taylor testified that the fire mitigation fees set forth in Section 13.4 of the Development Agreements lacked any basis and that the City had yet to complete a fire impact fee study.

Lisa Garvich (July 13, 2011): On July 13th, Lisa Garvich provided verbal testimony that included questions regarding who would pay for fire staffing of the new satellite fire station required by the terms of Section 13.4.

YarrowBay Response:

Condition of Approval No. 100 of both The Villages and Lawson Hills MPD Permit Approvals requires that "[t]he Development Agreement shall include specific provisions for providing fire mitigation to ensure protection concurrent with project build out." The fire mitigation fees established in Section 13.4 of The Villages and Lawson Hills Development Agreements are based on the Fire Impact Fee Study commissioned by the City of Black Diamond and attached as Exhibit "T" to each Development Agreement. The Fire Impact Fee Study was designed to recommend fire impact fees that will pay for the capital cost of fire protection facilities needed to serve new development. In addition to fire mitigation fees, Yarrow Bay has committed to constructing a satellite fire station no later than the time of issuance for a certificate of occupancy for the 750th Dwelling in The Villages MPD. Finally, the fire mitigation outlined in this Section 13.4 of both Development Agreements has been approved by King County Fire District 44. See Attachment 12 to the City's Staff Report (Exhibit 3). Again, Mr. Derdowski fails to specifically show how the extensive fire mitigation outlined in Section 13.4, and approved by the applicable fire district, "fails to fully address" public safety concurrent with project build-out. There is no need or basis to revise this section of the Development Agreements.

Moreover, in response to Mr. Taylor's comments summarized above, the fire mitigation fees set forth in Section 13.4 in fact mirror the fee recommendations set forth in "Impact Fees for Fire Protection Facilities" report (see Exhibit "T" of the Development Agreements) prepared by Henderson Young & Company dated January 13, 2011 for the City. This report has been posted on the City's website

since January of this year.

Finally, in response to Lisa Garvich, fire staffing costs are included in the fiscal analysis outlined in Section 13.6. Previous fiscal analyses performed to date have shown that increased fire staffing costs created as a result of the MPDs should be covered by the taxes generated by such new development. However, to the extent such increased staffing costs are not covered by tax revenue, Section 13.6's fiscal analysis will show an imbalance and the Master Developer will be required to fund the difference pursuant to the terms outline in the new MPD Funding Agreement contained in Exhibit "N" of both Development Agreements.

SECTION 13.6 (The Villages and Lawson Hills)

Comments:

Brian Derdowski (July 16, 2011, Exhibit 40): "This provision addresses fiscal impacts. The following problems apply: [i] "Comparable City" should not be based primarily on population. An established city that is growing slowly is not comparable to a city that is quadrupling its population in 15 years. There are many factors other than population that determine municipal finances; [ii] Privatization of facilities is highly speculative and poses legal issues; [iii] No appropriate allowance for inflation; [iv] Questionable methodology regarding intergovernmental transfers; [v] No third party review by experts in municipal finance of the annual analysis; [and vi] No third party review by experts in municipal finance of the Development Agreement provision."

YarrowBay Response:

Citing and responding to the points in Mr. Derdowski's comment:

[i] 13.6.1(e)(v) states, midway through the paragraph "Population is not the only determinant of comparability." This means that population *may* be one method to determine comparability, but Staff and the Master Developer shall reasonably agree to the comparable city;

[ii] Privatization of facilities happens quite often in the development profession, and private streets are specifically allowed by the City's Engineering Design and Construction Standards. See Sections 3.2.06. Further, any request to privatize facilities is subject to approval by the City;

[iii] Inflation is not germane to the fiscal analysis because the fiscal analysis will be updated frequently, as described in BDMC 18.98.080.3;

[iv] No basis is provided as to why the methodology described is questionable, and Mr. Derdowski is not a fiscal expert;

[v] The City will undoubtedly retain the services of Henderson & Young or a similarly qualified firm to review future fiscal analysis, much like they retained their services in creating the methodology for performing the analysis; and

[vi] As noted in the City's Staff Report (Exhibit 3) and Steve Pilcher's oral presentation to the Hearing Examiner, "Henderson and Young, a nationally-recognized firm in the area of impact/mitigation fees and municipal fiscal issues", provided expert review of this "Fiscal Impacts Analysis" section of both The Villages and Lawson Hills Development Agreements. See Staff Report (Exhibit 3) at pages 4 and 9. Thus, contrary to Mr. Derdowki's assertion, the City did in fact seek expert review of this Section 13.6.

There is no need or basis to revise this section of the Development Agreements.

SECTION 13.7 (The Villages and Lawson Hills)

Comments:

Brian Derdowski (July 16, 2011, Exhibit 40): "This provision details noise mitigation standards. The following problems apply: There is inadequate provision for the application of King County and Washington State Health Department noise standards and requirements. The provision of a 100-foot buffer may not adequately mitigate noise problems. No provision detailing the method of measurement, time averaging and other methodology. No firm performance standards, monitoring, or enforcement plan."

Cindy Proctor (July 13, 2011,): On July 13th, Ms. Proctor provided verbal testimony that questioned the sufficiency of the noise mitigation provided in the Development Agreements and what constitutes "construction activities" for purposes of triggering the implementation of the noise mitigation.

YarrowBay Response:

The noise attenuation language in Section 13.7 of The Villages and Lawson Hills Development Agreements incorporates directly the language of Conditions of Approval Nos. 44 (The Villages) and 42 (Lawson Hills) of the MPD Permit Approvals. As a result, any problems identified by Mr. Derdowski with the language of Section 13.7, is in fact an attack on the City Council's MPD Permit conditions. Per the Hearing Examiner's Prehearing Order II, such attacks at the sufficiency of the MPDs' Condition of Approval are outside the scope of the Examiner's review authority.

Section 13.7 of both Development Agreements and Conditions of Approval Nos. 44 (The Villages) and 42 (Lawson Hills) provide that noise mitigation measures should be "installed before construction activities begin on the designated development parcel." (Emphasis added.) In response to Ms. Proctor's questions regarding what constitutes "construction activities," the Development Agreements define "construction permits" to include clearing and grading approvals. See

Section 14.0 of the Development Agreements. Thus, because an applicant would need a "construction permit" to clear and grade within The Villages or Lawson Hills MPD, such activities constitute "construction activities" for purposes of triggering noise mitigation installation requirements under the Development Agreements.

Thus, there is no need or basis to revise this section of the Development Agreements.

SECTION 13.8 (The Villages and Lawson Hills)

Comments:

Matt Nolan (Oral testimony on July 21, 2011 and email dated July 21, 2011): In both his email to Steve Pilcher dated Thursday, July 21, 2011 3:59 PM and oral testimony, Mr. Matt Nolan requested the addition of a new condition to Section 13.8 (and Exhibit "P") of the Development Agreements that would prevent the Master Developer from recording any new lots within the MPDs if more than a 50% increase in GVR traffic volume is experienced post-commencement of MPD Development.

In addition to Matt Nolan's testimony, YarrowBay heard many comments during the public testimony portion of the Development Agreement Hearings regarding potential impacts to Green Valley Road resulting from the MPDs. These comments are addressed together in YarrowBay's response below.

YarrowBay Response:

The MPD Condition of Approval 33(a) for The Villages provides as follows:

> The City shall commission a study, at the Applicant's expense, on how to limit MPD traffic from using Green Valley Road, and which shall include an assessment of traffic calming devices within the existing improved right-of-way. The study shall also include an analysis and recommended mitigation ensuring safety and compatibility of the various uses of the road. All reasonable measures identified in the study shall be incorporated into the Development Agreement together with a description of the process and timing required for the Applicant to seek permits from King County should King County allow installation of the improvements, and with a proviso that none of the measures need to be implemented if not agreed to by the Green Valley Road Review committee.

Similarly, MPD Condition of Approval 29 (Lawson Hills) provides as follows:

> The Applicant shall prepare a study, at its expense, for review and approval by the City, on how to limit MPD traffic from using Green Valley Road, and which shall include an assessment of traffic calming devices within the existing improved right-of-way. The study shall also include an analysis and recommended mitigation ensuring safety and compatibility of the various uses of the road. All reasonable measures identified in the study shall be incorporated into the Development Agreement together with a description of the process and timing required for the Applicant to seek permits from King County should King County allow installation of the improvements.

As required by these Conditions, the City commissioned a Green Valley Road study. A copy of this study has been admitted into the record. See Exhibit 30. The mitigation measures identified in the study were incorporated into the Development Agreements at Exhibit "P" along with a description of the process and timing required to seek permits for such provisions and the required proviso. Thus, the requirements set forth in these Conditions of Approval have been satisfied by the Development Agreements. Most importantly, these Conditions of Approval do not require that YarrowBay prevent MPD traffic from traveling on Green Valley Road, but rather to examine whether there are ways to make it less likely that MPD traffic will travel on this road.

Conditions of Approval Nos. 33(b) (The Villages) and 31 (Lawson Hills) require the formation of the Green Valley Road Committee. This committee "shall consist of two representatives of the Applicant, one representative of the City, and two representatives of the community [and] shall meet to review the [Green Valley Road study] and attempt to reach agreement on whether any suggested traffic calming devices should be provided." See Conditions of Approval Nos. 33(b) (The Villages) and 31 (Lawson Hills). Thus, the membership and scope of the Green Valley Road Committee are established by the terms of the MPD Permit Approvals (Ord. Nos. 10-946 and 10-947). Public testimony regarding modifications to the committee's membership, dissolution of the committee, or changes to the committee's scope are outside the purview of these Development Agreement Hearings and cannot be considered by the Hearing Examiner.

The new condition proposed by Matt Nolan for this Section 13.8 must be rejected by the Hearing Examiner. First, there is no authority for the Examiner to add a new condition to the MPDs at this stage of project review. Environmental analysis has been completed. The Villages and Lawson Hills FEISs were deemed adequate by the Examiner. The City issued Notices of Adoption of the FEISs for the Development Agreements. The FEISs did not identify the new condition offered by Matt Nolan. Moreover, neither the Hearing Examiner's recommendation nor the City Council's MPD Permit Approvals (Ord. Nos. 10-946 and 10-947) identified this condition as necessary to meet the BDMC approval requirements for MPD Permits. The purpose of the Development Agreements is to incorporate

the MPD Permit Approvals' conditions not to add new, unauthorized conditions to the development of The Villages and Lawson Hills MPDs. See BDMC 18.98.090.

Second, Green Valley Road has capacity to accommodate MPD traffic. See Exhibit 30 at pages 9-10. The Green Valley Road study (Exhibit 30) concludes that "with the build out of both MPDs all east-west routes [including Green Valley Road] would still have available capacity in 2035." Matt Nolan cited no capacity constraints on Green Valley Road that provide the basis for his new condition. Given the absence of capacity restraints and legal authority, Matt Nolan's proposed new condition for Section13.8 must be rejected by the Hearing Examiner. There is no need or basis to revise this section of the Development Agreements.

SECTION 13.9 (The Villages and Lawson Hills)

Comments:

Brian Derdowski (July 16, 2011, Exhibit 40): "This provision requires the City to adopt a general government facilities mitigation fee within three years or else the Master Developer's obligation is void. Since the fee is paid at the time of building permit issuance, it is likely that this fee will never be collected and the identified impact not mitigated."

YarrowBay Response:

Section 13.9 of The Villages and Lawson Hills Development Agreement is the result of a voluntary agreement by YarrowBay to pay mitigation fees towards general government facility capital improvements. Mr. Derdowski's concerns regarding the general government facilities mitigation fee assumes (without any rational basis) that the City will not take action to adopt a City-wide general government mitigation fee schedule. This section provides the City with ample incentive to enact such a City-wide mitigation fee within three years and provides the tools to enable the City to do so by YarrowBay's funding the necessary study under the MPD Funding Agreement (Exhibit "N"). There is no need or basis to revise this section of the Development Agreements.

SECTION 15.1 (The Villages and Lawson Hills)

Comments:

Brian Derdowski (July 16, 2011, Exhibit 40): "This provision states that the MPD permit application was vested on June 28,2009, while the implementing projects are vested as of the date of MPD permit approval. This provision should be amended to reflect the following: [i] This matter is under litigation; [ii] The MPD requires both an MPD permit approval and a Development Agreement. Thus, the vesting date for the MPD should be when the Development Agreement is approved; [iii] Implementing projects such as subdivisions vest when they are applied for; [iv] Certain other applications are not subject to vesting; [v] Projects

do not vest under SEPA; [and vi] Certain Federal and State regulations do not recognize vesting."

Susan Harvey (July 14, 2011): During Ms. Harvey's verbal testimony, she professed her confusion regarding the vesting provisions outlined in Section 15.1 of the DAs.

YarrowBay Response:

Mr. Derdowski's concerns are not supported by any specific citations to the law or a rationale for his proposed changes. Addressing each in turn reveals that there is no need or basis to revise this section of the Development Agreements:

[i] The Development Agreement is a legal contract that will be in effect for at least 15 years. Therefore, it is inappropriate to reference current litigation. In addition, the statements regarding vesting in this section of the Development Agreements are, as cited in the Development Agreement, derived directly from a 2009 agreement and BDMC 18.98.195, neither of which are the subject of any litigation.

[ii] The vesting date for the MPD Approval is set by City Code, BDMC 18.98.195, as the date of MPD Approval. Pursuant to RCW 36.70B.170(1), the Development Agreements are required to be consistent with the City Code. Mr. Derdowski's requested revision would be inconsistent with City Code.

[iii] Pursuant to RCW 36.70B.170 and RCW 36.70B.180, a development agreement "must" set the development standards that "vest the development, use, and mitigation of the development of the real property for the duration specified in the agreement," and newly adopted ordinances do not apply, and Implementing Permits issued by the City after the execution of the development agreement "must be consistent with the development agreement." Accordingly, State law provides that Implementing Projects, such as subdivisions, will vest to the standards described in the Development Agreements.

[iv] Here, Mr. Derdowski alleges that certain unnamed applications are not subject to vesting. This allegation is unsupported. All Implementing Projects will vest as provided in the Development Agreement.

[v] As the Examiner knows, SEPA is a review process, not a separate permit. Actions reviewed under SEPA do vest to the land use control ordinances in effect at the date of application, or pursuant to the vesting provisions of an adopted development agreement under RCW 36.70B.170 and .180. Finally, pursuant to WAC 197-11-660(1)(a), SEPA mitigation measures or denials shall be based on the formally designated SEPA policies in effect when either a DNS or DEIS is issued.

[vi] Here, again, Mr. Derdowski alleges that some federal and state regulations do

not recognize vesting. This allegation is unsupported. All Implementing Projects will vest to local codes as provided in the Development Agreement.

In response to Susan Harvey's verbal testimony, vesting by subject matter (i.e., stormwater regulations, fiscal impacts, building permits, etc.) is a requirement of BDMC 18.98.195. Pursuant to this BDMC provision and as mirrored in Section 15.1, the MPD permit applications, implementing projects, stormwater regulations, fiscal analysis conditions, and building permits all vest at different times. Implementing permits vest on the date of the MPD Permit Approval (Sept. 20th, 2010), stormwater regulations vest on a phase-by-phase basis, fiscal impact conditions only vest for the period of time as is justified by the required updated analysis, and building permits vest to the building codes in effect at the time a building permit application is deemed complete. While perhaps confusing, Section 15.1 is precisely what is called for by the BDMC. Again, there is no need or basis to revise this section of the Development Agreements.

SECTION 15.2 (The Villages and Lawson Hills)

Comments:

Susan Harvey (July 14, 2011): On July 14th, Susan Harvey raised concerns regarding confusion associated with Section 15.2.

YarrowBay Response:

In accordance with Conditions of Approval Nos. 6 (The Villages) and 5 (Lawson Hills), this Section 15.2 requires a single Master Developer through the term of each Development Agreement. The Villages MPD and the Lawson Hills MPD are separate projects. As a result, a single Master Developer may be named for each MPD – one for The Villages and one for Lawson Hills. This single Master Developer may be the same for both MPDs or it may be different. There is no need or basis to revise this section of the Development Agreements.

SECTION 15.3 (The Villages and Lawson Hills)

Comments:

Brian Derdowski (July 16, 2011, Exhibit 40): "This provision addresses the issue of Assignment. The following problems apply: [i] The City is required to release the Applicant of liability whether or not the release is stated in the assignment document; [ii] The provision does not address the status of outstanding performance bonds; [iii] The provision has no protections for the City from third parties; [and iv] The provisions should include conditions under which the City could deny an assignment."

Susan Harvey (July 14, 2011): On July 14th, Susan Harvey testified that consent by the City should be required prior to any assignment or transfer of the Development Agreements' obligations and interests to a third party.

YarrowBay Response:

Mr. Derdowski's concerns are not supported by any specific citations to the law or a rationale for his proposed changes. Addressing each in turn reveals that there is no need or basis to revise this section of the Development Agreements:

[i] As plainly stated in this section of the Development Agreements, the release of liability for the Master Developer occurs only when the "transferee or assignee assumes the obligations" of the Development Agreement "pertaining to the property transferred or assigned." Therefore, the transferee or assignee would bear the liability, and it is entirely appropriate for the Master Developer to be released of liability.

[ii] Any outstanding performance bonds would be related to construction work currently being performed or planned to be performed. Such bonds will continue to exist as independent legal obligations and need not be addressed in this section.

[iii] It is unclear what "protection" for the City from "third parties" Mr. Derdowski seeks. The assignment provision plainly requires an assignee or transferee to assume the obligations of the Development Agreement. Accordingly, the City is protected.

[iv] There is no basis in the law under which the City should be entitled to deny assignment of the obligations of a Development Agreement, when those Development Agreement obligations are associated with a transfer of real property.

In regards to Susan Harvey's request for the addition of a consent provision, the City and YarrowBay did in fact discuss the need for a consent provision during negotiation of the Development Agreements. For direction, the parties looked at the development agreements of other King County master planned developments (Talus, Issaquah Highlands, Snoqualmie Ridge II, and Redmond Ridge). While the release of liability terms and conditions differed amongst the master planned developments, not one of these five development agreements included a consent provision within their assignment clauses. See, e.g., Redmond Ridge Development Agreements at Section 2.4 (Blakely Ridge at King County Recording No. 9601090553 and Northridge at King County Recording No. 9702181008). City Staff and YarrowBay did, however, agree to incorporate a 30-day prior notice provision into the Development Agreements' assignment clause.

Thus, there is no need or basis to revise this section of the Development Agreements.

SECTION 15.7 (The Villages and Lawson Hills)

Comments:

Brian Derdowski (July 16, 2011, Exhibit 40): "The Exhibit list only includes a

Summary of Prior Agreements. It should include the actual agreements. This provision allows for the amendment of Exhibits H, J, K, M, N, Q, R, by minor amendment. This violates the MPD permit approval, the BDMC, and State law."

YarrowBay Response:

While Mr. Derdowski notes a preference for inclusion of all the Prior Agreements (as defined in Section 3 of each development agreement) in The Villages and Lawson Hills Development Agreements, both the City and YarrowBay felt such inclusion was unnecessary, and only added to the bulk of the Development Agreements.

Mr. Derdowski cites no specific violations of the MPD Permit Approvals, the BDMC, or State law caused by this section. There is no need or basis to revise this section of the Development Agreements.

SECTION 15.8 (The Villages and Lawson Hills)

Comments:

Susan Harvey (July 14, 2011): During her oral testimony on July 14th, Susan Harvey expressed confusion regarding the effect of Section 15.8.

YarrowBay Response:

"Time is of the essence" clauses are common in legal contracts. It is a statement used to specify that the time and dates mentioned in a contract are important to the parties and should not be ignored. Such clauses make parties who fail to meet the dates and times negotiated within a contract potentially liable for a breach of contract claim. Here, City Staff and YarrowBay agree that the dates and time frames specified within the Development Agreements are important to the respective parties. There is no need or basis to revise this section of the Development Agreements.

SECTION 15.9 (The Villages and Lawson Hills)

Comments:

Susan Harvey (July 14, 2011): In her oral testimony, Ms. Susan Harvey stated that she believed this section of the Development Agreements was "philosophically questionable."

YarrowBay Response:

YarrowBay submitted its first version of these Development Agreements in September 2010. Four versions of the Development Agreements were posted on the City's website. As the redlines show, there were significant revisions made to the Development Agreements during the approximately nine-month long negotiation. Such changes included the added payment of a general government facilities mitigation fee (Section 13.9) and the guaranteed construction of a satellite fire station (Section 13.4). The Development Agreements ultimately

submitted to the Hearing Examiner look very different from the versions submitted to the City back in September 2010. There is no need or basis to revise this section of the Development Agreements.

SECTION 15.11 (The Villages and Lawson Hills)

Comments:

Brian Derdowski (July 16, 2011, Exhibit 40): This provision excludes third party beneficiaries. The residents of Black Diamond should be included as third party beneficiaries. One reason for this admittedly novel suggestion is that if the City were to dis-incorporate, and the powers and authority of the City transferred to the County, the residents would need to be able to asset their rights under the contract.

YarrowBay Response:

This issue is addressed by State law. Specifically, RCW 36.70B.190 provides, in pertinent part: "During the term of the development agreement, the agreement is binding on the parties and their successors, including a city that assumes jurisdiction through incorporation or annexation of the area covering the property covered by the development agreement." Therefore, in the unlikely event that the City dis-incorporated, with powers transferred to the County, the County would be bound as a successor to the Development Agreements. There is no need or basis to revise this section of the Development Agreements.

SECTION 15.12 (The Villages and Lawson Hills)

Comments:

Brian Derdowski (July 16, 2011, Exhibit 40): This provision should specifically exclude any instruments and documents that require legislative action.

YarrowBay Response:

This is a standard contract provision that simply provides that "The parties shall execute and deliver to each other all other further instruments and documents that are reasonably necessary to carry out and implement the Agreement." The Development Agreements reference certain acts, such as the release of bonds, that will require legislative action. Such actions are required by City Code and regulations and, therefore, because the Development Agreements must be consistent with code, the Development Agreements must allow those actions. Revising this Section 15.12 to exclude legislative action would be inconsistent with the City's code and regulations. There is no need or basis to revise this section of the Development Agreements.

SECTION 15.16 (The Villages and Lawson Hills)

Comments:

Both the Hearing Examiner and Susan Harvey asked questions about the Development Agreements' terms as set forth in Section 15.16.

YarrowBay Response:

Section 15.16 provides: "Build-Out Period of fifteen (15) years following the date of MPD Permit Approval is established for all Development and construction of uses in the [Villages MPD\Lawson Hills MPD] as authorized in BDMC 18.98.195(A) and RCW 36.70B.170(3)(i). The Build-Out Period may be extended up to an additional five years for any Phase of the [Lawson Hills MPD\Villages MPD] pursuant to BDMC 18.98.195(E)." This language was chosen by the City and YarrowBay because it mirrors exactly the language used in BDMC 18.98.195(E). It has, however, apparently caused some confusion.

To alleviate apparent concerns, YarrowBay suggests the inclusion of the following additional language to the end of this Section 15.16: "In no event, shall the Build-Out Period for all Development and construction exceed twenty (20) years."

EXHIBIT "A" (The Villages)

Comments:

Bob Edelman (July 14,2011, Exhibit 32): In his oral testimony on July 14th and in Exhibit 32, Bob Edelman alleges that the MPD Site Plan (Exhibit "A") and prior approved Land Use Map (see Exhibit "L") violate the contiguity requirement set forth in BDMC 18.98.030(C).

YarrowBay Response:

The Villages MPD Permit Approval (Ord. No. 10-946) at Condition of Approval No. 128 expressly approves the Villages "Land Use Map" and the Land Use Map included multi-family residential uses on a portion of Parcel B. Because the terms of the MPD Permit Approval's conditions cannot be challenged, this issue cannot be raised or decided in the Development Agreement proceeding. There is no need or basis to revise this exhibit of the Development Agreements.

EXHIBIT "D" (The Villages and Lawson Hills)
Please see YarrowBay's response under Section 3.0 above.

EXHIBIT "E" (The Villages and Lawson Hills):

Comments:

Bob Edelman (July 14,2011, Exhibit 33): In his oral testimony on July 14th and in Exhibit 33, Bob Edelman alleges that Exhibit "E" is deficient because it includes an out of date zoning map.

YarrowBay Response:

While Mr. Edelman is correct that the zoning map dated June 2009 in Exhibit "E" does not include certain areas that have been annexed into the City and rezoned since its date of publication, this does not render Exhibit "E" *deficient*. As of September 20, 2010, the MPD Implementing Project vesting date and the date Exhibit 'E" was produced, the City had not yet produced an updated zoning map to reflect the annexations or rezones. The City's failure to produce an updated zoning map, however, does not change the fact that the 2009 annexations occurred or that certain lands were rezoned MPD on September 20, 2010. Those realities are reflected in the MPD Permit Approvals which are incorporated into the Development Agreements at Exhibit C. There is no need or basis to revise this exhibit of the Development Agreements.

EXHIBIT "F" (The Villages and Lawson Hills)

Comments: During the Development Agreement Hearings, YarrowBay heard several citizens testify that the Traffic Monitoring Plan set forth in Exhibit "F" of both Development Agreements is reactive instead of proactive.

YarrowBay Response: These allegations are incorrect. The Traffic Monitoring Plan proposed in Exhibit "F" of both Development Agreements is in fact proactive because it ensures that transportation mitigations are in place and/or constructed prior to experiencing a significant adverse impact on the particular road segment or intersection. In order to further explain the proactive nature of its Traffic Monitoring Plan, YarrowBay asked its transportation consultant, Kevin Jones at Transpo Group, to prepare a more detailed response. His declaration and brief are attached hereto as Attachment 6. There is no need or basis to revise the Traffic Monitoring Plan contained in the Development Agreements.

EXHIBIT "G" (The Villages and Lawson Hills)

Please see YarrowBay's response to Sarah Cooke's comments under Section 8.2.1 above.

EXHIBIT "M" (The Villages and Lawson Hills)

Comments:

Cindy Wheeler (July 16, 2011 and Exhibit 37): In her written and oral testimony, Cindy Wheeler questions the propriety of the Mine Hazard Release Form contained in Exhibit "M" of the Development Agreements and questions whether such form releases YarrowBay from future mine hazard liability.

YarrowBay Response:

Exhibit "M" and Section 13.5 of both Development Agreements provide a liability release form from future homeowners within the MPDs to the City of Black Diamond pursuant to the requirements of the MPD Permits' Conditions of Approval Nos. 116 and 118 (Lawson Hills) and consistent

with BDMC 17.20.040(H). This liability release form is a specific requirement of the MPD Permit Approvals (Ord. Nos. 10-946 and 10-947) and, thus, cannot be challenged in the context of these Development Agreement Hearings. Contrary to Ms. Wheeler's testimony, the liability release form in Exhibit "M" does not release YarrowBay or the Master Developer from any mine hazard liability. There is no need or basis to revise this Exhibit" M" or Section 13.5 of the Development Agreements.

EXHIBIT "N" (The Villages and Lawson Hills)

Comments: During the public testimony portion of the Development Agreement Hearings, several people comments on the MPD Funding Agreement contained within Exhibit "N" of both Development Agreements. These commenters included Bob Edelman and Carol Benson, who submitted written comments regarding the MPD Funding Agreement at Exhibits 33b and 31 respectively. YarrowBay's response to these various comments is summarized below.

YarrowBay Response:
Building Permit Surcharge. Conditions of Approval Nos. 156 and 160 of The Villages and Lawson Hills MPD Permit Approvals, respectively, require that the development agreements contain a new funding agreement to replace the existing funding agreement between the City of Black Diamond and YarrowBay entitled City of Black Diamond Staff and Facilities Funding Agreement dated June 29, 2007 (Exhibit A to Resolution Number 07-451) (hereinafter the "Existing Funding Agreement"). Exhibit "N" of The Villages and Lawson Hills Development Agreements contains the new funding agreement required by these Conditions of Approval.

The Existing Funding Agreement provides that the City will take action to allow YarrowBay to recover its costs under the agreement by adding a "surcharge" to certain City land use application and permits. Section 4(M) of the Existing Funding Agreement provides in relevant part:

> The City will take actions so that Yarrow Bay can recover the Supplemental Costs by adding a surcharge, to the extent allowed by law, to all impact fees, latecomer's agreements, and all other financial obligations that are created by City codes, and to all fees charged for the following land use applications and permits submitted by Benefited Non-Contributing Parties: MPD Applications, multifamily dwelling unit building permits, subdivisions, multiple short plats, commercial/industrial site plans, and single family home construction permits if more than one is submitted in a 12 month period, This surcharge, designed to amortize Supplemental Costs, shall be equivalent to the Benefited Non-Contributing Party's pro-rata fair share of the Supplemental Costs. . . .

The building permit surcharge proposed in Section 9 of the new MPD Funding Agreement at Exhibit "N," however, is far narrower than the surcharge originally contemplated in the Existing Funding Agreement. In the new MPD Funding Agreement, the building permit surcharge would only apply to building permits issued for new construction within The Villages and Lawson Hills MPDs, would only be allowed if authorized by law or private agreement between the Master Developer[11] and its subsequent purchasers, and, most importantly, if and only if the City Council adopts another resolution (after the Development Agreements are approved) authorizing such a surcharge. Thus, the building permit surcharge proposed in the new MPD Funding Agreement has no effect on property owners outside the MPDs, only applies to building permits (instead of all land use and construction permits generally), and will only come into effect if the City Council adopts an authorizing resolution subsequent to its approval of the Development Agreements.

MDRT. The new MPD Funding Agreement establishes a Master Development Review Team or "MDRT." The primary function of the MDRT is to process, review, and implement development permits and the development agreements of the MPDs. The team is responsible for reviewing all permits (other than building) necessary to implement The Villages and Lawson Hills MPDs and ensures that the MPDs are built according to the premises outlined in the development agreements. Most importantly, the MDRT will be a steward of the "Rural by Design" vision established by the City Council for master planned developments at no cost to the City of Black Diamond because it is funded entirely by YarrowBay.

The MDRT concept was borrowed from the City of Issaquah. Issaquah originally implemented the MDRT concept so that the workload from its Issaquah Highlands and Talus master developments would not adversely impact existing City staff workloads; so that a dedicated team would understand and consistently apply the detailed conditions and requirements imposed on the master developments; and in keeping with a concept of not impacting City resources, by having a completely developer reimbursed review team thereby ensuring that "development pays for growth." Based on Issaquah's success, Black Diamond City staff and YarrowBay jointly agreed to incorporate a similar MDRT concept into the new MPD funding agreement.

Contrary to Mr. Edelman's assertions, RCW 35A.110.020 does not restrict municipalities ability to enter into contracts. See U. S. v. Town of North Bonneville, 94 Wn.2d 827 (1980).

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[11] This language in the MPD Funding Agreement addresses any alleged RCW 82.02.020 problem as asserted by Mr. Edelman.

Relationship between the MPD Funding Agreement and Fiscal Analysis. Bob Edelman alleges that the MPD Funding Agreement violates MPD Conditions of Approval Nos. 156 (The Villages) and 160 (Lawson Hills) because it is not part of the fiscal analysis. Mr. Edelman's concerns are just a matter of form. Notwithstanding Mr. Edelman's strained interpretation that the fiscal analysis "shall include a specific "MPD Funding Agreement," the fiscal analysis and the MPD Funding Agreement are in fact interdependent and linked. Section 4 of the MPD Funding Agreement requires the Master Developer provide funding, staffing, or other equipment necessary to satisfy any deficit projected by the Development Agreements' fiscal analysis. Subsections (5) and (6) of the "Fiscal Impacts Analysis" section (Section 13.6) of the Development Agreements incorporate the MPD Funding Agreement and its terms by reference. The fiscal analysis and MPD Funding Agreement are interconnected; Mr. Edelman's comments merely place form over substance.

Moreover, Mr. Edelman's concerns regarding the mechanics of separate agreements (i.e., a Development Agreement and MPD Funding Agreement) are overstated. First, by definition, an amendment to the MPD Funding Agreement is a minor modification of the Developments Agreements. See Section 15.7 of the Development Agreements. Second, as addressed below, there is no partial assignment of the MPD Funding Agreement because there can be only one Master Developer for each MPD at a time. Third, given deficiencies in the existing Staff and Facilities Funding Agreement, the City and YarrowBay specifically drafted the MPD Funding Agreement to commence upon execution in the unlikely event that the City Council elected to move forward with the new MPD Funding Agreement before taking action on the Development Agreements. And, finally, a distinct "MPD Funding Agreement" was specifically called out in Conditions of Approval Nos. 156 (The Villages) and 160 (Lawson Hills).

Assignment. The MPD Conditions of Approval Nos. 6 (The Villages) and 5 (Lawson Hills) require a single Master Developer through the life of the Development Agreements. Section 16 of the MPD Funding Agreement authorizes BD Village Partners, LP and/or BD Lawson Partners, LP (following notice and evidence of ability to meet the security obligations) to assign their interest in the MPD Funding Agreement to the next single Master Developer appointed for either of the MPDs, if any. Partial assignment is not applicable because of the single Master Developer requirement. Mr. Edelman's concerns are therefore misplaced.

MPD Funding Agreement Review and Processing. Mr. Edelman asserts in Exhibit 33b that new MPD Funding Agreement should be processed as a separate standalone agreement. While this may be Mr. Edelman's preference, he cites no State law or city regulation that requires such processing. Here, the City has opted to process the new MPD Funding Agreement together with the Development Agreements. Consolidated review is authorized at BDMC 18.98.050.

Consideration and Surety. In his Exhibit 33b, Bob Edelman alleges that the MPD Funding Agreement provides "no consideration from Yarrow Bay and its hold harmless clause lacks surety." Mr. Edelman is incorrect in both allegations. First, under contracts law, consideration is anything of value promised to another when making a contract. Here, YarrowBay's consideration is payment of its Total Funding Obligation. Payment is the quintessential form of consideration. Second, per Section 10 of the MPD Funding Agreement, YarrowBay is required to provide the City with security in the form of a deed of trust and letter of credit. If YarrowBay defaults under the MPD Funding Agreement (e.g., does not perform under the hold harmless clause), the City is protected. Thus, surety is in fact provided.

Thus, there is no need or basis to revise the new MPD Funding Agreement contained within Exhibit "N" of the Development Agreements.

EXHIBIT "O" (The Villages and Lawson Hills)

Comments:

Bob Rothschilds (July 16, 2011): In his oral testimony on July 16th, Bob Rothschilds asserted that without its "no net increase in phosphorus commitment" YarrowBay was not in compliance with the MPD Permits' Conditions of Approval Nos. 81 (The Villages) and 85 (Lawson Hills).

YarrowBay Response:

The Villages and Lawson Hills MPDs are consistent with the second portion of Conditions of Approval Nos. 81 (The Villages) and 85 (Lawson Hills) that states: "...and that will comply with the TMDL established by the State Department of Ecology for Lake Sawyer." In order to substantiate this fact, YarrowBay asked its lake expert (i.e., limnologist) to prepare a letter in response to Mr. Rothschilds' testimony. The letter prepared by Harry L. Gibbons, Ph.D. is attached hereto as Attachment 7. There is no need or basis to revise this exhibit of the Development Agreements.

EXHIBIT "P" (The Villages and Lawson Hills)

Please see YarrowBay's response under Section 13.8 above.

III. YARROWBAY'S RESPONSE TO LEGAL ARGUMENTS

A. The City's MPD Permit Regulations Require a Development Agreement Before the City May Approve any MPD Implementing Permits.

Legal Assertion (Derdowski, Exhibit 40):

> "The BDMC (18.98.050 (A)) states: "An approved MPD permit and Development Agreement shall be required for every MPD." The City's approval of the MPD permit conveyed no entitlement to the Applicant unless and until a Development Agreement is approved."

YarrowBay Response:

The City's MPD Ordinance, Chapter 18.98 BDMC, requires an MPD Permit and the execution of a development agreement "before the city may approve any subsequent implementing permits or approvals (preliminary plat, design review, building permit, etc.)." BDMC 18.98.090; see also 18.98.050(C); BDMC 17.12.010 ("A preliminary plat application will not be accepted for property within an MPD zone unless there is a previously approved MPD permit."). While the approval of MPD implementing permits is contingent on execution of a development agreement, the City's municipal code specifically does not make the approval of an MPD Permit contingent on a development agreement. See BDMC 18.98.040 that lists the City's MPD Permit application requirements. A development agreement is notably missing from the list of requirements.

An MPD Permit constitutes an entitlement and a property interest. It is both transferrable and assignable. Under Washington law, the need for subsequent City approval or permit does not alter the original permit's status as an entitlement. See *Lutheran Day Care v. Snohomish County*, 119 Wn.2d 91, 829 P.2d 746 (1992) (holding that a conditional use permit, a discretionary land use decision subject to ongoing approval, is an entitlement subject to due process claims). For example, under Washington's subdivision statute, Chapter 58.17 RCW, a final plat approval is needed before building permits can be approved for houses within a subdivision. The need for final plat approval does not render a preliminary plat approval a non-entitlement. Washington courts have long recognized preliminary plat approvals as entitlements. See *Noble Manor Co. v. Pierce County*, 133 Wn.2d 269, 943 P.2d 1378 (1997) (holding that a vested preliminary plat entitles the owner to develop the property in accordance with the laws existing at the time of vesting). Likewise, approved MPD Permits under the BDMC are entitlements entitled to due process protection.

B. The Development Agreements are a Contract.

Legal Assertion (Derdowski, Exhibit 40):

> "The Development Agreement is a "voluntary" contract as defined by State law. The City has no obligation and cannot be compelled to adopt a Development Agreement. The Growth Management Hearings Board has ruled that the MPD permit approval was a legislative action. Unlike an administrative act such as a

> building permit, the Applicant has no fundamental right to the conclusion of a *contract,* as Development Agreements are defined in the Statute. The City cannot be restricted in its consideration of a *voluntary contract* Development Agreement in the same way that an administrative review of a building permit can be. The exercise of the City's contracting authority is legislative and discretionary. The Council has the authority to amend the Development Agreement based on its own legislative judgment."

YarrowBay Response:

Washington State law authorizes jurisdictions to enter into development agreements in RCW 36.70B.170. The City's MPD Ordinance provides the "MPD conditions of approval shall be incorporated into a development agreement as authorized by RCW 36.70B.170." BDMC 18.98.090 (emphasis added). The term "shall" is not permissive or voluntary. *Waste Mgmt. of Seattle, Inc. v. Utilities and Transp. Com'n*, 123 Wn.2d 621, 629, 869 P.2d 1034 (1994) ("The use of the word 'shall' imposes a mandatory duty."). Moreover, the mandatory development agreement requirement is binding on both the City and any MPD applicant alike. Notably, the code does not say that *an MPD applicant* shall incorporate the MPD conditions of approval into a development agreement. While development agreements in other jurisdictions for other projects may be "voluntary" as asserted by Mr. Derdowski, the BDMC compels the adoption of a development agreement by both the City and YarrowBay to incorporate the conditions of an MPD Permit approval.

Here, because: (i) the development agreements are a mutual requirement of both the City and YarrowBay per the City's MPD Ordinance (BDMC Ch. 18.98) (ii) the MPD Permit Approvals are entitlements (as summarized in III(A) above); and (iii) development agreements are an explicit condition of the MPD Permit Approvals themselves, YarrowBay does in fact have a right to the conclusion of these Development Agreements. See Condition of Approval No. 2 of both The Villages and Lawson Hills MPD Permit Approvals. Municipalities are legally prohibited from arbitrarily withholding subsequent approvals (such as a development agreement) from property owners that are necessary as a condition of a prior permit approval. See *Mission Springs, Inc. v. City of Spokane*, 134 Wn.2d 947 (1998).

Given the mandatory nature of The Villages and Lawson Hills Development Agreements combined with specific requirements within the BDMC, the City Council's discretion in consideration of these Development Agreements is in fact not purely discretionary. First, the provisions of the Developments Agreements cannot amend the specific Conditions of Approval set forth in the MPD Permit Approval Ordinances (Nos. 10-946 and 10-947). Conditions of the MPD Permit Approvals can only be amended or revoked by the City Council pursuant to the revocation process set forth in BDMC 18.98.200. Revocation is only permitted after notice and in limited circumstances. See Id. Negotiation of a development agreement is not one of those limited circumstances. Second, the BDMC established the City's development agreement review process at a Type-4, quasi-judicial decision. See BDMC 18.08.070. Thus, per the City's code, the City Council's development agreement decisions are not legislative and must be "based

on the factual record developed at the hearing examiner hearing". See, Id. Thus, the City Council may only amend the Development Agreement based on the record, not its legislative judgment.

The Growth Management Hearings Board ("GMHB") did rule on February 15, 2011 that The Villages and Lawson Hills MPD Permit Approval Ordinances (Nos. 10-946 and 10-947) should have been treated by the City of Black Diamond as legislative actions. However, that February 15th ruling has been appealed and the Court of Appeals has granted direct review.[12] Most importantly, the GMHB has refused three times to deem the MPD Permit Approval Ordinances invalid and the GMHB's February 15th compliance order has been stayed by the Superior Court.[13] Therefore, the MPD Permit Approval Ordinances remain valid during these development agreement hearing proceedings. See RCW 36.70A.300(4) ("Unless the board makes a determination of invalidity as provided in RCW 36.70A.302, a finding of noncompliance and an order of remand shall not affect the validity of comprehensive plans and development regulations during the period of remand."). Even if the MPD Permit Approval Ordinances are ultimately deemed legislation, the City's adopted codes still require that the Development Agreements be processed as described above.

C. The City's Regulations Require that Development Agreements be Reviewed Using a Quasi-Judicial Process.

Legal Assertion (Derdowski, Exhibit 40):

> "The City may review and process the Development Agreement using a method that is similar to that used for quasi-judicial proceedings. The City may limit the Hearing Examiner's work scope and Hearing to the conduct of a quasi-judicial hearing on a narrow aspect of the Development Agreement, such as whether or not it complies with the MPD permit approval. However, the Council's consideration of the Development Agreement is fundamentally legislative, and cannot be bound by the record or quasi-judicial processes. During Council review, the Development Agreement is subject to the public participation requirements governing land use planning and other notice, hearing and due process requirements of law."

YarrowBay Response:

The City of Black Diamond is required to follow its own municipal code, including when that code calls for a quasi-judicial process. *Phoenix Development, Inc. v. City of Woodinville*, ___ Wn.2d ___, ___ P.3d ___, 2011 WL 2409635 at 6 (June 16,

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[12] On February 18, 2011, Yarrow Bay filed a Petition for Review of Agency Action in King County Superior Court appealing the February 15, 2011 Board's Order on Motions (King County Cause No. NO.11-2-07352-1 KNT). Subsequently, a Petition for Direct Review in the Court of Appeals was filed and the Court granted review on June 15, 2011 (Court of Appeals, Div. I, No. 67095-6-I).

[13] Central Puget Sd. Growth Mgmt. Hrgs. Bd. No. 10-3-0014, February 15, 2011 (Order on Motions), March 17, 2011 (Order Denying Motion for Reconsideration on Issue of Invalidity), June 20, 2011 (Order Denying Motion for Invalidity Based on New Information); King County Cause No. 11-2-17444-1 KNT, June 14, 2011 (Order Granting Motion to Stay).

2011). The Black Diamond Municipal Code requires that development agreements be reviewed pursuant to a Type 4, Quasi-Judicial process. See BDMC 18.08.070. Thus, the City has to use a quasi-judicial process for The Villages and Lawson Hills Development Agreements. Mr. Derdowski's use of the word "may" is misplaced.

As noted in YarrowBay's response to III(B) above, the City Council is in fact bound by the record and the quasi-judicial process because that is what BDMC Chapter 18.08 requires. The City's review process for development agreements was adopted by the City in 2009 by Black Diamond Ordinance No. 909. It was not appealed, is therefore presumed valid, and must be followed by the City Council. RCW 36.70A.320(1). Given the City's code requirements and because development agreements are not legislative actions subject to GMHB review,[14] the Development Agreements are not, contrary to Mr. Derdowski's assertions, subject to "the public participation requirements governing land use planning." Due process requirements of law apply to the The Villages and Lawson Hills Development Agreement hearings and must be applied equally to the City, YarrowBay, and to the interested persons participating in the hearing, whom the Examiner has deemed "parties".

D. The Development Agreements are Consistent with the BDMC.

Legal Assertion (Derdowski, Exhibit 40):

> "The Development Agreement is a "stand-alone" document. The authority to adopt a Development Agreement is established and defined in State law. The City cannot change the fundamental State-defined legal characteristics of Development Agreements. The Development Agreement must be consistent with the Black Diamond Municipal Code (BDMC). Whether the Development Agreement is consistent with the BDMC is a determination that is independent of the MPD approval. MPD approval conditions are not subject to review during the Development Agreement review process. However, any Development Agreement provision can be challenged as to its consistency with the BDMC."

YarrowBay Response:

The City of Black Diamond's development agreement review process was adopted in 2009. See Black Diamond Ordinance No. 909. It was not appealed. Therefore, the City's development agreement review process is presumed valid and consistent with

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[14] *City of Burien v. Central Puget Sound Growth Management Hearings Bd.*, 113 Wn.App. 375, 386 n.11, 53 P.3d 1028 (2002) (explaining that unlike development regulations, which the growth management hearings board has express jurisdiction to review, development agreements are individual agreements between cities and property owners regarding the development, use, and mitigation of the development of a specific piece of property; while development agreements must be consistent with the development regulations adopted under the GMA, a challenge to a development agreement does not involve the city's compliance with the GMA, but rather involves the effect of the comprehensive plan on specific land use decisions, and the board does not have jurisdiction over these types of issues.); see also *Sno-King Environmental CPSGMHB Alliance et al. v. Snohomish County*, No. 06-3-0005, 2006 WL 1668256 at 5 (Central Puget Sd. Growth Mgmt. Hrgs. Bd. May 25, 2006) (Order on Motions) ("The Boards and the Courts have made it clear that the Boards do not have jurisdiction to review project decisions, including development agreements for projects....").

Washington State law. See RCW 36.70A.320(1) ("[C]omprehensive plans and development regulations, and amendments thereto, adopted under this chapter are presumed valid upon adoption."). As a result, the propriety of the City's development agreement review process cannot be challenged in the context of The Villages and Lawson Hills Development Agreement hearings. The time for that challenge ended sixty days after Black Diamond Ordinance No. 909 was adopted in 2009. See RCW 36.70A.290(2) ("All petitions relating to whether or not an adopted comprehensive plan, development regulation, or permanent amendment thereto, is in compliance with the goals and requirements of this chapter or chapter 90.58 or 43.21C RCW must be filed within sixty days after publication by the legislative bodies of the county or city.").

The Villages and Lawson Hills Development Agreements must incorporate the MPD conditions of approval. See BDMC 18.98.090. These conditions of approval have already been reviewed and approved as consistent with the BDMC by the Black Diamond City Council. See Ex.B-Conclusions of Law in the MPD Permit Approval Ordinances (Nos. 10-946 and 10-947). The MPDs' conditions of approval cannot be revisited in the context of the Development Agreement hearings. See discussion of revocation in III(B) above. Thus, the portions of the Development Agreements that merely incorporate the MPD Permit Approval Conditions of Approval cannot be challenged for consistency with the Black Diamond Municipal Code. However, any provisions of The Villages and Lawson Hills Development Agreements that are not required by the MPDs' Condition of Approval may be challenged as to their consistency with the BDMC.

Mr. Edelman's example of an alleged inconsistency between The Villages Development Agreement and the BDMC is the allegation that The Villages North Property (also known as Parcel B) cannot include multi-family uses under BDMC 18.98.030(C). See Exhibit 32. While Mr. Edelman's argument is incorrect, and Yarrow Bay would dispute it in the event the argument was ever made in a proper forum, as to the Development Agreement hearing, it is a perfect example of something that is not relevant. The Villages MPD Condition of Approval No. 128 expressly approves the "Land Use Map" and the Land Use Map included multi-family residential uses on a portion of Parcel B. Because the terms of the MPD Permit Approval Conditions of Approval cannot be challenged, this issue cannot be raised or decided in the Development Agreement hearings

E. The Development Agreements Must Implement the Conditions of the MPD Permit Approvals.

Legal Assertion (Derdowski, Exhibit 40):

> "If a provision of the Black Diamond Municipal Code (BDMC) is violated by the draft Development Agreement, then the Agreement must be amended to comply with the code. If the MPD approval is silent on an issue that is addressed in the BDMC, the Development Agreement may include conditions that conform with the code. The Development Agreement may include conditions that are based on an adverse environmental impact that has been identified in a prior adopted SEPA document."

YarrowBay Response:

The Villages and Lawson Hills Development Agreements as presented to the Black Diamond Hearing Examiner are consistent with the Black Diamond Municipal Code (BDMC). Notwithstanding that fact, and as noted in YarrowBay's response to III(D) above, only those portions of the Development Agreements that are not required by The Villages and Lawson Hills MPDs' Conditions of Approval (see Ex. C of the MPD Permit Approval Ordinances) may be reviewed for their consistency with the BDMC.

The Black Diamond City Council approved The Villages and Lawson Hills MPDs subject to the Conditions of Approval set forth in Exhibit C of each MPD Permit Approval Ordinance (Ord. Nos. 10-946 and 10-947). Therefore, it was the City Council's position that as conditioned, the MPD Permit Approvals met the BDMC requirements. As a result, no new conditions or obligations can be added, outside of the MPD Permit revocation process or pending MPD Permit appeals, without the consent of YarrowBay provided all of the MPD Conditions of Approval have been incorporated in the Development Agreements. Moreover, future MPD implementing projects and approvals must comply with the version of the BDMC to which they are vested. See Exhibit "E" of The Villages and Lawson Hills Development Agreements. Thus, there is no need or basis to add conditions to the Development Agreements.

Finally, the MPD Permit Approvals (Ord. Nos. 10-946 and 10-947) and the Development Agreements are two different approvals for the same project. The Final Environmental Impact Statements for The Villages and Lawson Hills MPDs ("FEISs") identified the probable adverse impacts generated by the MPDs and provided mitigation measures. The FEISs were deemed adequate by the Hearing Examiner and were adopted by the City for these Development Agreements. See Notices of Adoption attached hereto as Attachment 8. The FEIS mitigation measures were incorporated into The Villages and Lawson Hills MPD Permit Approvals' Conditions of Approval. See Exhibit C of the MPD Permit Approval Ordinances. Those Conditions of Approval have been incorporated into the Development Agreements under review by the Hearing Examiner. The City's SEPA Adoption has not been administratively appealed indeed, by law, it is not subject to appeal. WAC 197-11-680(3). Therefore, the propriety of the adoption is not before the Hearing Examiner. Accordingly, it is inappropriate, and outside of the Hearing Examiner's authority, to include any additional SEPA-based mitigation measures in the Development Agreements at this time.

F. The Development Agreements are not Subject to a Pending SEPA Appeal for the Hearing Examiner.

Legal Assertion (Derdowski, Exhibit 40):

> "The Development Agreement's environmental impacts are not necessarily the same as those that were examined during the MPD permit review. The prior adopted environmental documents were developed many months ago, and since then the MPD's impacts have changed. The Development Agreement has a different force and effect than the MPD permit approval. For example, key

> provisions regarding design criteria, funding, vesting, phasing, and other issues are different or go beyond the MPD permit approval. Some of these new provisions potentially pose adverse environmental impacts that were not evaluated in the prior adopted environmental documents. The Development Agreement's new provisions regarding additional accessory dwellings and attached single family housing units were not evaluated in the prior adopted environmental documents. The Development Agreement's maps and exhibits have provisions that were not evaluated in the prior adopted environmental documents."

YarrowBay Response:

The matter now before the Hearing Examiner is limited to the issue of whether the Development Agreements for The Villages and Lawson Hills MPDs should be approved. Under the BDMC, the Examiner is charged with the duty of evaluating the Development Agreements and then making a recommendation to the City Council.[15] Some opponents of the MPDs wish to use the Development Agreement hearings as a forum in which to assert SEPA noncompliance. The law, however, provides them no such opportunity and, in fact, prohibits such arguments.

SEPA requires agencies to conduct a review of the environmental impacts of a proposal when those impacts can be reasonably identified.[16] The Villages and Lawson Hills MPDs underwent extensive environmental review, resulting in a final environmental impact statement ("FEIS") for each project.

The FEISs evaluated the environmental impacts of the MPDs, and referenced both the MPD Permits and the Development Agreements as expected "permits and approvals" as required by WAC 197-11-440(2)(d). On September 20, 2010, the MPDs were approved in Black Diamond Ordinances Nos. 10-946 and 10-947. Those approvals, together with the adequacy of the FEISs, were subsequently appealed and are now within the jurisdiction of the courts.

The City's Notice of Adoption plainly states: "Pursuant to WAC 197-11-680(3), there is no agency appeal of either the Determination of Significance or the adoption of an existing environmental document."[17] This is in accordance with the SEPA Rules, which exclude a notice of adoption from the limited issues subject to administrative appeal. WAC 197-11-680(3)(iii) states that administrative "[a]ppeals on SEPA procedures shall be limited to review of a final threshold determination and final EIS." A notice of adoption is neither a final threshold determination nor a final EIS. Accordingly, the City is prohibited from allowing an administrative appeal of the City's Notice of Adoption.

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[15] BDMC 18.08.070.
[16] WAC 197-11-055(2).
[17] *See* Determination of Significance and Adoption of Existing Environmental Document dated June 3, 2011 regarding Development Agreements for Lawson Hills and The Villages.

The SEPA Rules provide that an "agency acting on the same proposal shall use an environmental document unchanged."[18] Under the BDMC, the MPD conditions of approval are required to be incorporated into the Development Agreements, so as to bind all MPD property owners and their successors, to "develop the subject property only in accordance with the terms of the MPD approval."[19] Because the Development Agreements are a requirement to document the MPD Conditions of Approval, and the Development Agreements were specifically referenced in the FEISs, the "proposals" are the "same," and the City correctly adopted the existing FEISs unchanged, as required by SEPA.[20]

Because there is no administrative SEPA Appeal of a Notice of Adoption, allowing SEPA arguments and evidence in the Development Agreement hearings is contrary to law; that is, allowing opponents to essentially present a case when the Examiner has no jurisdiction or authority to hear it is prohibited by the SEPA Rules. In addition, because the FEISs for the same proposal have already been subjected to appeal on the same proposal, which appeals are now before the Courts, allowing SEPA arguments and evidence in the Development Agreement hearings authorizes an inappropriate collateral attack on the FEIS. In addition to being illegal, arguments and evidence regarding environmental impacts and the environmental review process and FEIS are simply irrelevant to the issues under review regarding the Development Agreements. Under Evidence Rule 402, "[e]vidence which is not relevant is not admissible." (Emphasis added). Hearing Examiner Rules of Procedure 2.06 and 2.14 also support excluding and/or striking any irrelevant evidence. Therefore, the Examiner must strike all existing arguments and evidence alleging a failure to address environmental impacts in the Development Agreement hearings and must exclude any future proffered evidence and argument.

G. The Development Agreements are Subject to SEPA.

Legal Assertion (Derdowski, Exhibit 40):

> "The Development Agreement is subject to its own separate SEPA review. The SEPA Responsible Official has determined that prior environmental documents are sufficient. The SEPA Responsible Official's determination is subject to appeal. These proceedings are the best and possibly only opportunity for parties to establish a record as to whether or not the prior environmental documents are sufficient to address issues posed by the Development Agreement. Offering information that documents that the prior environmental documents have not addressed all SEPA related issues posed by the Development Agreement is relevant and useful to inform the Council. Offering information that documents the probability of a significant adverse environmental impact if the Development Agreement is adopted is relevant and useful to inform the Council."

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[18] WAC 197-11-600(3) (emphasis added). There are three exceptions to this Rule, none of which applies in this case.
[19] BDMC 18.98.090.
[20] *See* Determination of Significance and Adoption of Existing Environmental Document dated June 3, 2011 regarding Development Agreements for Lawson Hills and The Villages ("Notice of Adoption").

YarrowBay Response:

As noted in YarrowBay's response contained in Section III(F) above, the City Council has no authority to add SEPA-based conditions to The Villages and Lawson Hills Development Agreements. The adequate FEIS mitigation measures have already been incorporated into the MPD Permits' Conditions of Approval. Therefore, any SEPA-related information or testimony is not relevant to the Black Diamond City Council's review of The Villages and Lawson Hills Development Agreements. Such testimony should be struck by the Hearing Examiner as irrelevant to the Development Agreement hearings.[21]

H. The Development Agreement's Terms and Conditions are Fundamentally Affected By the Vesting of Three Implementing Subdivisions (Derdowski, Exhibit 40).

Legal Assertion (Derdowski, Exhibit 40):

"The City's approval of the MPD included a condition that a Development Agreement had to be approved "prior to any approval of subsequent implementing permits or approvals." (Condition Number 2). The City received and deemed complete applications for three implementing subdivisions for the Lawson Hills MPD, (Phase 2, Preliminary Plat B), and The Villages MPD, (Phase 1 A Preliminary Plat and Phase 2, Preliminary Plat A). The determination of a complete application is an "approval". It is an important "approval" because it determines vesting. The City's approval of applications for the purpose of vesting violates the BDMC and the MPD approval. However, that issue is not under review during the Development Agreement Hearing. What is under review, however, are the terms and conditions of the Development Agreement Contract. Those terms and conditions cannot apply to the implementing subdivisions if they are vested as of the date of their application. If the terms and conditions of the Development Agreement do not apply to the three subdivisions, then its environmental mitigations and standards for large areas of the MPD don't apply. This constitutes a fundamental inconsistency with the BDMC, the MPD approval, and SEPA."

YarrowBay Response:

The three preliminary plat applications filed by YarrowBay (Villages MPD Preliminary Plat 1A and 2A and Lawson Hills MPD Preliminary Plat 2B) are not currently before the Hearing Examiner and, thus, irrelevant to the Examiner's and the City Council's review of the Development Agreements. Notwithstanding that fact,

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[21] Pursuant to the legal arguments presented in YarrowBay's response in Sections III(F) an (G), YarrowBay asks that the Hearing Examiner strike the letter submitted by the Sierra Club, South King County Group (Exhibit 56). This sole focus of this Sierra Club letter is that the MPDs, as approved, fail to appropriately mitigate significant environmental impacts. Again, the FEISs and its proposed mitigation measures were deemed adequate. No SEPA appeal is pending in front of the Hearing Examiner. And, as a result, such testimony is irrelevant to the Hearing Examiner's recommendation to the City Council on the Development Agreements.

YarrowBay offers the following response to Mr. Derdowski's statements regarding these subdivisions.

Both the BDMC and The Villages and Lawson Hills MPD Permit Approvals require the execution of a development agreement prior to the approval of any "implementing permits or approvals (preliminary plat, design review, building permit, etc.)." BDMC 18.98.090; *see also* Condition of Approval No. 2 of The Villages and Lawson Hills MPD Permit Approvals. The City's subdivision title also states at BDMC 17.12.010: "A preliminary plat application will not be accepted for property within an MPD zone unless there is a previously approved MPD permit."

In compliance with this requirement, City Staff accepted the three above-referenced preliminary plat applications after The Villages and Lawson Hills MPD Permits were approved on September 20, 2010, and subsequently deemed the applications "complete". Contrary to Mr. Derdowski's assertions, however, a "determination of completeness" is not an approval of an implementing approval, such as the approval of a preliminary plat. First, determinations of completeness may occur as a matter of law; whereas, approvals of implementing permits cannot. Under RCW 36.70B.070(4)(a), where a local government in receipt of a preliminary plat application does not provide written notice to the applicant within 28 days that the application is incomplete, the application is deemed complete as a matter of law. See *Lauer v. Pierce County*, 157 Wn.App. 693, 709 (2010). Therefore, if, as required by BDMC 17.12.010, City Staff had simply accepted YarrowBay's three preliminary plat applications and performed no further review, the applications would have been deemed complete as a matter of law without any action taken by City Staff. Washington courts have also explicitly recognized the difference between determinations of completeness and preliminary plat approvals. See *Lauer v. Pierce County*, 157 Wn.App. 693, 709 (2010); *Schultz v. Snohomish County,* 101 Wn.App.683, 701 (2000).Thus, City Staff's acceptance of YarrowBay's preliminary plat applications and subsequent determinations of completeness do not violate the BDMC or MPD Permit Approvals.

The provisions of the Development Agreements, however, do not create development regulations that any implementing project *vests or does not vest* to. The Development Agreements are contracts. They are not legislative actions subject to GMA standards and GMHB review. See footnote 14. The terms and conditions of the Development Agreements apply to the three preliminary plats because that is what is called for in the contracts themselves: "This Agreement governs and vests the development, use, and mitigation for [The Villages/Lawson Hills] Master Planned Development . . . Land within the boundaries of [The Villages/Lawson Hills] MPD shown on Exhibit "A", together with the associated off-site improvements, shall be physically developed only pursuant to the terms and conditions of this Agreement." See Section 2.1 of the Development Agreements. Moreover, per RCW 58.17.033 and BDMC 18.14.030, subdivisions vest under the "zoning and other land use control ordinances" (emphasis added). RCW 36.70B.170 makes clear that development agreements do not create new regulations, but instead are to be consistent with existing regulations: "A development agreement shall be consistent with applicable development regulations

adopted by a local government planning under chapter 36.70A RCW." (Emphasis added.) As such, development agreements cannot create "zoning and other land use control ordinances" that permit applications vest to; instead they are contracts that document the standards that will guide development. Thus, the "fundamental inconsistency" alleged by Mr. Derdowski is fictional.

I. Revised Language for the Development Agreements may be Offered by the Parties at any time during the Development Agreement Hearings Provided such Revisions are Based on Evidence in the Record.

Legal Assertion (Hearing Examiner, via email dated July 19, 2011 4:23 PM):

In this email, the Hearing Examiner provides: "No [Development Agreement] revisions will be accepted after the close of the initial two week written comment period."

YarrowBay Response:

For the reasons summarized below, YarrowBay respectfully objects to the Hearing Examiner's email dated July 19, 2011 4:23 PM. Precluding YarrowBay from offering revised contract language in response to public comment and concern is a violation of YarrowBay's due process rights. In addition, the Examiner's analysis inappropriately incorporated a Growth Management Act ("GMA") standard into a quasi-judicial permit review process. For these two reasons, the Hearing Examiner's ruling should be revisited and reversed.

First, the Hearing Examiner's ruling sets a deadline for YarrowBay that cuts off our ability to rebut public testimony with any revised language. This deadline requires YarrowBay to submit proposed development agreement changes before the deadline for final public comment. Due process requires an opportunity to respond that is useful. See *State v. Cozza*, 71 Wn.App. 252, 254 (1993). The Hearing Examiner's July 19th ruling effectively precludes YarrowBay from being able to respond to public testimony in a useful manner and, therefore, violates due process. It also defies common sense to preclude a party to a negotiated agreement from responding to public comments and concerns by offering additional or altered language.

Second, the City of Black Diamond has established a Type 4 – Quasi-Judicial process for the review of development agreements. See BDMC 18.08.030, .070. Per the City code, Type 4-Quasi-Judicial decisions are not subject to the GMA. See BDMC 18.08.070; *but compare* BDMC 18.08.080. These City code provisions were not appealed within 60 days of their adoption and are therefore presumed valid. RCW 36.70A.302(1). As a result, it is inappropriate for the Hearing Examiner to interject a GMA standard for public participation – RCW 36.70A.035 – into this quasi-judicial process.

For the reasons stated above, the Hearing Examiner's limitation on the submittal of new agreement language is not supported by the law, and the Examiner should revisit his July 19th ruling and authorize YarrowBay and the City to submit revisions to the development agreements up until the close of the one week written rebuttal period that

commences upon the close of the initial two week written comment period. The public would still have the two-day reply period in which to present argument in strict reply addressing any revised language.

J. The Financial Contributions Contained in the Development Agreements are Expressly Authorized by Law.

Legal Assertion (Mr. Edelman, Reply to Pre-hearing Motions, June 27, 2011):

In Bob Edelman's "Reply to Pre-hearing Motions" dated June 27, 2011, Mr. Edelman alleges that the interim fire mitigation fees contained in Section 13.4 of the Development Agreements are invalid because WAC 365--196-845(17)(a)(iii) prohibits the City from using "a development agreement to impose impact fees unless expressly authorized by an applicable development regulation."

YarrowBay Response:

Contrary to Mr. Edelman's allegations, the Development Agreements contain four types – not one – of voluntary financial contributions from the Master Developer payable to the City of Black Diamond ("City"): (1) school mitigation fees (Section 13.3); (2) fire mitigation fees (Section 13.4); (3) general government facilities mitigation fees (Section 13.9); and (4) the MPD Funding Agreement obligations (Section 13.6 and Exhibit "N"). WAC 365-196-845(17)(a)(iii) provides that: "Counties and cities may not use development agreements to impose impact fees, inspection fees, or dedications, or require any other financial contribution or mitigation measures except as otherwise expressly authorized, and consistent with the applicable development regulations." Based on the legal analysis summarized below, The Villages and Lawson Hills Development Agreements are indeed consistent with this WAC provision, and, most importantly, Washington State law and the Black Diamond Municipal Code ("BDMC").

The four types of financial contributions outlined in the Development Agreements are expressly authorized by the State Environmental Policy Act, Ch. 43.21C RCW ("SEPA"), the City's Master Planned Development Ordinance, BDMC Ch. 18.98 ("MPD Ordinance"), and the MPD Conditions of Approval contained in Exhibit of Black Diamond Ordinance Nos. 10-946 and 10-947 (the "Conditions of Approval").

The four financial contributions to be provided by the Master Developer pursuant to the terms of The Villages and Lawson Hills Development Agreements – school mitigation fees, fire mitigation fees; general government facilities mitigation fees; and MPD Funding Agreement obligations – are expressly authorized by the Conditions of Approval, the MPD Ordinance, and SEPA.

First, voluntary financial contributions to the City by the Master Developer are authorized by City code. Per BDMC 18.98.080(B):

> So long as to do so would not jeopardize the public health, safety, or welfare, the city may, as a condition of MPD permit approval, allow the applicant to voluntarily contribute money to the city in order to advance

> projects to meet the city's adopted concurrency or level of service standards, or to mitigate any identified adverse fiscal impact upon the city that is caused by the proposal.

This code provision was enacted by the City in 2009. *See* Black Diamond Ordinance No. 897, § 1 (Exh. A), 4-16-2009. It was not appealed and is therefore presumed valid. See RCW 36.70A.320(1). Therefore, provided there is a condition within The Villages and Lawson Hills MPD Permit Approvals (Black Diamond Ordinance Nos. 10-946 and 10-947) allowing the Master Developer to contribute money to the City for school, fire, and fiscal impacts or to advance certain projects, the four financial contributions outlined in Sections 13.3, 13.4, 13.6 (see also Exhibit "N") and 13.9 of the Development Agreements are "expressly authorized."

The school mitigation fees incorporated by reference in Section 13.3 of The Villages and Lawson Hills Development Agreements are approved in Conditions of Approval Nos. 98 and 99, respectively. This condition provides in part:

> The Applicant shall enter into a separate school mitigation agreement, with substantially the same key terms as the agreement in the record as Exhibit 6, so long as such agreement is approved by the City and the Enumclaw School District . . . Alternatively, school mitigation may be address in the Development Agreement, . . . through a combination of (1) school impact fees under a City-wide school impact fee program for new development or a voluntary mitigation fees agreement and . . .

Exhibit 6 in the MPD permit hearings contained the same school mitigation fees that were ultimately approved by the three parties in the executed Comprehensive School Mitigation Agreement. In addition, the condition explicitly authorizes "voluntary mitigation fees."

The fire mitigation fees set forth in Section 13.4 of The Villages and Lawson Hills Development Agreements are required by Condition of Approval 100 for both MPDs. This condition states:

> The Development Agreement shall include specific provisions for providing fire mitigation to ensure protection concurrent with project build out. Fire mitigation may include fire impact fees under a City-wide fire impact fee program for new development, a voluntary fire mitigation agreement, and/or the dedication of land for fire facilities . . .

If the Master Developers and City staff had failed to provide fire mitigation within The Villages and Lawson Hills Development Agreements, the agreements would have been in violation of this Condition of Approval No. 100. The City had its consultants prepare a fire impact study that is set forth as Exhibit "T" within both The Villages and Lawson Hills Development Agreements. The fire mitigation fee proposed in Section 13.4 reflects the findings of the study. The fire mitigation set forth in Section 13.4 of the development

agreements provides for a combination of facilities, equipment, land, and mitigation fees to ensure protection concurrent with MPD build-out as required in Condition of Approval 100.

The general government facilities mitigation and the obligations contained within the MPD Funding Agreement (Exhibit "N") are authorized by Conditions of Approval Nos. 156 and 160 for The Villages and Lawson Hills, respectively. These conditions provide in relevant part:

> The proposed project shall have no adverse financial impact upon the city, as determined after each phase of development and at full build-out. The required fiscal analysis shall include the costs to the city for operating, maintaining and replacing public facilities required to be constructed as a condition of MPD approval or any implementing approvals related thereto.
> . . .
>
> The exact terms and process for performing the fiscal analysis and evaluating fiscal impacts shall be outlined in the Development Agreement, and shall include a specific "MPD Funding Agreement," which shall replace the existing City of Black Diamond Staff and Facilities Funding Agreement. The applicant shall be responsible for addressing any projected city fiscal shortfall that is identified in the fiscal projections required by this condition. This shall include provisions for interim funding of necessary service and maintenance costs (staff and equipment) between the time of individual project entitlements and off-setting tax revenues; provided, however, that in the event that the fiscal projection prepared prior to the commencement of Phase III indicates a likelihood of significant ongoing deficits in the city's general fund associated with operations or maintenance for properties within the MPD, the applicant must address the projected shortfalls by means other than interim funding.

Thus, Condition of Approval Nos. 156 and 160 explicitly:(i) require a new MPD Funding Agreement; (ii) authorize interim funding payments up until the commencement of Phase III; and, most importantly, (iii) prohibit any adverse impact on the City as a result of MPD construction. The general government facilities mitigation fee (Section 13.9) and the Master Developer's obligations set forth in the new MPD Funding Agreement (Exhibit "N") are mandated by, and designed to comply with, these conditions of approval.

Therefore, The Villages Conditions of Approval Nos. 98, 100, and 156 and the Lawson Hills Conditions of Approval 99, 100, and 160 allow the Master Developers to make the four voluntary mitigation payments pursuant to the terms contained within Sections 13.3, 13.4, 13.9, and 13.6 (see also Exhibit "N") of the development agreements.

Second, the BDMC not only authorizes voluntary financial contributions but it explicitly allows separate school mitigation agreements. BDMC 18.98.080(A)(14) provides in part:

> ...The number and sizes of sites shall be designated to accommodate the total number of children that will reside in the MPD through full build-out, using school sizes based upon applicable school district's adopted standard. The requirements of this provision may be met by a separate agreement entered into between the applicant, the city and the applicable school district, which shall be incorporated into the MPD permit and development agreement by reference.

Thus, the Comprehensive School Mitigation Agreement executed by the City, the Enumclaw School District, and the Master Developers and incorporated by reference in Section 13.3, which contains the school mitigation fees addressed in this memorandum, is also authorized by the City code.

Third, both the school and fire mitigation fees are authorized by SEPA because these measures were disclosed as possible SEPA mitigation measures, and were, in fact, imposed as SEPA mitigation measures in the MPD Permit Approvals. The Villages Final Environmental Impact Statement and the Lawson Hills Final Environmental Impact Statement (collectively, the "FEISs") identified probable school and fire service impacts from the MPDs and recommended the following mitigation measures to address them:

> Full buildout of the MPD would warrant school facilities for which the following mitigation shall be imposed.
>
> a) A separate school mitigation agreement with the School District and the City could be entered into which will provide adequate mitigation of impacts to school facilities; . . .[22]

> The proposed development may require additional fire facilities and equipment, including a new or expanded fire station. A mitigation condition imposing a proportionate share of funding may be necessary.[23]

These FEIS Mitigation Measures were incorporated into the MPD Permit Approvals in Conditions of Approval Nos. 98 and 100 and Conditions of Approval Nos. 99 and 100 for The Villages and Lawson Hills MPDs, respectively. Therefore, SEPA, and more specifically RCW 43.21C.060, "expressly authorizes" the school and fire mitigation fees set forth in the The Villages and Lawson Hills Development Agreements.

In summary, the school mitigation fees, fire mitigation fees, general government facilities mitigation fees, and the MPD Funding Agreement obligations set forth in Sections 13.3, 13.4, 13.9 and 13.6 (Exhibit "N") of The Villages and Lawson Hills

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[22]Villages FEIS, p. 6-9; Lawson Hills FEIS, p. 6-11.
[23]Villages FEIS, p. 6-9; Lawson Hills FEIS, p. 6-11.

Development Agreements are "expressly authorized" by the BDMC, the MPD Permit Approvals' Conditions of Approval, SEPA, and Washington State law. As a result, and contrary to the argument of certain participants within the development agreement hearings, the voluntary payments are in compliance with WAC 365-196-845(17)(a)(iii).

IV. YARROWBAY'S RESPONSE TO PUBLIC TESTIMONY BY SUBJECT MATTER

A. Infrastructure Improvements.

1. *Response to Paul Reitenbach.* In his testimony on July 21, 2011, Paul Reitenbach requested that the Hearing Examiner recommend that the Black Diamond City Council add supplemental conditions to the Development Agreements that: (1) require school sites serving the MPDs to be located within the urban growth area (UGA); and (2) require stormwater ponds serving the MPD Development to be located within the UGA. These proposed conditions are unnecessary and unacceptable for the following reasons.

First, before YarrowBay or the Enumclaw School District can build any schools or stormwater facilities within King County, such entity is required to submit the appropriate land use or building permit application to the County and such application has to be approved. Thus, King County has the ultimate authority to decide whether or not such infrastructure gets built in its jurisdiction with or without the proposed new conditions.

Second, the City of Black Diamond has no authority to prohibit YarrowBay, let alone the Enumclaw School District who is not even a party to the Development Agreement, from building infrastructure within King County. YarrowBay owns the parcels upon which such infrastructure is proposed and has the right, as a landowner, to convey that land to the school district, and the School District and Yarrow Bay can apply for land use and construction permits. It is self-evident that the City cannot prohibit a landowner from applying for development permits, and certainly cannot do so on land not within the City's geographic jurisdiction.

Third, the Comprehensive School Mitigation Agreement incorporated by reference in Section 13.3 of both Development Agreements explicitly calls out three school sites within King County, together with contingencies in the event that schools are not permitted at those sites. The Black Diamond City Council approved the School Agreement in January 2010. The Hearing Examiner and City Council cannot now include a new condition within the Development Agreements that is in direct conflict with the terms of the School Agreement.

Finally, Paul Reitenbach cites no authority for the inclusion of his proposed new conditions in the Development Agreements. SEPA review has been completed and deemed adequate by the Hearing Examiner. The Black Diamond City Council already established all of the MPD Permit conditions in Exhibit C of the MPD Permit Approval Ordinances (Nos. 10-946 and 10-947). Thus, Mr. Reitenbach's proposed new conditions cannot be recommended to the City Council by the Hearing Examiner.

2. *Water System Design.* In Exhibit 52, Peggy Sperry alleges that the MPD

Permit Approvals and Development Agreements fail to meet the requirements of BDMC 18.98.190(A)(2). However, at Conclusion of Law 71 in both the MPD Permit Approvals (Ord. Nos. 10-946 and 10-947) the Black Diamond previously determined that the MPDs do in fact meet the requirements of BDMC 18.98.190(A)(2). The Hearing Examiner lacks the authority to overturn this prior conclusion of the City Council in the context of these Development Agreement Hearings. There is no reason to modify the Development Agreements on the basis of this BDMC section. Consistency with this code provision has already been determined for The Villages and Lawson Hills.

B. Transportation

During the public testimony portion of the Development Agreement Hearings, comments were made regarding the transportation mitigation component of The Villages and Lawson Hills MPDs. Such testimony included allegations that YarrowBay would perform no mitigation until the new transportation model is run at the 850 dwelling unit threshold established in the MPD Permits' Conditions of Approval; assertions that the Traffic Monitoring Plan is reactive instead of proactive; requests that the new regional transportation model be run now (contrary to the MPDs' Conditions of Approval); and questions regarding which roads and intersections are included in the new transportation model. In response to these comments, YarrowBay had its transportation consultant prepare a responsive document. This transportation brief is attached hereto as Attachment 6.

In addition to the topics addressed in Kevin Jones' responsive document (Attachment 6), YarrowBay provides the following responses to some additional transportation-related testimony.

1. *Maple Valley Transportation Mitigation Agreement.* During the public testimony portion of the Development Agreement Hearings, comments were made that the transportation mitigation set forth in the Maple Valley Transportation Mitigation Agreement (Exhibit "Q") is insufficient because it was based on the transportation model used in The Villages and Lawson Hills FEISs. To the contrary, Maple Valley is a municipal entity who hired its transportation experts, creates its own transportation demand model, and negotiated a transportation mitigation agreement with YarrowBay. Maple Valley actively participated in the MPD Permit hearings. With the help of its own transportation experts, Maple Valley independently analyzed the sufficiency of the transportation mitigation called out in the mitigation agreement. There is no reason to assume that mitigation was forced on the City of Maple Valley by YarrowBay or Black Diamond. Moreover, the Hearing Examiner does not have authority to recommend modifications to an agreement between the City of Maple Valley and YarrowBay. There is no reason or basis to revise Exhibit "Q" of both Development Agreements.

2. *Periodic Review Requirement.* The MPD Permits' Conditions of Approval Nos. 17(a) (The Villages) and 16(a) (Lawson Hills) require period review of

the adequacy of The Villages's and Lawson Hills's transportation mitigation. These conditions require that additional mitigation will be tested to assure that it is working at such phase or interval determined by the Black Diamond City Council. There is no reason or basis to add additional transportation review requirements to the Development Agreements.

3. *South Connector Road Location.* In her verbal testimony on July 14, 2011, Kristen Bryant testified that the South Connector Road had not been fully evaluated in its current alignment location and thus may cause adverse impacts on wetlands. The South Connector Road is located in the southern portion of the The Villages MPD. Contrary to the testimony of Ms. Bryant, the Villages FEIS (Exhibit 24) recognized that the final location of roads may change and, in fact, includes the express disclaimer:

> It should not be overlooked that the City's Transportation Element includes a substantially revised network from today's existing conditions. Many of the new roadways are developer-driven projects, which would be required as a result of development. No environmental analysis has been conducted on any of the potential new alignments – upon receipt of specific applications for development, the City will need to determine if additional impacts could occur, and what appropriate mitigation may be necessary.

At page 3-18. In addition to this language in the FEIS, Section 4.10 of The Villages Development expressly notes that MPD Implementing Projects are "expected to undergo additional SEPA review." Thus, between The Villages FEIS at page 3-18 (Exhibit 24) and Section 4.10 of the Development Agreement, there is ample protection that any future application for construction of the South Connector Road will be subject to SEPA. There is no reason or basis to add supplemental conditions to The Villages Development Agreement regarding the South Connector Road.

C. Water Quality & Quantity.

1. *Flooding.*

Comments:

Jack Sperry (July 13, 2011): Oral testimony from Mr. Jack Sperry identified a concern with prior flooding of Lake Sawyer and whether The Villages and Lawson Hills MPDs would exacerbate the flooding.

YarrowBay Response:

While there is no legal basis to address this issue in the Development Agreements, in response to Mr. Sperry's testimony, YarrowBay asked its civil engineer, Al Fure, to review the MPDs' potential impacts on Lake Sawyer water levels. In so doing, Al Fure created a drainage report that is attached hereto as Attachment 9. Based on the

calculations and conclusions included in this drainage report, YarrowBay believes there will be no noticeable impact from The Villages MPD and Lawson Hills MPD development on potential Lake Sawyer flooding. There is no need or basis to revise the Development Agreements related to potential flooding impacts to Lake Sawyer.

2. *Wells, Springs & Private Water Systems.*

During the public testimony portion of the Development Agreement Hearings, YarrowBay heard public comments regarding potential MPD impacts to area wells, springs, and Class B water systems. These issues were analyzed and addressed in the MPDs' FEISs at Appendix D. The Hearing Examiner deemed The Villages and Lawson Hills MPDs adequate. Subsequent to the finding of adequacy, the Black Diamond City Council made the following finding of fact in both the MPD Permit Approvals (Ords. Nos. 10-946 and 10-947):

> The project has also been designed, generally, through infiltration systems and circumvention of wetlands, to avoid any risk of adverse impact to private wells and springs that could be affected by the Villages MPD, as established in the AESI reports in Appendix D to the Villages FEIS. There is no evidence to suggest that the use of these water sources will impact or impair existing water rights of other residents.[24]

The adequacy of the FEISs and the City Council's findings of facts cannot be revisited in these Development Agreement Hearings. There is no need or basis to revise the Developments Agreements on the basis of public comments regarding private water systems.

D. Committees.

During the public testimony portion of the Development Agreement Hearings, YarrowBay heard a lot of testimony about the three committees required by the MPD Permits' Conditions of Approval: (1) the Green Valley Road (GVR) Committee; (2) the Noise Committee; and the (3) Water Quality Review Committee. In its Guide to the Development Agreements (Exhibit 8) at pages 41 and 42, YarrowBay outlined its proposal as to the formation, operation, and timing of committee formation. YarrowBay will convene the first meeting of the GVR Committee and Water Quality Review Committee within 30 days after approval of the Development Agreements. The noise committees, because they are intended to evaluate the effectiveness of noise conditions imposed by the City Council on construction of the MPDs, will be convened for a date two weeks following the beginning of on-site construction for each MPD. YarrowBay is collecting names of individuals interested in the committees and will make sure that such interested individuals receive notice of the first meeting times. At the first meeting, citizen members of the each committee will be chosen by the citizens present – not by

[24] See Exhibit A, Finding of Fact #20, p. 27 of The Villages MPD Permit Approval (Ord. No. 10-946) and Exhibit A, Finding of Fact #19, p. 26 of the Lawson Hills MPD Permit Approval (Ord. No. 10-947).

YarrowBay or the City. Of course, the meetings are public, and anyone, even if not an "official" voting member, is welcome to attend the committee meetings.

YarrowBay also heard specific testimony that the Development Agreements could not be approved until the GVR committee was formed and active. Neither Condition of Approval 33(B) (Villages) nor Condition 30 (Lawson) contain any timing requirement for the formation of the GVR Committee. In fact, none of the Conditions of Approval regarding committees required formation prior to the Development Agreements.

YarrowBay heard testimony that the composition of the committees should be changed by the Hearing Examiner in his Development Agreement recommendation to City Council. Again, the committees and their specific membership were established by the MPD Permits' Conditions of Approval. The Hearing Examiner cannot modify these Conditions of Approval in the Development Agreement process.

Last, YarrowBay heard frustration that the three committees were not formed back in February 2011 when YarrowBay previously announced it would convene the first meetings. Unfortunately, given on-going litigation and the delay of the start of the Development Agreement hearings, the February timeline was not feasible. That situation was understandably frustrating, and YarrowBay is now re-committing to initiating the first meetings of these three committees per the timelines and standards set forth in the Guide (Exhibit 8).

E. Schools.

YarrowBay addressed the Comprehensive School Mitigation Agreement in its section-by-section analysis in Section 13.3 above. In addition to the Comprehensive School Mitigation Agreement, several other school-related issues were raised during the public testimony portion of the Development Agreement Hearings. These issues are addressed below.

1. *Walkable Schools Standard.* The Black Diamond City Council determined in the MPD Permit Approvals (Ord. Nos. 10-946 and 10-947) that the school sites set forth in the School Agreement met the City's walkable schools standard. See Conclusion of Law 40 of Exhibit B of each MPD Permit Approval. Compliance with this standard has already been determined and ensured by the Council's inclusion of Conditions of Approval Nos. 98 (The Villages) and 99 (Lawson Hills) which requires, where reasonable and practical, all schools to be located within a half-mile walk of residential areas. The Hearing Examiner cannot revisit -- in the context of these Development Agreement Hearings-- the City Council's prior determination. Moreover, absent an initiation of the MPD Permit revocation process set forth in BDMC 18.98.200, the City Council cannot revisit the MPDs' satisfaction of this standard as well.

2. *High School Fiscal Analysis.* During his verbal testimony, Rich Ostrowski raised concerns regarding the absence of an updated fiscal analysis for the high school site. Per MPD Condition of Approval No. 99 (The Villages), an "updated fiscal analysis shall be required for any proposal to locate a high school within any lands designated on [the MPD Site Plan] for commercial/office/retail use." (Emphasis added). Currently, there is no proposal to locate a high school on any commercial areas within The Villages project site. If and when the Enumclaw School District decides to construct a high school on the High School Site located on commercial areas of The Villages, a fiscal analysis will be performed at that point in time. There is no need or basis to add any additional conditions to the Development Agreements. Performance is already required by Condition of Approval No. 99 (The Villages).

3. *School Funding.* School funding is a matter of state law. The Development Agreements must be consistent with state law. The Hearing Examiner lacks the authority to require school funding that deviates from the State-adopted funding mechanisms.

4. *Calculation of School Impact Fees.* During the public testimony portion of the Development Agreement Hearings, questions were raised about the level of impact fees negotiated in the School Agreement. Such testimony noted that the fees set forth in the School Agreement are less than the unfunded need established in the Enumclaw School District Comprehensive Plan. Notably, King County's formula for determining school impact fees automatically reduces each school district's unfunded need amount by 50%. See Attachment A to King County Ordinance 11621; see also KCC 21A.43.030; *Wellington River Hollow LLC v. King County*, 113 Wn.App. 574 (2002). Therefore, the one-third reduction negotiated in the School Agreement is not atypical, and reductions in requested fee amounts are typical and expected by school districts.

5. *Agricultural Production Zone.* During public testimony, concerns were expressed that the three school sites located in King County per the terms of the School Agreement may be located in King County's Agricultural Production Zone. YarrowBay checked King County's maps and confirmed that these three school sites are not located in such a zone.

F. Fiscal.

1. *Privatization of Roads.* In her oral and written testimony (Exhibit 31), Carol Benson testified that while she had worked in the development industry for 25 years, including positions with Barghausen Consulting

Engineers, Inc. and Novastar Development Inc., "not once did any of the companies I worked for design or build a project where some streets were ultimately owned or maintained by the Homeowners Association." This testimony is relevant to the MPDs because the Development Agreements set forth in Section 13.6 that possible options for addressing a City fiscal shortfall may include, at the City's sole discretion, "not dedicating some private streets....or by dedicating the streets but retaining street maintenance obligations with the Master Developer or a Homeowners' Association." Ms. Benson's testimony is not accurate. For example, in The Meadows at Lake Sawyer plat (King County Recording No. 20060510000004), which is immediately adjacent to Sawyer Woods Elementary School, Barghausen Consulting Engineers were the surveyors and engineers for the plat, and that plat includes multiple private streets with private maintenance obligations. Many other plats in this region include similar private maintenance requirements.

2. *Annual Surplus*. In his objection to the Hearing Examiner dated July 13, 2011 3:40 PM, Bob Edelman alleged in his comment #4 regarding the Guide submitted by YarrowBay (Exhibit 8) that: "Information is provided as factual which is purely speculative. For example, on page 47 there are tables which purport to show what the annual surplus to the City will be at buildout." To the contrary, the annual surplus figures shown on page 47 of the Guide are the result of a fiscal report prepared by Development Planning & Financing Group, Inc., included within Chapter 12 of The Villages and Lawson Hills MPD Permit Applications.

3. *City's Fee Schedule*. In her verbal testimony on July 16th, Ms. Melanie Gauthier commented that the City of Black Diamond needed to adopt a fee schedule similar to City of Chelan fee schedule that she submitted into the record at Exhibit 42. However, the City of Black Diamond already has a fee schedule, a copy of which is attached hereto as Attachment 10, that was adopted in its most current form by Black Diamond Resolution 11-735. Both City Staff and YarrowBay agreed that given the size and complexity of the MPDs, it didn't make sense to rely on fee schedule for processing entitlements. Instead, they adopted the City of Issaquah's MDRT model. See City of Issaquah Ordinance No. 2094 adopting the MDRT. There is no reason or basis to revise this section in the Development Agreements.

G. Tree Code.

Comments:

Monica Stewart (July 14, 2011): A question was asked by Monica Stewart regarding what Tree Preservation Code the Implementing Projects for the MPDs

will be subject to.

YarrowBay Response:

Implementing Projects for the MPDs are vested to the BDMC in effect on the date of the MPD Permit Approvals (Ord. Nos. 10-946 and 10-947), September 20, 2010. Exhibit "E" of the Development Agreements at BDMC Chapter 19.30 shows the applicable Tree Preservation Code – Black Diamond Ord. 866 adopted in 2008.

H. Representative Photos.

Comments: Both Bod Edelman and Brian Derdowski objected to the representative photos contained in the Guide (Exhibit 8) submitted by YarrowBay at the commencement of these Development Agreement Hearings, and shown on Exhibit 7 (F - H).

YarrowBay Response:

YarrowBay submits the declarations of Kevin Thomas (Attachment 11) and Ryan Kohlmann (Attachment 12) to further authenticate and substantiate these representative photos. Contrary to the allegations of Mr. Derdowski, the representative photo show various examples of what could be built under the MPDs' design standards set forth in Exhibits "H" and "I" combined with the City's MPD Framework and Design Guidelines. Mr. Derdowski has failed to cite any specific conflicts between the representative photos and design guidelines applicable to The Villages and Lawson Hills MPDs.

I. Cost/Benefit/Risk Analysis.

Throughout the Development Agreement Hearings, testimony was presented that the Development Agreements are somehow deficient because a cost-benefit analysis for various mitigation measures has not been completed. However, the SEPA Rules expressly do not require a cost-benefit analysis when conducting an EIS. WAC 197-11-450 ("A cost-benefit analysis (WAC 197-11-726) is not required by SEPA."). Moreover, other than a brief indication of the intended environmental benefits of mitigation measures, SEPA does not require a cost/benefit/risk analysis of identified mitigation measures. Thus, neither the FEISs nor the Development Agreements are deficient for not including a cost/benefit/risk analysis.

Here, the FEISs identified the environmental impacts of the proposed MPDs and conditioned the MPDs under SEPA to mitigate the environmental impacts. Including those mitigated conditions in the Development Agreements requires no further analysis. In addition, as argued elsewhere in this document, the Examiner has no jurisdiction or authority to review and comment on SEPA issues.

J. Response to Peter Rimbos re: Improper Influence.

In his verbal testimony on July 13, 2011, Mr. Rimbos alleged that YarrowBay inappropriately influenced the MPD process behind the scenes. Mr. Rimbos's allegation

was based on a June 21, 2010 email from YarrowBay's attorney Nancy Rogers to the City Attorneys, which included proposed revised condition language as an attachment. Mr. Rimbos submitted that email as Exhibit 13 in these Development Agreement Hearings.

Mr. Rimbos's allegation is incorrect. It is also irrelevant to the hearing proceedings on the Development Agreements for The Villages and Lawson Hills. However, to assure that allegation does not somehow negatively influence this process, we also explain why the allegation is incorrect.

Between the time of the Hearing Examiner's recommendation to approve The Villages and Lawson Hills MPDs and the beginning of the City Council's review, YarrowBay and City Staff discussed potential changes to the Examiner's recommended MPD Condition language that YarrowBay planned to present to the City Council. The June 21, 2010 email (Exhibit 13) reflects the transmittal of the condition language that was under discussion with some final typographical corrections.

The proposed revised conditions were submitted to the City Council on June 24, 2010, during YarrowBay's opening presentation for the City Council's closed record public hearing. The proposed revised conditions were submitted together with a memo dated June 22, 2010 and are in the official MPD record as Ex. C-8.

During that June 24, 2010, Council session, Community Development Director, Steve Pilcher, confirmed that City Staff had discussed YarrowBay's proposed revisions to conditions and was in agreement with the proposed revised conditions that YarrowBay submitted to the City Council that night.

After the memo and conditions were passed out to the City Council at the end of YarrowBay's presentation, a member of the public in the audience asked how to get copies and was told by the Mayor that the documents would be made a formal exhibit. As described above, the memo and conditions are a formal exhibit in the MPD Record, Ex. C-8.

K. Miscellaneous Conditions Referenced in Public Testimony.

During the public testimony portion of the Development Agreement Hearings, several people testified about specific Conditions of Approval that The Villages MPD and/or Lawson Hills MPD allegedly were not meeting. The following summary addresses each of these various conditions in turn.

1. *Condition of Approval No. 105 (The Villages and Lawson Hills).* This condition requires the protection of stream banks. Erosion control plans will be provided with engineering designs during MPD Implementing Project. No action is required in the Development Agreements.

2. *Condition of Approval No. 113 (The Villages and Lawson Hills).* The MPD Site Plans (Exhibit "A") show limited development in geologically hazardous areas. If necessary to cross geologically hazardous areas, e.g., for roads and utilities, the City's SAO and Engineering Design and Construction Standards (Exhibit "E") shall be complied with and compliance tested as the time of Implementing Project application review.

3. *Conditions of Approval Nos. 120 (The Villages) and 123 (Lawson Hills).* These conditions require a tree inventory prior to the development of any MPD Implementing Projects. No action is required in the Development Agreements.

4. *Conditions of Approval Nos. 87 (The Villages) and 88 (Lawson Hills).* Logging for timber revenue is described in Section 13.2 of each Development Agreement. Clearing and grading activities on a given Development Parcel may only occur after an application for an Implementing Project on the same parcel has been proposed or to assure a balance of cut and fill for a proposed Implementing Project. See Section 13.2 of the Development Agreements. There is no need or basis for revisions to Section 13.2 of the Development Agreements.

V. CONCLUSION

As summarized above, The Villages and Lawson Hills Development Agreements are required to incorporate the MPD Conditions of Approval and to ensure those conditions are binding on all property owners. All matters described in the MPD Conditions of Approval as required some attention in the Development Agreements have been addressed. The City Staff has provided the Hearing Examiner with compliance matrices showing how and where each of the specific conditions of approval has been addressed within the Development Agreements. See Attachments to Staff Report (Exhibit 3). Finally, the Development Agreements are consistent with the BDMC Chapter 18.66 and RCW 36.70B.170.

As the Hearing Examiner previously commented during these Development Agreement Hearings, The Villages and Lawson Hills MPDs are "already really heavily regulated." To date, public and expert testimony has not raised any issues that provide any reason for the Examiner to find that the above criteria have not been met. While YarrowBay has attempted to respond to fully to all testimony (whether or not relevant to the scope of the Development Agreement Hearings), we again respectfully request that the Hearing Examiner strike all testimony irrelevant to his specific recommendation.

Based on the applicable legal standards, the content of the Development Agreements, the exhibits, and the testimony provided to date, the Examiner should recommend approval of The Villages and Lawson Hills Development Agreements, with the revisions describe in the Staff Errata (Exhibit 4) and the revisions described in this document.

Attachments:

1. Declaration of Scott Brainard and Wetland Resources Inc. Letter
2. Wetlands and critical areas maps of the Talus and Issaquah Highlands Master Planned Developments
3. Appendix F of The Villages and Lawson Hills MPD Applications dated December 31, 2009
4. Declaration of James Johnson
5. Letter to the Enumclaw Courier-Herald dated July 26, 2011
6. Declaration of Kevin Jones and Transpo Group Brief
7. Declaration of Harry Gibbons and Tetra Tech, Inc. Letter
8. City of Black Diamond Notices of Adoption for The Villages and Lawson Hills
9. Declaration of Alan Fure and Triad Drainage Report
10. City of Black Diamond 2011 Fee Schedule
11. Declaration of Kevin Thomas
12. Declaration of Ryan Kohlmann

BEFORE THE CITY OF BLACK DIAMOND HEARING EXAMINER

IN RE: THE MATTER OF DEVELOPMENT AGREEMENT HEARINGS
LAWSON HILLS PLN10-0021; PLN11-0014
THE VILLAGES PLN10-0020; PLN11-0013

DECLARATION OF HARRY L. GIBBONS

I, Harry L. Gibbons, Ph.D., am a citizen of the United States and a resident of the State of Washington, am over the age of 18 years, have firsthand knowledge of the matters to which I attest below, am fully competent to testify as a witness, and have sworn and do certify and declare, under penalty of perjury, that the following declaration is true and correct.

1. Oral testimony from Mr. Bob Rothchilds during the hearings on the development agreements asserted that despite YarrowBay's commitment to no net increase of phosphorus from the MPD development areas to Lake Sawyer, YarrowBay has not yet demonstrated compliance with the TMDL for phosphorus for Lake Sawyer.

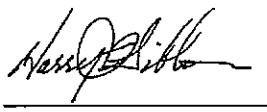
2. I have received a Ph.D. in limnology, and have practiced in that field for over 37 years advising governmental agencies and private developers; a true and correct copy of my curriculum vitae is attached to this Declaration.

3. I was asked to respond to Mr. Rothschilds' testimony regarding Lake Sawyer flooding. Attached is a true and correct copy of the letter I prepared in response.

Cairncross & Hempelmann, P.S.
Law Offices
524 Second Avenue, Suite 500
Seattle, Washington 98104-2323
Phone: 206-587-0700 • Fax: 206-587-2308

4. It is my professional opinion that The Villages and Lawson Hills stormwater management plan, as described in the Development Agreements, is in compliance with the TMDL.

Dated this ___2nd_ day of August, 2011 at _____Seattle_____, Washington.



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Harry Gibbons, PhD

Senior Limnologist/ *Discipline Lead for Lake and Water Quality Services*

Dr. Gibbons has 37 years of experience in applied limnology, lake, reservoir, river, stream, and wetland restoration. Harry has specifically planned/designed management and restoration programs for over 230 lakes/reservoir and 33 stream and river systems. His expertise includes lake and watershed management, lake restoration, integrated aquatic plant management, Aquatic invasive species (AIS) management, stream assessment, fish passage, aquatic habitat assessment, wetland restoration and stormwater management. Harry is a recognized leader in the development and implementation of in-lake activities for techniques like phosphorus inactivation (alum), dredging, hypolimnetic aeration, aeration and complete circulation, AIS management, and integrated aquatic plant management. In addition, he has conducted comprehensive river and reservoir limnological studies in several major river systems including the Columbia, Snake, Spokane, Clearwater, Chehalis, Green, Wynoochee, and Pend Orellle Rivers, including 13 hydroelectric reservoirs. These investigations have centered on water quality, primary and secondary productivity, fisheries habitat and passage, AIS management, and toxicology.

In addition, Dr. Gibbons' direct technical and PM activities, he service as discipline lead for all water quality and lake/reservoir restoration on projects with-in Tetra Tech's Surface Water Group. This includes mentoring staff relative to professional development, technical approaches and tools to use, coordinates marketing and staffing of projects, conducts or assigns QA/QC for these environmental projects throughout the 13 offices of Tt-SWG.

EDUCATION:

Ph.D., 1981, Limnology, Washington State University, Pullman, WA

M.S., 1976, Civil and Environmental Engineering, Washington State University, Pullman, WA

B.S. 1973, Biology, Gonzaga University, Spokane, WA

PROFESSIONAL AFFILIATIONS:
North American Lakes Management Society, Past President 2010, President 2009, President Elect 2008, Director 2004-2006, 1992-1994, Served on several NALMS Society Committees; Washington State Lake Protection Association, Past President; Western Aquatic Plant Management, Past Director; American Society of Limnology and Oceanography; Aquatic Plant Management Society

Dr. Gibbons has authored peer reviewed journal articles, professional trade magazine articles, state and federal manuals and hundreds of technical reports. He has prepared and designed the implementation of TMDLs and influenced the change in regulator frame work both as expert witness and as technical author for federal, state and local legislation. His communication skills are widely recognized having led over 400 public workshops/meetings, and is invite speaker for national and international professional conferences and symposiums.

Harry has been senior scientist on a number of watershed projects with the intent to develop non-point source control solutions to enhance the water quality of the stormwater runoff, as well as, defining stream enhancements that improve fish passage and habitat. Harry has developed detailed approaches and designs for structural and non-structural BMPs for water quality problems including TMDL compliance issues. His in-lake, wetland and stormwater BMP designs have earned him environmental excellence awards.

Relevant Project Experience

Snohomish County On-call Limnological Services, Snohomish County, Washington, 1994-2011 – Dr. Gibbons is the senior limnologist for Snohomish County's lakes program. Harry provides assistance to County Staff in a variety of issues relative to the 32 lakes in their monitoring and management program. Examples include development of nutrient loading models, non-native species management of AIS and the development of integrated aquatic plant management plans, and alum treatments for several lakes and evaluation of existing aeration systems and feasibility design analysis for future potential aeration systems.

Long Lake Integrated Lake Management Program, Kitsap County, Washington, 2006-2010 – Dr. Gibbons is the lead limnologist and project manager for this 5 year integrated lake management program to enhance the water quality and lake conditions of Long Lake. Adaptive project elements include design and implementation of phosphorus inactivation, aquatic plant management, monitoring, and public awareness programs.

Grand Lake Saint Mary's Restoration Feasibility Study and Demonstration Design, Ohio, USEPA 2010-2011. Dr Gibbons was the senior limnologist providing on-going advice to Ohio/EPA, USEPA, Ohio/DNR on data needs and approaches to addressing the excessive phosphorus loading to the lake and internal cycling of phosphorus within the lake leading to toxic cyanobacteria blooms (harmful algal blooms – HABs). Over 80

different alternative methodologies were reviewed and evaluate leading to a phosphorus inactivation demonstration to control limit phosphorus and reduce HABs production. Harry designed and directed implementation of several demonstrations projects the feasibility and design of whole lake activities to control the cyanobacteria in the lake and led the monitoring program to assess activities and lake responses.

Kent Lakes Monitoring, City of Kent, Washington, 2003-2011 – Dr. Gibbons is the lead limnologist for annual monitoring of Lakes Fenwick, Meridian. This on-going monitoring program is design to track the current condition of the lake and to identify any potential environmental issues before they become significant problems from Cyanobacteria and aquatic plant management. Evaluation and assessment of the hypolimnetic aeration system design by Harry in the early 1990's is also part of this effort. In 2009 and 2010 Harry led the retrofit design of the aeration system to improve its phosphorus control and habitat enhancement capabilities.

Lake Tahoe Basin Aquatic Invasive Species Plan, Sacramento District USACE, California and Nevada, 2007-2010 – Dr. Gibbons is the Principal Aquatic Ecologist for Aquatic Invasive Species (AIS) Management Plan that is part of a multi-stakeholder collaborative effort supported by an interagency agreement between the U.S. Army Corps of Engineers (USACE) (Sacramento District) and the California Tahoe Conservancy. The purpose of the Plan is to minimize the deleterious effects of AIS in the Lake Tahoe Basin by 1) preventing new introductions of AIS to the Tahoe Basin, 2) limiting the spread of existing AIS populations in the Tahoe Basin, and 3) abating harmful ecological, economic, social and public health impacts resulting from AIS. Plan elements include: 1) summaries of existing and potential AIS, current and potential management strategies, introduction pathways, and existing programs and regulations, 2) an analysis of economic impacts, 3) facilitation of stakeholder discussions to identify lead entities for implementing management actions, and 4) coordinating with the Aquatic Nuisance Species Task Force (ANSTF) to facilitate Plan approval. The ANSTF is an intergovernmental organization responsible for implementing mandates under the Non-indigenous Aquatic Nuisance Prevention and Control Act of 1990 (NANPCA).

Lake Tapps Integrated Aquatic Vegetation Management Plan, Cascade Water Alliance, Pierce County, WA, 2009 to 2011 – Lake Tapps is a 2,750 acre off-channel reservoir infested with invasive Eurasian watermilfoil. Dr. Gibbons lead the development of the Lake Tapps Integrated Aquatic Vegetation Management Plan based on Washington Department of Ecology guidance. The purpose of the plan is to provide a long-term strategy for Cascade to eradicate milfoil from Lake Tapps. Harry was responsible for all aspects of the IAVMP and on-going implementation support including surveying the lake to estimate plant density, summarizing the pros and cons of various aquatic plant control methods and the applicability of each in Lake Tapps, participating in public meetings, identifying beneficial and recreational uses, and making recommendations leading to the eradication of Eurasian watermilfoil from Lake Tapps while preserving a robust native plant community. This ongoing project involves additional aquatic plant surveys, management recommendations to support the milfoil eradication goal, and assistance with education and outreach.

Lake Limerick Limnological Services, LLCC, Washington, 2001-2011 – On-call limnologist assisting the LLCC in the management of water quality and aquatic plant management program, including aquatic plant management and potential algal bloom control.

Six Counties Aquatic Resources Inventory, Sacramento District USACE, California, 2009-2010 – Dr. Gibbons is the aquatic scientist to help develop a consistent categorization and geospatial characterization of aquatic resources within the Six County Area to aid local, state and federal agencies in making better informed and efficient decisions regarding proposed development and other activities. The six counties are El Dorado, Placer, Sacramento, Sutter, Yolo, and Yuba.

Boundary Dam FERC Hydroelectric Relicensing Studies, Seattle City Light, Pend Oreille County, WA 2007-2009 – Dr. Gibbons was the Water Resources Lead for Tetra Tech in the recent Seattle City Light FERC hydroelectric relicensing efforts for Boundary Dam, located near the US-Canadian border on the Pend Oreille River. Studies lead by Harry included Toxics, Water Quality, Aquatic Macrophytes, Aquatic Habitat Model Analysis and Model, and Aquatic Production.

The Boundary Toxics Assessment Study was conducted in response to active and historic mining operations to assess the possible toxic impacts that may have resulted from the metal input into the river. Boundary Toxics Assessment Study has completed and FERC has approved 2 of 3 elements of this complex study effort. The first element was the FERC-approved Phase 2 SAP (SCL 2007b), which was a detailed sampling plan including toxic pathways analysis. The second element of the Toxics Study was to conduct the field sampling for water, sediment pore-water, and sediment and produce an Initial Study Report (ISR) that addressed the results of the sampling relative to the Toxics Pathways. This ISR was approved by FERC on September 24, 2008. Third element of the Toxics Study is to conduct additional sampling in the fall of 2008 to

confirm the results and study conclusions made in the ISR. The sampling has been completed and laboratory analysis is currently being conducted.

The goal of The Boundary Water Quality and Productivity Study was to evaluate existing water quality conditions in and immediately downstream of Boundary Reservoir in support of the application for Section 401 certification and Fish and Aquatics Resource studies. This goal was accomplished by addressing two objectives. The first was to characterize water quality conditions in and immediately downstream of Boundary Reservoir to determine whether the Project meets Ecology's water quality standards in support of the Section 401 application. The second was to determine water quality, nutrient, primary production, and zooplankton levels in support of the assessment of reservoir productivity being conducted as part of the Fish and Aquatic Resources studies. To meet this second objective, samples were collected seasonally in both the pelagic (mid-river channel) and littoral (shoreline) zones of the reservoir.

The goals of Aquatic Macrophyte DO and pH study were 1) to assess whether macrophytes are contributing to high pH and low DO readings in Boundary Reservoir, and 2) to investigate potential indirect effects of Project operations on pH and DO via macrophytes. To achieve these goals the magnitude of the impact macrophyte respiration/photosynthesis and senescence have on pH and DO levels was determined. In addition, the effect of Project operations, specifically inundation and frequency of dewatering, on changes in pH and DO in macrophyte beds was also determined.

The goal of the Mainstem Aquatic Habitat Modeling Study and its component study efforts is to provide quantitative indices of the effects of operations scenarios on aquatic habitats for macrophytes, periphyton, and benthic macroinvertebrates.

The goal of the Productivity Assessment study was to determine the effects of current Project operations (e.g., wet, dry, and average hydraulic conditions) and operations scenarios on primary and secondary production in Boundary Reservoir. The objective of this study was to quantify indices of primary and secondary production in reaches of the Pend Oreille River within the Boundary Project area under current (wet, dry, and average hydraulic conditions) and operations scenarios. The Productivity Assessment consisted of evaluating nutrients, phytoplankton, periphyton, and macrophytes as indices of primary production and zooplankton and BMI as indices of secondary production.

Sunnyside Ecosystem Restoration, Yakima County, US. Army Corps of Engineers, 2001-2011. – Project manager for the feasibility and design of a 240 acres riparian habitat wetland for the Port of Sunnyside using industrial treated effluent as the wetlands primary water supply. This feasibility study includes design elements through 35% to create the wetland habitat and infiltrate 2 to 4 MGD into the groundwater. This water will increase the cold water base flow groundwater discharge to the Yakama River address ESA and TMDL issues at the river.

Sunnyside Pilot Wetland Treatment Design and Study, Yakima County, Port of Sunnyside, 2010-2014. – Project manager for the feasibility and design study for polishing treatment wetlands utilizing secondarily treated industrial waste water. The goal is to design a wetland system that will increase the water quality of the that effluent before it is discharged to the riparian habitat wetlands along the Yakama River. Specific parameters to be address include salt, phosphorus, and temperature.

Green Lake Alum Treatment, Seattle, Washington, Seattle Parks, 2003-2005 – Tetra Tech assisted the Seattle Department of Parks and Recreation in improving water quality and preventing toxic algal blooms in Green Lake via an alum treatment to inactivate phosphorus. Dr. Gibbons was the lead limnologist for the project. Dr. Gibbons was responsible for overseeing all technical elements of the Green Lake Alum treatment including, alum jar test procedures and alum dose calculations. Dr. Gibbons was also responsible for the QA/QC of the alum dose calculations and formulating construction specifications. Dr. Gibbons attended multiple meetings with Seattle Parks and potential contractors and made a recommendation as to which bidder should be awarded the contract. Dr. Gibbons was primarily responsible for providing engineering and scientific directives during construction to both the contractor and engineer on site. He reviewed lake water quality data and alum floc behavior daily in order to determine the schedule of the treatment.

Pine Lake Management Plan, City of Sammamish, Washington, 2006-2009 – Project manager and lead limnologist for the development of a long-term management plan for Pine Lake that includes LID and other BMP requires maintaining the water quality of the lake. This project included the recruitment of citizen volunteer to help with the monitoring program. The data collected in a year long monitoring was used in the development of a phosphorus model to predict the potential impacts of development within the watershed and the steps needed to mitigate those impacts.

TETRA TECH

August 2, 2011

Colin Lund
Yarrow Bay Holdings
10220 NE Points Drive, Suite 310
Kirkland, Washington 98033

Subject: The Villages MPD/Lawson Hills MPD Compliance with the TMDL

Dear Mr. Lund:

I understand that recent administrative hearings have occurred regarding the Development Agreements for The Villages MPD/Lawson Hills MPD. In those hearings, public testimony has asserted that despite Yarrow Bay's commitment to no net increase of phosphorus from the MPD development areas to Lake Sawyer, Yarrow Bay has not yet demonstrated compliance with the TMDL for phosphorus for Lake Sawyer.

Years ago, because the historic efforts to manage the water quality of Lake Sawyer had fallen short of regulatory and public goals, a TMDL model for phosphorus was developed to establish phosphorus load limits for each of the lake's watershed sub-basins in an attempt to limit phosphorus loading to the Lake.

The Department of Ecology's June 2009 Water Quality Implementation Plan for Lake Sawyer provides the following TMDL expectations for the City of Black Diamond (and similar expectations for other local jurisdictions):

> TMDL expectations: Black Diamond must continue to require removal of phosphorus as provided in Volume V, Section 3.3 of the 2005 Ecology Western Washington Stormwater Manual. The city is strongly encouraged to continue implementing a water quality monitoring program in coordination with implementation projects within the watershed so that improvement or decline in water quality can accurately be determined. *Source detection monitoring* is also an invaluable tool that can help identify and address sources of pollution quickly. With the additional TMDL expectations noted in this paragraph, compliance with the permit constitutes compliance with the TMDL.

In all cases describing local government involvement and management responsibilities, "**...compliance with the permit constitutes compliance with the TMDL.**" The referenced permit is the Phase I Permit for both King County Stormwater Division and for the City of Black Diamond. That Permit encourages use of public and private partnerships that provide enough information to evaluate progress in abating phosphorus delivery to Lake Sawyer. The use of monitoring to serve as an adaptive management tool is critical for the continual improvement and upgrading of phosphorus removal strategies using AKART (All Known and Reasonable Technology) as it becomes available. Currently, the Ecology Western Washington Stormwater Manual is the definition of available AKART Best Management Practices (BMPs) for stormwater phosphorus removal

The Villages MPD and Lawson Hills MPD have committed to not only meet the Permit and Manual's call for 50% removal of phosphorus, but also to assure no net increase of phosphorus from the MPD development areas to Lake Sawyer. The program we helped design for Yarrow Bay begins monitoring prior to onset of any development that drains to Lake Sawyer so that effectiveness of stormwater controls can be evaluated and revised, when necessary in meeting the no net phosphorus increase. In addition, the proposed monitoring will help define the effectiveness of BMPs and current (pre-development) conditions

Tetra Tech, Inc.
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relative to identifying annual maximum TP Load. Planned stormwater retention ponds at the base of each MPD will be the endpoint for stormwater aggregation prior to release into Rock Creek and Lawson Creek. The comparison of monitoring results from before and after development is the best approach for evaluating the effectiveness of stormwater BMPs and the need for refinement (e.g., treatment trains) or implementation of other innovative technologies.

BMPs recommended for use under the Stormwater Permit (Volume V, Section 3.3 of the 2005 Ecology Western Washington Stormwater Manual) are expected to remove at least 50% of the phosphorus load per BMP following treatment. The pledge of no net phosphorus contribution from The Villages MPD and Lawson Hills MPD goes beyond the basic compliance approach recommended in the Permit by incrementally increasing phosphorus removal either originating from the MPD or pre-existing conditions at the proposed development site. Also, this holds for phosphorus being generated from other locations in the sub-basin known to contribute phosphorus loads to Rock Creek and Lawson Creek. Previous monitoring of existing streams in the sub-basin by the proponent has determined that current phosphorus loads are higher than prescribed by the national inventories for specific land use types for stormwater-related nutrient runoff and can be treated effectively using current BMP technology (compensatory mitigation).

The elements of stormwater nutrient removal as required under the Phase I Permit for both King County Stormwater Division and for the City of Black Diamond have been addressed by the MPDs through a proactive strategy to constantly monitor progress and demonstrate how to enhance stormwater control facilities. All of the elements from the Permit have been the primary guidance used to develop the proposed strategy in pledging the no net nutrient increase. Hence, the approach used by The Villages MPD and Lawson Hills MPD directly adheres to "**...compliance with the permit constitutes compliance with the TMDL.**" Accordingly, Yarrow Bay has demonstrated compliance with the TMDL for phosphorus for Lake Sawyer.

Sincerely,

Harry L. Gibbons, PhD.
Principal Limnologist and Environmental Services Lead

CITY OF BLACK DIAMOND

24301 Roberts Drive ~ PO Box 599
Black Diamond, WA 98010

Phone: (360) 886-2560
Fax: (360) 886-2592

DETERMINATION OF SIGNIFICANCE AND ADOPTION OF EXISTING ENVIRONMENTAL DOCUMENT

Description of current proposal: Development Agreement for the approved "Lawson Hills" Master Planned Development

Proponent: BD Lawson Partners, LP and the City of Black Diamond

Location of current proposal: The "Lawson Hills" MPD consists of two subareas, the Main Property and the North Triangle. The "Main Property" is situated primarily southeast of Lawson St. in the vicinity of Botts Dr. The "North Triangle" is located on the west side of SR 169, approximately one mile north of the SR 169/Roberts Road intersection, at the northern city limits of Black Diamond.

Lead agency: City of Black Diamond

EIS Required. Pursuant to WAC 197-11-315(1)(b) and –360(1) and (2), the lead agency has determined, and the proponent agrees, that this proposal is likely to have a significant adverse impact on the environment, and that therefore an environmental impact statement (EIS) is required under RCW 43.21C.030 (2)(c). To fulfill this requirement, an existing Final EIS is being adopted (see below).

Title of document being adopted: Lawson Hills Master Planned Development Final Environmental Impact Statement (FEIS)

Agency that prepared document being adopted: City of Black Diamond

Date adopted document was prepared: December 11, 2009

Description of document (or portion) being adopted: FEIS for a 371 acre mixed use development including 1,250 dwelling units; 390,000 sq. ft. of retail, office and light industrial uses; and educational, recreational and open space uses.

If the document being adopted has been challenged (WAC 197-11-630), please describe:

The FEIS is the subject of a pending appeal in two matters:

(1) Toward Responsible Development, et al., v. City of Black Diamond, King County Superior Court Cause No. 10-2-35957-5 KNT; and

(2) Toward Responsible Development et al. v. City of Black Diamond, CPSGMHB No. 10-3-0014.

The document is available to be read at (place/time): City of Black Diamond Community Development Department, 24301 Roberts Drive, Black Diamond, M-F, 8:30 AM – 5:00 PM; also available on the City's website www.ci.blackdiamond.wa.us

The lead agency has identified and adopted this document as being appropriate for this proposal pursuant to WAC 197-11-600(3) (agency acting on the same proposal shall use an environmental document unchanged). In addition, after independent review pursuant to WAC 197-11-630(1), the lead agency has concluded that the document meets its environmental review needs for the current proposal and will accompany the proposal to the decision maker.

Administrative appeal: Pursuant to WAC 197-11-680(3), there is no agency appeal of either the Determination of Significance or the adoption of an existing environmental document.

Name of agency issuing Determination of Significance and adopting document: City of Black Diamond

Responsible official: Steve Pilcher, AICP

Position/title: Community Development Director **Phone:** 360-886-2560

Address: P.O. Box 599/24301 Roberts Drive, Black Diamond, WA 98010

Date 6/2/11 **Signature** _____

CITY OF BLACK DIAMOND

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Black Diamond, WA 98010

Phone: (360) 886-2560
Fax: (360) 886-2592

DETERMINATION OF SIGNIFICANCE AND ADOPTION OF EXISTING ENVIRONMENTAL DOCUMENT

Description of current proposal: Development Agreement for the approved "The Villages" Master Planned Development

Proponent: BD Village Partners, LP and the City of Black Diamond

Location of current proposal: "The Villages" MPD consists of two subareas, the Main Property and the North Property. The "Main Property" is located both north and south of Auburn-Black Diamond Road in the vicinity of Lake Sawyer Road. The "North Property" is located to the west of SR 169, approximately two miles north of the Main Property and north of SE 312th Street (if extended). The North Property is south of and adjacent to the "North Triangle" property that is part of the approved Lawson Hills MPD.

Lead agency: City of Black Diamond

EIS Required. Pursuant to WAC 197-11-315(1)(b) and –360(1) and (2), the lead agency has determined, and the proponent agrees, that this proposal is likely to have a significant adverse impact on the environment, and that therefore an environmental impact statement (EIS) is required under RCW 43.21C.030 (2)(c). To fulfill this requirement, an existing Final EIS is being adopted (see below).

Title of document being adopted: The Villages Master Planned Development Final Environmental Impact Statement (FEIS)

Agency that prepared document being adopted: City of Black Diamond

Date adopted document was prepared: December 11, 2009

Description of document (or portion) being adopted: FEIS for a 1,196 acre mixed use development including 4,800 dwelling units; 775,000 sq. ft. of retail, office and light industrial uses; and educational, recreational, and open space uses.

If the document being adopted has been challenged (WAC 197-11-630), please describe:

The FEIS is the subject of a pending appeal in two matters:

(1) Toward Responsible Development, et al., v. City of Black Diamond, King County Superior Court Cause No. 10-2-35957-5 KNT; and

(2) Toward Responsible Development et al. v. City of Black Diamond, CPSGMHB No. 10-3-0014.

The document is available to be read at (place/time): City of Black Diamond Community Development Department, 24301 Roberts Drive, Black Diamond, M-F, 8:30 AM – 5:00 PM; also available on the City's website www.ci.blackdiamond.wa.us

The lead agency has identified and adopted this document as being appropriate for this proposal pursuant to WAC 197-11-600(3) (agency acting on the same proposal shall use an environmental document unchanged). In addition, after independent review pursuant to WAC 197-11-630(1), the lead agency has concluded that the document meets its environmental review needs for the current proposal and will accompany the proposal to the decision maker.

Administrative appeal: Pursuant to WAC 197-11-680(3), there is no agency appeal of either the Determination of Significance or the adoption of an existing environmental document.

Name of agency issuing Determination of Significance and adopting document: City of Black Diamond

Responsible official: Steve Pilcher, AICP

Position/title: Community Development Director **Phone:** 360-886-2560

Address: P.O. Box 599/24301 Roberts Drive, Black Diamond, WA 98010

Date 6/3/11 **Signature** _____

BEFORE THE CITY OF BLACK DIAMOND HEARING EXAMINER

IN RE: THE MATTER OF DEVELOPMENT AGREEMENT HEARINGS
LAWSON HILLS PLN10-0021; PLN11-0014
THE VILLAGES PLN10-0020; PLN11-0013

DECLARATION OF ALAN D. FURE

I, Alan D. Fure, PE, am a citizen of the United States and a resident of the State of Washington, am over the age of 18 years, have firsthand knowledge of the matters to which I attest below, am fully competent to testify as a witness, and have sworn and do certify and declare, under penalty of perjury, that the following declaration is true and correct.

1. Oral testimony from Mr. Jack Sperry during the hearings on the development agreements identified a concern with prior flooding of Lake Sawyer and whether The Villages and Lawson Hills MPDs would exacerbate the flooding.

2. I am a licensed civil engineer, and a true and correct copy of my curriculum vitae is attached to this Declaration.

3. I was asked to respond to Mr. Sperry's testimony regarding Lake Sawyer flooding. Attached is a true and correct copy of the drainage report I prepared in response.

4. Based on the calculations and conclusions included in the attached drainage report, it is my professional opinion that there will be no noticeable impact from The Villages MPD and Lawson Hills MPD development on potential Lake Sawyer flooding.

[*signature on next page*]

Cairncross & Hempelmann, P.S.
Law Offices
524 Second Avenue, Suite 500
Seattle, Washington 98104-2323
Phone: 206-587-0700 • Fax: 206-587-2308

Dated this 1st day of August, 2011 at Kirkland, Washington.

ALAN D. FURE, PE

Cairncross & Hempelmann, P.S.
Law Offices
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Seattle, Washington 98104-2323
Phone: 206-587-0700 • Fax: 206-587-2308

Alan D. Fure, PE

ALAN D. FURE, PE, SENIOR VICE PRESIDENT, has 34 years of civil engineering design, project management and entitlement process experience throughout the Puget Sound region. With a portfolio of over 200 projects, Mr. Fure's areas of expertise include master planning, feasibility analysis, team formation and management, consultant team leadership, storm drainage analysis, grading design, erosion control design, utility design, street design, construction management and collaborative design. Currently serving as Principal in Charge for several master planned communities, Mr. Fure is a trusted advisor for his clients and is highly regarded by co-consultants and local agencies.

EDUCATION

B.S. Civil Engineering, University of Washington, 1977

CERTIFICATIONS AND AFFILIATIONS

Registered Civil Engineer: WA, OR, CO
Member: American Society of Civil Engineers

EMPLOYMENT HISTORY

- University of Washington: Harris Hydraulics Laboratory, Laboratory Assistant, Summer 1976
- Triad Associates: Project Engineer to Principal in Charge and Senior Vice President, December 1976 to present

RECENT PROJECT EXPERIENCE

Lawson Hills and Villages Master Planned Developments

Yarrow Bay Holdings is currently processing the development approvals within the City of Black Diamond for two MPDs that constitute close to 2,000 acres of property and propose a total unit count of roughly 6,000 residential units and 1,200,000 square feet of commercial development. Mr. Fure has been responsible for leading the civil engineering team as it works through the feasibility and environmental analysis phase of the project. His team recently completed an MPD application, currently under review in the City. Some of the design items of note include:

- Storm drainage facility analysis and design, including many low impact development features
- Water system design, including reservoir, pump station and transmission main planning, design and design coordination
- Sanitary sewer design, including pump station and trunkline planning, design and design coordination
- Roadway improvement design, including roundabouts, traffic signals and roadway extensions

Harbor Hill Mixed Use Community

Harbor Hill is a Master Planned Community in Gig Harbor, Washington. The project includes retail and commercial office development and a residential component consisting of approximately 800 units of varying housing types. As Senior Project Manager, Mr. Fure has orchestrated the envisioning process preceding the development of the master residential plan. Subsequently, he led the design team as it prepared a Planned Residential Development Application on the property. Included in this work is the coordinated drainage system design and the master utility planning. Offsite improvements include one mile of frontage roadway improvements: a roundabout, additional road connections and offsite sewer and water extensions.

Arborwood

Located in Kitsap County, Washington, Arborwood is a mixed-use project consisting of 751 residential units and 20,000 square feet of commercial space. As Principal in Charge, Mr. Fure led a team towards the goal of Preliminary Plat approval, realized in 2009. The master plan, including storm drainage and preliminary utilities, was developed with consideration for native open space areas.

TRIAD ASSOCIATES

Alan D. Fure, PE

Talus Master Planned Community

Talus is a large master planned community perched on the easterly slopes of Cougar Mountain located in Issaquah, Washington. The site is steeply sloped and tightly constrained with numerous wetlands and stream corridors. The community contains 1,700 residential units, 500,000 square feet of office space and 25,000 square feet of retail commercial. Mr. Fure served as Senior Project Manager for Triad and assisted his client, Intracorp, with the management of the extensive consultant team. His 14-year involvement spans the planning, environmental, development agreement, design and construction processes. The following infrastructure elements were envisioned, planned and executed under his direction:

- Multiple detention facilities
- Water quality facilities to meet the Lake Sammamish lake management plan
- Over a mile of state highway improvements
- Over two miles of sanitary sewer trunkline
- Multiple water system facilities including a large water pump station and two water reservoirs
- Wetland mitigation and enhancement facilities
- Offsite stream restoration
- Over a mile of onsite roadway

In addition, Mr. Fure managed and directed the planning and engineering efforts for ten of the parcel development projects that followed the infrastructure design and implementation noted above. His work on this project began in 1996 and continues to this day.

Snoqualmie Casino

Snoqualmie Casino is an entertainment project located within the Snoqualmie Indian Nation near Snoqualmie, Washington. The project consisted of a large multi-purpose facility with a 2000-car parking garage constructed with associated additional parking and support facilities on a steeply sloped 40-acre site bisected by a natural stream corridor. Mr. Fure served as Senior Project Manager and assisted the owner by providing leadership to the entire design team. Of significance was the design and construction of a large detention and water quality facility. Other infrastructure elements undertaken on the project under Mr. Fure's leadership include:

- Street frontage improvements on North Bend Way, including a new intersection roundabout
- A water well and pump house
- Water treatment and potable water storage
- Fire flow reservoir and fire flow pump
- Numerous onsite retaining walls

OTHER REPRESENTATIVE PROJECTS

- Lakeland Master Plan, Auburn, WA
- Archstone Northcreek, Snohomish County, WA
- Oswego Pointe Mixed Use Development, Lake Oswego, OR
- Port Ludlow Planned Community, Jefferson County, WA
- Avalon High Grove, Snohomish County, WA
- Brandemoor Apartment Community, Snohomish County, WA
- Emerald Heights Retirement Community, Redmond, WA
- Mack Elementary School, King County, WA
- Element Residential Community, Redmond, WA
- Belcarra Apartments, Bellevue, WA
- Boeing Space Center Redevelopment, Kent, WA
- Inglewood Hills Apartment Community, King County, WA

The Villages
Lawson Hills MPDs

City of Black Diamond, Washington

Drainage Report on Lake Sawyer Flooding and Project Effects

July 28, 2011

Prepared by:
Alan D. Fure, PE

TRIAD
ASSOCIATES

Table of Contents

The Villages and Lawson Hills MPDs
Drainage Report on Lake Sawyer Flooding and Project Effects

Introduction 1

Reservoir Routing 1
- Exhibit 1 – Lake Sawyer Key Drainage Elements 2
- Exhibit 2 – Lake Sawyer Outlet and Weir 3

Lake Outlet Analysis 4
- Exhibit 3 – Lake Sawyer-Reservoir Routing Diagram of Key Variables 5

Conservative Estimate 7

Summary of Results 7

Conclusion 8
- Exhibit 4 – Lake Discharge vs. Height Above Weir 9

Technical Appendix 10
- Introduction 11
- Model Creation 11
- Storm Routing 13
- Summary of Calculation Results 18
- Stage / Discharge Relationship for Existing Lake Sawyer Weir 20
- Covington Creek Capacity Analysis – Below the Lake Sawyer Outlet 23
- Headwater Depth for Corrugated Pipe Culverts with Inlet Control 26
- Headwater Depth vs. Flow for Inlet Controlled Culverts 27
- Stage / Discharge Relationship for Existing Lake Sawyer Culverts 28
- 2010 – 2011 Water Year Rainfall – Weir Controlled Outlet of Lake Sawyer 31
- 1995 – 1996 Water Year Rainfall – Culvert Controlled Outlet of Lake Sawyer 36
- Lake Sawyer Outfall Survey 42

TRIAD ASSOCIATES

INTRODUCTION

We have taken note of recent testimony at the City of Black Diamond Development Agreement Public Hearings on the Villages and Lawson Hills approved MPDs relative to concerns of how the MPD projects may increase flooding in Lake Sawyer. This recent testimony echoes earlier concerns expressed at the MPD hearings.

In response to the MPD hearing testimony last year, I prepared an affidavit that offered a very simple order of magnitude estimate of lake level increase for a particular storm event. It was grossly conservative and indicated only a small increase in lake level.

Given the continuing expressed concerns and the call for an additional approval condition, it seems warranted that additional analysis be prepared to hopefully put this issue to rest.

Between the MPD hearings and now, Triad Associates has completed additional research and field survey measurements which allow for a more refined estimate of potential lake level rise. This information has allowed for the use of an accepted calculation methodology (reservoir routing) to accomplish these estimates. This methodology is explained in more detail below.

The calculations included in this report have been prepared using conservative assumptions so that the conclusions of this report actually overstate the true effect. However, since the conclusions of the report verify a very small effect on the lake level (less than an inch of lake level increase during a rare and very large storm event), the fact this was derived using conservative assumptions should be very reassuring to those concerned about project effects on flooding. There should be no noticeable impact from the MPD development on potential lake flooding.

RESERVOIR ROUTING METHODOLOGY

Lake Sawyer is a 279 acre lake with two streams carrying most of the flow into the lake (Ravensdale Creek and Rock Creek) and one outlet (Covington Creek) where flows leave the lake (see Exhibit #1). The outlet of the lake is controlled by an existing concrete weir structure together with three 72-inch diameter culverts just to the west of the weir which carry the flows under 224th Ave SE and to Covington Creek to the west (see Exhibit #2).

Given its outlet weir control, Lake Sawyer functions as a reservoir where a method of calculation referred to as reservoir routing can be applied. Reservoir routing requires:

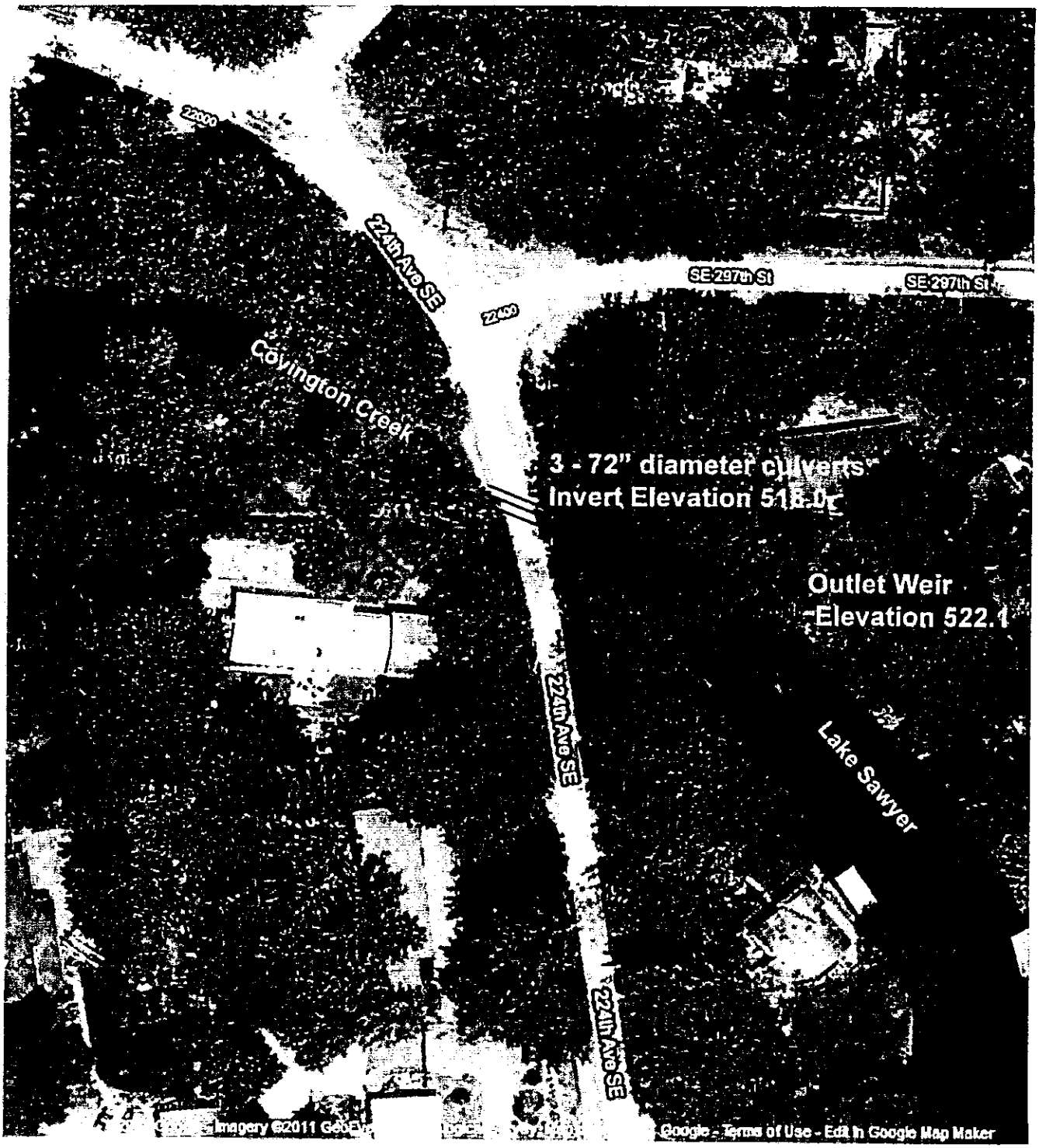
- Information on the size of the reservoir.
- Information on the outlet flow rate as a function of reservoir depth.
- Information on the water volume entering the reservoir.

Reservoir routing can be used in the present situation to estimate the potential *marginal* effect the MPD projects would have on the water level in Lake Sawyer.

Exhibit 1
Lake Sawyer Key Drainage Elements

Not to Scale

Exhibit 2
Lake Sawyer Outlet and Weir



Not to Scale

The method involves a stepped calculation over time. During a time step, a volume of water enters the lake. During this same time step, a volume of water leaves the lake. The difference between these two volumes represent either an increase in water level, a decrease in water level or maintenance of the water level in the lake depending on their relative magnitudes (see Exhibit #3). For example, during storm events with heavy rainfall, the flows entering the lake from the tributary streams are greater than the flow leaving the lake via the weir facility. Thus the lake level rises. However, as the lake level rises, the flow rate leaving the lake increases. Therefore, when a storm event subsides, the flow rate leaving the lake exceeds the flow rate entering the lake and the lake level falls.

To apply reservoir routing to Lake Sawyer we have the following information to estimate the project effects:

1. As referenced in the King County Lakes website[1], the area of the lake is known to be 279 acres. By using the conservative assumption that the lake area remains at 279 acres as the lake level rises, we can create a volume relationship to lake depth (each 0.01 inch of lake rise = 10,128 cubic feet of storage volume). In actuality, the area of the lake increases as the water level increases, but for the purposes of this analysis, we are neglecting that effect (a conservative approach).

2. We recently conducted a field survey of the outlet components (the concrete weir, the 72 inch culverts and a downstream reach of Covington Creek) and have created a graph of the relationship between lake level and flow rate leaving the lake (the Technical Appendix shows the calculations).

3. In our other work on the project, we have already created a percentage relationship between inches of rainfall and inches of runoff coming from the project sites. Therefore, for a given amount of rainfall in a day, we can estimate the additional volume of runoff leaving the site as compared to the existing condition. By using the volume of additional runoff, we can "route" these volumes through the lake system to determine their marginal effect.

Second, we have local rainfall data during historic flooding or near-flooding events that have occurred at Lake Sawyer. By using this historic data we can estimate how the projects would have affected the lake level had they been completely built out at the time. We used the most recent 2010/2011 water year (since it exhibited fairly high lake levels and is in our recent memory) and the 1995/1996 water year where there was an extreme lake level that occurred in February of 1996.

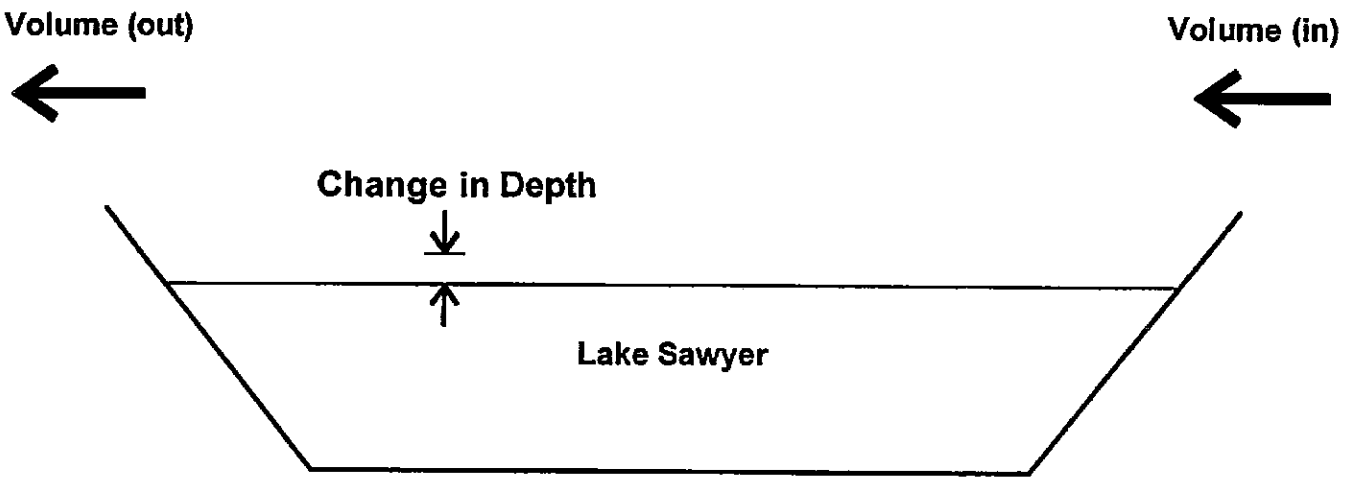
Using the measured rainfall information for water volumes entering the lake and calculated outlet rates for water volumes leaving the lake, we can estimate lake depth changes over time.

[1] http://www.kingcounty.gov/environment/waterandland/lakes/lakes-of-king-county/locations-features.aspx

Exhibit 3

Lake Sawyer-Reservoir Routing Diagram of Key Variables

$$\text{Change of Depth} = \frac{\text{Volume (in)} - \text{Volume (out)}}{\text{Area of Lake}}$$



LAKE OUTLET ANALYSIS

A critical piece of information in any analysis of the storage function of a lake or reservoir is the relationship between lake depth and outlet flow rate. In our case, the outlet flow rate for Lake Sawyer is dependent on three different conveyance elements downstream of the lake, namely, the outlet weir, the three large culverts under 224th Ave SE, and Covington Creek to the west of 224th Ave SE (see Exhibit #2).

An accurate analysis depends on precise dimension and elevation data on the outlet elements. Therefore, the three elements were as-built through field survey concurrent with depth and velocity measurements at each location (the field survey elevations and relationships are included in the appendix).

Using this field data, our analysis of the relationship between the Lake Sawyer outlet weir, the culverts under 224th Ave SE, and downstream Covington Creek appears to match recent hearing testimony where observations of the outlet system indicated that during higher water levels the outlet experienced a "back-up" which limits amount of the flow leaving Lake Sawyer. This phenomenon of flow rate diminishment is portrayed in the stage discharge curve graph shown in Exhibit 4. What we have found is when the lake level is low and starts to increase, the efficiency of flow is greater than at higher lake levels. This is due to a transition from the flow being controlled by the weir to a situation where the flow is controlled by the culverts under 224th Ave. SE. At a higher lake level the weir effect disappears as the water backs up from behind the culverts. The flow equations for the culverts then come into play. We found that the culvert flow rate resulting from a change in depth is less than the corresponding change in weir flow rate for the same change in depth. This can be seen in the stage discharge curve exhibit with the slope of the curve flattening at higher lake levels. It should be noted that at these higher lake levels, while it appears the flow is being held back, in actuality the flow rates are still very large and explain the rapid draw down of the lake once a storm event passes and input stream flows diminish. As we looked into potential concerns about the capacity of Covington Creek, we found that it does not constrain the weir and culvert system. The flow capacity of Covington Creek was verified by cross section and it was determined that the capacity of Covington Creek does not become a controlling factor, due to the width of the downstream flood plain. In other words, a small increase in flow depth in the creek produces a very large increase in flow rate, preventing the creek from backing up the culverts. In short, there is no "plugging" of the Lake outlet system. Instead, normal Lake outlet flows are limited by the capacity of the weir, and higher Lake outlet flows are limited by the capacity of the culverts under 224th Ave. SE, Covington Creek has no impact on the magnitude of outlet flows, and overall, the lake continues to have significant outlet flows even at the height of the rare and large storm assumed in this analysis. Please see the technical Appendix for a more detailed explanation of the creation of the curve.

CONSERVATIVE ESTIMATE

The calculations in this report focus on the additional volume coming from the project sites and what the potential lake level rise would be as a result of that additional volume. To simplify the calculation while preserving its integrity, several conservative assumptions were used:

- ✓ For the first time step, no credit is taken for flow leaving the lake – it is kept at zero.
- ✓ Even though the projects will employ large detention facilities, no credit was taken for attenuation of flow rate as a result of the detention volume.
- ✓ Even though there is a large wetland between the projects and the lake, no credit was taken for this additional attenuating affect.
- ✓ Since the outlet curve is least efficient at the higher lake level, the calculations for the 1996 storm event "held" the lake level at its maximum (hypothetically) and only made use of the incremental flow rates at the upper part of the curve where there is a smaller increase in flow for a corresponding increase in lake level.
- ✓ The February 1996 storm event was a significant "rain on snow" event. It was a classic "pineapple express" which followed a time of cooler temperatures. These types of events produce greater runoff in the existing condition due to the ground being frozen and acting more like impervious surface. During this event it could have reasonably been argued that a greater amount of runoff occurred in the existing condition than would occur following full build-out of the MPDs, diminishing the net increase in runoff from the site, given the same conditions. However, this was not taken into account in our hypothetical case and the same volumetric increase was utilized as though it were a normal rainfall event.

SUMMARY OF RESULTS

The reservoir routing analysis using the above mentioned conservative assumptions resulted in the following maximum lake level rise (due to the increased volume from the projects) for the two historical rainy seasons examined:

For the 1995/1996 rainy season, the greatest lake level rise attributable to the projects was reflected during the referenced February storm and was calculated to be 0.93 inch. Because of the use of multiple separate conservative assumptions, the actual lake level rise from such a storm following full build-out of the MPDs will likely be much less.

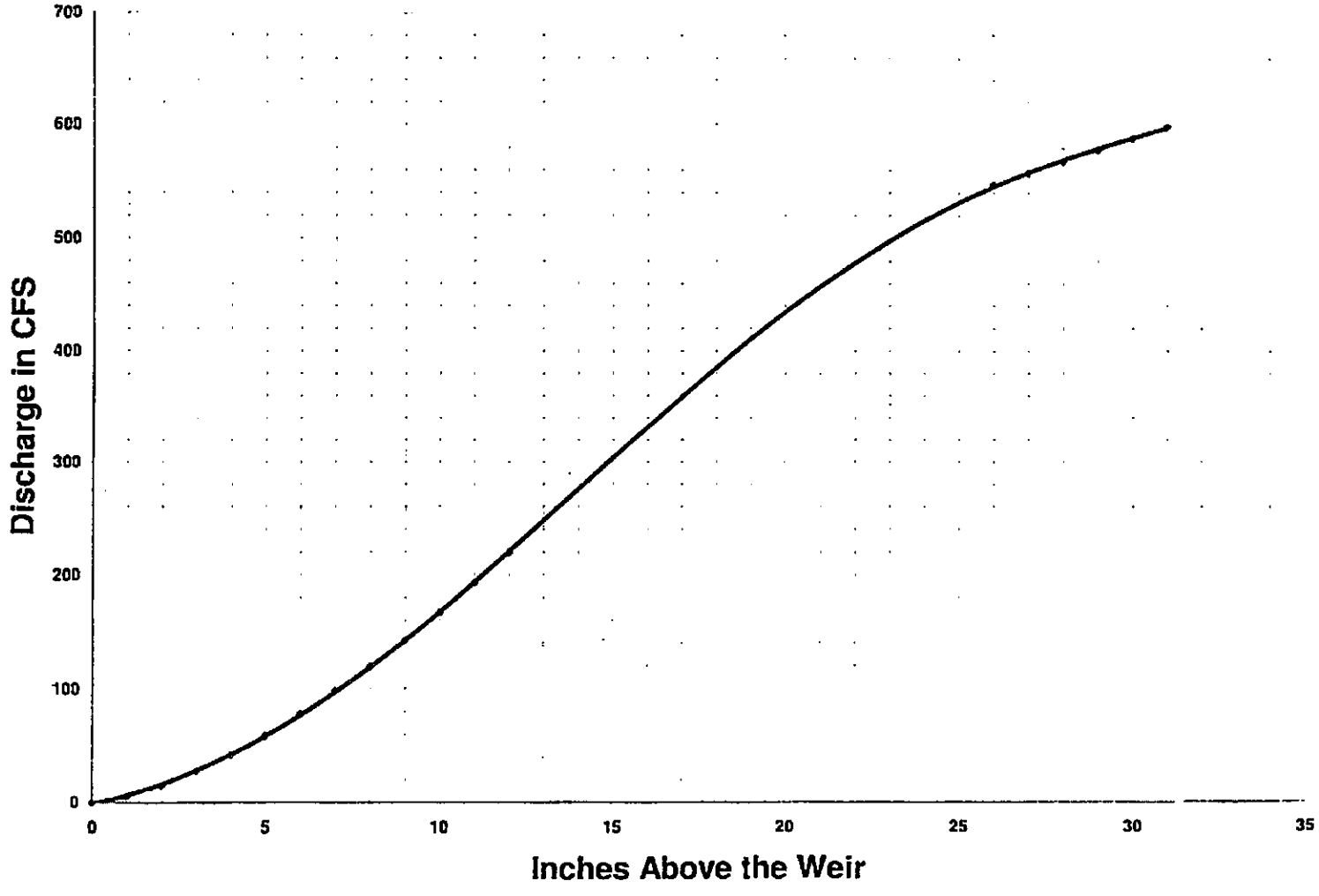
For the 2010/2011 rainy season, the greatest lake level rise attributable to the projects was calculated to be 0.44 inch. Because of the use of multiple separate conservative assumptions, the actual lake level rise from such a storm following full build-out of the MPDs will likely be much less.

CONCLUSION

As seen from this analysis, the proposed MPD projects have a very small potential impact on flood levels in Lake Sawyer. This confirms the intuitive concept that projects that comprise only 2% of an 8,000 acre basin could have only a very small effect on lake level. Since these figures were calculated using conservative assumptions, actual lake level rise will be even less than the estimates shown.

Exhibit 4 - Lake Discharge vs. Height Above Weir

Height Above Weir (inches)	Discharge (CFS)	
0	0.0	Weir Controlled Flow Equations
1	5.3	
2	14.9	
3	27.4	
4	42.2	
5	59.0	
6	77.6	
7	97.7	
8	119.4	
9	142.5	
10	166.9	
11	192.5	
12	219.4	
26	547.8	Culvert Controlled Flow Equations
27	558.0	
28	568.2	
29	578.4	
30	588.6	
31	598.8	



Note: The lower portion of this curve was derived from the weir equations provided in the Technical Appendix while the upper portion of this curve was derived from the culvert equations in the same section. The central portion of this curve is interpolated between the two and is provided for illustrative purposes only.

Technical Appendix

INTRODUCTION

The purpose of this report is to explain the technical details of the reservoir routing model which has been created to examine the incremental change in the Lake Sawyer water level as produced by the additional runoff created by the development of The Villages and the Lawson Hills developments.

MODEL CREATION

A model of the outlet structure for Lake Sawyer was created using field survey data, hydraulic equations from both the King County Stormwater Design Manual (KCSWDM) and the Open-Channel Hydraulics volume of the McGraw-Hill Civil Engineering Series.

Field survey includes multiple elevation measurements of several cross-sections of Covington Creek downstream of the three 72-inch culverts under 224th Avenue Southeast, crowns and inverts of all three culverts, elevation of the weir, elevations at the ends of the weir and fish ladder, along with the water level at each location and the evident high water mark of Covington Creek. (See the attached survey exhibit)

Using this field information, models for the weir, the three culverts and Covington Creek were created. The first step in creating the models to be used to assess the lake level rise during large rainfall events was to calculate the flows witnessed during the survey field visit to calibrate parts of the model.

Weir

Flows for the weir were calculated using the broad-crested weir equation from the Open-Channel Hydraulics volume of the McGraw-Hill Civil Engineering Series below:

$$Q = C \times L \times H^{3/2}$$

Where Q = Flow over the weir (cubic feet per second)
L = Length of the weir (feet)
H = Height of water over the weir crest (feet)
and C = Weir discharge coefficient

The length of the weir is 71 feet.

The C value used for calculations was conservatively chosen as 3.09 from the Open-Channel Hydraulics volume of the McGraw-Hill Civil Engineering Series. (Note: The KCSWDM uses 3.21 in its broad-crested weir equation. Using this C value would produce higher flows over the weir which would in turn produce lower lake level rises. Due to this fact, the lower value of 3.09 was used for a factor of conservatism.)

On the date of the field survey, a water depth of 2.6-inches was measured over the weir. At this depth, the corresponding flow (Q) is equal to 22.13 cubic feet per second.

Covington Creek

Flows for Covington Creek downstream of the culvert were calculated using Manning's Equation for the section of the stream that was most constricting within the bounds of the survey (Section 1 on the Survey Exhibit). The bounds of the survey were set at the point downstream of the culvert where the stream channel becomes steeper (based on adjoining topographic data).

Manning's Equation is as follows:

$$V = \frac{(1.486)}{n} \times R^{2/3} \times S^{1/2}$$

Where V = velocity (feet per second)
n = Manning's coefficient
R = Hydraulic radius (feet)
and S = Slope of the energy grade line (feet/foot)

Different Manning's n values were used for the normal channel (the section of the creek below the water elevation measured during the field survey), the wooded bank to the north and the lawn area to the south. These values are 0.027, 0.050, and 0.035 respectively. (These values are within typical recommended ranges for these types of ground cover but were additionally calibrated based on a field observed stream velocity of 0.75 feet per second. Using this velocity along with the cross sectional area corresponding to the water elevation at the time of the survey, an approximate flow was calculated.)

The Hydraulic Radius is calculated as follows:

$$R = \frac{A}{P_w}$$

Where A = Cross-sectional area (square feet)
and Pw = Wetted perimeter (feet)

The Hydraulic Radius, Cross-Sectional Area and Wetted Perimeter have all been calculated for different depths of water in the creek bed from elevation 518.05 (the creek bottom) to 524.00 (the elevation near Mr. Mike Bertsch's home which reportedly was not flooded during the extreme February 1996 event).

The slope of the energy grade line was calculated by plotting the surveyed water surface elevations from Section 1 upstream to the three culverts and using a trend line to determine the slope. The slope of the water surface elevations was 0.00026 feet per foot.

Using this information, and the flow equation (Q = V x A) the flow conveyed by Covington Creek was calculated on the day of the field survey (water elevation 519.30) to be 21.09 cubic feet per second. Additionally, a stage/flow table was created from elevation 518.05 to 524.00.

Culverts

To determine the flow through the three culverts on the day of the field survey, the velocity of flow was estimated (1.33 cubic feet per second) and flow area was calculated using the average invert elevation and average water depth in each culvert. The average water depth in the culverts was calculated to be 1.48-feet, creating a flow area of 16.2 square feet (5.4 square feet per culvert). Multiplying the estimated velocity by the flow area calculates a flow rate of 21.5 cfs.

Comparing the flow over the weir (22.1 cubic feet per second), the flow downstream of the culvert in Covington Creek (21.1 cubic feet per second), and the flow through the culvert (21.5 cubic feet per second), we feel confident that the survey field data and assumptions made have created an accurate model.

STORM ROUTING

Scenarios

Two different water year scenarios were analyzed to estimate the change in lake level due to the development of The Villages and Lawson Hills developments. We chose to look at two scenarios, one, a recent rainy season with relatively high water levels and two, a rainy season with a historically extreme rainfall event accompanied by an extreme lake level rise.

1. The high lake level from earlier this winter/spring (2010/2011) was witnessed at 10-inches above the outlet weir. This scenario will be referred to as the 2010/2011 scenario.

2. The lake flooding in 1996 has been discussed on several occasions. During a large storm in February of 1996, the lake level rose to approximately 26-inches above the outlet weir. This scenario will be referred to as the 1996 scenario.

The following information was used for the calculations for both scenarios:

1. The volume of additional runoff generated by the build out of the two projects was calculated on a "per inch of rain" basis. This calculations is as follows:

   The percent of rainfall which becomes runoff was determined using the Average Annual Runoff Assumptions per Associated Earth Sciences, Inc. (AESI) as provided in the Environmental Impact Statement Technical Report on Geology, Soils, and Ground Water for The Villages dated September 26, 2008. An example of this is as follows:

   The existing condition for both projects is assumed to be till forest. The Average Annual Runoff Assumptions show an average annual rainfall of 4.50 feet and an average annual runoff of 1.52 feet. This means that the percent of rainfall that becomes runoff from till forest is 33.8-percent.

Using the areas of the two projects which are tributary to Lake Sawyer via surface water discharge[2] (235.3 acres), a volume per inch of rain can be determined in the existing condition (288,534 cubic feet per inch).

Using similar percentages for till grass (37.8-percent) and impervious surfaces (84.7-percent) along with the number of acres of both surface conditions (79.3 acres and 156.0 acres respectively), a volume per inch of rain can be determined for the developed condition (588,259 cubic feet per inch).

With these two numbers, an increase in runoff per inch of rain is determined (299,725 cubic feet per inch).

2. Daily precipitation from the King County Water and Land Resources Division Hydrologic Information Center was used to emulate historic flows into and out of Lake Sawyer. Data from the "Black Diamond I&I Rain Gage" from 10/01/2010 to 06/21/2011 was used for the 2010/2011 scenario. Data from the "Black Diamond I&I Rain Gage" was not available for 1996 so data from the nearby Jenkins Creek Rain Gauge in the Soos Creek Watershed for the dates from 10/01/1995 to 09/30/1996 was used for the 1996 scenario.

3. The controlling outlet structure was determined and an outflow curve was created for both scenarios. More on this below.

4. The surface area of the Lake Sawyer was taken from the King County Lakes website and is 279 acres.

Controlling Outlet Structure

2010/2011 Scenario

In the 2010/2011 scenario, the high water level is 10-inches over the outflow weir. This elevation over the weir, using the above stated weir equation corresponds to an outflow from the lake of 166.90 cubic feet per second.

Using the 166.90 cubic feet per second and the stage/flow table created for Covington Creek downstream of the three culverts, the water level in Covington Creek required to pass this flow was calculated. At 166.90 cubic feet per second, Covington Creek would have an elevation of approximately 521.0. Covington Creek has sufficient capacity to convey this flow.

Using the water surface elevation at Section 1of Covington Creek, the energy grade line slope previously stated of 0.00026 feet per foot and the distance of approximately 340 feet upstream to the three culverts, the water elevation at the culverts is approximately 521.1. As the

[2] Some portions of the Villages and Lawson Hills projects within the Lake Sawyer basin will employ LID strategies where the storm water will be infiltrated. These areas were not included in the analysis.

downstream crown elevations of the three culverts are (from north to south) 523.91, 523.98, and 523.91, therefore, this water elevation does not produce an outlet controlled situation.

Dividing the 166.90 cubic feet per second by three gives a flow per culvert of 55.7 cubic feet per second. Using Figure 4.3.1.C Headwater Depth for Corrugated Pipe Culverts with Inlet Control from the 2009 KCSWDM and assuming a flow of 60 cubic feet per second per culvert, the depth of water in each culvert is approximately 3-feet. This means that the culverts have more than sufficient flow to convey the 166.90 cubic feet per second and that the weir is the controlling outlet structure for the 2010/2011 scenario.

A Stage/Discharge table has been developed for the weir starting at 10-inches over the weir with calculations every 0.01 inch. This table is used during the reservoir routing (see description below).

1996 Scenario

Based historical data, the lake level rose to approximately 26-inches over the weir during a particularly large storm in 1996. The flow over the weir was calculated at 26-inches of depth to be approximately 700 cubic feet per second.

Looking up the assumed flow rate over the weir of 700 cubic feet per second in the Covington Creek stage/flow table, the elevation of water in the creek at this flow rate would be approximately 522.8. Using the energy grade line slope and the distance to the culverts, the elevation at the culverts would be approximately 522.9. This elevation is below the crown elevation of all three culverts, therefore the culverts are operating in an inlet controlled situation.

To create a stage discharge curve for the inlet control culverts Figure 4.3.1.C Headwater Depth for Corrugated Pipe Culverts with Inlet Control from the 2009 KCSWDM was used. Headwater elevations corresponding with several flow rates (from 160 to 240 cubic feet per second) were calculated and a nearly linear relationship was evident. A trend line was graphed and the equation was used to calculate the flow through each culvert at different water elevations. The equation calculated is as follows:

$$Q = \frac{H - 1.68}{0.0245}$$

Where Q = Flow through a single culvert (cubic feet per second)
And H = Headwater depth above the culvert invert (feet)

The starting elevation for this scenario is the weir elevation (522.11) plus the 26 inches, making the water elevation 524.28. The upstream invert elevations for the three culverts from north to south are 518.53, 517.97, and 517.88. This means at a water elevation of 26 inches over the outflow weir the headwater depth for the three culverts, again from north to south is, 5.75 feet, 6.31 feet, and 6.40 feet. Using the above flow versus headwater depth equation, a total flow of 552.1 cubic feet per second is calculated. As this flow is less than the flow calculated

using the weir equation, it is evident that the three culverts are the controlling outlet structure for this scenario.

A Stage/Discharge table has been developed for the three culverts starting at 26-inches over the weir with calculations every 0.01 inch. This table is used during the reservoir routing (see description below).

The Stage/Discharge tables for the weir and the three culverts were combined to create a Stage/Discharge curve for the outlet of Lake Sawyer (Exhibit 4). The lower portion of the curve and the upper portion of the curve were created using the above calculations. The central portion of the curve was estimated for illustrative purposes only.

Reservoir Routing

Using the above pieces of information, additional runoff volume was routed through Lake Sawyer on a daily basis for both scenarios. Routing for both scenarios was performed using the same process but with different starting lake level, start outlet flow, precipitation data and outflow curve information. The assumptions for routing are as follows (examples are provided from the 2010/2011 scenario):

1. The starting lake level is assumed to be the maximum lake level seen for each scenario. This means that for the 2010/2011 scenario the lake is assumed to begin at 10-inches above the outlet weir. Additionally, the lake level is never allowed to drop below this starting point, in an effort to conservatively determine the greatest level rise created by the additional runoff from the two projects. To make the data easier to read, the lake level of 10-inches over the weir is set at zero. This means that the value for lake level provided is the rise in lake level above the starting lake level.

2. The flow out of the lake at the starting lake level (10 inches above the outlet weir for the 2010/2011 scenario) is set to zero. The reason for this is that for the lake level to remain at 10-inches over the outlet weir in the 2010/2011 scenario, the flow coming into the lake must equal the flow out of the lake (166.90 cubic feet per second at 10-inches over the outflow weir). We have assumed this flow is coming into and leaving the lake every day for the entire length of the routing. As the lake level rises due to the increase in runoff from the two projects, the outflow will also increase. To make the data easier to read, the flows out of the lake have been provided as a change above the 166.90 cubic feet per second base flow (for example: a 167.90 cubic feet per second outflow is represented as 1.0 cubic feet per second).

3. The flow out of the lake is conservatively based on the lake level at the end of the previous day. As runoff enters the lake throughout a day, the lake level rises which causes a rise in the outflow. However this increase in outflow throughout the day is not taken into account for these calculations as another factor of conservatism.

Using these assumptions, the following procedure was used for reservoir routing (again, the example calculations are from the 2010/2011 scenario but the computations are the same for both scenarios):

1. At the beginning of the scenario the lake level starts at 0 (again, for the 2010/2011 scenario this corresponds to an actual lake level of 10 inches over the weir).

2. Rainfall data for the day is used to calculate an increase in runoff volume created by the two projects and conveyed to Lake Sawyer. For the first day of the 2010/2011 scenario (10/01/2009), the King County data shows rainfall of 0.15 inches. Using the previously calculated 299,725 cubic feet of additional volume per inch of rain, the additional volume into the lake is calculated to be 44,959 cubic feet.

3. The flow out of the lake is determined based on the lake level for the day and the outflow curve to the controlling outflow structure for that particular scenario (see the example for the second day below for further explanation). As the lake level for the first day of the scenario is 0 inches, the outflow from the lake is therefore 0 cubic feet per second.

4. The outflow volume is calculated by multiplying the outflow rate by the number of seconds in a day (86,400). As the first day has 0.00 cubic feet per second outflow rate, there is no volume out on this day.

5. The volume in and volume out are then added to determine the net volume change in the lake. For the first day, this is 44,959 cubic feet minus 0.00 cubic feet equals a net change of 44,959.

6. Using the net change in volume spread over the area of the Lake (279 acres), we can determine a change in the lake level. The conversion from cubic feet to inches of lake level rise is as follows:

$$\text{Change in Lake Level} = \frac{\text{Net Volume Change}}{(279 \text{ acres} \times 43{,}560 \text{ square feet per acre})} \times 12 \text{ inches per foot}$$

   For the first day, the change in lake level is 0.04 inches.

7. The lake level for the next day is the calculated by adding the lake level of the previous day to the change in lake level calculated for the precious day. For the second day of 2010/2011 scenario this means that the lake level is 0 inches plus 0.04 inches equaling 0.04 inches

8. Steps 2 through 7 are then repeated for the duration of the rainfall data. An example of the second day is as follows:

   - The rainfall for the second day is 0.49 inches, creating an inflow volume of 146,865 cubic feet.

- As the lake level for the second day is 0.04-inches, the outflow for the second day, as shown in the weir flow table, is 1.00 cubic feet per second.

  [Note: The lake level is calculated to more than the two significant digits shown in the output table. The lake level for the second day is actually 0.044 inches. Because this value is greater than 0.04, the flow corresponding to the 0.04 inches lake level is used. In cases where the lake level has been rounded up (for instance, if the lake level for the second day was actually 0.038 inches) the outflow value corresponding with a lake level one hundredth of an inch lower is used (to complete the example, if the lake level on the second day was actually 0.038 inches, the outflow correspond to 0.03-inches would have been used, or 0.75 cubic feet per second.) This was done to add an additional level of conservatism. The one exception to this is for lake level values between 0.00 and 0.01 inches. For these lake levels the outflow corresponding to a lake level of 0.01 inches was used to allow the lake to drain back to a lake level of 0.00 inches.]

- Using the outflow of 1.00 cubic feet per second, an outflow volume of 86,605 cubic feet was calculated.

- By subtracting the outflow volume (86,605 cubic feet) from the inflow volume (146,864 cubic feet) a net change of 60,260 cubic feet was calculated.

- This net change corresponds to a change in lake level of 0.06-inches.

- Adding the 0.06-inches of rise to the second day lake level of 0.04-inches gives a third day lake level of 0.10-inches.

SUMMARY OF CALCULATION RESULTS

2010/2011 Scenario

The attached spreadsheet has daily values of lake level above the outflow weir, rainfall, additional volume into Lake Sawyer, incremental flow out of Lake Sawyer, and change in water elevation of Lake Sawyer.

The greatest incremental rise was reflected on 11/02/2010 and was 0.44 inches.

The next highest rise was reflected on 01/02/2011 and was 0.38 inches.

The third highest rise was reflected on 06/19/2011 and was 0.31 inches.

Keep in mind that due to the conservative assumptions the actual incremental rise for these scenarios will be smaller in reality. The attenuation that occurs through the project detention ponds and the intervening wetlands will trend the actual increased flow depths toward the average daily flow depth increase. The average daily flow depth increase is calculated by

dividing the rainy season (October 1st though April 30th) volume increase by the number of days in the wet season. For the 2010/2011 scenario, the total additional volume from the entire rainy season was 44.74 inches. On an average daily basis this represents 0.21 inches. Therefore, the actual lake level rise is somewhere between ¼ of an inch and ½ of an inch.

1996 Scenario

The attached spreadsheet has daily values of lake level above the outflow weir, rainfall, additional volume into Lake Sawyer, incremental flow out of Lake Sawyer, and change in water elevation of Lake Sawyer.

The greatest incremental rise was reflected on 02/09/1996 and was 0.93-inches.

The next highest rise was reflected on 04/24/1996 and was 0.48 inches.

The third highest rise was reflected on 11/30/1995 and was 0.44 inches.

As noted above, the actual incremental rise for these scenarios will be smaller in reality. For the 1996 scenario, the total additional volume from the entire rainy season was 43.33 inches. On an average daily basis this represents 0.20 inches. Therefore the actual lake level rise is somewhere between ¼ of an inch and ⅜ of an inch.

Stage / Discharge Relationship for the Existing Lake Sawyer Weir

Stage / Discharge Relationship
For the Existing Lake Sawyer Weir

Lake Level Above Weir (Inches)	Change in Height (Inches)	Change in Flow (CFS)	Total Flow (CFS)
10.00	0.00	0.00	166.90
10.01	0.01	0.25	167.15
10.02	0.02	0.50	167.40
10.03	0.03	0.75	167.65
10.04	0.04	1.00	167.90
10.05	0.05	1.25	168.15
10.06	0.06	1.50	168.40
10.07	0.07	1.76	168.65
10.08	0.08	2.01	168.90
10.09	0.09	2.26	169.15
10.10	0.10	2.51	169.41
10.11	0.11	2.76	169.66
10.12	0.12	3.01	169.91
10.13	0.13	3.27	170.16
10.14	0.14	3.52	170.41
10.15	0.15	3.77	170.66
10.16	0.16	4.02	170.92
10.17	0.17	4.27	171.17
10.18	0.18	4.53	171.42
10.19	0.19	4.78	171.67
10.20	0.20	5.03	171.93
10.21	0.21	5.28	172.18
10.22	0.22	5.54	172.43
10.23	0.23	5.79	172.69
10.24	0.24	6.04	172.94
10.25	0.25	6.30	173.19
10.26	0.26	6.55	173.45
10.27	0.27	6.80	173.70
10.28	0.28	7.06	173.95
10.29	0.29	7.31	174.21
10.30	0.30	7.57	174.46
10.31	0.31	7.82	174.72
10.32	0.32	8.07	174.97
10.33	0.33	8.33	175.22
10.34	0.34	8.58	175.48

Lake Level Above Weir (Inches)	Change in Height (Inches)	Change in Flow (CFS)	Total Flow (CFS)
10.35	0.35	8.84	175.73
10.36	0.36	9.09	175.99
10.37	0.37	9.35	176.24
10.38	0.38	9.60	176.50
10.39	0.39	9.86	176.75
10.40	0.40	10.11	177.01
10.41	0.41	10.37	177.26
10.42	0.42	10.62	177.52
10.43	0.43	10.88	177.78
10.44	0.44	11.14	178.03
10.45	0.45	11.39	178.29
10.46	0.46	11.65	178.54
10.47	0.47	11.90	178.80
10.48	0.48	12.16	179.06
10.49	0.49	12.42	179.31
10.50	0.50	12.67	179.57
10.51	0.51	12.93	179.82
10.52	0.52	13.19	180.08
10.53	0.53	13.44	180.34
10.54	0.54	13.70	180.60
10.55	0.55	13.96	180.85
10.56	0.56	14.21	181.11
10.57	0.57	14.47	181.37
10.58	0.58	14.73	181.62
10.59	0.59	14.99	181.88
10.60	0.60	15.24	182.14
10.61	0.61	15.50	182.40
10.62	0.62	15.76	182.66
10.63	0.63	16.02	182.91
10.64	0.64	16.28	183.17
10.65	0.65	16.53	183.43
10.66	0.66	16.79	183.69
10.67	0.67	17.05	183.95
10.68	0.68	17.31	184.21
10.69	0.69	17.57	184.46
10.70	0.70	17.83	184.72
10.71	0.71	18.09	184.98
10.72	0.72	18.35	185.24

Lake Level Above Weir (Inches)	Change In Height (Inches)	Change In Flow (CFS)	Total Flow (CFS)
10.73	0.73	18.60	185.50
10.74	0.74	18.86	185.76
10.75	0.75	19.12	186.02
10.76	0.76	19.38	186.28
10.77	0.77	19.64	186.54
10.78	0.78	19.90	186.80
10.79	0.79	20.16	187.06
10.80	0.80	20.42	187.32
10.81	0.81	20.68	187.58
10.82	0.82	20.94	187.84
10.83	0.83	21.20	188.10
10.84	0.84	21.46	188.36
10.85	0.85	21.73	188.62
10.86	0.86	21.99	188.88
10.87	0.87	22.25	189.14
10.88	0.88	22.51	189.40
10.89	0.89	22.77	189.66
10.90	0.90	23.03	189.93
10.91	0.91	23.29	190.19
10.92	0.92	23.55	190.45
10.93	0.93	23.82	190.71
10.94	0.94	24.08	190.97
10.95	0.95	24.34	191.23
10.96	0.96	24.60	191.50
10.97	0.97	24.86	191.76
10.98	0.98	25.13	192.02
10.99	0.99	25.39	192.28
11.00	1.00	25.65	192.55

Covington Creek Capacity Analysis – Below the Lake Sawyer Outlet

Covington Creek Capacity Analysis - Below the Lake Sawyer Outlet

Triad Project No. 05-336 Prepared By: Roy Lewis June 27, 2011

	North Overbank > 519.27 n = 0.080				North In-Channel > 518.07 n = 0.027				Center Channel < 518.07 n = 0.027				South In-Channel > 518.07 n = 0.027				South Overbank > 519.27 n = 0.035				Composite Streamflow Geometry and Flow Estimate						
Water Surface Elevation (feet)	h = Water Depth (feet)	b = Width at Surface (feet)	A = 1/2 h * b (Sq. Ft.)	P = SQRT (h2 + b2) (feet)	h = Water Depth (feet)	b = Width at Surface (feet)	A = 1/2 h * b (Sq. Ft.)	P = SQRT (h2 + b2) (feet)	h = Water Depth (feet)	w = Channel Width (1.5 h feet)	A = h * w (Sq.Ft.)	P = w + 2h feet	h = Water Depth (feet)	b = Width at Surface (feet)	A = 1/2 h * b (Sq. Ft.)	P = SQRT (h2 + b2) (feet)	h = Water Depth (feet)	b = Width at Surface (feet)	A = 1/2 h * b (Sq. Ft.)	P = SQRT (h2 + b2) (feet)	Total Cross-sectional Area (Sq.Ft.)	Total Wetted Perimeter (feet)	Composite Manning's Roughness Coefficient (n)	Water Surface Slope 0.000026 ft/ft	Flow Velocity (ft/sec)	Flow (Cu.Ft./sec)	Water Surface Elevation at Culvert's (518.83 Feet - Min)
518.05					0.00	0.00	0.00	0.00	0.00	10.00	0.00	10.00	0.00	0.00	0.00	0.00					0.00	10.00	0.0270	0.000026	0.00	0.00	518.13
518.10					0.05	0.33	0.01	0.34	0.05	10.00	0.50	10.00	0.05	0.75	0.02	0.75					0.53	11.09	0.0270	0.000026	0.12	0.06	518.18
518.15					0.10	0.67	0.03	0.67	0.10	10.00	1.00	10.00	0.10	1.50	0.03	1.50					1.11	12.18	0.0270	0.000026	0.18	0.20	518.23
518.20					0.15	1.00	0.07	1.01	0.15	10.00	1.50	10.00	0.15	2.25	0.17	2.25					1.74	13.27	0.0270	0.000026	0.23	0.40	518.28
518.25					0.20	1.33	0.13	1.35	0.20	10.00	2.00	10.00	0.20	3.00	0.30	3.01					2.43	14.35	0.0270	0.000026	0.27	0.66	518.33
518.30					0.25	1.67	0.21	1.69	0.25	10.00	2.50	10.00	0.25	3.75	0.47	3.76					3.18	15.44	0.0270	0.000026	0.31	0.98	518.38
518.35					0.30	2.00	0.30	2.02	0.30	10.00	3.00	10.00	0.30	4.50	0.68	4.51					3.93	16.53	0.0270	0.000026	0.34	1.36	518.43
518.40					0.35	2.33	0.41	2.35	0.35	10.00	3.50	10.00	0.35	5.25	0.92	5.26					4.83	17.62	0.0270	0.000026	0.37	1.81	518.48
518.45					0.40	2.67	0.53	2.70	0.40	10.00	4.00	10.00	0.40	6.00	1.20	6.01					5.73	18.71	0.0270	0.000026	0.40	2.31	518.53
518.50					0.45	3.00	0.67	3.03	0.45	10.00	4.50	10.00	0.45	6.75	1.52	6.76					6.69	19.80	0.0270	0.000026	0.43	2.88	518.58
518.55					0.50	3.33	0.83	3.37	0.50	10.00	5.00	10.00	0.50	7.50	1.88	7.52					7.71	20.89	0.0270	0.000026	0.46	3.52	518.63
518.60					0.55	3.67	1.01	3.71	0.55	10.00	5.50	10.00	0.55	8.25	2.27	8.27					8.76	21.98	0.0270	0.000026	0.48	4.22	518.68
518.65					0.60	4.00	1.20	4.04	0.60	10.00	6.00	10.00	0.60	9.00	2.70	9.02					9.90	23.06	0.0270	0.000026	0.50	5.00	518.73
518.70					0.65	4.33	1.41	4.38	0.65	10.00	6.50	10.00	0.65	9.75	3.17	9.77					11.05	24.15	0.0270	0.000026	0.53	5.85	518.78
518.75					0.70	4.67	1.63	4.72	0.70	10.00	7.00	10.00	0.70	10.50	3.68	10.52					12.31	25.24	0.0270	0.000026	0.55	6.77	518.83
518.80					0.75	5.00	1.87	5.06	0.75	10.00	7.50	10.00	0.75	11.25	4.22	11.27					13.59	26.33	0.0270	0.000026	0.57	7.76	518.88
518.85					0.80	5.33	2.13	5.39	0.80	10.00	8.00	10.00	0.80	12.00	4.80	12.03					14.93	27.42	0.0270	0.000026	0.59	8.84	518.93
518.90					0.85	5.67	2.41	5.73	0.85	10.00	8.50	10.00	0.85	12.75	5.42	12.78					16.33	28.51	0.0270	0.000026	0.61	9.99	518.98
518.95					0.90	6.00	2.70	6.07	0.90	10.00	9.00	10.00	0.90	13.50	6.08	13.53					17.78	29.60	0.0270	0.000026	0.63	11.23	519.03
519.00					0.95	6.33	3.01	6.40	0.95	10.00	9.50	10.00	0.95	14.25	6.77	14.28					19.28	30.69	0.0270	0.000026	0.65	12.55	519.08
519.05					1.00	6.67	3.33	6.74	1.00	10.00	10.00	10.00	1.00	15.00	7.50	15.03					20.83	31.77	0.0270	0.000026	0.67	13.95	519.13
519.10					1.05	7.00	3.67	7.08	1.05	10.00	10.50	10.00	1.05	15.75	8.27	15.78					22.44	32.86	0.0270	0.000026	0.69	15.45	519.18
519.15					1.10	7.33	4.03	7.42	1.10	10.00	11.00	10.00	1.10	16.50	9.03	16.54					24.11	33.95	0.0270	0.000026	0.71	17.03	519.23
519.20					1.15	7.67	4.41	7.75	1.15	10.00	11.50	10.00	1.15	17.25	9.92	17.29					25.83	35.04	0.0270	0.000026	0.72	18.70	519.28
519.25					1.20	8.00	4.80	8.09	1.20	10.00	12.00	10.00	1.20	18.00	10.80	18.04					27.60	36.13	0.0270	0.000026	0.74	20.47	519.33
519.30	0.00	0.00	0.00	0.00	1.25	8.00	4.80	8.09	1.25	10.00	12.50	10.00	1.25	18.00	10.80	18.04	0.00	0.00	0.00	0.00	28.10	36.13	0.0270	0.000026	0.75	21.09	519.38
519.35	0.05	0.67	0.02	0.67	1.30	8.00	5.20	8.09	1.30	10.00	13.00	10.00	1.30	18.00	11.70	18.04	0.05	3.33	0.03	3.33	30.00	40.13	0.0270	0.000026	0.79	23.50	519.43
519.40	0.10	1.33	0.07	1.34	1.35	8.00	5.60	8.09	1.35	10.00	13.50	10.00	1.35	18.00	12.60	18.04	0.10	6.67	0.33	6.67	32.10	44.13	0.0271	0.000026	0.71	22.93	519.48
519.45	0.15	2.00	0.15	2.01	1.40	8.00	6.00	8.09	1.40	10.00	14.00	10.00	1.40	18.00	13.50	18.04	0.15	10.00	0.75	10.00	34.40	48.14	0.0273	0.000026	0.70	24.16	519.53
519.50	0.20	2.67	0.27	2.67	1.45	8.00	6.40	8.09	1.45	10.00	14.50	10.00	1.45	18.00	14.40	18.04	0.20	13.33	1.33	13.33	36.50	52.14	0.0275	0.000026	0.69	25.57	519.58
519.55	0.25	3.33	0.42	3.34	1.50	8.00	6.80	8.09	1.50	10.00	15.00	10.00	1.50	18.00	15.30	18.04	0.25	16.67	2.08	16.67	38.65	56.14	0.0277	0.000026	0.69	27.18	519.63
519.60	0.30	4.00	0.60	4.01	1.55	8.00	7.20	8.09	1.55	10.00	15.50	10.00	1.55	18.00	16.20	18.04	0.30	20.00	3.00	20.00	42.50	60.14	0.0279	0.000026	0.68	28.57	519.68
519.65	0.35	4.67	0.82	4.68	1.60	8.00	7.60	8.09	1.60	10.00	16.00	10.00	1.60	18.00	17.10	18.04	0.35	23.33	4.08	23.34	45.60	64.15	0.0281	0.000026	0.68	30.94	519.73
519.70	0.40	5.33	1.07	5.35	1.65	8.00	8.00	8.09	1.65	10.00	16.50	10.00	1.65	18.00	18.00	18.04	0.40	26.67	5.33	26.67	48.90	68.15	0.0284	0.000026	0.68	33.10	519.78
519.75	0.45	6.00	1.35	6.02	1.70	8.00	8.40	8.09	1.70	10.00	17.00	10.00	1.70	18.00	18.90	18.04	0.45	30.00	6.75	30.00	52.40	72.15	0.0286	0.000026	0.68	35.44	519.83
519.80	0.50	6.67	1.67	6.69	1.75	8.00	8.80	8.09	1.75	10.00	17.50	10.00	1.75	18.00	19.80	18.04	0.50	33.33	8.33	33.34	56.10	76.15	0.0289	0.000026	0.68	37.93	519.88
519.85	0.55	7.33	2.02	7.35	1.80	8.00	9.20	8.09	1.80	10.00	18.00	10.00	1.80	18.00	20.70	18.04	0.55	36.67	10.08	36.67	60.00	80.15	0.0291	0.000026	0.68	40.71	519.93
519.90	0.60	8.00	2.40	8.02	1.85	8.00	9.60	8.09	1.85	10.00	18.50	10.00	1.85	18.00	21.60	18.04	0.60	40.00	12.00	40.00	64.20	84.16	0.0294	0.000026	0.68	43.63	519.98
519.95	0.65	8.67	2.82	8.69	1.90	8.00	10.00	8.09	1.90	10.00	19.00	10.00	1.90	18.00	22.50	18.04	0.65	43.33	14.08	43.34	68.40	88.16	0.0296	0.000026	0.68	46.75	520.03
520.00	0.70	9.33	3.27	9.36	1.95	8.00	10.40	8.09	1.95	10.00	19.50	10.00	1.95	18.00	23.40	18.04	0.70	46.67	16.33	46.67	72.50	92.16	0.0353	0.000028	0.69	50.10	520.08
520.05	0.75	10.00	3.75	10.03	2.00	8.00	10.80	8.09	2.00	10.00	20.00	10.00	2.00	18.00	24.30	18.04	0.75	50.00	18.75	50.01	77.60	96.16	0.0300	0.000026	0.69	53.64	520.13
520.10	0.80	10.67	4.27	10.70	2.05	8.00	11.20	8.09	2.05	10.00	20.50	10.00	2.05	18.00	25.20	18.04	0.80	53.33	21.33	53.34	82.50	100.17	0.0303	0.000026	0.70	57.40	520.18
520.15	0.85	11.33	4.82	11.37	2.10	8.00	11.60	8.09	2.10	10.00	21.00	10.00	2.10	18.00	26.10	18.04	0.85	56.67	24.08	56.67	87.60	104.17	0.0305	0.000026	0.70	61.39	520.23
520.20	0.90	12.00	5.40	12.03	2.15	8.00	12.00	8.09	2.15	10.00	21.50	10.00	2.15	18.00	27.00	18.04	0.90	60.00	27.00	60.01	92.90	108.17	0.0307	0.000026	0.71	65.59	520.28
520.25	0.95	12.67	6.02	12.70	2.20	8.00	12.40	8.09	2.20	10.00	22.00	10.00	2.20	18.00	27.90	18.04	0.95	63.33	30.08	63.34	98.40	112.17	0.0309	0.000026	0.71	70.03	520.33
520.30	1.00	13.33	6.67	13.37	2.25	8.00	12.80	8.09	2.25	10.00	22.50	10.00	2.25	18.00	28.80	18.04	1.00	66.67	33.33	66.67	104.10	116.17	0.0310	0.000026	0.72	74.70	520.38
520.35	1.05	14.00	7.35	14.04	2.30	8.00	13.20	8.09	2.30	10.00	23.00	10.00	2.30	18.00	29.70	18.04	1.05	70.00	36.75	70.01	110.00	120.18	0.0312	0.000026	0.72	79.61	520.43
520.40	1.10	14.67	8.07	14.71	2.35	8.00	13.60	8.09	2.35	10.00	23.50	10.00	2.35	18.00	30.60	18.04	1.10	73.33	40.33	73.34	116.10	124.18	0.0314	0.000026	0.73	84.77	520.48
520.45	1.15	15.33	8.82	15.38	2.40	8.00	14.00	8.09	2.40	10.00	24.00	10.00	2.40	18.00	31.50	18.04	1.15	76.67	44.08	76.68	122.40	128.18	0.0315	0.000026	0.74	90.18	520.53
520.50	1.20	16.00	9.60	16.04	2.45	8.00	14.40	8.09	2.45	10.00	24.50	10.00	2.45	18.00	32.40	18.04	1.20	80.00	48.00	80.01	128.90	132.18	0.0317	0.000026	0.74	95.84	520.58
520.55	1.25	16.67	10.42	16.71	2.50	8.00	14.80	8.09	2.50	10.00	25.00	10.00	2.50	18.00	33.30	18.04	1.25	83.33	52.08	83.34	135.65	136.19	0.0318	0.000026	0.75	101.75	520.63
520.60	1.30	17.33	11.27	17.38	2.55	8.00	15.20	8.09	2.55	10.00	25.50	10.00	2.55	18.00	34.20	18.04	1.30	86.67	56.33	86.68	142.50	140.19	0.0320	0.000026	0.76	107.94	520.68
520.65	1.35	18.00	12.15	18.05	2.60	8.00	15.60	8.09	2.60	10.00	26.00	10.00	2.60	18.00	35.10	18.04	1.35	90.00	60.75	90.01	149.60	144.19	0.0321	0.000026	0.76	114.39	520.73

Covington Creek Capacity Analysis - Below the Lake Sawyer Outlet

Triad Project No. 05-336 Prepared By: Roy Lewis June 27, 2011

	North Overbank > 519.27 n = 0.050				North In-Channel > 518.07 n = 0.027				Center Channel < 518.07 n = 0.027				South In-Channel > 518.07 n = 0.027				South Overbank > 519.27 n = 0.035				Composite Streamflow Geometry and Flow Estimate						
Water Surface Elevation (feet)	h = Water Depth (feet)	b = Width at Surface (feet)	A = 1/2 b * h (Sq. Ft.)	P = SQRT (h2 + b2) (feet)	h = Water Depth (feet)	b = Width at Surface (feet)	A = 1/2 b * h (Sq. Ft.)	P = SQRT (h2 + b2) (feet)	h = Water Depth (feet)	w = Channel Width (10 feet)	A = b * w (Sq.Ft.)	P = w = 10 feet	h = Water Depth (feet)	b = Width at Surface (feet)	A = 1/2 b * h (Sq. Ft.)	P = SQRT (h2 + b2) (feet)	h = Water Depth (feet)	b = Width at Surface (feet)	A = 1/2 b * h (Sq. Ft.)	P = SQRT (h2 + b2) (feet)	Total Cross-sectional Area (Sq.Ft.)	Total Wetted Perimeter (feet)	Composite Manning's Roughness Coefficient (n)	Water Surface Slope 0.00026 ft/ft	Flow Velocity (ft/sec)	Flow (Cu.Ft./Sec)	Water Surface Elevation at Culverts (518.65 feet - ...)
520.70	1.40	18.67	13.07	18.72	2.65	8.00	16.00	8.02	2.65	10.00	26.50	10.00	2.65	18.00	36.00	18.04	1.40	93.33	65.33	93.34	156.90	148.19	0.0322	0.00026	0.77	121.11	520.78
520.75	1.45	19.33	14.02	19.39	2.70	8.00	16.40	8.09	2.70	10.00	27.00	10.00	2.70	18.00	36.90	18.04	1.45	96.67	70.03	96.68	164.40	152.20	0.0324	0.00026	0.78	128.11	520.83
520.80	1.50	20.00	15.00	20.06	2.75	8.00	16.80	8.09	2.75	10.00	27.50	10.00	2.75	18.00	37.80	18.04	1.50	100.00	75.00	100.01	172.10	156.20	0.0325	0.00026	0.79	135.39	520.88
520.85	1.55	20.67	16.02	20.72	2.80	8.00	17.20	8.09	2.80	10.00	28.00	10.00	2.80	18.00	38.70	18.04	1.55	103.33	80.03	103.34	180.00	160.20	0.0326	0.00026	0.79	142.96	520.93
520.90	1.60	21.33	17.07	21.39	2.85	8.00	17.60	8.09	2.85	10.00	28.50	10.00	2.85	18.00	39.60	18.04	1.60	106.67	85.33	106.68	188.10	164.20	0.0327	0.00026	0.80	150.82	520.98
520.95	1.65	22.00	18.15	22.06	2.90	8.00	18.00	8.09	2.90	10.00	29.00	10.00	2.90	18.00	40.50	18.04	1.65	110.00	90.75	110.01	196.40	168.20	0.0328	0.00026	0.81	158.98	521.03
521.00	1.70	22.67	19.27	22.73	2.95	8.00	18.40	8.09	2.95	10.00	29.50	10.00	2.95	18.00	41.40	18.04	1.70	113.33	96.33	113.35	204.90	172.21	0.0329	0.00026	0.82	167.44	521.08
521.05	1.75	23.33	20.42	23.40	3.00	8.00	18.80	8.09	3.00	10.00	30.00	10.00	3.00	18.00	42.30	18.04	1.75	116.67	102.03	116.68	213.60	176.21	0.0330	0.00026	0.82	176.21	521.13
521.10	1.80	24.00	21.60	24.07	3.05	8.00	19.20	8.09	3.05	10.00	30.50	10.00	3.05	18.00	43.20	18.04	1.80	120.00	108.00	120.01	222.50	180.21	0.0331	0.00026	0.83	185.28	521.18
521.15	1.85	24.67	22.82	24.74	3.10	8.00	19.60	8.09	3.10	10.00	31.00	10.00	3.10	18.00	44.10	18.04	1.85	123.33	114.03	123.35	231.60	184.21	0.0332	0.00026	0.84	194.67	521.23
521.20	1.90	25.33	24.07	25.40	3.15	8.00	20.00	8.09	3.15	10.00	31.50	10.00	3.15	18.00	45.00	18.04	1.90	126.67	120.33	126.68	240.90	188.21	0.0333	0.00026	0.85	204.38	521.28
521.25	1.95	26.00	25.35	26.07	3.20	8.00	20.40	8.09	3.20	10.00	32.00	10.00	3.20	18.00	45.90	18.04	1.95	130.00	126.75	130.01	250.40	192.21	0.0334	0.00026	0.86	214.41	521.33
521.30	2.00	26.67	26.67	26.74	3.25	8.00	20.80	8.09	3.25	10.00	32.50	10.00	3.25	18.00	46.80	18.04	2.00	133.33	133.33	133.35	260.10	196.21	0.0335	0.00026	0.86	224.77	521.38
521.35	2.05	27.33	28.02	27.41	3.30	8.00	21.20	8.09	3.30	10.00	33.00	10.00	3.30	18.00	47.70	18.04	2.05	136.67	140.03	136.68	270.00	200.21	0.0335	0.00026	0.87	235.46	521.43
521.40	2.10	28.00	29.40	28.08	3.35	8.00	21.60	8.09	3.35	10.00	33.50	10.00	3.35	18.00	48.60	18.04	2.10	140.00	147.00	140.02	280.10	204.21	0.0336	0.00026	0.88	246.48	521.48
521.45	2.15	28.67	30.82	28.75	3.40	8.00	22.00	8.09	3.40	10.00	34.00	10.00	3.40	18.00	49.50	18.04	2.15	143.33	154.03	143.35	290.40	208.21	0.0337	0.00026	0.89	257.85	521.53
521.50	2.20	29.33	32.27	29.42	3.45	8.00	22.40	8.09	3.45	10.00	34.50	10.00	3.45	18.00	50.40	18.04	2.20	146.67	161.33	146.68	300.90	212.23	0.0338	0.00026	0.90	269.56	521.58
521.55	2.25	30.00	33.75	30.08	3.50	8.00	22.80	8.09	3.50	10.00	35.00	10.00	3.50	18.00	51.30	18.04	2.25	150.00	168.75	150.02	311.60	216.23	0.0338	0.00026	0.90	281.62	521.63
521.60	2.30	30.67	35.27	30.75	3.55	8.00	23.20	8.09	3.55	10.00	35.50	10.00	3.55	18.00	52.20	18.04	2.30	153.33	176.33	153.35	322.50	220.23	0.0339	0.00026	0.91	294.04	521.68
521.65	2.35	31.33	36.82	31.42	3.60	8.00	23.60	8.09	3.60	10.00	36.00	10.00	3.60	18.00	53.10	18.04	2.35	156.67	184.03	156.68	333.60	224.24	0.0340	0.00026	0.92	306.81	521.73
521.70	2.40	32.00	38.40	32.09	3.65	8.00	24.00	8.09	3.65	10.00	36.50	10.00	3.65	18.00	54.00	18.04	2.40	160.00	192.00	160.02	344.90	228.24	0.0340	0.00026	0.93	319.94	521.78
521.75	2.45	32.67	40.02	32.76	3.70	8.00	24.40	8.09	3.70	10.00	37.00	10.00	3.70	18.00	54.90	18.04	2.45	163.33	200.03	163.35	356.40	232.24	0.0341	0.00026	0.94	333.45	521.83
521.80	2.50	33.33	41.67	33.43	3.75	8.00	24.80	8.09	3.75	10.00	37.50	10.00	3.75	18.00	55.80	18.04	2.50	166.67	208.33	166.69	368.10	236.24	0.0341	0.00026	0.94	347.32	521.88
521.85	2.55	34.00	43.35	34.10	3.80	8.00	25.20	8.09	3.80	10.00	38.00	10.00	3.80	18.00	56.70	18.04	2.55	170.00	216.75	170.02	380.00	240.24	0.0342	0.00026	0.95	361.56	521.93
521.90	2.60	34.67	45.07	34.76	3.85	8.00	25.60	8.09	3.85	10.00	38.50	10.00	3.85	18.00	57.60	18.04	2.60	173.33	225.33	173.35	392.10	244.25	0.0342	0.00026	0.96	376.18	521.98
521.95	2.65	35.33	46.82	35.43	3.90	8.00	26.00	8.09	3.90	10.00	39.00	10.00	3.90	18.00	58.50	18.04	2.65	176.67	234.03	176.69	404.40	248.25	0.0343	0.00026	0.97	391.19	522.03
522.00	2.70	36.00	48.60	36.10	3.95	8.00	26.40	8.09	3.95	10.00	39.50	10.00	3.95	18.00	59.40	18.04	2.70	180.00	243.00	180.02	416.90	252.25	0.0343	0.00026	0.98	406.58	522.08
522.05	2.75	36.67	50.42	36.77	4.00	8.00	26.80	8.09	4.00	10.00	40.00	10.00	4.00	18.00	60.30	18.04	2.75	183.33	252.03	183.35	429.60	256.25	0.0344	0.00026	0.98	422.37	522.13
522.10	2.80	37.33	52.27	37.44	4.05	8.00	27.20	8.09	4.05	10.00	40.50	10.00	4.05	18.00	61.20	18.04	2.80	186.67	261.33	186.69	442.50	260.26	0.0344	0.00026	0.99	438.54	522.18
522.15	2.85	38.00	54.15	38.11	4.10	8.00	27.60	8.09	4.10	10.00	41.00	10.00	4.10	18.00	62.10	18.04	2.85	190.00	270.75	190.02	455.60	264.26	0.0345	0.00026	1.00	455.12	522.23
522.20	2.90	38.67	56.07	38.78	4.15	8.00	28.00	8.09	4.15	10.00	41.50	10.00	4.15	18.00	63.00	18.04	2.90	193.33	280.33	193.36	468.90	268.26	0.0345	0.00026	1.01	472.10	522.28
522.25	2.95	39.33	58.02	39.44	4.20	8.00	28.40	8.09	4.20	10.00	42.00	10.00	4.20	18.00	63.90	18.04	2.95	196.67	290.03	196.69	482.40	272.26	0.0346	0.00026	1.01	489.49	522.33
522.30	3.00	40.00	60.00	40.11	4.25	8.00	28.80	8.09	4.25	10.00	42.50	10.00	4.25	18.00	64.80	18.04	3.00	200.00	300.00	200.02	496.10	276.26	0.0346	0.00026	1.02	507.28	522.38
522.35	3.05	40.67	62.02	40.78	4.30	8.00	29.20	8.09	4.30	10.00	43.00	10.00	4.30	18.00	65.70	18.04	3.05	203.33	310.03	203.36	510.00	280.27	0.0347	0.00026	1.03	525.49	522.43
522.40	3.10	41.33	64.07	41.45	4.35	8.00	29.60	8.09	4.35	10.00	43.50	10.00	4.35	18.00	66.60	18.04	3.10	206.67	320.33	206.69	524.10	284.27	0.0347	0.00026	1.04	544.12	522.48
522.45	3.15	42.00	66.15	42.12	4.40	8.00	30.00	8.09	4.40	10.00	44.00	10.00	4.40	18.00	67.50	18.04	3.15	210.00	330.75	210.02	538.40	288.27	0.0347	0.00026	1.05	563.18	522.53
522.50	3.20	42.67	68.27	42.79	4.45	8.00	30.40	8.09	4.45	10.00	44.50	10.00	4.45	18.00	68.40	18.04	3.20	213.33	341.33	213.36	552.90	292.27	0.0348	0.00026	1.06	582.65	522.58
522.55	3.25	43.33	70.42	43.46	4.50	8.00	30.80	8.09	4.50	10.00	45.00	10.00	4.50	18.00	69.30	18.04	3.25	216.67	352.03	216.69	567.60	296.28	0.0348	0.00026	1.06	602.56	522.63
522.60	3.30	44.00	72.60	44.12	4.55	8.00	31.20	8.09	4.55	10.00	45.50	10.00	4.55	18.00	70.20	18.04	3.30	220.00	363.00	220.02	582.50	300.28	0.0349	0.00026	1.07	622.90	522.68
522.65	3.35	44.67	74.82	44.79	4.60	8.00	31.60	8.09	4.60	10.00	46.00	10.00	4.60	18.00	71.10	18.04	3.35	223.33	374.03	223.36	597.60	304.28	0.0349	0.00026	1.08	643.68	522.73
522.70	3.40	45.33	77.07	45.46	4.65	8.00	32.00	8.09	4.65	10.00	46.50	10.00	4.65	18.00	72.00	18.04	3.40	226.67	385.33	226.69	612.90	308.28	0.0349	0.00026	1.08	664.91	522.78
522.75	3.45	46.00	79.35	46.13	4.70	8.00	32.40	8.09	4.70	10.00	47.00	10.00	4.70	18.00	72.90	18.04	3.45	230.00	396.75	230.03	628.40	312.29	0.0350	0.00026	1.09	686.57	522.83
522.80	3.50	46.67	81.67	46.80	4.75	8.00	32.80	8.09	4.75	10.00	47.50	10.00	4.75	18.00	73.80	18.04	3.50	233.33	408.33	233.36	644.10	316.29	0.0350	0.00026	1.10	708.60	522.88
522.85	3.55	47.33	84.02	47.47	4.80	8.00	33.20	8.09	4.80	10.00	48.00	10.00	4.80	18.00	74.70	18.04	3.55	236.67	420.03	236.69	660.00	320.29	0.0350	0.00026	1.11	731.26	522.93
522.90	3.60	48.00	86.40	48.13	4.85	8.00	33.60	8.09	4.85	10.00	48.50	10.00	4.85	18.00	75.60	18.04	3.60	240.00	432.00	240.03	676.10	324.29	0.0351	0.00026	1.12	754.28	522.98
522.95	3.65	48.67	88.82	48.80	4.90	8.00	34.00	8.09	4.90	10.00	49.00	10.00	4.90	18.00	76.50	18.04	3.65	243.33	444.03	243.36	692.40	328.29	0.0351	0.00026	1.12	777.77	523.03
523.00	3.70	49.33	91.27	49.47	4.95	8.00	34.40	8.09	4.95	10.00	49.50	10.00	4.95	18.00	77.40	18.04	3.70	246.67	456.33	246.69	708.90	332.30	0.0351	0.00026	1.13	801.72	523.08
523.05	3.75	50.00	93.75	50.14	5.00	8.00	34.80	8.09	5.00	10.00	50.00	10.00	5.00	18.00	78.30	18.04	3.75	250.00	468.75	250.03	725.60	336.30	0.0351	0.00026	1.14	826.14	523.13
523.10	3.80	50.67	96.27	50.81	5.05	8.00	35.20	8.09	5.05	10.00	50.50	10.00	5.05	18.00	79.20	18.04	3.80	253.33	481.33	253.36	742.50	340.30	0.0352	0.00026	1.15	851.02	523.18
523.15	3.85	51.33	98.82	51.48	5.10	8.00	35.60	8.09	5.10	10.00	51.00	10.00	5.10	18.00	80.10	18.04	3.85	256.67	494.03	256.70	759.60	344.30	0.0352	0.00026	1.15	876.39	523.23
523.20	3.90	52.00	101.40	52.15	5.15	8.00	36.00	8.09	5.15	10.00	51.50	10.00	5.15	18.00	81.00	18.04	3.90	260.00	507.00	260.03	776.90	348.31	0.0352	0.00026	1.16	902.23	523.28
523.25	3.95	52.67	104.02	52.81	5.20	8.00	36.40	8.09	5.20	10.00	52.00	10.00	5.20	18.00	81.90	18.04	3.95	263.33	520.03	263.36	794.40	352.31	0.0352	0.00026	1.17	928.56	523.33
523.30	4.00	53.33	106.67	53.48	5.25	8.00	36.80	8.09	5.25	10.00	52.50	10.00	5.25	18.00	82.80	18.04	4.00	266.67	533.33	266.70	812.10	356.31	0.0353	0.00026	1.18	955.37	523.38
523.35	4.05	54.00	109.35	54.15	5.30	8.00	37.20	8.09	5.30	10.00	53.00	10.00	5.30	18.00	83.70	18.04	4.05	270.00	546.75	270.03	830.00	360.31	0.0353	0.00026	1.18	982.67	523.43

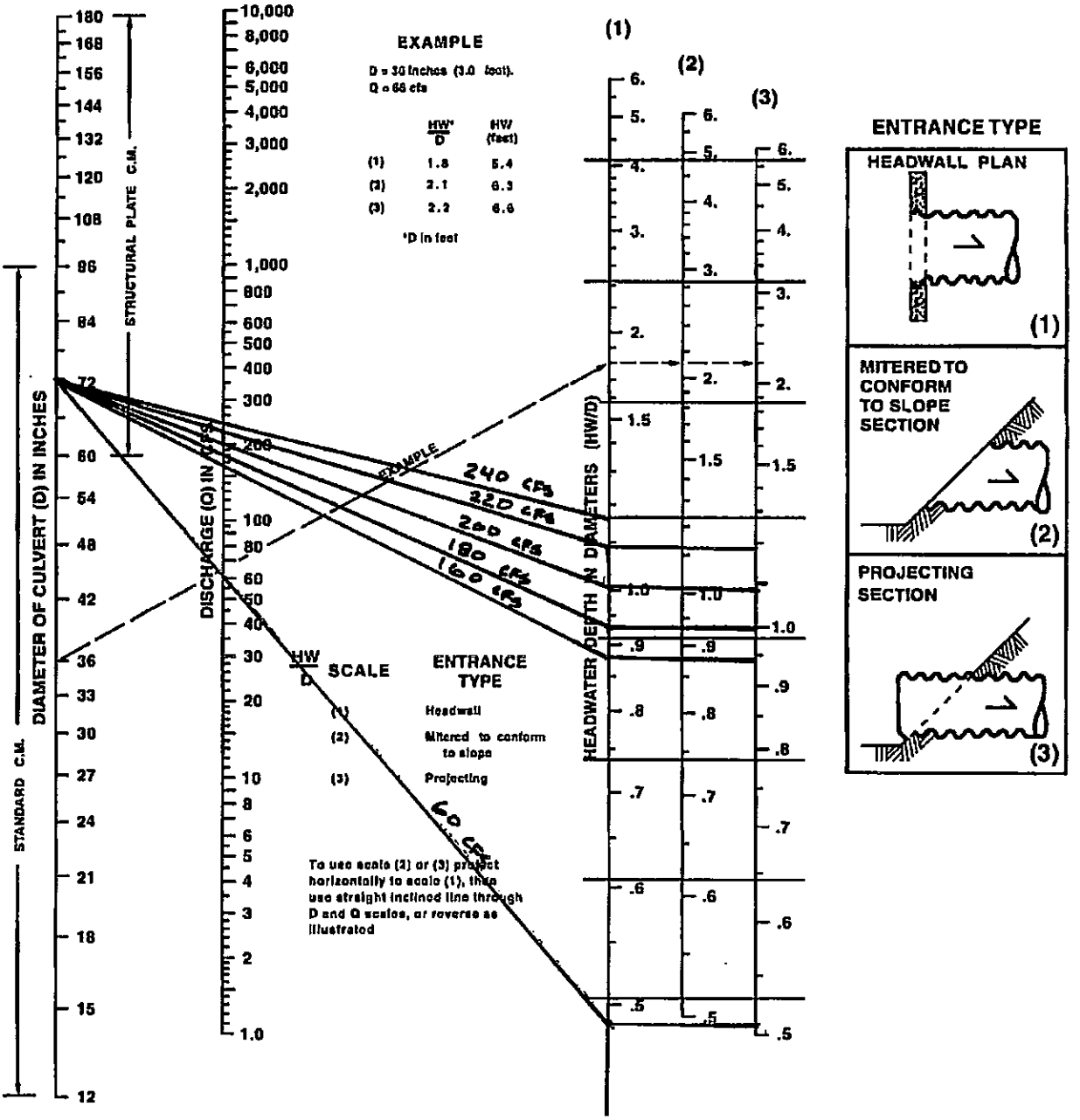
Covington Creek Capacity Analysis - Below the Lake Sawyer Outlet

Triad Project No. 05-336 Prepared By: Roy Lewis June 27, 2011

	North Overbank > 519.27 n = 0.050				North In-Channel > 518.07 n = 0.027				Center Channel < 518.07 n = 0.027				South In-Channel > 518.07 n = 0.027				South Overbank > 519.27 n = 0.033				Composite Streamflow Geometry and Flow Estimate						
Water Surface Elevation (Feet)	h = Water Depth (Feet)	b = Width at Surface (Feet)	A = 1/2 h * b (Sq. Ft.)	P = SQRT (h2 + b2) (Feet)	h = Water Depth (Feet)	b = Width at Surface (Feet)	A = 1/2 h * b (Sq. Ft.)	P = SQRT (h2 + b2) (Feet)	h = Water Depth (Feet)	w = Channel Width (8.5 Feet)	A = h * w (Sq.Ft.)	P = w + 2h Feet	h = Water Depth (Feet)	b = Width at Surface (Feet)	A = 1/2 h * b (Sq. Ft.)	P = SQRT (h2 + b2) (Feet)	h = Water Depth (Feet)	b = Width at Surface (Feet)	A = 1/2 h * b (Sq. Ft.)	P = SQRT (h2 + b2) (Feet)	Total Cross-sectional Area (Sq.Ft.)	Total Wetted Perimeter (Feet)	Composite Manning's Roughness Coefficient (n)	Water Surface Slope 0.000026 ft/ft	Flow Velocity (Ft/Sec)	Flow (Cu.Ft./Sec)	Water Surface Elevation at Culvert's (518.83 Feet - MSL)
523.40	4.10	54.67	112.07	54.82	5.35	8.00	37.60	8.09	5.35	10.00	53.50	10.00	5.35	18.00	84.60	18.04	4.10	273.33	560.33	273.36	848.10	364.31	0.0353	0.000026	1.19	2010.46	523.48
523.45	4.15	55.33	114.82	55.49	5.40	8.00	38.00	8.09	5.40	10.00	54.00	10.00	5.40	18.00	85.50	18.04	4.15	276.67	574.03	276.70	866.40	368.32	0.0353	0.000026	1.20	2038.75	523.53
523.50	4.20	56.00	117.60	56.16	5.45	8.00	38.40	8.09	5.45	10.00	54.50	10.00	5.45	18.00	86.40	18.04	4.20	280.00	583.00	280.03	884.90	372.32	0.0354	0.000026	1.21	2067.55	523.58
523.55	4.25	56.67	120.43	56.83	5.50	8.00	38.80	8.09	5.50	10.00	55.00	10.00	5.50	18.00	87.30	18.04	4.25	283.33	602.03	283.37	903.60	376.32	0.0354	0.000026	1.21	2096.84	523.63
523.60	4.30	57.33	123.27	57.49	5.55	8.00	39.20	8.09	5.55	10.00	55.50	10.00	5.55	18.00	88.20	18.04	4.30	286.67	616.33	286.70	922.50	320.33	0.0354	0.000026	1.22	1126.65	523.68
523.65	4.35	58.00	126.15	58.16	5.60	8.00	39.60	8.09	5.60	10.00	56.00	10.00	5.60	18.00	89.10	18.04	4.35	290.00	630.75	290.03	941.60	384.33	0.0354	0.000026	1.23	1156.96	523.73
523.70	4.40	58.67	129.07	58.83	5.65	8.00	40.00	8.09	5.65	10.00	56.50	10.00	5.65	18.00	90.00	18.04	4.40	293.33	645.33	293.37	960.90	388.33	0.0355	0.000026	1.24	1187.79	523.78
523.75	4.45	59.33	132.00	59.50	5.70	8.00	40.40	8.09	5.70	10.00	57.00	10.00	5.70	18.00	90.90	18.04	4.45	296.67	660.03	296.70	980.40	392.33	0.0355	0.000026	1.24	1219.14	523.83
523.80	4.50	60.00	135.00	60.17	5.75	8.00	40.80	8.09	5.75	10.00	57.50	10.00	5.75	18.00	91.80	18.04	4.50	300.00	675.00	300.03	1000.10	396.33	0.0355	0.000026	1.25	1251.00	523.88
523.85	4.55	60.67	138.02	60.84	5.80	8.00	41.20	8.09	5.80	10.00	58.00	10.00	5.80	18.00	92.70	18.04	4.55	303.33	690.03	303.37	1020.00	400.33	0.0355	0.000026	1.26	1283.40	523.93
523.90	4.60	61.33	141.07	61.51	5.85	8.00	41.60	8.09	5.85	10.00	58.50	10.00	5.85	18.00	93.60	18.04	4.60	306.67	705.33	306.70	1040.10	404.34	0.0355	0.000026	1.27	1316.32	523.98
523.95	4.65	62.00	144.15	62.17	5.90	8.00	42.00	8.09	5.90	10.00	59.00	10.00	5.90	18.00	94.50	18.04	4.65	310.00	720.75	310.03	1060.40	408.34	0.0356	0.000026	1.27	1349.78	524.03
524.00	4.70	62.67	147.27	63.84	5.95	8.00	42.40	8.09	5.95	10.00	59.50	10.00	5.95	18.00	95.40	18.04	4.70	313.33	736.33	313.37	1080.90	412.34	0.0356	0.000026	1.28	1383.77	524.08

Headwater Depth for Corrugated Pipe Culverts with Inlet Control

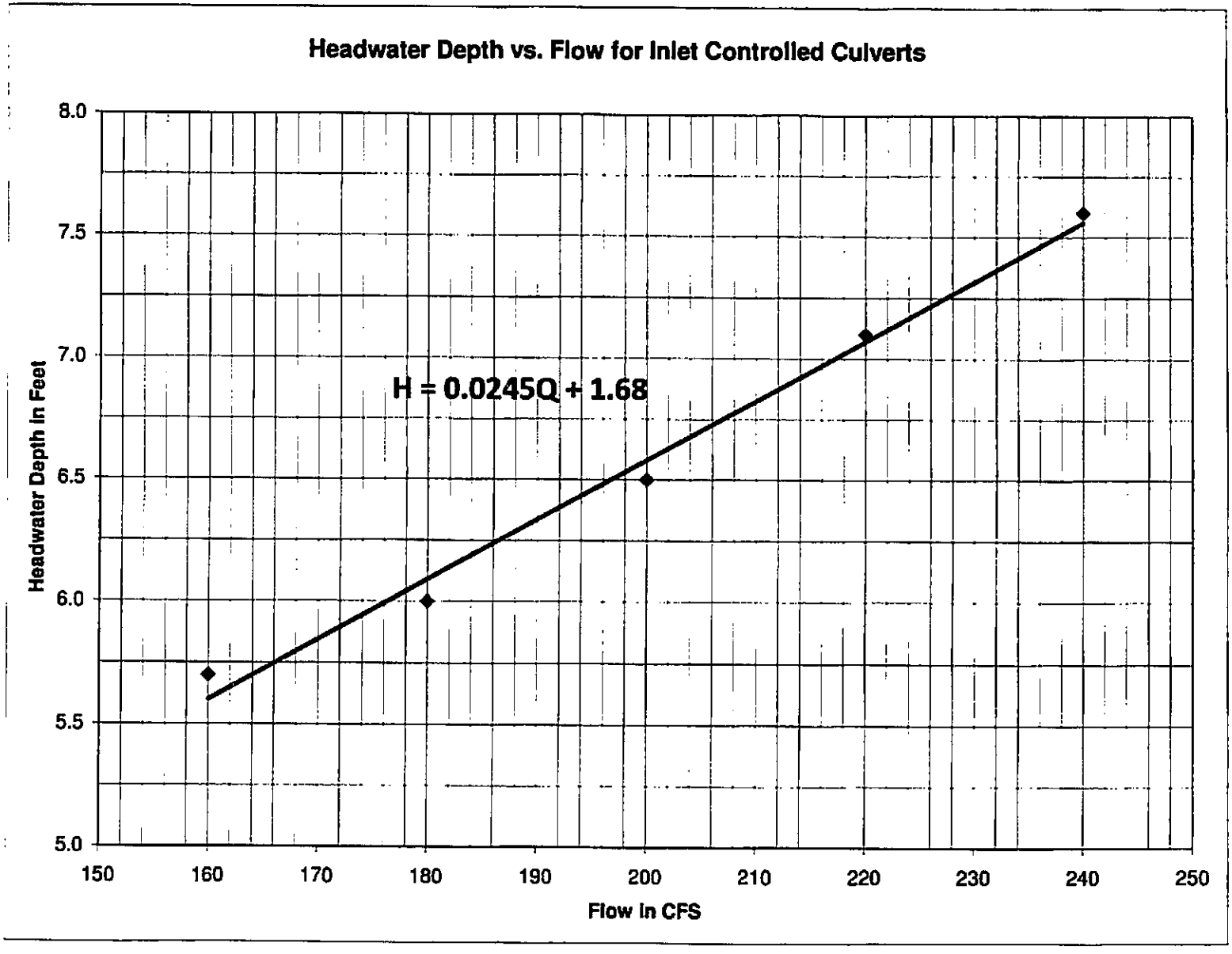
FIGURE 4.3.1.C HEADWATER DEPTH FOR CORRUGATED PIPE CULVERTS WITH INLET CONTROL



Headwater Depth vs. Flow for Inlet Controlled Culverts

Flow (CFS)	Headwater Depth (Feet)
160	5.7
180	6.0
200	6.5
220	7.1
240	7.6

Data Interpolated from the KCSWM Manual Nomograph 72" CMP Culverts



Stage / Discharge Relationship for the Existing Lake Sawyer Culverts

Stage / Discharge Relationship For the Existing Lake Sawyer Culverts

Delta Head (Inches)	Delta Flow (CFS)	Total Flow (CFS)	Water Surface Elevation	South Culvert 72" Invert Elevation	Headwater Depth (Feet)	Flow (CFS)	Central Culvert 72" Invert Elevation	Headwater Depth (Feet)	Flow (CFS)	North Culvert 72" Invert Elevation	Headwater Depth (Feet)	Flow (CFS)
0.00	0.0	547.8	524.28000	517.88	6.400	192.653	517.97	6.310	188.980	518.53	5.750	166.122
0.01	0.1	547.9	524.28083		6.401	192.687		6.311	189.014		5.751	166.156
0.02	0.2	548.0	524.28167		6.402	192.721		6.312	189.048		5.752	166.190
0.03	0.3	548.1	524.28250		6.403	192.755		6.313	189.082		5.753	166.224
0.04	0.4	548.2	524.28333		6.403	192.789		6.313	189.116		5.753	166.259
0.05	0.5	548.3	524.28417		6.404	192.823		6.314	189.150		5.754	166.293
0.06	0.6	548.4	524.28500		6.405	192.857		6.315	189.184		5.755	166.327
0.07	0.7	548.5	524.28583		6.406	192.891		6.316	189.218		5.756	166.361
0.08	0.8	548.6	524.28667		6.407	192.925		6.317	189.252		5.757	166.395
0.09	0.9	548.7	524.28750		6.408	192.959		6.318	189.286		5.758	166.429
0.10	1.0	548.8	524.28833		6.408	192.993		6.318	189.320		5.758	166.463
0.11	1.1	548.9	524.28917		6.409	193.027		6.319	189.354		5.759	166.497
0.12	1.2	549.0	524.29000		6.410	193.061		6.320	189.388		5.760	166.531
0.13	1.3	549.1	524.29083		6.411	193.095		6.321	189.422		5.761	166.565
0.14	1.4	549.2	524.29167		6.412	193.129		6.322	189.456		5.762	166.599
0.15	1.5	549.3	524.29250		6.413	193.163		6.323	189.490		5.763	166.633
0.16	1.6	549.4	524.29333		6.413	193.197		6.323	189.524		5.763	166.667
0.17	1.7	549.5	524.29417		6.414	193.231		6.324	189.558		5.764	166.701
0.18	1.8	549.6	524.29500		6.415	193.265		6.325	189.592		5.765	166.735
0.19	1.9	549.7	524.29583		6.416	193.299		6.326	189.626		5.766	166.769
0.20	2.0	549.8	524.29667		6.417	193.333		6.327	189.660		5.767	166.803
0.21	2.1	549.9	524.29750		6.418	193.367		6.328	189.694		5.768	166.837
0.22	2.2	550.0	524.29833		6.418	193.401		6.328	189.728		5.768	166.871
0.23	2.3	550.1	524.29917		6.419	193.435		6.329	189.762		5.769	166.905
0.24	2.4	550.2	524.30000		6.420	193.469		6.330	189.796		5.770	166.939
0.25	2.6	550.3	524.30083		6.421	193.503		6.331	189.830		5.771	166.973
0.26	2.7	550.4	524.30167		6.422	193.537		6.332	189.864		5.772	167.007
0.27	2.8	550.5	524.30250		6.423	193.571		6.333	189.898		5.773	167.041
0.28	2.9	550.6	524.30333		6.423	193.605		6.333	189.932		5.773	167.075
0.29	3.0	550.7	524.30417		6.424	193.639		6.334	189.966		5.774	167.109
0.30	3.1	550.8	524.30500		6.425	193.673		6.335	190.000		5.775	167.143
0.31	3.2	550.9	524.30583		6.426	193.707		6.336	190.034		5.776	167.177
0.32	3.3	551.0	524.30667		6.427	193.741		6.337	190.068		5.777	167.211
0.33	3.4	551.1	524.30750		6.428	193.776		6.338	190.102		5.778	167.245
0.34	3.5	551.2	524.30833		6.428	193.810		6.338	190.136		5.778	167.279
0.35	3.6	551.3	524.30917		6.429	193.844		6.339	190.170		5.779	167.313
0.36	3.7	551.4	524.31000		6.430	193.878		6.340	190.204		5.780	167.347
0.37	3.8	551.5	524.31083		6.431	193.912		6.341	190.238		5.781	167.381
0.38	3.9	551.6	524.31167		6.432	193.946		6.342	190.272		5.782	167.415
0.39	4.0	551.7	524.31250		6.433	193.980		6.343	190.306		5.783	167.449
0.40	4.1	551.8	524.31333		6.433	194.014		6.343	190.340		5.783	167.483
0.41	4.2	551.9	524.31417		6.434	194.048		6.344	190.374		5.784	167.517
0.42	4.3	552.0	524.31500		6.435	194.082		6.345	190.408		5.785	167.551
0.43	4.4	552.1	524.31583		6.436	194.116		6.346	190.442		5.786	167.585
0.44	4.5	552.2	524.31667		6.437	194.150		6.347	190.476		5.787	167.619
0.45	4.6	552.3	524.31750		6.438	194.184		6.348	190.510		5.788	167.653
0.46	4.7	552.4	524.31833		6.438	194.218		6.348	190.544		5.788	167.687
0.47	4.8	552.6	524.31917		6.439	194.252		6.349	190.578		5.789	167.721

Stage / Discharge Relationship For the Existing Lake Sawyer Culverts

Delta Head (Inches)	Delta Flow (CFS)	Total Flow (CFS)	Water Surface Elevation	South Culvert 72" Invert Elevation	Headwater Depth (Feet)	Flow (CFS)	Central Culvert 72" Invert Elevation	Headwater Depth (Feet)	Flow (CFS)	North Culvert 72" Invert Elevation	Headwater Depth (Feet)	Flow (CFS)
0.48	4.9	552.7	524.32000		6.440	194.286		6.350	190.612		5.790	167.755
0.49	5.0	552.8	524.32083		6.441	194.320		6.351	190.646		5.791	167.789
0.50	5.1	552.9	524.32167		6.442	194.354		6.352	190.680		5.792	167.823
0.51	5.2	553.0	524.32250		6.443	194.388		6.353	190.714		5.793	167.857
0.52	5.3	553.1	524.32333		6.443	194.422		6.353	190.748		5.793	167.891
0.53	5.4	553.2	524.32417		6.444	194.456		6.354	190.782		5.794	167.925
0.54	5.5	553.3	524.32500		6.445	194.490		6.355	190.816		5.795	167.959
0.55	5.6	553.4	524.32583		6.446	194.524		6.356	190.850		5.796	167.993
0.56	5.7	553.5	524.32667		6.447	194.558		6.357	190.884		5.797	168.027
0.57	5.8	553.6	524.32750		6.448	194.592		6.358	190.918		5.798	168.061
0.58	5.9	553.7	524.32833		6.448	194.626		6.358	190.952		5.798	168.095
0.59	6.0	553.8	524.32917		6.449	194.660		6.359	190.986		5.799	168.129
0.60	6.1	553.9	524.33000		6.450	194.694		6.360	191.020		5.800	168.163
0.61	6.2	554.0	524.33083		6.451	194.728		6.361	191.054		5.801	168.197
0.62	6.3	554.1	524.33167		6.452	194.762		6.362	191.088		5.802	168.231
0.63	6.4	554.2	524.33250		6.453	194.796		6.363	191.122		5.803	168.265
0.64	6.5	554.3	524.33333	517.88	6.453	194.830	517.97	6.363	191.156	518.53	5.803	168.299
0.65	6.6	554.4	524.33417		6.454	194.864		6.364	191.190		5.804	168.333
0.66	6.7	554.5	524.33500		6.455	194.898		6.365	191.224		5.805	168.367
0.67	6.8	554.6	524.33583		6.456	194.932		6.366	191.259		5.806	168.401
0.68	6.9	554.7	524.33667		6.457	194.966		6.367	191.293		5.807	168.435
0.69	7.0	554.8	524.33750		6.458	195.000		6.368	191.327		5.808	168.469
0.70	7.1	554.9	524.33833		6.458	195.034		6.368	191.361		5.808	168.503
0.71	7.2	555.0	524.33917		6.459	195.068		6.369	191.395		5.809	168.537
0.72	7.3	555.1	524.34000		6.460	195.102		6.370	191.429		5.810	168.571
0.73	7.4	555.2	524.34083		6.461	195.136		6.371	191.463		5.811	168.605
0.74	7.6	555.3	524.34167		6.462	195.170		6.372	191.497		5.812	168.639
0.75	7.7	555.4	524.34250		6.463	195.204		6.373	191.531		5.813	168.673
0.76	7.8	555.5	524.34333		6.463	195.238		6.373	191.565		5.813	168.707
0.77	7.9	555.6	524.34417		6.464	195.272		6.374	191.599		5.814	168.741
0.78	8.0	555.7	524.34500		6.465	195.306		6.375	191.633		5.815	168.776
0.79	8.1	555.8	524.34583		6.466	195.340		6.376	191.667		5.816	168.810
0.80	8.2	555.9	524.34667		6.467	195.374		6.377	191.701		5.817	168.844
0.81	8.3	556.0	524.34750		6.468	195.408		6.378	191.735		5.818	168.878
0.82	8.4	556.1	524.34833		6.468	195.442		6.378	191.769		5.818	168.912
0.83	8.5	556.2	524.34917		6.469	195.476		6.379	191.803		5.819	168.946
0.84	8.6	556.3	524.35000		6.470	195.510		6.380	191.837		5.820	168.980
0.85	8.7	556.4	524.35083		6.471	195.544		6.381	191.871		5.821	169.014
0.86	8.8	556.5	524.35167		6.472	195.578		6.382	191.905		5.822	169.048
0.87	8.9	556.6	524.35250		6.473	195.612		6.383	191.939		5.823	169.082
0.88	9.0	556.7	524.35333		6.473	195.646		6.383	191.973		5.823	169.116
0.89	9.1	556.8	524.35417		6.474	195.680		6.384	192.007		5.824	169.150
0.90	9.2	556.9	524.35500		6.475	195.714		6.385	192.041		5.825	169.184
0.91	9.3	557.0	524.35583		6.476	195.748		6.386	192.075		5.826	169.218
0.92	9.4	557.1	524.35667		6.477	195.782		6.387	192.109		5.827	169.252
0.93	9.5	557.2	524.35750		6.478	195.816		6.388	192.143		5.828	169.286
0.94	9.6	557.3	524.35833		6.478	195.850		6.388	192.177		5.828	169.320
0.95	9.7	557.4	524.35917		6.479	195.884		6.389	192.211		5.829	169.354

Stage / Discharge Relationship For the Existing Lake Sawyer Culverts

Delta Head (Inches)	Delta Flow (CFS)	Total Flow (CFS)	Water Surface Elevation	South Culvert 72" Invert Elevation	Headwater Depth (Feet)	Flow (CFS)	Central Culvert 72" Invert Elevation	Headwater Depth (Feet)	Flow (CFS)	North Culvert 72" Invert Elevation	Headwater Depth (Feet)	Flow (CFS)
0.96	9.8	557.6	524.36000		6.480	195.918		6.390	192.245		5.830	169.388
0.97	9.9	557.7	524.36083		6.481	195.952		6.391	192.279		5.831	169.422
0.98	10.0	557.8	524.36167		6.482	195.986		6.392	192.313		5.832	169.456
0.99	10.1	557.9	524.36250		6.483	196.020		6.393	192.347		5.833	169.490
1.00	10.2	558.0	524.36333		6.483	196.054		6.393	192.381		5.833	169.524

2010 – 2011 Water Year Rainfall
Weir Controlled Outlet of Lake Sawyer

2010 - 2011 Water Year Rainfall - Weir Controlled Outlet of Lake Sawyer

Date	Lake Level above Weir	Increase in Lake Level	Rainfall	Additional Volume (In)	Flow (Out)	Additional Volume (Out)	Change in Volume	Change in Lake Elevation
	(Inches)	(Inches)	(Inches)	(Cu.Ft.)	(CFS)	(Cu.Ft.)	(Cu.Ft.)	(Inches)
10/1/2010	10.00"	0.00"	0.00"	0	0.00	0	0	0.00"
10/2/2010	10.00"	0.00"	0.01"	2,997	0.00	0	2,997	0.00"
10/3/2010	10.00"	0.00"	0.05"	14,986	0.25	21,600	-6,614	-0.01"
10/4/2010	10.00"	0.00"	0.00"	0	0.00	0	0	0.00"
10/5/2010	10.00"	0.00"	0.00"	0	0.00	0	0	0.00"
10/6/2010	10.00"	0.00"	0.00"	0	0.00	0	0	0.00"
10/7/2010	10.00"	0.00"	0.00"	0	0.00	0	0	0.00"
10/8/2010	10.00"	0.00"	0.01"	2,997	0.00	0	2,997	0.00"
10/9/2010	10.00"	0.00"	0.48"	143,868	0.25	21,600	122,268	0.12"
10/10/2010	10.12"	0.12"	0.85"	254,766	3.01	260,333	-5,567	-0.01"
10/11/2010	10.12"	0.12"	0.05"	14,986	2.76	238,580	-223,593	-0.22"
10/12/2010	10.00"	0.00"	0.00"	0	0.00	0	0	0.00"
10/13/2010	10.00"	0.00"	0.00"	0	0.00	0	0	0.00"
10/14/2010	10.00"	0.00"	0.14"	41,961	0.00	0	41,961	0.04"
10/15/2010	10.04"	0.04"	0.01"	2,997	1.00	86,605	-83,608	-0.08"
10/16/2010	10.00"	0.00"	0.00"	0	0.00	0	0	0.00"
10/17/2010	10.00"	0.00"	0.00"	0	0.00	0	0	0.00"
10/18/2010	10.00"	0.00"	0.00"	0	0.00	0	0	0.00"
10/19/2010	10.00"	0.00"	0.00"	0	0.00	0	0	0.00"
10/20/2010	10.00"	0.00"	0.00"	0	0.00	0	0	0.00"
10/21/2010	10.00"	0.00"	0.00"	0	0.00	0	0	0.00"
10/22/2010	10.00"	0.00"	0.03"	8,992	0.00	0	8,992	0.01"
10/23/2010	10.01"	0.01"	0.36"	107,901	0.25	21,600	86,301	0.09"
10/24/2010	10.09"	0.09"	0.74"	221,796	2.26	195,104	26,692	0.03"
10/25/2010	10.12"	0.12"	0.45"	134,876	3.01	260,333	-125,457	-0.12"
10/26/2010	10.00"	0.00"	0.65"	194,821	0.00	0	194,821	0.19"
10/27/2010	10.19"	0.19"	0.03"	8,992	4.78	412,910	-403,918	-0.40"
10/28/2010	10.00"	0.00"	0.22"	65,939	0.00	0	65,939	0.07"
10/29/2010	10.07"	0.07"	0.05"	14,986	1.50	129,973	-114,986	-0.11"
10/30/2010	10.00"	0.00"	0.24"	71,934	0.00	0	71,934	0.07"
10/31/2010	10.07"	0.07"	0.11"	32,970	1.76	151,672	-118,703	-0.12"
11/1/2010	10.00"	0.00"	1.48"	443,593	0.00	0	443,593	0.44"
11/2/2010	10.44"	0.44"	0.03"	8,992	10.88	940,004	-931,012	-0.92"
11/3/2010	10.00"	0.00"	0.00"	0	0.00	0	0	0.00"
11/4/2010	10.00"	0.00"	0.00"	0	0.00	0	0	0.00"
11/5/2010	10.00"	0.00"	0.11"	32,970	0.00	0	32,970	0.03"
11/6/2010	10.03"	0.03"	0.58"	173,840	0.75	64,938	108,903	0.11"
11/7/2010	10.14"	0.14"	0.50"	149,862	3.52	303,873	-154,010	-0.15"
11/8/2010	10.00"	0.00"	0.01"	2,997	0.00	0	2,997	0.00"
11/9/2010	10.00"	0.00"	0.17"	50,953	0.25	21,600	29,353	0.03"
11/10/2010	10.03"	0.03"	0.02"	5,994	0.75	64,938	-58,943	-0.06"
11/11/2010	10.00"	0.00"	0.10"	29,972	0.00	0	29,972	0.03"
11/12/2010	10.03"	0.03"	0.00"	0	0.50	43,281	-43,281	-0.04"
11/13/2010	10.00"	0.00"	0.20"	59,945	0.00	0	59,945	0.06"
11/14/2010	10.06"	0.06"	0.53"	158,854	1.25	108,283	50,571	0.05"
11/15/2010	10.11"	0.11"	0.47"	140,871	2.51	216,837	-75,966	-0.08"
11/16/2010	10.03"	0.03"	0.00"	0	0.75	64,938	-64,938	-0.06"
11/17/2010	10.00"	0.00"	0.55"	164,849	0.00	0	164,849	0.16"
11/18/2010	10.16"	0.16"	0.31"	92,915	4.02	347,455	-254,541	-0.25"
11/19/2010	10.00"	0.00"	0.09"	26,975	0.00	0	26,975	0.03"
11/20/2010	10.03"	0.03"	0.00"	0	0.50	43,281	-43,281	-0.04"
11/21/2010	10.00"	0.00"	0.14"	41,961	0.00	0	41,961	0.04"
11/22/2010	10.04"	0.04"	0.00"	0	1.00	86,605	-86,605	-0.09"

2010 - 2011 Water Year Rainfall - Weir Controlled Outlet of Lake Sawyer

Date	Lake Level above Weir	Increase in Lake Level	Rainfall	Additional Volume (In)	Flow (Out)	Additional Volume (Out)	Change in Volume	Change in Lake Elevation
	(Inches)	(Inches)	(Inches)	(Cu.Ft.)	(CFS)	(Cu.Ft.)	(Cu.Ft.)	(Inches)
11/23/2010	10.00"	0.00"	0.28"	83,923	0.00	0	83,923	0.08"
11/24/2010	10.08"	0.08"	0.05"	14,986	2.01	173,383	-158,397	-0.16"
11/25/2010	10.00"	0.00"	0.16"	47,956	0.00	0	47,956	0.05"
11/26/2010	10.05"	0.05"	0.48"	143,868	1.00	86,605	57,263	0.06"
11/27/2010	10.10"	0.10"	0.17"	50,953	2.51	216,837	-165,883	-0.16"
11/28/2010	10.00"	0.00"	0.11"	32,970	0.00	0	32,970	0.03"
11/29/2010	10.03"	0.03"	0.11"	32,970	0.75	64,938	-31,968	-0.03"
11/30/2010	10.00"	0.00"	0.66"	197,818	0.25	21,600	176,218	0.17"
12/1/2010	10.17"	0.17"	0.03"	8,992	4.27	369,263	-360,271	-0.36"
12/2/2010	10.00"	0.00"	0.00"	0	0.00	0	0	0.00"
12/3/2010	10.00"	0.00"	0.03"	8,992	0.00	0	8,992	0.01"
12/4/2010	10.01"	0.01"	0.00"	0	0.25	21,600	-21,600	-0.02"
12/5/2010	10.00"	0.00"	0.00"	0	0.00	0	0	0.00"
12/6/2010	10.00"	0.00"	0.00"	0	0.00	0	0	0.00"
12/7/2010	10.00"	0.00"	0.25"	74,931	0.00	0	74,931	0.07"
12/8/2010	10.07"	0.07"	0.29"	86,920	1.76	151,672	-64,752	-0.06"
12/9/2010	10.01"	0.01"	0.93"	278,744	0.25	21,635	257,109	0.25"
12/10/2010	10.26"	0.26"	0.03"	8,992	6.55	566,011	-557,019	-0.55"
12/11/2010	10.00"	0.00"	0.82"	245,774	0.00	0	245,774	0.24"
12/12/2010	10.24"	0.24"	1.17"	350,678	6.04	522,214	-171,536	-0.17"
12/13/2010	10.07"	0.07"	0.65"	194,821	1.76	151,672	43,149	0.04"
12/14/2010	10.12"	0.12"	0.82"	245,774	2.76	238,580	7,195	0.01"
12/15/2010	10.12"	0.12"	0.26"	77,928	3.01	260,333	-182,405	-0.18"
12/16/2010	10.00"	0.00"	0.04"	11,989	0.00	0	11,989	0.01"
12/17/2010	10.01"	0.01"	0.00"	0	0.25	21,635	-21,635	-0.02"
12/18/2010	10.00"	0.00"	0.02"	5,994	0.00	0	5,994	0.01"
12/19/2010	10.01"	0.01"	0.09"	26,975	0.25	21,600	5,375	0.01"
12/20/2010	10.01"	0.01"	0.00"	0	0.25	21,635	-21,635	-0.02"
12/21/2010	10.00"	0.00"	0.00"	0	0.00	0	0	0.00"
12/22/2010	10.00"	0.00"	0.02"	5,994	0.00	0	5,994	0.01"
12/23/2010	10.01"	0.01"	0.18"	53,950	0.25	21,600	32,350	0.03"
12/24/2010	10.04"	0.04"	0.52"	155,857	0.75	64,938	90,919	0.09"
12/25/2010	10.13"	0.13"	0.42"	125,884	3.01	260,333	-134,449	-0.13"
12/26/2010	10.00"	0.00"	0.11"	32,970	0.00	0	32,970	0.03"
12/27/2010	10.03"	0.03"	0.40"	119,890	0.75	64,938	54,952	0.05"
12/28/2010	10.09"	0.09"	0.17"	50,953	2.01	173,383	-122,430	-0.12"
12/29/2010	10.00"	0.00"	0.23"	68,937	0.00	0	68,937	0.07"
12/30/2010	10.07"	0.07"	0.00"	0	1.50	129,973	-129,973	-0.13"
12/31/2010	10.00"	0.00"	0.00"	0	0.00	0	0	0.00"
1/1/2011	10.00"	0.00"	0.00"	0	0.00	0	0	0.00"
1/2/2011	10.00"	0.00"	0.00"	0	0.00	0	0	0.00"
1/3/2011	10.00"	0.00"	0.00"	0	0.00	0	0	0.00"
1/4/2011	10.00"	0.00"	0.00"	0	0.00	0	0	0.00"
1/5/2011	10.00"	0.00"	0.17"	50,953	0.00	0	50,953	0.05"
1/6/2011	10.05"	0.05"	0.40"	119,890	1.25	108,283	11,607	0.01"
1/7/2011	10.06"	0.06"	0.61"	182,832	1.50	129,973	52,860	0.05"
1/8/2011	10.11"	0.11"	0.10"	29,972	2.76	238,580	-208,607	-0.21"
1/9/2011	10.00"	0.00"	0.06"	17,983	0.00	0	17,983	0.02"
1/10/2011	10.02"	0.02"	0.01"	2,997	0.25	21,635	-18,638	-0.02"
1/11/2011	10.00"	0.00"	0.00"	0	0.00	0	0	0.00"
1/12/2011	10.00"	0.00"	0.89"	266,755	0.00	0	266,755	0.26"
1/13/2011	10.26"	0.26"	0.71"	212,805	6.55	566,011	-353,207	-0.35"
1/14/2011	10.00"	0.00"	0.26"	77,928	0.00	0	77,928	0.08"

2010 - 2011 Water Year Rainfall - Weir Controlled Outlet of Lake Sawyer

Date	Lake Level above Weir	Increase in Lake Level	Rainfall	Additional Volume (In)	Flow (Out)	Additional Volume (Out)	Change in Volume	Change in Lake Elevation
	(Inches)	(Inches)	(Inches)	(Cu.Ft.)	(CFS)	(Cu.Ft.)	(Cu.Ft.)	(Inches)
1/15/2011	10.08"	0.08"	0.50"	149,862	1.76	151,672	-1,810	0.00"
1/16/2011	10.08"	0.08"	0.77"	230,788	1.76	151,672	79,116	0.08"
1/17/2011	10.15"	0.15"	0.44"	131,879	3.77	325,659	-193,780	-0.19"
1/18/2011	10.00"	0.00"	0.16"	47,956	0.00	0	47,956	0.05"
1/19/2011	10.05"	0.05"	0.01"	2,997	1.00	86,605	-83,608	-0.08"
1/20/2011	10.00"	0.00"	0.20"	59,945	0.00	0	59,945	0.06"
1/21/2011	10.06"	0.06"	1.46"	437,598	1.25	108,283	329,315	0.33"
1/22/2011	10.38"	0.38"	0.01"	2,997	9.60	829,687	-826,690	-0.82"
1/23/2011	10.00"	0.00"	0.11"	32,970	0.00	0	32,970	0.03"
1/24/2011	10.03"	0.03"	0.51"	152,860	0.75	64,938	87,922	0.09"
1/25/2011	10.12"	0.12"	0.02"	5,994	2.76	238,580	-232,585	-0.23"
1/26/2011	10.00"	0.00"	0.01"	2,997	0.00	0	2,997	0.00"
1/27/2011	10.00"	0.00"	0.00"	0	0.25	21,600	-21,600	-0.02"
1/28/2011	10.00"	0.00"	0.17"	50,953	0.00	0	50,953	0.05"
1/29/2011	10.05"	0.05"	0.54"	161,851	1.25	108,283	53,568	0.05"
1/30/2011	10.10"	0.10"	0.14"	41,961	2.51	216,837	-174,875	-0.17"
1/31/2011	10.00"	0.00"	0.00"	0	0.00	0	0	0.00"
2/1/2011	10.00"	0.00"	0.00"	0	0.00	0	0	0.00"
2/2/2011	10.00"	0.00"	0.00"	0	0.00	0	0	0.00"
2/3/2011	10.00"	0.00"	0.08"	23,978	0.00	0	23,978	0.02"
2/4/2011	10.02"	0.02"	0.22"	65,939	0.50	43,281	22,659	0.02"
2/5/2011	10.05"	0.05"	0.01"	2,997	1.00	86,605	-83,608	-0.08"
2/6/2011	10.00"	0.00"	0.22"	65,939	0.00	0	65,939	0.07"
2/7/2011	10.07"	0.07"	0.22"	65,939	1.50	129,973	-64,033	-0.06"
2/8/2011	10.00"	0.00"	0.01"	2,997	0.25	21,600	-18,603	-0.02"
2/9/2011	10.00"	0.00"	0.00"	0	0.00	0	0	0.00"
2/10/2011	10.00"	0.00"	0.00"	0	0.00	0	0	0.00"
2/11/2011	10.00"	0.00"	0.00"	0	0.00	0	0	0.00"
2/12/2011	10.00"	0.00"	0.57"	170,843	0.00	0	170,843	0.17"
2/13/2011	10.17"	0.17"	0.24"	71,934	4.02	347,455	-275,521	-0.27"
2/14/2011	10.00"	0.00"	0.24"	71,934	0.00	0	71,934	0.07"
2/15/2011	10.07"	0.07"	0.12"	35,967	1.76	151,672	-115,705	-0.11"
2/16/2011	10.00"	0.00"	0.06"	17,983	0.00	0	17,983	0.02"
2/17/2011	10.02"	0.02"	0.02"	5,994	0.25	21,635	-15,641	-0.02"
2/18/2011	10.00"	0.00"	0.01"	2,997	0.25	21,600	-18,603	-0.02"
2/19/2011	10.00"	0.00"	0.00"	0	0.00	0	0	0.00"
2/20/2011	10.00"	0.00"	0.00"	0	0.00	0	0	0.00"
2/21/2011	10.00"	0.00"	0.04"	11,989	0.00	0	11,989	0.01"
2/22/2011	10.01"	0.01"	0.19"	56,948	0.25	21,635	35,313	0.03"
2/23/2011	10.05"	0.05"	0.12"	35,967	1.00	86,605	-50,638	-0.05"
2/24/2011	10.00"	0.00"	0.22"	65,939	0.00	0	65,939	0.07"
2/25/2011	10.07"	0.07"	0.00"	0	1.50	129,973	-129,973	-0.13"
2/26/2011	10.00"	0.00"	0.00"	0	0.00	0	0	0.00"
2/27/2011	10.00"	0.00"	0.21"	62,942	0.00	0	62,942	0.06"
2/28/2011	10.06"	0.06"	0.83"	248,772	1.50	129,973	118,799	0.12"
3/1/2011	10.18"	0.18"	0.22"	65,939	4.27	369,263	-303,323	-0.30"
3/2/2011	10.00"	0.00"	0.06"	17,983	0.00	0	17,983	0.02"
3/3/2011	10.02"	0.02"	0.31"	92,915	0.25	21,635	71,280	0.07"
3/4/2011	10.09"	0.09"	0.13"	38,964	2.01	173,383	-134,419	-0.13"
3/5/2011	10.00"	0.00"	0.02"	5,994	0.00	0	5,994	0.01"
3/6/2011	10.01"	0.01"	0.01"	2,997	0.25	21,600	-18,603	-0.02"
3/7/2011	10.00"	0.00"	0.00"	0	0.00	0	0	0.00"
3/8/2011	10.00"	0.00"	0.12"	35,967	0.00	0	35,967	0.04"

2010 - 2011 Water Year Rainfall - Weir Controlled Outlet of Lake Sawyer

Date	Lake Level above Weir	Increase in Lake Level	Rainfall	Additional Volume (In)	Flow (Out)	Additional Volume (Out)	Change in Volume	Change in Lake Elevation
	(Inches)	(Inches)	(Inches)	(Cu.Ft.)	(CFS)	(Cu.Ft.)	(Cu.Ft.)	(Inches)
3/9/2011	10.04"	0.04"	1.06"	317,708	0.75	64,938	252,771	0.25"
3/10/2011	10.29"	0.29"	0.65"	194,821	7.06	609,851	-415,030	-0.41"
3/11/2011	10.00"	0.00"	0.01"	2,997	0.00	0	2,997	0.00"
3/12/2011	10.00"	0.00"	0.20"	59,945	0.25	21,600	38,345	0.04"
3/13/2011	10.04"	0.04"	0.23"	68,937	1.00	86,605	-17,668	-0.02"
3/14/2011	10.02"	0.02"	0.08"	23,978	0.50	43,281	-19,303	-0.02"
3/15/2011	10.00"	0.00"	0.60"	179,835	0.25	21,600	158,235	0.16"
3/16/2011	10.16"	0.16"	0.09"	26,975	4.02	347,455	-320,480	-0.32"
3/17/2011	10.00"	0.00"	0.01"	2,997	0.00	0	2,997	0.00"
3/18/2011	10.00"	0.00"	0.34"	101,906	0.25	21,600	80,306	0.08"
3/19/2011	10.08"	0.08"	0.00"	0	2.01	173,383	-173,383	-0.17"
3/20/2011	10.00"	0.00"	0.00"	0	0.00	0	0	0.00"
3/21/2011	10.00"	0.00"	0.03"	8,992	0.00	0	8,992	0.01"
3/22/2011	10.01"	0.01"	0.00"	0	0.25	21,600	-21,600	-0.02"
3/23/2011	10.00"	0.00"	0.00"	0	0.00	0	0	0.00"
3/24/2011	10.00"	0.00"	0.23"	68,937	0.00	0	68,937	0.07"
3/25/2011	10.07"	0.07"	0.37"	110,898	1.50	129,973	-19,074	-0.02"
3/26/2011	10.05"	0.05"	0.30"	89,917	1.00	86,605	3,312	0.00"
3/27/2011	10.05"	0.05"	0.34"	101,906	1.25	108,283	-6,377	-0.01"
3/28/2011	10.05"	0.05"	0.05"	14,986	1.00	86,605	-71,619	-0.07"
3/29/2011	10.00"	0.00"	0.43"	128,882	0.00	0	128,882	0.13"
3/30/2011	10.13"	0.13"	0.81"	242,777	3.01	260,333	-17,556	-0.02"
3/31/2011	10.11"	0.11"	0.37"	110,898	2.51	216,837	-105,938	-0.10"
4/1/2011	10.01"	0.01"	0.94"	281,741	0.25	21,600	260,141	0.26"
4/2/2011	10.26"	0.26"	0.69"	206,810	6.55	566,011	-359,201	-0.35"
4/3/2011	10.00"	0.00"	0.02"	5,994	0.00	0	5,994	0.01"
4/4/2011	10.01"	0.01"	0.69"	206,810	0.25	21,600	185,210	0.18"
4/5/2011	10.19"	0.19"	0.55"	164,849	4.53	391,081	-226,232	-0.22"
4/6/2011	10.00"	0.00"	0.26"	77,928	0.00	0	77,928	0.08"
4/7/2011	10.08"	0.08"	0.11"	32,970	1.76	151,672	-118,703	-0.12"
4/8/2011	10.00"	0.00"	0.00"	0	0.00	0	0	0.00"
4/9/2011	10.00"	0.00"	0.00"	0	0.00	0	0	0.00"
4/10/2011	10.00"	0.00"	0.22"	65,939	0.00	0	65,939	0.07"
4/11/2011	10.07"	0.07"	0.14"	41,961	1.50	129,973	-88,011	-0.09"
4/12/2011	10.00"	0.00"	0.00"	0	0.00	0	0	0.00"
4/13/2011	10.00"	0.00"	0.17"	50,953	0.00	0	50,953	0.05"
4/14/2011	10.05"	0.05"	0.29"	86,920	1.25	108,283	-21,363	-0.02"
4/15/2011	10.03"	0.03"	0.10"	29,972	0.50	43,281	-13,308	-0.01"
4/16/2011	10.02"	0.02"	0.07"	20,981	0.25	21,635	-654	0.00"
4/17/2011	10.02"	0.02"	0.00"	0	0.25	21,635	-21,635	-0.02"
4/18/2011	10.00"	0.00"	0.32"	95,912	0.00	0	95,912	0.09"
4/19/2011	10.09"	0.09"	0.01"	2,997	2.26	195,104	-192,107	-0.19"
4/20/2011	10.00"	0.00"	0.02"	5,994	0.00	0	5,994	0.01"
4/21/2011	10.01"	0.01"	0.19"	56,948	0.25	21,600	35,348	0.03"
4/22/2011	10.04"	0.04"	0.01"	2,997	1.00	86,605	-83,608	-0.08"
4/23/2011	10.00"	0.00"	0.01"	2,997	0.00	0	2,997	0.00"
4/24/2011	10.00"	0.00"	0.18"	53,950	0.25	21,600	32,350	0.03"
4/25/2011	10.03"	0.03"	0.52"	155,857	0.75	64,938	90,919	0.09"
4/26/2011	10.12"	0.12"	0.17"	50,953	3.01	260,333	-209,380	-0.21"
4/27/2011	10.00"	0.00"	0.60"	179,835	0.00	0	179,835	0.18"
4/28/2011	10.18"	0.18"	0.07"	20,981	4.27	369,263	-348,282	-0.34"
4/29/2011	10.00"	0.00"	0.07"	20,981	0.00	0	20,981	0.02"
4/30/2011	10.02"	0.02"	0.09"	26,975	0.50	43,281	-16,306	-0.02"

2010 - 2011 Water Year Rainfall - Weir Controlled Outlet of Lake Sawyer

Date	Lake Level above Weir	Increase in Lake Level	Rainfall	Additional Volume (In)	Flow (Out)	Additional Volume (Out)	Change in Volume	Change in Lake Elevation
	(Inches)	(Inches)	(Inches)	(Cu.Ft.)	(CFS)	(Cu.Ft.)	(Cu.Ft.)	(Inches)
5/1/2011	10.00"	0.00"	0.00"	0	0.25	21,600	-21,600	-0.02"
5/2/2011	10.00"	0.00"	0.48"	143,868	0.00	0	143,868	0.14"
5/3/2011	10.14"	0.14"	0.01"	2,997	3.52	303,873	-300,876	-0.30"
5/4/2011	10.00"	0.00"	0.00"	0	0.00	0	0	0.00"
5/5/2011	10.00"	0.00"	0.16"	47,956	0.00	0	47,956	0.05"
5/6/2011	10.05"	0.05"	0.29"	86,920	1.00	86,605	315	0.00"
5/7/2011	10.05"	0.05"	0.51"	152,860	1.00	86,605	66,255	0.07"
5/8/2011	10.11"	0.11"	0.22"	65,939	2.76	238,580	-172,640	-0.17"
5/9/2011	10.00"	0.00"	0.01"	2,997	0.00	0	2,997	0.00"
5/10/2011	10.00"	0.00"	0.00"	0	0.25	21,600	-21,600	-0.02"
5/11/2011	10.00"	0.00"	0.39"	116,893	0.00	0	116,893	0.12"
5/12/2011	10.12"	0.12"	0.00"	0	2.76	238,580	-238,580	-0.24"
5/13/2011	10.00"	0.00"	0.00"	0	0.00	0	0	0.00"
5/14/2011	10.00"	0.00"	0.91"	272,750	0.00	0	272,750	0.27"
5/15/2011	10.27"	0.27"	1.18"	353,675	6.55	566,011	-212,336	-0.21"
5/16/2011	10.06"	0.06"	0.01"	2,997	1.25	108,283	-105,286	-0.10"
5/17/2011	10.00"	0.00"	0.00"	0	0.00	0	0	0.00"
5/18/2011	10.00"	0.00"	0.00"	0	0.00	0	0	0.00"
5/19/2011	10.00"	0.00"	0.00"	0	0.00	0	0	0.00"
5/20/2011	10.00"	0.00"	0.00"	0	0.00	0	0	0.00"
5/21/2011	10.00"	0.00"	0.04"	11,989	0.00	0	11,989	0.01"
5/22/2011	10.01"	0.01"	0.00"	0	0.25	21,635	-21,635	-0.02"
5/23/2011	10.00"	0.00"	0.00"	0	0.00	0	0	0.00"
5/24/2011	10.00"	0.00"	0.00"	0	0.00	0	0	0.00"
5/25/2011	10.00"	0.00"	0.36"	107,901	0.00	0	107,901	0.11"
5/26/2011	10.11"	0.11"	0.09"	26,975	2.51	216,837	-189,861	-0.19"
5/27/2011	10.00"	0.00"	0.55"	164,849	0.00	0	164,849	0.16"
5/28/2011	10.16"	0.16"	0.08"	23,978	4.02	347,455	-323,477	-0.32"
5/29/2011	10.00"	0.00"	0.00"	0	0.00	0	0	0.00"
5/30/2011	10.00"	0.00"	0.00"	0	0.00	0	0	0.00"
5/31/2011	10.00"	0.00"	0.24"	71,934	0.00	0	71,934	0.07"
6/1/2011	10.07"	0.07"	0.58"	173,840	1.76	151,672	22,168	0.02"
6/2/2011	10.09"	0.09"	0.24"	71,934	2.26	195,104	-123,170	-0.12"
6/3/2011	10.00"	0.00"	0.01"	2,997	0.00	0	2,997	0.00"
6/4/2011	10.00"	0.00"	0.00"	0	0.25	21,600	-21,600	-0.02"
6/5/2011	10.00"	0.00"	0.00"	0	0.00	0	0	0.00"
6/6/2011	10.00"	0.00"	0.00"	0	0.00	0	0	0.00"
6/7/2011	10.00"	0.00"	0.21"	62,942	0.00	0	62,942	0.06"
6/8/2011	10.06"	0.06"	0.31"	92,915	1.50	129,973	-37,058	-0.04"
6/9/2011	10.03"	0.03"	0.00"	0	0.50	43,281	-43,281	-0.04"
6/10/2011	10.00"	0.00"	0.00"	0	0.00	0	0	0.00"
6/11/2011	10.00"	0.00"	0.02"	5,994	0.00	0	5,994	0.01"
6/12/2011	10.01"	0.01"	0.00"	0	0.25	21,600	-21,600	-0.02"
6/13/2011	10.00"	0.00"	0.15"	44,959	0.00	0	44,959	0.04"
6/14/2011	10.04"	0.04"	0.00"	0	1.00	86,605	-86,605	-0.09"
6/15/2011	10.00"	0.00"	0.15"	44,959	0.00	0	44,959	0.04"
6/16/2011	10.04"	0.04"	0.00"	0	1.00	86,605	-86,605	-0.09"
6/17/2011	10.00"	0.00"	0.00"	0	0.00	0	0	0.00"
6/18/2011	10.00"	0.00"	1.05"	314,711	0.00	0	314,711	0.31"
6/19/2011	10.31"	0.31"	0.11"	32,970	7.82	675,690	-642,720	-0.63"
6/20/2011	10.00"	0.00"	0.00"	0	0.00	0	0	0.00"
6/21/2011	10.00"	0.00"	0.00"	0	0.00	0	0	0.00"

1995 – 1996 Water Year Rainfall
Culvert Controlled Outlet of Lake Sawyer

1995 - 1996 Water Year Rainfall - Culvert Controlled Outlet of Lake Sawyer

Date	Lake Level above Weir	Increase in Lake Level	Rainfall	Additional Volume (in)	Flow (Out)	Additional Volume (Out)	Change in Volume	Change in Lake Elevation	Cumulative Volume
		(inches)	(inches)	(Cu.Ft.)	(CFS)	(Cu.Ft.)	(Cu.Ft.)	(inches)	(Cu.Ft.)
10/1/1995	26.00"	0.00"	0.00"	0	0.00	0	0	0.00"	0
10/2/1995	26.00"	0.00"	0.53"	158,854	0.00	0	158,854	0.16"	158,854
10/3/1995	26.16"	0.16"	0.55"	164,849	1.53	132,245	32,604	0.03"	191,458
10/4/1995	26.19"	0.19"	0.01"	2,997	1.84	158,694	-155,697	-0.15"	35,761
10/5/1995	26.04"	0.04"	0.00"	0	0.31	26,449	-26,449	-0.03"	9,312
10/6/1995	26.01"	0.01"	0.01"	2,997	0.10	8,640	-5,643	-0.01"	3,670
10/7/1995	26.00"	0.00"	0.01"	2,997	0.10	8,640	-5,643	-0.01"	0
10/8/1995	26.00"	0.00"	0.17"	50,953	0.00	0	50,953	0.05"	50,953
10/9/1995	26.05"	0.05"	0.27"	80,926	0.51	44,082	36,844	0.04"	87,797
10/10/1995	26.09"	0.09"	1.34"	401,631	0.82	70,531	331,101	0.33"	418,898
10/11/1995	26.41"	0.41"	0.50"	149,862	4.18	361,469	-211,607	-0.21"	207,291
10/12/1995	26.20"	0.20"	0.01"	2,997	2.04	176,327	-173,329	-0.17"	33,962
10/13/1995	26.03"	0.03"	0.00"	0	0.31	26,449	-26,449	-0.03"	7,513
10/14/1995	26.01"	0.01"	0.00"	0	0.10	8,640	-8,640	-0.01"	0
10/15/1995	26.00"	0.00"	0.09"	26,975	0.00	0	26,975	0.03"	26,975
10/16/1995	26.03"	0.03"	0.26"	77,928	0.20	17,633	60,296	0.06"	87,271
10/17/1995	26.09"	0.09"	0.20"	59,945	0.82	70,531	-10,586	-0.01"	76,685
10/18/1995	26.08"	0.08"	0.01"	2,997	0.71	61,714	-58,717	-0.06"	17,968
10/19/1995	26.02"	0.02"	0.00"	0	0.10	8,816	-8,816	-0.01"	9,152
10/20/1995	26.01"	0.01"	0.40"	119,890	0.10	8,640	111,250	0.11"	120,402
10/21/1995	26.12"	0.12"	0.06"	17,983	1.12	96,980	-78,996	-0.08"	41,406
10/22/1995	26.04"	0.04"	0.00"	0	0.41	35,265	-35,265	-0.03"	6,141
10/23/1995	26.01"	0.01"	0.03"	8,992	0.10	8,640	352	0.00"	6,492
10/24/1995	26.01"	0.01"	0.00"	0	0.10	8,640	-8,640	-0.01"	0
10/25/1995	26.00"	0.00"	0.20"	59,945	0.00	0	59,945	0.06"	59,945
10/26/1995	26.06"	0.06"	0.00"	0	0.51	44,082	-44,082	-0.04"	15,863
10/27/1995	26.02"	0.02"	0.01"	2,997	0.10	8,816	-5,819	-0.01"	10,044
10/28/1995	26.01"	0.01"	0.00"	0	0.10	8,640	-8,640	-0.01"	1,404
10/29/1995	26.00"	0.00"	0.00"	0	0.10	8,640	-8,640	-0.01"	0
10/30/1995	26.00"	0.00"	0.00"	0	0.00	0	0	0.00"	0
10/31/1995	26.00"	0.00"	0.00"	0	0.00	0	0	0.00"	0
11/1/1995	26.00"	0.00"	0.00"	0	0.00	0	0	0.00"	0
11/2/1995	26.00"	0.00"	0.00"	0	0.00	0	0	0.00"	0
11/3/1995	26.00"	0.00"	0.00"	0	0.00	0	0	0.00"	0
11/4/1995	26.00"	0.00"	0.01"	2,997	0.00	0	2,997	0.00"	2,997
11/5/1995	26.00"	0.00"	0.08"	23,978	0.10	8,640	15,338	0.02"	18,335
11/6/1995	26.02"	0.02"	0.15"	44,959	0.10	8,816	36,142	0.04"	54,478
11/7/1995	26.05"	0.05"	1.17"	350,678	0.51	44,082	306,597	0.30"	361,074
11/8/1995	26.36"	0.36"	0.60"	179,835	3.57	308,571	-128,736	-0.13"	232,338
11/9/1995	26.23"	0.23"	0.00"	0	2.24	193,959	-193,959	-0.19"	38,378
11/10/1995	26.04"	0.04"	0.67"	200,816	0.31	26,449	174,367	0.17"	212,745
11/11/1995	26.21"	0.21"	0.81"	242,777	2.14	185,143	57,634	0.06"	270,380
11/12/1995	26.27"	0.27"	0.10"	29,972	2.65	229,224	-199,252	-0.20"	71,128
11/13/1995	26.07"	0.07"	0.34"	101,906	0.71	61,714	40,192	0.04"	111,320
11/14/1995	26.11"	0.11"	0.00"	0	1.02	88,163	-88,163	-0.09"	23,156
11/15/1995	26.02"	0.02"	0.26"	77,928	0.20	17,633	60,296	0.06"	83,452
11/16/1995	26.08"	0.08"	0.00"	0	0.82	70,531	-70,531	-0.07"	12,922
11/17/1995	26.01"	0.01"	0.16"	47,956	0.10	8,816	39,140	0.04"	52,061
11/18/1995	26.05"	0.05"	0.05"	14,986	0.51	44,082	-29,095	-0.03"	22,966
11/19/1995	26.02"	0.02"	0.00"	0	0.20	17,633	-17,633	-0.02"	5,333
11/20/1995	26.01"	0.01"	0.00"	0	0.10	8,640	-8,640	-0.01"	0
11/21/1995	26.00"	0.00"	0.03"	8,992	0.00	0	8,992	0.01"	8,992
11/22/1995	26.01"	0.01"	0.26"	77,928	0.10	8,640	69,288	0.07"	78,280
11/23/1995	26.08"	0.08"	0.43"	128,882	0.71	61,714	67,167	0.07"	145,448
11/24/1995	26.14"	0.14"	0.54"	161,851	1.43	123,429	38,423	0.04"	183,871
11/25/1995	26.18"	0.18"	0.28"	83,923	1.84	158,694	-74,771	-0.07"	109,100
11/26/1995	26.11"	0.11"	0.01"	2,997	1.02	88,163	-85,166	-0.08"	23,934
11/27/1995	26.02"	0.02"	0.53"	158,854	0.20	17,633	141,222	0.14"	165,155
11/28/1995	26.16"	0.16"	1.05"	314,711	1.63	141,061	173,650	0.17"	338,805
11/29/1995	26.33"	0.33"	1.34"	401,631	3.37	290,939	110,693	0.11"	449,498
11/30/1995	26.44"	0.44"	0.53"	158,854	4.49	387,918	-229,064	-0.23"	220,434
12/1/1995	26.22"	0.22"	0.58"	173,840	2.14	185,143	-11,302	-0.01"	209,131
12/2/1995	26.21"	0.21"	0.33"	98,909	2.04	176,327	-77,417	-0.08"	131,714

1995 - 1996 Water Year Rainfall - Culvert Controlled Outlet of Lake Sawyer

Date	Lake Level above Weir	Increase in Lake Level	Rainfall	Additional Volume (in)	Flow (Out)	Additional Volume (Out)	Change in Volume	Change in Lake Elevation	Cumulative Volume
		(Inches)	(Inches)	(Cu.Ft.)	(CFS)	(Cu.Ft.)	(Cu.Ft.)	(Inches)	(Cu.Ft.)
12/3/1995	26.13"	0.13"	0.49"	146,865	1.33	114,612	32,253	0.03"	163,967
12/4/1995	26.16"	0.16"	0.00"	0	1.63	141,061	-141,061	-0.14"	22,906
12/5/1995	26.02"	0.02"	0.01"	2,997	0.20	17,633	-14,635	-0.01"	8,270
12/6/1995	26.01"	0.01"	0.00"	0	0.10	8,640	-8,640	-0.01"	0
12/7/1995	26.00"	0.00"	0.00"	0	0.00	0	0	0.00"	0
12/8/1995	26.00"	0.00"	0.00"	0	0.00	0	0	0.00"	0
12/9/1995	26.00"	0.00"	0.50"	149,862	0.00	0	149,862	0.15"	149,862
12/10/1995	26.15"	0.15"	0.60"	179,835	1.43	123,429	56,406	0.06"	206,269
12/11/1995	26.20"	0.20"	0.26"	77,928	2.04	176,327	-98,398	-0.10"	107,871
12/12/1995	26.11"	0.11"	0.18"	53,950	1.02	88,163	-34,213	-0.03"	73,658
12/13/1995	26.07"	0.07"	0.33"	98,909	0.71	61,714	37,195	0.04"	110,853
12/14/1995	26.11"	0.11"	0.46"	137,873	1.02	88,163	49,710	0.05"	160,563
12/15/1995	26.16"	0.16"	0.04"	11,989	1.53	132,245	-120,256	-0.12"	40,307
12/16/1995	26.04"	0.04"	0.00"	0	0.31	26,449	-26,449	-0.03"	13,858
12/17/1995	26.01"	0.01"	0.09"	26,975	0.10	8,816	18,159	0.02"	32,017
12/18/1995	26.03"	0.03"	0.23"	68,937	0.31	26,449	42,488	0.04"	74,505
12/19/1995	26.07"	0.07"	0.02"	5,994	0.71	61,714	-55,720	-0.06"	18,785
12/20/1995	26.02"	0.02"	0.00"	0	0.10	8,816	-8,816	-0.01"	9,969
12/21/1995	26.01"	0.01"	0.00"	0	0.10	8,640	-8,640	-0.01"	1,329
12/22/1995	26.00"	0.00"	0.00"	0	0.10	8,640	-8,640	-0.01"	0
12/23/1995	26.00"	0.00"	0.00"	0	0.00	0	0	0.00"	0
12/24/1995	26.00"	0.00"	0.00"	0	0.00	0	0	0.00"	0
12/25/1995	26.00"	0.00"	0.00"	0	0.00	0	0	0.00"	0
12/26/1995	26.00"	0.00"	0.00"	0	0.00	0	0	0.00"	0
12/27/1995	26.00"	0.00"	0.05"	14,986	0.00	0	14,986	0.01"	14,986
12/28/1995	26.01"	0.01"	0.09"	26,975	0.10	8,816	18,159	0.02"	33,145
12/29/1995	26.03"	0.03"	0.77"	230,788	0.31	26,449	204,339	0.20"	237,484
12/30/1995	26.23"	0.23"	0.20"	59,945	2.35	202,776	-142,831	-0.14"	94,654
12/31/1995	26.09"	0.09"	0.07"	20,981	0.92	79,347	-58,366	-0.06"	36,288
1/1/1996	26.04"	0.04"	0.01"	2,997	0.31	26,449	-23,452	-0.02"	12,836
1/2/1996	26.01"	0.01"	0.26"	77,928	0.10	8,816	69,112	0.07"	81,948
1/3/1996	26.08"	0.08"	0.07"	20,981	0.82	70,531	-49,550	-0.05"	32,398
1/4/1996	26.03"	0.03"	0.04"	11,989	0.31	26,449	-14,460	-0.01"	17,938
1/5/1996	26.02"	0.02"	0.11"	32,970	0.10	8,816	24,153	0.02"	42,092
1/6/1996	26.04"	0.04"	0.15"	44,959	0.41	35,265	9,693	0.01"	51,785
1/7/1996	26.05"	0.05"	1.33"	398,634	0.51	44,082	354,552	0.35"	406,338
1/8/1996	26.40"	0.40"	0.01"	2,997	4.08	352,653	-349,656	-0.35"	56,682
1/9/1996	26.06"	0.06"	0.04"	11,989	0.51	44,082	-32,093	-0.03"	24,589
1/10/1996	26.02"	0.02"	0.00"	0	0.20	17,633	-17,633	-0.02"	6,956
1/11/1996	26.01"	0.01"	0.00"	0	0.10	8,640	-8,640	-0.01"	0
1/12/1996	26.00"	0.00"	0.01"	2,997	0.00	0	2,997	0.00"	2,997
1/13/1996	26.00"	0.00"	0.37"	110,898	0.10	8,640	102,258	0.10"	105,255
1/14/1996	26.10"	0.10"	0.82"	245,774	1.02	88,163	157,611	0.16"	262,867
1/15/1996	26.26"	0.26"	0.88"	263,758	2.55	220,408	43,350	0.04"	306,216
1/16/1996	26.30"	0.30"	0.06"	17,983	3.06	264,490	-246,506	-0.24"	59,710
1/17/1996	26.06"	0.06"	0.11"	32,970	0.51	44,082	-11,112	-0.01"	48,598
1/18/1996	26.05"	0.05"	0.00"	0	0.41	35,265	-35,265	-0.03"	13,333
1/19/1996	26.01"	0.01"	0.05"	14,986	0.10	8,816	6,170	0.01"	19,503
1/20/1996	26.02"	0.02"	1.31"	392,640	0.10	8,816	383,823	0.38"	403,326
1/21/1996	26.40"	0.40"	0.46"	137,873	3.98	343,837	-205,963	-0.20"	197,363
1/22/1996	26.19"	0.19"	0.21"	62,942	1.94	167,510	-104,568	-0.10"	92,795
1/23/1996	26.09"	0.09"	0.11"	32,970	0.92	79,347	-46,377	-0.05"	46,418
1/24/1996	26.05"	0.05"	0.28"	83,923	0.41	35,265	48,658	0.05"	95,075
1/25/1996	26.09"	0.09"	0.12"	35,967	0.92	79,347	-43,380	-0.04"	51,695
1/26/1996	26.05"	0.05"	0.01"	2,997	0.51	44,082	-41,084	-0.04"	10,611
1/27/1996	26.01"	0.01"	0.00"	0	0.10	8,816	-8,816	-0.01"	1,795
1/28/1996	26.00"	0.00"	0.00"	0	0.10	8,640	-8,640	-0.01"	0
1/29/1996	26.00"	0.00"	0.06"	17,983	0.00	0	17,983	0.02"	17,983
1/30/1996	26.02"	0.02"	0.07"	20,981	0.10	8,816	12,164	0.01"	30,148
1/31/1996	26.03"	0.03"	0.02"	5,994	0.20	17,633	-11,638	-0.01"	18,510
2/1/1996	26.02"	0.02"	0.00"	0	0.10	8,816	-8,816	-0.01"	9,693
2/2/1996	26.01"	0.01"	0.00"	0	0.10	8,640	-8,640	-0.01"	1,053
2/3/1996	26.00"	0.00"	0.01"	2,997	0.10	8,640	-5,643	-0.01"	0

1995 - 1996 Water Year Rainfall - Culvert Controlled Outlet of Lake Sawyer

Date	Lake Level above Weir	Increase in Lake Level	Rainfall	Additional Volume (In)	Flow (Out)	Additional Volume (Out)	Change in Volume	Change in Lake Elevation	Cumulative Volume
		(Inches)	(Inches)	(Cu.Ft.)	(CFS)	(Cu.Ft.)	(Cu.Ft.)	(Inches)	(Cu.Ft.)
2/4/1996	26.00"	0.00"	0.16"	47,956	0.00	0	47,956	0.05"	47,956
2/5/1996	26.05"	0.05"	0.80"	239,780	0.41	35,265	204,515	0.20"	252,471
2/6/1996	26.25"	0.25"	0.99"	296,728	2.45	211,592	85,136	0.08"	337,606
2/7/1996	26.33"	0.33"	0.73"	218,799	3.37	290,939	-72,140	-0.07"	265,467
2/8/1996	26.26"	0.26"	3.03"	908,166	2.65	229,224	678,942	0.67"	944,409
2/9/1996	26.93"	0.93"	0.67"	200,816	9.49	819,918	-619,103	-0.61"	325,306
2/10/1996	26.32"	0.32"	0.00"	0	3.27	282,122	-282,122	-0.28"	43,184
2/11/1996	26.04"	0.04"	0.00"	0	0.41	35,265	-35,265	-0.03"	7,918
2/12/1996	26.01"	0.01"	0.00"	0	0.10	8,640	-8,640	-0.01"	0
2/13/1996	26.00"	0.00"	0.00"	0	0.00	0	0	0.00"	0
2/14/1996	26.00"	0.00"	0.00"	0	0.00	0	0	0.00"	0
2/15/1996	26.00"	0.00"	0.00"	0	0.00	0	0	0.00"	0
2/16/1996	26.00"	0.00"	0.02"	5,994	0.00	0	5,994	0.01"	5,994
2/17/1996	26.01"	0.01"	0.56"	167,846	0.10	8,640	159,206	0.16"	165,200
2/18/1996	26.16"	0.16"	0.46"	137,873	1.63	141,061	-3,188	0.00"	162,013
2/19/1996	26.16"	0.16"	0.22"	65,939	1.53	132,245	-66,305	-0.07"	95,707
2/20/1996	26.09"	0.09"	0.29"	86,920	0.92	79,347	7,573	0.01"	103,281
2/21/1996	26.10"	0.10"	0.02"	5,994	1.02	88,163	-82,169	-0.08"	21,112
2/22/1996	26.02"	0.02"	0.31"	92,915	0.20	17,633	75,282	0.07"	96,394
2/23/1996	26.10"	0.10"	0.07"	20,981	0.92	79,347	-58,366	-0.06"	38,028
2/24/1996	26.04"	0.04"	0.06"	17,983	0.31	26,449	-8,465	-0.01"	29,562
2/25/1996	26.03"	0.03"	0.03"	8,991	0.20	17,633	-8,641	-0.01"	20,921
2/26/1996	26.02"	0.02"	0.01"	2,997	0.20	17,633	-14,635	-0.01"	6,286
2/27/1996	26.01"	0.01"	0.00"	0	0.10	8,640	-8,640	-0.01"	0
2/28/1996	26.00"	0.00"	0.00"	0	0.00	0	0	0.00"	0
2/29/1996	26.00"	0.00"	0.00"	0	0.00	0	0	0.00"	0
3/1/1996	26.00"	0.00"	0.00"	0	0.00	0	0	0.00"	0
3/2/1996	26.00"	0.00"	0.00"	0	0.00	0	0	0.00"	0
3/3/1996	26.00"	0.00"	0.44"	131,879	0.00	0	131,879	0.13"	131,879
3/4/1996	26.13"	0.13"	0.05"	14,986	1.33	114,612	-99,626	-0.10"	32,253
3/5/1996	26.03"	0.03"	0.14"	41,961	0.31	26,449	15,513	0.02"	47,765
3/6/1996	26.05"	0.05"	0.04"	11,989	0.41	35,265	-23,276	-0.02"	24,489
3/7/1996	26.02"	0.02"	0.03"	8,992	0.20	17,633	-8,641	-0.01"	15,848
3/8/1996	26.02"	0.02"	0.00"	0	0.10	8,816	-8,816	-0.01"	7,032
3/9/1996	26.01"	0.01"	0.07"	20,981	0.10	8,640	12,341	0.01"	19,373
3/10/1996	26.02"	0.02"	0.20"	59,945	0.10	8,816	51,129	0.05"	70,501
3/11/1996	26.07"	0.07"	0.11"	32,970	0.61	52,898	-19,928	-0.02"	50,573
3/12/1996	26.05"	0.05"	0.02"	5,994	0.41	35,265	-29,271	-0.03"	21,302
3/13/1996	26.02"	0.02"	0.00"	0	0.20	17,633	-17,633	-0.02"	3,670
3/14/1996	26.00"	0.00"	0.00"	0	0.10	8,640	-8,640	-0.01"	0
3/15/1996	26.00"	0.00"	0.00"	0	0.00	0	0	0.00"	0
3/16/1996	26.00"	0.00"	0.00"	0	0.00	0	0	0.00"	0
3/17/1996	26.00"	0.00"	0.00"	0	0.00	0	0	0.00"	0
3/18/1996	26.00"	0.00"	0.00"	0	0.00	0	0	0.00"	0
3/19/1996	26.00"	0.00"	0.13"	38,964	0.00	0	38,964	0.04"	38,964
3/20/1996	26.04"	0.04"	0.00"	0	0.31	26,449	-26,449	-0.03"	12,515
3/21/1996	26.01"	0.01"	0.09"	26,975	0.10	8,816	18,159	0.02"	30,674
3/22/1996	26.03"	0.03"	0.28"	83,923	0.31	26,449	57,474	0.06"	88,148
3/23/1996	26.09"	0.09"	0.07"	20,981	0.82	70,531	-49,550	-0.05"	38,598
3/24/1996	26.04"	0.04"	0.01"	2,997	0.31	26,449	-23,452	-0.02"	15,147
3/25/1996	26.01"	0.01"	0.00"	0	0.10	8,816	-8,816	-0.01"	6,330
3/26/1996	26.01"	0.01"	0.00"	0	0.10	8,640	-8,640	-0.01"	0
3/27/1996	26.00"	0.00"	0.00"	0	0.00	0	0	0.00"	0
3/28/1996	26.00"	0.00"	0.00"	0	0.00	0	0	0.00"	0
3/29/1996	26.00"	0.00"	0.11"	32,970	0.00	0	32,970	0.03"	32,970
3/30/1996	26.03"	0.03"	0.03"	2,997	0.31	26,449	-23,452	-0.02"	9,518
3/31/1996	26.01"	0.01"	0.28"	83,923	0.10	8,640	75,283	0.07"	84,801
4/1/1996	26.08"	0.08"	0.52"	155,857	0.82	70,531	85,326	0.08"	170,127
4/2/1996	26.17"	0.17"	0.07"	20,981	1.63	141,061	-120,080	-0.12"	50,047
4/3/1996	26.05"	0.05"	0.00"	0	0.41	35,265	-35,265	-0.03"	14,782
4/4/1996	26.01"	0.01"	0.01"	2,997	0.10	8,816	-5,819	-0.01"	8,962
4/5/1996	26.01"	0.01"	0.00"	0	0.10	8,640	-8,640	-0.01"	322
4/6/1996	26.00"	0.00"	0.43"	128,882	0.10	8,640	120,242	0.12"	120,564

1995 - 1996 Water Year Rainfall - Culvert Controlled Outlet of Lake Sawyer

Date	Lake Level above Weir	Increase in Lake Level	Rainfall	Additional Volume (In)	Flow (Out)	Additional Volume (Out)	Change in Volume	Change in Lake Elevation	Cumulative Volume
		(Inches)	(Inches)	(Cu.Ft.)	(CFS)	(Cu.Ft.)	(Cu.Ft.)	(Inches)	(Cu.Ft.)
4/7/1996	26.12"	0.12"	0.01"	2,997	1.12	96,980	-93,982	-0.09"	26,582
4/8/1996	26.03"	0.03"	0.00"	0	0.20	17,633	-17,633	-0.02"	8,949
4/9/1996	26.01"	0.01"	0.03"	8,992	0.10	8,640	352	0.00"	9,301
4/10/1996	26.01"	0.01"	0.10"	29,972	0.10	8,640	21,332	0.02"	30,633
4/11/1996	26.03"	0.03"	0.22"	65,939	0.31	26,449	39,490	0.04"	70,124
4/12/1996	26.07"	0.07"	0.09"	26,975	0.61	52,898	-25,923	-0.03"	44,201
4/13/1996	26.04"	0.04"	0.08"	23,978	0.41	35,265	-11,287	-0.01"	32,914
4/14/1996	26.03"	0.03"	0.00"	0	0.31	26,449	-26,449	-0.03"	6,465
4/15/1996	26.01"	0.01"	0.73"	218,799	0.10	8,640	210,159	0.21"	216,624
4/16/1996	26.21"	0.21"	0.25"	74,931	2.14	185,143	-110,212	-0.11"	106,412
4/17/1996	26.11"	0.11"	0.29"	86,920	1.02	88,163	-1,243	0.00"	105,169
4/18/1996	26.10"	0.10"	0.26"	77,928	1.02	88,163	-10,235	-0.01"	94,935
4/19/1996	26.09"	0.09"	0.20"	59,945	0.92	79,347	-19,402	-0.02"	75,533
4/20/1996	26.07"	0.07"	0.00"	0	0.71	61,714	-61,714	-0.06"	13,818
4/21/1996	26.01"	0.01"	0.00"	0	0.10	8,816	-8,816	-0.01"	5,002
4/22/1996	26.00"	0.00"	0.65"	194,821	0.10	8,640	186,181	0.18"	191,183
4/23/1996	26.19"	0.19"	1.50"	449,587	1.84	158,694	290,893	0.29"	482,077
4/24/1996	26.48"	0.48"	0.29"	86,920	4.80	414,367	-327,447	-0.32"	154,630
4/25/1996	26.15"	0.15"	0.41"	122,887	1.53	132,245	-9,358	-0.01"	145,272
4/26/1996	26.14"	0.14"	0.21"	62,942	1.43	123,429	-60,486	-0.06"	84,786
4/27/1996	26.08"	0.08"	0.00"	0	0.82	70,531	-70,531	-0.07"	14,255
4/28/1996	26.01"	0.01"	0.00"	0	0.10	8,816	-8,816	-0.01"	5,439
4/29/1996	26.01"	0.01"	0.00"	0	0.10	8,640	-8,640	-0.01"	0
4/30/1996	26.00"	0.00"	0.13"	38,964	0.00	0	38,964	0.04"	38,964
5/1/1996	26.04"	0.04"	0.00"	0	0.31	26,449	-26,449	-0.03"	12,515
5/2/1996	26.01"	0.01"	0.15"	44,959	0.10	8,816	36,142	0.04"	48,658
5/3/1996	26.05"	0.05"	0.01"	2,997	0.41	35,265	-32,268	-0.03"	16,390
5/4/1996	26.02"	0.02"	0.00"	0	0.10	8,816	-8,816	-0.01"	7,573
5/5/1996	26.01"	0.01"	0.00"	0	0.10	8,640	-8,640	-0.01"	0
5/6/1996	26.00"	0.00"	0.00"	0	0.00	0	0	0.00"	0
5/7/1996	26.00"	0.00"	0.06"	17,983	0.00	0	17,983	0.02"	17,983
5/8/1996	26.02"	0.02"	0.00"	0	0.10	8,816	-8,816	-0.01"	9,167
5/9/1996	26.01"	0.01"	0.00"	0	0.10	8,640	-8,640	-0.01"	527
5/10/1996	26.00"	0.00"	0.00"	0	0.10	8,640	-8,640	-0.01"	0
5/11/1996	26.00"	0.00"	0.17"	50,953	0.00	0	50,953	0.05"	50,953
5/12/1996	26.05"	0.05"	0.54"	161,851	0.51	44,082	117,770	0.12"	168,723
5/13/1996	26.17"	0.17"	0.65"	194,821	1.63	141,061	53,760	0.05"	222,483
5/14/1996	26.22"	0.22"	0.07"	20,981	2.14	185,143	-164,162	-0.16"	58,321
5/15/1996	26.06"	0.06"	0.17"	50,953	0.51	44,082	6,872	0.01"	65,193
5/16/1996	26.06"	0.06"	0.01"	2,997	0.61	52,898	-49,901	-0.05"	15,292
5/17/1996	26.02"	0.02"	0.30"	89,917	0.10	8,816	81,101	0.08"	96,393
5/18/1996	26.10"	0.10"	0.53"	158,854	0.92	79,347	79,507	0.08"	175,900
5/19/1996	26.17"	0.17"	0.06"	17,983	1.73	149,878	-131,894	-0.13"	44,006
5/20/1996	26.04"	0.04"	0.03"	8,992	0.41	35,265	-26,274	-0.03"	17,733
5/21/1996	26.02"	0.02"	0.11"	32,970	0.10	8,816	24,153	0.02"	41,886
5/22/1996	26.04"	0.04"	0.15"	44,959	0.41	35,265	9,693	0.01"	51,579
5/23/1996	26.05"	0.05"	0.11"	32,970	0.51	44,082	-11,112	-0.01"	40,468
5/24/1996	26.04"	0.04"	0.00"	0	0.31	26,449	-26,449	-0.03"	14,019
5/25/1996	26.01"	0.01"	0.00"	0	0.10	8,816	-8,816	-0.01"	5,202
5/26/1996	26.01"	0.01"	0.00"	0	0.10	8,640	-8,640	-0.01"	0
5/27/1996	26.00"	0.00"	0.00"	0	0.00	0	0	0.00"	0
5/28/1996	26.00"	0.00"	0.00"	0	0.00	0	0	0.00"	0
5/29/1996	26.00"	0.00"	0.00"	0	0.00	0	0	0.00"	0
5/30/1996	26.00"	0.00"	0.00"	0	0.00	0	0	0.00"	0
5/31/1996	26.00"	0.00"	0.00"	0	0.00	0	0	0.00"	0
6/1/1996	26.00"	0.00"	0.00"	0	0.00	0	0	0.00"	0
6/2/1996	26.00"	0.00"	0.00"	0	0.00	0	0	0.00"	0
6/3/1996	26.00"	0.00"	0.00"	0	0.00	0	0	0.00"	0
6/4/1996	26.00"	0.00"	0.00"	0	0.00	0	0	0.00"	0
6/5/1996	26.00"	0.00"	0.00"	0	0.00	0	0	0.00"	0
6/6/1996	26.00"	0.00"	0.00"	0	0.00	0	0	0.00"	0
6/7/1996	26.00"	0.00"	0.00"	0	0.00	0	0	0.00"	0
6/8/1996	26.00"	0.00"	0.00"	0	0.00	0	0	0.00"	0

1995 - 1996 Water Year Rainfall - Culvert Controlled Outlet of Lake Sawyer

Date	Lake Level above Weir	Increase in Lake Level	Rainfall	Additional Volume (in)	Flow (Out)	Additional Volume (Out)	Change in Volume	Change in Lake Elevation	Cumulative Volume
		(inches)	(inches)	(Cu.Ft.)	(CFS)	(Cu.Ft.)	(Cu.Ft.)	(inches)	(Cu.Ft.)
6/9/1996	26.00"	0.00"	0.00"	0	0.00	0	0	0.00"	0
6/10/1996	26.00"	0.00"	0.00"	0	0.00	0	0	0.00"	0
6/11/1996	26.00"	0.00"	0.00"	0	0.00	0	0	0.00"	0
6/12/1996	26.00"	0.00"	0.00"	0	0.00	0	0	0.00"	0
6/13/1996	26.00"	0.00"	0.00"	0	0.00	0	0	0.00"	0
6/14/1996	26.00"	0.00"	0.00"	0	0.00	0	0	0.00"	0
6/15/1996	26.00"	0.00"	0.00"	0	0.00	0	0	0.00"	0
6/16/1996	26.00"	0.00"	0.00"	0	0.00	0	0	0.00"	0
6/17/1996	26.00"	0.00"	0.09"	26,975	0.00	0	26,975	0.03"	26,975
6/18/1996	26.03"	0.03"	0.01"	2,997	0.20	17,633	-14,635	-0.01"	12,340
6/19/1996	26.01"	0.01"	0.00"	0	0.10	8,816	-8,816	-0.01"	3,524
6/20/1996	26.00"	0.00"	0.00"	0	0.10	8,640	-8,640	-0.01"	0
6/21/1996	26.00"	0.00"	0.00"	0	0.00	0	0	0.00"	0
6/22/1996	26.00"	0.00"	0.00"	0	0.00	0	0	0.00"	0
6/23/1996	26.00"	0.00"	0.49"	146,865	0.00	0	146,865	0.15"	146,865
6/24/1996	26.15"	0.15"	0.11"	32,970	1.43	123,429	-90,459	-0.09"	56,406
6/25/1996	26.06"	0.06"	0.00"	0	0.51	44,082	-44,082	-0.04"	12,325
6/26/1996	26.01"	0.01"	0.00"	0	0.10	8,816	-8,816	-0.01"	3,508
6/27/1996	26.00"	0.00"	0.06"	17,983	0.10	8,640	9,343	0.01"	12,852
6/28/1996	26.01"	0.01"	0.00"	0	0.10	8,816	-8,816	-0.01"	4,036
6/29/1996	26.00"	0.00"	0.00"	0	0.10	8,640	-8,640	-0.01"	0
6/30/1996	26.00"	0.00"	0.00"	0	0.00	0	0	0.00"	0
7/1/1996	26.00"	0.00"	0.00"	0	0.00	0	0	0.00"	0
7/2/1996	26.00"	0.00"	0.00"	0	0.00	0	0	0.00"	0
7/3/1996	26.00"	0.00"	0.14"	41,961	0.00	0	41,961	0.04"	41,961
7/4/1996	26.04"	0.04"	0.11"	32,970	0.41	35,265	-2,296	0.00"	39,666
7/5/1996	26.04"	0.04"	0.00"	0	0.31	26,449	-26,449	-0.03"	13,217
7/6/1996	26.01"	0.01"	0.00"	0	0.10	8,816	-8,816	-0.01"	4,401
7/7/1996	26.00"	0.00"	0.00"	0	0.10	8,640	-8,640	-0.01"	0
7/8/1996	26.00"	0.00"	0.00"	0	0.00	0	0	0.00"	0
7/9/1996	26.00"	0.00"	0.00"	0	0.00	0	0	0.00"	0
7/10/1996	26.00"	0.00"	0.00"	0	0.00	0	0	0.00"	0
7/11/1996	26.00"	0.00"	0.00"	0	0.00	0	0	0.00"	0
7/12/1996	26.00"	0.00"	0.00"	0	0.00	0	0	0.00"	0
7/13/1996	26.00"	0.00"	0.00"	0	0.00	0	0	0.00"	0
7/14/1996	26.00"	0.00"	0.00"	0	0.00	0	0	0.00"	0
7/15/1996	26.00"	0.00"	0.00"	0	0.00	0	0	0.00"	0
7/16/1996	26.00"	0.00"	0.00"	0	0.00	0	0	0.00"	0
7/17/1996	26.00"	0.00"	0.19"	56,948	0.00	0	56,948	0.06"	56,948
7/18/1996	26.06"	0.06"	0.52"	155,857	0.51	44,082	111,775	0.11"	168,723
7/19/1996	26.17"	0.17"	0.14"	41,961	1.63	141,061	-99,100	-0.10"	69,623
7/20/1996	26.07"	0.07"	0.01"	2,997	0.61	52,898	-49,901	-0.05"	19,723
7/21/1996	26.02"	0.02"	0.00"	0	0.10	8,816	-8,816	-0.01"	10,906
7/22/1996	26.01"	0.01"	0.00"	0	0.10	8,816	-8,816	-0.01"	2,090
7/23/1996	26.00"	0.00"	0.00"	0	0.10	8,640	-8,640	-0.01"	0
7/24/1996	26.00"	0.00"	0.00"	0	0.00	0	0	0.00"	0
7/25/1996	26.00"	0.00"	0.00"	0	0.00	0	0	0.00"	0
7/26/1996	26.00"	0.00"	0.00"	0	0.00	0	0	0.00"	0
7/27/1996	26.00"	0.00"	0.00"	0	0.00	0	0	0.00"	0
7/28/1996	26.00"	0.00"	0.00"	0	0.00	0	0	0.00"	0
7/29/1996	26.00"	0.00"	0.00"	0	0.00	0	0	0.00"	0
7/30/1996	26.00"	0.00"	0.00"	0	0.00	0	0	0.00"	0
7/31/1996	26.00"	0.00"	0.00"	0	0.00	0	0	0.00"	0
8/1/1996	26.00"	0.00"	0.00"	0	0.00	0	0	0.00"	0
8/2/1996	26.00"	0.00"	0.52"	155,857	0.00	0	155,857	0.15"	155,857
8/3/1996	26.15"	0.15"	0.22"	65,939	1.53	132,245	-66,305	-0.07"	89,552
8/4/1996	26.09"	0.09"	0.06"	17,983	0.82	70,531	-52,547	-0.05"	37,004
8/5/1996	26.04"	0.04"	0.00"	0	0.31	26,449	-26,449	-0.03"	10,555
8/6/1996	26.01"	0.01"	0.00"	0	0.10	8,816	-8,816	-0.01"	1,739
8/7/1996	26.00"	0.00"	0.00"	0	0.10	8,640	-8,640	-0.01"	0
8/8/1996	26.00"	0.00"	0.00"	0	0.00	0	0	0.00"	0
8/9/1996	26.00"	0.00"	0.00"	0	0.00	0	0	0.00"	0
8/10/1996	26.00"	0.00"	0.00"	0	0.00	0	0	0.00"	0

1995 - 1996 Water Year Rainfall - Culvert Controlled Outlet of Lake Sawyer

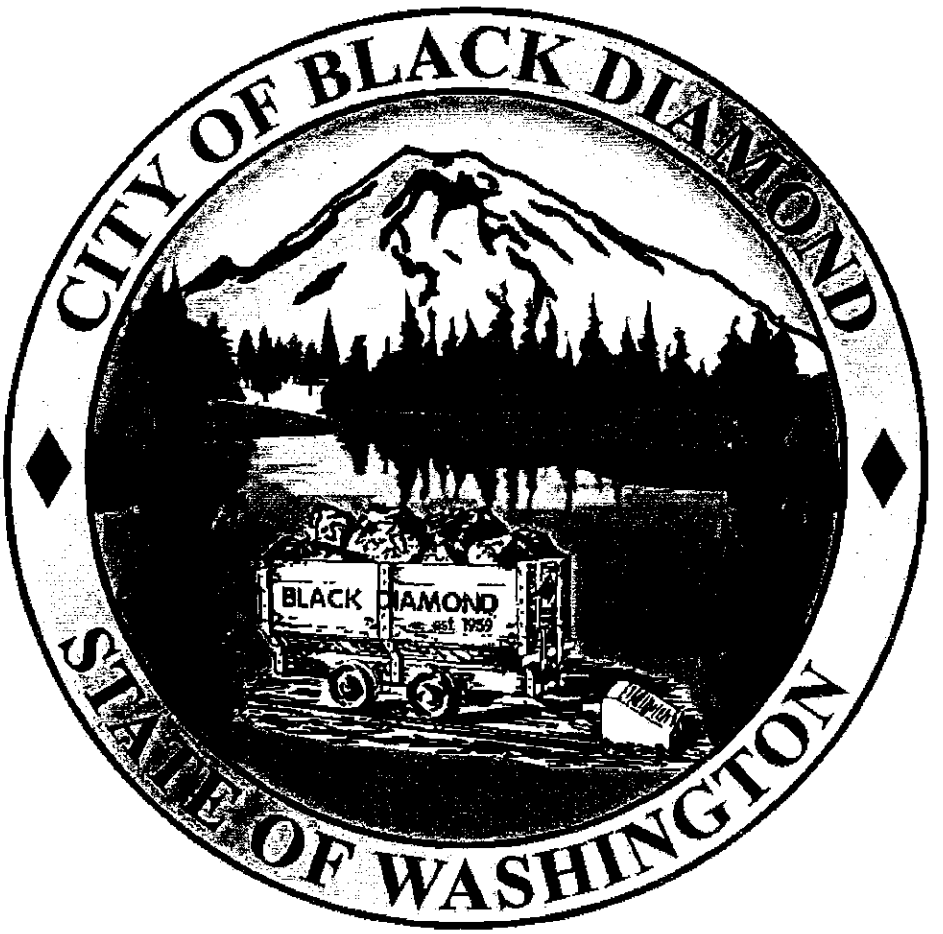
Date	Lake Level above Weir	Increase in Lake Level	Rainfall	Additional Volume (In)	Flow (Out)	Additional Volume (Out)	Change in Volume	Change in Lake Elevation	Cumulative Volume
		(Inches)	(Inches)	(Cu.Ft.)	(CFS)	(Cu.Ft.)	(Cu.Ft.)	(Inches)	(Cu.Ft.)
8/11/1996	26.00"	0.00"	0.00"	0	0.00	0	0	0.00"	0
8/12/1996	26.00"	0.00"	0.00"	0	0.00	0	0	0.00"	0
8/13/1996	26.00"	0.00"	0.00"	0	0.00	0	0	0.00"	0
8/14/1996	26.00"	0.00"	0.00"	0	0.00	0	0	0.00"	0
8/15/1996	26.00"	0.00"	0.00"	0	0.00	0	0	0.00"	0
8/16/1996	26.00"	0.00"	0.00"	0	0.00	0	0	0.00"	0
8/17/1996	26.00"	0.00"	0.00"	0	0.00	0	0	0.00"	0
8/18/1996	26.00"	0.00"	0.00"	0	0.00	0	0	0.00"	0
8/19/1996	26.00"	0.00"	0.00"	0	0.00	0	0	0.00"	0
8/20/1996	26.00"	0.00"	0.00"	0	0.00	0	0	0.00"	0
8/21/1996	26.00"	0.00"	0.00"	0	0.00	0	0	0.00"	0
8/22/1996	26.00"	0.00"	0.00"	0	0.00	0	0	0.00"	0
8/23/1996	26.00"	0.00"	0.00"	0	0.00	0	0	0.00"	0
8/24/1996	26.00"	0.00"	0.00"	0	0.00	0	0	0.00"	0
8/25/1996	26.00"	0.00"	0.00"	0	0.00	0	0	0.00"	0
8/26/1996	26.00"	0.00"	0.00"	0	0.00	0	0	0.00"	0
8/27/1996	26.00"	0.00"	0.00"	0	0.00	0	0	0.00"	0
8/28/1996	26.00"	0.00"	0.00"	0	0.00	0	0	0.00"	0
8/29/1996	26.00"	0.00"	0.00"	0	0.00	0	0	0.00"	0
8/30/1996	26.00"	0.00"	0.04"	11,989	0.00	0	11,989	0.01"	11,989
8/31/1996	26.01"	0.01"	0.09"	26,975	0.10	8,816	18,159	0.02"	30,148
9/1/1996	26.03"	0.03"	0.00"	0	0.20	17,633	-17,633	-0.02"	12,515
9/2/1996	26.01"	0.01"	0.00"	0	0.10	8,816	-8,816	-0.01"	3,699
9/3/1996	26.00"	0.00"	0.29"	86,920	0.10	8,640	78,280	0.08"	81,979
9/4/1996	26.08"	0.08"	0.00"	0	0.82	70,531	-70,531	-0.07"	11,449
9/5/1996	26.01"	0.01"	0.34"	101,906	0.10	8,816	93,090	0.09"	104,539
9/6/1996	26.10"	0.10"	0.01"	2,997	1.02	88,163	-85,166	-0.08"	19,373
9/7/1996	26.02"	0.02"	0.03"	8,992	0.10	8,816	175	0.00"	19,548
9/8/1996	26.02"	0.02"	0.03"	8,992	0.10	8,816	175	0.00"	19,724
9/9/1996	26.02"	0.02"	0.00"	0	0.10	8,816	-8,816	-0.01"	10,907
9/10/1996	26.01"	0.01"	0.00"	0	0.10	8,816	-8,816	-0.01"	2,091
9/11/1996	26.00"	0.00"	0.00"	0	0.10	8,640	-8,640	-0.01"	0
9/12/1996	26.00"	0.00"	0.03"	8,992	0.00	0	8,992	0.01"	8,992
9/13/1996	26.01"	0.01"	0.12"	35,967	0.10	8,640	27,327	0.03"	36,319
9/14/1996	26.04"	0.04"	0.29"	86,920	0.31	26,449	60,471	0.06"	96,790
9/15/1996	26.10"	0.10"	0.36"	107,901	0.92	79,347	28,554	0.03"	125,344
9/16/1996	26.12"	0.12"	0.00"	0	1.22	105,796	-105,796	-0.10"	19,548
9/17/1996	26.02"	0.02"	0.01"	2,997	0.10	8,816	-5,819	-0.01"	13,729
9/18/1996	26.01"	0.01"	0.24"	71,934	0.10	8,816	63,118	0.06"	76,847
9/19/1996	26.08"	0.08"	0.32"	95,912	0.71	61,714	34,198	0.03"	111,044
9/20/1996	26.11"	0.11"	0.00"	0	1.02	88,163	-88,163	-0.09"	22,881
9/21/1996	26.02"	0.02"	0.13"	38,964	0.20	17,633	21,332	0.02"	44,213
9/22/1996	26.04"	0.04"	0.01"	2,997	0.41	35,265	-32,268	-0.03"	11,945
9/23/1996	26.01"	0.01"	0.00"	0	0.10	8,816	-8,816	-0.01"	3,128
9/24/1996	26.00"	0.00"	0.00"	0	0.10	8,640	-8,640	-0.01"	0
9/25/1996	26.00"	0.00"	0.00"	0	0.00	0	0	0.00"	0
9/26/1996	26.00"	0.00"	0.00"	0	0.00	0	0	0.00"	0
9/27/1996	26.00"	0.00"	0.00"	0	0.00	0	0	0.00"	0
9/28/1996	26.00"	0.00"	0.00"	0	0.00	0	0	0.00"	0
9/29/1996	26.00"	0.00"	0.00"	0	0.00	0	0	0.00"	0
9/30/1996	26.00"	0.00"	0.00"	0	0.00	0	0	0.00"	0

Lake Sawyer Outfall Survey

THE VILLAGES
LAKE SAWYER OUTFALL SURVEY
CITY OF BLACK DIAMOND, WASHINGTON
10-001
1 of 1
SCALE: 1" = 30'
BLACK DIAMOND
KING COUNTY
LAKE SAWYER WATER SURFACE
(ELEVATION (AT 12:00 PM
06-27-2011) =322.3'

CITY OF BLACK DIAMOND

2011 FEE SCHEDULE



Adopted by Council
03/03/2011

POLICE		
TYPE	**DESCRIPTION**	**FEE**
Animal License		By King Co Ordinance
Fingerprinting	Non-Resident	$15.00
Fingerprinting	Resident	$10.00
Equipment Deposit	refundable	$350.00
Electronic Monitoring (police)	Per Day, payable in advance	$17.00
Hook Up Fee	One Time Application Fee (non-refundable)	$25.00
	within 20 mile radius	Current IRS Rate
	outside 20 mile radius	Current IRS Rate
Concealed Pistol License		
Original	Original License	$55.25
Renewal	Valid License Renewal	$32.00
Late	Within 90 days after expiration	$42.00
Replacement		$10.00
Process Service		$25.00
Mileage for process service		Current IRS Rate
False Alarm Responses	First Occurrence	None
	Second Occurrence per year	$50.00
	Third or more per year	$75.00
Discovery	No charge for one copy of documents provided in compliance with defense requests on Muni Court cases	$0.00
	others:	$0.15
Civil Service Testing	Per Applicant	Contract w/ Public Safety Testing
Work Release	Per day, payable in advance	Contract Amount
Traffic Safety School		$200.00
Booking Processing Fee	Per booking	Contract Rate
Police reports	Per Case Reports	$0.15 per page
Photographs		
Copies	each	$0.15
Originals	each	$8.00
Video Tape Reproduction	each	$50.00
CD Reproduction	each	$10.00
Audio Tape Reproduction	each	$10.00
Expurngements		$35.00
Firearms Clearance Letter	For Foreign Countries	$15.00
Local Record Clearance Letter	In-House Records Check	$15.00
Vehicle Storage	For other PD only, per day	$1.50
Work Crew	screening fee (non-refundable)	$25.00
	per day, state fee	$15.00

PUBLIC WORKS - STREETS		
TYPE	**DESCRIPTION**	**FEE**
Right-of-Way Use Permit	incld. 2 Inspect. & 1/2hr City Review	$250.00
ROW Extra Inspection	1 hour minimum, per hour	$95.00
ROW Extra City Staff Review	1 hour minimum, per hour	$50.00
Fines- ROW Use Permits	Failure to call for an inspection	$1,000.00
Street Cleaning		Cost, plus 10%
Public Works Variance	Application & Review Fee	$1,000.00
	Professional Svcs/Consultant Review	Actual cost plus 10%
Street Signs Charge	Sign Purchase	Actual cost plus 10%
	Installation	Hourly Rates
Street, Alley, City Property Vacations	Application Fees	$750.00
	Deposit	$1,000.00
U.L.I.D. or L.I.D.	City Costs	Actual Costs plus 10%

PUBLIC WORKS - WATER		
TYPE	**DESCRIPTION**	**FEE**
Unauthorized connection	no meter present or bypassing	$1,200.00
Meter Testing charge		Cost plus actual staff time
Customer Requested Turn Off	After Business Hours, 2 hour min.	staff time
Lifeline Utility Relief Rate	City water, sewer, & stormwater only (excluding KC Metro)	50%
DROP IN METER CHARGES		
5/8" meter	City Installed	$500.00
3/4" meter	City Installed	$500.00
1" meter	City Installed	$600.00
1-1/2" meter thru 6" meter	City Installed	meter cost, plus 10%
Irrigation 5/8" meter	City Installed	$500.00
Installation of water service charges	Homeowner incurs ALL costs, plus deposit per BDMC 13.040.050	Deposit $1000.00
Installation Re-Inspection Fees		Hourly Rates, 30 min. minimum
Connection Fee		Per BDMC 13.04.280
Door Hanger Charge, Warning		$10.00
Door Hanger w/ Shut Off		$20.00
Unpaid Account Reconnect Fee	During Working Hours	$25.00
	After Working Hours	1 1/2 time, 2hr minimum
	Holidays	Double Time, 2hr minimum
Lien Release		$120.00
Meter Rental/water purchase	Collect Deposit, Connect Fee, Rental Rate	Deposit $1000.00
	Connection Fee dbl. current basic rate plus	Rental, per day $25.00
	Connection Fee dbl. current basic rate plus	Rental, per week $100.00
	Connection Fee dbl. current basic rate plus	Rental, per month $250.00

Water Investigation Certificates	Residential	$100.00
	Multi-Family, Commercial, Industrial, Public	$200.00
Hydraulic Model for Water System	Deposit	$500.00
Non-Account Water Purchase		Double out of city rates
Water Equipment and Parts		Actual Costs plus 10%

PUBLIC WORKS - SEWER		
TYPE	**DESCRIPTION**	**FEE**
Sewer Connection Fee		Per BDMC 13.20.080
Sewer Investigation Certificates	Residential	$100.00
	Multi-family, Commercial, Industrial, Public	$200.00
Engineered Hydraulic Flows to Sewer System	Deposit	$1,000.00
Side Sewer Re-Inspection Fee		Hourly rate, 30min. Minimum
PW Plan Review		Hourly rate

PUBLIC WORKS - CLEARING & GRADING, CIVIL		
TYPE	**DESCRIPTION**	**FEE**
Clearing & Grading Permit Fee	Permit Fee	$190.00
	Inspection Fee	3% of total cost of the project
	Plan Review Fee	
	Clearing Only	$70.00
	0-50 Cubic Yards	$130.00
	51-100 Cubic Yards	$240.00
	101-1,000 Cubic Yards	$510.00
	1,001-10,000 Cubic Yards	$760.00
	10, 001-100,000 Cubic Yards	$1,000.00
	100,001-Cubic Yards and up	$1,240.00
Civil Plan-Commercial, Multi-Family, Short Plat Projects	Engineering Plan Review Fee	$470.00 (plus an additional per hour rate if review exceeds 5 hours, as outlined in Note 1)
	Engineering Permit Fee	$300.00
	Inspection Fee	3% of total cost of the project
	As-Built Review Fee	$200.00
	Engineering Alternative Methods Request (per item)	$250.00
Civil Plan-Long Plat Projects	Engineering Plan Review Fee	$470.00 (plus an additional per hour rate if review exceeds 5 hours, as outlined in Note 1)
	Engineering Permit Fee	$1,370.00
	Inspection Fee	3% of total cost of the project
*Note 1: Hourly rates will be charged using the current billable rates of City Staff.		

PUBLIC WORKS - UTILITY EMERGENCY CALL OUT CHARGES		
TYPE	**DESCRIPTION**	**FEE**
Emergency Repair	Working hours, if prior locate	Time and materials
	Working hours, if no locate	3 times, time and materials
	After hours, if prior locate	1 1/2 Time and materials
	After hours, no locate	3 Times, 1 1/2 time and material
	Holidays	Double time to above rates
Equipment Fee without Operator	City Dump Truck	$75.00 per hour
	City Vehicle	$50.00 per hour
	City Backhoe	$75.00 per hour
	Miscellaneous Utility Equipment	$25.00 per hour
	Parts	Cost plus 10%

PUBLIC WORKS - CEMETERY		
TYPE	**DESCRIPTION**	**FEE**
Opening and Closing	For Normal Lots	$500.00
Opening and Closing	For Cremation	$100.00
Single Lot Purchase		$1,500.00
Double Lot Purchase (2 lots)		$2,500.00
Saturday Service - Burial	11am to 1pm	$1,000.00
Saturday Service - Cremation	11am to 1pm	$250.00
Liner		Actual Cost plus 10%
Liner Setting Fee		$250.00
Vault		Actual Cost plus 10%
Vault Setting Fee		$250.00
Niche	Single	$325.00
	Double	$425.00
Head Stone Placement	Normal, up to 44" x 20"	$100.00
	Oversized Stone	$.15 per square inch
Exhumation		Lesser of $5000.00 or Actual Contract Cost

PLANNING/LAND USE		
TYPE	**DESCRIPTION**	**FEE**
Consultant Fees	NOTE: some applications will require the use of outside consultants. See BDMC 2.60.050	Actual Cost plus 10%
	Deposit	$1000 min, per consultant quote
Preliminary Plat	Base Application Fee	$2,000.00
	per lot charge	$100.00
	Plat Alteration or Vacation	$1,500.00
	Time Extension - 1 year	$1,000.00
Final Plat	Base Application Fee	$1,500.00
	per lot charge	$100.00
Binding Site Plan	Base Application Fee	$1,500.00
	per lot charge	$100.00

Preliminary Short Plat	Base Application Fee	$750.00
	per lot charge	$100.00
	modified short plat	$750.00
Final Short Plat	Application Fee	$750.00
Lot Line Adjustment	Residential application fee	$300.00
	Non-Residential application fee	$600.00
Lot Line Elimination	Application Fee	$250.00
Master Plan Development	Application Fee	$25,000.00
	per acre charge	$100.00
Development Agreement	Application Fee	$1,500.00
	staff review time	Staff Hours + 10%
Annexation	10% Notice of Intent	$1,000.00
	60% Petition	$5000 deposit, actual staff time
Conditional Use	Application Fee	$1,000.00
Administrative Conditional Use	Application Fee	$250.00
Variance	Single Family Lot	$500.00
	All Others	$1,000.00
Administrative Variance	Application Fee	$250.00
Accessory Dwelling Unit	Application Fee	$250.00
Shoreline Exemption	Application Fee	$100.00
Shoreline Substantial Development	Application Fee	$1,000.00
Shoreline Variance	Application Fee	$1,000.00
Shoreline Conditional Use	Application Fee	$1,000.00
Site Plan Review	Application Fee	$750.00
Comp Plan Amendment	Application Fee	$2,000.00
Rezone	Application Fee	$1,000.00
SEPA Checklist	w/ land use or permit application	$400.00
	w/o permit application	$500.00
	for each additional study	$250.00
Environmental Impact Statement	Per consultant contract	Actual Costs plus 10%
Appeal of Administrative Decision	Application Fee	$250.00
Appeal of SEPA action	Application Fee	$250.00
Appeal of Notice of Violation	Application Fee	$250.00
Temporary Use Permit	Application Fee	$100.00

Transfer Development Rights	Application Fee	$500.00
	per development credit	$50.00
	Treasured Place Status	$250.00
Tree Permit	Level 1 application Fee	$250.00
	Level 2 application Fee	$500.00
Reasonable Use Exception	Application Fee	$250.00
Sensitive Areas Permit	Application Fee	$500.00
Sensitive Area Utility Exception	Application Fee	$1,000.00
Formal Code Interpretation	Application Fee	$150.00
Pre-Application Meeting	1 hour meeting and review of submittal	No Charge
	Additional meetings	$200.00
Hearing Examiner	Hearing Fee	$750.00
	actual costs	Hourly Rate + 10%
Public Notice Boards	Per BDMC 18.08	3rd Party Vendor Charge
Signs		
Wall Sign, non electric	25-50sf, 51-99sf, 100+ sf	$100.00, $150.00, $200.00
Wall Sign, electric	25-50sf, 51-99sf, 100+ sf	$120.00, $170.00, $220.00
Ground, non-electric	25-50sf, 51-99sf, 100+ sf	$140.00, $190.00, $240.00
Ground, electric	25-50sf, 51-99sf, 100+ sf	$160.0, $210.00, $260.00
All signs less than 25sf		$90.00
Change of sign, all sizes		$90.00
Permit Review	per hour	$47.00

BDMC 2.62.012 may require the posting of a deposit and payment of actual city costs for certain permits.

Deposits that are listed on the General Fee Schedule are require to be paid in addition to the Permit Fees. The Deposit is used to cover staff costs, engineering, and or other professional consultant costs plus 10%. Deposits will be tracked on a monthly basis. If the cost exceeds the deposit, an additional deposit invoice will be sent in writing. If the additional deposit is not paid within 30 days, the city may discontinue review or work on the project or deem the project incomplete.

At the end of the project, the city will invoice in writing any final costs over the deposits, or refund any remaining balance to the person who made the deposit. Final invoices are due within 30 days.

BUILDING - FIRE		
TYPE	**DESCRIPTION**	**FEE**
Building Permit Fee	Based on Project Valuation	See page 10
Building Plan Check Fee	Based on Project Valuation	65% of permit fee, see page 10
Mechanical Permit	Flat Fee plus fixture count	See page 12
Plumbing Permit	Flat Fee plus fixture count	See page 11
Change of Use w/o a TI	Permit Fee & Deposit	$200 deposit, actual staff hours
Demo - SFR, out-building etc.	Permit Fee & Deposit	$120 permit, $1000 deposit
Relocation Permit (incl mfg home)		$200.00
Mobile Home Title Elimination	Permit Fee	$100.00
Driveway (stand alone)	expansion & new	$200.00
Re-Roof permit - Residential	Permit Fee	$100.00
Re-Roof permit - Commercial/ MF	Permit Fee & Plan Check	based on valuation, see page 10

Miscellaneous Permit	Permit Fee	$100 deposit + actual hours
Investigation Fee-Work w/o a permit	Permit Fee	Double Req'd permit fees
Temporary Certificate of Occupancy	Per 30 day TCO	$250.00
Permit Extension	180 day extension	$50.00
Consultant/Peer Review	consultant fees	per contract plus 10%
Fire Permit	Base Fee	$100.00
Fire Sprinkler/Alarm System Review	Plan Review & Inspection Fee	per contract plus 10%
Fireworks Display	Plan Review & Inspection Fee	per contract plus 10%
Temporary Fireworks Stand	Permit Fee	$100.00
	Removal Bond-refundable	$750.00
Fuel/Oil Tanks Decommission/Remove	Base Permit Fee	$100.00
	Plan Review & Inspection Fee	per contract plus 10%
Residential LPG Tanks	Base Permit Fee	$120.00
	Tank Under 125 gallons, additional	$45.00
	126 to 500 gallons, additional	$70.00
	501 gallons and up, additional	$95.00
	Each 500 gallons additional	$120.00

LICENSES

TYPE	DESCRIPTION	FEE
Regular Business License	0-50 employees	Initial Fee $70 Renewal $60
	51-100 employees	Initial Fee $130 Renewal $120
	101 or more employees	Initial Fee $210 Renewal $200
Regular Business License (partial)	Pro-rate: 50% fee reduction after June 30	$35.00
Temp Business License (30 days)	per 30 day license, maximum of 2 per year	$15.00
Duplicate Business License	per copy	$10.00
Relocation/Re-issue	business moves locations	$10.00
Specialty Licenses		
Pawnbrokers	Yearly	$100.00
Firearms Dealer	Federal Firearms License, yearly	$125.00
Solicitors and mobile vendors	per day	$15.00
	per month	$50.00
	per year	$150.00
Carnivals, circus, and shows	per event	$50.00
Adult Entertainment License	per establishment	$1,000.00
	operator license	$100.00
	employees license	$50.00
Penalty, Late Renewal Payment	Feb 1-28	$10.00
	Mar 1-31	$20.00
	April 1-30	$30.00
	May 1 and after	double renewal fee, collections

CITY STAFF RATES

TYPE	DESCRIPTION	FEE
City Administrator	Per Hour	$93.00
Asst. City Administrator/City Clerk	Per Hour	$78.00
Deputy City Clerk	Per Hour	$46.00
Finance Director	Per Hour	$69.00
Deputy Finance Director	Per Hour	$59.00
Senior Accountant	Per Hour	$34.00
Community Development Director	Per Hour	$70.00
Permit Technician Supervisor	Per Hour	$52.00

Permit Technician	Per Hour	$45.00
Economic Development Director	Per Hour	$72.00
Natural Resources	Per Hour	$73.00
Building Official/Code Official	Per Hour	$52.00
Public Works Director	Per Hour	$80.00
Public Works Admin. Asst. 3	Per Hour	$45.00
Utilities Supervisor	Per Hour	$72.00
Utility Operator	Per Hour	$43.00
Utility Worker	Per Hour	$39.00
Facilities Coordinator	Per Hour	$49.00
Police Chief	Per Hour	$90.00
Police Officer w/ vehicle	Per Hour	$75.00
Police Officer w/o vehicle	Per Hour	$60.00
Associate Planner	Per Hour	$45.00
Information Services Manager	Per Hour	$71.00
Clerical Staff	Per Hour	$28.00
City Engineer		Per Contract + 10%
City Attorney		Per Contract + 10%
Landscape Architect		Per Contract + 10%
Consultant Planner		Per Contract + 10%
Other Consultant or Contractors		Per Contract + 10%
Hearing Examiner		Per Contract + 10%

PARKS		
TYPE	**DESCRIPTION**	**FEE**
Liquor Use Permit	Per Event	$25.00
Overnight Camping Permit	Per Campsite	$10.00
Vending Permit	Per Event	$50.00
Overnight Moorage Permit	Per Boat	$10.00

PASSPORTS		
TYPE	**DESCRIPTION**	**FEE**
Passport Applications must be accompanied by 2 checks, one for the passport fee and one for the execution fee. The passport fee check is made payable to the US Department of State. The execution fee check is made payable to the City of Black Diamond.		
Passport Book		
Passport Fee **	Age 16 and over	$110.00
Execution Fee		$25.00
		Total $135.00
Passport Fee **	Under Age 16	$80.00
Execution Fee		$25.00
		Total $105.00
Passport Card		
Passport Fee **	Age 16 and over	$30.00
Execution Fee		$25.00
		Total $55.00
Passport Fee **	Under Age 16	$15.00
Execution Fee		$25.00
		Total $40.00
Expediting Fee (Book Only)		$60.00
File Search Fee		$150.00
Overnight Deliver Return Fee	Passport book only	$12.72
** Other conditions and restrictions may apply, see City Clerk's office for more details.		

MISCELLANEOUS FEES		
TYPE	**DESCRIPTION**	**FEE**
Photocopying	per page	$0.15
Oversize Documents/Plotter copies	per page, black & white	$5.00
	per page, color	$7.00
Duplication Audio Tapes CD's	Per tape/CD	$10.00
Transcription Preparation	staff time or outside agency	actual cost
Notary Public Work		$10.00
King County Recording Fee	Per page, pass through King County fees	actual cost per King County
Return Check Fee		$35.00
Return Check Fee plus door hanger for utility payments		$45.00
Computer Printout List	Set up Fee	$25.00
	1st 100 pages of printout	$0.20
	All Additional Pages	$0.20
City of Black Diamond Maps		$5.00
Black Diamond Zoning Map	Oversized 18x24 or larger	$7.00
	11x17	$3.00
Zoning Ordinance		$50.00
Comprehensive Plan		$85.00
Water Comp Plan		$80.00
Sewer Comp Plan		$80.00
Municipal Code		Current Publishing Price
Public Works Standards		$50.00
Stormwater Ordinance		$25.00
BD Design Standards & Guidelines		$50.00
Each Section		$10.00

Table 1-A BUILDING PERMIT FEES

TOTAL VALUATION	FEE
$ 1.00 TO $500.00	$26.00
$501.00 TO $2,000.00	$26.00 for the first $500.00 plus $3.35for each additional $100.00, or fraction thereof, to and including $2,000.00
$2,001,00 TO $25,000.00	$76.20 for the first $2,000.00 plus $15.40 for each additional $1,000.00, or fraction thereof, to and including $25,000.00
$25,001.00 TO $50,000.00	$430.40 for the first $25,000.00 plus $11.10 for each additional $1,000,00, or fraction thereof, to and including $50,000.00
$50,001.00 TO $100,000.00	$708.20 for the first $50,000.00 plus $7.70 for each additional $1,000.00, or fraction thereof, to and including $100,000.00
$100,001.00 TO $500,000.00	$1093.20 for the first $100,000.00 plus $6.15 for each additional $1,000.00, or fraction thereof, to and including $500,000.00
$500,001.00 TO $1,000,000.00	$3556.30 for the first $500,000.00 plus $5.25 for each additional $1,000.00, or fraction thereof, to and including $1,000,000.00
$1,000,001.00 AND UP	$6169.65 for the first $1,000,000.00 plus $4.05 for each additional $1,000.00, or fraction thereof

Other **Inspections and** Fees:

1. Inspections outside of normal business hours .....$100.00 per hour' (Minimum charge - two hours)
2. Re-Inspection fees .....$75.00 per assessment'
3. Inspections for which no fee is specifically indicated .....$75.00 per hour'
   (Minimum charge - one hour)
4. Additional plan review due to additions or revisions to plans .....$84.00 per hour'
   (Minimum charge - one hour)
5. Additional plan review due to Deferred Submittals .....$84.00 per hour'
   (Minimum charge - I hour)
6. For use outside consultants for plan checking and Inspections or both .....Actual cost + 10%
7. Plan review shall be 65% of the permit fee when required,

Public Improvement Projects Fee Wavier. The city administrator may, in his discretion, waive any or all of the permit fees required under the International Building Code and any amendments thereto, for any public improvement project for which the city is providing some or all of the funding for said project.

'Or the total hourly cost to the jurisdiction, whichever is the greatest. This cost shall include supervision, overhead, equipment, hourly wages and fringe benefits of the employees involved.

PLUMBING PERMIT FEES

Permit Issuance

1. For issuing each permit	$22.00
2. For issuing each supplemental permit	$11.00

Unit Fee Schedule (note the following do not include permit-issuing fee):

1. For each additional plumbing fixture on one trap or a set of fixtures on one trap (including water, drainage piping and back flow protection thereof)	$8.00
2. For each building sewer and each trailer park sewer	$17.00
3. Rainwater systems - per drain (inside building)	$8.00
4. For each water heater and/or vent	$8.00
5. For each industrial waste pretreatment interceptor including its trap and vent except kitchen-type grease interceptors functioning as fixture traps	$8.00
6. For each installation, alteration or repair or water piping and/or water treatment, each	$8.00
7. For each repair or alteration of a drainage or vent piping, each fixture	$8.00
8. For each lawn sprinkler system on any one meter incldluing back flow protection devices thereof	$8.00
9. For atmospheric-type vacuum breakers not includied in item 12:	
1 to 5	$6.00
over 5, each	$1.00
10. For each backflow protective device other than atmospheric type vacuum breakers:	
2 inch (51 mm) diameter and smaller	$17.00
over 2 inch (51 mm) diameter	$44.00
11. For initial installation and testing for a reclaimed water system	$33.00
12. For each annual cross-connection testing of a reclaimed water system (excluding	$33.00
13. For each medical gas piping system serving one to five inlet(s)/outlet(s) for a specific gas	$55.00
14. For each additional medical gas inlet(s)/outlet(s)	$6.00
15. Spa & Hot Tubs	Fixtures count + $84.00/hr plan review
16. Swimming Pool	Fixtures count + $84.00/hr plan review

Other Inspections and Fees:

1. Inspections outside of normal business hours	$84.00 *
2. Re-inspection fee	$84.00 *
3. Inspections for which no fee is specifically indicated	$84.00 *
4. Additional plan review reauired by changes, additions or revisions to approved plans (min. charge one-half hour)	$84.00 *

*Building Official Contract fee + 20%

MECHANICAL PERMIT FEES

Permit Issuance and Heaters:

1. For issuing each permit	$26.00
2. For issuing each supplemental permit for which the original permit has not expired, been canceled or finaled	$8.00

Unit Fee Schedule (Note: the following do not include permit-issuing fee):

1. Furnaces

For the installation or relocation of forced-air or gravity-type furnace or burner, including ducts and vents attached to such appliance up to and including 100,000 btu/h (29.3kW)	$16.00
For the installation or relocation of forced-air or gravity-type furnace or burner, including ducts and vents attached to such appliance over 100,000 Btu/h (29.3kW)	$20.00
For the installation or relocation of each floor furnace, including vent	$16.00
For the installation or relocation of each suspended heater, recessed wall heater or floor mounted unit heater	$16.00

2. Appliance Vents

For the installation, relocation or replacement of each appliance vent installed and not included in an appliance permit	$8.00

3. Repairs or Additions

For the repair of, the alteration of, or addition to each heating appliance, refrigeration unit, cooling unit, absorption unit, or each heating, cooling, absorption or evaporative cooling system, including installation of controls regulated by the Mechanical Code	$15.00

4. Boilers, Compressors and Absorption Systems

For the installation or relocation of each boiler or compressor to and including 3 horsepower (10.6kW) or each absorption system to and including 1,000,000 BTU/h	$16.00
For the installation or relocation of each boiler or compressor over 3 horsepower (10.6kW) to and including 15 horsepower (52.7kW) to and including 30 horsepower (105.5kW) or each absorption system over 500,000btu/h (146.6kW) to and including 1,000,000 Btu/h (293.1kW)	$41.00
For the installation or relocation of each boiler or compressor over 30 horsepower (105.5kW) to and including 50 horsepower (176kW) or each absorption system over 1,000,000btu/h (293.1kW) to and including 1,750,000 Btu/h (512.9kW)	$61.00
For the installation or relocation of each boiler or compressor over 50 horsepower (176kW), or each absorption system over 1,750,000 Btu/h (512.9kW)	$102.00

5. Air Handlers

For each air handling unit to and including 10,000 cubic feet per minute (cfm) (4719 L/s), including ducts attached therto (Note: This fee does not apply to an air-handling unit which is a portion of a factory-assembled appliance cooling system, evaporative cooler or absorption unit for which a permit is required elsewhere in the Mechanical Code)	$12.00

For each air-handling unit over 10,000 cfm (4719 L/s)	$20.00

6. Evaporative Cooler

For each evaporative cooler other than a portable type	$12.00

7. Ventilation and Exhaust

For each ventilation fan connected to a single duct	$8.00
For each ventilation system which is not a portion of any heating or air-conditioning system authorized by a permit	$12.00
For the installation of each hood which is served by a mechanical exhaust, including the ducts for each hood	$12.00

8. Incenerators

For the installation or relocation of each domestic-type incinerator	$16.00
For the installation or relocation of each commercial or industrial type incinerator	$16.00

9. Gas Piping

Gas piping systems 1-5 outlets	$15.00
For each additional gas outlet over 5	$2.00

10. Miscellaneous

For each appliance or piece of equipment regulated by the Mechanical Code but not classed in other appliance categories or for which no other fee is listed in the table	$12.00

Other Inspections and Fees:

1. Inspections outside of normal business hours, per hour (min. charge 2 hours)	$84.00 *
2. Inspections for which no fee is specifically indicated, per hour (min. charge one-half hour)	$84.00 *
3. Revisions to plans or to plans for which an initial review has been completed (min. charge one-half hour)	$84.00 *

*Building Official Contract fee + 20%

BEFORE THE CITY OF BLACK DIAMOND
HEARING EXAMINER

IN RE: THE MATTER OF DEVELOPMENT AGREEMENT HEARINGS LAWSON HILLS PLN10-0021; PLN11-0014 THE VILLAGES PLN10-0020; PLN11-0013	**DECLARATION OF KEVIN THOMAS**

I, Kevin Thomas, declare as follows:

1. I am the Senior Site Designer for Yarrow Bay Holdings LLC, a wholly owned subsidiary of BRNW, Inc., a member of Yarrow Bay Development, LLC, which is the General Partner of both BD Lawson Partners, LP and BD Village Partners, LP.

2. I am over the age of 18, am competent to be a witness, and all statements made herein are of my own personal knowledge.

3. I make the following statement for Respondents, BD Lawson Partners, LP, and BD Village Partners, LP.

4. Attached hereto are true and correct copies of Exhibits 7F, 7G, and 7H in the Development Agreement Hearings (Lawson Hills PLN10-0021; PLN11-0014 and The Villages PLN10-0020; PLN11-0013) before the Black Diamond Hearing Examiner.

5. I provide the following information regarding the photographs on Exhibit 7F:

A. Front Loaded Homes

- Left Photo
  Description: Grey-Brown Front Loaded Home
  Location: 2143 NE Nelson Lane, Issaquah Highlands, Issaquah, WA
  Photo taken by: Kevin Thomas

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Seattle, WA 98104
office 206 587 0700 fax 206 587 2308

Photo taken on: May 27, 2011

- Middle Photo
  Description: Brown-Green Front Loaded Home
  Location: 11725 171st Pl NE, Redmond, WA
  Photo taken by: Kevin Thomas
  Photo taken on: June 21, 2011

- Right Photo
  Description: Grey-Blue Front Loaded Home
  Location: 1485 24th Avenue NE, Issaquah Highlands, Issaquah, WA
  Photo taken by: Kevin Thomas
  Photo taken on: May 27, 2011

B. Alley Loaded Homes

- Left Photo
  Description: Two homes with park in front
  Location: 6765 192nd Place, NE, Redmond, WA
  Photo taken by: Kevin Thomas
  Photo taken on: July 1, 2011

- Middle Photo
  Description: Green Alley Loaded Home
  Location: 19132 NE 65th Way, Redmond, WA
  Photo taken by: Kevin Thomas
  Photo taken on: July 1, 2011

- Right Photo
  Description: Yellow Detached Alley Loaded Home
  Location: 9469 Northtown Drive, Bainbridge Island, WA
  Photo received from: Fusionhappens, LLC

C. Cottage Homes

- Left Photo
  Description: Two Cottage Homes with park in front
  Location: 10508 128th Avenue NE, Kirkland, WA
  Photo taken by: Kevin Thomas
  Photo taken on: June 17, 2011

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- Middle Photo
  Description: Red Cottage Home
  Location: 13306 NE 111th Court, Kirkland, WA
  Photo taken by: Kevin Thomas
  Photo taken on: June 17, 2011

- Right Photo
  Description: Peach Colored Cottage Home
  Location: 13306 NE 111th Court, Kirkland, WA
  Photo taken by: Kevin Thomas
  Photo taken on: June 17, 2011

6. I provide the following information regarding the photographs on Exhibit 7G:

D. Townhomes

- Left Photo
  Description: Yellow, White, and Red Townhome
  Location: 9837 9th Avenue SW, Seattle, WA
  Photo taken by: Kevin Thomas
  Photo taken on: February 2, 2011

- Middle Photo
  Description: Olive/Gray Townhome
  Location: 12072 Minor Way, Mukilteo, WA
  Photo taken by: Kevin Thomas
  Photo taken on: November 1, 2010

- Right Photo
  Description: Olive, Gray and Green Townhome
  Location: 165 Wakesiah Avenue, Nanaimo, BC
  Photo received from: Randal Arendt

E. Senior Living

- Left Photo
  Description: Sunrise Bellevue
  Location: 15928 NE 8th Street, Bellevue, WA
  Photo taken by: Kevin Thomas
  Photo taken on: June 20, 2011

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- Middle Photo
  Description: Merrill Gardens
  Location: 14905 Bothell Everett Highway, Mill Creek WA
  Photo taken by: Kevin Thomas
  Photo taken on: November 1, 2010

- Right Photo
  Description: Providence Highpoint
  Location: 3201 SW Graham Street, Seattle, Washington
  Photo taken by: Kevin Thomas
  Photo taken on: February 2nd, 2011

F. Multi Family Homes

- Left Photo
  Description: Corner photo, heavily landscaped
  Location: 16028 NE 94th Way, Redmond, WA
  Photo taken by: Kevin Thomas
  Photo taken on: June 21, 2011

- Middle Photo
  Description: Three story with water feature
  Location: 15850 NE 98th Way, Redmond, WA
  Photo taken by: Kevin Thomas
  Photo taken on: June 21, 2011

- Right Photo
  Description: Two story corner at intersection
  Location: 15850 NE 98th Way, Redmond, WA
  Photo taken by: Kevin Thomas
  Photo taken on: June 21, 2011

7. I provide the following information regarding the photographs on Exhibit 7H:

G. Commercial / Retail

- Left Photo
  Description: Produce Department at PCC
  Location: 620 North 34th Street, Seattle, WA
  Photo taken by: Lauri Fehlberg

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office 206 587 0700 fax 206 587 2308

Photo taken on: January 13, 2011

- Middle Photo
  Description: Ravenna Gardens University Village, Seattle WA
  Location: 2600 N.E. University Village Street, Seattle, WA
  Photo taken by: Lauri Fehlberg
  Photo taken on: January 13, 2011

- Right Photo
  Description: Retail Shops, Plaza
  Location: 2618 NE University Village Street, Seattle, WA
  Photo taken by: Lauri Fehlberg
  Photo taken on: January 13, 2011

H. Parks & Open Space

- Left Photo
  Description: Open Lawn Park with play structure
  Location: 2300 block SE 239th Place, Maple Valley, WA
  Photo taken by: Kevin Thomas
  Photo taken on: July 8, 2011

- Middle Photo
  Description: Pea Patch
  Location: 3100 block SW Juneau Street, Seattle, WA
  Photo taken by: Kevin Thomas
  Photo taken on: August 25, 2009

- Right Photo
  Description: Wetland with Skunk Cabbage
  Location: Parcel B, Black Diamond WA
  Photo taken by: Kevin Thomas
  Photo taken on: June 12, 2008

I. Storm Facilities

- Small Photo: Representative photo of an Open water Wet Pond from The Reserve in Covington, WA

- Left Photo
  Description: Landscaped Swale

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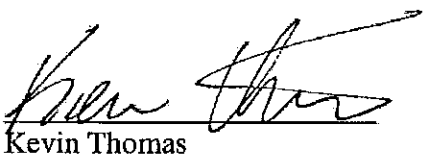
Location: 23100 block SE 239th Place, Maple Valley, WA
Photo taken by: Kevin Thomas
Photo taken on: July 8, 2011

- Middle Photo
  Description: Open Water Wet Pond
  Location: 25900 block, 163rd Avenue SE, Covington, WA
  Photo taken by: Kevin Thomas
  Photo taken on: July 8, 2011

- Right Photo
  Description: Open Water Wet Pond
  Location: 25900 block 163rd Avenue SE, Covington, WA
  Photo taken by: Kevin Thomas
  Photo taken on: July 8, 2011

I DECLARE UNDER PENALTY OF PERJURY, UNDER THE LAWS OF THE STATE OF WASHINGTON, THAT THE FOREGOING IS TRUE AND CORRECT.

DATED this 29th day of July, 2011, in Kirkland, Washington.



Kevin Thomas

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office 206 587 0700 fax 206 587 2308

A - Front Loaded Homes

B - Alley Loaded Homes

C - Cottage Homes

The Villages - Phase 1A Representative Images

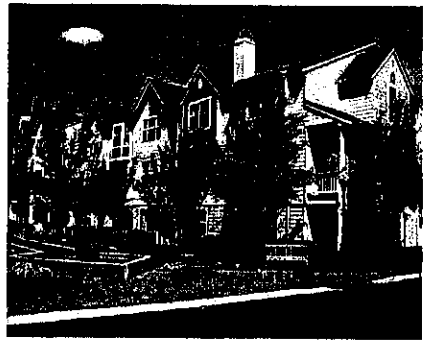
YARROWBAY HOLDINGS

7F

D - Townhomes

E - Senior Living

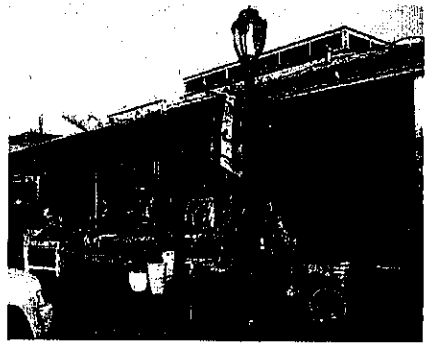
F - Multi-Family Homes

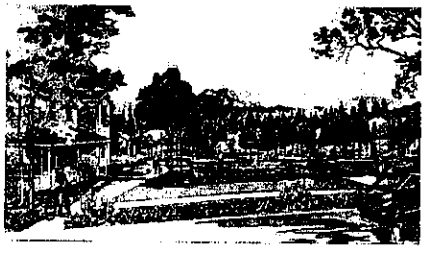


The Villages - Phase 1A Representative Images

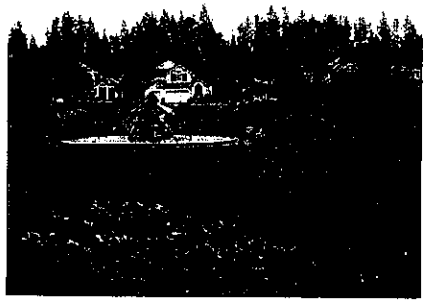
YARROWBAY HOLDINGS

G - Commercial / Retail





H - Parks & Open Space



I - Storm Facilities

The Villages - Phase 1A Representative Images

YARROWBAY HOLDINGS

7H

BEFORE THE CITY OF BLACK DIAMOND
HEARING EXAMINER

IN RE: THE MATTER OF DEVELOPMENT AGREEMENT HEARINGS LAWSON HILLS PLN10-0021; PLN11-0014 THE VILLAGES PLN10-0020; PLN11-0013	**DECLARATION OF RYAN J. KOHLMANN**

I, Ryan J. Kohlmann, declare as follows:

1. I am the Senior Project Manager for Yarrow Bay Holdings LLC, a wholly owned subsidiary of BRNW, Inc., a member of Yarrow Bay Development, LLC, which is the General Partner of both BD Lawson Partners, LP and BD Village Partners, LP.

2. I am also a member of the Design Review Committee (DRC) for both The Villages Master Planned Development and the Lawson Hills Master Planned Development.

3. I am over the age of 18, am competent to be a witness, and all statements made herein are of my own personal knowledge.

4. I make the following statement for Respondents, BD Lawson Partners, LP, and BD Village Partners, LP.

5. Attached hereto are true and correct copies of Exhibits 7F, 7G, and 7H in the Development Agreement Hearings (Lawson Hills PLN10-0021; PLN11-0014 and The Villages PLN10-0020; PLN11-0013) before the Black Diamond Hearing Examiner.

6. All images on Exhibits 7F, 7G and 7H comply with the City of Black Diamond's Master Planned Development Framework Design Standards and Guidelines (MPDFDSG),

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adopted by City Ord. No. 09-911, on June 18, 2009, as well as the MPD Project Specific Design Standards and Guidelines, which are contained in Exhibit "H" of The Villages and Lawson Hills Development Agreements, and the High Density Residential Supplemental Design Standards and Guidelines, which contained in Exhibit "I" of the same Development Agreements. The MPDFDSG provided that additional guidelines, like those contained in Exhibit "H" and Exhibit "I," "may be initially drafted by the MPD developer for consideration by the City prior to eventual adoption as part of a development agreement." In addition, BDMC 18.98.120(F)(4) provided that the High Density Residential Supplemental Design Standards and Guidelines were required to be presented for projects exceeding eighteen dwelling units per gross acre, and the Guidelines contained in Exhibit I were provided to the City and approved as part of the MPDs.

7. Paragraphs 8, 9 and 10 below provide three specific examples from Exhibit 7F, 7G, and 7H, respectively, and detail how the specific image complies with the City of Black Diamond and the Master Developer's design guidelines. Because the MPD Project Specific Design Standards and Guidelines and High Density Residential Supplemental Design Standards and Guidelines were both written to provide project-specific guidelines that would comply with the City of Black Diamond's MPDFDSG, these examples focus specifically on the MPD Project Specific Design Standards and Guidelines (Exhibit "H") and High Density Residential Supplemental Design Standards and Guidelines (Exhibit "I"). Any references in Paragraphs 8 and 9 below thus specifically refer to those two exhibits.

8. Example Number One: Exhibit 7F, A – Front Loaded Homes, middle photograph. This photograph depicts a front loaded home (meaning the garage faces the street) with varied roof forms, a sizable front porch, and differing building materials which provide contrast of the building mass. This home meets the guidelines and standards set forth in the MPD Project Specific Design Standards and Guidelines (Exhibit "H"), and below are just a few of the various standards and guidelines contained therein:

- Aluminum, vinyl, and T-111 siding are not permitted (Page 19). This home is clad with a mixture of fiber cement siding (most commonly referred to as Hardie® siding), shingle, and uses stone as an accent.

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- Structures shall include features to break up mass, with elements such as distinctive roof forms, changes in colors and materials, porches, and offsets (Page 19). This home features at least four different planes at the front, in addition to changes in color and material, as identified above.
- The face of a garage must be set back a minimum of 6 feet from the face of living area or porch elevation (at columns) and at least 20' from street (Page 20). The garage is setback from the front of the porch columns, and although the street cannot be seen in the photo, the driveway is at least 20' long.
- Garage doors may not occupy 60% or more of a lot's maximum allowable building frontage – i.e. the lot width minus side yard setbacks (Page 20). This garage does not exceed the 60% threshold.
- Articulate the building massing appropriately to minimize boxiness of elevations facing streets, parks, or other greenways (Page 21). As noted above, this home has at least four different vertical planes of the home facing the street. This provides visual interest and minimizes the boxiness that comes from un-articulated architecture.
- On an individual building, color variety should relate to changes of building forms and materials, such as body, accent, and trim (Page 22). Appropriate colors are picked for the variety of building materials, and in some cases, used only as either accent color or trim color.

9. Example Number Two: Exhibit 7G, F – Multi-Family Homes, first photograph. This photograph depicts part of a multi-family development, with densities above 18 dwelling units per acre, but less than 30 dwelling units per acre. This development meets the criteria set forth in the High Density Residential Supplemental Design Standards and Guidelines (Exhibit "I").

- Unarticulated roof forms shall not be set on a constant wall plate height (Page 2). Here, the development is stepping down, most likely in order to provide transition to lower densities which are adjacent to the development. The building slowly rises to three stories in height, but does so gradually while using differing roof forms.
- Roof flashing and vents exposed to public view shall be painted or otherwise given a finish to match adjacent surfaces or concealed in a manner consistent with the building's appearance (Page 3). While some roof vents are visible, the visibility is not inconsistent with what is typically seen in a single family home. However, consistent with this guideline, other vents appear to have been consolidated into what appears to be a chimney, in order to disguise their appearance.
- Where practical, garage entries, carports and parking areas shall be internalized in building groupings or oriented away from street frontage (Page 5). This development

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fronts on at least one major street. Consistent with this guideline, parking is oriented away from the street in order for the building to have a stronger street presence.

- Articulate the building massing appropriately to minimize boxiness of elevations facing streets, parks or other greenways (Page 7). Similar to the discussion directly above, the architecture of this building varies from plane to plane, and from building story to building story. This provides for a pleasing looking building from a major street.
- To help meet the Design Standard for enhanced elevations (front, sides and rear) where they are visible from the street or public and/or private open space, consider utilizing elements such as changes in building massing, roofline variation and window treatments (Page 7). Often referred to as "four sided architecture," this development achieves this guideline by incorporating a number of those elements.

10. Example Number Three: Exhibit 7H, H - Parks & Open Space, first photograph. This photograph shows a fairly sizeable park and play area, likely to serve a larger part of the community. This area appears to meet the characteristics of a neighborhood park, meant to fill the recreational needs of more than just the immediate neighbors. This park would similarly be subject to, and complies with, the MPD Project Specific Design Standards and Guidelines (Exhibit "H").

- Parks shall be integrated into the neighborhoods they serve and be linked via a network of walks and trails (Page 25). This park is linked with what appears to be a wide multi-use path paved in asphalt.
- Neighborhoods shall be organized by or focus on and include a range of open space such as greenbelts, green courts, and parks, linked together by a network of walks and trails (Page 25). In the distance, a number of homes are visible, which indicates that this park is a focal point for a number of homes in the neighborhood.
- Provide a variety of active and passive spaces for various age groups (Page 25). This park includes both a structured playground, including a jungle gym structure, as well as large passive areas covered with turf. This allows a family with younger and older children to enjoy the same area. While younger children play on the structure, older children can throw a ball or a Frisbee, while parents supervise nearby.

I DECLARE UNDER PENALTY OF PERJURY, UNDER THE LAWS OF THE STATE OF WASHINGTON, THAT THE FOREGOING IS TRUE AND CORRECT.

[*signature on the following page*]

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office 206 587 0700 fax 206 587 2308

DATED this 3rd day of August, 2011, in Kirkland, Washington.

Ryan J. Kohlmann, AICP

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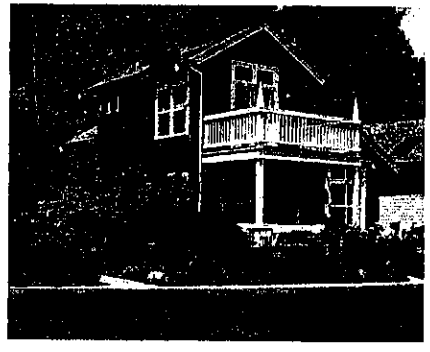
Seattle, WA 98104
office 206 587 0700 fax 206 587 2308

A - Front Loaded Homes

B - Alley Loaded Homes

C - Cottage Homes



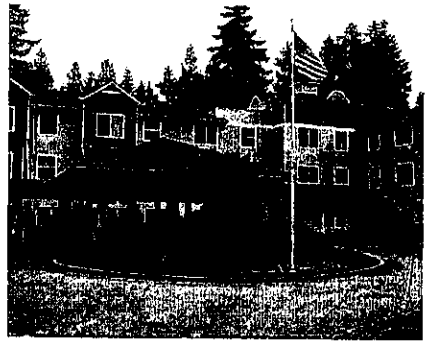
The Villages - Phase 1A Representative Images

YARROWBAY HOLDINGS

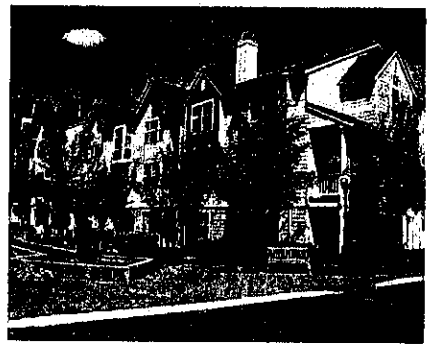
7F

D - Townhomes

E - Senior Living



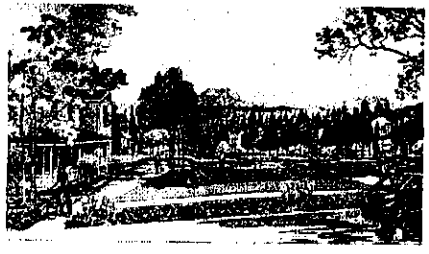
F - Multi-Family Homes



The Villages - Phase 1A Representative Images

YARROWBAY HOLDINGS

G - Commercial / Retail



H - Parks & Open Space

I - Storm Facilities

The Villages - Phase 1A Representative Images

YARROWBAY HOLDINGS

BEFORE THE CITY OF BLACK DIAMOND HEARING EXAMINER

IN RE: THE MATTER OF DEVELOPMENT AGREEMENT HEARINGS
LAWSON HILLS PLN10-0021; PLN11-0014
THE VILLAGES PLN10-0020; PLN11-0013

DECLARATION OF SCOTT BRAINARD

I, Scott Brainard, PWS, am a citizen of the United States and a resident of the State of Washington, am over the age of 18 years, have firsthand knowledge of the matters to which I attest below, am fully competent to testify as a witness, and have sworn and do certify and declare, under penalty of perjury, that the following declaration is true and correct.

1. I am a Certified Professional Wetland Scientist, and a true and correct copy of my curriculum vitae is attached to this Declaration.

2. I was an investigator and author of Wetland Resources, Inc.'s sensitive area reports for Lawson Hills and Villages MPDs. I also have read and understand the City of Black Diamond's 2009 Sensitive Areas Ordinance requirements that apply to wetlands.

3. Expert testimony from Ms. Sarah Cooke during the hearings on The Villages and Lawson Hills Development Agreements on July 21, 2011, identified certain wetland delineation concerns regarding the Constraints Maps within Exhibit "G" of both development agreements. I listened to the testimony of Sarah Cooke in the audio file available on the City of Black Diamond's website.

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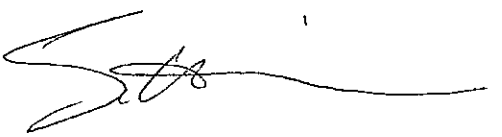
524 Second Avenue, Suite 500
Seattle, Washington 98104-2323
Phone: 206-587-0700 • Fax: 206-587-2308

4. I was asked to respond to Ms. Cooke's testimony regarding the Development Agreements' Constraint Maps and the wetland delineations contained therein. Attached is a true and correct copy of the letter I prepared in response.

5. In my professional opinion and as outlined in the attached letter, the Constraint Maps provide sufficient detail to make accurate review/development decisions within The Villages and Lawson Hills MPDs and conform to the Black Diamond Municipal Code.

Dated this 2nd day of August, 2011 at Everett, Washington.



SCOTT BRAINARD, PWS

Cairncross & Hempelmann, P.S.
Law Offices
524 Second Avenue, Suite 500
Seattle, Washington 98104-2323
Phone: 206-587-0700 • Fax: 206-587-2308

Wetland Resources, Inc.

Delineation / Mitigation / Restoration / Habitat Creation / Permit Assistance

9505 19th Avenue S.E.
Suite 106
Everett, Washington 98208
(425) 337-3174
Fax (425) 337-3045

August 2, 2011

Yarrow Bay Holdings
Attn: Ryan Kohlman
10220 NE Points Drive, Ste 310
Kirkland, WA 98003

RE: **Response to testimony provided by Sarah Cooke, City of Black Diamond, July 21, 2011**

The intent of this letter is to provide responsive comments to the testimony provided by Sarah Cooke on July 21, 2011. I have listened to Ms. Cooke's testimony and disagree that the Constraints Maps (Exhibits G – for Lawson Hill and the Villages) lack sufficient detail. In relationship to wetlands, these maps depict the delineated wetland boundaries, Washington State Department of Ecology Wetland Ratings, and buffers as required by the City's 2009 Sensitive Areas Ordinance (SAO) at BDMC 19.10.230. This level of detail is not only sufficient to make accurate review/development decisions, it is the standard information required by most local, state and federal agencies for projects in western Washington. This information is based on site specific delineations and investigations, conducted over a period of months, for every single wetland depicted on the Constraints Maps. It is not based on very general site investigations conducted on a few wetlands within the Black Diamond City limits as part of the King County Wetland Inventory in 1990.

All wetlands within the MPDs were categorized utilizing the very specific protocols established in the *Washington State Wetland Rating System for Western Washington, revised August 2004* (Rating System) as required by BMC 19.10.210 of the City's SAO. As part of this protocol, where wetlands extended outside of the MPD project boundaries, the entire wetland unit was rated, as required in the Rating System. In situations where permission was not granted to access off-site wetland boundaries, off-site portions were evaluated utilizing visual observations from adjacent properties, aerial photographs, NWI mapping, soil surveys, etc. to gain an accurate representation of off-site conditions for rating purposes. Wetland Rating Forms were submitted to the City of Black Diamond as part of the MPD process and were reviewed for accuracy by City Staff and Parametrix biologists, the City's third party review consultant. In instances where inconsistencies and/or inaccuracies were identified, WRI worked with Parametrix to resolve any and all concerns.

In addition to alleging insufficient detail, Ms. Cooke also asserts that the Constraint Maps in The Villages and Lawson Hills Development do not comply with the BDMC, or, more specifically, Figure 1-1 of the Best Available Science Document adopted by reference in the City's SAO. Again, I respectfully disagree. Core wetlands are designated in BDMC 19.10.210(B)(1), which states:

> *Core Wetland and Stream Complex.* The wetland complex associated with Rock Creek, Jones Creek, Black Diamond Lake, Black Diamond Creek, and Ravensdale Creek are designated as the Core Stream and Wetland Complex. The *general* boundaries of the area affected are designated within the Best Available Science Document, Technical Appendix B, provided that the dimension of the area shall be defined by the *field verified wetland boundaries* and the buffer defined in Section 19.10.230.

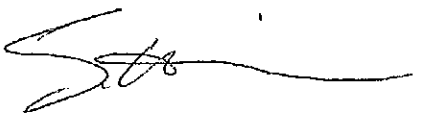
Emphasis added. Per this BDMC provision, the core wetland boundaries and associated buffers identified in the Best Available Science Document (including Figure 1-1) are general and shall be further refined by field verified surveys. These field verified surveys have been done and are reflected in the Constraint Maps included within Exhibit G of both Development Agreements. WRI has determined, and City of Black Diamond staff and their third party reviewer have agreed, that the buffers depicted west of the Black Diamond Lake System (Wetland F and wetlands further west) in the Constraint Maps are appropriate for the following reasons:

- Wetland F and all the wetlands west within the area designated as the Core are not associated with Black Diamond Lake or Black Diamond Lake Creek. They are separated by approximately 100 feet of non-wetland.
- Hydrology from Wetland F flows northwest and away from the Black Diamond Lake and Black Diamond Creek System.
- Wetland F and all wetlands west are in a completely different sub-basin from Black Diamond Lake and Black Diamond Lake Creek
- The depicted buffers provide a sufficient wildlife corridor (minimum 300' combined wetland and buffer) as referenced in the BAS document Section 5.3 and as recommended by the King County Wildlife Network.
- Buffers were extended west to the UGA boundary in order to provide a more usable and effective wildlife corridor.

Based on the testimony provided by Sarah Cooke on July 21, 2011, and the documents submitted and reviewed over the course of these projects, it is my professional opinion that Exhibits G for both The Villages and Lawson Hills accurately depict the wetland boundaries, DOE ratings and buffers as delineated and prepared by WRI and as reviewed by the City of Black Diamond and Parametrix. The Constraint Maps in Exhibit G of both The Villages and Lawson Hills Development Agreements contain sufficient detail to make future accurate permit review decisions when subsequent MPD

implementing project applications are submitted and the Constraints Maps are consistent with the BDMC.

Cordially,



Scott Brainard, PWS
Principal Wetland Ecologist

Wetland Resources

SCOTT BRAINARD
Principal Ecologist | CEO
9505 19th Avenue SE, Suite 106, Everett, WA 98208

Education
B.S., Environmental Policy and Impact Assessment, Western Washington University, 1993

Certifications
Certified Professional Wetland Scientist - # 1743

Advanced Training
Plant Identification, EvCC

Land Use Development and Planning, EvCC

Wetland Delineation Training, Wetland Training Institute

Nationwide Permits, Wetland Training Institute

USACE Northwest Regional Nationwide Permits, USACE

Advanced Hydric Soils, SPU

Management of Invasive Plants, PSU

Classifying Wetlands Using HGM, PSU

Wetlands and Upland Restoration, UW

Geology and Geomorphology of Streams, UW

Electrofishing Training Course, USDFW & Smith Root, Inc.

How to Determine Ordinary High Water Mark, WA DOE

WA State Wetland Rating System for Western Washington, WA DOE

Arid West Supplement Delineation Manual, Wetland Training Institute

WA State Wetland Rating System for Eastern Washington, WA DOE

Scott holds a Bachelors degree in Environmental Policy and Impact Assessment from Huxley College, Western Washington University, and is a Certified Professional Wetland Scientist and an active member of the Society of Wetland Scientists. Scott's fourteen years of experience working with the private and public sectors make him particularly sensitive to the needs of utility purveyors, the development community, homeowners, and local jurisdictions. Scott's training, skills, and strong working relationships with clients and regulators proves invaluable in permit acquisition and compliance on the local, state, and federal level. Scott's primary responsibilities include project management, wetland reconnaissance/feasibility, permit coordination, delineation, construction supervision, mitigation planning, wetland creation and construction design, ecological and aquatic resource monitoring, and technical report writing.

TECHNICAL EXPERTISE

Wetland and Stream Identification, Delineation and Evaluation

- Feasibility Studies and Wetland Reconnaissance
- Wetland Delineation utilizing the USACE 1987 Wetland Identification and Delineation Manual, the 1997 Washington State Department of Ecology Wetland Identification and Delineation Manual, and the USACE Interim Regional Supplement for Western Mountains, Valley, and Coast Region
- Wetland Rating and Categorization utilizing Washington State Department of Ecology Rating System and individual local jurisdictional rating systems
- Functions and values analyses utilizing the multiple methodologies available for Washington State

Mitigation Planning and Design

- Development of wetland, buffer, and stream mitigation plans for compliance with local, state and federal regulations
- Planning and design includes establishing goals, objectives, performance standards and monitoring protocols
- Projects are often evaluated through construction supervision and performance monitoring period

Ecological and Aquatic Resource Monitoring

- Monitoring of existing conditions as well as post-action objectives
- Braun-Blanquet or similar methods to the protocols described by the Salmon Recovery Funding Board (SRFB), April 2004
- Effective use of established methodologies for defendable results

BEFORE THE CITY OF BLACK DIAMOND
HEARING EXAMINER

IN RE: THE MATTER OF DEVELOPMENT AGREEMENT HEARINGS LAWSON HILLS PLN10-0021; PLN11-0014 THE VILLAGES PLN10-0020; PLN11-0013	**DECLARATION OF JAMES G. JOHNSON**

I, James G. Johnson, L.G., L.H.G., am a citizen of the United States and a resident of the State of Washington, am over the age of 18 years, have firsthand knowledge of the matters to which I attest below, am fully competent to testify as a witness, and have sworn and do certify and declare, under penalty of perjury, that the following declaration is true and correct.

1. I am a Principal at Golder Associates Inc. I am a licensed geologist and engineering geologist in the State of Washington. I have been consulting in the field of geotechnical engineering and geology since 1985 and have been with Golder since 1987. My area of consulting concentration is in land development, performing geotechnical feasibility investigations, analysis, and design reports for all sizes and types of site development. I also have experience in investigating and providing mitigation for geologic hazards. I have completed about a dozen mine hazard studies in Issaquah, Newcastle, Black Diamond, and other coal fields in Washington State. A true and correct copy of my resume is attached to this Declaration.

2. I was the principal investigator and author of Golder's mine hazard investigations for Lawson Hills and Villages MPDs. I also have read and understand the City of Black Diamond's 2009 Sensitive Areas Ordinance requirements that apply to mine hazard areas.

CAIRNCROSS&HEMPELMANN
ATTORNEYS AT LAW
524 2nd Ave, Suite 500
Seattle, WA 98104
office 206 587 0700 fax 206 587 2308

3. I was present at and listened to the testimony of Chris D. Breeds in front of the Black Diamond Hearing Examiner on Thursday, July 21, 2011, in Black Diamond, Washington.

4. I have reviewed a copy of Exhibit #45 that was submitted by Chris D. Breeds to the Hearing Examiner on July 21, 2011.

5. I was asked to respond to Chris D. Breeds' testimony and Exhibit #45 regarding mine hazards. Attached is a true and correct copy of my proposed revision to Section 8.2.3 of the Lawson Hills Development Agreement that I have prepared in response.

6. In my professional opinion, the attached recommended revisions to Section 8.2.3 of the Lawson Hills Development Agreement address more issues than were raised in Chris D. Breeds' July 21st testimony as well as his Exhibit #45. In my professional opinion, with inclusion of the attached recommended revisions to Section 8.2.3 of the Lawson Hills Development Agreement, the concerns raised by Chris D. Breeds are fully addressed.

7. In my professional opinion, the attached recommended revisions should be used in place of the existing language in Section 8.2.3 and in place of the "proposed supplemental conditions" included in Exhibit #45. In my professional opinion, the work done to date for the Lawson Hills MPD project site, together with the City's 2009 Sensitive Areas Ordinance requirements, and the work described in the attached recommended revisions provide excellent assurance to the City of Black Diamond that mine hazards are evaluated and addressed on the Lawson Hills project site so as to protect public safety.

8. The testimony of Chris D. Breeds did not address The Villages MPD. Exhibit #45 suggests that supplemental conditions might also be imposed on The Villages project, but offers no support for such conditions. In my professional opinion, there is no need to include supplemental language regarding mine hazards in The Villages Development Agreement.

9. The process for declassifying and mitigating mine hazard areas was referenced in several places in Exhibit #45. That process is now set forth in the City's Sensitive Areas

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Seattle, WA 98104
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Ordinance and applies to both The Villages and the Lawson Hills MPDs pursuant to Section 8.1 of each Development Agreement.

10. While not directly within the scope of my professional expertise, I also note that the Lawson Hills Development Agreement already provides for a "Master Development Review Team" or "MDRT" as the final paragraph of Exhibit #45 suggested. The MDRT is addressed in Exhibit "N" of the Lawson Hills Development Agreement.

I CERTIFY AND DECLARE, UNDER PENALTY OF PERJURY, UNDER THE LAWS OF THE STATE OF WASHINGTON, THAT THE FOREGOING DECLARATION IS TRUE AND CORRECT.

DATED this 2nd day of August, 2011, in Redmond, Washington.

James S. Johnson

James G. Johnson, L.G., L.H.G.

CAIRNCROSS&HEMPELMANN
ATTORNEYS AT LAW
524 2nd Ave, Suite 500
Seattle, WA 98104
office 206 587 0700 fax 206 587 2308

Proposed Revision to Lawson Hills Development Agreement

8.2.3 Mine Hazard Areas

Mine hazard areas for The Lawson Hills MPD were evaluated in the EIS's Appendix D and are shown on the Constraints Maps. ~~These~~Subject to the exceptions described below, these mine hazard areas for The Lawson Hills MPD as surveyed on 7/27/09, including the High Mine Hazard area buffer which the Master Developer mapped to protect even though such a buffer is not required in the City's Sensitive Areas Ordinance, BDMC 19.10 (Exhibit "E"), are deemed final and complete through the term of this Agreement. Pursuant to Condition of Approval No. 159 of the MPD Permit Approval, except as provided below, if during construction it is discovered that the actual boundary is smaller or larger than what was mapped, the mapped boundary shall prevail.

As of the time of execution of this Agreement, the mine hazard area boundaries for the following areas have been generally agreed to by the Designated Official, but additional subsurface exploration and analysis is necessary in order to further evaluate: (1) the location and extent of the Macks Mine hazard area near the northern end of the Project Site; (2) the mine hazard boundary for the McKay Section 12 Surface Mine and older underground mines beneath it; and (3) the width of the Moderate Mine Hazard zone above the Lawson Mine. Additional work to identify the Macks Mine hazard zone, the McKay Section 12 area, and the width of the Moderate Mine Hazard area for the Lawson Mine was described in the MPD materials as to be conducted pursuant to the standards set in the City's Sensitive Areas Ordinance, BDMC 19.10 (Exhibit "E"). That work will be conducted together with Implementing Project applications involving Development in or near these locations, and will define the nature and extent of those mine hazard areas. Once the boundaries of (1) the location and extent of the Macks Mine hazard zones near the northern end of the Project Site; (2) the location of the hazard zone for the McKay Section 12 Surface Mine and older underground mines beneath it; and (3) the width of the Moderate Mine Hazard above the Lawson Mine have been agreed to, these boundaries shall also be fixed.

Finally, based on the level of surface exploration, historical document review, and mine exploration work conducted at the Project Site, it is unlikely that any new mine hazard areas will be discovered outside those areas mapped and referenced in this section. However, in the event that a new mine hazard area is discovered during Development, that area will be assessed and protected pursuant to the City's Sensitive Areas Ordinance, BDMC 19.10 (Exhibit "E").

Any additional work provided with Implementing Project applications shall be reviewed by an independent qualified third party reviewer as part of the MDRT review process described in Exhibit "N", at the Implementing Project applicant's expense, to perform peer review of mine hazard reports.

Education

B.S. Geology, Western Washington University, Bellingham, Washington, 1985

Certifications

Professional Engineering Geologist, Washington, 2002

Professional Geologist, Washington, 2002

Certified Erosion Control Lead, 2007

Nuclear Densometer Certification, 1985

Membership

Association of Engineering & Environmental Geologists

Golder Associates Inc. – Redmond

Land Development

Mr. Johnson manages land development projects for clients in the Northwest providing consulting on project feasibility, geotechnical and environmental site investigations, site planning, geotechnical design, and construction monitoring and testing. Mr. Johnson's engineering geology career began with learning the properties of soil, rock, and construction materials while working in Golder's soil testing laboratory and conducting field inspections and investigations. His understanding of the engineering properties of soil and rock was further developed through years of conducting field investigations using multiple field techniques, such as drilling, test pits, mapping, in-situ testing, instrumentation, and geophysics. In addition to developing his technical skills, Jim has developed strong project management and client development skills using innovation, creativity, and common sense to meet the needs of his clients. His clients include large and small residential, commercial, and retail developers.

Employment History

Golder Associates Inc. – Redmond, Washington

Principal Engineering Geologist (1987 to Present)

Mr. Johnson began his career at Golder as a laboratory and field technician. He is now a Principal Engineering Geologist with project management responsibility over significant sized projects. His clients and project experience have grown during his 20 plus years with Golder. Jim has managed a wide variety of environmental and geotechnical projects for private and public land development and infrastructure clients. He has provided forensic geotechnical expertise in support of legal and insurance company claims. He has performed construction CQA management as the senior inspector for the construction of a municipal waste landfill. Jim currently specializes in management of geotechnical and environmental feasibility studies, geotechnical design, and construction support for land development projects. This work involves scoping, preparation of proposals, managing budgets, and providing technical analysis and review on project deliverables. Jim has served a rotating tenure as the engineering group leader in the Redmond office and has performed project management audits throughout Golder offices in the U.S.

Hong Consulting Engineers (HWA Geosciences)

Lynnwood, Washington

Technician/Construction Inspector (1986 to 1987)

Mr. Johnson was trained as a soils and construction materials laboratory and field technician during his year at HWA. He was trained to perform construction materials inspection on large municipal projects, and field investigation methods for land development projects. He completed laboratory and field testing and inspection services for soil, asphalt, concrete, and masonry. Jim provided field inspection for a large roller compacted concrete spillway at the Cedar Falls Dam. He performed the field inspection during pile driving for the Port of Seattle's Pier 28/30 Expansion and was the construction inspector for soils, concrete, asphalt, masonry and welding during construction of the Pierce County Transit Bus Terminal. He left HWA for greater long term growth opportunities at Golder.

PROJECT EXPERIENCE – LAND DEVELOPMENT

Talus MPD
Issaquah, Washington
1999 - 2007

The Talus Development is a 300 acre master planned community consisting of 18 development parcels and planned open space. The site is situated on the east side of Cougar Mountain in challenging geologic terrain. Jim was the Golder Project Manager and engineering geologist for this large, master planned office and residential community in Issaquah from 1999 to 2007. Jim managed geotechnical investigations, geologic characterization, and geotechnical design efforts for the site infrastructure improvements. The Golder team completed numerous geotechnical designs included a curved, permanent soil nailed wall for a 1.4 million gallon water reservoir, a curvilinear permanent soldier pile/tieback wall, pavement designs, culvert/bridge foundation designs, and cut slopes in weak rock. Sculpted soil nail walls were designed for use in residential areas. Geotechnical and steep slope critical areas studies were carried out on each development parcel. Landslide risks were identified and mitigated. Offsite improvements included the design and construction of a replacement bridge/box culvert under Newport Way on soft silt/clay; a permanent soldier pile wall design for widening of SR-900 south of Newport Way; geotechnical support for utility installation including boring under streams; and widening of SR-900 between Newport Way and I-90. Jim supervised the ongoing construction monitoring of all infrastructure development and parcel development within the Talus Project from the summer of 2000 through 2007.

Lawson Hills MPD
Black Diamond, Washington
2005 - 2010

Lawson Hills is a 376 acre master planned community project proposed just east of downtown Black Diamond Washington. Jim is the Project Manager for this multi-disciplinary effort that includes project feasibility studies for environmental, surface and groundwater, geology, and mine hazards. The site consists of three parcels with the largest situated on Lawson Hill. The geotechnical challenges include abandoned underground coal mines, a reclaimed surface mine, and shallow bedrock. Golder completed baseline environmental, geotechnical and mine hazard assessments of the site. We installed instrumentation to monitor surface and groundwater quality and prepared monitoring data reports. Mine waste rock stockpiles were present on the site. Golder provided the environmental and technical evaluation to support the permitting of the relocation of the largest stockpile to an abandoned strip mine site in King County. We are also providing permitting and technical support for the remediation of two other recognized environmental conditions. We prepared the technical report on geology, soils and groundwater for the Draft Environmental Impact Statement and are providing continuing support of project master planning.

Villages MPD
Black Diamond, Washington
2005 - 2010

The Villages is a proposed 1,200 acre master planned community project located primarily east and south of downtown Black Diamond. Jim managed the initial project site feasibility for the client. The site consists of largely lowland topography with several lakes, wetlands and streams. The scope of work consisted of feasibility level geology, surface and groundwater characterization and monitoring, and mine hazard assessments. Golder's staff continue to provide technical support as project planning and design progress.

Verdana Project
Kent, Washington
2003 - 2007

The Verdana Project is a160 acre single family home development located in the Kent City limits. The site consisted of undeveloped property containing a central wetland complex and the headwaters of Olsen Creek. Jim was the project manager for the developer, Yarrow Bay Group. The scope of work included the geotechnical site characterization, geotechnical design and construction recommendations for a DOE Dam Safety rated stormwater pond, sewage pump station and scores of retaining walls. Jim also supervised geotechnical construction monitoring and testing.

Snoqualmie Casino
Snoqualmie, Washington
2001 - 2008

The Snoqualmie Casino project consisted of a 170,000 square foot casino and five story parking garage located on a steep hillside overlooking the Snoqualmie Valley. Jim was the geotechnical project manager from the start of site feasibility in 2001 to the projects successful opening in November 2008. The scope of services included geotechnical site characterization, geotechnical design and construction recommendations, and geotechnical construction observation and testing. Golder was also contracted to install and test the site water supply well. Other project designs included a 40 foot high permanent soldier pile shoring wall, numerous MSE walls, and a DOE Dam Safety rated stormwater pond. Golder field staff also monitored stormwater quality and erosion control compliance during construction.

BRE Properties
BRE Properties
1998 – 2003

Jim managed multiple projects for BRE, a residential and commercial developer. Golder's scope of services included environmental remediation, field geologic investigation, design recommendations, and construction observation and testing. The separate projects included two large multifamily residential developments and an office building. The residential developments were on sloping sites with significant slope stability and foundation design challenges. The office park included a below grade foundation and mitigation of contaminated soils. We provided construction recommendations and monitored the use of soil drying admixtures for wet weather construction. We also provided erosion control inspections and recommendations during construction.

Legacy Properties
Seattle – Mukilteo - Bothell, Washington
1999 - 2007

Jim was the client manager in charge of numerous projects in Washington including recent projects such as: Legacy Tower, a downtown Seattle residential high rise building; Providence, a multifamily residential apartment complex in Bothell; and Harbour Pointe Village, a multifamily residential project in Mukilteo. Our services included geotechnical investigations, recommendations, and construction observation and testing services.

Yarrow Bay Group
Puget Sound, Washington
2003 - 2010

Jim was the client manager in charge of geotechnical services for seven land development projects for Yarrow Bay Group in the Puget Sound region of Washington. The projects have included the development of medium to large residential developments. Typical geotechnical services that were provided on these projects included: site investigations, geotechnical recommendations for site development, construction recommendations, and design services for retaining walls and stormwater infiltration and detention ponds.

Archstone Communities
Washington
1996 - 2001

Jim was the client manager in charge of the geotechnical services for all Archstone Communities residential projects in Washington. He provided due diligence geotechnical evaluation of site selection for numerous candidate properties. He provided value engineering for foundations, earthworks, construction season risks, and pavement designs. The scope of services included geotechnical investigations, design recommendations, and construction observation and testing services for all six Archstone residential apartment projects constructed in the Seattle area in the late 1990's.

PROJECT EXPERIENCE – GEOLOGIC HAZARD EVALUATION AND MITIGATION

Woodmont Landslide
Des Moines, Washington
1997

Jim managed this emergency mitigation project for ten private landowners whose homes on Puget Sound were being damaged by a large active landslide. Golder provided an emergency assessment of the situation and rapid remediation response consisting of the installation of emergency groundwater dewatering wells to help stabilize the landslide mass. We developed a long term groundwater de-watering and monitoring program that the newly formed home owners association could implement and maintain. The landslide movement ceased and has been maintained without causing any further damage to the homes.

Landslide Investigation and Remediation
Puget Sound,
Washington
1996 - 1997

Jim has managed scores of landslide investigation projects throughout the Seattle area. The scope of services has included geotechnical investigation, remediation recommendations and construction observation. Jim fast tracked the investigation and remediation of three residential house landslides in Everett damaged in the 1996/1997 winter storm. He provided consulting services to the City of Issaquah on numerous landslide projects including the Sewer Landslide, Foothills Landslide, Cedar Road Landslide, and the Goode Place Landslide.

Abandoned Coal Mine Hazards
Puget Sound,
Washington
1994 - 2010

Several of the principal underground coal mining regions of Washington State are located in or adjacent to urban centres. These include Issaquah, Black Diamond, and Newcastle. Risks from abandoned coal mines include collapse, sinkholes, trough subsidence, coal waste debris piles, and soil and groundwater contamination. Jim has managed numerous coal mine hazard investigations in accordance with appropriate local Critical Areas Ordinances. Jim is experienced in researching mine history, historical maps, and conducting field hazard reconnaissance. He has used several exploration methods to locate mine hazards including test pits, borings, borehole cameras, microgravity, and ground penetrating radar. He has provided mitigation recommendations for identified mine hazards and works with clients to mitigate the impacts of mine hazards on site development.

PROJECT EXPERIENCE – TRANSPORTATION

Issaquah Bridges
Puget Sound, Washington
1995 -1997

Over the span of several years, the City of Issaquah replaced three vehicle bridges and one pedestrian bridge crossing Issaquah Creek. Jim managed the geotechnical investigation and design recommendations for all four projects. He planned and managed the field investigations and report preparation. The bridges were founded in loose alluvium and consisted of a combination of deep pile foundations and conventional foundation abutments. The reports provided pile foundation recommendations, roadway embankment design, construction recommendations, and pavement design.

Goldenrod Bridge
Burlington, Washington
2001

Jim was the Golder project manager for the geotechnical investigation and design recommendations for roadway bridge in Skagit County. He managed the field investigation and report preparation for approach roads and a roadway bridge adjacent to I-5 crossing Gauges Slough. The report provided pile foundation recommendations for the bridge foundation, roadway embankment design, construction recommendations, and pavement design.

Three Lakes Road Bridge
Snohomish County, Washington
1990

The Three Lakes Road Bridge is located in Snohomish County crossing the Pilchuck River. Jim managed and completed the field investigation for this two-lane concrete bridge built to replace a wood trestle bridge.

WSDOT Highway Projects
Washington
1994 -

Jim has been the project manager or task manager for a number of WSDOT projects. They include a geotechnical study of I-405 from Sunset Blvd. to Coal Creek Parkway for HOV lane construction. The I-405 investigation included geotechnical explorations and engineering recommendations for walls and road fills. Jim managed the investigation and reporting for five overpass bridge replacements on I-5 in Vancouver, Washington including the site investigation, engineering, and report preparation. Jim managed the investigation and geotechnical report for the I-405, Bellevue SE 8th flyover ramp, and NE 4th & NE 8th interchange improvement projects.

PROJECT EXPERIENCE -- FORENSIC INVESTIGATIONS

Pemco Insurance Company
Washington
1995 - 1998

Jim was the manager in charge of conducting over 60 geotechnical investigations for claims adjusters. He investigated and evaluated damage claims, determined damage causation and prepared written reports for claims adjusters. Damages investigated included: landslides, debris flows, foundation settlement, floor slab settlement, retaining wall failure, water intrusion, and earthquake damage

Chubb Insurance Company
Washington
1992 - 1993

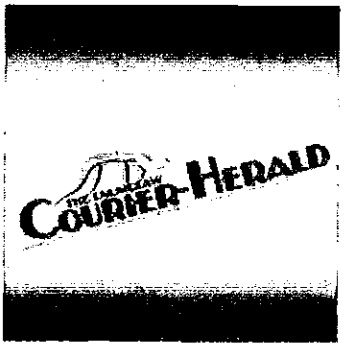
Jim was the manager in charge of conducting geotechnical claims investigations and field investigations of damage claims. He determined damage causation and drafted reports. The typical damage being assessed included foundation and pavement slab settlement, retaining wall failures, slope movement, and earthquake damage.

USAA Insurance Company
Washington
1995 -1996

Jim was the manager in charge of conducting geotechnical claims investigations for insurance adjusters. Responsibilities included investigation of reported damage, determination of damage cause and report preparation. Types of damages investigated included foundation settlement, floor slab cracks, landslides and retaining wall failures.

Community was included in school board's YarrowBay decision

Letter to the Enumclaw Courier-Herald
July 26, 2011



As elected officials to your Enumclaw School Board, we take our positions in making decisions that will affect our students and communities very seriously. There is not a decision made that we don't consider the ramifications of our actions. We write this as the three board members that took action on the agreement, but we operate as a team of five. April Schroeder was just appointed in June and Tim Nickson recused himself from taking action on the agreement identifying a conflict of interest.

It is and always will be our intent to make decisions in an open and honest manner. When we read the piece last week about the school mitigation agreement with Yarrow Bay and the city of Black Diamond stating the board didn't listen to the community, we felt compelled to make sure that the information being reported is factually correct. In October and November of 2009, three different informational meetings were held outlining the agreement. The Nov. 12, 2009, meeting was held in the Enumclaw High School library. Minutes can be found at the Enumclaw School District (ESD) website by using the Yarrow Bay link at the bottom of the page. Changes to the agreement were made from concerns the public shared, like removing access from Green Valley Road and increasing buffers. Action to approve the Tri-Party agreement was done 14 months after those 2009 meetings and the district waited until the first development hearings concluded last spring.

We understand growth will impact our school district and our district team negotiated diligently for four years with Yarrow Bay and the city of Black Diamond. As a result of the agreement, ESD secured property for school sites before the development has even occurred. School districts are often forced to find/purchase available land and then must still pass bonds to build the structures. Having this designated property is a great asset for the future of our school district and whoever may lead it over the next 20 years.

Enumclaw and Black Diamond are two communities, but we are one school district. Even though there is geographical divider in the Green River, there are 4,400 students that deserve the best educational experience we can provide.

It is the desire of the entire board and district, that lines of communication are always open and honest.

We thank you for the opportunity to represent our two communities and we will continue to work tirelessly for you and your family.

Chris VanHoof, president
Corey Cassell, vice president
Nancy Merrill

Enumclaw School Board

BEFORE THE CITY OF BLACK DIAMOND HEARING EXAMINER

IN RE: THE MATTER OF DEVELOPMENT AGREEMENT HEARINGS
LAWSON HILLS PLN10-0021; PLN11-0014
THE VILLAGES PLN10-0020; PLN11-0013

DECLARATION OF KEVIN L. JONES

I, Kevin L. Jones, P.E., PTOE, am a citizen of the United States and a resident of the State of Washington, am over the age of 18 years, have firsthand knowledge of the matters to which I attest below, am fully competent to testify as a witness, and have sworn and do certify and declare, under penalty of perjury, that the following declaration is true and correct.

1. I am a licensed civil engineer and certified professional traffic operations engineer, and a true and correct copy of my curriculum vitae is attached to this Declaration.

2. Oral testimony was provided during The Villages and Lawson Hills Development Agreement Hearings regarding a variety of MPD transportation-related issues.

3. I was asked to respond to such testimony regarding MPD transportation-related issues. Attached is a true and correct copy of the brief I prepared in response.

Dated this 3rd day of August, 2011 at Kirkland, Washington.

KEVIN L. JONES, P.E., PTOE

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Associate Principal

Education:
B.S., Civil Engineering, University of Colorado

Licensure:
Professional Engineer (Civil), Washington

Certification:
Professional Traffic Operations Engineer (PTOE)

Memberships:
Institute of Transportation Engineers (ITE)

Master Builders Association (MBA) of King and Snohomish Counties

Kevin is an Associate Principal with Transpo Group and has over 16 years of experience in both traffic engineering and transportation planning. He has worked on numerous transportation/traffic impact analyses (TIAs), environmental impact statements (EISs), transportation concurrency analyses, comprehensive plan and transportation facilities plan updates, traffic operations analyses, parking studies, access and circulation studies, and intersection/roadway capacity analyses. Kevin has provided expert witness testimony before the Hearing Examiners of King and Pierce Counties and the Cities of Auburn, Covington, Ellensburg, Federal Way, Issaquah, Kent, Maple Valley, Renton and Sammamish.

Relevant Experience

- **The Villages and Lawson Hills Master Planned Developments; Black Diamond, WA.** Kevin has provided a variety of transportation services for The Villages and Lawson Hills MPDs. Collectively, these two MPDs include over 6,000 new dwelling units, approximately 1.17 million square feet (sf) of commercial space, and a combination of elementary and middle schools. Services included initial feasibility analysis, preliminary transportation impact analysis, review of both the Draft and Final EISs, and participation at multiple public meetings and open houses.
- **Suntop Farms Planned Unit Development Traffic Impact Analysis; Enumclaw, WA.** Kevin directed the preparation of this analysis which identified potential traffic impacts generated by the construction of over 330 single-family dwelling units, 140 residential apartment units, 82 condominium/townhouse units, 50,000 sf of retail space, and 25,000 sf of general office space. Mitigation measures were identified at the intersection of SR 410/ Watson Street (rechannelization) and the proposed site access roadway (roundabout).
- **Maple Ridge Highlands (Maple Woods) Traffic Impact Analysis; Maple Valley, WA.** Kevin identified potential transportation-related impacts associated with this 575-unit residential development, including operational impacts to signalized intersections. He explored measures to mitigate project-generated transportation impacts. Kevin assisted Shapiro and Associates in preparing the Draft and Final EISs and provided expert witness testimony at the public hearing.
- **Pacific Ridge Neighborhood Improvement Plan & Integrated EIS; Des Moines, WA.** Kevin assisted the City in evaluating the transportation impacts associated with 4,200 new dwelling units and 6,900 additional employees located in the Pacific Ridge subarea. He estimated future traffic volumes based on 2020 land use projections and preliminary traffic forecasts. A variety of mitigation strategies were identified, including a transportation demand management program and constructing improvements through one or more Local Improvement Districts (LIDs) or Transportation Benefit Districts (TBDs).

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August 3, 2011

Mr. Colin Lund
YarrowBay Holdings
10220 NE Points Drive, Suite 310
Kirkland, WA 98033

SUBJECT: RESPONSE BRIEF ON THE VILLAGES AND LAWSON HILLS MPDs

Dear Mr. Lund:

Who prepared this brief and what are their qualifications?

This brief was prepared by Kevin L. Jones, P.E., PTOE, Associate Principal at Transpo Group. I earned a Bachelor of Science degree in Civil Engineering from the University of Colorado at Boulder. I am licensed as a professional engineer in the State of Washington, certified as a professional traffic operations engineer, and member of the Institute of Transportation Engineers (ITE). I have been consulting in the fields of traffic engineering and transportation planning since 1995 and have been employed with Transpo Group since 1997. I have been providing transportation consultation with respect to the subject MPDs since 2004.

Should the new transportation demand model be run prior to Development Agreement approval?

No. Running the model prior to Development Agreement approval would require debatable assumptions with respect to project information (trip generation rates, trip distribution patterns, internal capture, mode splits, etc.) as well as other key assumptions (land use, planned roadways, standards, etc.) which are less predictable over a long time period. By running the model later, actual project information can be incorporated and the forecasting would be more meaningful because key assumptions would be more predictable over a shorter time period. Mitigation necessary after 850 dwelling units will be determined using the new model. In the meantime, intersections requiring mitigation can be reasonably predicted given existing traffic operations and the applicable level of service standard. Adequate transportation mitigation for the first 850 dwelling units has, in fact, already been identified as outlined in the following section.

If the model is not run now, is it possible that traffic impacts generated by the first 850 dwelling units will not be mitigated?

No. Traffic impacts generated by the first 850 dwelling units in the MPDs will be adequately mitigated per the terms of The Villages and Lawson Hills Development Agreements. For example, Phase 1A of The Villages MPD includes nearly 850 dwelling units. The Traffic Impact Study (TIS) prepared in conjunction with the land use applications for that phase concluded that intersection improvements will be necessary at four existing intersections. SE 288th Street/216th Avenue SE, SR 169/SE Black Diamond-Ravensdale Road and SR 169/Roberts Drive need to be improved by the first year of development (approximately 110 dwelling units) and SE Auburn-Black Diamond Road/Lake Sawyer Road SE needs to be improved by the third year of development (approximately 720 dwelling units). In addition, two future intersections will need to be improved, including SE Auburn-Black Diamond Road/Main Street by the second year of development (approximately 420 dwelling units) and SE Auburn-Black Diamond Road/Community Connector A by the fourth year of development (approximately 820 dwelling units).

Transportation mitigation is also required by the Cities of Covington and Maple Valley prior to the first 850 dwelling units (see Exhibits "R" and "Q" to the Development Agreements). As described in the *Covington Transportation Mitigation Agreement*, the first of four installments toward the City's "MPD Mitigation Fee" must be paid in conjunction with an occupancy permit for the first dwelling unit. In addition, before building permits are issued for more than 700 dwelling units, the *Maple Valley Transportation Mitigation Agreement* requires a financial contribution to "Project E." This project will add a second southbound through lane on SR 169 from Witte Road SE to SE 244th Street as well as add a second northbound through lane on SR 169 from south of SE 240th Street to Witte Road SE.

Will the new transportation model include SE Green Valley Road, SE Lake Holm Road, 218th Avenue SE, and the SE Black Diamond-Ravensdale Road—Landsburg Road SE—Issaquah-Hobart Road SE corridor?

The new transportation model required by The Villages and Lawson Hills MPD Permit Approvals' conditions is being created by the City of Black Diamond's transportation consultant, Parametrix. I spoke with Parametrix staff the week of July 25, 2011 and confirmed that the entire limits of SE Green Valley Road, SE Lake Holm Road and 218th Avenue SE are included in the new model. Parametrix also confirmed that the SE Black Diamond-Ravensdale Road—Landsburg Road SE—Issaquah-Hobart Road SE corridor is included in the new model, extending from approximately 238th Way SE to the north (north of SR 18 and south of Issaquah) to SR 169 to the south.

Do the MPD Conditions address the following analysis assumptions: internal trip capture rates, peak hour factors, and vehicle queue lengths?

Lawson Hills MPD Conditions of Approval Nos. 13 and 16(a) and The Villages MPD Conditions of Approval Nos. 14 and 17(a) address internal trip capture rates. Similarly, Lawson Hills MPD Condition No. 16(b) and The Villages MPD Condition No. 17(b) address peak hour factors. Therefore, there is no reason to include supplemental conditions regarding internal trip capture rates or peak hour factors in the Development Agreements. Such issues have already been addressed.

None of the MPDs' Conditions of Approval address vehicle queue lengths as part of the new transportation demand model. However, this exclusion is appropriate as the Hearing Examiner's Decision (Conclusion of Law No. 11) on the EIS Appeals of The Villages and Lawson Hills MPDs recognized: "Such [queuing] analysis should be done when looking at specific improvements in the construction phase, so that determinations of significant adverse impacts can occur in conjunction with construction, rather than trying to guess what will happen 15 years from now." The analysis of queue lengths, as the Hearing Examiner concurred, should occur at the specific traffic improvement stage and <u>not</u> in conjunction with the new transportation model.

What is the Traffic Monitoring Plan in the Development Agreements and in what ways is it proactive?

In simple terms, the Traffic Monitoring Plan contained in Exhibit "F" of both Development Agreements will monitor existing traffic and model future traffic before (and in the middle of) each phase of the combined MPDs. Potential traffic impacts will be identified through this Plan and the timing for necessary mitigation will be determined. Findings will be presented in a written report for the City's review. The report will be used by the City to, if necessary, adjust the mitigation or construction timing of any new roadway or intersection improvement.

The Plan is designed to ensure that the construction of a necessary transportation improvement project begins *before* a street or intersection is impacted by MPD traffic and therefore, by definition, the Plan is proactive.

The proactive measures of the Plan include: (1) modeling the potential traffic impacts of an entire phase of development *before* submitting land use applications for that phase; (2) determining when particular transportation improvements will be necessary *before* submitting land use applications for that phase; and (3) beginning construction of a particular improvement *before* the street or intersection is predicted to no longer meet the applicable level of service standard.

Are the requirements in the MPD Conditions and Development Agreements more stringent than Black Diamond's transportation concurrency system?

Yes. Similar to the City's Concurrency Management System (CMS) described in Chapter 7 of the adopted *Comprehensive Plan*, the MPD Conditions and Development Agreements require that adequate transportation facilities are in place concurrent with the development of The Villages and Lawson Hills MPDs. The CMS and requirements in the MPD Conditions of Approval and Development Agreements are dissimilar in that "concurrent with the development" is defined in the City's *Comprehensive Plan* to mean that "improvements *or strategies* are in place at the time of development, *or that a financial commitment is in place to complete the improvements or strategies within 6 years of development.*" (Emphasis added.)

In contrast, the requirement in the MPD Conditions of Approval and Development Agreements is far more stringent. It requires that the construction of a particular improvement begin *before* the street or intersection is predicted to no longer meet the applicable operations standard; whereas, the City's *Comprehensive Plan* authorizes the possibility that an improvement will be completed up to six years *after* the development occurs. Moreover, the requirements described in the MPD Conditions of Approval and Development Agreements require physical improvements to the City's transportation system, not (unlike the *Comprehensive Plan*) strategies that are less certain and may or may not prove successful.

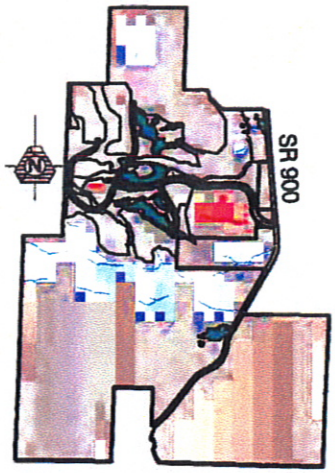
Simply put, the MPDs' Conditions of Approval and Development Agreements not only meet the intent of the City's CMS but also ensure that transportation improvements are constructed before potential impacts and well before they would otherwise be required under the City's *Comprehensive Plan*.

Sincerely,
Transpo Group

Kevin L. Jones, P.E., PTOE
Associate Principal

KLJ/

Cougar Mountain East Village
Exhibit "E-1"
Wetland Impact Exhibit



Site Map
Not to Scale

WETLAND AREAS

WETLAND	AREA	CLASS
1	3.253 AC	CLASS 2
2	0.622 AC	CLASS 2
3	3.045 AC	CLASS 2
4	0.027 AC	EXEMPT *
5	0.025 AC	EXEMPT *
6	0.624 AC	CLASS 2
7	0.386 AC	CLASS 2
8	0.075 AC	CLASS 3
9	0.057 AC	CLASS 3
10	0.188 AC	CLASS 2
11	0.138 AC	CLASS 2
12	0.260 AC	CLASS 2
13	0.039 AC	EXEMPT *
14	0.008 AC	EXEMPT *
15 - A	1.725 AC	CLASS 2
15 - B	0.124 AC	CLASS 2
16 - A	3.435 AC	CLASS 2
16 - B	0.201 AC	CLASS 2
17	0.436 AC	CLASS 3
18	0.027 AC	EXEMPT *
19	0.036 AC	EXEMPT *
20	0.045 AC	EXEMPT *
21	0.043 AC	EXEMPT *
"D"	0.053 AC	CLASS 2
TOTAL	14.871 AC	

* WETLANDS LESS THAN 2,500 S.F. IN SIZE ARE EXEMPT UNDER APPENDIX E, CRITICAL AREA REGULATIONS.

WETLAND FILL AREAS

WETLAND	PROPOSED TO BE FILLED	WETLAND	PROPOSED TO BE FILLED
1	0.043 AC	10	0.188 AC
3	0.049 AC	11	0.050 AC
4	0.027 AC	12	0.030 AC
5	0.025 AC	13	0.039 AC
6	0.019 AC	16	0.050 AC
7	0.386 AC	"D"	0.053 AC
8	0.075 AC	TOTAL AREA	1.034 AC

LEGEND

- WETLAND
- WETLAND PROPOSED TO BE FILLED
- BOUNDARY
- WETLAND
- STREAM

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96-328 E.62 11/4/99

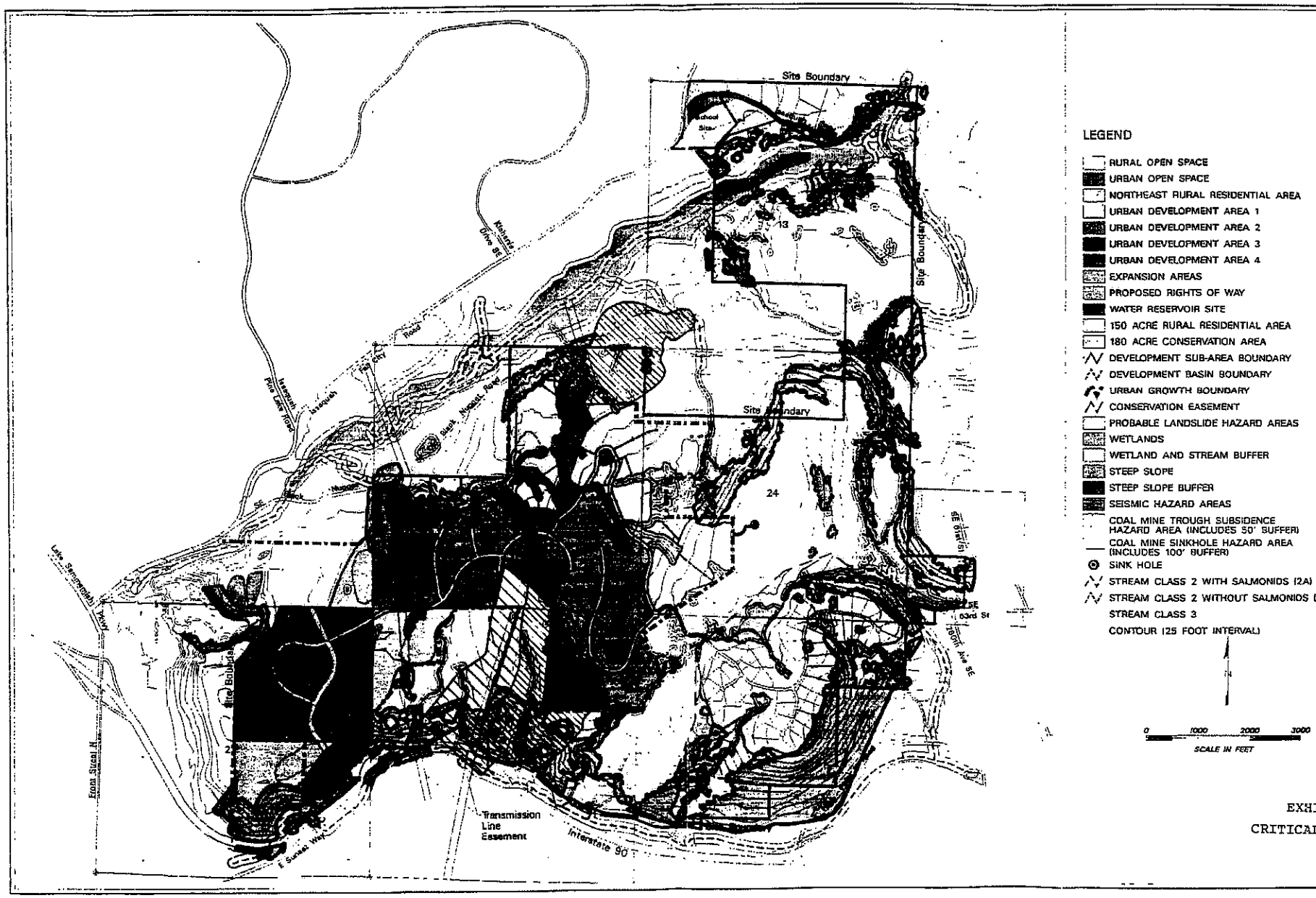

EXHIBIT A
CRITICAL AREAS

Wetland Resources, Inc.

Delineation / Mitigation / Restoration / Habitat Creation / Permit Assistance

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SENSITIVE AREA STUDY

FOR

THE VILLAGES

Wetland Resources, Inc. Project #08035

Prepared By:

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For:

BD Villages Partners, LP
Attn: Colin Lund
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May 7, 2009
Rev: July 21, 2009

Table of Contents

	Page
Site Description	1
Project Description and Conceptual Mitigation	4
Wetland Classifications - Cowardin System	5
Wetland Classifications - City of Black Diamond	6
Core Wetland and Stream Complex Field Verification	12
Wetland Determination Report	13
Regulated Buffers Discussion	15
Boundary Determination Findings	16
Wetland Functions and Values Assessment	21
Wildlife	31
Use of This Report	32
References	33
Table 1. Wetland Table	7
Table 2a. Parcel B Field Data	
Table 2b. Parcel C Field Data	
Table 2c. Parcel D Field Data	
Table 2d. Parcel E Field Data	
Table 2e. Parcel F Field Data	
Table 2f. Parcel BDA	
Vicinity Map	
Critical Area Study Maps	
Parcel B	Sheet 1/7
Parcel C	Sheet 2/7
Parcel D	Sheet 3/7
Parcel E	Sheet 4/7
Parcel F	Sheet 5/7
Parcel BDA-North	Sheet 6/7
Parcel BDA-South	Sheet 7/7

SITE DESCRIPTION

Wetland Resources, Inc. (WRI) investigated six assemblages of property ("the study area") located within the city limits of Black Diamond in southwest King County, Washington known as "The Villages" between the months of January to April and in June of 2006, March, October and November of 2007 and April of 2008 to identify, delineate and verify jurisdictional wetland boundaries. Raedeke Associates, Inc. and A.C. Kindig & Co. also conducted investigations and delineations on some of these properties; boundaries not delineated by WRI were verified during WRI site visits. WRI revisited the sites in March 2009 to verify wetland classifications based on the City of Black Diamond's recently adopted Sensitive Areas Ordinance. The purpose of this report is to provide baseline information of existing on-site wetlands for a proposed Master Plan Development (MPD) of the Villages.

For a description of the on-site stream conditions, please refer to the *Stream Assessment Report* prepared by Cedar Rock Consulting (2008). This stream assessment was prepared for the Villages EIS.

The study area is comprised of several parcel assemblages (Parcels B, C, D, E, F and BDA) and covers approximately 1,196.4 total acres, including the Guidetti parcel. The Guidetti parcel is approximately 20-acres in size and was not evaluated because it is assumed to be entirely wetland and/or buffer. Parcel B comprises the "North Property" and Parcels C, D, E, F and BDA comprise the "Main Property". The North Property is located approximately 2 miles north of the Main Property. These assemblages are further located within portions of Sections 11, 15, 22, 23 and 27, Township 21N, Range 6E, W.M.

Most of the site and surrounding land was converted from coal and gravel mining operations to managed forest plantations several decades ago, and continues to be used for timber harvesting today. Land use to the west, toward the center of the city of Black Diamond, is comprised of mixed residential and commercial development. The entire project site, with the exception of Parcel F, is located within the City limits of Black Diamond. Parcel F is located within the City's unincorporated UGA.

During WRI's field investigations, a total of 97 wetlands were identified on the six assemblages and delineated using the US Army Corps of Engineers methodology. The total acreage of wetland areas equates to approximately 180.94 acres. Wetlands have been designated and rated per BDMC 19.10.210; buffers have been determined based on BDMC 19.10.230. A complete list of all delineated wetlands has been included in Table 1, below.

Parcel B (1 parcel, 81.53 acres) is located at the northern edge of the Black Diamond city limits, west of the intersection of Summit Drive and SR 169 (3rd Ave). It is rectangular with the longer sides on the east and west. It is bordered by residential and commercial properties to the east, cleared land to the south and southwest, and

additional forested land to the west and north. Topography on the site is generally undulating with a northwest aspect slope in the northwest corner of the parcel and a southwest aspect slope in the southwest corner of the parcel. The area contains several gravel logging roads and a network of heavily used mountain bike trails throughout. There are no existing structures on the site.

Parcel B is vegetated by a conifer forest with stands of varying ages. A mix of shrubs and young Douglas fir saplings currently cover the northwest corner of Parcel B. The remainder of Parcel B is currently forested with an approximately 25 to 30 year old stand of Douglas fir with a native understory.

Parcel B contains **twelve** wetlands identified as Wetlands B1, B3, B4, B6-A, B6-B, B6-C, B6-D, B6-E, B7, A4, A6 and A7 totaling 10.14 acres. Wetland B4 is rated as a Category II wetland with a 110-foot buffer. Wetlands B1 and B3 are rated as Category II wetlands with 75-foot buffers. Wetland A6 is rated as a Category III wetland with a 110-foot buffer. Wetlands B6(A-E), A4, A7 and B7 are rated as Category III wetlands with 60-foot buffers. (DOE, Black Diamond classifications)

Parcel C (2 parcels, 54.62 acres) is located at the western edge of the city limits, south of Lake Sawyer, west of the intersection of Roberts Drive, Lake Sawyer Road and SE Auburn-Black Diamond Road. It is generally triangular in shape. Topography is generally flat within Parcel C. It is bordered by a mix of undeveloped and residential lands. There are no existing structures on the site.

Parcel C is vegetated with 15± year-old managed Douglas fir and moderate to dense shrub ground cover. No wetlands were found on this parcel.

Parcel C contains **no wetlands.**

Parcel D (11 parcels, 226 acres) is located at the eastern edge of the city limits, southwest of the intersection of Roberts Drive, Lake Sawyer Road and SE Auburn-Black Diamond Road and Parcel C. This parcel is rectangular in shape with the longer sides on the east and west. It is bordered by residential lands to the west, and forested lands to the south and east. The topography is generally level in the northeastern portion of Parcel D and undulates with alternating swaths of uplands and lowlands in the remainder of this parcel. There is an extensive road system on this parcel that is used for unauthorized ATV recreation. A large gravel borrow pit is located near the center of the parcel. There are no existing structures on the site.

The northern portion of Parcel D is vegetated with 15± year-old managed Douglas fir and dense native shrub ground cover. The south portion of the property is vegetated with even-aged stand of Douglas fir with a sparse, native understory.

There are **ten** identified wetlands on this parcel totaling 5.01 acres. The wetlands are labeled as Wetlands D1, D2, D4, D9, D10, D11 PQ, S and T. A small portion of Wetland E1

a Category I wetland (1.0 acre) is located on this parcel near the northeast corner (described with Parcel E wetlands). Wetland D2 is rated as a Category II wetland with 110-foot buffer. Wetlands D9, D10 and D11 are rated as Category III wetlands with 110-foot buffers. Wetlands D1, D4, PQ, S and T are rated as Category III wetlands with 60-foot buffers. (DOE, Black Diamond classifications)

Parcel E (1 parcel, 151 acres) is located in the southwest portion of the city limits, southeast of the intersection of Roberts Drive, Lake Sawyer Road and SE Auburn-Black Diamond Road and east of Parcel D. This parcel is generally square in shape with a small exclusion in the southeast corner. It is bordered by residential development to the north and undeveloped, forested lands to the east, west and south, and residential property to the southeast. The topography is generally undulating with alternating swaths of uplands and lowlands running northwest to southeast. There is a road system on this parcel that is used for unauthorized ATV recreation. There are no existing structures on the site.

Parcel E is vegetated by an even-aged conifer forested with a generally sparse, native understory.

There are **five** identified wetlands on this parcel totaling 54.66 acres. The wetlands are labeled as Wetlands E1, E7, E8, E10 and TOS. A small portion of Wetland E1 extends onto Parcel D. Wetland E1 and TOS are rated as Category I wetlands. Wetland TOS and a portion of E1 are located in the City of Black Diamond's Core Wetland Complex and receive a 225-foot buffer. Wetland E1 is rated as Category I wetland with a 110-foot buffer. Wetlands E7, E8 and E10 are rated as Category III wetlands with 110-foot buffers. (DOE, Black Diamond classifications)

Parcel F (12 parcels, 265.99 acres) is located in the southeast portion of the City of Black Diamond UGA, northwest of the intersection of SR 169 (Enumclaw-Black Diamond Road SE). This parcel is irregular in shape. Parcel F is bordered by Black Diamond Lake to the northwest; rural residential properties to the northwest, northeast, and south; forested lands to the north and west. Enumclaw-Black Diamond Road (Hwy 169) borders the assemblage to the east. Topography in Parcel F is gently undulating in the central portion. The western portion slopes to the north and the eastern portion of the site slopes to the east. Parcel F drains in three directions: northeast toward Jones Lake, northwest to Black Diamond Lake and south to the Green River. There is an extensive road system on this parcel. There are no existing structures on the site.

Most of parcel F is primarily vegetated with even-aged Douglas fir forests of young to medium age, approximately 30 years old. The easternmost tip of Parcel F is covered by a young forest, approximately 14 years old.

There are **twenty-five** identified wetlands on this parcel totaling 43.64 acres. The wetlands are labeled as Wetlands S1/S2, S3/S4, S4 East, S5/108, S6/S7/S8, S9, S11, S12, S14, S18/S19/S20, J, K, M, Q, R, U, W, AA, BB, CC, DD, GG, JJ, KK and LL. A large

portion of Wetland S5/108 (Black Diamond Lake) a Category I wetland (5.5 acres) is located on this parcel near the northwest corner. Wetland S5/108 (Black Diamond Lake) is located in the City of Black Diamond's Core Wetland Complex and receives a 225-foot buffer. Wetland Q is rated as a Category I wetland with 110-foot buffers. Wetlands S1/S2, S3/S4, S4 East, S6/S7/S8, S18/S19/S20 and GG are rated as Category II wetlands with 110-foot buffers. Wetlands BB, DD and KK rated as Category II wetlands with 75-foot buffers. Wetlands J, K, M, R, U, W, AA and JJ are rated as Category III wetlands with 110-foot buffers. Wetlands S9, S11, S12, S14, CC and LL are rated as Category III wetlands with 60-foot buffers. (DOE, Black Diamond classifications)

BDA (20 parcels, 395.74 acres) is located in the southwest edge of the City of Black Diamond UGA, north of the intersection of SE Green Valley Road and 240th Avenue SE. This parcel is irregular in shape. Parcel BDA bordered by Black Diamond Lake in the northeast, rural residential properties to the south, and forested lands on all other sides. Topography in the northern portion of the BDA parcel is undulating with alternating upland and lowland areas running northwest to southeast. The western portion of the BDA parcel contains a large low area running northwest to southeast. There is an extensive road system and no existing structures on the site.

The eastern half of the BDA parcel is primarily covered by a mixed forest of medium-mature age. This mixed forest contains trees of varying ages with the larger trees estimated at 60 to 80 years old. The western portion of the BDA parcel is primarily vegetated with even-aged Douglas fir forests of young to medium age, approximately 30 years old.

There are **forty-six** identified wetlands on this parcel totaling 63.88 acres. The wetlands are labeled as Wetlands F, G, Y, YY, ZZ, 2, 3, 5, 7, 10, 11, 13, 14, 102, 103, 105, 106, S5/108, 112, 113, 114, 119, 123, 125, 200, 201, 201B, 202, 206, 212, 213, 214, 215, 216, 218, 250, 301, 302, 303, 401, 402, 404, 501, 502, 504 and 999. Wetland S5/108, 250, 401 and 402 are located in the City of Black Diamond's Core Wetland Complex and receive a 225-foot buffer. Wetlands F, ZZ, 5 and 114 are rated as Category II wetlands with 110-foot buffers. Wetlands G, 119, 125 and 301 are rated as Category III wetlands with 110-foot buffers. Wetlands 7, 10, 11, 13, 14, 106, 112, 123, 202, 206, 218, 404, 501, 502 and 999 are rated as Category III wetlands with 60-foot buffers. Wetlands Y, YY, 2, 3, 102, 103, 105, 113, 200, 201, 201B, 212, 213, 214, 215, 216, 302, 303 and 504 are rated as Category IV wetlands with 40-foot buffers. (DOE, Black Diamond classifications)

PROJECT DESCRIPTION AND CONCEPTUAL MITIGATION

The applicant is seeking a Master Plan Development (MPD) permit to develop the approximate 1,200 acres of the Villages property with a mix of residential, retail/commercial, office, educational, civic and recreational uses. Roads, utilities and stormwater facilities will be required for such a development. Wetland and buffer impacts will occur as part of this MPD permit application and impacts mitigated per the

ratios and requirements of the City of Black Diamond code as well as the ratios and requirements of any agency with jurisdiction over such impacts.

It is expected that a combination of buffer averaging (BDMC 19.10.230.H) and designation of additional buffers will be offered to mitigate for any wetland or buffer impacts occurring as part of the MPD permit application. Additional buffer will provide connectivity and increased width of existing wetland corridors. On-site mitigation within the same sub drainage system where impacts occur will be prioritized.

WETLAND CLASSIFICATIONS - COWARDIN SYSTEM

The Cowardin System is a comprehensive wetland and deepwater habitat classification system that was developed for the U.S. Fish and Wildlife Service. It is recognized nationally as a standard system for classifying vegetation in wetlands.

There are several questions in the Department of Ecology (DOE) Wetland Rating Form for Western Washington that require classifying vegetation based on the Cowardin System. Therefore, in addition to classifying wetlands according the City of Black Diamond requirements, the wetlands on this site have been classified according to the Cowardin System. The Cowardin System is described in Classification of Wetlands and Deepwater Habitats of the United States (Cowardin et al. 1979). Classifications for the wetlands on this site are as follows:

Wetland F
Palustrine, Emergent Wetland, Persistent, Seasonally Flooded
(PEMC)

Wetland B4
Palustrine, Scrub-shrub Wetland, Broad-leaved Deciduous, Saturated
(PSSB)

Wetland TOS
Palustrine, Scrub-shrub Wetland, Broad-leaved Deciduous, Seasonally Flooded/Saturated
(PSSE)

Wetlands A4, A6, A7, B6(A-E), B7, D1, D4, D9, D10, D11, T, E7, E8, E10, S1/S2, S3/S4, S4 EAST, S6/S7/S8, S18/S19/S20, G, Y, YY, 2, 5, 7, 10, 11, 13, 14, 102, 103, 105, 106, 112, 113, 119, 200, 201, 201B, 202, 206, 212, 213, 214, 216, 218, 250, 302, 303, 401, 402, 404, 501, 502 and 999
Palustrine, Forested Wetland, Broad-leaved Deciduous, Saturated
(PFOB)

Wetlands 3 and 215
Palustrine, Forested Wetland, Needle-leaved Evergreen, Saturated
(PFOB)

Wetlands T and S5/08
Palustrine, Forested Wetland, Needle-leaved Evergreen, Seasonally Flooded (PFOC)

Wetlands D2, PQ, S, E1, S9, S11, S12, S14, J, K, M, Q, R, U, W, AA, BB, CC, DD, EE, GG, JJ, KK, LL, ZZ, 114, 123, 125, 301 and 504
Palustrine, Forested Wetland, Broad-leaved Deciduous, Seasonally Flooded/Saturated (PFOE)

Wetlands B1, B3, D2
Palustrine, Forested Wetland, Needle-leaved Evergreen, Seasonally Flooded/Saturated (PFOE)

WETLAND CLASSIFICATIONS - CITY OF BLACK DIAMOND

In February 2009, the City of Black Diamond adopted an updated Sensitive Areas Ordinance (SAO), Chapter 19.10. According to the updated ordinance, wetlands are rated within the following categories: "Core Wetland and Stream Complex", "Headwater Wetlands", and "Other Wetlands". Several wetlands within the Villages Main Property are included in the Core Wetland and Stream Complex. All other wetlands will be classified according to the Washington State Wetland Rating System for Western Washington, revised August 2004 (Ecology Publication #04-06-025). Regulated buffers are determined using Black Diamond Sensitive Areas Ordinance, Chapter 19.10.230.

The recently updated SAO has put a higher priority on habitat, which is reflected in buffer widths. Because of this WRI recently revisited the site to verify wetland classifications and habitat scores according to the Department of Ecology (DOE) Wetland Rating Forms. The wetland classifications and regulated buffers for the wetlands identified on this are as follows.

Wetland and Stream Core Complex
Wetlands TOS, a portion of E1, S5/108, 250, 401 and 402
These wetlands are associated with Rock Creek (TOS) and Black Diamond Lake (S5/108), and have been determined to provide the highest level of ecological functions. In the City of Black Diamond, the standard protective buffer width for Core Complex Wetlands is 225-feet, per BDMC 19.10.230.B.

Category I Wetlands
Wetlands E1 and Q
These wetlands received total scores of 70 points or greater with habitat scores between 20-28 points on the DOE Wetland Rating Form and classify as Category I wetlands. In the City of Black Diamond, the standard protective buffer width for these Category I wetlands is **110-feet**, per 19.10.230.D.

Category II Wetlands

Wetlands B4, D2, S1/S2, S3/S4, S4 East, S6/S7/S8, S18/S19/S20, GG, F, ZZ, 5 and 114

These wetlands received total scores between 51-69 points for functions with habitat scores between 20-28 points on the DOE Wetland Rating Form and classify as Category II wetlands. In the City of Black Diamond, the standard protective buffer width for these Category II wetlands is **110-feet**, per 19.10.230.D.

Wetlands B1, B3, BB, DD and KK

These wetlands received total scores between 51-69 points for functions on the DOE Wetland Rating Form and classify as Category II wetlands. In the City of Black Diamond, the standard protective buffer width for these Category II wetlands is **75-feet**, per 19.10.230.D.

Category III Wetlands

Wetlands A6, D9, D10, D11, E7, E8, E10, J, K, M, R, U, W, AA, JJ, G, 119, 125 and 301

These wetlands received total scores between 30-50 points for functions with habitat scores between 20-28 points on the DOE Wetland Rating Form, which equate to Category III wetlands. In the City of Black Diamond, the standard protective buffer width for these Category III wetlands is **110-feet**, per 19.10.230.D.

Wetlands B6(A-E), B7, A4, A7, D1, D4, PQ, S, T, S9, S11, S12, S14, CC LL, 7, 10, 11, 13, 14, 106, 112, 123, 202, 206, 218, 404, 501, 502 and 999

These wetlands received total scores between 30-50 points for functions on the DOE Wetland Rating Form and classify as Category III wetlands. In the City of Black Diamond, the standard protective buffer width for these Category III wetlands is **60-feet**, per 19.10.230.D.

Category IV Wetlands

Wetlands Y, YY, 2, 3, 102, 103, 105, 113, 201, 200, 201B, 212, 213, 214, 215, 216, 302, 303 and 504

These wetlands received total scores of less than 30 points for functions on the DOE rating forms. In the City of Black Diamond, the standard protective buffer width for these Category III wetlands is **40-feet**, per 19.10.230.D.

Table 1: Wetland Information

Wetland	Wetland Size Acres (Sq. ft.)	HGM Class	City of BD Classification	Total Score on DOE Rating Form	Habitat Score on DOE Rating Form	City of BD Minimum Buffer	Core Wetland and Stream Complex
PARCEL B - 12 Wetlands							
B1	0.66 (28,807)	Depressional	Category II	54	14	75'	
B3	1.68 (73,023)	Depressional	Category II	54	14	75'	

Wetland	Wetland Size Acres (Sq. ft.)	HGM Class	City of BD Classification	Total Score on DOE Rating Form	Habitat Score on DOE Rating Form	City of BD Minimum Buffer	Core Wetland and Stream Complex
B4	5.67 (247,199)	Depressional	Category II	52	22	110'	
B6-A	0.06 (2,788)	Slope	Category III	35	19	60'	
B6-B	0.07 (3,218)	Slope	Category III	35	19	60'	
B6-C	0.18 (7,980)	Slope	Category III	35	19	60'	
B6-D	0.2 (8,836)	Slope	Category III	35	19	60'	
B6-E	0.15 (6,669)	Slope	Category III	35	19	60'	
B7	0.09 (3,950)	Depressional	Category III	36	12	60'	
A4	0.33 (14,346)	Depressional	Category III	46	16	60'	
A6	0.31 (13,432)	Depressional	Category III	46	20	110'	
A7	0.72 (31,472)	Depressional	Category III	42	16	60'	
PARCEL C							
No wetlands	-	-	-	-	-	-	-
PARCEL D - 10 Wetlands							
D1	0.1 (4,303)	Depressional	Category III	39	17	60'	
D2	0.04 (1,611)	Depressional	Category II	55	21	110'	
D4	0.1 (4,626)	Depressional	Category III	32	17	60'	
D9	0.09 (4,344)	Depressional	Category III	40	20	110'	
D10	0.07 (3,227)	Depressional	Category III	42	20	110'	
D11	0.07 (2,892)	Depressional	Category III	40	20	110'	
PQ	1.8 (79,341)	Slope	Category III	30	19	60'	
S	1.4 (61,804)	Depressional	Category III	35	17	60'	
T	0.28 (12,570)	Depressional	Category III	35	17	60'	
E1	1.0 (43,561)			0			

Wetland	Wetland Size Acres (Sq. ft.)	HGM Class	City of BD Classification	Total Score on DOE Rating Form	Habitat Score on DOE Rating Form	City of BD Minimum Buffer	Core Wetland and Stream Complex
PARCEL E - 5 Wetlands							
E1* portion included in CORE	11.2 (488,401)	Riverine	Category I	72	24	110'/225'	X
E7	0.09 (3,781)	Depressional	Category III	43	20	110'	
E8	0.07 (2,929)	Depressional	Category III	43	20	110'	
E10	0.1 (4,324)	Depressional	Category III	44	21	110'	
TOS	43.2 (1,881,893)	Riverine	Category I	87	27	225'	X
PARCEL F -25 Wetlands							
S1/S2	4.2 (182,361)	Slope	Category II	60	22	110'	
S3/S4	7.26 (316,035)	Slope	Category II	60	22	110'	
S4 EAST	7.08 (308,533)	Slope	Category II	60	22	110'	
S5/108	5.5 (241,348)	Lake Fringe	Category I	83	29	225'	X
S6/S7/S8	9.76 (425,139)	Slope	Category II	60	22	110'	
S9	0.24 (10,381)	Depressional	Category III	40	18	60'	
S11	0.07 (2,870)	Depressional	Category III	40	18	60'	
S12	0.13 (5,672)	Depressional	Category III	40	18	60'	
S14	0.15 (6,687)	Depressional	Category III	40	18	60'	
S18/S19/S20	1.88 (81,910)	Slope	Category II	60	22	110'	
J	0.27 (11,803)	Slope	Category III	44	25	110'	
K	0.08 (3,565)	Depressional	Category III	37	21	110'	
M	0.03 (1,621)	Depressional	Category III	38	22	110'	
Q	5.36 (233,681)	Depressional	Category I	70	26	110'	
R	0.22 (9,431)	Depressional	Category III	38	22	110'	

Wetland	Wetland Size Acres (Sq. ft.)	HGM Class	City of BD Classification	Total Score on DOE Rating Form	Habitat Score on DOE Rating Form	City of BD Minimum Buffer	Core Wetland and Stream Complex
U	0.81 (35,251)	Depressional	Category III	43	20	110'	
W	0.06 (2,493)	Depressional	Category III	38	22	110'	
AA	0.003 (126)	Depressional	Category III	48	20	110'	
BB	0.03 (1,186)	Depressional	Category II	55	19	75'	
CC	0.003 (132)	Depressional	Category III	37	13	60'	
DD	0.02 (911)	Depressional	Category II	56	16	75'	
GG	0.30 (12,911)	Depressional	Category II	66	20	110'	
JJ	0.12 (5,496)	Depressional	Category III	50	20	110'	
KK	0.02 (965)	Depressional	Category II	55	19	75'	
LL	0.01 (503)	Depressional	Category III	56	16	60'	
PARCEL BDA -46 Wetlands							
F	2.3 (101,243)	Depressional	Category II	55	26	110'	
G	0.34 (14,711)	Depressional	Category III	45	20	110'	
Y	0.04 (1,828)	Depressional	Category IV	28	17	40'	
YY	0.06 (2,742)	Depressional	Category IV	29	18	40'	
ZZ	1.2 (50,251)	Depressional	Category II	52	22	110'	
2	0.03 (1,244)	Depressional	Category IV	28	17	40'	
3	0.09 (3,941)	Depressional	Category IV	28	17	40'	
5	2.36 (102,643)	Depressional	Category II	52	24	110'	
7	0.02 (770)	Depressional	Category III	40	17	60'	
10	0.03 (1,136)	Depressional	Category III	35	17	60'	
11	0.1 (4,613)	Depressional	Category III	35	17	60'	

Wetland	Wetland Size Acres (Sq. ft.)	HGM Class	City of BD Classification	Total Score on DOE Rating Form	Habitat Score on DOE Rating Form	City of BD Minimum Buffer	Core Wetland and Stream Complex
13	0.1 (4,566)	Depressional	Category III	35	17	60'	
14	0.62 (27,219)	Depressional	Category III	35	17	60'	
102	0.21 (9,236)	Depressional	Category IV	28	17	40'	
103	0.27 (11,892)	Depressional	Category IV	29	18	40'	
105	0.09 (4,050)	Depressional	Category IV	28	17	40'	
106	0.01 (548)	Depressional	Category III	40	17	60'	
S5/108	47.4 (2,064,606)	Depressional	Category I	83	29	225'	X
112	0.3 (12,983)	Depressional	Category III	41	18	60'	
113	0.01 (449)	Depressional	Category IV	27	17	40'	
114	3.7 (162,114)	Depressional	Category II	52	22	110'	
119	1.8 (79,809)	Depressional	Category III	50	22	110'	
123	0.02 (748)	Depressional	Category III	35	17	60'	
125	0.35 (15,287)	Depressional	Category III	48	20	110'	
200	0.09 (3,802)	Depressional	Category IV	28	17	40'	
201	0.09 (3,819)	Depressional	Category IV	28	17	40'	
201B	0.04 (1,928)	Depressional	Category IV	27	17	40'	
202	0.02 (981)	Depressional	Category III	41	18	60'	
206	0.003 (140)	Depressional	Category III	35	17	60'	
212	0.01 (453)	Depressional	Category IV	29	18	40'	
213	0.05 (2,243)	Depressional	Category IV	28	17	40'	
214	0.16 (6,760)	Depressional	Category IV	29	18	40'	
215	0.004 (172)	Depressional	Category IV	28	17	40'	

Wetland	Wetland Size Acres (Sq. ft.)	HGM Class	City of BD Classification	Total Score on DOE Rating Form	Habitat Score on DOE Rating Form	City of BD Minimum Buffer	Core Wetland and Stream Complex
216	0.02 (1,019)	Depressional	Category IV	28	17	40'	
218	0.03 (1,122)	Depressional	Category III	41	18	60'	
250	0.02 (981)	Depressional	Category III	41	18	225'	X
301	1.0 (44,032)	Depressional	Category III	48	20	110'	
302	0.004 (165)	Depressional	Category IV	26	16	40'	
303	0.07 (3,052)	Depressional	Category IV	26	16	40'	
401	0.29 (12,622)	Slope	Category III	35	21	225'	X
402	0.14 (6,120)	Slope	Category III	35	21	225'	X
404	0.08 (3,296)	Depressional	Category III	40	17	60'	
501	0.05 (2,255)	Depressional	Category III	36	18	60'	
502	0.003 (141)	Depressional	Category III	35	17	60'	
504	0.03 (1,141)	Depressional	Category IV	26	16	40'	
999	0.17 (7,572)	Depressional	Category III	40	17	60'	

Core Wetland and Stream Complex Field Verification

The general boundaries of the Core Wetland and Stream Complex have been determined and defined in the Best Available Science Document, Technical Appendix B. Black Diamond Municipal Code allows these boundaries to be further defined by field verification. (BDMC 19.10.210).

The BAS document includes several wetlands delineated on the Villages properties in the Core Complex, however, based on field observation, review of topographical information and basin surveys, in certain areas the general wetland boundaries identified do not appear to contribute to or share hydrologic function with these Core Wetlands. In particular, on Parcel BDA, Wetlands F, 10, 11, 13, 14, 114, 123, 125, 202, 206, 501 and 502. Topographic data indicate these wetlands drain away from the Core Wetlands. As such, the above listed wetlands were rated with the DOE rating form and designated the appropriate buffers, see Table 1 above.

Methodology for Designating Wetlands
On site, the routine methodology described in the Washington State Wetlands Identification and Delineation Manual (Washington State Department of Ecology Publication #96-94, March 1997) was used for this determination, as required by the City of Black Diamond. Under this method, the process for making a wetland determination is based on three sequential steps:

1.) Examination of the site for hydrophytic vegetation (species present and percent cover);
2.) If hydrophytic vegetation is found, then the presence of hydric soils is determined.
3.) The final step is determining if wetland hydrology exists in the area examined under the first two steps.

The following criteria descriptions were used in the boundary determination:

Vegetation Criteria
The Washington State Wetlands Identification and Delineation Manual, 1997 edition, defines hydrophytic vegetation as the sum total of macrophytic plant life that occurs in areas where the frequency and duration of inundation, or soil saturation, produce permanently or periodically saturated soils of sufficient duration to exert a controlling influence on the plant species present. One of the most common indicators for hydrophytic vegetation is when more than 50 percent of a plant community consists of species rated "Facultative" and wetter on lists of plant species that occur in wetlands.

Soils Criteria and Mapped Description
The Washington State Wetlands Identification and Delineation Manual, 1997 edition, defines hydric soils as those that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part. Field indicators are used for determining whether a given soil meets the definition for hydric soils.

The soils underlying the study area are mapped in the Soil Survey of King County Area Washington, 1973 edition as Alderwood gravelly sandy loam, 6 to 15 percent slopes (AgC), Alderwood gravelly sandy loam, 15 to 30 percent slopes (AgD), Everett gravelly sandy loam, 15 to 30 percent slopes (EvC), Seattle Muck (Sk) and Bellingham silt loam (Bh).

The Alderwood gravelly sandy loam, 6 to 15 percent slopes (AgC) soil unit is described as rolling with irregularly shaped areas ranging from 10 to about 600 acres in size. The A horizon ranges from very dark brown to dark brown. The B-horizon is dark brown, grayish brown and dark yellowish brown. Permeability is moderately rapid in the surface layer and subsoil and very slow in the substratum. Available water capacity is described as low. Included within this soil unit are the poorly drained Norma, Bellingham, Seattle,

Tukwila, Shalcar soils, and Alderwood soils that have slopes gentler or steeper than 6 to 15 percent. Included soil units make up no more than 30 percent of the total acreage. Mapped on Parcels B, D, E, F and BDA.

The Alderwood gravelly sandy loam, 15 to 30 percent slopes (AgD) soil unit is made up of moderately well drained soils that have a weakly consolidated substratum at a depth of 24 to 40 inches. In a representative profile, the surface layer and subsoil are very dark brown, dark brown, and grayish brown gravelly sandy loam about 27 inches thick. The substratum is grayish-brown, weakly consolidated to strongly consolidated glacial till that extends to a depth of 60 inches and more. Soils included with this soil unit make up no more than 30 percent of the total acreage. Some areas are up to 25 percent Everett soils that have slopes of 15 to 30 percent, and some areas are up to 2 percent Bellingham, Norma, and Seattle soils, which are in depressions. Runoff is medium, and the erosion hazard is severe. Mapped on Parcels B, F and BDA.

The Everett Series is made up of somewhat excessively drained soils that are underlain by very gravelly sand at a depth of 18 to 36 inches. These soils formed in very gravelly glacial outwash deposits, under conifers. In a representative profile, the surface layer and subsoil are black to brown, gravelly to very gravelly sandy loam about 32 inches thick. Soils included with this soil in mapping make up no more than 30 percent of the total acreage. Permeability is rapid. Available water capacity is low. Mapped on Parcels B, C, D, E, F and BDA.

The Seattle series is made up of very poorly drained organic soils that formed in material derived primarily from sedges. These soils are in depressions and valleys on the glacial till plain and also in the river and stream valleys. Slopes are 0 to 1 percent. In a representative profile, the surface layer is black muck about 11 inches thick. It is underlain by dark reddish-brown, black, very dark brown, and dark-brown muck and mucky peat that extends to a depth of 60 inches or more. The subsurface layers are stratified mucky peat, muck, and peat that formed mostly from sedges. Where these soils adjoin mineral soils, some layers are 25 percent wood fragments. Some areas are up to 30 percent inclusions of Tukwila soils, which are deep mucks, and Shalcar soils, which are shallow over a mineral substratum; and some areas are up to 15 percent inclusions of the wet Bellingham and Norma soils. Total inclusions do not exceed 30 percent. Permeability is moderate. There is a seasonal high water table at or near the surface. Available water capacity is high. Mapped on Parcels E and BDA.

The Bellingham series is made up of poorly drained soils formed in alluvium under grass and sedges. These soils are nearly level and are mostly in depressions on the upland till. In a representative profile, the surface layer is very dark brown silt loam about 11 inches thick. The subsoil is mottled grey silty clay loam about 49 inches thick. Included in this mapping were small areas of Alderwood, Everett, and Seattle soils. Total inclusions do not exceed 15 percent of the total acreage. Permeability of this soil is slow. The available water capacity is high. Bellingham and Seattle soils are included on the Hydric Soils List for Washington. Mapped on Parcel E.

Hydrology Criteria:
The 1997 edition of the Washington State Wetlands Identification and Delineation Manual states that the "term wetland hydrology encompasses all hydrologic characteristics of areas that are periodically inundated or have soils saturated to the surface for a sufficient duration during the growing season." It also explains that "areas with evident characteristics of wetland hydrology are those where the presence of water has an overriding influence on characteristics of vegetation and soils due to anaerobic and chemically reducing conditions, respectively."

Additionally, the manual states that "areas which are seasonally inundated and/or saturated to the surface for a consecutive number of days ≥12.5 percent of the growing season are wetlands, provided the soil and vegetation parameters are met. Areas inundated or saturated between 5 and 12.5 percent of the growing season in most years may or may not be wetlands. Areas saturated to the surface for less than 5 percent of the growing season are non-wetlands." Field indicators were used to determine whether wetland hydrology parameters were met on this site.

REGULATED BUFFERS DISCUSSION

The regulated buffers for "Core" and "Headwater" wetlands are based on recommendations made by Parametrix in the document titled Best Available Science Review and Recommendations for Code Update (September 2008). In this document, wetland/stream complexes associated with Rock Creek, Jones Lake and Jones Creek corridor and the Black Diamond Lake/Stream corridors are recognized has having high functional values. These wetland/stream complexes, as a core, generally provide high levels of water supply, water quality improvement, and wildlife habitat. For this reason a recommended maximum 225-foot buffer for stream and wetlands within this core complex shall apply.

Wetland/stream complexes associated with headwaters of Ginder Creek, Lawson Creek, and Ravensdale Creek are also recognized as having high functional values. These wetland complexes contribute important surface and groundwater to the core complex. Buffer areas within 50-feet of the wetland protect water quality function, while buffers beyond 50-feet are primarily intended for protecting wildlife habitat. For headwaters, 225-foot buffers shall apply.

For all other wetlands, the city has adopted the recommended minimum buffer requirements under the Department of Ecology's Guidance on Wetlands in Washington State (2005), Volume 2 - Protecting and Managing Wetlands, Appendix 8C (moderate intensity land use). The buffer widths in the Guidance are based on the wetland category, the intensity of the impacts, and the functions or special characteristics (i.e. habitat function) of the wetland that needs to be protected as determined through the rating system.

Based on the rationales described above and the requirements in Chapter 19.10 of the

Black Diamond Sensitive Areas Ordinance, buffers for the on-site wetlands are recommended in the table below.

Boundary Determination Findings

Wetland Criteria
The dominance of species rated "Facultative" and wetter meets the criteria for hydrophytic vegetation in areas mapped as wetland. The presence of low chroma, saturated soils suggest that reducing conditions are present long enough during the growing season to develop anaerobic conditions in the upper part of the soil horizon. These characteristics meet the criteria for wetland soils. The areas mapped as wetland were saturated in the upper part at the time of the investigation, and appear to be seasonally inundated and/or saturated to the surface for a consecutive number of days ≥12.5 percent of the growing season, thereby fulfilling wetland hydrology criteria.

Non-wetland Criteria
Based on the lack of field indicators, it appears that the non-wetland areas of the site are saturated to the surface for less than 12.5 percent of the growing season, thereby not fulfilling wetland hydrology criteria.

Parcel B
There are twelve identified wetlands on this parcel. The wetlands are labeled as Wetlands B1, B3, B4, B6(A-E), B7, A4, A6 and A7.

Wetland Areas
The following is a list of dominant species identified within areas mapped as wetlands on Parcel B: red alder (*Alnus rubra*, Fac), black cottonwood (*Populus balsamifera*, Fac), western red cedar (*Thuja plicata*, Fac), pacific willow (*Salix lucida*, FacW), Scouler's willow (*Salix scouleriana*, Fac), Himalayan blackberry (*Rubus armeniacus*, FacU), salmonberry (*Rubus spectabilis*, Fac+), vine maple (*Acer circinatum*, Fac-), red osier dogwood (*Cornus sericea*, FacW), Pacific water parsley (*Oenanthe sarmentosa*, Obl), creeping buttercup (*Ranunculus repens*, FacW) and lady fern (*Athyrium filix-femina*, Fac).

The soil colors observed within the on-site wetlands include black (10YR 2/1), very dark gray (10YR 3/1) and very dark grayish brown (10YR 3/2) with redoximorphic features. Soil textures are typically loam, silt loam, and sandy loam. At the time of the site investigations, the soils were saturated within the upper 12 inches.

Non-wetland Areas
The following is a list of dominant species identified within areas mapped as non-wetlands: Douglas fir (*Pseudotsuga menziesii*, FacU), western red cedar, red alder, bitter cherry (*Prunus emarginata*, FacU), big leaf maple (*Acer macrophyllum*, FacU), salmonberry, Himalayan blackberry, vine maple, hazelnut (*Corylus cornuta*, FacU), salal

(*Gaultheria shallon*, FacU), red elderberry (*Sambucus racemosa*, FacU), Oregon grape (*Mahonia nervosa*, FacU), sword fern (*Polystichum munitum*, FacU) and trailing blackberry (*Rubus ursinus*, FacU).

The soils underlying the areas mapped as non-wetlands on this site are typically dark brown (10YR 3/3) and dark yellowish brown (10YR 3/4). No redoximorphic features were observed within the soil samples. The soils have a silt loam texture. They were slightly moist to dry during the site investigation. Based on these characteristics, wetland soils are not present within the areas mapped as non-wetland.

Parcel C

Parcel C is vegetated with 15± year-old managed Douglas fir and dense native shrub ground cover. The parcel contains a limited trail system. There are no identified wetlands on this parcel.

Non-wetland Areas

The following is a list of dominant species identified within areas mapped as non-wetlands on Parcel C: Douglas fir (*Pseudotsuga menziesii*, FacU), big leaf maple (*Acer macrophyllum*, FacU), salmonberry, Himalayan blackberry, vine maple, Scotch broom (*Cytisus scoparius*, nol/Upl), Indian plum (*Oemleria cerasiformis*, FacU), salal (*Gaultheria shallon*, FacU), snowberry (*Symphoricarpos albus*, FacU-), orange honeysuckle (*Lonicera ciliosa*, NOL), white clover (*Trifolium repens*, Fac), bentgrass species (*Agrostis sp.*, Fac-FacW), velvetgrass (*Holcus lanatus*, Fac), Oregon grape (*Mahonia nervosa*, FacU), bracken fern (*Pteridium aquilinum*, FacU), sword fern (*Polystichum munitum*, FacU) and trailing blackberry (*Rubus ursinus*, FacU).

The soils underlying the areas mapped as non-wetlands on this site are typically dark brown (10YR 3/3) and dark yellowish brown (10YR 3/6). No redoximorphic features were observed within the soil samples. The soils have a gravelly loam texture. They were dry during the site investigation. Based on these characteristics, wetland soils are not present within the areas mapped as non-wetland.

Parcel D

The northern portion of Parcel D is vegetated with 15± year-old managed Douglas fir and dense native shrub ground cover. There is an extensive road system on this parcel that is used for unauthorized ATV recreation. A large gravel borrow pit is located near the center of the parcel. The south portion of the property is vegetated with even-aged stand of Douglas fir. There are ten identified wetlands on this parcel. The wetlands are labeled as Wetlands D1, D2, D4, D9, D10, D11, PQ, S and T. A small portion of Wetland E1 is located on this parcel near the northeast corner. This wetland exists primarily on Parcel E and is described below with the Parcel E wetlands.

Wetland Areas

The following is a list of dominant species identified within areas mapped as wetlands on Parcel D: red alder (*Alnus rubra*, Fac), black cottonwood (*Populus balsamifera*,

Fac), western red cedar (*Thuja plicata*, Fac), Sitka spruce (*Picea sitchensis*, Fac), Western hemlock (*Tsuga heterophylla*, FacU-), pacific willow (*Salix lucida*, FacW), Himalayan blackberry (*Rubus armeniacus*, FacU), salmonberry (*Rubus spectabilis*, Fac+), cascara (*Rhamnus purshiana*, Fac-), vine maple (*Acer circinatum*, Fac-), black twinberry (*Lonicera involucrata*, Fac+), hardhack (*Spiraea douglasii*, FacW), false lily-of-the-valley (*Maianthemum dilatatum*, Fac), Cooley's hedge-nettle (*Stachys cooleyae*, FacW), Pacific bleeding heart (*Dicentra formosa*, FacU+), Carex species (*Carex sp.*, Fac-Obl), slough sedge (*Carex obnupta*, Obl), skunk cabbage (*Lysichiton americanum*, Obl), piggy-back plant (*Tolmiea menziesii*, Fac), sword fern (*Polystichum munitum*, FacU) and lady fern (*Athyrium filix-femina*, Fac).

The soil colors observed within the on-site wetlands include black (10YR 2/1), very dark gray (10YR 3/1), dark grayish brown (10YR 4/2) with redoximorphic features, very dark grayish brown (10YR 3/2) and dark grayish brown (2.5Y 4/2) with redoximorphic features. Soil textures are typically silt loam and gravelly silt loam. At the time of the site investigations, the soils were moist to saturated within the upper 12 inches.

Non-wetland Areas

The following is a list of dominant species identified within areas mapped as non-wetlands: Douglas fir (*Pseudotsuga menziesii*, FacU), Western red cedar, Western hemlock, bitter cherry (*Prunus emarginata*, FacU), big leaf maple (*Acer macrophyllum*, FacU), cascara (*Rhamnus purshiana*, Fac-), holly (*Ilex aquifolium*, FacU), baldhip rose (*Rosa gymnocarpa*, FacU), Scotch broom (*Cytisus scoparius*, nol/Upl), salmonberry, Himalayan blackberry, vine maple, salal (*Gaultheria shallon*, FacU), Oregon grape (*Mahonia nervosa*, FacU), trailing blackberry (*Rubus ursinus*, FacU), herb-Robert (*Geranium robertianum*, Nol), sword fern (*Polystichum munitum*, FacU), bracken fern (*Pteridium aquilinum*, FacU) and lady fern (*Athyrium filix-femina*, Fac).

The soils underlying the areas mapped as non-wetlands on this site are typically very dark brown (10YR 2/2), dark brown (10YR 3/3) and brown (10YR 4/3). No redoximorphic features were observed within the soil samples. The soils have a silt loam, gravelly silt loam and Gravelly sandy loam texture. They were moist to dry during the site investigation. Based on these characteristics, wetland soils are not present within the areas mapped as non-wetland.

Parcel E

Parcel E is vegetated by an even-aged conifer forested. There are five identified wetlands on this parcel. The wetlands are labeled as Wetlands E1, E7, E8, E10 and TOS. A small portion of Wetland E1 extends onto Parcel D.

Wetland Areas

The following is a list of dominant species identified within areas mapped as wetlands on Parcel E: red alder (*Alnus rubra*, Fac), black cottonwood (*Populus balsamifera*, Fac), Western hemlock (*Tsuga heterophylla*, FacU-), Sitka spruce (*Picea sitchensis*, Fac), cascara (*Rhamnus purshiana*, Fac-), red osier dogwood (*Cornus sericea*, FacW), pacific willow (*Salix lucida*, FacW), salmonberry (*Rubus spectabilis*, Fac+), vine maple (*Acer*

circinatum, Fac-), hardhack (*Spiraea douglasii*, FacW), Carex species (*Carex sp.*, Fac-Obl), tall mannagrass (*Glyceria elata*, FacW), Cooley's hedge-nettle (*Stachys cooleyae*, FacW), American speedwell (*Veronica americana*, Obl), skunk cabbage (*Lysichiton americanum*, Obl), and lady fern (*Athyrium filix-femina*, Fac).

The soil colors observed within the on-site wetlands include black (10YR 2/1), very dark gray (10YR 3/1) and very dark grayish brown (10YR 3/2). Soil textures are typically silt loam and organic silt and muck. At the time of the site investigations, the soils were moist to saturated within the upper 12 inches.

Non-wetland Areas

The following is a list of dominant species identified within areas mapped as non-wetlands: Douglas fir (*Pseudotsuga menziesii*, FacU), Western hemlock, salmonberry, vine maple, trailing blackberry (*Rubus ursinus*, FacU), red elderberry (*Sambucus racemosa*, FacU), holly (*Ilex aquifolium*, FacU), false lily-of-the-valley (*Maianthemum dilatatum*, Fac), Pacific bleeding heart (*Dicentra formosa*, FacU+), siberian miner's-lettuce (*Claytonia sibirica*, Fac-), Pacific waterleaf (*Hydrophyllum tenuipes*, NOL) and sword fern (*Polystichum munitum*, FacU).

The soils underlying the areas mapped as non-wetlands on this site are typically dark yellowish brown (10YR 4/4) and brown (10YR 4/3). No redoximorphic features were observed within the soil samples. The soils have a gravelly sandy loam texture. They were dry during the site investigation. Based on these characteristics, wetland soils are not present within the areas mapped as non-wetland.

Parcel F

Parcel F is vegetated by an even-aged conifer forested. Parcel F drains in three directions: northeast toward Jones Lake, northwest to Black Diamond Lake and south to the Green River. There are twenty-five identified wetlands on this parcel. The wetlands are labeled as Wetlands S1/S2, S3/S4, S4 East, S5/108, S6/S7/S8, S9, S11, S12, S14, S18/S19/S20, J, K, M, Q, R, U, W, AA, BB, CC, DD, GG, JJ, KK and LL.

Wetland Areas

The following is a list of dominant species identified within areas mapped as wetlands on Parcel F: red alder (*Alnus rubra*, Fac), black cottonwood (*Populus balsamifera*, Fac), Western hemlock (*Tsuga heterophylla*, FacU-), pacific willow (*Salix lucida*, FacW), Himalayan blackberry (*Rubus armeniacus*, FacU), salmonberry (*Rubus spectabilis*, Fac+), vine maple (*Acer circinatum*, Fac-), black twinberry (*Lonicera involucrata*, Fac+), hardhack (*Spiraea douglasii*, FacW), creeping buttercup (*Ranunculus repens*, FacW), field horsetail (*Equisetum arvense*, Fac), slough sedge (*Carex obnupta*, Obl), skunk cabbage (*Lysichiton americanum*, Obl), piggy-back plant (*Tolmiea menziesii*, Fac), sword fern (*Polystichum munitum*, FacU) and lady fern (*Athyrium filix-femina*, Fac).

The soil colors observed within the on-site wetlands include black (10YR 2/1), very dark gray (10YR 3/1) and dark grayish brown (10YR 4/2) with redoximorphic features. Soil

textures are typically silt loam and organic silt loam. At the time of the site investigations, the soils were moist to saturated within the upper 12 inches.

Non-wetland Areas

The following is a list of dominant species identified within areas mapped as non-wetlands: Douglas fir (*Pseudotsuga menziesii*, FacU), Western hemlock, black cottonwood, red alder, salmonberry, vine maple (*Acer circinatum*, Fac-), red huckleberry (*Vaccinium parvifolium*, FacU), Indian plum (*Oemleria cerasiformis*, FacU), vine maple, red elderberry (*Sambucus racemosa*, FacU), salal (*Gaultheria shallon*, FacU), trailing blackberry (*Rubus ursinus*, FacU), stinging nettle (*Urtica dioica*, Fac+), deer fern (*Blechnum spicant*, Fac+), sword fern (*Polystichum munitum*, FacU) and lady fern (*Athyrium filix-femina*, Fac).

The soils underlying the areas mapped as non-wetlands on this site are typically dark yellowish brown (10YR 3/4, 10YR 4/4), yellowish brown (10YR 5/4) and light yellowish brown (2.5Y 6/3). No redoximorphic features were observed within the soil samples. The soils have a gravelly sandy loam texture. They were slightly moist to moist during the site investigation. Based on these characteristics, wetland soils are not present within the areas mapped as non-wetland.

Parcel BDA

The eastern half of the BDA parcel is primarily covered by a mixed forest of medium-mature age. This mixed forest contains trees of varying ages with the larger trees estimated at 60 to 80 years old. The western portion of the BDA parcel is primarily vegetated with even-aged Douglas fir forests of young to medium age, approximately 30 years old. There are forty-six identified wetlands on this parcel. The wetlands are labeled as Wetlands F, G, Y, YY, ZZ, 2, 3, 5, 7, 10, 11, 13, 14, 102, 103, 105, 106, S5/108, 112, 113, 114, 119, 123, 125, 200, 201, 201B, 202, 206, 212, 213, 214, 215, 216, 218, 250, 301, 302, 303, 401, 402, 404, 501, 502, 504 and 999.

Wetland Areas

The following is a list of dominant species identified within areas mapped as wetlands on Parcel BDA: red alder (*Alnus rubra*, Fac), black cottonwood (*Populus balsamifera*, Fac), Western red cedar (*Thuja plicata*, Fac), Western hemlock (*Tsuga heterophylla*, FacU-), Sitka spruce (*Picea sitchensis*, Fac), cascara (*Rhamnus purshiana*, Fac-), Himalayan blackberry (*Rubus armeniacus*, FacU), salmonberry (*Rubus spectabilis*, Fac+), vine maple (*Acer circinatum*, Fac-), black twinberry (*Lonicera involucrata*, Fac+), hardhack (*Spiraea douglasii*, FacW), salal (*Gaultheria shallon*, FacU), speedwell (*Veronica sp.*, Obl), reed canarygrass (*Phalaris arundinacea*, FacW), Cooley's hedge-nettle (*Stachys cooleyae*, FacW), Pacific water parsley (*Oenanthe sarmentosa*, Obl), slough sedge (*Carex obnupta*, Obl), skunk cabbage (*Lysichiton americanum*, Obl), piggy-back plant (*Tolmiea menziesii*, Fac), sword fern (*Polystichum munitum*, FacU) and lady fern (*Athyrium filix-femina*, Fac).

The soil colors observed within the on-site wetlands include black (10YR 2/1), very dark gray (10YR 3/1) and very dark grayish brown (10YR 3/2) with redoximorphic features. Soil textures are typically sandy loam, loam, muck, silt loam, gravelly silt loam and sandy silt loam. At the time of the site investigations, the soils were moist to saturated within the upper 12 inches.

Non-wetland Areas
The following is a list of dominant species identified within areas mapped as non-wetlands: Douglas fir (*Pseudotsuga menziesii*, FacU), Western hemlock, Western red cedar, big leaf maple (*Acer macrophyllum*, FacU), red alder, cascara, salmonberry, vine maple (*Acer circinatum*, Fac-), red huckleberry (*Vaccinium parvifolium*, FacU), Indian plum (*Oemleria cerasiformis*, FacU), vine maple, red elderberry (*Sambucus racemosa*, FacU), salal, trailing blackberry (*Rubus ursinus*, FacU), piggy-back plant, deer fern (*Blechnum spicant*, Fac+) and sword fern (*Polystichum munitum*, FacU).

The soils underlying the areas mapped as non-wetlands on this site are typically very dark brown (10YR 2/2), very dark grayish brown (10YR 3/2), dark brown (10YR 3/3), dark yellowish brown (10YR 3/4, 10YR 4/6) and light yellowish brown (2.5Y 6/4). No redoximorphic features were observed within the soil samples. The soils have a gravelly sandy loam, gravely silt loam and silt loam texture. They were dry, slightly moist and moist during the site investigation. Based on these characteristics, wetland soils are not present within the areas mapped as non-wetland.

WETLAND FUNCTIONS AND VALUES ASSESSMENT

Methodology:
The methodology for this functions and values assessment is based on professional opinion developed through past field analyses and interpretations. This assessment pertains specifically to the on-site wetland system, but is typical for assessments of similar systems throughout western Washington.

Analysis
Hydrologic Control: Hydrologic control (flood control and water supply) is a very important function provided by wetlands. Due to their depressional characteristics, wetlands effectively function as natural water storage areas during periods of high precipitation/flooding, and are able to accumulate stormwater runoff. By storing water that otherwise might be channeled into open flow systems, wetlands can attenuate or modify potentially damaging effects of storm events, reducing erosion and peak flows to downstream systems. Additionally, the soils underlying wetlands are often less permeable, providing long-term storage of stormwater or floodflow and controlling baseflows of downstream systems. Wetlands with limited outlets store greater amounts of water than wetlands with unrestricted flow outlets. Forested areas are able to retain stormwater and help prevent soil erosion through hydrologic flows. Wetland vegetation stores excess stormwater that reaches the wetlands. This function is generally dictated by the size of the wetland and its topographic characteristics.

Water Quality Improvements: Surface runoff during periods of precipitation increases the potential for sediments and pollutants to enter surface water. Wetlands improve water quality by acting as filters as water passes through them, trapping sediments and pollutants from surface water. Ponded areas within depressional wetlands also allow sediments to drop out of suspension, thereby increasing water quality. As development increases, the potential for polluted water to reach wetlands and streams also increases. Unnaturally high inputs of pollutants, which are often found in urbanized areas, along with the size of the wetlands and the vegetation structure within them are the main limiting factors of this function.

Wildlife Habitat: Wetlands have potential to provide diverse habitat for aquatic, terrestrial, and avian species for nesting, rearing, resting, cover, and foraging. Wildlife species are commonly dependent upon a variety of intermingled habitat types, including wetlands, adjacent uplands, large bodies of water, and movement corridors between them. Human intrusion, including development within and adjacent to wetlands, and impacts to movement corridors are the most limiting factors for wildlife habitat functions.

Wetland A6

This wetland is a long and narrow depressional wetland located in the northeast portion of Parcel B. Wetland A6 extends off-site to the north. Vegetation within this wetland is generally represented by red alder, Himalayan blackberry, salmonberry, and vine maple. This wetland provides **moderate** levels of hydrologic control and water quality improvements due to the lack of an outlet, moderate size and storage capacity and dense woody vegetation. Habitat functions are somewhat limited due to the heavy recreational use of the site, its proximity to residential areas and a major highway.

Wetlands A7 and B6 A-E

These wetlands are long, narrow depressional wetlands located in the east central and west central portions of Parcel B. Wetlands A7 and B6 A-E appear to be contained on-site. Vegetation within these wetlands is generally represented by red alder, Himalayan blackberry, salmonberry, and vine maple. These wetlands provide **moderate** levels of hydrologic control and water quality improvements due to the lack of an outlet, moderate size and storage capacity and dense woody vegetation. Habitat functions are somewhat limited due to the heavy recreational use of the site, their proximity to residential areas and a major highway.

Wetland A4

This wetland is a shallow depression near the northwest corner of Parcel B where forest structure begins to change. Typical vegetation in this wetland includes red alder, salmonberry, soft rush and lady fern. This wetland provides **moderate** levels of hydrologic control and water quality improvements due to the lack of an outlet, small size, and shallow topography. The uniform habitat, heavy recreational use and proximity to residential development and major highway limit extensive wildlife use.

Wetland B1 and B3
Wetland B1 and B3 are linear, depressional wetlands located in the west central portion of Parcel B. Vegetation in these wetlands is typically comprised of red alder, Himalayan blackberry, salmonberry, vine maple and lady fern. These wetlands provide **significant** levels of hydrologic control and water quality improvements due to the lack of an outlet, moderate size and storage capacity and dense woody vegetation. Habitat functions are somewhat limited due to the heavy recreational use of the site, its proximity to residential areas and a major highway.

Wetland B4
Wetland B4 a large depressional wetland, is found in the southeast corner of Parcel B. Vegetation typical of this wetland includes red alder, Pacific willow, salmonberry, Himalayan blackberry, slough sedge, Pacific water parsley and lady fern. This wetland provides **significant** levels hydrologic control and water quality improvements due to the outlet type (intermittent), dense native vegetation and large size. Habitat functions are somewhat greater than other wetlands on this parcels due to the variety of habitat types and special habitat features.

Wetland B7
Wetland B7 is a small isolated depression located near the southeast corner of Parcel B east of the northern end of Wetland B3. Vegetation in this wetland is typically comprised of red alder, salmonberry and lady fern. This wetland provides **moderate** levels hydrologic control and water quality improvements due to the small size and shallow topography. Habitat functions are somewhat limited due to the heavy recreational use of the site, its proximity to residential areas and a major highway.

Wetlands D1 and D4
Wetlands D1 and D4 are found in the west central portion of Parcel D. These small, isolated depressions are in a moderately dense forested area. Dominant vegetation in these wetlands includes red alder, black cottonwood, Western red cedar, salmonberry, hardhack, vine maple, slough sedge, piggy-back plant and lady fern. These wetlands provide **moderate** levels of hydrologic control and water quality improvements due to their small size, very shallow topography and uniform vegetative structure. Habitat functions are somewhat limited due to the heavy recreational use of the site, its proximity to residential areas and a major highway.

Wetland D2
Wetland D2 is found in the southwest corner of Parcel D. A small portion of this large wetland is found on-site with the wetland extending to the northwest and southeast. Dominant vegetation in these wetlands includes red alder, black cottonwood, Western red cedar, Pacific willow, salmonberry, black twinberry, slough sedge, skunk cabbage and lady fern. This wetland provides **significant** levels hydrologic control and water quality improvements due to its very large size, shallow topography and diverse vegetative structure. Its function as wildlife habitat is highly valuable as it is located

within a relatively undeveloped vegetated corridor with high habitat diversity and special habitat features. Recreational use may effect wildlife use but the proximity to large corridors of undeveloped land offset the impact of human activity.

Wetlands D9, D10 and D11
Wetlands D9, D10 and D11 are found near the southeast corner of Parcel D. These small isolated depressions are surrounded by dense forest. Vegetation dominating these wetlands includes red alder, Western red cedar, salmonberry, hardhack, lady fern and slough sedge. These wetlands provide **moderate** levels of hydrologic control and water quality improvements due to their the generally small size and shallow topography. Their function as wildlife habitat is highly valuable as they are located in and adjacent to large corridors of undeveloped land with special habitat features. Recreational use may effect wildlife use but the proximity to large corridors of undeveloped land offset the impact of human activity.

Wetland PQ
Wetland PQ extends northwest from the southeast corner of Parcel D. This wetland is on a slope and has a heavily used ORV trail down the center causing channelized flow of wetland hydrology. Dominant vegetation in this wetland is comprised of red alder, salmonberry and lady fern. This wetland is severely limited in providing higher levels of hydrologic control and water quality functions due to its location on a slope and disturbances. As such, this wetland provides **moderately low** functions and values. Habitat functions remain relatively high for this wetland due it's association with vast areas of undeveloped land. Heavy recreational use around and within this wetland does provide restrict wildlife use.

Wetlands S and T
Wetlands S and T are located in the east central portion of Parcel D. These wetlands ares moderate in size, depressional and isolated. Dominant vegetation in these wetlands includes red alder, black cottonwood, hardhack, Himalayan blackberry, salmonberry, piggy-back plant and slough sedge. These wetlands contain areas of organic soils. These wetlands provide **moderate** levels of hydrologic control and water quality functions due to their moderate size and topography. Habitat functions remain relatively high due to their association with vast areas of undeveloped land. Recreational use, however, may hinder wildlife.

Wetland E1 - Partial Core Wetland
Wetland E1 is a large forested wetland that extends from the southern portion of Parcel E to the northwest corner. Approximately 1 acre of this wetland extends across the boundary of Parcel E to Parcel D. A portion of Wetland E1 contributes hydrology to Core Wetland TOS. This wetland is typically comprised of red alder, black cottonwood, Sitka spruce, cascara, vine maple, salmonberry, false lily-of-the-valley, Cooley's hedge-nettle, Pacific bleeding heart and American brooklime. Areas of organic soils are present in this wetland. This wetland provides **very high** levels hydrologic control and water quality improvements due to its large size, dense woody species cover, and

ability to store large volumes of stormwater. Its function as wildlife habitat is highly valuable as it is located within a relatively undeveloped vegetated corridor with high habitat diversity and special habitat features.

Wetlands E7, E8 and E10
Wetlands E7, E8 and E10 are located in the southeastern portion of Parcel E. These small, isolated depressions may have formed in the root-wad depressions of wind thrown trees. Vegetation dominant in these wetlands includes red alder, salmonberry, vine maple and slough sedge. These wetlands provide **moderate** levels of hydrologic control and water quality improvements due to their small size and low capacity. Its function as wildlife habitat is moderately high as it is located within a relatively undeveloped vegetated corridor with high habitat diversity and special habitat features.

Wetland TOS - Core Wetland
Wetland TOS comprises much of the northeast corner of Parcel E. It is an extensive scrub-shrub system, with permanent ponding and is associated with the widespread Chub Lake/Rock Creek system. Dominant vegetation in this wetland includes minor Western hemlock, Pacific willow, hardhack, red-osier dogwood, salmonberry, skunk cabbage, tall mannagrass and lady fern. Much of this wetland contains organic soils. This wetland provides **very high** levels hydrologic control and water quality improvements due to its large size, dense woody species cover, and ability to store large volumes of stormwater. Its function as wildlife habitat is highly valuable as it is located within a relatively undeveloped vegetated corridor with high habitat diversity and special habitat features.

Wetlands S1/S2, S3/S4, S4 East and S6/S7/S8
Wetlands S1/S2, S3/S4, S4 East and S6/S7/S8 are large, forested wetlands with dense native shrub understory. These wetlands are listed from west to east across Parcel F. They are found within gently sloping, shallow drainageways and parallel one another. S1/S2 extends off-site to the south. S3/S4, S4 East and S6/S7/S8 extend off-site to the north. Dominant vegetation within these wetlands consists of black cottonwood, red alder, Western hemlock, salmonberry, hardhack, pacific willow, black twinberry, trailing blackberry, creeping buttercup, skunk cabbage and lady fern. These wetlands provide **significant** levels of hydrologic control and water quality improvements due to their large size, dense woody species cover, and ability to store large volumes of stormwater. Their function as wildlife habitat is highly valuable as it is located within a relatively undeveloped vegetated corridor with high habitat diversity and special habitat features.

Wetlands S9, S11, S12 and S14
Wetlands S9, S11, S12 and S1) are found in the southwestern portion of Parcel F. These wetlands are small depressions that appear isolated. Vegetation in these wetlands is dominated by sparse Western hemlock and red alder with salmonberry and slough sedge. These wetlands provide **moderate** levels of hydrologic control and water

quality improvements due to their small size and low capacity. Its function as wildlife habitat is moderately high as it is located within a large, undeveloped corridor with high habitat diversity and special habitat features.

Wetland S18/S19/S20
Wetland S18/S19/S20 is a forested wetland located along the eastern boundary of Parcel F. This wetland is found in a narrow drainageway and is associated with a northerly flowing fish-bearing stream. This wetland extends off-site to the north and south. Dominant vegetation in this wetland consists of Western hemlock, black cottonwood, salmonberry, hardhack and lady fern. This wetland provides **significant** levels of hydrologic control and water quality improvements due to the large size, dense woody species cover, and ability to store large volumes of stormwater. Their function as wildlife habitat is highly valuable as it is located within a relatively undeveloped vegetated corridor with high habitat diversity, association with a fish-bearing stream and special habitat features.

Wetland GG
Wetland GG is found in the eastern portion of Parcel F, east of 257th Ave SE. Much of this wetland extends off-site to the south. Dominant vegetation in this wetland includes Western hemlock, black cottonwood, red alder, salmonberry and lady fern. This wetland provides **significant** levels of hydrologic control and water quality improvements due to the large size, dense woody species cover, and ability to control and improve the quality of large volumes of stormwater. Their function as wildlife habitat is highly valuable as it is located within a relatively undeveloped vegetated corridor with high habitat diversity, association with a fish-bearing stream and special habitat features.

Wetlands K, M, R and W
Wetlands K, M, R and W are found in the south central portion of Parcel F. These wetlands are small, shallow depressions that appear to be isolated. Vegetation in these wetlands is dominated by red alder, black cottonwood, salmonberry, black twinberry and lady fern. These wetlands provide **moderately low** levels of hydrologic control and water quality improvements due to their small size and low capacities. Their function as wildlife habitat is moderately high as it is located within a large, undeveloped corridor with high habitat diversity and special habitat features.

Wetlands J and U
Wetlands J and U are located in the south central portion of Parcel F. These are large forested depressions that appear to share hydrology with Wetland Q via culverts beneath old logging roads. Wetland U also appears to share hydrology with Wetland S6/S7/S8 via a culvert. Vegetation in these wetlands is dominated by red alder, black cottonwood, minor Douglas fir, salmonberry, hardhack, Pacific willow, black twinberry, trailing blackberry, slough sedge, skunk cabbage and lady fern. Soils had high organic content in places. These wetlands provide **moderately high** levels of hydrologic control and water quality improvements due to their large size, dense woody species cover,

and ability to control and improve the quality of large volumes of stormwater. Their function as wildlife habitat is moderately high as they are located within a relatively undeveloped vegetated corridor with high habitat diversity and special habitat features.

Wetland Q

Wetland Q extends onto the southwest portion of Parcel F, in three locations. This is a large wetland system that is comprised of forested, scrub-shrub and emergent components. Dominant vegetation in this wetland is comprised of red alder, Western hemlock, black cottonwood, salmonberry, hardhack, Pacific willow, black twinberry, vine maple, Himalayan blackberry, trailing blackberry, lady fern, soft rush, slough sedge and sword fern. Soils had high organic content in places. This wetland provides **very high** levels hydrologic control and water quality improvements due to its large size, dense woody species cover, and ability to control and improve the quality of large volumes of stormwater. Its function as wildlife habitat is highly valuable as it is located within a relatively undeveloped vegetated corridor with high habitat diversity and special habitat features.

Wetlands AA, BB, CC, DD, JJ, KK and LL

Wetlands AA, BB, CC, DD, JJ, KK and LL are found in the southwest corner of Parcel F. These very small, isolated wetlands may have formed in the depressions created by wind thrown trees. Dominant vegetation in these wetlands includes sparse red alder, salmonberry, lady fern and slough sedge. These wetlands provide **moderate** levels of hydrologic control and water quality improvements due to their small size and low capacity. Their function as wildlife habitat is moderate as they are located within a relatively undeveloped vegetated corridor with high habitat diversity and special habitat features. However, their proximity to 257th Ave SE and SR169 may inhibit some wildlife use.

Wetlands Y, YY, 2, 3, 102, 103, 105, 113, 200, 201, 201B, 212, 213, 214, 215 and 216

Wetlands Y, YY, 2, 3, 102, 103, 105, 113, 200, 201, 201B, 212, 213, 214, 215 and 216 are generally located in the northern portion of Parcel BDA. These are small isolated wetlands surrounded by undeveloped, forested lands. These forested areas contain gravel roads that are used locally for recreation. Typical vegetation in these wetlands includes Western hemlock, black cottonwood, Sitka spruce, red alder, salmonberry, Himalayan blackberry, cascara, American speedwell, stinging nettle, lady fern, skunk cabbage and slough sedge. These wetlands provide **moderately low** levels of hydrologic control and water quality improvements due to their very small size, intermittent or lacking outlets and low capacity. Their function as wildlife habitat is moderate as they are located in an area of heavy recreational use and have low structural diversity. They are located within and adjacent to a relatively undeveloped vegetated corridor with high habitat diversity and special habitat features.

Wetlands 7, 106, 202, 218, 404 and 999
Wetlands 7, 106, 202, 218, 404 and 999 are generally located in the northern portion of Parcel BDA. These are small isolated wetlands surrounded by undeveloped, forested lands. Typical vegetation in these wetlands includes Western hemlock, Western red cedar, black cottonwood, red alder, salmonberry, hardhack, cascara, stinging nettle, lady fern, skunk cabbage, American speedwell and slough sedge. These wetlands provide **moderate** levels of hydrologic control and water quality improvements due to their small size, intermittent outlets and low capacity. Their function as wildlife habitat is moderate as it they located within a large, undeveloped corridor with high habitat diversity and special habitat features.

Wetland 250 - Core Wetland
Wetland 250 is located generally in the northern portion of Parcel BDA. This is a small isolated wetland is adjacent to Core Wetland S5/108 and is surrounded by undeveloped, forested lands. Typical vegetation in this wetlands includes Western hemlock, Western red cedar, black cottonwood, red alder, salmonberry, hardhack, cascara, stinging nettle, lady fern, skunk cabbage, American speedwell and slough sedge. Because of this wetlands association with the Black Diamond Lake system, is likely that this wetland contributes to the overall functions of the Core Wetland Complex and as such has the potential to provide **significant** levels of functions to the surrounding environment.

Wetlands 10, 11, 13, 14, 112, 123, 206, 501 and 502
Wetlands 10, 11, 13, 14, 112, 123, 206, 501 and 502 are generally in the south and southwestern portion of Parcel BDA. These are small isolated wetlands surrounded by undeveloped, forested lands containing gravel road networks used locally for recreational purpose. Typical vegetation in these wetlands includes Western hemlock, Western red cedar, black cottonwood, red alder, salmonberry, hardhack, cascara, stinging nettle, lady fern, skunk cabbage, American speedwell and slough sedge. These wetlands provide **moderate** levels of hydrologic control and water quality improvements due to their small size, intermittent outlets and low capacity. Their function as wildlife habitat is moderate as it they located within a large, undeveloped corridor with high habitat diversity and special habitat features.

Wetland 125 and 301
Wetland 125 and 301 are moderately sized depressional wetlands located in the western portion of Parcel BDA. These are isolated depressions within dense forested lands containing gravel road networks used locally for recreational purpose. Typical vegetation in these wetlands includes red alder, black cottonwood, black twinberry, salmonberry, cascara, hardhack, skunk cabbage, slough sedge and lady fern. These wetlands provide **moderately high** levels of hydrologic control and water quality improvements due to their size, dense woody species cover, and ability to control and improve the quality of large volumes of stormwater. Their function as wildlife habitat is highly valuable as they have diverse vegetative structure, many specialized habitat features and they are located within a relatively undeveloped vegetated corridor.

Wetlands ZZ, 5 and 119
Wetlands ZZ, 5 and 119 are large, depressional wetlands located at the in the northern portion of Parcel BDA. Typical vegetation in these wetlands includes Western hemlock, Western red cedar, black cottonwood, red alder, salmonberry, Himalayan blackberry, salal, hardhack, cascara, stinging nettle, lady fern, skunk cabbage and slough sedge. These wetlands provide **significant** levels of hydrologic control and water quality improvements due to their large size, dense woody species cover, and ability to store large volumes of stormwater. Their function as wildlife habitat is highly valuable as they have diverse vegetative structure, many specialized habitat features and they are located within a relatively undeveloped vegetated corridor.

Wetland 114
Wetland 114 is a large, isolated, depressional wetland. Wetland 114 is located in the western portion of Parcel BDA. Typical vegetation in this wetland includes Western hemlock, black cottonwood, red alder, salmonberry, Himalayan blackberry, hardhack, lady fern, skunk cabbage and sword fern. this wetland provides **significant** levels of hydrologic control and water quality improvements due to the large size, dense woody species cover, and ability to control and improve the quality of large volumes of stormwater. Its function as wildlife habitat is highly valuable as it is located in an area of diverse vegetative structure, many specialized habitat features and they are located within a relatively undeveloped vegetated corridor.

Wetland F
Wetland F is a large, depressional wetland located in the central portion of Parcel BDA. Typical vegetation in this wetland includes black cottonwood, red alder, salmonberry, Himalayan blackberry, hardhack, slough sedge, lady fern, skunk cabbage and sword fern. This wetland provides **significant** levels of hydrologic control and water quality improvements due to the large size, dense woody species cover, and ability to store large volumes of stormwater. Its function as wildlife habitat is highly valuable as it has diverse vegetative structure, many specialized habitat features and they are located within a relatively undeveloped vegetated corridor.

Wetland G
Wetland G is a narrow depressional wetland located in the central portion of Parcel BDA, north of Wetland F. Typical vegetation in this wetland includes Western hemlock, Western red cedar, black cottonwood, red alder, salmonberry, Himalayan blackberry, hardhack, slough sedge, lady fern, skunk cabbage and sword fern. This wetland provides **significant** levels of hydrologic control and water quality improvements due to the large size, dense woody species cover, and ability to store large volumes of stormwater. Its function as wildlife habitat is highly valuable as it has diverse vegetative structure, many specialized habitat features and they are located within a relatively undeveloped vegetated corridor.

Wetlands 302 and 303
Wetlands 302 and 303 are very small, isolated depressions located near the northern boundary of the western portion of Parcel BDA. Typical vegetation in these wetlands includes red alder, salmonberry, cascara, lady fern, reed canarygrass and Cooley's hedge nettle. These wetlands provide **moderately low** levels of hydrologic control and water quality improvements due to their small size and low capacities. Their function as wildlife habitat is moderately high as it is located within a large, undeveloped corridor with high habitat diversity and special habitat features. Habitat functions are somewhat limited due to lack of vegetative structure and diversity.

Wetland S5/108 - Core Wetland
Wetland 108 is located across much of the eastern portion of Parcel BDA and on Parcel F. This large wetland is a forested bog and includes Black Diamond Lake. Black Diamond Lake is documented as a Natural Heritage Wetland by the Washington Department of Natural Resources. This wetland was considered to be in excellent condition and viability in 1987. According to a review of current (2005) and historic (1936) aerial photography, the level of development around this wetland has not increased. Therefore, it is expected that the condition and viability of this wetland would not change. Typical vegetation is comprised of Western hemlock, Western red cedar, red alder, black cottonwood, red alder, Pacific willow, salmonberry, hardhack, red osier dogwood, pacific willow slough sedge, skunk cabbage, salal, and lady fern. Organic soils are common in this wetland. This wetland provides **very high** levels hydrologic control and water quality improvements due to its large size, dense woody species cover, open water and ability to store large volumes of stormwater. Its function as wildlife habitat is highly valuable as it is located within a relatively undeveloped vegetated corridor with high habitat diversity and special habitat features.

Wetland 501, 502 and 504
Wetland 501, 502 and 504 are generally located in the western portion of Parcel BDA. These are small, isolated depressions within dense forested lands. Typical vegetation in these wetlands include Western hemlock, Western red cedar, black cottonwood, red alder, salmonberry, hardhack, slough sedge, skunk cabbage, salal, and lady fern. These wetlands provide **moderately low** levels of hydrologic control and water quality improvements due to their small size and low capacities. Their function as wildlife habitat is moderately valuable as they are located within a relatively undeveloped vegetated corridor. Habitat functions are somewhat limited due to lack of vegetative structure and diversity.

Wetland 401 and 402 - Core Wetlands
Wetland 401 and 402 are small sloping wetlands located in the southeastern portion of Parcel BDA. These small wetlands are located within dense forested lands and outfall directly into Wetland S5/108 (Black Diamond Lake system). Typical vegetation in these wetlands include Western hemlock, Western red cedar, black cottonwood, red alder, salmonberry, hardhack, slough sedge, skunk cabbage, salal, and lady fern. Because of these wetlands association with the Black Diamond Lake system, is likely that they

contribute to the overall functions of the Core Wetland Complex and as such have the potential to provide **significant** levels of functions to the surrounding environment.

WILDLIFE

The study area contains a wide range of habitat types and features spread over a large area. Upland habitats include coniferous, mixed and immature forest habitat. Wetland and riparian habitats within the study area include forested and scrub-shrub wetlands, a bog system and areas of open water. Snags, large woody debris and edge habitat, beneficial habitat features, are found throughout the study area. The study area is not entirely contiguous. The North Property is located several miles north of the Main Property. Substantial transportation and urban infrastructure is present between and adjacent to many of the assemblages. Several of the assemblages in the Main Property are separated by large areas of undeveloped and low to high density residential developed land.

Because of the variety of habitats and features wildlife use is extensive throughout the study area. A variety of avian, mammalian, reptilian, and amphibious species are expected to utilize these habitats. This list is not intended to be all-inclusive, and may omit some bird, mammal or amphibian species that utilize the site.

Species observed or detected on or in the vicinity of the study area:
Pacific Tree Frog (*Pseudacris regilla*), double-crested Cormorant (*Phalacrocorax auritus*), wood duck (*Aix sponsa*), mallard (*Anas platyrhynchos*), American wigeon (*Anas americana*), bufflehead (*Bucephala albeola*), common merganser (*Mergus merganser*), red-winged blackbird (*Agelaius phoeniceus*), red-tailed hawk (*Buteo jamaicensis*), California quail (*Callipepla californica*), great horned owl (*Bubo virginianus*), rufous hummingbird (*Selasphorus rufus*), downy woodpecker (*Picoides pubescens*), northern flicker (*Colaptes auratus*), pileated woodpecker (*Dryocopus pileatus*), winter wren (*Troglodytes troglodytes*), golden-crowned kinglet (*Regulus satrapa*), American robin (*Turdus migratorius*), spotted towhee (*Pipilo maculates*), song sparrow (*Melospiza melodia*), dark-eyed junco (*Junco hyemalis*), Virginia opossums (*Didelphis virginiana*), Townsend's Mole (*Scapanus townsendii*), Snowshoe Hare (*Lepus americanus*), eastern cottontail (*Sylvilagus floridanus*), mountain beaver (*Aplodontia rufa*), Douglas' squirrel (*Tamiasciurus douglasii*), Eastern gray squirrel (*Sciurus carolinensis*), beaver (*Castor Canadensis*), deer mouse (*Peromyscus maniculatus*), black bear (*Ursus americanus*), raccoons (*Procyon lotor*), coyotes (*Canis latrans*), bobcat (*Lynx rufus*), elk (*Cervus elaphus*), black-tailed deer (*Odocoileus hemionus columbianus*),

No endangered, threatened, or sensitive plants species are known or likely to occur on-site. No Federal or State listed endangered, threatened, or sensitive plants species were found during field surveys.

USE OF THIS REPORT

This Sensitive Area Study is supplied to BD Villages Partners, LP as a means of determining onsite wetland conditions, as required by the City of Black Diamond and King County during the permitting process. This report is based largely on readily observable conditions and, to a lesser extent, on readily ascertainable conditions. No attempt has been made to determine hidden or concealed conditions.

The laws applicable to wetlands are subject to varying interpretations and may be changed at any time by the courts or legislative bodies. This report is intended to provide information deemed relevant in the applicant's attempt to comply with the laws now in effect.

The work for this report has conformed to the standard of care employed by wetland ecologists. No other representation or warranty is made concerning the work or this report and any implied representation or warranty is disclaimed.

Wetland Resources, Inc.

Emily Hirsch
Associate Wetland Ecologist

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Table 2a: Field Data

The Villages (Parcel B)

Investigation Dates: January - April and June of 2006, March, October and November of 2007 and April of 2008

Pit	Depth	Texture	Color	Moisture	Species	%	Status	Strata
S1	0-18"	Sandy Loam	10YR 2/1	sat	*Alnus rubra*	15	Fac	Tree
Wetland			w/motts		*Rubus spectabilis*	45	Fac+	Shrub
					Acer circinatum	25	Fac-	Shrub
Conclusion: Wetland - Parameters for hydrophytic vegetation, hydric soils, and wetland hydrology are met.								
S2	0-18"	Silt Loam	10YR 3/1	sat	*Alnus rubra*	15	Fac	Tree
Wetland					*Salix sitchensis*	5	FacW	Shrub
					Rubus spectabilis	45	Fac+	Shrub
					Rubus armeniacus	15	FacU	Shrub
					Carex obnupta	15	Obl	Herb
					Oenanthe sarmentosa	10	Obl	Herb
					Athyrium filix-femina	10	Fac	Herb
Conclusion: Wetland - Parameters for hydrophytic vegetation, hydric soils, and wetland hydrology are met.								
S3	0-2"	Duff	10YR 2/2	slightly moist	*Pseudotsuga menziesii*	85	FacU	Tree
Non-Wetland	2"-8"	Silt Loam	10 YR 3/3	dry	*Rubus armeniacus*	20	FacU	Shrub
			w/redox		*Rubus spectabilis*	15	Fac+	Shrub
	8"-18"	Silt Loam	10YR 3/4		*Acer circinatum*	10	Fac-	Tree
					Corylus cornuta	5	FacU	Shrub
					Polystichum munitum	25	FacU	Herb
					Rubus ursinus	15	FacU	Shrub
Conclusion: Non-Wetland - Parameters for hydrophytic vegetation, hydric soils, and wetland hydrology are not met.								
S4	0-18"	Loam	10YR 2/1	sat	*Alnus rubra*	15	Fac	Tree
Wetland			w/ charcoal		*Rubus spectabilis*	25	Fac+	Shrub
					Rubus armeniacus	15	FacU	Shrub
					Salix lucida	10	FacW+	Shrub
					Salix sitchensis	10	FacW	Shrub
					Athyrium filix-femina	15	Fac	Herb
					Ranunculus repens	10	FacW	Herb
Conclusion: Wetland - Parameters for hydrophytic vegetation, hydric soils, and wetland hydrology are met.								
S5	0-6"	Silt Loam	10YR 2/1	sat	*Alnus rubra*	5	Fac	Tree
Wetland	6"-18"	Silt Loam	10YR 3/2	sat	*Rubus spectabilis*	25	Fac+	Shrub
			w/redox		*Rubus armeniacus*	15	FacU	Shrub
					Ranunculus repens	20	FacW	Herb
					Athyrium filix-femina	15	Fac	Herb
Conclusion: Wetland - Parameters for hydrophytic vegetation, hydric soils, and wetland hydrology are met.								

Table 2b: Field Data
The Villages (Parcel C)
Investigation Dates: January - April and June of 2006, March, October and November of 2007 and April of 2008, June 2008

Pit	Depth	Texture	Color	Moisture	Species	%	Status	Strata
C1	0-12"	Gravelly Sandy Loam	10YR 3/6	dry	*Pseudotsuga menziesii*	15	FacU	Tree
Non-Wetland					*Rhamnus purshiana*	10	Fac-	Tree
					Cystus scoparius	45	NOL	Shrub
					Gaultheria shallon	20	FacU	Shrub
					Mahonia nervosa	20	FacU	Shrub
					Symphoricarpos albus	10	FacU-	Shrub
					Holodiscus discolor	5	N.I	Shrub
					Lonicera ciliosa	tr	NOL	Shrub
					Holcus lanatus	20	Fac	Herb
					Agrostis s.p	25	Fac-FavW	Herb
					Pteridium aquilinum	10	FacU	Herb
					Trifolium repens	tr	FacU	Herb
Conclusion: Non-Wetland - Parameters for hydrophytic vegetation, hydric soils, and wetland hydrology are not met.								
C2	0-2"	Duff		dry	*Pseudotsuga menziesii*	55	FacU	Tree
Non-Wetland	2"-18"	Gravelly Silty Loam	10YR 3/3	moist	*Rhamnus purshiana*	20	Fac-	Tree
					Gaultheria shallon	30	FacU	Shrub
					Holodiscus discolor	20	N.I	Shrub
					Rubus ursinus	10	FacU	Shrub
					Mahonia nervosa	10	FacU	Shrub
					Oemleria cerasiformis	tr	FacU	Shrub
					Polystichum munitum	30	FacU	Herb
Conclusion: Non-Wetland - Parameters for hydrophytic vegetation, hydric soils, and wetland hydrology are not met.								
C3	0-2"	Duff		dry	*Pseudotsuga menziesii*	55	FacU	Tree
Non-Wetland	2"-18"	Gravelly Silty Loam	10YR 3/3	moist	*Acer macrophyllum*	20	FacU	Tree
					Gaultheria shallon	30	FacU	Shrub
					Holodiscus discolor	15	N.I	Shrub
					Oemleria cerasiformis	10	FacU	Shrub
					Rubus spectabilis	10	Fac+	Shrub
					Mahonia nervosa	10	FacU	Shrub
					Polystichum munitum	35	FacU	Herb
Conclusion: Non-Wetland - Parameters for hydrophytic vegetation, hydric soils, and wetland hydrology are not met.								

Table 2c: Field Data
The Villages (Parcel D)
Investigation Dates: January - April and June of 2006, March, October and November of 2007 and April of 2008, June 2008

Pit	Depth	Texture	Color	Moisture	Species	%	Status	Strata
S6	0-4"	Gravelly Silty Loam	10YR 2/2	moist	*Pseudotsuga menziesii*	65	FacU	Tree
Non-Wetland	4"-18"	Gravelly Silty Loam	10YR 3/3	moist	*Mahonia nervosa*	15	FacU	Shrub
					Rubus spectabilis	10	Fac+	Shrub
					Rubus ursinus	10	FacU	Shrub
					Polystichum munitum	45	FacU	Herb
					Geranium robertianum	40	Nol/Upl	Herb
Conclusion: Non-Wetland - Parameters for hydrophytic vegetation, hydric soils, and wetland hydrology are not met.								
S7	0-6"	Silt Loam	10YR 4/3	moist	*Pseudotsuga menziesii*	55	FacU	Tree
Non-Wetland	6"-18"	Gravelly Silty Loam	10YR 3/3	moist	*Acer circinatum*	25	Fac-	Shrub
					Rubus ursinus	10	FacU	Shrub
					Polystichum munitum	45	FacU	Herb
Conclusion: Non-Wetland - Parameters for hydrophytic vegetation, hydric soils, and wetland hydrology are not met.								
S8	0-18"	Gravelly Sandy Loam	10YR 2/2	moist	*Populus balsamifera*	35	Fac	Tree
Non-Wetland			no redox		*Alnus rubra*	30	Fac	Tree
					Pseudotsuga menziesii	20	FacU	Tree
					Rubus spectabilis	20	Fac+	Shrub
					Polystichum munitum	35	FacU	Herb
Conclusion: Non-Wetland - Parameters for hydrophytic vegetation, hydric soils, and wetland hydrology are not met.								
S9	0-6"	Gravelly Silty Loam	10YR 2/2	moist	*Alnus rubra*	35	Fac	Tree
Non-Wetland	6"-18"	Gravelly Sandy Loam	10YR 4/3	moist	*Acer macrophyllum*	30	FacU	Tree
					Acer circinatum	50	Fac-	Tree
					Rubus spectabilis	30	Fac+	Shrub
					Polystichum munitum	15	FacU	Herb
Conclusion: Non-Wetland - Parameters for hydrophytic vegetation, hydric soils, and wetland hydrology are not met.								
S10	0-6"	Silt Loam	10YR 2/1	moist	*Alnus rubra*	20	Fac	Tree
Wetland	6"-18"	Gravelly Silty Loam	10YR 3/2	moist	*Rubus spectabilis*	35	Fac+	Shrub
typical			w/ redox					
Conclusion: Wetland - Parameters for hydrophytic vegetation, hydric soils, and wetland hydrology are met.								

Table 2c: Field Data
The Villages (Parcel D)
Investigation Dates: January - April and June of 2006, March, October and November of 2007 and April of 2008, June 2008

Pit	Depth	Texture	Color	Moisture	Species	%	Status	Strata
S11	0-8"	Silt Loam	10YR 2/1	sat	*Alnus rubra*	15	Fac	Tree
Wetland	8"-18"	Silt Loam	10YR 3/1	sat	*Thuja plicata*	10	Fac	Tree
					Rubus spectabilis	15	Fac+	Shrub
					Lonicera involucrata	5	Fac+	Shrub
					Carex sp	25	Fac-Obl	Herb
					Lysichiton americanum	10	Obl	Herb
Conclusion: Wetland - Parameters for hydrophytic vegetation, hydric soils, and wetland hydrology are met.								
S12	0-18"	Gravelly Sandy Loam	10YR 3/3	dry	*Thuja plicata*	55	Fac	Tree
Non-Wetland					*Rhamnus purshiana*	10	Fac-	Tree
					Prunus emarginata	5	FacU	Tree
					Gaultheria shallon	35	FacU	Shrub
					Acer circinatum	25	Fac-	Shrub
					Rubus spectabilis	15	Fac+	Shrub
					Polystichum munitum	45	FacU	Herb
Conclusion: Non-Wetland - Parameters for hydrophytic vegetation, hydric soils, and wetland hydrology are not met.								
S13	0-10"	Gravelly Silty Loam	10YR 3/1	moist	*Thuja plicata*	5	Fac	Tree
Non-Wetland	10"-18"	Gravelly Sandy Loam	10YR 3/3	moist	*Alnus rubra*	5	Fac	Tree
					Acer circinatum	55	Fac-	Shrub
					Rubus spectabilis	15	Fac+	Shrub
					Polystichum munitum	15	FacU	Herb
					Athyrium filix-femina	10	Fac	Herb
Conclusion: Non-Wetland - Parameters for hydrophytic vegetation, hydric soils, and wetland hydrology are not met.								
S14	0-18"	Silt Loam	10YR 3/1	sat	*Alnus rubra*	15	Fac	Tree
Wetland					*Populus balsamifera*	5	Fac	Tree
					Spiraea douglasii	45	FacW	Shrub
					Rubus armeniacus	tr	FacU	Shrub
					Tolmiea menziesii	15	Fac	Herb
					Carex obnupta	10	Obl	Herb
Conclusion: Wetland - Parameters for hydrophytic vegetation, hydric soils, and wetland hydrology are met.								

Table 2c: Field Data
The Villages (Parcel D)
Investigation Dates: January - April and June of 2006, March, October and November of 2007 and April of 2008, June 2008

Pit	Depth	Texture	Color	Moisture	Species	%	Status	Strata
S15	0-8"	Silt Loam	10YR 3/1	moist	*Thuja plicata*	10	Fac	Tree
Wetland	8"-18"	Silt Loam	2.5Y 4/2	moist	*Tsuga heterophylla*	5	FacU-	Tree
			w/ redox		*Alnus rubra*	5	Fac	Tree
					Rubus spectabilis	20	Fac+	Shrub
					Salix lucida	10	FacW+	Shrub
					Spiraea douglasii	10	FacW	Shrub
					Acer circinatum	5	Fac-	Shrub
					Carex obnupta	10	Obl	Herb
					Athyrium filix-femina	5	Fac	Herb
					Polystichum munitum	5	FacU	Herb
Conclusion: Wetland - Parameters for hydrophytic vegetation, hydric soils, and wetland hydrology are met.								
D1	0-2"	Duff		dry	*Pseudotsuga menziesii*	40	FacU	Tree
Non-Wetland	2"-18"	Gravelly Sandy Loam	10YR 4/3	dry	*Tsuga heterophylla*	40	FacU-	Tree
					Rubus ursinus	10	FacU	Shrub
					Ilex aquifolium	tr	FacU	Shrub
					Polystichum munitum	50	FacU	Herb
Conclusion: Non-Wetland - Parameters for hydrophytic vegetation, hydric soils, and wetland hydrology are not met.								
D2	0-2"	Duff		dry	*Pseudotsuga menziesii*	40	FacU	Tree
Non-Wetland	2"-18"	Gravelly Sandy Loam	10YR 3/3	dry	*Acer macrophyllum*	tr	FacU	Tree
					Gaultheria shallon	40	FacU	Shrub
					Mahonia nervosa	10	FacU	Shrub
					Rosa gymnocarpa	10	FacU	Shrub
					Acer circinatum	10	Fac-	Shrub
					Rubus ursinus	10	FacU	Shrub
					Cytisus scoparius	5	Nol/Upl	Shrub
					Pteridium aquilinum	5	FacU	Herb
Conclusion: Non-Wetland - Parameters for hydrophytic vegetation, hydric soils, and wetland hydrology are not met.								
D3	0-16"	Organic Silt Loam	10YR 2/1	sat	*Alnus rubra*	45	Fac	Tree
Wetland	16"-18"	Silt Loam	10YR 3/2	sat	*Populus balsamifera*	30	Fac	Tree
					Picea sitchensis	tr	Fac	Tree
					Acer circinatum	45	Fac-	Shrub
					Rubus spectabilis	10	Fac+	Shrub
					Rhamnus purshiana	5	Fac-	Shrub
					Maianthemum dilatatum	15	Fac	Herb
					Stachys cooleyae	10	FacW	Herb
					Dicentra formosa	10	FacU+	Herb
Conclusion: Wetland - Parameters for hydrophytic vegetation, hydric soils, and wetland hydrology are met.								

Table 2d Field Data

The Villages (Parcel E)

Investigation Dates: January - April and June of 2006, March, October and November of 20(and April of 2008, June 2008

Pit	Depth	Texture	Color	Moisture	Species	%	Status	Strata
E1	0-16"	Organic Silt Loam	10YR 2/1	sat	*Alnus rubra*	45	Fac	Tree
Wetland	16"-18"	Silt Loam	10YR 3/2	sat	*Populus balsamifera*	30	Fac	Tree
					Picea sitchensis	tr	Fac	Tree
					Acer circinatum	45	Fac-	Shrub
					Rubus spectabilis	10	Fac+	Shrub
					Rhamnus purshiana	5	Fac-	Shrub
					Maianthemum dilatatum	15	Fac	Herb
					Stachys cooleyae	10	FacW	Herb
					Dicentra formosa	10	FacU+	Herb

Conclusion: Wetland - Parameters for hydrophytic vegetation, hydric soils, and wetland hydrology are met.

E2	0-18"	Organic Silt	10YR 2/1	sat	*Alnus rubra*	45	Fac	Tree
Wetland					*Populus balsamifera*	20	Fac	Tree
					Rhamnus purshiana	tr	Fac-	Tree
					Acer circinatum	30	Fac-	Shrub
					Rubus spectabilis	25	Fac+	Shrub
					Maianthemum dilatatum	20	Fac	Herb
					Stachys cooleyae	15	FacW	Herb
					Veronica americana	10	Obl	Herb

Conclusion: Wetland - Parameters for hydrophytic vegetation, hydric soils, and wetland hydrology are met.

E3	0->18"	Muck	10YR 2/1	sat	*Tsuga heterophylla*	tr	FacU-	Tree
Wetland				standing water	*Salix lucida*	40	FacW+	Shrub
					Cornus sericea	20	FacW	Shrub
					Spiraea douglasii	20	FacW	Shrub
					Rubus spectabilis	10	Fac+	Shrub
					Lysichiton americanum	20	Obl	Herb
					Athyrium filix-femina	15	Fac	Herb
					Glyceria elata	10	FacW	Herb

Conclusion: Wetland - Parameters for hydrophytic vegetation, hydric soils, and wetland hydrology are met.

Table 2d Field Data

The Villages (Parcel E)

Investigation Dates: January - April and June of 2006, March, October and November of 20(
and April of 2008, June 2008

Pit	Depth	Texture	Color	Moisture	Species	%	Status	Strata
E4	0-2"	Duff		dry	*Tsuga heterophylla*	40	FacU-	Tree
Non-Wetland	2"-18"	Gravelly Sandy Loam	10YR 4/4	dry	*Pseudotsuga menziesii*	40	FacU	Tree
					Acer circinatum	25	Fac-	Shrub
					Rubus spectabilis	20	Fac+	Shrub
					Rubus ursinus	15	FacU	Shrub
					Sambucus racemosa	tr	FacU	Shrub
					Polystichum munitum	30	FacU	Herb
					Maianthemum dilatatum	15	Fac	Herb
					Dicentra formosa	15	FacU+	Herb
					Claytonia sibirica	5	Fac-	Herb
					Hydrophyllum tenuipes	5	NOL	Herb

Conclusion: Non-Wetland - Parameters for hydrophytic vegetation, hydric soils, and wetland hydrology are not met.

E5	0-10"	Silt Loam	10YR 2/1	moist	*Alnus rubra*	15	Fac	Tree
Wetland	10"-18"	Silt Loam	10YR 3/1	moist	*Rubus spectabilis*	30	Fac+	Shrub
					Acer circinatum	15	Fac-	Shrub
					Carex sp.	20	Fac-Obl	Herb

Conclusion: Wetland - Parameters for hydrophytic vegetation, hydric soils, and wetland hydrology are met.

E6	0-2"	Duff		dry	*Pseudotsuga menziesii*	40	FacU	Tree
Non-Wetland	2"-18"	Gravelly Sandy Loam	10YR 4/3	dry	*Tsuga heterophylla*	40	FacU-	Tree
					Rubus ursinus	10	FacU	Shrub
					Ilex aquifolium	tr	FacU	Shrub
					Polystichum munitum	50	FacU	Herb

Conclusion: Non-Wetland - Parameters for hydrophytic vegetation, hydric soils, and wetland hydrology are not met.

E7	0-2"	Duff		dry	*Pseudotsuga menziesii*	40	FacU	Tree
Non-Wetland	2"-18"	Gravelly Sandy Loam	10YR 4/3	dry	*Tsuga heterophylla*	40	FacU-	Tree
					Rubus ursinus	10	FacU	Shrub
					Ilex aquifolium	tr	FacU	Shrub
					Polystichum munitum	50	FacU	Herb
					Maianthemum dilatatum	15	Fac	Herb
					Dicentra formosa	15	FacU+	Herb

Conclusion: Non-Wetland - Parameters for hydrophytic vegetation, hydric soils, and wetland hydrology are not met.

Table 2e: Field Data
The Villages (Parcel F)
Investigation Dates: January - April and June of 2006, March, October and November of 2007 and April of 2008

Pit	Depth	Texture	Color	Moisture	Species	%	Status	Strata
S16	0-12"	Silt Loam	10YR 2/1	moist	*Alnus rubra*	10	Fac	Tree
Wetland	12"-18"	Silt Loam	2.5Y 4/3	moist	*Pseudotsuga menziesii*	tr	FacU-	Tree
					Rubus spectabilis	80	Fac+	Shrub
					Athyrium filix-femina	tr.	Fac	Herb
Conclusion: Wetland - Parameters for hydrophytic vegetation, hydric soils, and wetland hydrology are met.								
S17	0-18"	Gravelly Sandy Loam	10YR 3/4	slightly moist	*Pseudotsuga menziesii*	80	FacU-	Tree
Non-Wetland		some organic material			*Rubus ursinus*	30	FacU	Shrub
					Rubus spectabilis	20	Fac+	Shrub
					Acer circinatum	11	Fac-	Shrub
					Sambucus racemosa	tr	FacU	Shrub
					Polystichum munitum	65	FacU	Herb
Conclusion: Non-Wetland - Parameters for hydrophytic vegetation, hydric soils, and wetland hydrology are not met.								
S18	0-18"	Silt Loam	10YR 3/1	sat	*Populus balsamifera*	25	Fac	Tree
Wetland					*Alnus rubra*	15	Fac	Tree
					Tsuga heterophylla	10	FacU-	Tree
					Rubus spectabilis	60	Fac+	Shrub
					Spiraea douglasii	45	FacW	Shrub
					Athyrium filix-femina	10	Fac	Herb
					Ranunculus repens	5	FacW	Herb
					Polystichum munitum	5	FacU	Herb
					Lysichiton americanum	5	Obl	Herb
					Tolmiea menziesii	5	Fac	Herb
					Equisetum arvense	5	Fac	Herb
Conclusion: Wetland - Parameters for hydrophytic vegetation, hydric soils, and wetland hydrology are met.								
S19	0-18"	Silt Loam	10YR 2/1	sat	*Alnus rubra*	25	Fac	Tree
Wetland		organic			*Rubus spectabilis*	45	Fac+	Shrub
					Spiraea douglasii	15	FacW	Shrub
					Athyrium filix-femina	10	Fac	Herb
Conclusion: Wetland - Parameters for hydrophytic vegetation, hydric soils, and wetland hydrology are met.								

Table 2e: Field Data
The Villages (Parcel F)
Investigation Dates: January - April and June of 2006, March, October and November of 2007 and April of 2008

Pit	Depth	Texture	Color	Moisture	Species	%	Status	Strata
S20	0-8"	Silt Loam	10YR 3/1	sat	*Alnus rubra*	25	Fac	Tree
Wetland			w/ redox		*Tsuga heterophylla*	10	FacU-	Tree
	8"-18"	Silt Loam	10YR 4/2	sat	*Rubus spectabilis*	30	Fac+	Shrub
			w/ redox		*Acer circinatum*	10	Fac-	Shrub
					Salix lucida	10	FacW+	Shrub
					Lonicera involucrata	10	Fac+	Shrub
					Rubus ursinus	5	FacU	Shrub
					Polystichum munitum	10	FacU	Herb
					Carex obnupta	5	Obl	Herb
					Lysichiton americanum	5	Obl	Herb

Conclusion: Wetland - Parameters for hydrophytic vegetation, hydric soils, and wetland hydrology are met.

S21	0-6"	Gravelly Sandy Loam	10YR 4/4	moist	*Tsuga heterophylla*	40	FacU-	Tree
Non-Wetland	10"-18"	Gravelly Sandy Loam	10YR 5/4	moist	*Rubus spectabilis*	20	Fac+	Shrub
					Acer circinatum	10	Fac-	Shrub
					Sambucus racemosa	10	FacU	Shrub
					Rubus ursinus	5	FacU	Shrub
					Polystichum munitum	50	FacU	Herb
					Blechnum spicant	5	Fac+	Herb

Conclusion: Non-Wetland - Parameters for hydrophytic vegetation, hydric soils, and wetland hydrology are not met.

S22	0-18"	Gravelly Sandy Loam	10YR 3/4	moist	*Tsuga heterophylla*	40	FacU-	Tree
Non-Wetland					*Acer circinatum*	10	Fac-	Shrub
					Rubus spectabilis	10	Fac+	Shrub
					Oemeleria cerasifomis	10	FacU	Shrub
					Rubus ursinus	5	FacU	Shrub
					Tolmiea menziesii	40	Fac	Herb
					Polystichum munitum	30	FacU	Herb
					Urtica dioica	15	Fac+	Herb
					Athyrium filix-femina	10	Fac	Herb

Conclusion: Non-Wetland - Parameters for hydrophytic vegetation, hydric soils, and wetland hydrology are not met.

S23	0-6"	Silt Loam	10YR 3/1	sat	*Alnus rubra*	30	Fac	Tree
Wetland	6"-18"	Silt Loam	10YR 4/2	sat	*Tsuga heterophylla*	20	FacU-	Tree
			w/ redox		*Rubus spectabilis*	10	Fac+	Shrub
					Acer circinatum	10	Fac-	Shrub
					Rubus armeniacus	10	FacU	Shrub
					Ranunculus repens	5	FacW	Herb
					Lysichiton americanum	5	Obl	Herb
					Athyrium filix-femina	5	Fac	Herb

Conclusion: Wetland - Parameters for hydrophytic vegetation, hydric soils, and wetland hydrology are met.

Table 2e: Field Data
The Villages (Parcel F)
Investigation Dates: January - April and June of 2006, March, October and November of 2007 and April of 2008

Pit	Depth	Texture	Color	Moisture	Species	%	Status	Strata
S24	0-18"	Gravelly Sandy Loam	10YR 3/4	moist	*Tsuga heterophylla*	40	FacU-	Tree
Non-Wetland					*Rubus spectabilis*	15	Fac+	Shrub
					Vaccinium parvifolium	10	FacU	Shrub
					Sambucus racemosa	10	FacU	Shrub
					Rubus ursinus	5	FacU	Herb
					Polystichum munitum	50	FacU	Herb
Conclusion: Non-Wetland - Parameters for hydrophytic vegetation, hydric soils, and wetland hydrology are not met.								
S25	0-6"	Gravelly Sandy Loam	2.5Y 3/1	moist	*Tsuga heterophylla*	30	FacU-	Tree
Non-Wetland	6"-18"	Gravelly Sandy Loam	2.5Y 6/3	sat	*Populus balsamifera*	10	Fac	Tree
					Alnus rubra	10	Fac	Tree
					Rubus spectabilis	45	Fac+	Shrub
					Acer circinatum	30	Fac-	Shrub
					Rubus ursinus	20	FacU	Shrub
					Sambucus racemosa	10	FacU	Shrub
					Polystichum munitum	50	FacU	Herb
Conclusion: Non-Wetland - Parameters for hydrophytic vegetation, hydric soils, and wetland hydrology are not met.								
F1	0-2"	Duff		dry	*Pseudotsuga menziesii*	40	FacU	Tree
Non-Wetland	2"-18"	Gravelly Sandy Loam	10YR 4/3	dry	*Tsuga heterophylla*	40	FacU-	Tree
					Rubus ursinus	10	FacU	Shrub
					Ilex aquifolium	tr	FacU	Shrub
					Polystichum munitum	50	FacU	Herb
Conclusion: Non-Wetland - Parameters for hydrophytic vegetation, hydric soils, and wetland hydrology are not met.								
F2	0-2"	Duff		dry	*Pseudotsuga menziesii*	40	FacU	Tree
Non-Wetland	2"-18"	Gravelly Sandy Loam	10YR 4/3	dry	*Tsuga heterophylla*	40	FacU-	Tree
					Rubus ursinus	25	FacU	Shrub
					Polystichum munitum	50	FacU	Herb
Conclusion: Non-Wetland - Parameters for hydrophytic vegetation, hydric soils, and wetland hydrology are not met.								

Table 2f: Field Data

The Villages (Parcel BDA)

Investigation Dates: January - April and June of 2006, March, October and November of 2007 and April of 2008, June 2008

Pit	Depth	Texture	Color	Moisture	Species	%	Status	Strata
S26	0-18"	Gravelly Sandy Loam	10YR 2/2	moist	*Alnus rubra*	40	Fac	Tree
Non-Wetland			No redox		*Rubus ursinus*	30	FacU	Shrub
					Polystichum munitum	20	FacU	Herb
Conclusion: Non-Wetland - Parameters for hydrophytic vegetation, hydric soils, and wetland hydrology are not met.								
S27	0-10"	Gravelly Sandy Loam	10YR 3/1	slightly moist	*Alnus rubra*	tr	Fac	Tree
Non-Wetland	10"-18"	Gravelly Sandy Loam	2.5Y 6/4	slightly moist	*Rhamnus purshiana*	10	Fac-	Shrub
					Rubus spectabilis	15	Fac+	Shrub
					Acer circinatum	15	Fac-	Shrub
					Polystichum munitum	60	FacU	Herb
Conclusion: Non-Wetland - Parameters for hydrophytic vegetation, hydric soils, and wetland hydrology are not met.								
S28	0-8"	Silt Loam	10YR 3/2	slightly moist	*Alnus rubra*	30	Fac	Tree
Non-Wetland			w/redox		*Rubus spectabilis*	60	Fac+	Shrub
	8"-18"	Gravelly Sandy Loam	2.5Y 6/4	moist	*Rhamnus purshiana*	20	Fac-	Shrub
					Polystichum munitum	40	FacU	Herb
Conclusion: Wetland - Parameters for hydrophytic vegetation, hydric soils, and wetland hydrology are met.								
S29	0-10"	Sandy Loam	10YR 3/1	sat	*Populus balsamifera*	25	Fac	Tree
Wetland	>10"				*Alnus rubra*	20	Fac	Tree
	refusal				*Thuja plicata*	10	Fac	Tree
					Tsuga heterophylla	5	FacU-	Tree
					Rubus spectabilis	30	Fac+	Shrub
					Acer circinatum	15	Fac-	Shrub
					Rubus armeniacus	10	FacU	Shrub
					Polystichum munitum	20	FacU	Herb
					Athyrium filix-femina	5	Fac	Herb
					Lysichiton americanum	5	Obl	Herb
Conclusion: Wetland - Parameters for hydrophytic vegetation, hydric soils, and wetland hydrology are met.								
S30	0-14"	Loam	10YR 2/1	moist	*Tsuga heterophylla*	tr	FacU-	Tree
Wetland	14"-18"	Loam	10YR 3/2	moist	*Acer circinatum*	tr	Fac-	Shrub
			w/ redox		*Polystichum munitum*	tr	FacU	Herb
					veg rooted on margins			
Conclusion: Wetland - Parameters for hydrophytic vegetation, hydric soils, and wetland hydrology are met.								

Table 2f: Field Data

The Villages (Parcel BDA)

Investigation Dates: January - April and June of 2006, March, October and November of 2007 and April of 2008, June 2008

Pit	Depth	Texture	Color	Moisture	Species	%	Status	Strata
S31	0-6"	Gravelly Sandy Loam	10YR 3/2	moist	*Pseudotsuga menziesii*	15	FacU-	Tree
Non-Wetland			No redox		*Tsuga heterophylla*	5	FacU-	Tree
	10"-18"	Gravelly Sandy Loam	10YR 4/6	moist	*Thuja plicata*	5	Fac	Tree
					Rubus spectabilis	25	Fac+	Shrub
					Acer circinatum	15	Fac-	Shrub
					Rubus ursinus	10	FacU	Shrub
					Polystichum munitum	30	FacU	Herb
Conclusion: Non-Wetland - Parameters for hydrophytic vegetation, hydric soils, and wetland hydrology are not met.								
S32	0-18"	Silt Loam	10YR 3/1	moist	*Picea sitchensis*	5	Fac	Tree
Wetland					*Rubus spectabilis*	15	Fac+	Shrub
					Carex obnupta	30	Obl	Herb
Conclusion: Wetland - Parameters for hydrophytic vegetation, hydric soils, and wetland hydrology are met.								
S33	0-10"	Duff			*Pseudotsuga menziesii*	30	FacU-	Tree
Non-Wetland	10"-18"	Gravelly Sandy Loam	10YR 3/3	moist	*Tsuga heterophylla*	15	FacU-	Tree
					Thuja plicata	15	Fac	Tree
					Gaultheria shallon	15	FacU	Shrub
					Rubus spectabilis	10	Fac+	Shrub
					Acer circinatum	10	Fac-	Shrub
					Vaccinium parvifolium	5	FacU	Shrub
					Sambucus racemosa	5	FacU	Shrub
Conclusion: Non-Wetland - Parameters for hydrophytic vegetation, hydric soils, and wetland hydrology are not met.								
S34	0-18"	Muck	10YR 2/1	sat	*Populus balsamifera*	10	Fac	Tree
Wetland					*Alnus rubra*	10	Fac	Tree
					Thuja plicata	5	Fac	Tree
					Tsuga heterophylla	5	FacU-	Tree
					Spiraea douglasii	50	FacW	Shrub
					Rubus spectabilis	10	Fac+	Shrub
					Gaultheria shallon	tr	FacU	Shrub
					Lysichiton americanum	10	Obl	Herb
Conclusion: Wetland - Parameters for hydrophytic vegetation, hydric soils, and wetland hydrology are met.								
S35	0-12"	Silt Loam	10YR 3/1	sat	*Alnus rubra*	35	Fac	Tree
Wetland	>12" refusal				*Populus balsamifera*	20	Fac	Tree
					Thuja plicata	5	Fac	Tree
					Spiraea douglasii	30	FacW	Shrub
					Rubus spectabilis	10	Fac+	Shrub
					Carex obnupta	40	Obl	Herb
Conclusion: Wetland - Parameters for hydrophytic vegetation, hydric soils, and wetland hydrology are met.								

Table 2f: Field Data

The Villages (Parcel BDA)

Investigation Dates: January - April and June of 2006, March, October and November of 2007 and April of 2008, June 2008

Pit	Depth	Texture	Color	Moisture	Species	%	Status	Strata
S36	0-12"	Silt Loam	10YR 3/1	moist	*Alnus rubra*	35	Fac	Tree
Wetland	12"-18"	Sandy Silt Loam	2.5YR 6/4	moist	*Veronica sp*	45	Obl	Herb
					Lysichiton americanum	20	Obl	Herb
					Athyrium filix-femina	10	Fac	Herb
Conclusion: Wetland - Parameters for hydrophytic vegetation, hydric soils, and wetland hydrology are met.								
S37	0-8"	Silt Loam	10YR 3/1	moist	*Alnus rubra*	35	Fac	Tree
Wetland	8"-10"	Silt Loam	10YR 4/1	moist	*Rubus spectabilis*	20	Fac+	Shrub
	10"-18"	Sandy Silt Loam	2.5Y 6/4	moist	*Rhamnus purshiana*	10	Fac-	Shrub
					Oenanthe sarmentosa	15	Obl	Herb
					Veronica sp	15	Obl	Herb
					Athyrium filix-femina	10	Fac	Herb
					Lysichiton americanum	10	Obl	Herb
					Phalaris arundinacea	10	FacW	Herb
					Stachys cooleyae	10	FacW	Herb
					species on hummocks			
					Tsuga heterophylla	20	FacU-	Tree
					Gaultheria shallon	30	FacU	Shrub
					Acer circinatum	10	Fac-	Shrub
					Polystichum munitum	20	FacU	Herb
Conclusion: Wetland - Parameters for hydrophytic vegetation, hydric soils, and wetland hydrology are met.								
S38	0-2"	Duff	10YR 2/2	dry	*Tsuga heterophylla*	80	FacU-	Tree
Non-Wetland	2"-18"	Gravelly Silty Loam	10YR 3/4	slightly moist	*Alnus rubra*	10	Fac	Tree
					Rubus spectabilis	15	Fac	Herb
					Rhamnus purshiana	5	Fac-	Shrub
					Polystichum munitum	30	FacU	Herb
					Blechnum spicant	tr	Fac+	Herb
Conclusion: Non-Wetland - Parameters for hydrophytic vegetation, hydric soils, and wetland hydrology are not met.								
S39	0-1"	Duff	10YR3/2	slightly moist	*Tsuga heterophylla*	30	FacU-	Tree
Non-Wetland	1"-18"	Gravelly Sandy Loam	10YR 4/6	dry	*Thuja plicata*	15	Fac	Tree
					Acer macrophyllum	tr	FacU	Tree
					Rubus spectabilis	15	Fac	Herb
					Rhamnus purshiana	5	Fac-	Shrub
					Gaultheria shallon	65	FacU	Shrub
					Polystichum munitum	30	FacU	Herb
Conclusion: Non-Wetland - Parameters for hydrophytic vegetation, hydric soils, and wetland hydrology are not met.								

Table 2f: Field Data
The Villages (Parcel BDA)
Investigation Dates: January - April and June of 2006, March, October and November of 2007 and April of 2008, June 2008

Pit	Depth	Texture	Color	Moisture	Species	%	Status	Strata
S40	0-18"	Silt Loam	10YR 3/1	moist	*Alnus rubra*	40	Fac	Tree
Wetland			w/ redox		*Rubus spectabilis*	30	Fac	Herb
					Rhamnus purshiana	15	Fac-	Shrub
					Rubus armeniacus	15	FacU	Shrub
					Carex obnupta	65	Obl	Herb
					Veronica americana	20	Obl	Herb
					Urtica dioica	10	Fac+	Herb
					Athyrium filix-femina	5	Fac	Herb
					species on hummocks			
					Rubus ursinus	10	FacU	Shrub
					Polystichum munitum	15	FacU	Herb
Conclusion: Wetland - Parameters for hydrophytic vegetation, hydric soils, and wetland hydrology are met.								
S41	0-5"	Duffy Loam	10YR 2/2	slightly moist	*Acer macrophyllum*	20	FacU	Tree
Non-Wetland			No redox		*Rhamnus purshiana*	40	Fac-	Shrub
	5"-18"	Silt Loam	10YR 3/4	moist	*Rubus ursinus*	35	FacU	Shrub
					Acer circinatum	20	Fac-	Shrub
					Polystichum munitum	25	FacU	Herb
Conclusion: Non-Wetland - Parameters for hydrophytic vegetation, hydric soils, and wetland hydrology are not met.								
S42	0-12"	Silt Loam	10YR 3/1	moist	*Populus balsamifera*	20	Fac	Tree
Wetland			w/ redox		*Alnus rubra*	15	Fac	Tree
	12"-18"	Silt Loam	2.5Y 6/4	moist	*Lonicera involucrata*	55	Fac+	Shrub
			w/ faint redox		*Rubus spectabilis*	20	Fac	Shrub
					Rhamnus purshiana	10	Fac-	Shrub
					Spiraea douglasii	10	FacW	Shrub
					Rubus armeniacus	15	FacU	Shrub
					Carex obnupta	65	Obl	Herb
					Athyrium filix-femina	5	Fac	Herb
Conclusion: Wetland - Parameters for hydrophytic vegetation, hydric soils, and wetland hydrology are met.								
S43	0-10"	Gravelly Sandy Loam	10YR 4/3	moist	*Pseudotsuga menziesii*	5	FacU	Tree
Non-Wetland	10"-18"	Gravelly Silty Loam	10YR 3/3	moist	*Acer macrophyllum*	tr	FacU	Tree
					Acer circinatum	30	Fac-	Shrub
					Rubus spectabilis	10	Fac	Shrub
					Polystichum munitum	30	FacU	Herb
					Tolmiea menziesii	20	Fac	Herb
Conclusion: Non-Wetland - Parameters for hydrophytic vegetation, hydric soils, and wetland hydrology are not met.								
S44	0-18"	Gravelly Silty Loam	10YR3/2	sat	*Alnus rubra*	5	Fac	Tree
Wetland			w/ redox		*Rubus spectabilis*	30	Fac	Shrub
					Acer circinatum	15	Fac-	Shrub
					Tolmiea menziesii	10	Fac	Herb
Conclusion: Wetland - Parameters for hydrophytic vegetation, hydric soils, and wetland hydrology are met.								

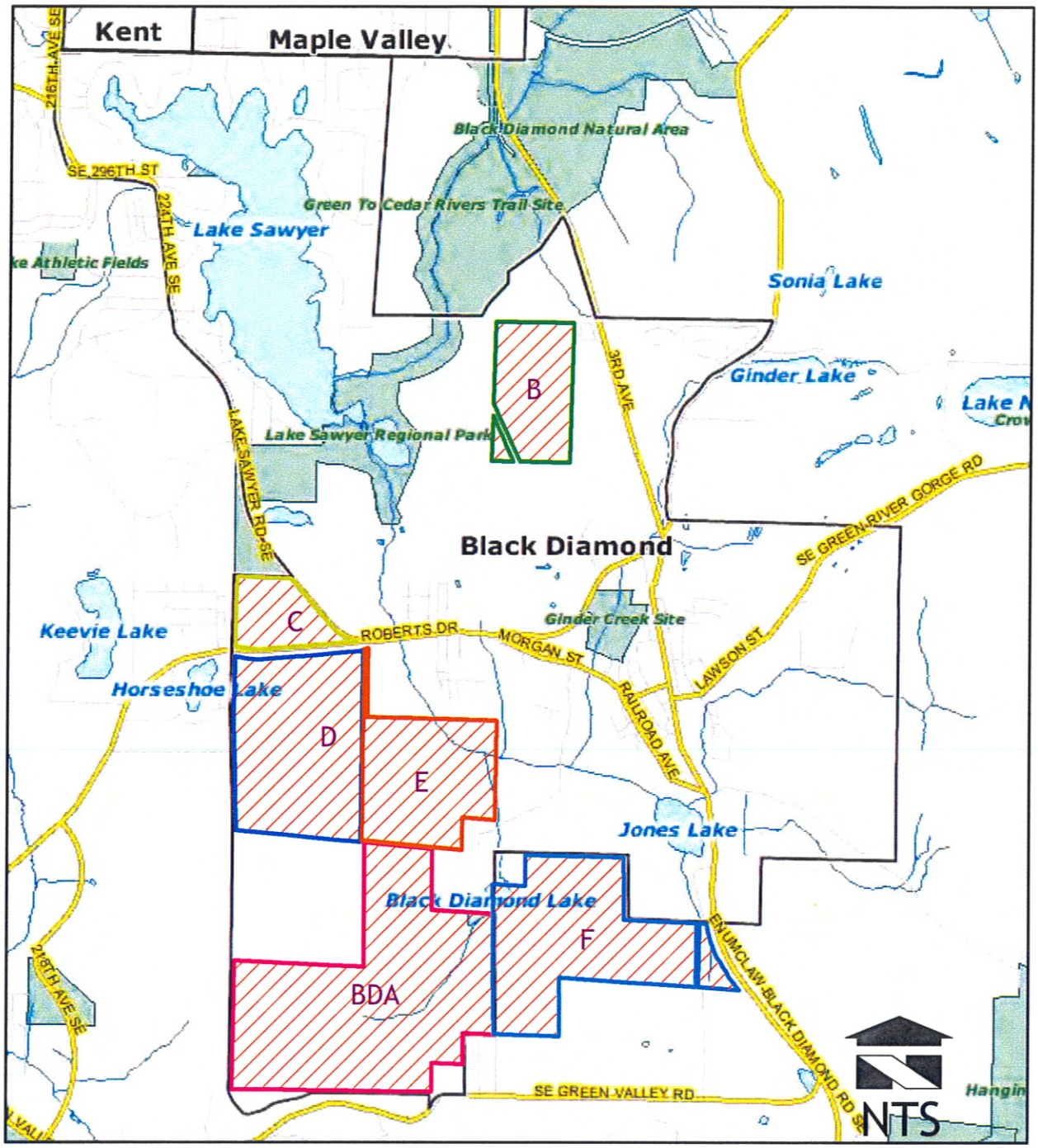
Table 2f: Field Data
The Villages (Parcel BDA)
Investigation Dates: January - April and June of 2006, March, October and November of 2007 and April of 2008, June 2008

Pit	Depth	Texture	Color	Moisture	Species	%	Status	Strata
S45	0-2"	Duff	10YR 2/2	dry	*Thuja plicata*	35	Fac	Tree
Non-Wetland	2"-18"	Gravelly Sandy Loam	10YR 4/3	dry	*Tsuga heterophylla*	35	FacU-	Tree
					Pseudotsuga menziesii	15	FacU	Tree
					Gaultheria shallon	65	FacU	Shrub
					Acer circinatum	20	Fac-	Shrub
					Polystichum munitum	5	FacU	Herb
Conclusion: Non-Wetland - Parameters for hydrophytic vegetation, hydric soils, and wetland hydrology are not met.								
S46	0-2"	Duff	10YR 2/2	dry	*Acer macrophyllum*	65	FacU	Tree
Non-Wetland	2"-18"	Gravelly Sandy Loam	10YR 3/3	dry	*Symphoricarpos albus*	20	FacU-	Shrub
					Mahonia nervosa	20	FacU	Shrub
					Acer circinatum	10	Fac-	Shrub
					Sambucus racemosa	5	FacU	Shrub
					Polystichum munitum	75	FacU	Herb
					Pteridium aquilinum	15	FacU	Herb
					Dicentra formosa	5	FacU+	Herb
Conclusion: Non-Wetland - Parameters for hydrophytic vegetation, hydric soils, and wetland hydrology are not met.								
S47	0-2"	Duff	10YR 2/2	slightly moist	*Tsuga heterophylla*	30	FacU-	Tree
Non-Wetland	2"-18"	Gravelly Sandy Loam	10YR 3/3	dry	*Thuja plicata*	20	Fac	Tree
					Acer macrophyllum	15	FacU	Tree
					Alnus rubra	5	Fac	Tree
					Acer circinatum	20	Fac-	Shrub
					Gaultheria shallon	20	FacU	Shrub
					Rubus spectabilis	15	Fac	Shrub
					Rubus ursinus	tr	FacU	Shrub
					Corylus cornuta	tr	FacU	Shrub
					Polystichum munitum	15	FacU	Herb
					Pteridium aquilinum	10	FacU	Herb
Conclusion: Non-Wetland - Parameters for hydrophytic vegetation, hydric soils, and wetland hydrology are not met.								
S48	0-2"	Duff	10YR 2/2	slightly moist	*Acer macrophyllum*	30	FacU	Tree
Non-Wetland	2"-10"	Silt Loam	10YR 3/3	dry	*Alnus rubra*	30	Fac	Tree
	10"-18"	Silt Loam	10YR 4/3	dry	*Tsuga heterophylla*	20	FacU-	Tree
					Rubus spectabilis	15	Fac	Shrub
					Rubus armenicus	20	FacU-	Shrub
					Acer circinatum	20	Fac-	Shrub
					Sambucus racemosa	tr	FacU	Shrub
					Polystichum munitum	20	FacU	Herb
					Dicentra formosa	20	FacU+	Herb
Conclusion: Non-Wetland - Parameters for hydrophytic vegetation, hydric soils, and wetland hydrology are not met.								

Table 2f: Field Data
The Villages (Parcel BDA)
Investigation Dates: January - April and June of 2006, March, October and November of 2007 and April of 2008, June 2008

Pit	Depth	Texture	Color	Moisture	Species	%	Status	Strata
S49	0-2"	Duff	10YR 2/2	slightly moist	*Thuja plicata*	40	Fac	Tree
Non-Wetland	2"-18"	Gravelly Sandy Loam	10YR 4/3	dry	*Acer macrophyllum*	30	FacU	Tree
					Alnus rubra	tr	Fac	Tree
					Tsuga heterophylla	tr	FacU-	Tree
					Acer circinatum	20	Fac-	Shrub
					Gaultheria shallon	20	FacU	Shrub
					Rubus spectabilis	10	Fac	Shrub
					Holodiscus discolor	10	N.I	Shrub
					Spiraea douglasii	tr	FacW	Shrub
					Polystichum munitum	30	FacU	Herb
					Pteridium aquilinum	20	FacU	Herb
					Trientalis latifolia	10	FacW	Herb
					Trillium ovatum	tr	FacU	Herb
Conclusion: Non-Wetland - Parameters for hydrophytic vegetation, hydric soils, and wetland hydrology are not met.								
S50	0-2"	Duff	10YR 2/2	slightly moist	*Tsuga heterophylla*	30	FacU-	Tree
Non-Wetland	2"-6"	Gravelly Sandy Loam	10YR 3/3	dry	*Thuja plicata*	20	Fac	Tree
	6"-18"	Gravelly Sandy Loam	10YR 4/3	dry	*Pseudotsuga menziesii*	20	FacU	Tree
					Acer circinatum	15	Fac-	Shrub
					Gaultheria shallon	15	FacU	Shrub
					Vaccinium parvifolium	tr	FacU	Shrub
Conclusion: Non-Wetland - Parameters for hydrophytic vegetation, hydric soils, and wetland hydrology are not met.								

VICINITY MAP
THE VILLAGES



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Delineation / Mitigation / Restoration / Habitat Creation / Permit Assistance

9505 19th Avenue S.E. Suite 106
Everett, Washington 98208
Phone: (425) 337-3174
Fax: (425) 337-3045
Email: mailbox@wetlandresources.com

VICINITY MAP
THE VILLAGES
CITY OF BLACK DIAMOND, WA

BD Villages Partners, LP
Attn: Colin Lund
825 5th Ave., Ste 202
Kirkland, WA 98033

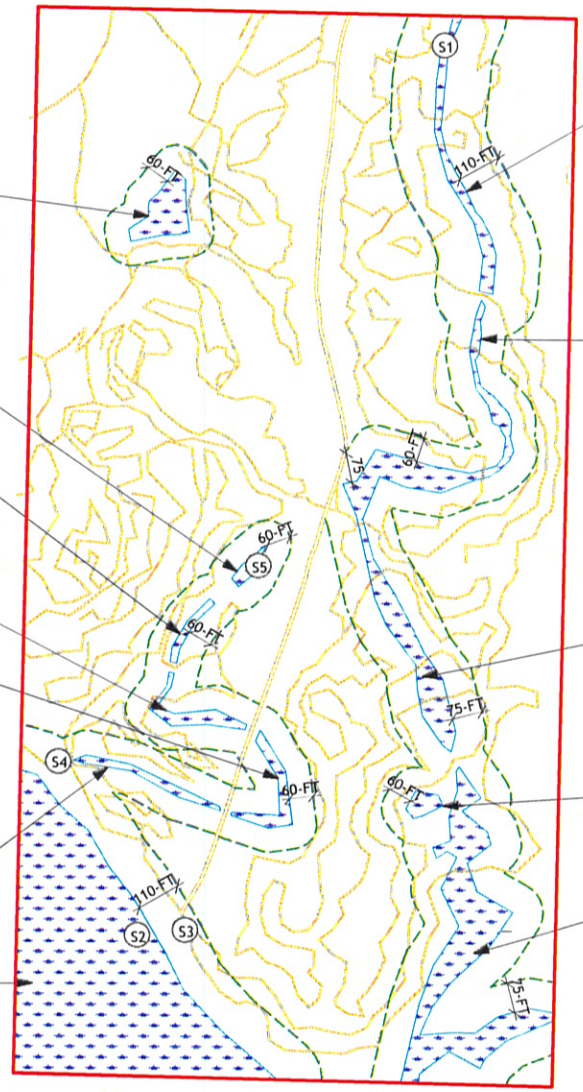
FIGURE 1
WRI Job # 08035
Drawn by: E. Hirsch
Date: 07.21.09

Scale 1" = 300'

0 150 300 450 600

PARCEL B
TOTAL AREA
81.53 ACRES

SENSITIVE AREA STUDY MAP
THE VILLAGES
NORTH PROPERTY - PARCEL B
MAP 1 OF 7
PTN OF SEC11, TWP21N, R06E



WETLAND A4
CATEGORY III
60' BUFFER
14,346 SF (.33 AC)

WETLAND A6
CATEGORY III
110' BUFFER
(ON-SITE PORTION)
16,113 SF (.37 AC)

WETLAND A7
CATEGORY III
60' BUFFER
29,993 SF (.69 AC)

WETLAND B6-A
CATEGORY III
60' BUFFER
2,788 SF (.06 AC)

WETLAND B6-B
CATEGORY III
60' BUFFER
3,217 SF (.04 AC)

WETLAND B6-C
CATEGORY III
60' BUFFER
7,980 SF (.04 AC)

WETLAND B6-D
CATEGORY III
60' BUFFER
8,836 SF (.2 AC)

WETLAND B6-E
CATEGORY III
60' BUFFER
6,669 SF (.15 AC)

WETLAND B4
CATEGORY II
110' BUFFER
(ON-SITE PORTION)
252,814 SF (5.8 AC)

WETLAND B1
CATEGORY II
75' BUFFER
31,342 SF (.72 AC)

WETLAND B7
CATEGORY III
60' BUFFER
3,950 SF (.09 AC)

WETLAND B3
CATEGORY II
75' BUFFER
71,310 SF (1.6 AC)

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SENSITIVE AREA STUDY MAP
THE VILLAGES - PARCEL B
CITY OF BLACK DIAMOND, WA

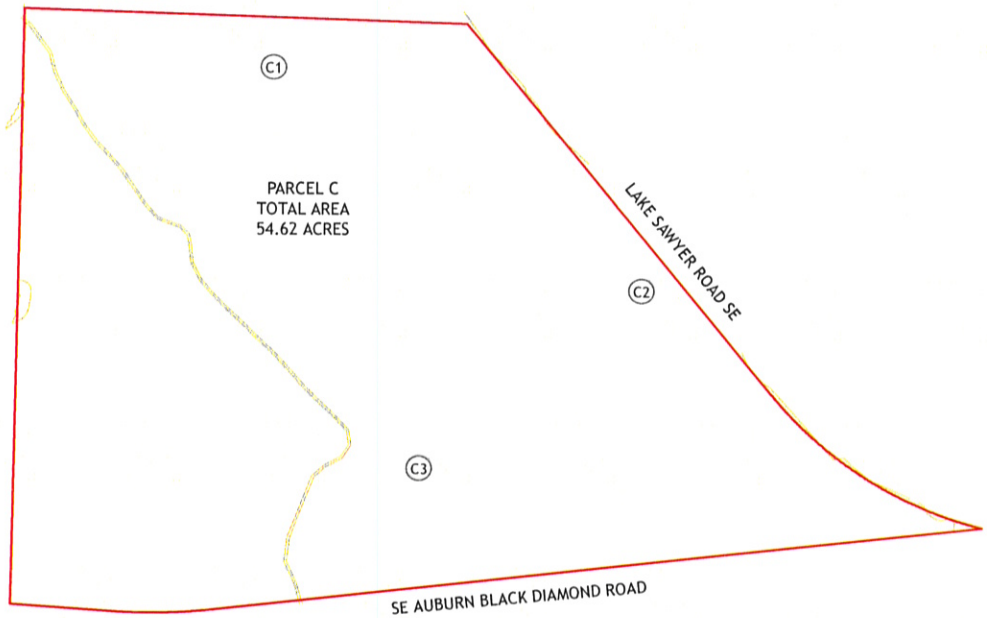
BD Villages Partners, LP
Attn: Colin Lund
825 5th Ave., Ste 202
Kirkland, WA 98033

Sheet 1/7
WRI Job # 08035
Drawn by: E. Hirsch
Date: 07.21.09

SENSITIVE AREA STUDY MAP
THE VILLAGES
NORTH PROPERTY - PARCEL B
MAP 2 OF 7
PTN OF SEC15, TWP21N, R06E

Scale 1" = 300'

0 150 300 450 600



LEGEND

- WETLAND
- WETLAND BUFFER
- EXISTING ROAD/TRAIL
- (C1) DATA SITES

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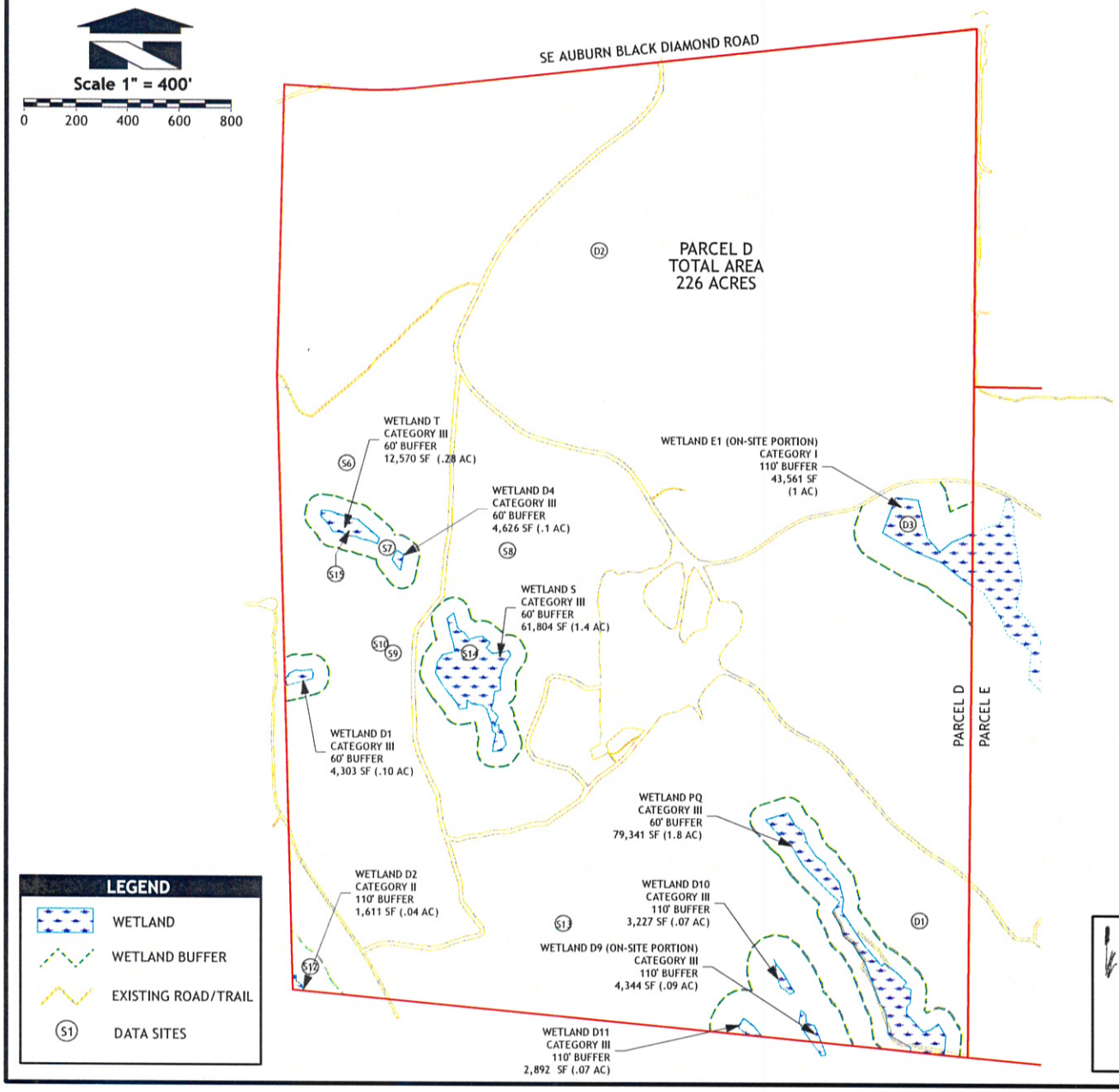
SENSITIVE AREA STUDY MAP
THE VILLAGES - PARCEL C
CITY OF BLACK DIAMOND, WA

BD Villages Partners, LP
Attn: Colin Lund
825 5th Ave., Ste 202
Kirkland, WA 98033

Sheet 2/7
WRI Job # 08035
Drawn by: E. Hirsch
Date: 07.21.09

SENSITIVE AREA STUDY MAP
THE VILLAGES
PARCEL D
MAP 3 OF 7
PTN OF SEC15, TWP21N, R06E



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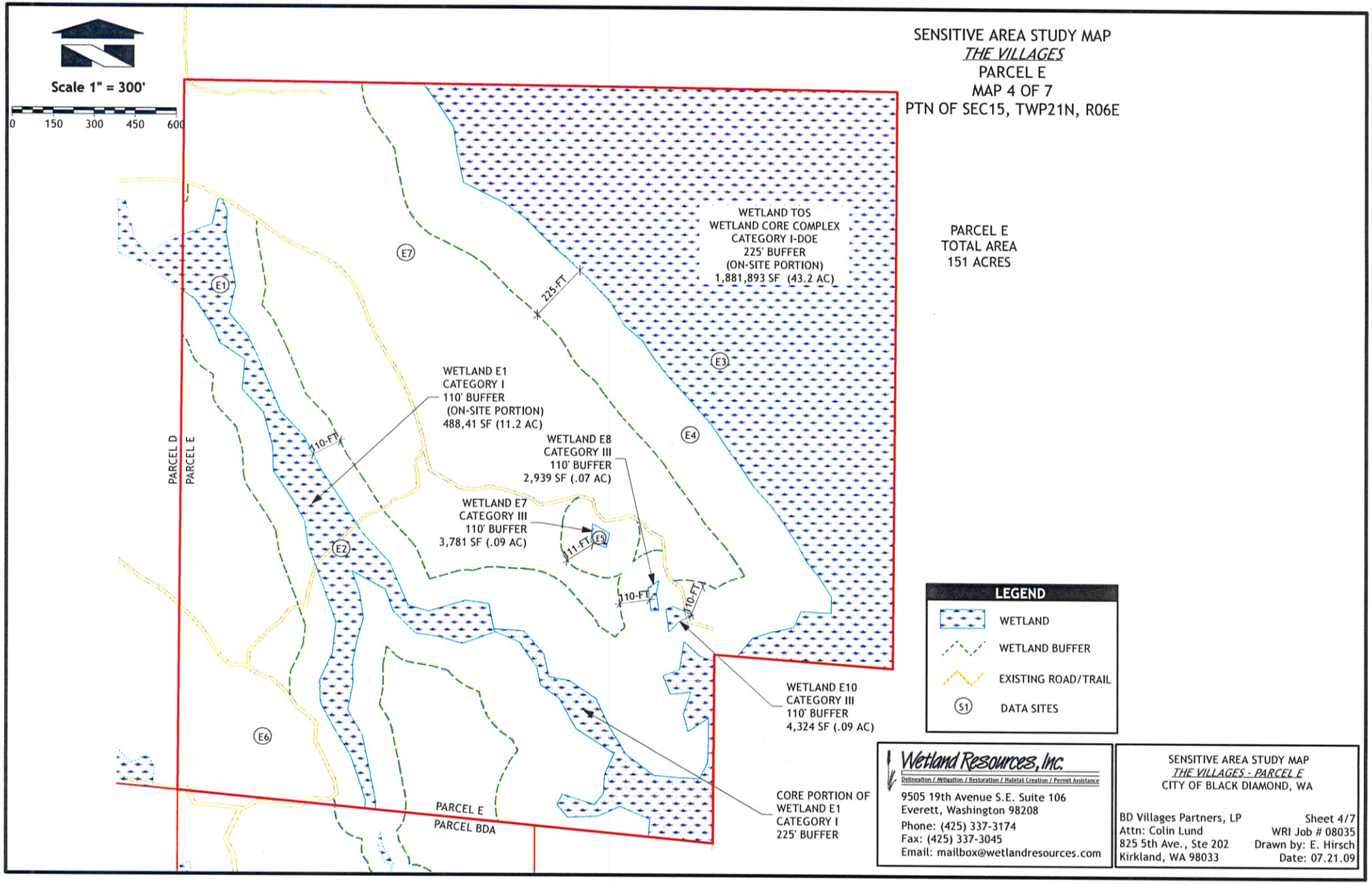
SENSITIVE AREA STUDY MAP
THE VILLAGES - PARCEL D
CITY OF BLACK DIAMOND, WA

BD Villages Partners, LP
Attn: Colin Lund
825 5th Ave., Ste 202
Kirkland, WA 98033

Sheet 3/7
WRI Job # 08035
Drawn by: E. Hirsch
Date: 07.21.09


SENSITIVE AREA STUDY MAP
THE VILLAGES
PARCEL E
MAP 4 OF 7
PTN OF SEC15, TWP21N, R06E
Scale 1" = 300'
0 150 300 450 600
PARCEL E
TOTAL AREA
151 ACRES
WETLAND TOS
WETLAND CORE COMPLEX
CATEGORY I-DOE
225' BUFFER
(ON-SITE PORTION)
1,881,893 SF (43.2 AC)
225-FT
E1
E2
E3
E4
E5
E6
E7
WETLAND E1
CATEGORY I
110' BUFFER
(ON-SITE PORTION)
488,41 SF (11.2 AC)
110-FT
WETLAND E8
CATEGORY III
110' BUFFER
2,939 SF (.07 AC)
WETLAND E7
CATEGORY III
110' BUFFER
3,781 SF (.09 AC)
111-FT
110-FT
110-FT
WETLAND E10
CATEGORY III
110' BUFFER
4,324 SF (.09 AC)
CORE PORTION OF
WETLAND E1
CATEGORY I
225' BUFFER
PARCEL D
PARCEL E
PARCEL E
PARCEL BDA
LEGEND
WETLAND
WETLAND BUFFER
EXISTING ROAD/TRAIL
S1
DATA SITES
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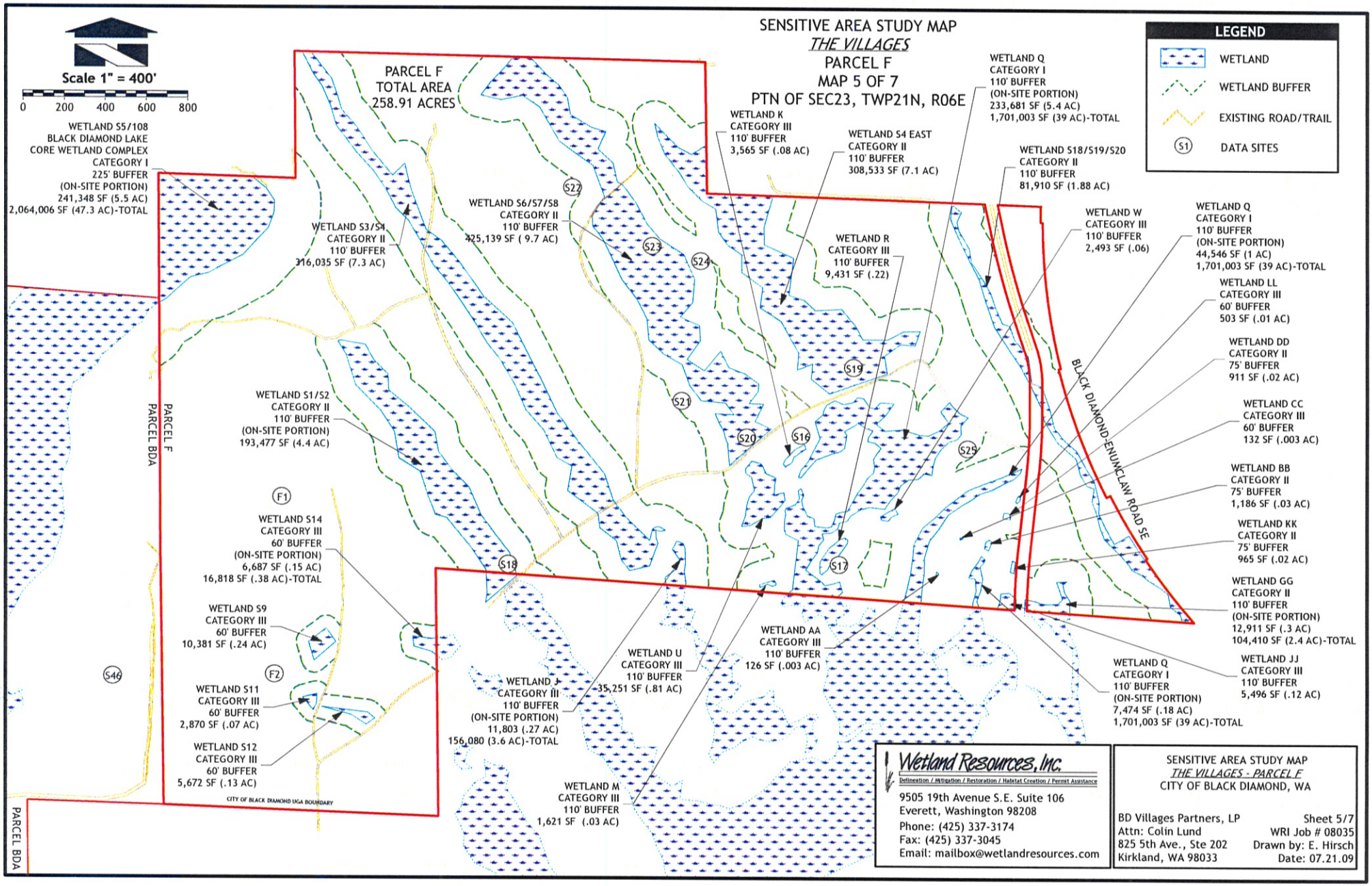
SENSITIVE AREA STUDY MAP
THE VILLAGES - PARCEL E
CITY OF BLACK DIAMOND, WA
BD Villages Partners, LP
Attn: Colin Lund
825 5th Ave., Ste 202
Kirkland, WA 98033
Sheet 4/7
WRI Job # 08035
Drawn by: E. Hirsch
Date: 07.21.09



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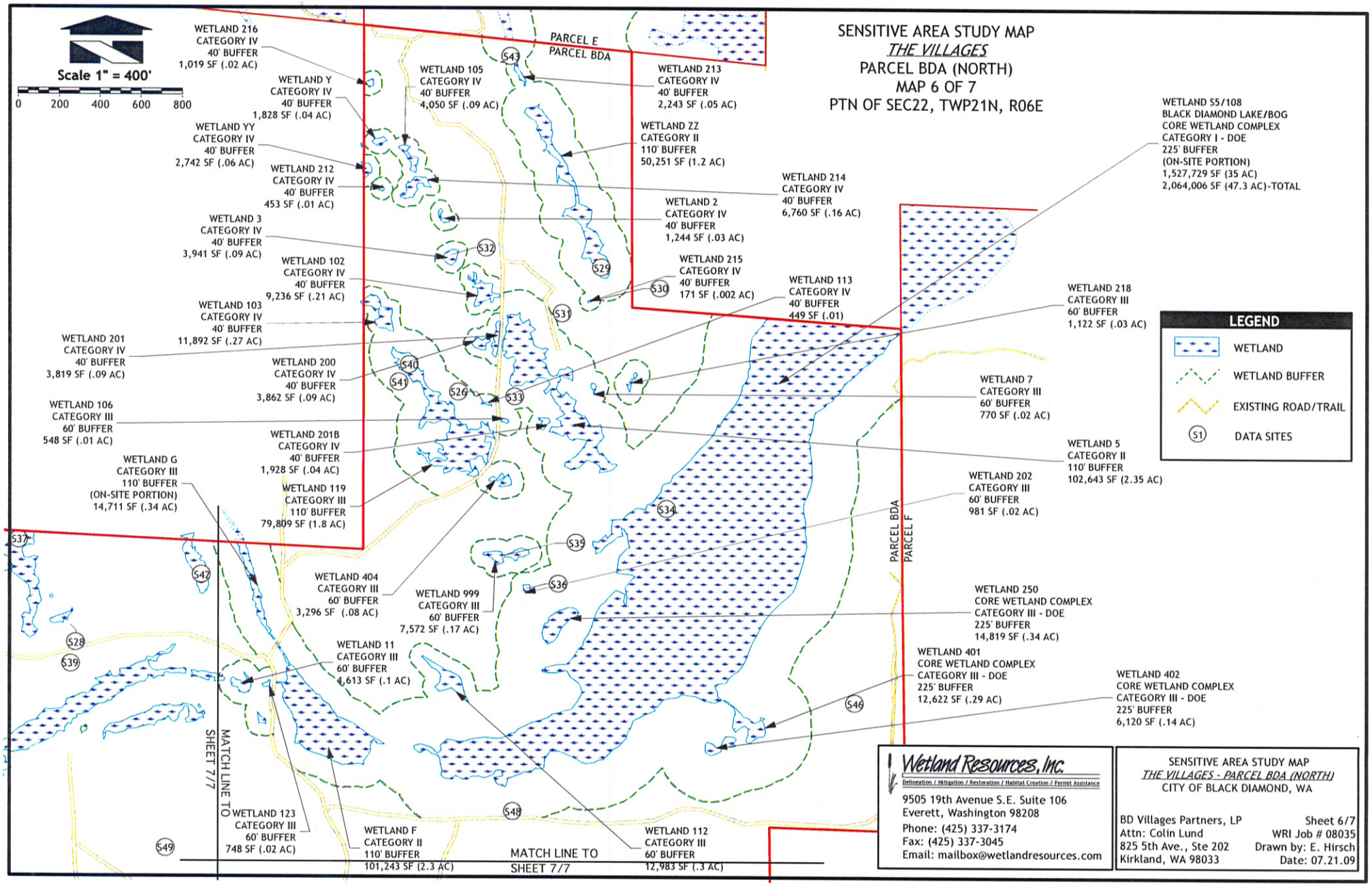
SENSITIVE AREA STUDY MAP
THE VILLAGES - PARCEL F
CITY OF BLACK DIAMOND, WA

BD Villages Partners, LP
Attn: Colin Lund
825 5th Ave., Ste 202
Kirkland, WA 98033

Sheet 5/7
WRI Job # 08035
Drawn by: E. Hirsch
Date: 07.21.09



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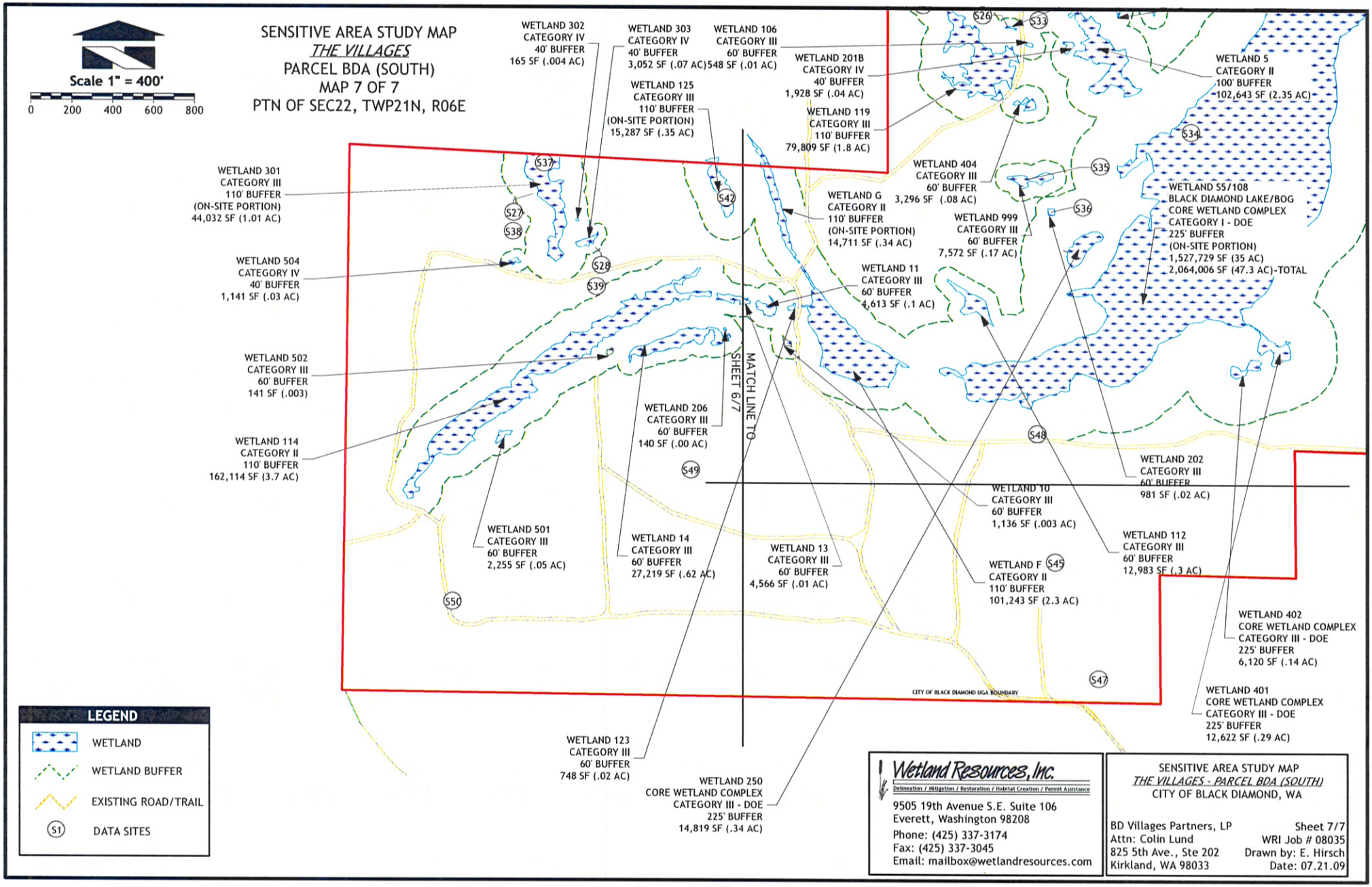
Fax: (425) 337-3045
Email: mailbox@wetlandresources.com

SENSITIVE AREA STUDY MAP
THE VILLAGES - PARCEL BDA (NORTH)
CITY OF BLACK DIAMOND, WA

BD Villages Partners, LP
Attn: Colin Lund
825 5th Ave., Ste 202
Kirkland, WA 98033

Sheet 6/7
WRI Job # 08035
Drawn by: E. Hirsch
Date: 07.21.09


Scale 1" = 400'
0 200 400 600 800
SENSITIVE AREA STUDY MAP
THE VILLAGES
PARCEL BDA (SOUTH)
MAP 7 OF 7
PTN OF SEC22, TWP21N, R06E
WETLAND 302
CATEGORY IV
40' BUFFER
165 SF (.004 AC)
WETLAND 303
CATEGORY IV
40' BUFFER
3,052 SF (.07 AC)
WETLAND 106
CATEGORY III
60' BUFFER
548 SF (.01 AC)
WETLAND 201B
CATEGORY IV
40' BUFFER
1,928 SF (.04 AC)
WETLAND 5
CATEGORY II
100' BUFFER
102,643 SF (2.35 AC)
WETLAND 125
CATEGORY III
110' BUFFER
(ON-SITE PORTION)
15,287 SF (.35 AC)
WETLAND 119
CATEGORY III
110' BUFFER
79,809 SF (1.8 AC)
WETLAND 301
CATEGORY III
110' BUFFER
(ON-SITE PORTION)
44,032 SF (1.01 AC)
WETLAND 404
CATEGORY III
60' BUFFER
3,296 SF (.08 AC)
WETLAND G
CATEGORY II
110' BUFFER
(ON-SITE PORTION)
14,711 SF (.34 AC)
WETLAND 999
CATEGORY III
60' BUFFER
7,572 SF (.17 AC)
WETLAND S5/108
BLACK DIAMOND LAKE/BOG
CORE WETLAND COMPLEX
CATEGORY I - DOE
225' BUFFER
(ON-SITE PORTION)
1,527,729 SF (35 AC)
2,064,006 SF (47.3 AC)-TOTAL
WETLAND 504
CATEGORY IV
40' BUFFER
1,141 SF (.03 AC)
WETLAND 11
CATEGORY III
60' BUFFER
4,613 SF (.1 AC)
WETLAND 502
CATEGORY III
60' BUFFER
141 SF (.003)
WETLAND 206
CATEGORY III
60' BUFFER
140 SF (.00 AC)
SHEET 6/7
MATCH LINE TO
WETLAND 114
CATEGORY II
110' BUFFER
162,114 SF (3.7 AC)
WETLAND 202
CATEGORY III
60' BUFFER
981 SF (.02 AC)
WETLAND 10
CATEGORY III
60' BUFFER
1,136 SF (.003 AC)
WETLAND 501
CATEGORY III
60' BUFFER
2,255 SF (.05 AC)
WETLAND 14
CATEGORY III
60' BUFFER
27,219 SF (.62 AC)
WETLAND 13
CATEGORY III
60' BUFFER
4,566 SF (.01 AC)
WETLAND 112
CATEGORY III
60' BUFFER
12,983 SF (.3 AC)
WETLAND F
CATEGORY II
110' BUFFER
101,243 SF (2.3 AC)
WETLAND 402
CORE WETLAND COMPLEX
CATEGORY III - DOE
225' BUFFER
6,120 SF (.14 AC)
CITY OF BLACK DIAMOND UGA BOUNDARY
WETLAND 401
CORE WETLAND COMPLEX
CATEGORY III - DOE
225' BUFFER
12,622 SF (.29 AC)
WETLAND 123
CATEGORY III
60' BUFFER
748 SF (.02 AC)
WETLAND 250
CORE WETLAND COMPLEX
CATEGORY III - DOE
225' BUFFER
14,819 SF (.34 AC)
S26
S33
S34
S35
S36
S37
S27
S38
S42
S28
S39
S48
S49
S45
S50
S47
LEGEND
WETLAND
WETLAND BUFFER
EXISTING ROAD/TRAIL
S1 DATA SITES
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Everett, Washington 98208
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Fax: (425) 337-3045
Email: mailbox@wetlandresources.com
SENSITIVE AREA STUDY MAP
THE VILLAGES - PARCEL BDA (SOUTH)
CITY OF BLACK DIAMOND, WA
BD Villages Partners, LP
Attn: Colin Lund
825 5th Ave., Ste 202
Kirkland, WA 98033
Sheet 7/7
WRI Job # 08035
Drawn by: E. Hirsch
Date: 07.21.09

Brenda Martinez

From: Sierra Club <information@sierraclub.org> on behalf of Pamela Harris <pamharris810@yahoo.com>
Sent: Thursday, August 04, 2011 5:04 PM
To: Brenda Martinez
Subject: Rewrite MPD agreements with sufficient information for decision makers

Aug 4, 2011

Brenda Martinez
Black Diamond, WA

Dear Martinez,

The Black Diamond MPD Development Agreements should be rewritten to ensure the city Conditions of Approval are met, and to provide sufficient information for the public and elected officials to make informed decisions.

Too many project impacts are not adequately mitigated to meet the Conditions of Approval established by Black Diamond. For example:

* Traffic mitigation is grossly inadequate; many major southeast King County roads will be clogged with traffic. An estimated 10,000+ vehicles per day on already constrained two-lane roads will exacerbate greenhouse gas emissions as many people face much longer and time-consuming commutes.

* The developments will cause 750 acres of pristine forest to be clear-cut and wildlife habitat lost. Proposed wildlife corridors do not even connect some of the wetlands.

* Water and air quality will be adversely affected. All residents will bear these impacts and will have the long-term responsibility of dealing with these problems.

* Potential impacts to Lake Sawyer are significant: flooding and decreased water quality both in the lake and in streams throughout the Green River Watershed due to increased phosphorus loading.

You lack sufficient information to determine whether the Conditions of Approval have been met for many of the separate discipline reports. The Development Agreements must be rewritten to include sufficient information for decision makers and the Public.

The impacts of these MPDs are enormous given the scale of the planned developments and their locations on the fringes of the urban areas, far from major job centers and commercial hubs. Permitting of such massive MPDs would set a bad precedent for all future development in western Washington. Placing such developments where little or no infrastructure exists in locations that are likely to increase reliance on fossil fuels would hinder our attempts to become more sustainable and resilient in the face of climate change. The size of the MPDs is so immense that adequate mitigation is impossible, and they must be down-sized.

Sincerely,

Pamela Harris
3404 S 176th St
Seatac, WA 98188-4024

EXHIBIT
140

Brenda Martinez

From: Gwyn T VUKICH <gvukich@msn.com>
Sent: Thursday, August 04, 2011 4:57 PM
Subject: Oral Testimony , Written Testimony
Attachments: Testimony July 14 2011.odt

The one thing I would like to add to my oral testimony is the Stop light that is planned for the intersection of Green Valley Road and Auburn Black Diamond Road needs to be installed before the 850 houses are built. Also listeneing to the testimony at the hearing I was a bit confused.. did I hear the Roads within the development would not be city Streets but it would be up to the "Home owners Assoc. " to keep them up. Is that the way most large developments are built? I can't believe that could work when you also have commercila buildings..

Thank you

Gwynllyn Vukich

15626 SE 352nd St. Auburn WA. 98092

EXHIBIT

141

July 14,2011

Your Honor,

I live on S.E. Green Valley Road 2 ½ miles East of the intersection with Auburn Black Diamond Road. Right in the heart of the King County Agriculture Production district. Which was formed in 1985 as part of the King County Comprehensive Plan. There are 3,500 acres in the Upper green Agricultural Production District (APD). Within this Dist. 904 acres are in the Farmland Preservation Program (FPP) The County spent $3,282,528 Purchasing the development rights on this acreage. Also the County accepted the donation of development rights on several properties and these donations were valued at $40,966 so the total value is $3,323,494. All of these acquisitions took place in the mid- 1980's and the above figures were compiled then. So the value today of the development rights that the

County is holding would be a great deal more.

Tonight I would like to speak to the section in the D.A. That deals with Traffic. Monday night I watched the Yarrow Bay Attorney talk about the Mitigation that have been agreed upon concerning Highway 169. There seems to be a lot of work to be done, My Question is Who is going to pay for this and is it going to be done after the first 850 dwelling units are built? That seems late to me.

Then I looked carefully at the Map and for Green Valley Road, there is a dotted line, but no concrete projects planned. In the traffic study that was done,by Perimetrics, Green Valley Road was identified as a collector arterial and all of the Road is within King County jurisdiction. A road with that classification is intended to emphasize property access over mobility to a greater degree compared to the principal and minor arterial classifications associated with the

Auburn-Black Diamond and Auburn Black Diamond/Lake Holm Routes.

Green Valley Road can not handle the 300-400% increase in traffic that is projected if the D.A. Proceeds as written. King County Comprehensive Plan Policy R-510States in part "King County should work with rural cities to encourage the provision of affordable housing, to minimize the impacts of new development on the surrounding rural land and to plan for growth consistent with long-term protection of significant historic resources, the surrounding Rural Area and Resource Lands." The Developments as they stand today WILL cause a significant increase in traffic on the S.E. Green Valley Road that Will adversely affect farming activities that depend on the road for access, moving equipment, marketing products moving animals across the road etc. There is also the affect of the increased emissions and what this will do to the crops being raised in the valley.

I have heard the mention of reducing the "speed limit" to discourage people from using the road. The speed limit doesn't seem to bother the motorcycles now that go racing through the valley, or cars that end up in our fences. I read in an article in "Motorcycle Roads North West" this is their description of Green Valley Road. "The Green Valley Road is a twisting rural two-lane through the Green River valley. The old wagon trail winds between fields, stables and active farms between lush hills. Sited on the eastern end of this road is Flaming geyser State Part. On the rural agricultural west end of Green Valley Road, the distance from road to telephone poles is very close. In the stretch of the road west of Flaming Geyser SP many of the sharper turns thread in between Very large trees and the asphalt is just inches from a deep ditch or a telephone pole. The scenery is well worth the "pain" of taking these curves near the recommended speed, however."

I saw in the Ordinances Condition 33 a&b addresses studies and Review committees. When do these studies " to limit MPD traffic from using Green Valley Road" begin?" Who is on this "Green Valley Road Review Committee?" I called and emailed _____ from Yarrow Bay and told him I wanted to be on the Committee, please notify me when they were to meet. I never have heard from him or anyone concerning a meeting. How can we be having these Hearings when the committee has never met and that was one of the conditions that needed to be met, for the Development Agreement.? If we had met I believe there would have been an unfair advantage given to Y.B. Because of the number of Green Valley people allowed on the committee. The Ratio needs to be corrected before such a committee meets.

There is also another serious problem concerning the Development Agreement and

Green Valley Road. There is no mention of extra Fire, Aid and police to cover the accidents on the road. We already have a problem with accidents on the road with 300-400 % increase in traffic that will put a huge tax burden on the residents of Green Valley Road to provide the services required because of the MPD. They are building a fire station for Black Diamond what about the need for extra coverage in Green Valley when they drive through the County.

The only mitigation that will solve the problems caused in Green Valley is to decrease the number of Dwelling and Commercial Units allowed in the Development.

RECEIVED
AUG - 4 2011
BY: BLM

DIAMOND SPRINGS WATER ASSOCIATION
PO BOX 694
BLACK DIAMOND, WA 98010

August 8, 2011

Mr. Steven Pilcher
City of Black Diamond
Community Development
PO Box 599
Black Diamond, WA 98010

RE: PLN10-0020 &PLN11-0013/Development Agreement for the Villages MPD
PLN10-0021 & PLN11-0014/Development Agreement for Lawson Hills MPD

Dear Mr. Pilcher:

As stated in my oral testimony at the City of Black Diamond's public hearing on July 16, 2011 at Sawyer Woods Elementary School, Diamond Springs Water Association wishes to become a party of record and receive future notices, and the Hearing Examiner's recommendation in regards to the above referenced projects.

As also stated in my oral testimony, the Diamond Springs Water Association has serious concerns about the MPD's possible impact on our designated Wellhead Protection Area, and we are regarding them as a potential hazard to our clean water supply system.

The State of Washington Department of Health has jurisdiction over our water compliance, and we have expressed our concerns to them.

I have enclosed a copy of our Wellhead Protection Plan as authorized by the U.S. Environmental Protection Agency for your information.

If you have any questions, please do not hesitate to contact us.

Regards,

Angela Jennings

Angela Jennings
Secretary/Treasurer
Diamond Springs Water Association

Cc: Kitty Weisman, State of Washington Department of Health

Attachment

EXHIBIT
142

Diamond Springs Water Association

Wellhead Protection Plan

October, 2000

Developed by:

Jim Turner
Diamond Springs Water Association
President

Alan Haggland
Diamond Springs Water Association
Vice President

Dale Becker
Groundwater Technician
Evergreen Rural Water of Washington

510 North Pine Street
Ellensburg, Washington 98926
www.erwow.org

Table of Contents

I. Introduction
- I-1. Background
- I-2. Purpose
- I-3. Plan Overview

II. Hydrology
- II-1. Location
- II-2. Well System
- II-3. Hydrogeology
- II-4. Aquifer Susceptibility

III. Identification of the Wellhead Protection Areas
- III-1. Background
- III-2. Methods
- III-3. Results

IV. Potential Contaminant Source Inventory
- IV-1. Methods
- IV-2. Results

V. Management Strategy
- V-1. Sanitary Control Area
- V-2. Wellhead Protection Area

VI. Contingency Planning
- VI-1. Alternative Supply
- VI-2. Emergency Response Notification

VII. Concluding Remarks

VIII. Figures

IX. Appendices
- Appendix A: Susceptibility Assessment Water Facilities Inventory
- Appendix B: Potential Contaminant Source List Notification Letters
- Appendix C: Resource Contacts

I. Introduction

I-1. Background

Congress enacted the Safe Drinking Water Act (SDWA) in 1974 with the goal of providing safe drinking water to all users of public water supplies. The SDWA gave the U.S. Environmental Protection Agency (EPA) the authority to develop a uniform national drinking water program, and to establish national standards for known or suspected drinking water contaminants. The 1986 SDWA amendments authorized two new provisions for groundwater protection. One of these was the Wellhead Protection (WHP) program. The SDWA allows each state to design its own WHP program in order to maximize program effectiveness at the local level. Each state's WHP activities are designed to protect land areas surrounding public water supply wells in order to prevent groundwater contamination.

The Sate of Washington requires that all Group A water systems (those serving fifteen or more connections or twenty-five or more people) develop WHP plans, as stated in the Washington Administrative Code (WAC 246-290). The Washington Department of Health (DOH) has established requirements, guidelines and materials to aid water systems in the development of their WHP plans. In order to help systems comply with WHP requirements, Evergreen Rural Water of Washington provides on-site assistance to small water systems. This assistance is provided at no cost to water systems through funding provided by the DOH and EPA.

I-2. Purpose

The purpose of WHP is to provide an organized approach to effectively protect drinking water supplies from contamination. The program seeks to identify and manage potential contaminant sources near public water supply wells in order to prevent future contamination. WHP safeguards the health of community residents and avoids negative financial impacts associated with contamination. The costs of contamination typically include the investigation of sites, installing treatment facilities, and/or locating new water sources, to name just a few. In fact, Washington State health officials have identified nearly twenty different direct and indirect costs associated with well contamination. To avoid these costs and ensure a safe, quality water supply, we need to protect groundwater at its source. WHP is a straightforward and cost effective method of accomplishing this goal.

I-3. Plan Overview

This WHP report includes the following elements:

- A competed susceptibility assessment.
- Identification of the WHP zones.
- An inventory of potential contaminant sources and land use activities.
- A discussion of the management strategy.
- Contingency and emergency response planning.
- Supporting information and documentation.

Upon completion of these elements, a Group A water system is expected to meet or exceed the requirements of Washington State's WHP program.

II. Hydrology

II-1. Location

The Diamond Springs community is located in Southern King County at the base of the Covington Plain, approximately 9.3 miles west of Auburn in the Green River Valley. Diamond Springs Water Association serves 40 residential connections with a population of 136 people. The surrounding area is residential and forest land.

II-2. Well System

The association owns two springs (SO1 and SO2). The older spring, SO2, is inactive but may be used in an emergency. SO1 is a lateral collector that flows gravity feed into a storage reservoir prior to distribution. Average annual flow from the primary spring is 930,300 cubic feet per year; unused water flows from the reservoir overflow into a nearby stream.

II-3. Hydrogeology

The regional hydrogeology was summarized in a USGS Water Resources report on Southern King County. Diamond Springs are free flowing from a bluff on the southern edge of the Covington Plain. The Covington Plain is a large glacial drift deposit that has been truncated by the alluvial valley of the Green River. A number of sand and gravel aquifers underlie the Covington Plain in glacial till material that are separated by interbeded clay layers. The bluffs on the edge of the Green River Valley have truncated a sand and gravel aquifer of glacial till, resulting in the Diamond Springs.

Although regional groundwater flow in the aquifers underlying the Covington Plain tends to be from the southeast to the northwest, local flow that contributes to Diamond Springs can be assumed to travel from north to south. Crisp Creek is a small perennial tributary to the Green River located immediately east of the springs. The steep Crisp Creek valley walls form a hydrologic barrier to flows from the west. When the hydrologic boundaries formed by the bluffs along the Green River Valley and Crisp Creek are considered, ground water flows can only come from the north of the springs.

II-4. Aquifer Susceptibility

Susceptibility is determined by conditions that affect the movement of groundwater, and thus contaminants, from the land surface into an aquifer. Susceptibility is a qualitative measure of how quickly and how far groundwater must travel to reach a water source (well or spring). Vulnerability, is directly related to a source's Susceptibility and the proximity of potentially hazardous activities, such as the use or storage of chemicals.

Confining units are critical to susceptibility determinations. In general, a confining unit is any earth material that does not readily transmit water. Typically layers of clay or shale may act as confining units, depending upon their thickness and lateral extent. When confining layers are present, wells are less susceptible to contamination because the layers impede the movement of contaminants from the land surface into underlying aquifers.

The Diamond Springs Water Association has provided to DOH the Ground Water Contamination Susceptibility Assessment Survey Forms for all wells. At this time, the primary well, S01 received High susceptibility ratings from the State DOH. These ratings are based on several specific factors reported in the Susceptibility Assessment Survey (Appendix B). These

factors include well depth, well seal, and the presence of confining units. The presence or condition of these factors can diminish the possibility that contaminants originating at the land surface could potentially affect the wells.

Washington State also uses the Susceptibility Assessment to classify the overall vulnerability of active wells. Vulnerability is composed of two factors: the physical susceptibility (as noted above) along with each source's risk of exposure to contaminants. The risk of exposure to contaminants is determined by whether or not contaminants were used in the area, or detected in the water supply. The DOH has issued a MODERATE vulnerability rating for SO1.

III. Identification of the Wellhead Protection Areas

III-1. Background

Aquifer recharge occurs through the infiltration of precipitation and surface water in areas where the aquifer lies at or near the soil surface, or where confining units are thin or absent, permitting further infiltration into the aquifer. Ideally, all land areas that contribute recharge to the aquifer would be targeted for WHP. Unfortunately, the identification of precise recharge areas for wells is a technical and time-consuming process. Further, they can include vast areas, making them difficult to manage. To remedy these problems, the WHP program focuses protection efforts near the wellhead.

III-2. Methods

Several different methods may be used to determine the WHP areas. The most straightforward method accepted by the state is a calculated fixed radius (CFR). This method is also part of the Susceptibility Assessment, which is used to grant monitoring waivers. The CFR is an excellent preliminary WHP delineation method because it is easily implemented and inexpensive. Unfortunately, the CFR can over-simplify groundwater flow conditions and may or may not be very accurate depending upon site-specific conditions. Therefore, other more complex delineation methods such as computer modeling and hydrogeologic mapping are encouraged, but not always required for small systems.

Regardless of the method used, the state requires that the WHP areas include the sanitary control zone, along with the one, five, and ten-year time of travel zones for groundwater. 'Time of travel' refers to the amount of time it would take for a particle of groundwater entering the aquifer at the boundary of the zone to reach the well after one, five, or ten years of pumping.

The calculated fixed radius delineation may be altered to account for local hydrogeologic conditions. Diamond Springs are formed by the truncation of the aquifer by bluffs along the Green River Valley. Therefore groundwater cannot be contributed to the wells from areas with an elevation lower that the springs. The 1,5 and ten year CFR was determined. The CFR was then truncated at the 400 foot elevation contour as determined from USGS 1:24000 topographic maps.

III-3. Results

The CFR utilizes a volumetric flow equation to determine the WHPA radii:

$$r = \sqrt{Q\,t\,/\,\pi\,n\,H}$$

Table 1: Calculated Fixed Radius Calculations for SO1

Parameter	WHP Zone	S01
r = calculated radius of protection zone (ft)	1 year 5 year 10 year	580 1300 1840
Q = pumping rate of well per year (cuft/yr)		930,300
t = time of travel (years)		1,5,10
Π = Pi		3.14
n = estimated porosity (if unknown - 0.22)		.22
H = Open interval or length of well screen (ft) ** use 10 ft if open borehole or spring		4

The wellhead protection zones, for 1, 5, and 10 year times of travel are included as Figure 1. Once again, it is important to emphasize that the WHPA demonstrated here is a useful planning tool, but not represent actual groundwater capture zones for the wells. Conclusive WHPA delineation would, however, require more specific information and valuable resources that are not currently available. Furthermore, developing an awareness of the system's contamination potential is of higher priority at this time.

IV. Potential Contaminant Source Inventory

IV-1. Methods

A field survey was conducted of the WHP zones in order to inventory potential sources of contamination and identify land use activities which may pose threats to groundwater quality (Table 2). The planning team conducted windshield and walk-through surveys to identify potential contaminant sources. The type and location of all potential contamination sources identified were recorded on base maps of the WHPA (Figure 1).

IV-2. Results

The land within the wellhead protection areas is used primarily for residential housing. There are residential wells and septic systems within the wellhead protection areas; the Diamond Spring Water Association does not serve most of the residences in the wellhead protection area. It is unknown if any of the homes in the wellhead protection area have home heating oil tanks.

King County Department of Transportation and the City of Black Diamond have maintenance depots in the ten year time of travel zone. The King County Facility also has a gravel pit on site. The improper storage or disposal of chemicals, fuel, oil or solvents at these facilities may threaten the Diamond Springs water supply. Gravel pits remove rock above the aquifer that can potentially prevent surface contaminants from reaching groundwater, increasing the risk of contamination.

Major transportation routes may be potential contaminant source. Small vehicle leaks onto roadways can be a source of contamination over time. More immediate threats may be from toxic spills on roadways. The largest transportation corridor in the area is the Auburn-

Black Diamond Road. Although this road does not support heavy commercial traffic toxic spills may still occur.

The most direct pathway of contamination into an aquifer is through surface water seepage along well casings. Poorly sealed wells (both public and private) and wells with deteriorated (rusted and/or cracked) casings can allow surface water to migrate into pristine aquifers below. This is caused by inadequate well construction and pertains to both abandoned wells and wells currently in use.

The existence and location of abandoned wells is poorly documented, making this aspect of wellhead protection difficult to address. If any abandoned wells are located, DOE's Northwestern Regional Office will need to be contacted for information regarding proper closure options.

V. Management Strategy

V-1. Sanitary Control Area

Of primary concern are impacts from activities within the sanitary control area of the well. This area should already be tightly controlled to minimize direct contamination of the wells. This area should also be managed to reduce the possibility of surface flows reaching the wells and traveling down the casing.

The springs are located on community property. Although the spring area is not fenced, access to vehicles is blocked by the fenced area around the reservoir. The spring collector is completely closed so that no contaminants can be introduced to an open spring box.

V-2. Wellhead Protection Area

Because WHPA's typically include diverse land use areas, it is important citizens and businesses be informed that they can have a direct impact on the quality of groundwater. To accomplish this a public education campaign is required to inform everyone of the sensitivity of their location above the drinking water supply.

Residential land uses constitute the majority of activity within the Diamond Springs WHP Area. It is important residents and business owners are informed about the sensitivity of their location with regards to their groundwater supply. To accomplish this the Diamond Springs Water Association initiated a public education campaign.

Separate letters of notification including maps of the WHPA were mailed to residents and businesses within the WHPA (Appendix C). These letters included information regarding the safe disposal of hazardous chemicals, the proper use of septic systems, and the sensitivity of the aquifer to contamination through domestic wellheads.

VI. Contingency Planning

VI-1. Alternative Supply

A contingency plan is needed in the event that a contamination event or natural disaster results in the temporary or permanent loss of any or all of the wells. The contingency plan identifies the amount of water required to sustain the community on a daily basis and the alternative sources of supply.

Since the system is entirely gravity feed, water service would not be interrupted in the event of a power outage. Short-term loss of service may be caused by a failure of the collection system. Due to the simplicity of the system and availability of an emergency use source, it is unlikely that an alternative supply would be needed.

The community has one reservoir with a capacity of 35000 gallons. Based on an average daily usage of 18860 gallons, this could last approximately 2 days. During an emergency the storage could be extended through water rationing. If supply is interrupted Water Truck Services in Enumclaw, Washington will supply bottled tanker trucks to fill the storage reservoir as needed.

Groundwater contamination would result in a longer-term loss of water supply. The community would need to develop a new well from a deeper aquifer. Developing a new well would cost in excess of $50,000; due to the expense the Diamond Springs Water Association does not wish to plan for well replacement at this time. Covington Water District and Diamond Springs assessed the feasibility of an annexation in 1994. Although the Diamond Springs residents decided to maintain control of the Diamond Springs Water Association, an emergency inter-connection was not ruled out. The Diamond Springs Water Association intends to plan for an emergency interconnect with the nearby Covington Water district when funding becomes available. At this time bottled water is the only option for an alternative water supply while a new water supply is under development.

VI-2. Emergency Response

As with anywhere, a hazardous spill event is possible within the Diamond Springs Water Association WHPA. An incident/spill response notice (Appendix C) has been sent to local emergency responders and planning agencies notifying them of the location of Diamond Springs WHPA and the potential contaminant sources. The notice was delivered to the Washington Department of Ecology, King County Hazardous Waste Reduction Program, King County Sheriff, King County Emergency Management, king County Fire district 46, and Washington State Department of Health. After assessing the water system's vulnerability, these agencies will evaluate whether changes in hazardous spill, disaster response, and future planning procedures are needed to adequately protect the Diamond Springs water supply.

VII. Concluding Remarks

Diamond Springs Water Association is in a good position to continue providing a safe and reliable drinking water supply. The community recognizes that the most effective way to protect their water supply is to prevent contamination. This plan serves the interests of Diamond Springs residents by protecting their drinking water supply at minimal cost to consumers, while maintaining compliance with drinking water program regulations. With the continued dedication of the water operator and a heightened awareness of groundwater protection by residents and local businesses, Diamond Springs Water Association is likely to have a clean, reliable water supply far into the future.

VIII. Figures

1. Wellhead Protection Area Map
2. Overview Map

Diamond Springs Water Association
Wellhead Protection Areas
Regional Map

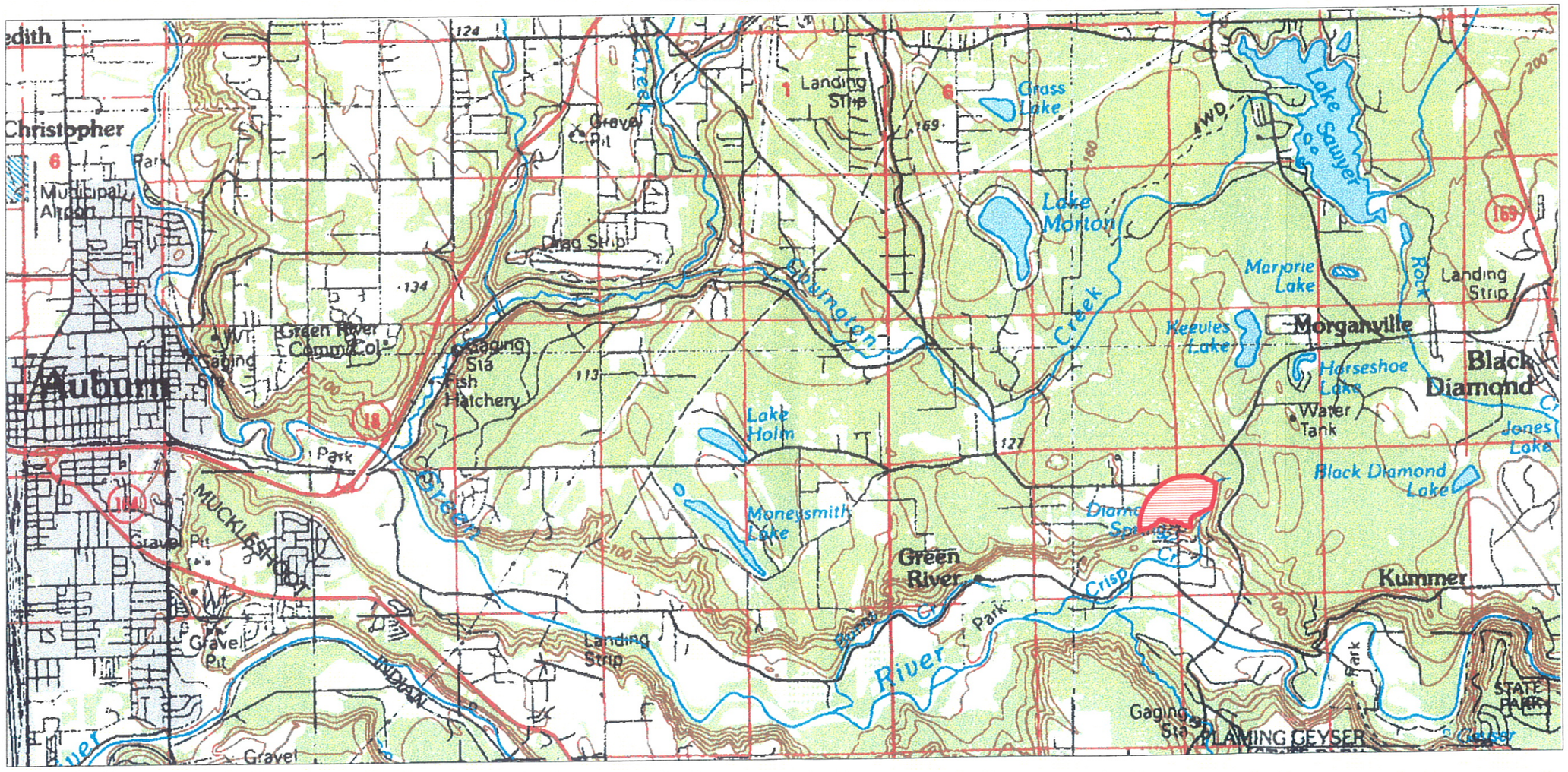
Legend

ROADS
- Primary, all-weather, hard surface
- Secondary, all-weather, hard surface
- Light-duty, all-weather, hard or improved surface
- Fair or dry weather, unimproved surface
- Trail
- Interchange
- Route markers: Interstate, U.S., State (95) (29) (193)

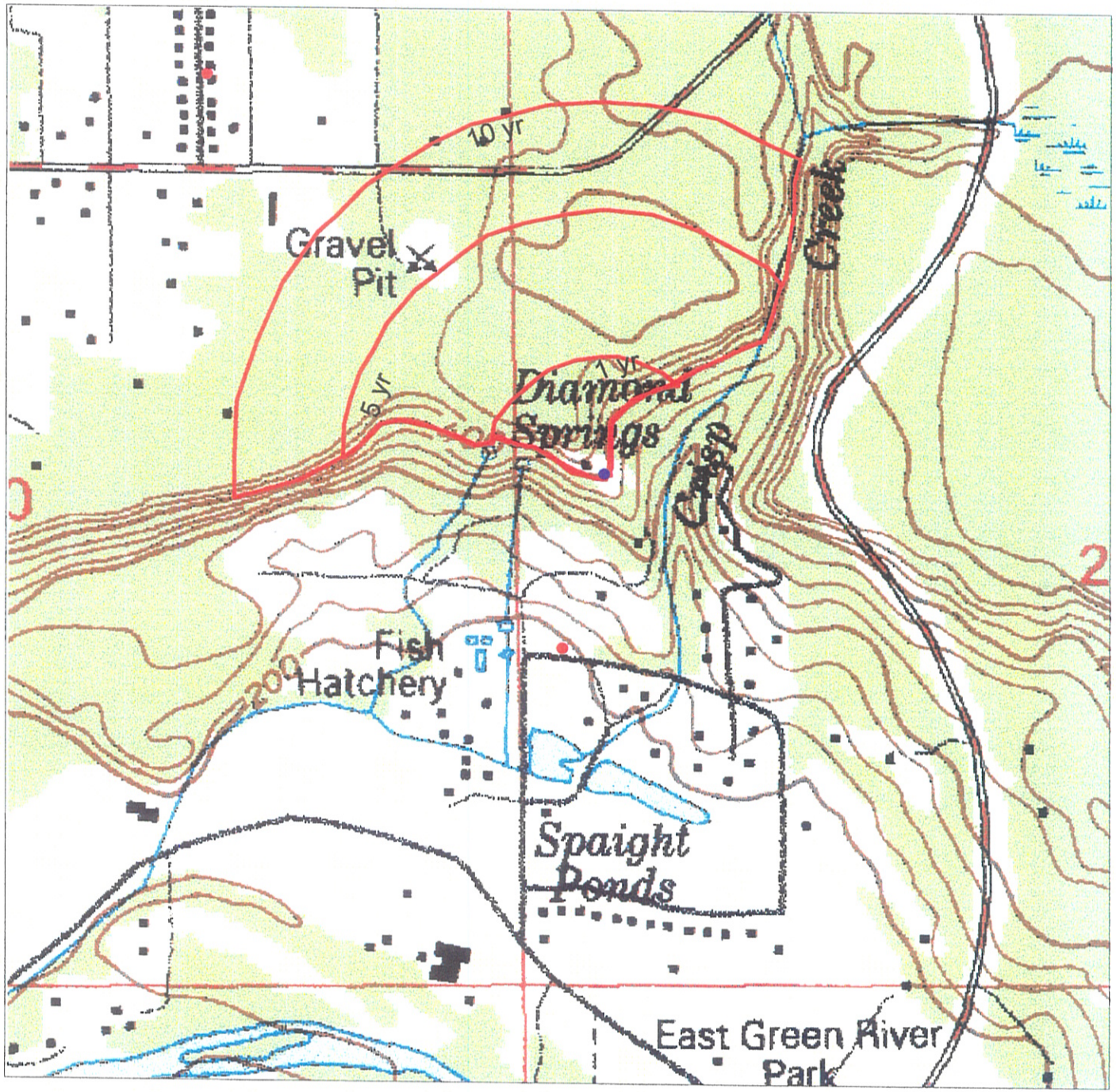
N

Wellhead Protection Area

1 0 1 Miles



Diamond Springs
Wellhead Protection Areas



Legend

- Group A Water Supply Well
- Underground Storage Tank
- Wellhead Protection Areas

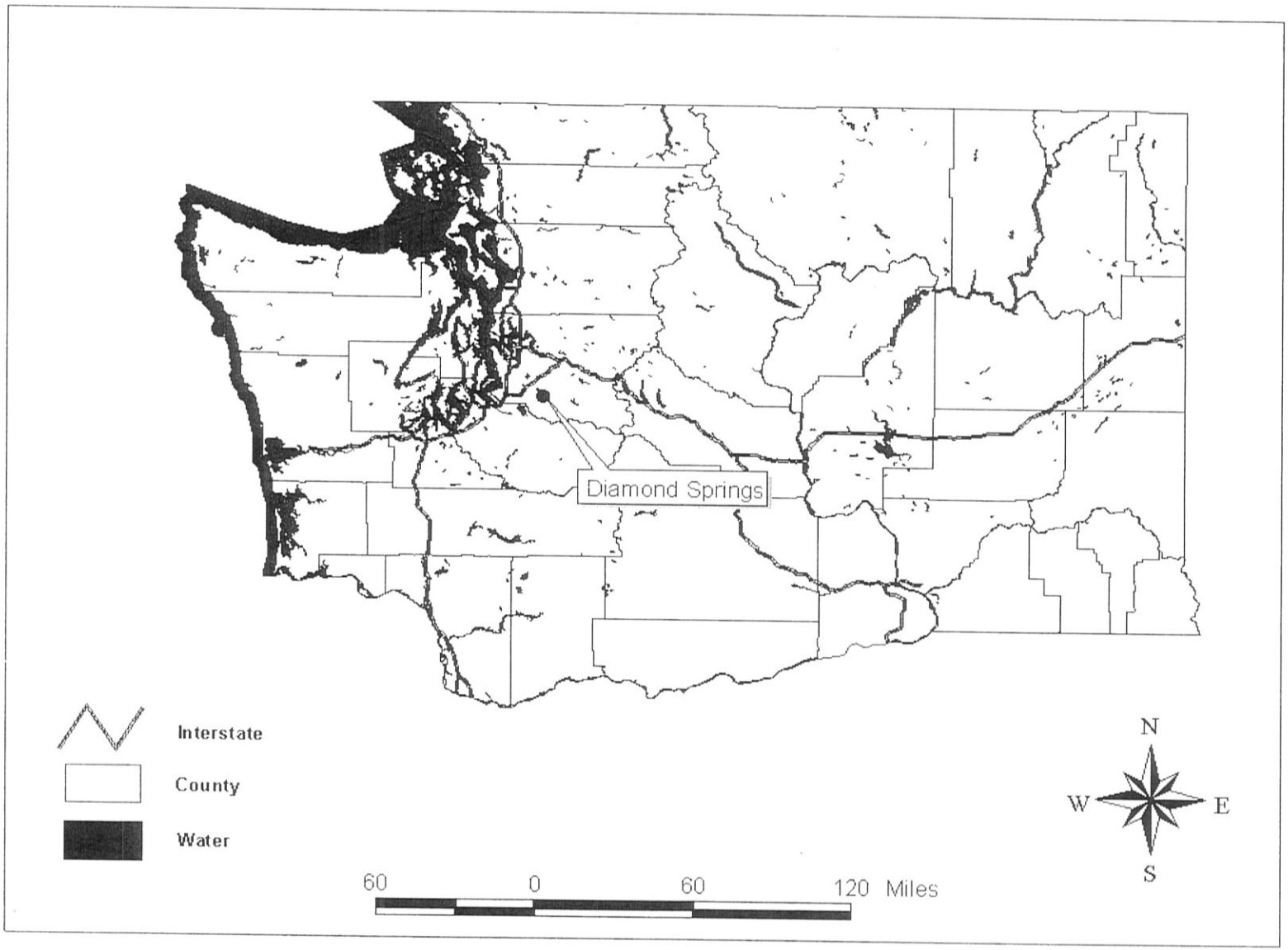
400 0 400 800 Feet

Note: Welhead Protection Areas were delineated using a calculated fixed radius (CFR). The CFR was altered to account for the hydrologic barriers created by topography and Crisp Creek.

EVERGREEN RURAL WATER OF WASHINGTON

Dale Becker
Printed 6/27/2000

Figure 2: Overview Map



IX. Appendices

Appendix A: Ground Water Contamination Susceptibility Assessment

Water Facilities Inventory

Appendix B: Potential Contaminant Source List

Notification Letters

Appendix C: Resource Contacts

Appendix A:

Susceptibility Assessments
Water Facilities Inventory

Washington State Department of Health
Division of Environmental Health
Office of Drinking Water

Susceptibility Assessment Survey

Report Create Date:	07/26/2011	
Report Type:	D	(ALL=B=Blank Form, D=WS Details)
Water System Id(s):	19215	
WS Source Number(s):	ALL	
County Number(s):	ALL	
Region(s):	ALL	
WS Source Type(s):	ALL	
WS System Type(s):	ALL	
WS Source Use(s):	ALL	
Source Township Number(s):	ALL	
Source Range Number(s):	ALL	
Source Section Number(s):	ALL	
Source Qtr/Qtr Section Number(s):	ALL	

Sentry DOH

Ground Water Contamination
Susceptibility Assessment Survey Form
Version 2.3

IMPORTANT! Please complete one form for each ground water source (well, well in wellfield, spring, spring in springfield) used in your water system. Photocopy as necessary

PART I: System Information

Well owner / manager: **JIM TURNER**

Water System Name: **DIAMOND SPRINGS WATER ASSOCIATION**

County: **KING**

Water System Number: **19215 P** Source Number: **01**

Well Depth: _____ (ft) (From WFI form)

Source Name: **DIAMOND SPRINGS # 1**

WA well identification tag number: ___ ___ ___ - ___ ___ ___ **X** Well not tagged

Number of connections: **43** Population served: **138**

Township: **21** Range: **06E**

Section: **21** 1/4 1/4 Section: **NWSW**

Latitude / longitude (if available) _____ / _____

How was lat. / long. determined?

____ Global Positioning device ____ Survey **X** Topographic Map

____ Other: _____

* Please refer to Assistance Packet for details and explanations of all the questions in Parts II through V

PART II: Well Construction and Source Information

1) Date well originally constructed: **01/01/1942** (month/day/year)

last reconstruction: ____ / ____ / _____ (month/day/year)

____ Information unavailable

2) Well Driller:

_____

_____

_____

__X__ Well Driller unknown

3) Type of Well:

____ Drilled: ____ Rotary ____ Bored ____ Dug

____ Cable (percussion) ____ Unspecified

__X__ Other: ____ Spring(s) ____ Driven ____ Jetted

__X__ Lateral collector (Ranney) ____ Unspecified

Additional comments:

_____

4) Well report available? ____ YES __X__ NO

If no well log is available, please attach any other records documenting well construction; e.g. boring logs, "as built" sheets, engineering reports, well reconstruction logs.

5) Average pumping rate: **60.0** (gallons / min)

Source of information: _____

If not documented, how was pumping rate determined

_____

____ Pumping rate unknown

6) Is source treated? If so what type of treatment:

____ Disinfection ____ Filtration ____ Carbon Filter

____ Air Stripper ____ Other ____ Unknown

Purpose of treatment (describe materials to be removed or controlled by treatment):

_____

7) If source is clorinated, is a chlorine residual maintained: ____ YES ____ NO

Residual level: _____ (At point closest to the source)

PART III: Hydrogeologic Information

1) Depth to top of open interval: [check one]

X (less than) 20ft ____ 20 - 50ft ____ 50 - 100ft ____ 100 - 200ft

____ (greater than) 200ft ____ Information unavailable

2) Depth to ground water (static water level)

____ (less than) 20ft ____ 20 - 50ft ____ 50 - 100ft ____ (greater than) 100ft

X Flowing well spring (artesian) ____ Depth to Ground water unknown

How was water level determined?

____ Well log ____ Other: _____ ____ Unknown

3) If source is a flowing well or spring, what is the confining pressure:

_____ psi (pounds per square inch)
or
_____ feet above wellhead

4) If source is a flowing well or spring, is there a surface impoundment, reservoir, or catchment associated with the source?

X YES ____ NO

5) Wellhead elevation (height above mean sea level): **375.00** (ft)

How was elevation determined?

X Topographic map ____ Drilling / Well Log ____ Altimeter

____ Other: _____

____ Information unavailable

6) Confining layers: (This can be completed only for those sources with a drilling log, well log or geologic report describing subsurface conditions. Please refer to assistance package for example.)

____ Evidence of a confining layer in well log

____ No evidence of a confining layer in well log

If there is evidence of a confining layer, is the depth to ground water more than 20 feet above the bottom of the lowest confining layer?

____ YES ____ NO

X Information Unavailable

7) Sanitary setback:

____ (Less than) 100ft* **X** 100 - 200ft ____ 120 - 200ft ____ (greater than) 200ft

* if less than 100 ft describe the site conditions:

8) Wellhead construction:

____ Wellhead enclosed in a wellhouse

____ Controlled access (describe below in comments):

____ Other uses for wellhouse (describe below in comments):

____ No wellhead control

Wellhead construction comments

9) Surface seal:

____ 18 ft

____ (less than) 18ft (No Department of Ecology approval)

____ (less than) 18ft (Approved by Ecology, include documentation)

____ (greater than) 18 ft

____ depth of seal unknown

X no surface seal

10) Annual rainfall (inches per year)

____ (less than) 10 in/yr ____ 10 - 25 in/yr **X** (greater than) 25 in/yr

PART IV: Mapping Your Ground Water Resource

1) Annual volume of water pumped: **31,000,000** (gallons)

How was this determined?

____ Meter

____ Estimated: ____ Pumping Rate (_____)

____ Pump Capacity (_____)

____ Other:

2) "Calculated Fixed Radius" estimate of ground water movement (see Instruction Packet)

6 Month ground water travel time: **242** (ft)

1 Year ground water travel time: **341** (ft)

5 Year ground water travel time: **758** (ft)

10 Year ground water travel time: **1,075** (ft)

Information available on length of screened/open interval?

X YES ____ NO

Length of screened/ open interval: **50** (ft)

3) Is there a river, lake, pond, stream, or other obvious surface water body within the 6 month time of travel boundary?

X YES ____ NO (Mark and identify on map).

4) Is there a stormwater and/or wastewater facility, treatment lagoon or holding pond located within the 6 month time of travel boundary?

____ YES **X** NO (Mark and identify on map).

Comments:

PART V: Assessment of Water Quality

1) Regional sources of risk to ground water:

Please indicate if any of the following are present within a circular area around your water source having a radius up to and including the five year ground water travel time:

	6 Mo	1 Yr	5 yrs	Unknown
Likely pesticide application				
Stormwater injection wells				
Other injection wells				
Abandoned ground water well				
Landfills, dumps, disposal areas				
Known hazardous materials clean-up site				
Water system(s) with known quality problems				
Population density (greater than) 1 house / acre				
Residences commonly have septic tanks			X	
Wastewater treatment lagoons				
Sites used for land application of waste				

Mark and identify on map any of the risks listed above which are located within the 6 month time of travel boundary. (Please include a map of the wellhead and time of travel areas with this form. Please locate and mark any of the following)

If other recorded or potential sources of ground water contamination exist within the ten year time of travel circular zone around your water supply, please describe:

2) Source specific water quality records:

Please indicate the occurance of any test results since 1986 that might meet the following conditions: (Unless listed on assessment, MCLs are listed in assistance package.)

A. Nitrate: (Nitrate MCL = 10 mg/l)	YES
Results greater than MCL	
(less than) 2 mg/liter nitrate	X
2 - 5 mg/liter nitrate	
(greater than) 5 mg/liter nitrate	
Nitrate sampling records unavailable	

B. VOCs: (VOC detection level 0.5 ug/l or 0.0005 mg/l)	YES
Results greater than MCL or SAL	
VOCs detected at least once	
VOCs never detected	X
VOC sampling records unavailable	

C. EDB/DBCP: (EDB MCL = 0.05 ug/l or 0.00005 mg/l) (DBCP MCL = 0.2 ug/l or 0.0002 mg.l)	YES
EDB/DBCP detected below MCL at least once	
EDB/DBCP detected above MCL at least once	
EDB/DBCP never detected	
EDB/DBCP test required but not yet completed	
EDB/DBCP tests not required	

D. Other SOCs (Pesticides):	YES
Other SOCs detected (pesticides and other synthetic organic chemicals)	
Other SOC tests performed but none detected (List test methods in comments)	
Other SOC tests not performed	

If any SOCs in addition to EDB/DBCP were detected, please identify and date. If other SOC tests were performed, but no SOCs detected, list test methods here:

E. Bacterial contamination: ___ YES

Any bacterial detection(s) in the last 3 years in samples taken from the source (not distribution sampling records) ..... ____

Has source (in past 3 years) had a bacteriological contamination problem found in distribution samples that was attributed to the source ..... ____

Source sampling records for bacteria unavailable ..... ____

Part VI: Geographic or Hydrological Factors Contributing to a Non-Circular Zone of Contribution

The following questions will help identify those ground water systems which may not be accurately represented by the calculation fixed radius (CFR) method described in Part IV. For these sources, the CFR areas should be used as a preliminary delineation of the critical time of travel zones for the sources. As a system developes its Wellhead Protection Plan for these sources, a more detailed delineation method should be considered.

1) Is there evidence of obvious hydrological boundaries within the 10 year time of travel zone of the CFR? (Does the largest circle extend over a stream, river, lake up a steep hillside and/or over a mountain or ridge?)

X YES ____ NO ____ Unknown

Describe with references to map produced in Part IV:

_____

_____

2) Aquifer Material:

a) Does the drilling log, well log or other geologic / engineering reports identify that the well is located in an area where the underground conditions are identified as fractured rock and/or basalt terrain?

____ YES **X** NO ____ Unknown

b) Does the drilling log, well log or other geologic / engineering reports identify that the well is located in an area where the underground conditions are primarily identified as coarse sand and gravel?

X YES ____ NO ____ Unknown

3) Is the source located in an aquafer with a high horizontal flow rate? (These can include sources located on flood plains of large rivers, artesian wells with high water pressure, and/or shallow flowing wells and springs)

X YES ____ NO ____ Unknown

4) Are there other high capacity wells (agricultural, municipal, and/or industrial) located within the CFRs?

____ YES X NO ____ Unknown

a) Presence of ground water extraction wells removing more than approximately 500 gal/min within...

	YES	NO	Unknown
6 Month travel time	____	____	____
6 Month - 1 yr travel time	____	____	____
1 - 5 year travel time	____	____	____
5 - 10 year travel time	____	____	____

b) Presence of ground water recharge wells (dry wells) or heavy irrigation within....

	YES	NO	Unknown
1 year travel time	____	____	____
1 - 5 year travel time	____	____	____
5 - 10 year travel time	____	____	____

Please identify or describe additional hydrological or geographic conditions that you believe may affect the shape of the zone of contribution for this source. Where possible, reference them to locations on the map

This form and instruction packet are still in the process of development. Your comments, suggestions and questions will help us upgrade and improve this assessment form. If you found particular sections confusing or problematic please let us know. How could this susceptibility assessment be improved or made clearer? How much time did it take you to complete the form? Were you able to complete the assessment without additional/outside expertise? Do you feel the assessment was valuable as a learning experience? Any other

Ground Water Contamination
Susceptibility Assessment Survey Form
Version 2.3

IMPORTANT! Please complete one form for each ground water source (well, well in wellfield, spring, spring in springfield) used in your water system. Photocopy as necessary

PART I: System Information

Well owner / manager: **JIM TURNER**

Water System Name: **DIAMOND SPRINGS WATER ASSOCIATION**

County: **KING**

Water System Number: **19215 P** Source Number: **02**

Well Depth: _____ (ft) (From WFI form)

Source Name: **DIAMOND SPRINGS #2**

WA well identification tag number: ___ ___ ___ - ___ ___ ___ **X** Well not tagged

Number of connections: **43** Population served: **138**

Township: **21** Range: **06E**

Section: **21** 1/4 1/4 Section: **NWSW**

Latitude / longitude (if available) _____ / _____

How was lat. / long. determined?

____ Global Positioning device ____ Survey ____ Topographic Map

____ Other: _____

* Please refer to Assistance Packet for details and explanations of all the questions in Parts II through V

PART II: Well Construction and Source Information

1) Date well originally constructed: ___/___/_____ (month/day/year)

last reconstruction: ___/___/_____ (month/day/year)

X Information unavailable

2) Well Driller:

_____

_____

_____

__X__ Well Driller unknown

3) Type of Well:

____ Drilled: ____ Rotary ____ Bored ____ Dug

____ Cable (percussion) ____ Unspecified

____ Other: ____ Spring(s) ____ Driven ____ Jetted

____ Lateral collector (Ranney) ____ Unspecified

Additional comments:

_____

4) Well report available? ____ YES __X__ NO

If no well log is available, please attach any other records documenting well construction; e.g. boring logs, "as built" sheets, engineering reports, well reconstruction logs.

5) Average pumping rate: _____ (gallons / min)

Source of information: _____

If not documented, how was pumping rate determined

_____

__X__ Pumping rate unknown

6) Is source treated? If so what type of treatment:

____ Disinfection ____ Filtration ____ Carbon Filter

____ Air Stripper ____ Other ____ Unknown

Purpose of treatment (describe materials to be removed or controlled by treatment):

_____

7) If source is clorinated, is a chlorine residual maintained: ____ YES ____ NO

Residual level: _____ (At point closest to the source)

PART III: Hydrogeologic Information

1) Depth to top of open interval: [check one]

____ (less than) 20ft ____ 20 - 50ft ____ 50 - 100ft ____ 100 - 200ft

____ (greater than) 200ft X Information unavailable

2) Depth to ground water (static water level)

X (less than) 20ft ____ 20 - 50ft ____ 50 - 100ft ____ (greater than) 100ft

____ Flowing well spring (artesian) ____ Depth to Ground water unknown

How was water level determined?

____ Well log ____ Other: _____ ____ Unknown

3) If source is a flowing well or spring, what is the confining pressure:

_____ psi (pounds per square inch)
or
_____ feet above wellhead

4) If source is a flowing well or spring, is there a surface impoundment, reservoir, or catchment associated with the source?

____ YES ____ NO

5) Wellhead elevation (height above mean sea level): _____ (ft)

How was elevation determined?

____ Topographic map ____ Drilling / Well Log ____ Altimeter

____ Other: _____

____ Information unavailable

6) Confining layers: (This can be completed only for those sources with a drilling log, well log or geologic report describing subsurface conditions. Please refer to assistance package for example.)

____ Evidence of a confining layer in well log

____ No evidence of a confining layer in well log

If there is evidence of a confining layer, is the depth to ground water more than 20 feet above the bottom of the lowest confining layer?

____ YES ____ NO

X Information Unavailable

7) Sanitary setback:

____ (Less than) 100ft* ____ 100 - 200ft ____ 120 - 200ft ____ (greater than) 200ft

* if less than 100 ft describe the site conditions:

8) Wellhead construction:

____ Wellhead enclosed in a wellhouse

____ Controlled access (describe below in comments):

____ Other uses for wellhouse (describe below in comments):

____ No wellhead control

Wellhead construction comments

9) Surface seal:

____ 18 ft

____ (less than) 18ft (No Department of Ecology approval)

____ (less than) 18ft (Approved by Ecology, include documentation)

____ (greater than) 18 ft

____ depth of seal unknown

____ no surface seal

10) Annual rainfall (inches per year)

____ (less than) 10 in/yr ____ 10 - 25 in/yr ____ (greater than) 25 in/yr

PART IV: Mapping Your Ground Water Resource

1) Annual volume of water pumped: _____ (gallons)

How was this determined?

____ Meter

____ Estimated: ____ Pumping Rate (_____)

____ Pump Capacity (_____)

____ Other:

2) "Calculated Fixed Radius" estimate of ground water movement (see Instruction Packet)

6 Month ground water travel time: _____ (ft)

1 Year ground water travel time: _____ (ft)

5 Year ground water travel time: _____ (ft)

10 Year ground water travel time: _____ (ft)

Information available on length of screened/open interval?

____ YES ___X___ NO

Length of screened/ open interval: _____ (ft)

3) Is there a river, lake, pond, stream, or other obvious surface water body within the 6 month time of travel boundary?

____ YES ____ NO (Mark and identify on map).

4) Is there a stormwater and/or wastewater facility, treatment lagoon or holding pond located within the 6 month time of travel boundary?

____ YES ____ NO (Mark and identify on map).

Comments:

PART V: Assessment of Water Quality

1) Regional sources of risk to ground water:

Please indicate if any of the following are present within a circular area around your water source having a radius up to and including the five year ground water travel time:

	6 Mo	1 Yr	5 yrs	Unknown
Likely pesticide application	____	____	____	____
Stormwater injection wells	____	____	____	____
Other injection wells	____	____	____	____
Abandoned ground water well	____	____	____	____
Landfills, dumps, disposal areas	____	____	____	____
Known hazardous materials clean-up site	____	____	____	____
Water system(s) with known quality problems	____	____	____	____
Population density (greater than) 1 house / acre	____	____	____	____
Residences commonly have septic tanks	____	____	____	____
Wastewater treatment lagoons	____	____	____	____
Sites used for land application of waste	____	____	____	____

Mark and identify on map any of the risks listed above which are located within the 6 month time of travel boundary. (Please include a map of the wellhead and time of travel areas with this form. Please locate and mark any of the following)

If other recorded or potential sources of ground water contamination exist within the ten year time of travel circular zone around your water supply, please describe:

2) Source specific water quality records:

Please indicate the occurance of any test results since 1986 that might meet the following conditions: (Unless listed on assessment, MCLs are listed in assistance package.)

	YES
A. Nitrate: (Nitrate MCL = 10 mg/l)	
Results greater than MCL	____
(less than) 2 mg/liter nitrate	____
2 - 5 mg/liter nitrate	____
(greater than) 5 mg/liter nitrate	____
Nitrate sampling records unavailable	____
B. VOCs: (VOC detection level 0.5 ug/l or 0.0005 mg/l)	YES
Results greater than MCL or SAL	____
VOCs detected at least once	____
VOCs never detected	____
VOC sampling records unavailable	____
C. EDB/DBCP: (EDB MCL = 0.05 ug/l or 0.00005 mg/l) (DBCP MCL = 0.2 ug/l or 0.0002 mg.l)	YES
EDB/DBCP detected below MCL at least once	____
EDB/DBCP detected above MCL at least once	____
EDB/DBCP never detected	____
EDB/DBCP test required but not yet completed	____
EDB/DBCP tests not required	____
D. Other SOCs (Pesticides):	YES
Other SOCs detected (pesticides and other synthetic organic chemicals)	____
Other SOC tests performed but none detected (List test methods in comments)	____
Other SOC tests not performed	____

If any SOCs in addition to EDB/DBCP were detected, please identify and date. If other SOC tests were performed, but no SOCs detected, list test methods here:

E. Bacterial contamination: ___ YES

Any bacterial detection(s) in the last 3 years in samples taken from the source (not distribution sampling records) ..... ____

Has source (in past 3 years) had a bacteriological contamination problem found in distribution samples that was attributed to the source ..... ____

Source sampling records for bacteria unavailable ..... ____

Part VI: Geographic or Hydrological Factors Contributing to a Non-Circular Zone of Contribution

The following questions will help identify those ground water systems which may not be accurately represented by the calculation fixed radius (CFR) method described in Part IV. For these sources, the CFR areas should be used as a preliminary delineation of the critical time of travel zones for the sources. As a system developes its Wellhead Protection Plan for these sources, a more detailed delineation method should be considered.

1) Is there evidence of obvious hydrological boundaries within the 10 year time of travel zone of the CFR? (Does the largest circle extend over a stream, river, lake up a steep hillside and/or over a mountain or ridge?)

____ YES ____ NO ____ Unknown

Describe with references to map produced in Part IV:

_____

_____

2) Aquifer Material:

a) Does the drilling log, well log or other geologic / engineering reports identify that the well is located in an area where the underground conditions are identified as fractured rock and/or basalt terrain?

____ YES ____ NO ____ Unknown

b) Does the drilling log, well log or other geologic / engineering reports identify that the well is located in an area where the underground conditions are primarily identified as coarse sand and gravel?

____ YES ____ NO ____ Unknown

3) Is the source located in an aquafer with a high horizontal flow rate? (These can include sources located on flood plains of large rivers, artesian wells with high water pressure, and/or shallow flowing wells and springs)

____ YES ____ NO ____ Unknown

4) Are there other high capacity wells (agricultural, municipal, and/or industrial) located within the CFRs?

____ YES ____ NO ____ Unknown

a) Presence of ground water extraction wells removing more than approximately 500 gal/min within...

	YES	NO	Unknown
6 Month travel time	____	____	____
6 Month - 1 yr travel time	____	____	____
1 - 5 year travel time	____	____	____
5 - 10 year travel time	____	____	____

b) Presence of ground water recharge wells (dry wells) or heavy irrigation within....

	YES	NO	Unknown
1 year travel time	____	____	____
1 - 5 year travel time	____	____	____
5 - 10 year travel time	____	____	____

Please identify or describe additional hydrological or geographic conditions that you believe may affect the shape of the zone of contribution for this source. Where possible, reference them to locations on the map

This form and instruction packet are still in the process of development. Your comments, suggestions and questions will help us upgrade and improve this assessment form. If you found particular sections confusing or problematic please let us know. How could this susceptibility assessment be improved or made clearer? How much time did it take you to complete the form? Were you able to complete the assessment without additional/outside expertise? Do you feel the assessment was valuable as a learning experience? Any other

***** End of Report *****

Appendix B:

Potential Contaminant Source List
Notification Letters

Diamond Springs Water Association

WHP Area Potential Contaminant Source List

Potential Contaminant Sources

Site	Name	Address	City	State	Zip
County Gravel Pit and Maintenance Depot Auburn-Black Diamond Road/SE 330th St.	King County Department of Transportation Road Services Division	201 S. Jackson St. 3rd floor MS: KSC-TR-0313	Seattle	WA	98104-2637
City of Black Diamond Shop	City of Black Diamond	32820 Third Avenue	Black Diamond	WA	98010

Emergency Responders

Agency	Name	Address	City	State	Zip
Washington State Department of Ecology	Paul O'Brien	3190 - 160th Ave. SE	Bellevue	WA	98008-5452
Local Hazardous Waste Management Program		130 Nickerson St. Suite 100	Seattle	WA	98109
King County Sheriff's Office	King County Courthouse(206) 296-4155	516 Third Avenue Room W-116	Seattle	WA	98104
Local Fire District	King County #46 253 833-7284	34915 212 Ave SE	Auburn	WA	98092
King County Emergency Management Division	206 296-3830	7300 Perimeter Rd S. room 128	Seattle	WA	
Washington State Department of Health	Stacey Patterson	1511 Third Avenue Suite 719, MS: K17-12	Seattle	WA	98101

LETTER OF NOTIFICATION - WELLHEAD PROTECTION PLAN

Dear Business Owner/Operator:

The Diamond Springs water system is developing a wellhead protection plan as required by the State Department of Health. Wellhead protection involves protecting the land area surrounding our spring in order to prevent contamination of the drinking water supply. Part of the plan requires notification to all potential sources of contamination to our spring, which is located at the end of 212th Ave S.E. (See map on next page).

One of the goals of this plan is to raise public awareness about the vulnerability of the groundwater in our area to contamination. The purpose of this letter is to inform you of the proximity of your business to our wellhead protection areas and to serve as a reminder that any hazardous material spilled onto the ground or put into a septic system has the potential of contaminating our drinking water supply. Some potential contamination sources are...

- Improper use of septic system (dumping paint, cleaners, or solvents into your septic system).
- Dumping motor oil, gasoline, antifreeze or similar fluids onto the ground. These materials can be recycled, **free of charge**, at most major shops and parts stores.
- Leaking fuel storage tanks and distribution lines.
- Accidental spillage of fuel.

Because everyone plays a role in the protection plan, local residents are also being contacted with similar information. We are fortunate to have a good supply of high quality water. Please help us keep it that way for our continued good use, and for those that come along after us. Thank you for your attention in this matter. If you have any questions about the plan, please feel free to contact me.

Sincerely,

Jim Turner
Diamond Springs Water Association
PO box 694
Black Diamond, WA 98010

Telephone: 735 - 2282

Appendix C: Resource Contacts

County Health Department

King County Health Department
Vashon, Washington
(206) 463-5053

Washington Department of Health

Wellhead Protection Program
David Jennings
PO Box 47822
Olympia, WA 98504-7822
(360) 586-9041

Regional Engineer

Bob James
20435 72nd Ave S.
Suite 200, K17-12
Kent, WA 98032-2358
(253) 395-6768

Regional Planner

Northwest Regional Office
20435 72nd Ave S.
Suite 200, K17-12
Kent, WA 98032-2358
(253) 395-6750

Emergency Water Source

Lou Schweitzer
Water Truck Services,
41218 292nd SE
Enumclaw, WA 98022
(360) 825 5445

U.S.Environmental Protection Agency

MaryAnn Helferty
Source Water Protection
1200 Sixth Avenue
Seattle, WA 98101
(206) 553-1901

American Water Works Association

Small Systems Department
6666 West Quincy Ave.
Denver, CO 80235
(303) 794-7711

Emergency (hazardous spill) Response

Local: Fire Department (911)
Statewide: (360) 407-6300
EPA Region 10: (206) 553-1263

Washington Department of Ecology

Northwest Regional Office
3190 - 160th Ave. SE
Bellevue, WA 98008-5452
(425) 649-7000

Evergreen Rural Water of Washington
Groundwater Technician
Dale Becker
510 Pine Street
Ellensburg, WA 98926
(509) 962-6326

RECEIVED
AUG - 4 2011
BY: BKM

Erika Morgan
33624 Abrams Ave
Black Diamond Wa. 98010

DEVELOPMENT AGREEMENTS

Black Diamond was promised a forward thinking world class development with "unconventional planning" available under the MPD process: the Development Agreement as it stands promises a senseless warehousing of residences packed as tight as possible and with no overriding scheme, purpose or rationality. This is the type of community which promotes and insures the fostering of the worst of modern societies problems.

We were promised a community built on Black Diamond's firm foundation as an integrated economically sound and rational, self sufficient community. With a walking scale but efficiency of transportation and communication, with a proud historical heritage, with an exceptional natural setting, with a small town community filled atmosphere. Forested and untouched areas remain, trails, bikeways, green belts as well as roads to connect open space, housing, shopping, employment and recreation areas with each other and with the several regional nearby parks, with the "old town"; all this in a coordinated integrated way that encourages a walking and active lifestyle. The economic base is set on a diverse platform of heavy and light industry, business park and office space, cottage and tourist industry, and there is enough retail to at least provide the necessities right here in town. The town is properly thought out and coordinated in the placement of roads, schools and services and trails for most effective transportation and communication; and for the ease of movement of goods and services for most efficiency. Residential development will be a mix of types and densities which are clustered to preserve the maximum open space, and access to the trail system that is the coordinating back bone of the development. Citizens participate in effective and open government, and are part of the decision making process reflecting the community values of cooperating with downstream neighbors to protect their quality of life, also to provide adequate public services and environmental protections for a safe high quality life for all citizens from children to seniors. *[Paraphrased from 2009 Comprehensive Plan Update page 1-2]*

The Development Agreement as presented in this hearing assures a diametrically opposed result, a complete reversal of the stated goals of the comp plan . There is no backbone of communication or transportation, the corridors are not platted out, the developed or undeveloped open space is not defined except by the barest minimum of State and Federally protected wetland all with minimum buffers that are often obscured and misrepresented where steep inclines and uneven land forms are encountered. There is no definition of where services are located or how they are accessed. The residential areas have no coordinating theme. They consist of a warehousing of families in the most depraved way which results in accentuating the worst modern society has to offer, and precluding the development of contributing new citizenry. **This Development Agreement as it stands will dash the promise that is Black Diamond into the black hole of mediocrity and yes depravity. But, the problems are worse then this if that seems possible**.

By granting building permits under this plan, a plan that does not pass the smell test for dealing with traffic, water quality and quantity, the handling of sewage, proper wildlife corridors, mine hazards, school sites, and economic and cultural viability the city of Black

EXHIBIT
143

Diamond is setting itself up for **financial liabilities in perpetuity**. King County experienced just this result by granting building permits to the first five lots nearest to and lowest lying at Horseshoe Lake. After the houses were flooded with sewage and red tagged, slated for tear down, and after mortgage insurance covered the banking institutions, King County paid the owners out of their capital investment from its own pocket, thinking that they had bought their way out of further financial responsibility of their misguided granting of building permits in the first place. Building permits that should have had more predictive, complete and accurate environmental reviews. We have all seen that it was a futile hope, even though the bank asked the new owners of the rebuilt houses to sign that they would never be able to insure for or collect for water or sewage damage, King County continues to spend their good money on pumping out the raising lake and creating new channels for dissipating the water and paying property owners down stream for damage created by the dumped water. **This can also be the fate of Black Diamond on way fewer resources then the county can muster, please shake in your boots as you contemplate what this will mean for Black Diamond's economic future**.

I can see clearly that decisions our Black Diamond legislators make on behalf of their constituents can make our promise a reality or these decisions can destroy Black Diamond utterly. It will take a lot of dedication to create the silk purse from the sows ear that YB and its DA has presented, but many citizens of Black Diamond and the surrounding communities are pouring their time and expertise into this enterprise for free. With a little help by judicious legislators the dream can be realized.

HISTORY THAT GETS US TO THE PRESENT:

Black Diamond saw, through the MPD process on several large parcels of land the unique opportunity to realize a significant improvement in how lands are developed in Black Diamond over other places, we have the ability to become something very special. Our citizens were promised a real jewel of an integrated town *[as described on page 1.2 of June 2009 BD comp plan.]* "*There is an exceptional natural setting, with a small town atmosphere. Forested areas and open space* (as two separate entities) *remain, while development maintains a healthy balance of moderate growth and economic viability. Citizens actively participate in an effective open government decision making process that reflects community values. There will be good cooperation among nearby jurisdictions and adequate public services and environmental protection to provide a safe and healthy quality of life for all citizens from children to seniors. Citizens are admonished that when they make decisions for the future they are to minimize adverse aspects.*" **There is a significant promise here but the colliery is also very present, lack of due diligence and attention to the details of downstream unintended consequences will allow a complete destruction of everything we value as a community and will create an irrevocable mess that sucks the lifeblood from our city as disgruntled victims of water rights, water flooding or water quality, traffic improvement costs, school needs or anything else that is blamed on this huge development plan get bounced back on the City Black Diamond in the form of victims needing to be made whole in perpetuity.**

This MPD process is supposed to realize these five things:

1. ***protection for the environment***
2. ***preservation of open space***
3. ***maintenance of adequate public facilities***
4. ***achieve a balance of jobs to housing***
5. ***maintain fiscal health for the city.*** *[city comp plan 2009,page 1.7]*

Notice that protection of the environment and preservation of open space are listed as two separate entities, this is correct since they are two separate things. Also, the wildlife corridor undeveloped open area, is indeed a separate thing from the developed open space that is for human needs. The very first comment on this MPD, asked that special care be given to the requirements of the wildlife. Mr. James Birklid stated clearly that it was not acceptable that the animals be pushed onto our private properties just because we had some acreage, and Craig Birklid and Erika Morgan seconded those sediments as the other private property owners surrounded by this development. **I have since repeated at many meetings that ungulates and their predators are effectively precluded from my property, that I am not a wildlife corridor in any way and that depiction and description are to be removed from YB materials of thethe project. Their characterizations of my property as such are false. So what they have done is simply remove their opaque painted over swath from our property on their maps, but have done nothing to create the necessary continuous corridors around us, and have instead marked us in with densities right up to our fence lines. With this DA, actual accommodation must be made for a wildlife corridor outside my property, at least 1000 ft wide to serve the wildlife so they do not defacto use my land as they go about their business. When I brought this up at the MPD hearing I was told that the plans were in their programmatic stage and would be handled at the Development Agreement stage. Now when our experts appeared at this hearing and tried to state our case for the record they were shut down; we were told these issues were settled in the EIS. Pray tell, when will my concerns and requirements as regards to my property, have their place in the sun? If you notice a certain frustration with this process be certain that it is real.**

Maintenance of adequate public facilities must include the proper handling of the various waste streams for black, gray and surface / ground water as well as the recycling of metals, plastic, glass, paper and yard waste responsibly and correctly. This is imperative to this project. **Continuing forever the long distance trip through earthquake hazard areas that our sewage is taking to the metro station in Renton is irresponsible and an end time for this solution must be planned for and funding must be secured for this now.** Where in the development are the needed facilities going to be placed? How is there a separate facility so gray water is handled on its own rather then just creating more black water by the mixing of the two? Likewise for surface water and human contminated water from roofs, gardens, roads...?

The history of Black Diamond demands that the jobs be here before the houses are built. This means that the development must be constrained to the extent that five new permanent full time jobs created by the developer inside the city limits of Black Diamond will give the developer the right to ask for the building permits for five dwelling units, whose 30 year mortgages can be paid for by the federal standards of 1/3 of the net pay of the jobs created. If the new residents of the development are not on a sound economic footing the city will not be on a sound footing economically either.

There needs to be an immediate introduction of an active recruiting panel whose job it is to locate and bring and private industry to Black Diamond. Most developments have failed in this responsibility to the detriment of their citizens and the municipalities, the promised commercial development never materializes so there is not the promised economic viability either. As a business owner I am always receiving ads recommending how an industrial park in their state is just the "cats whiskers" for my company. **A concerted effort and a really outstanding development way above the "usual" and even beyond the promise of "Rural by Design" is achievable,**

communities who do this will prosper as those who go for the mediocre bare minimum are left in the dust. Randall Arendt in his new book towards the end uses the example of a homeowners association that was set up to be supported by an almond orchard, the dues were to be paid in care taking and harvesting of the nuts whose sales price would support the associations monitary expences. This is a move in the direction that development in Black Diamond needs to include, but the idea needs to be expanded into the realm of actual enterprise creating real jobs that support the citizens somewhat mimicking the mining enterprise of yore. Consideration also needs to be included under this heading for the creation of a self contained community. What can "Trader Joe's" give you in the way of fresh and organic that is not better achieved by trully a home grown rule?

I think, all of us here, Yarrow Bay, the city of Black Diamond, its citizens and neighbors want the best possible project, to be the project that goes forward. It is overly simplistic but easy to characterize the testimony as for or against this huge project. We are here to point out small and large places where our intimate experience with the area and the specifics, and the fine points of possible betterment are, for the best possible plan. Yarrow Bay and the City professionals have presented a plan; it is natural that their first instinct is to defend their plan, but that would be a mistake. I am reminded that in the operating room when a patient is crashing, the surgeon calls the patients general practitioner into the room, and in addition to conferring with him, every member of the OR team right down to the runner and visitors are asked personally if they have any ideas to try to save the patient. Each idea presented, is attempted in humility, and I have witnessed times when one of these ideas or a combination of them have saved the patient. Only after this process is complete, and every idea has been explored, is the patient declared as having died in the record. Black Diamond citizens were stung before by a failed sewage treatment system. A system that failed because its citizen's reasonable objections were pooped in favor of mistaken professional proponents who based their ideas on innovative and untried science in these parts. This project turned out to be a mistaken idea for our environment, disastrously polluting Lake Sawyer and our local wetlands. Instead the suggestions should have led to professional testing and exploration. Our citizens were very embarrassed, it was as though we collectively did not understand the concept of indoor plumbing. **We want to protect our city and our reputation to the extent possible by having all our concerns professionally and specifically addressed by neutral third party qualified professional experts. We want to help our legislators do a responsible job of protecting Black Diamond's interests and preventing down stream consequences, that turn into future liabilities as a result of these developments for our city and its citizens. We have the sacred responsibility under our democracy to speak and be actively heard and responded to.**

Why I came to Black Diamond and what I found once I got here:
I first noticed Black Diamond as a child driving through on our way to Crystal Mountain for hiking and ski hiking. I knew I wanted to some day live in this town, I liked the collegiality of neighboring yards where families worked their gardens, parents and children side by side, interacting with their contemporaries, clearly a "real community" in every sense of the word. While driving through as a young adult I came upon this scene; then Policeman Rick Luther, talking down a shotgun bearing teen, Rick with his megaphone and from a crouched position behind his police car, speaking reason. I understood that if this had been somewhere else there would have been a police involved shooting, but sanity and common sense prevailed in Black Diamond, I liked that. When I moved into town I was not disappointed. I quickly learned Black Diamond is a place where the lettered and the school dropout, the rich and the poor, the felon and the court clerk, the sane and the crazy, the elders and the young, the born of Black Diamond families and the new to town folks; can meet with mutual respect and work toward common goals, a very unusual and singular circumstance in modern America, but a foundation of the collective American ideals that have allowed us to become

a great nation. **You, Mr. HE Phil Olbrechts commented on our civility at this DA hearing and the MPD hearing; it is no accident Black Diamond is indeed a singular and unusual place with a culture worth preserving and promoting.**

What makes the special character of Black Diamond:
Black Diamond began its life as a "company town" This meant that all families who came to town had a job in the town. This also meant that there was a commonality of purpose, a sense of order, and pride in a job well done. Much of the mining work was dangerous for the miners, and they knew they depended on each other for precision and accuracy about their jobs, the "comrades in a fox hole" mentality extended above ground and into the families and into the successful sports teams that Black Diamond fielded with such pride. Many marriages developed out of these close relationships among the families. These mining towns were very self sufficient, all the necessities were made available right here in town, the mine provided electricity far before it was available in the greater area, there was a central water system, a train in to the Seattle wharf area, rooming house housing for the single miners, and cottages for miners with families. Space was made available for church services, traveling clergy, and later for the actual church properties. A resident doctor, hospital and drug dispensary, was maintained by the mine and a dentist made regular visits. There were schools with teachers hired by the mine, of a quality where many of the sons of miners could go on to finish professional degrees at university. There was a company store, bakery, dairy, meat market and grocery farm. Usual government responsibilities of road upkeep, telegraph office and later phone service, fire department and police with jail and court were a part of the mine infrastructure. The development of the town was coordinated for transportation and communication, for easy movement of goods and services, for most efficiency, for the timekeeping of the work shifts, and the planning of recreation games and picnics. All this was done in dictatorial fashion by the mine superintendent who was the monarch in this town. If you lost your job or died your company house went to the replacement worker, and your family moved on, if you thought to strike your family was pushed out of town and you lost your script privileges at the company store and your access to health care.

Special characteristics we voted to keep:
1. Integrated intelligent coordinated whole town planning integrating the new into the old to make a cohesive whole town. As a town we were supposed to continue with the comp plan to make this a reality and we were plugging along at this, and then YB showed up and talked us into abandoning our building moratorium prematurely. It is too bad that YB can not do this for us but they can only plan their property, **we need a plan for the whole or we give up the integration that makes us a "real village"**. There is an urban planning department at U of W, the students are introduced to urban planning through a group project before they are asked to complete their own; I know, there are two graduates of this program in my family. I bet they could be induced to work on Black Diamond as a class project and if they are given a few years we could have several concepts to pick and choose from. More heads result in a better project, and the teachers can act as a filter and facilitator, with the reality and the various constraints.

2. A job for every dwelling that can support that dwelling. There must be a revision of the emphases on employment as it is outlined in the *[June 2009 BD Comp Plan chapter 3]. "The composition of the county economy is shifting as manufacturing employment declines and employment in retail, services and government / education sectors increases."* Is what appears in the plan, **however our current national economic decline demonstrates dramatically the mistake of this thinking and acting. Continuing to**

do what has gotten our nation and community into the current economic debacle will not be advanced productively by "wishful thinking". This exactly the prescription that caused "the great recession" and we need to engage in a new plan that matches the current reality so Black Diamond can secure a new financially sound economy, going forward. Black Diamond needs a revision of goal; we need an active economic development recruiting panel who studies and then goes out to find and encourage home grown business, who advertises what we have available or could create to provide for the needs of willing business partners. We need a mix of heavy and light industry, and food production as well as all the services of necessity. We need these to be available right here in town. We need some sort of transportation solution to support our industries. The simplest backbone is likely to capitalize on a tourist base or active individual outdoor sports base for which we are well situated with our two famous bakeries, our excellent museum, our position along the roads to ski / mountain hiking and our close proximity for day tripping on public transportation from the nearby Seattle and Tacoma metropolis. These overriding enterprises could act as incentive to a thriving but ignored cottage industry / arts community that already exists in Black Diamond. **Most of all we need to learn from a successful past, albeit a distant past; and have the jobs here before the dwellings, so we do not repeat the conditions of our more recent economic decline where jobs are a long way away and require a huge investment in transportation on the part of the employee who lives in Black Diamond and commutes.** Any of these and probably other enterprises as well could serve as the community theme which will be invaluable as Black Diamond works toward rebuilding a common community character that is so important to Black Diamonders that they listed it as a value to retain in their comp plan.

3. Schools within walking distance for all Black Diamond students K-12 located in Black Diamond city limits. *[June 2009 BD Comp Plan section 8-6]* states *"The city supports the location of elementary schools and junior and high schools within the community contribute significantly to the community identity..." "policy CF 11: Work with the school districts serving the city to identify new school sites within the city limits and to encourage the school districts to acquire those sites at the earliest time." "policy CF 12: Support the city's representation on the school board, by a resident from within the City."* **A crewel mockery of these conditions polices and objectives exists in the DA.**

First; when the one Black Diamond school board member recused himself from the decision making process because his wife's family was involved in a legal action with YB, Black Diamond should have insisted on having an alternate representative representing their constituents, so Black Diamond would retain their voice. The neglecting of this vehicle has denied the citizens of Black Diamond a seat at the table during YB discussions with the Enumclaw School District further exacerbating Black Diamond disgruntledness with a "lack of say" which has persisted since the 1975 turnover of their local school district to Enumclaw.

Second; Enumclaw School District has been able to promote a trick on Black Diamond again through the use of YB properties outside Black Diamond's city limits. There are huge developments slated with blacktop roads although, probably no other services in the county around Black Diamond. These involve sections of land far exceeding the BD annexations, they are above Flaming Geyser west off 169 sides, above the Green River on the east side of 169, in the Franklin area on each side of the river and on each side of the Gourge Bridge, also along the whole Franklin - Enumclaw road, both sides, all in the Enumclaw District service area, all outside a city in the county.

These residents will want their schools local to their properties too, they will have larger lots and be from wealthier families with more say. We are talking about very large sections with thousands of acres involved. The Enumclaw School District will also need to serve these students and they have been able to broker a deal with YB to serve these new "quality

students" on the back of BD's development and its citizens. Enumclaw School District was clearly out for itself under the deal, taking care of its own future obligations once again at the expense of the Black Diamond community and its students. **Schools that serve all Black Diamond students must be in Black Diamond city limits on property that is served by in-city road / trail systems as sited by an in-city planning process ; this is clear from every part practically of the comp plan.**

4. An integrated and congruent trail / road / communication transportation system *"including large connected areas of open space that act as a green necklace, creeks, wetlands and significant wildlife habitat will be protected as part of the open space network. Trails parks community facilities will also define the open space network" [June 2009 BD Comp. Plan, page 1-10]* Is called for in the introduction of the comp plan but is not referred to in the body of the plan under its Transportation section 7. **This plan has no definition of transportation hubs, there is no site plan for anything schools, police, fire, municipal, medical, recreational, parks, developed or undeveloped open space, judicial, commercial, industrial or indeed anything. There are a couple of places where completely unthought about thoroughfares appear to have been postulated with no consideration for actual conditions on the ground.** At one time there was a trail planned to connect Jones Lake with Lake Sawyer, indeed Artchie working for BD on a Palmer Coking Coal machine began dredging out a stream and filling in a levee through the Rock Creek drainage area. Archie worked his way from Jones Lake, along the Sewage Treatment Plant fence, across Abrams Ave, where he took a hiatus from this work and trenched along both sides of the Abrams Levee, after that he went across Abrams, he got out as far as the Palmer CC / Plum Creek property line. Plum Creek happened to fly over in their helicopter and espyed the city activity. Plum Creek called in an immediate cease and desist order for the City of Black Diamond to stop immediately, **they were in violation of the Federal Law, the Beaver Protection order, absolutely no human activity is allowed in this area by federal statute. So there is no way for this connection as a trail** except maybe if one could get federal variance to do some kind of aerial pathway (zip line, cable car, rope walkway) but it seems doubtful that the Corp. of Engineers and fish and wildlife and whomever else would have a say, would allow the building of the necessary towers and it seems doubtful that these schemes would get the people visitors far enough away from the wildlife to avoid irrevocably impacting wildlife.

My experience with Abrams Ave, and the trail between section 15 and 22 notices the same sort of topography / surface water / ground water issues in both these places. The southwest out fall of Black Diamond Lake traverses this area. I know the water is on the move because whenever I have water rushing over my five acre clay pan there will be a deepening of the waters of horseshoe lake in about 3-6 hours. I have said before, Black Diamond Lake's water level is held at a steady level. Beaver activity can raise the water and lower it, but these beaver engineers are in control not the rain or the snow melt. Water exiting Black Diamond Lake from the southwest travels a route over clay, then through sandy or rocky moraine leavings where they are encountered, falling to the next clay pan (these may have been left as volcanic ash as the particles are very fine and appear in layers) and on to the next sand rock moraine etc. I am not as familiar with this area so can not judge if there are wide curtains of water continuously flowing over the land as there are on my section 23.

The bridge that the South Connecter road will require over these wetlands will need to be on the order of a mile long. One can see what the stability of the ground is over there if one follows the ruts left after the latest native plant salvage where the salvage truck was driven in off Auburn - Black Diamond Road onto section 15 and then across onto section 22. The erosion of just this one trip in and out caused rutting over 3 feet deep completely destroying stream and pathways. **An earth scan is needed which will enable the**

visualization of just where the surface and subsurface ground water is located, where the clay deposits are, where the gravel sand lenses are and where there are any rock formations, likely to include some huge boulders, house or larger in size. Also there could be running of these scans to detect mine cavities, empty and water filled. I have been told that there is no way to know what is under ground by YB folks and these studies have not been done, but there are three generations of mining engineers in my family, these earth scans are the stuff of their careers, it can be known. **Black Diamond and its council owe it to themselves to eliminate avoidable risk wherever possible for themselves, the developer and its neighbors.**

Parks, Trails and Recreational Facilities

Background

The City needs to be on solid ground on what it is getting, and when, on the topic of trails, parks, and recreational facilities in the Development Agreement. Parks and trails provide not only recreation but green ways, buffers, and visual separators to help mitigate urbanization impacts. Much of the open space consists of sensitive areas and their buffers. The City needs to be ensured that open space in non-sensitive or buildable areas is committed and available for parks, trails, and recreational facilities before approval of the Development Agreement. Currently, the City rates itself poor in existing facilities (*Black Diamond Comprehensive Plan, Parks, Recreation, and Open Space, Chapter 8, June, 2009).*

The City's Comprehensive Plan indicates it currently, and in the future, will need, "*…a full variety of park types, such as open space and neighborhood parks, as well as enough recreational facilities, such as baseball diamonds, to support the City's population".* A coordinated system of trails and pedestrian linkages is stressed in BDMC 18.98.150(A): "*An MPD shall provide onsite recreation areas and facilities sufficient to meet the needs of MPD residents, exceeding or at a minimum consistent with levels of service adopted by the city where applicable. This shall include providing for a coordinated system of trails and pedestrian linkages both within, and connecting to existing or planned regional or local trail systems outside of the MPD.*"

Parks and Recreational Facilities

Condition 89. "*The details of the park and recreation facilities to serve the new demand from the MPD shall be set in the required Development Agreement, including whether such facilities may be constructed on- or offsite." [FEIS Mitigation Measure].* **The Development Agreement fails to show whether park and recreation facilities may be constructed on- or off site** *(Development Agreement, Section 9, table 9.5, June, 2011).* Overweighing offsite construction of recreational facilities puts the City at risk of not meeting level of service (LOS) requirements for the distance of recreational facilities to residents, and considerable acreage of land is needed for baseball, soccer, tennis, and other recreational facilities to meet LOS requirements. **The Development Agreement is inadequate in providing details and locations of on- and off –site park and recreational facilities with corresponding acreage to be committed.**

Condition 91. "*As part of the Development Agreement, the fee-in-lieu values for park facilities shall be reevaluated to ensure appropriate levels of funding and to include a mechanism to account for inflationary rises in construction costs and potentially, the costs of maintaining these types of facilities in the future. The City shall maintain discretion concerning when and if a lump sum payment will be accepted in lieu of constructing offsite recreational facilities.*" **The Development Agreement *(Section 9)* fails to provide a mechanism to account for rises in construction costs for facilities built in the future. The Development Agreement need a Parks Plan that includes a formula to determine a fair lump-sum payment for recreational facilities constructed in the future.**

All LOS requirements for recreational facilities by virtue of the Development Agreement *(Section 9, Table 9.5)* qualify, if requested by the Applicant and authorized by the designated official, for lump-sum payment to the City in lieu of construction of new

recreational facilities. **The Development Agreement lacks certainty on what the City is getting and where and when on parks and recreational facilities for both on- and offsite.** For example, the LOS requirements for the distance of the population from parks and recreational facilities is met when 90% and 75% of the population are within 1.5 and 0.5 miles, respectively *(City of Black Diamond--Parks, Recreation and Open Space Plan, p.10, 2008)*. Many recreational facilities would need to be placed onsite close to the population to meet these LOS standards. **The Development Agreement does not specify where the recreational facilities will be located, or how many facilities are onsite or offsite.** Randall Arendt, author of *"Rural by Design"* explains the first step in a four-step design process is to layout conservation areas (i.e., open space and parks) followed in order by placement of houses, aligning streets and trails, and finally lot-line determination (Randall Arendt, *Envisioning Better Communities*, p.30, 2010).

Condition 93. "*Dependent on the availability of land, the adequacy of funds to construct City-approved recreational facilities and an ability to maintain these facilities, the City shall retain the sole discretion to determine when and if the applicant will be allowed to provide a lump sum payment in lieu of constructing offsite recreational facilities. This condition may be further defined within the Development Agreement.*" **The Development Agreement is inadequate in providing upfront plans for construction of recreational facilities because lump-sum payment can be used as an option for all of the recreational facilities described in Section 9, Table 9-5.** The lump-sum payment in lieu of construction option avoids upfront commitments of available land and timing of construction and, thus, it places burdens of uncertainty on the City. **Reserves of land need to be set aside upfront for recreational facilities as a first design process step.** A balance or limits need to be placed on lump-sum payment vs in-lieu of construction of recreational facilities. Moreover, the City Council instead of *"designated official"* needs to be given authority to accept Applicant requests for lump-sum payment for all of the recreational facilities shown in Table 9-5 *(Development Agreement, Section 9.5.3, June, 2011).*

Condition 96. "*Parks within each phase of development shall be constructed or bonded prior to occupancy, final site plan or final plat approval of any portion of the phase, whichever occurs first, to the extent necessary to meet park level of service standards for the implementing project.*" The final Development Agreement does provide for the timing of recreational facilities in Table 9-5. However, if the lump-sum payment option is used, the City's recreational needs could be postponed indefinitely. **The Development Agreement needs to place limits on the lump-sum payment option in order not to postpone the City's needs for recreation facilities indefinitely.**

Trails

Condition 95. "*As proposed in the Master Planned Application, onsite trails (i.e. on the site of the implementing project) shall be constructed or bonded prior to occupancy, final site plan or final plat approval, whichever occurs first. Offsite trail connection shall meet the same standard to the extent authorized by law.*" **The Development Agreement falls short of providing trail connections to nearby County Open Space trails in the North Triangle of the Lawson Hills project** *(Development Agreement, Park and Trail Plan, Figure. 9.2).*

King County has criticized trail connection plans to County Open Space and planned regional trails. These comments were made by King County to the Draft EIS's (9/30/09) and resubmitted as comments to the Final EIS's (2/9/10). The North Triangle does not have any trails shown on Figure 9.2. The County notes that a popular trail known as the *"Lake Sawyer Trail"* is located on King County park land and traverses around Lake Sawyer and along Ravensdale Creek and then through the North Triangle. The County proposes a new soft trail on an open-space strip along the northwestern edge of the Triangle to connect to the regional trail system. The County, in the same FEIS comment, also is concerned the proposed large regional storm water pond located in unincorporated King County may directly affect plans for the regional Cedar-to-Green River Trail corridor.

The Development Agreement falls short of providing a trail from the Villages

to the City's historic district as envisioned by the City's Comprehensive Plan. The City's Comprehensive Plan policy CF-6 expresses a vision of trails connecting to historic district and Morganville: "*Encourage development of a trail system which will connect the City's historic district, neighborhoods, Jones Lake, and Morganville with an integrated King County regional trail system, the new park site at Lake Sawyer, and a state trail system along the Green River.*" Although the Applicant may not see fit to provide for offsite trails, the importance of connecting new and old communities fits with *Rural-by-Design* principles and the City's vision.

Conclusions

Basically This is a part of the planning that just was not done, probably because there are too many unknowns about the topography and water situations, and the placement of basic structures and services who also are unknown to this DA, but also because there has been a muddying of the two types of open space that appear. These "open spaces" are for people, it is inappropriate to have these spaces near the slow moving water areas because the mosquito load is becoming more and more dangerous for people and there will ultimately be a Health Department requirement to keep people away from them. Half the children who are infected with west nile die and of those who do not die another 50% are permanently mentally damaged (its a cerebral infecting virus), this disease is caught from infected mosquitoes and advanced into Western Washington last year for the first time. Swimming pools, especially summer pools have also been ignored in this plan.

The City has excellent potential by planning upfront for community and neighborhood parks, recreational facilities, and trails to meet City LOS requirements. According to Randall Arendt, author of *Rural-by-Design*, 35-75% of the buildable land should be set aside for open space which would include community and neighborhood parks and trails. **The Development Agreement does not specify which recreational facilities will be on- or offsite.**

A "lump sum payment" authorized by the *"designated official"* should not be acceptable to the City *"in lieu of"* committing to constructing possibly all recreational facilities. All the recreational facilities required of new development can qualify, if approved by the *"designated official,"* to receive lump-sum payment. The public benefit to risk is low in postponing potentially all recreational facilities required to meet LOS requirements. Limits need to be placed on the usage of lump-sum payment in constructing recreational facilities.

Overweighing offsite construction of recreational facilities puts the City at risk of not meeting LOS requirements for the distance of recreational facilities to residents.

The Development Agreement falls short of providing a trail connection between nearby County Open Space regional trail network and the North Triangle, there will need to be an overpass for pedestrians and bikes over Roberts Drive so that there is a real pedestrian connection between these parts of the city as we have been promised. The Development Agreement is inadequate in providing an offsite trail from the Villages to the City's historic district as envisioned by the City's Comprehensive Plan

5. Our small town culture as defined under "what makes the special character of Black Diamond" above is what needs to be fostered. This is best accomplished by recreating conditions of the distant past's mining town with modern equivalents sans the special characteristics BD voted to abandon as not helpful for our future. *[June 2009 BD Comp Plan]* is full on most every page with the beginnings of a plan to make this happen.

6. Incremental growth so our culture is preserved *"by the development of clustered and small scale neighborhood villages" [June 2009 BD Comp Plan page 2-5]* The weak MPD ordinance that allows some 850 dwellings before there is a revaluation is a kiss of death for Black Diamond creating the purposeless warehousing of families in this area

instead of what we could make happen here. The jobs that YB brings to Black Diamond must be much more heavily weighted. When YB creates 5 full time permanent jobs inside the city limits of Black Diamond, the building permits for five dwelling units that can be paid for by those jobs under the federal standards of 1/3 of the net pays the mortgage can be let. If YB wants to build an 18 unit apartment or condo or attached housing they will first need to bring the 18 jobs to town. "Small Town Character" like we have in Black Diamond is a learned behavior. The United Nations have found that if new people are introduced into a stable culture at no more then a rate of 6 new to 30 established, the new people learn and assimilate the good parts of established culture and are an asset to the established culture. Given the truth of what I noted previously, the preservation and strengthening of our established culture is very important to Black Diamond and is sure to light our way toward a very desirable result for ourselves and our neighbors, and to create children who are positive credits and contributors toward a better and better society.

7. Open space must be also separated into developed open space for human use and left natural open space to enhance visual aspects, to contain water and buffers, and to provide wildlife corridors, so their navigation around the projects and in and out of the area is unimpeded and keeps everyone out of trouble.

Open space is the three types, in-city, primary and secondary. ***[June 2009 BD Comp. Plan page 2-9]*** **There are problems with the identification of the open space in that the private properties of Erika Morgan, James Birklid, Craig Birklid and Denis Birklid have not been properly accommodated for. We insisted that the wildlife be accommodated on the applicants property that it was patently unfair to push the wildlife onto our property. Instead their maps show our properties as wildlife corridor. There has been no agreement between me and YB on this subject, in fact quite the opposite. The west and South annexations are to be the county's 4:1 concept which means 75% permanent open space for the South area, this is not found in the DA.** ***[June 2009 BD Comp. Plan page 2-10]*** I spoke with Aaron Nix, BD's director of natural resources and parks about this problem after discussing it with our wetlands expert Dr. Cooke and my neighbors. My solution would be to add the corner forties of sections 14,15,23,&22 all around the same section iron, sans our privately held 30 acres to the land conservancy. Mr. Nix jumped at the thought and said he would look for funding to make that happen. If this does transpire it might be a thought to ask Craig and Denis Birklid if they would like to swap their five acres in section 23 for some arrangements against other Birklid property lines in sections 15 and 22. This would solve the wildlife corrode problem around my property. It does not however address the problems that exist with the DA maps concerning the south side of Black Diamond Lake. I am attempting to create an overlay for the DA's depiction of the setback for the south side of the lake that shows the actual setback that YB is allowing the lake. The 80 degree slope that raises at least 110 feet has been depicted as setback and then obscured with an opaque colored wash over the photo obscuring the actual lake shore. The red capped rebar delineating the edge of this wetland are about three feet from the lake edge of the road that travels the cliff right above this cliff. Rightly there needs to be a set back from the cliff even if there were no lake below, and besides that the water is cascading in a wide curtain over clay just below forrest floor topsoil, all along this edge. There needs to be additional accommodation here for water quality and for a wildlife corridor as well. Here the corner forties along with the rest of the land conservancy probably does not quite protect the lake.

Fifty percent open space is critical for allowance of certain housing densities and for enhancement of storm water control, wildlife protection, and community aesthetics. *According to BDMC 18.98.140 (F), "If an applicant elects to provide fifty percent (50%) open space, then the applicant may be allowed to vary lot dimensions as authorized*

*elsewhere in this chapter, cluster housing, and seek additional density as authorized in Section 18.98.120 (F)*1*."* At least 50% open space is recommended for the developable portion of a project area (Randall Arendt, Black Diamond City Council, work study session, April 14, 2011). According to Arendt, **in order to attain an unconventional community design with open space integration--green ways, neighborhood parks, play areas, neighborhood cut-through trails--requires a good deal of land on the developed portion of the project.** Arendt noted that by coordinating and integrating open space into developed parcels, economic and social benefits are derived for businesses, homeowners, and developers.

In the Black Diamond Comprehensive Plan, [*June 2009, 5-14, the MPD overlay lists as the designation criteria 7]:* "*at least 50% of the MPD site is devoted to open spaces uses, which may include recreational amenities.*" Promoting and integrating open space into new development is required by *[BDMC:18.98.010(L):]* "*Promote and achieve the city's vision of incorporating and/or* as *adapting the planning and design principles regarding mix of uses, compact form, coordinated open space, opportunities for…; as well as such additional design principles as may be appropriate for a particular MPD, all as identified in book 'Rural by Design' by Randall Arendt and in the City's Design Standards.*"

Condition 151. "*The Development Agreement shall include a tabular list of the types of activities and the characteristics of passive open space and active open space so that future land applications can accurately track the type and character of open space that is provided.*"

Complete documentation of open space is required according to MPD standard 18.98.150: "*The MPD permit and development agreement shall establish the sizes, locations, and types of recreational facilities and trails to be built and also shall establish methods of ownership and maintenance.*" **The Development Agreement needs to be modified to provide complete documentation of the amount of open space (in acres) for on- and offsite by categories of active and passive open space.** The Development Agreement (Section 4.4.6) would allow open space amendments to be processed as a minor amendment; the Agreement should not allow site plan amendments to open space as a minor amendment. The amount of open space provided in the MPD is central to planning and design principles and no reduction in open space should be allowed as a minor amendment.

Condition 152. "*The Development Agreement shall include language that specifically defines when the various components of permitting and construction must be approved, completed or terminated. For example; when must open space be dedicated, plats recorded, and utility improvements be accepted by the City.*" **The Development Agreement fails to address when all passive and active open space must be dedicated and accepted by the City.** The Development does describe when recreational facilities are to be provided (Table 9-5). **Development Agreement needs to be modified to specify timelines for all onsite active and passive open space to be completed.** Uncertainty exists on likelihood of all open space being dedicated to the City, if permanent public access or easement is provided to the open space (Development Agreement, section 9.9.1, June, 2011).

Condition 153. "*Specific details on which open space shall be dedicated to the city, protected by conservation easements or protected and maintained by other mechanisms shall be established as part of the Development Agreement.*" **The Development Agreement needs to be modified to provide specific details for the protection of open space to be dedicated to the City or as part of any homeowners association.** The Development Agreement needs to specify restrictions and non-allowed activities in passive open space. For example, under what circumstances would any non-temporary use of passive open space such as major utility facilities and roads be allowed? A stated goal of no net loss of open space in sensitive areas/passive open space should be provided in the Development Agreement. Mitigation measures need to be outlined in the Development Agreement to maintain a no net loss of sensitive areas / passive open

space. If non-temporary use of open space occurs, mitigation measures need to provide for replacement passive open space within the project area. None of this is specified in the Development Agreement.

Open Space Requirements

The Development Agreement falls short of the 50% open space required for the total MPD project area. The Development Agreement shows total open space is comprised of the land-use categories: (a) open space, trails and parks, (b) buffers, and (c) wetlands which is 42.2% of the total Villages project area (Exhibit L, Figure 3.1). These same open space categories make up 38.8% of the total Lawson Hills project area. The Applicant has provided a relatively small percentage of open space for developable land or non-sensitivity areas.[2,3]

BDMC 18.98.020 (A) states, "*A specific objective of the MPD permit process and standards is to provide public benefits not typically available through conventional development. These public benefits shall include but not limited to: A. preservation and enhancement of the physical characteristics (topography, drainage, vegetation, environmentally sensitive areas, etc) of the site ……*".

A minimum of 50% open space for developable land is recommended for designing green ways, pocket and neighborhood parks, storm water control, and other open space uses (Randall Arendt, work session, Black Diamond City Council, April 14, 2011). To integrate development with open space, Arendt indicates 35% to 75% of the land outside sensitive areas could remain permanently undeveloped in addition to unbuildable areas consisting of wetlands, flood plains, and steep terrain (Randall Arendt, Envisioning Better Communities, 2010, p.14). Developable land on the North Property with high density residential (Parcel B) does not show any parks which falls far short of Arendt's "better community" design recommendations (Development Agreement, Villages, Figure 9-2).

The Applicant has argued open space requirements have been met thorough past agreements. The Hearing Examiner left the door open for the City to satisfy a 50% requirement for the total project area: *"The agreements presumably do not place a cap on the amount of open space that the Applicant can dedicate and the Applicant could also satisfy a 50% requirement for the entire Villages MPD by dedicating additional open space in areas that are not subject to agreement."* (Villages, Findings, Conclusion of Law, and Decision, p. 239).

Conclusions

The Development Agreement falls short of 50% open space for the total project area indicated in the Black Diamond Comprehensive Plan, Municipal Code, and the MPD Framework and Design Standards & Guidelines. According to the MPD Framework and Design Standards & Guidelines (June 18, 2009): "*….The MPD chapter of the BDMC requires fifty percent (50%) of the total land area of an MPD be maintained as open space''*. The Applicant has provided a relatively small percentage of open space for developable land or non-sensitivity areas. In order to attain an unconventional and creative Rural-by-Design development, 35 to 75% of buildable land outside of the sensitive areas is recommended by Arendt, the author of *Rural-by-Design*. Arendt noted that by coordinating and integrating open space into developed parcels, economic and social benefits are derived for businesses, homeowners, and developers. The Black Diamond Comprehensive Plan (Chapter 5-7) states, "*While every square foot of land has value to home owners, not every square foot has to be built upon to achieve that value*."

The Development Agreements could be rejected on this critical point alone--not meeting the Open-Space Requirements of all applicable Black Diamond City Code.

[1]BDMC 18.98.140(A) defines Open Space in part as "wildlife habitat areas, perimeter buffers, environmentally sensitive areas and their buffers, and trail corridors. It may also include developed recreational areas, such as golf courses, trail corridors, play-fields, parks of one-quarter acre or more in size, pocket parks that contain an active use element, those portions of school sites devoted to outdoor recreation, and storm water detention/retention ponds that have

been developed as a public amenity and incorporated into the public park system....."
2 The amount of open space, trails, and parks for The Villages is 77 ac (Exhibit L, Figure 3.1). The amount of developable land for The Villages is 750 ac (Constraint Map, Exhibit G). Open space, trails, and parks on buildable land is 77 ac / 750 ac = 10.2%.

3 The amount of open space, trails, and parks for Lawson Hills is 99 ac (Exhibit L, Figure 3.1). The amount of developable land for Lawson Hills is 302 ac (Constraint Map, Exhibit G). Open space, trails, and parks on buildable land is 99 ac / 302 ac = 32.8%.

8. Sensitive areas need to be protected properly.
Background

The State's Growth Management Act requires local governments to adopt policies and regulations to protect critical areas {sensitive areas} . Note: the whole of the greater Black Diamond area is an aquifer recharge for the Puget Sound basin and is thus sensitive. The City's Sensitive Area Ordinance (SAO) regulates wetlands, fish and wildlife conservation areas, geologically hazardous areas, critical aquifer recharge areas, and frequently flooded areas. Geologically hazardous areas may be due to potential for erosion, landslide, seismic activity, mine collapse or other geological condition (*SAO. p.100*). Also; there is the problem of puncturing a flooded mine shaft as was done along Abrams Ave, at 30 feet the exploratory well driller Mr. Johnson of Johnson's drilling was very proud to show me a well he had drilled in 1947. This well has been naturally gushing up slightly warm,about 65 degree, brown, sulfur stenched, water all by itself every moment since the puncture. The builders of the sewage treatment plant spent a year attempting to stop the flow, but finally gave up. Anywhere in the vicinity of Black Diamond it is possible to run into this situation, within the Rock Creek wetland this flow can become a part of the wetland, but if this happens somewhere else it is likely to be an unexpected game changer. I am very concerned with the cavalier attitude that our law makers and YB treat these natural phenomena as though they can just bulldoze over and change by statute. **There is one thing that is certain no municipal code or law will have any impact whatsoever on the natural law. Mistakes that were allowed "a pass" under the EIS process and our SEPA responsible individual are going to literally bury these individuals and the city and YB under water and clay silt.** The one foot four foot deep ditch that was reopened to replace my underground power cable last August continues to silt even now a year later along a 20 foot , cross road culvert, with 2 inches drop again in August. One purpose of the City's SAO is to protect members of the public on health or safety matters, including loss of life and property damage due to events such as landslides, erosion, and mine hazards (*SAO, 19.10.010 C, p. 5*).

Geologically hazardous areas have been mapped in both MPD's. Erosion-hazard areas are common in both MPD's with largest areas on Lawson Hills and near Black Diamond Lake in the Villages *(Exhibit 4-4, FEIS).* Landslide hazardous areas exist on Lawson Hills, the North Triangle *(Exhibit 4-6, FEIS)*, and near Black Diamond Lake *(Exhibits 4-5, 4-6, FEIS).* Offsite landslide hazards exist in close proximity to MPD boundaries on the steep hillsides above Green Valley Road and the steep hillside south of Lawson Hills. Mine hazardous zones are known and unknown and mapped throughout the City due to past coal mining activity. Mine hazardous areas (low, moderate, and severe) are shown for most of the main Lawson Hills project area. Other mine hazardous areas near old-town Black Diamond *(Exhibit 4-7, FEIS)* are rated as low hazard. **Anywhere sand or rock moraine material is encountered there will be sliding as has been happening at the site of the Krummer Bridge on 169, whenever a clay pan is punctured or stirred these slides become a catastrophic unstoppable mud flow. The stirring can happen just from the engines of earth moving equipment if they stop to do a job and easily result in equipment sinking into a kind of quick mud at any time of the year.** The equipment that this happens to will have to be yarded out as if they attempt to dig themselves out their shaking makes the hole ever larger.

Areas within the MPD's have been mapped "highly susceptible to ground water contamination" in the *Black Diamond Comprehensive Plan (Figure 4-3)*. The largest areas mapped that are highly susceptible to groundwater contamination are in northwestern/southwestern part of the Villages flowing toward the Green River and the western part of the North Triangle flowing to Ravensdale Creek. The City's SAO classifies aquifer sensitivity by soil type into three categories of slight, moderate, and severe *(SAO, p. 92-94)*.

Geologically Hazardous Areas

Condition 104. "*Major earth moving and grading may be limited to the "dry season," between April and September, to avoid water quality impacts from erosion due to wet soils. Construction during the "wet season" may occur as allowed by the Engineering Design and Construction Standards Section 2.2.05."* [underlined above for emphasis] **The Development Agreement must be modified to not allow major earth moving and grading in the winter further more there needs to be a more scientific prescription, this year here on August 2 it is dangerous to engage in earth moving. I have been wanting to correct a failure of Puget Sound Energy's not adding a drain tile with their power cable reinstallation to my farm. I want to go back and ditch witch over their trench to lay in a drain tile and french drain but the road has not dried out enough to allow even a small hand operated ditch witch, this year yet; last year we had to wait until August before the trench could be opened.** The City of Black Diamond is in a water-bound environment of numerous lakes, streams, and wetlands. In this constrained environment, it is prudent, and perhaps economical, to restrict major earth moving and grading to a period when the ground is in actual dry out, and then one must be quick as the time will be very short , likely just a month or two in good years. **Major earth moving needs to be defined in the Development Agreement to include the uprooting of trees and vegetation after tree removal, and indeed any earth scraping at all because of our tenuous surface / groundwater recharger status which comes from the geology and the upland backdrop of the cascades**. This is because if clay is cut even if the next sandy layer is not punctured, the water that once oozed threw that clay will have no clay to hide in and will thus flow over the new surface where it can cause trouble extending anywhere downstream. I am paralyzed with fear actually at the thought of the cut and fill planned for the villages. There was a three foot deep possibly five foot extension of the parking lot at St. Barbarah's old church several years ago: there has been water sitting on this ground regularly since and this is the water that is plaguing the Gauthier's house. St Barbarah's was asked to put in swales and drainage to the tune of $300,000; the city has tried to make curbs along the street to direct water away but nothing replaces the sponge God provided and man removed. The only remedy for out situation is to build a hill half as high as the Cascade range we nestle against and that would take another intervention by God.

Condition 110. "*Prior to approval of the first implementing plat or site development permit within a phase, the applicant shall submit an overall grading plan that will balance the cut or fill so that the amount of cut or fill does not exceed the other by more than 20%.*" **The Development Agreement fails to specify an overall Grading Plan to be submitted for the first implementing plat.** Limitations need to placed on the amount of cut and fill for each implementing site and described in an overall Grading Plan within the Development Agreement. The City's development standards for erosion hazard areas include measures such as: "*grading shall minimize alterations to the natural contour of the slope", and "retaining walls shall be preferred over cut and fill for roads, parking lots and structures*" *(SAO, p. 80)*. These are included because of bad experience gained over the years right here in Black Diamond.

Condition 112. "*Storm water and groundwater shall be managed to avoid increases in overland flow or infiltration in areas of potential slope failure to avoid water-induced landslides.*" **The Development Agreement does not directly address Condition 112.** The Development Agreement needs to detail storm water control mitigation in

geologically hazardous areas (that is all areas) to lessen the likelihood of uncontrolled storm water runoff and water-induced landslides. Some hazardous area mitigation practices may include:

- Where development is occurring on slopes, maximize use of source control practices to reduce erosion risks before they occur,
- Maximize use of small-scale or local storm water infiltration techniques to control erosion near its source,
- Staff an erosion-control inspector onsite during construction for the duration of the build out, and
- Provide maximum width setbacks to buffer development from hazardous areas.

Condition 113: "*Geologically hazardous areas shall be designated as open space and roads and utilities routed to avoid such areas. Where avoidance is impossible, utilize the process in the Sensitive Areas Ordinance (supplied with adequate information as defined in code) and Engineering Design and Construction Standards (ED&CS) to build roads and utilities through these areas.*" **The Development Agreement fails to provide goals to retain geological hazard areas as designated open space, but, instead, makes allowances to alter or eliminate geological hazards by grading, this will not work as it just moves the hazard and exacerbates the hazard as has been reported in Black Diamond at the Gauthiers.**

While the intent of Condition 113 is to designate geological hazard areas as open space, that is eroded by Section 8.3 of the Villages Development Agreement: "*The Designated Official may allow alteration and/or elimination geologic hazard and landslide hazard areas through the clearing and grading permit process provided that the standards of BDMC 19.10.410(C)(1)(b)(i) through (v)-(Exhibit "E") are met. This provision does not apply to alteration of geologically hazardous or landslide areas within wetlands or fish and wildlife conservation areas or their associated buffers.*" **The Development Agreement must be modified in section 8.3 so that the Designated Official does not undermine the intent of Condition 113--that is, geologically hazardous areas shall be designated as open space. The Development Agreement needs to indicate the overall Grading Plan shall provide design options to leave geological hazard slopes in place**. Depending on the characteristic of the hazard, avoidance of a hazardous zone may be the most economic and viable mitigation alternative.

Condition 114. "Development within the moderate mine hazard area may require additional mitigation measures, which shall be evaluated with future implementing development proposals."

The Development Agreement in Section 8.2.3 needs to be modified to reclassify a moderate mine hazardous area to a severe mine hazard in the event of a preponderance of evidence of newly reported risks defined under BDMC 19.10.430. The Constraints Map (Exhibit G) legend indicates, for parts of the Lawson Hills area, additional borings will be necessary to determine the construction methods for development of the area. A new sinkhole was recently reported in Lawson Hills to the Department of Office of Surface Mining (OSM) and a field investigation is pending by Glenn Waugh of OSM (as of the week of 11/1/10). It is recommended a wider open-space buffer than shown in Exhibit G be given for the severe mine hazardous area on Lawson Hills.

Sensitive Aquifer Recharge Area

Condition 68. "*The Development Agreement shall include restrictions on roof types (no galvanized, copper, etc.) and roof treatments (no chemical moss killers, etc) to ensure that storm water discharged from roof down spouts is suitable for direct entry into wetlands and streams without treatment. This condition does not constitute approval for direct discharge of roof drainage into wetlands, streams or their buffers; any such direct discharge is authorized only if approved by the Public Works Director as in compliance with Black Diamond*

Municipal Code Ch. 14.04 and the standards adopted therein. The applicant shall develop related public education materials that will be readily available to all homeowners and implement a process that can be enforced by future homeowners associations." **The Development Agreement is inadequate in providing detailed measures targeted to protect groundwater quality in areas highly susceptible to ground water contamination.**

For example, the Development Agreement needs to incorporate targeted Best Management Practices (BMPs) to protect groundwater quality such as landscape management guidelines for the quantity, timing, and type of fertilizers and pesticides applied to common and private-owned areas. The *Black Diamond Water Quality Policy NE 5* states: "*Within areas highly susceptible to ground water (aquifer) contamination, adopt special protection measures. The special protection measures require businesses that use hazardous chemicals to have containment facilities to capture potential chemical spills, and require the use of best management practices for applying pesticides and fertilizers for business residential, and recreational uses.*" *(Black Diamond Comprehensive Plan, Chapter 4-25, June, 2009).* The Black Diamond Comprehensive Plan lends strong support to protect the quality of groundwater resources.

- "*Protect and where appropriate, enhance ground and surface water quality to meet or exceed state water quality standards within the drainage basins that may be affected by development in the UGA" (Black Diamond Comprehensive Plan, Chapter 2-14, June, 2009).*
- "*The impact of development practices should not contaminate the natural hydrologic system in a way that may be long lasting and relatively irreversible. The City strives to ensure the long term protection of groundwater resources within its planning area.*" *(Black Diamond Comprehensive Plan, Chapter 4-24, June, 2009).*

Conclusions

Areas throughout City have been mapped for potential for erosion, landslides, and mine hazards. Coupled with mapped hazardous areas, the project MPD's are highly constrained with numerous lakes, streams, and wetlands. **The Development Agreement must provide more source control practices to reduce geological hazard risks before they occur and provide maximum width setbacks to buffer development from potential hazardous areas.**

One of the greatest risks for erosion and landslides is during the construction phase. **The Development Agreement must not allow major earth moving and grading in the rainy winter months. The Development Agreement fails to specify an overall Grading Plan will be submitted for the first implementing plat.**

Depending on the characteristic of the hazard, avoidance of a hazardous zone may be the most economic and viable mitigation alternative. **The Development Agreement fails to provide goals to retain geologically hazardous areas as designated open space but instead makes allowances to alter or eliminate geological hazards by grading. The Development Agreement in needs to be modified to include reclassifying a moderate mine hazardous area to a severe mine hazard in the event of a preponderance evidence of newly reported risks.**

Areas within the MPD's have been mapped "highly susceptible to ground water contamination". Within areas highly susceptible to groundwater contamination, **the Development Agreement is inadequate in providing detailed measures targeted to protect groundwater quality**.

The earth scan must be completed on all this area. YB has informed me erroneously that they can not know what is underground before they dig. This is utter foolishness. My family has three generations of mining engineers in it, knowing before you dig is the stuff of their livelihood. Earth scanning will identify and locate all the actual surface and just below surface water and its travel routes. This scanning will show where the clay pans are, where the sand and rock moraine lenses are, and any huge boulders, of which several house sized

ones will be found. On another setting the earth scans will reveal the mine shafts and water flooded mine shafts which would indeed create a lot of certainty where none exists in these DAs now. Following this up will make a far better plan and save everyone a great deal of money.

9. The dwellings of a lasting quality that outlived their mortgages 100% so owning families could save a nest egg and get ahead in the time after the mortgage retirement. "encouraging a climate of quality development" *[June 2009 BD Comp Plan, page 2-5]* The president of Black Diamonds "historical architecture preservation committee" who spent 2 years volunteer time creating a a plan for the historical preservation of BD architecture tells me that he recently was informed by our building inspector that his work was not being upheld, that it was "old stuff" and that the city had no intention of observing the citizens product. First, this flies in the face of "no more monarchy, rather an engaged active citizenry will make decisions for BD" Second, **this invites the very offensive architecture illustrated in these DA hearings by YB**. The buildings are supposed to "nestle into the topography as though they belong there, they are supposed to echo the architecture of Black Diamond's history. Since Mr. Goodwin commented on the skilled architecture of my house I will offer some notes about it. It sits into a natural step above the north shore of Black Diamond Lake, there were 4 instructions.

The north side needed to appear as a simple one story ranch house at the south end of the pasture in front of it.

The south elevation which is seen from across Black Diamond Lake peaking out from mature forrest needed to be a swiss mountain chalet .

The house needed to be absolutely as energy efficient as possible, and given that one of the involved architects had done the first passive solar calculations for the Pacific Northwest it was in good hands there.

There had to be elements of detail that echoed classic Black Diamond coal mine construction. This explains the four way hipped roof, the cube shape, the tongue and grove siding on the barn, and the rough cut board on board cedar mostly cut from the local area.

10. Energy sustainability and independence is a new requirement that matches the goals of development going forward, in as lengthy a process as the DA indicates, forward thinking and anticipation of the future, is what separates the haves from the have knot's. These goals must be addressed at this stage responsibly because they will be region wide requirements by the end of this project. This engineering will provide the homeowners with such considerable savings in operation costs that their inclusion in any vesting is mandatory or the projects will be required to retrofit in order to sell. The emphasis on a walking biking in city environment, in-city jobs, natural plantings and the keeping of nature scapes and natural features including the in-city forest is a premonition of these possibilities. On my place I have also been able to install some micro hydro, for this one needs flowing water with a fall of as little as 10 feet, the little turbines can be in a tile as small as two inches inside diameter, and they make electricity every day, all day. In this area of dynamic hydrology, with its curtains of water flow over the clay shelves, there will be very many opportunities for micro hydro which is a good match for the solar panels. There is actually every reason to think that the development could actually produce all of its own energy needs independently.

I can tell you that the arrangement of the lots has absolutely nothing to do with what we envisioned when we made the comp plan and when we worked with that plan. We envisioned small, echoing old Black Diamond scale, clusters of a few buildings organized around some feature with wide screens dividing the next cluster, its noise and lights, its pets and motor cars. We were faced with the County prospect of

homogenous acre lots using up all the landscape if utilities were installed all over the properties. Instead **we were assured that the MPD process would result in sparse run out of utilities to just certain areas of compact developments, who were isolated from each other by unspoiled untouched common public and wildlife and wild water corridors that would be completely saved from any development process, material dumping or machinery. The promise of the MPD excluded utilities from at least 50% of the buildable land and made them forever inviolable. I did and do have some problems with the resulting zero lot line that this compacting involves as it seems ridiculous to me that a family would have to barter with their neighbors over their kids rabbit hutch, or over their barbecue. The DA completely obliterates any and all of our objectives! It is a pig in a poke, please, please someone find some sanity and bring it into this project.**

11. Spectacular scenery and serenity exists elsewhere, but my most intimate familiarity is with Black Diamond Lake, as I sit above it a write this, it is so beautiful it hurts. This is my reasoning in my vow to save Black Diamond Lake at any cost. *[June 2009 BD Comp Plan, page 4-6]* is worth reading. *" Black Diamond Lake is part of an extended high quality wetlands system. Black Diamond Lake is approximentally 11 acres in size with an average depth of six feet and a maximum depth of 8 feet and is* ***fed by surface water from a roughly 700 acre watershed and ground water.*** *Black diamond Lake has recreational fishing values provided by Bass and other warm water fish. The lake was stocked with rainbow trout by Washington Department of fish and Wildlife in 1958, 1963, and 1965. There is a high quality peat wetland located upstream from the open water of the lake. Black Diamond Lake and its associated world-class bog have been extensively researched by the Nature Conservancy and represent a valuable natural asset for the city."* **(emphases added). The DA has dwelling units situated all upon the watershed area of continuous surface and ground water. Just less then 200 acres are currently in the "Land Conservancy Property" which is meant to protect this lake. The 500 remaining acres here described, are slated to have very compact dwellings and motor roads, on top of them. This is a connected surface and ground water ever moving aquifer. If this is allowed there will be no more "world class bog".** Dr. Sarah Cooke who was a part of the team conducting the above reported studies of this area kept asking me on her July 2011 visit "Where is the sensitive wetland buffer?" when I showed her the flags her response was "but this is not a buffer this is just a continuation of the wetland, this whole area is wetland, just look at the vegetation, it is all wetland plants, all the area is wet just under the surface of the topsoil, all these plants die if they dry out., many of them require moving water, the forest floor here is in a remarkable pristine shape for just the thirty years their size tells me they are." I must say this gal is the first "expert" who I felt had any understanding of the actual situation that I experience every day and I hope you pay good attention to her expert testimony and suggestions. She is the only person who has understood the dynamics of water movement through this area as I experience it. She is the only person who could explain what I have see in the silting and the quick clay (quick sand quagmire that looks safe buy that swallows trespassers and tightens around their bodies like in a horror movie) responses of the ground.

Dr. Cooke works often with the "Corp. of Engineers" and she pointed out to me that they have not been consulted on this project even though it is certainly within their jurisdiction. **She did say a ruling on the plan from the Corp. would be necessary for the plan to proceed.**

We were assured that from the outside of these developments our topography would reveal nothing to change general appearance of our broader foothill home-scape, and that the in town would continue to be ringed with open space, and that there would continue to be open natural space in the town. Town leaders were assured that

developable in-town space would be developed before the annexation areas were developed, I think to preserve value for in-town landowners and keep them from having to compete with the large land holders if they wanted to develop their land. I was promised that Black Diamond Lake would never experience any effect from the development and the development would never be allowed to pollute the wetland in any way with sound, light, water quality or quantity aberrations, that there would be an actual useful wildlife corrode overland around the lake and around our privately held properties.

Development for the Villages and Lawson Hills MPD's will be challenged by the unique and fragile environment containing numerous small and large wetlands all interconnected threw ground water. (these ground water connections are very significant, there is 3-20 times the water flowing under the surface as on the surface depending on the quality of the substrate) Development adjacent to wetlands inside the City is regulated by the Sensitive Area Ordinance (SAO). Wetlands and their buffers are regulated as sensitive areas. One purpose of the SAO is "to limit development and alteration of sensitive areas to achieve the goal of no net loss of sensitive areas or their functions and values." (SAO, 19.10.010, Purpose B, 2009, p.5). Present land cover for both the Villages and Lawson Hills is mostly forest land and wetlands (FEIS, Exhibit 4-13 and Exhibits 4-13, 4-14, 4-15 Villages and Lawson Hills, respectively, 2009). Wetlands are a dominant part of the City landscape including two large Core stream-wetland-lake complexes of Jones Lake - Rock Creek and Black Diamond Lake - Black Diamond Lake Creek (FEIS, Villages, Exhibit 4-10, 2009).

Sedimentation of Wetlands

Condition 71. "*Develop a proactive temporary erosion and sediment control plan to prevent erosion and sediment transport and provide a response plan to protect receiving waters during the construction phase."* Section 7.4.3 of the Development Agreement indicates the master developer will comply with Condition 71 as a storm water management goal. **The Development Agreement needs to be modified to detail strict erosion-control measures during the construction phase and a detailed emergency response plan to guard against large storms overwhelming temporary erosion-control structures. This is particularly important and on site engineers will be required at all times even if no dirt moving in happening. I base this on an example from last years opening of my utilities ditch to replace my underground power cable, which was done August 2010. Now this year July - August 2011 there is a never before seen silting around an eight inch culvert 20 feet long and with a two inch drop from just a single foot wide three to four foot deep trench completed last year. Yes some of you know I intend to reopen this with a ditch witch about two feet deep and insert the drain tile, but the ground has been too wet and I have not attempted it yet, so that is not the cause**. So for example, provide mitigation measures preventing volumes and flow rates on- and off-site that would cause excessive sedimentation of wetlands and natural drainage systems during the construction phase and proper monitoring after construction for as long as it takes. The drainage system most vulnerable to sediment discharge is the core wetland-Black Diamond Lake because of the erosion hazard on the eastern side of Black Diamond Lake (FEIS, Exhibit 4-4, Potential Erosion Hazard Area, December, 2009). And, because silting is one thing that will completely ruin the peat bog.

A peat bog looks like it is relatively shallow because light does not penetrate into the soup. However this is deceptive because the bottom is a mix of waterlogged woody bits from long submerged trees and shrubs, exactly what is encountered in a bag of peat moss in the dried form. The particles are suspended in a denser and denser soup as you go deeper. The shallow depths do not mean you could walk across the bottom even in very shallow places.

Condition 105. "*In cases where vegetation is an effective means of stabilizing stream banks, stream banks shall be protected from disturbance to reduce the adverse impacts to*

stream erosion." [FEIS Mitigation Measure]. **The Development Agreement fails to address measures to control stream bank erosion and bank/slope failures along stream corridors. The Development Agreement needs to provide details for the use of vegetation and other erosion-control measures to protect for damage to stream banks.**

Condition 117. "*Structural measures such as silt fences and temporary sediment ponds shall be used to avoid discharging sediment into wetlands and other critical areas.*" [FEIS Mitigation Measure]. **The Development Agreement fails to address measures to protect wetlands and their buffers from sediment discharge during the multiyear (decades-long) construction phase (see Condition 71). For a sediment pond to work it can not be at the brink of a steep cliff as is seen on Black Diamond Lakes south side where there is just three feet of edge and then at least 110 feet of abrupt decent.**

Condition 119. "*New storm water out falls shall be located to avoid impacts to any stream and adjacent wetlands, riparian buffers, unstable slopes, significant trees, and instream habitat. Where all practical and feasible avoidance measures have been employed, provide mitigation in the form of out fall energy dissipaters and/or vegetation restoration and slope stabilization as necessary.*" [FEIS Mitigation Measure]. **The Development Agreement fails to address Condition 119. The Development Agreement needs to reference hydraulic design requirements for new storm water out falls and indicate as a goal that new storm water out falls shall be located to avoid impacts to streams and adjacent wetlands, sensitive areas, and significant trees. Only one of the several more defined streams that come into the south side of Black Diamond Lake and that one is only defined because I had previously noted that a year round culverted stream should be at least platted in any cursory review of what was on the land.**

Protection of Wetlands

The Development Agreement is silent on plans for the preservation and enhancement of wetlands and on mitigation measures to be implemented for the loss or alterations to wetlands caused by utility and road crossings and other encroachments. BDMC 18.98.020 (A) states, "*A specific objective of the MPD permit process and standards is to provide public benefits not typically available through conventional development. These public benefits shall include but not limited to: A. preservation and enhancement of the physical characteristics (topography, drainage, vegetation, environmentally sensitive areas, etc) of the site ……*". One purpose of the Sensitive Area Ordinance *is "To limit development and alteration of sensitive areas to achieve the goal of no net loss of sensitive areas or their functions and values.*" (City of Black Diamond, SAO no. 08-875, p.5). Avoidance of adverse impacts is the action of preference according to BDMC 19.10.050 in order to achieve no net loss wetlands or their functions and values. **It is recommended a Wetland Preservation Plan be incorporated in the Development Agreement to provide goals and implementation guidelines to protect all wetlands, especially the core stream-lake-wetland complexes on- and offsite.** Goals for core stream-lake-wetland preservation may include:

- Protect hydrology with no net long-term loss or gain of water,
- Prevent water-quality degradation by contaminants from urban activities and road surfaces to streams and lakes,
- Prevent sediment discharge to wetlands during the construction phase and after construction for a very extended time because of the instability of a disturbed clay pan, and
- Protect plant and animal species and biological habitat of stream-lake-wetland complexes associated with Rock Creek, Jones Lake, Jones Creek, Black Diamond Lake, Black Diamond Creek, Horseshoe Lake inflow and Horseshoe Lake since we now

understand that this is the other outflow of Black Diamond Lake, by providing functional dry land corridors for the living traveling needs of the current user animals.

Protection of wetlands and other sensitive areas and their associated buffers depends heavily on the effectiveness of the SAO and implementing the intent of the ordinance. *The City of Black Diamond Comprehensive Plan Policy NE-9 states*, "*Protect sensitive areas from inappropriate land uses, activities, or development through continued application of periodic updates to the CAO* [Critical Area Ordinance referred to by the City as the Sensitive Area Ordinance] *and development regulations. The City [of the City] will monitor the effectiveness of its CAO and will modify this ordinance as necessary, based upon the information gathered during monitoring.*" (City of Black Diamond Comprehensive Plan, Chapter 4-26, June, 2009). **As a Condition of approval it is recommended the Development Agreement make provisions to monitor the effectiveness of the SAO during the whole time of build out, and be sure to include mechanisms for proper change orders to any plans so that the best appropriate proved science is always the order of the day.** The SAO should not be diluted by variances and changes in standards that would result in adverse impacts to wetlands and sensitive areas.

Degradation and Loss of Vegetation

Condition 65. "*Where point discharges to streams must occur, design the out fall to minimize impacts to stream channel and avoid areas of significant vegetation.*" [FEIS Mitigation]. **The Development Agreement fails to address Condition 65.** The Development Agreement needs to indicate explicitly, as a project goal, that no net loss of sensitive areas is to occur onsite even if not every sensitive area was adequately appreciated, this is a must because of the flowing connectivity of the water. Mitigation sequencing provisions of BDMC 19.10.050 in the SAO requires that development avoid sensitive areas as the first goal and where all practical and feasible avoidance measures have been employed. **The Development Agreement needs to describe mitigation measures if stream and buffer alterations should occur in sensitive area buffers.** For example, a storm water pond is proposed to be located in the Rock Creek wetland buffer (Development Agreement, Conceptual Storm water Plan, figure 7.4, June, 2011s)

Condition 87. "*The Development Agreement shall define when and under what conditions a development parcel may be logged for timber revenue, how that parcel must be secured to minimize the impacts on the community and how long the parcel may remain undeveloped before it must be reforested.*" **The Development Agreement (Section 13.2), fails to address the time period for which a Development Parcel may remain undeveloped before reforestation is required.**

Condition 118. "*Implementing projects shall provide "on the ground" protection measures such as wetland buffers or root protection zones for significant trees.*" [FEIS Mitigation Measure] **The Development Agreement fails to address Condition 118 or *"on the ground"* protection measures for significant trees.** Randall Arendt stressed the importance of field visits ("on the ground") to identify and conserve significant trees or stands of trees to incorporate in creative open space and city landscaping compared to conventional or "cookbook" development procedures.

Condition 120. "*A tree inventory shall be required prior to the development of implementing projects so that other opportunities to preserve trees may be realized.*" **The Development Agreement fails to address Condition 120. Tree inventories are consistent with rural- by-design principles and need to be done in the early planning design in order conserve significant trees for city landscaping as opposed to conventional practices of clear-cutting a site (Randall Arendt, Black Diamond City Council work session, April 14, 2011).** Promoting rural-by-design principles into new development is required by BDMC:18.98.010(L): "*Promote and achieve the city's vision of incorporating and/or* as *adapting the planning and design principles regarding mix of uses, compact form, coordinated open space, opportunities*

for…; as well as such additional design principles as may be appropriate for a particular MPD, all as identified in book 'Rural by Design' by Randall Arendt and in the City's Design Standards." Data from the tree inventory must used for creative open space and landscape design opportunities. Contrary to a key principle in Rural-by-Design, clearing cutting the site is indicated according to the Hearing Examiner's discussion: "*Given the proposed densities, it is anticipated that the development areas shown on Figure 3-1 Land Use Plan will be cleared of all vegetation and graded to facilitate development*" (The Villages, Findings, Conclusions and Decision, 2010, p. 214).

Conclusions

Development for the Villages and Lawson Hills MPD's will be challenged by the unique and fragile environment containing a numerous small and large wetlands. Road and utility crossings through wetlands are inevitable according Applicant constraint maps and conceptual site plans, yet **the Development Agreement is silent on plans for the preservation and enhancement of wetlands and on mitigation measures to be implemented for the loss or alterations to wetlands caused by utility and road crossings and other encroachments**. It is recommended a Wetland Preservation Plan be incorporated in the Development Agreement to provide goals and implementation guidelines with best management practices to protect wetlands on-and off site.

The Development Agreement fails to address the time period for which a Development Parcel may remain undeveloped before reforestation is required and the tree inventories to be done prior to the development of implementing projects. Tree inventories are consistent with Rural-by-Design principles and need to be done in the early planning stages in order conserve significant trees for creative open space and city landscaping as opposed to conventional practices of clear-cutting a site and "re-naturalizing the forest". The Development Agreement failed to address many Conditions related to preserving forest and vegetation.

Protection of wetlands and other sensitive areas and their associated buffers depends heavily on the effectiveness of the Sensitive Area Ordinance (SAO) and implementing the intent of the ordinance. **As a condition of approval it is recommended the Development Agreement make provisions to monitor the effectiveness of the SAO during build out.** The SAO should not be diluted by variances and changes in standards that would result in adverse impacts to wetlands and sensitive areas.

12. A return of a self sufficient town with all the necessary services at least provided in town :

Water through pipeline 5 is now a reality and is enough in quantity that these developments are a possibility. There is however a question with the Covington Water coverage area which is up in the air. This water source has ever been an unsettled deal, first they did not have enough of a customer base so they artificially condemned everyone's well, it goes all the way east to Sellik. Then after they were to serve a large customer base, they ran out of water and severely rationed water and stopped development until they could tap new aquifers.

The long distance that the huge amounts of sewer water must take to metro Renton seems a very hair brained scheme to this medical microbiologist. Come on folks, this is earthquake country; these pipelines are going to have a breach at some point, this must be a temporary solution and should have a defined sunset. Microbes when they are jiggled in a friendly watery soup of nutrients grow at phenomenal rates, the spill of this contaminated fluid will be very ineffective wherever it happens, and it will be full of all kinds of pathogens. Then there is the issue of the need for separate black, gray and surface water facilities to handle these needs right here in town. Where are they sited? Who pays for them? When in the process do they come on line? What are their requirements? How will they be integrated into the whole water system that is the native situation of surface and ground water connected in a flow over the large terrain feeding the aquifer?

Adequate Fire Service required a satellite station for 783 dwellings under the plan

that was signed with the Boundary Review Board. This DA only calls for this same one satellite station for 6050 dwelling units and 1.165 million square feet of commercial space. At the YB introduction for this hearing we were for the first time informed that the dwelling units all included auxiliary units, read they can actually be duplexes which in reality makes the insane 6050 jump to 13,000. It seems very obvious that Fire, Police, Metropolitan and anything else need to be completely rethought. I wonder if there is an understanding on the part of YB that their planned development will be cut back to the coveted one unit per acre and they are attempting by this trick to double the actual final number? Reasonable financial protections for the increased necessary services and facilities must be put into place. Seven fire stations at least will be needed. There will need to be a jail, hospital, police, municipal, new courts.....this is really too silly to contemplate.

There is a city of Black Diamond annexation agreement for parts of sections 15 & 22; July 1991, that was adopted in 1996 and that contains voluntary covenants for that property; a copy of this agreement follows. **However as the e-mails show there are an additional two cubic feet of documents at the King County Archives that contain further information and and agreements about these lots,** none of us has had time to review this information yet as it will take some concerted on site time in Seattle. As there are defiantly signed multiparty inter government agreements over these specific lots with perpetuity included I ask that we have time to review and comply with the governmental decisions as they are written. I feel this is especially important because there is some discrepancy about who the actual owners of these parcels is, and who can legally sign as an owner for them with Black Diamond. I also ask **that the contents of any documents pertaining to any of the included properties that are part of the King County Archives be included for the closed record hearings.**

13. A sane viable diverse economic base including heavy and light industry in town, food production to feed the town, all necessary services both public and private available in town to preclude the increasing of greenhouse gas. There needs to be a job set up by someone called "economic development director". As a business owner I get adds almost daily from near and far telling me that their new business park is just the "cats whiskers" for my business. Black Diamond needs to figure out a general direction for itself that is the overriding theme, just the self sufficiency is a very good place to begin. This will give us the direction and order which we voted to keep, it will let the decisions be made by the people collectively. If times get really tough like it looks may be a real possibility this is what will give our society an extra degree of resilience. We may have to double up to feed our neighbors, but perhaps they will be able to help us work our ground to make it more productive. There is a lot of cottage industry in this town right now. This director will be charged with locating interested parties with a sound idea and facilitating what could work and planing spaces that meet their specific needs. Towns and villages who use this approach successfully will leave their neighbors in the dust.

14. An architecture that reflects Black Diamonds history carried out throughout the new development so there is a seamlessness, so that when folks are anywhere in Black Diamond they know where they are. The illustrative inclusions presented during this DA hearing have absolutely nothing to do with anything in Black Diamond, and have nothing to recommend them. I'll offer my instructions guiding the architecture of my home since Council member Goodwin appreciated it. The pasture facing side needs to be a one story ranch house, the cliff hanging side above Black Diamond Lake must be a mountain Chalet echoing the mature conifers around it, the house must be as energy efficient as possible and the final product must look like it belongs in Black Diamond, thus its hyped roof, basic pole barn and the tongue and grove siding for the barn as well as the board and board on the house.

SPECIAL CHARACTERISTICS WE VOTED TO ABANDON:

15. A monarchy decision making process, we want our collective voice heard and heeded. "Establish a comprehensive public review process for MPD applications" *[June 2009 BD Comp. Plan, page 1-11]* The city code asks that MPD's are presented to the City's Planning Commission who will make a recommendation to the City Council; this was not done in our case and it has been opined by the LUPA Court that BD needs to rectify this discrepancy and the city was given a time table to comply, but the city has thus far failed to comply with the judgment.

16. Exploiting the environment to be replaced with protecting the environment. [A*ccording to BDMC 18.98.140 (F), "If an applicant elects to provide fifty percent (50%) open space, then the applicant may be allowed to vary lot dimensions as authorized elsewhere in this chapter, cluster housing, and seek additional density as authorized in Section 18.98.120 (F)*1.*]* 8.98.140 (B) : "*Natural open space shall be located and designed to form a coordinated open space network resulting in continuous greenbelt areas and buffers to minimize the visual impacts of development within the MPD, and provide connections to existing or planned open space networks, wildlife corridors, and trail corridors on adjacent properties and throughout the MPD.*" **Condition 124.** *"Mast-producing species (such as hazelnut) and such other native, preferred native vegetation shall be used to mitigate for reduced food sources resulting from habitat reductions when designing landscape plans for development parcels adjoining wetland buffers, or for wetland buffer enhancement plantings. The Development Agreement shall specify a process by which such landscape plans are to be reviewed and approved by the Director of Natural Resources and Parks for compliance with the mitigation requirement herein.*" **The Development Agreement (Section 5.5.2) needs to be modified to provide for the review by the Director of Natural Resources and Parks of all submitted landscaping plans prior to permit approval. Condition 121. "***The Development Agreement shall include text that defines when and under what conditions a parcel may be logged for timber revenue, how that parcel must be secured to minimize the impacts on the community and how long the parcel may remain un-worked before it must be reforested.*" **The Development Agreement (Section 13.2), fails to define how long a logged parcel may remain un-worked before reforested.** The City landscaping requirements *(BDMC 18.72.010)* are intended to improve the appearance of the community by "*retaining trees and other significant native vegetation, without reducing development densities from those indicated in the Comprehensive Plan*" **Preserving Natural Vegetation**

Condition 86. "*The Development Agreement shall include a narrative of the process and basis for selectively removing hazard trees within sensitive areas. The intent of this section will be to leave the majority of the sensitive areas as designated passive open space but to have it appear and function as native forest".* The Development Agreement provides for a 2:1 tree replacement ratio for hazardous tree removal with the goal to leave the majority of the sensitive areas as passive open space. **The Development Agreement should be modified to limit removal of hazard trees to small numbers or increase buffer widths to accommodate areas where significant numbers of hazardous trees exist.** Tree fall in sensitive areas is part of the natural functioning of sensitive areas, and removing swaths of trees on developed parcels encourages wind- caused tree fall to adjoining sensitive area buffers. Since human intrusions into these areas is discouraged, no trees should be deemed "hazardous" unless public safety is an issue. **Condition 113**: "*Geologically hazardous areas shall be designated as open space and roads and utilities routed to avoid such areas. Where avoidance is impossible, utilize the process in the Sensitive Areas Ordinance (supplied with adequate information as defined in code) and Engineering Design and Construction Standards (ED&CS) to build roads and utilities through these areas.*" **The Development Agreement fails to provide stated goals to retain geological hazard areas as designated open space to retain natural land**

forms. Lands in geological hazard areas, if left undisturbed, provide open space buffers to retain natural beauty. While the intent is laudable, Condition 113 also provides language to use geological hazard areas for roads and utilities where avoidance is impossible. The intent of Condition 113 to designate geological hazard areas as open space seems to be eroded by Section 8.3 of the Villages Development Agreement: "*The Designated Official may allow alteration and/or elimination geologic hazard and landslide hazard areas through the clearing and grading permit process provided that the standards of BDMC 19.10.410(C)(1)(b)(i) through (v)-(Exhibit "E") are met. This provision does not apply to alteration of geologically hazardous or landslide areas within wetlands or fish and wildlife conservation areas or their associated buffers.*" **The Development Agreement must be modified in section 8.3 so that the Designated Official does not undermine the intent of Condition 113--that is, geologically hazardous areas shall be designated as open space.**

17. Out of city, to far to walk to, schools replaced by in-city walkable school sites picked by the residents as a continuation of the transportation / communication urban network designed for efficiency and usability.

18. The cavalier attitude toward adversely impacting our neighbors rather then including every neighbors concerns and making absolutely certain that they are completely addressed. This is exactly what happened in the way the negotiations went with the Enumclaw School District. Public was informed somewhat of what was planned, but never how much it would cost them in money itself and later in local control over their local schools. This pattern of behaviors has been repeated over and over; where is the Corp. of Engineers recommendation, the King County recommendation, the State Highways recommendation, the Fisheries and Wildlife recommendation, the recommendation from the Nature Conservancy.....

Retaining Existing Land forms: Due to the fact that most of the land is clay pan, due to the fact that the whole of the land is a surface / subsurface interconnected and moving wetland with a limitless recharge, due to the fact that earth scans have not been completed so disastrous consequences all over the Puget Sound region can not be adequately predicted, due to the fact that whenever the clay pan is compromised there will be consequences in perpetuity any cut and fill should be prohibited.

Condition 110. "*Prior to approval of the first implementing plat or site development permit within a phase, the applicant shall submit an overall grading plan that will balance the cut or fill so that the amount of cut or fill does not exceed the other by more than 20%.*" **The Development Agreement fails to specify an overall grading plan to be submitted for the first implementing plat (Development Agreement, sec. 13.2, April 2011).** Preserving natural beauty and retaining the existing topography, vegetation, and land forms are guiding principles of *'Rural by Design.'* The City's Landscaping Requirement encourages retaining existing land forms by *BDMC 18.72.030 (E):* "*A portion of the required percentage of landscape areas may be met by leaving land in its natural state including not disturbing grade and native vegetation, providing that the provisions of this chapter are otherwise satisfied.*"

18. Our commuter bedroom community status to replaced by an economically sustainable and viable community.

19. We asked to exchange our driving community for a walking community. The trails idea was begun with building levees along Rock Creek as trails into the riparian wetland. Better science about the nature of the wetlands and Federal constraints requiring

people to be kept out of Beaver swamps caused these trails to be abandoned but the trails in Lake Sawyer Park have been enhanced.

20. Dominance by a single industry caused a certain loss of balance in the community, causing an economic turn that we hope to rectify so black Diamond survives. Nothing has been done to rectify this situation by recruiting any business to town except the land developer who is admittedly transient. There needs to be an industrial development arm of city government paid for by YB that seeks to bring varied industry to Black Diamond. The specific accommodation of these industries will develop a unifying and organizing theme for the town and probably also its sections, but they must come before the plan can be built.

21. We citizens want to shed our dependance on long distance private transportation for the necessities, and be able to purchase those things in town.

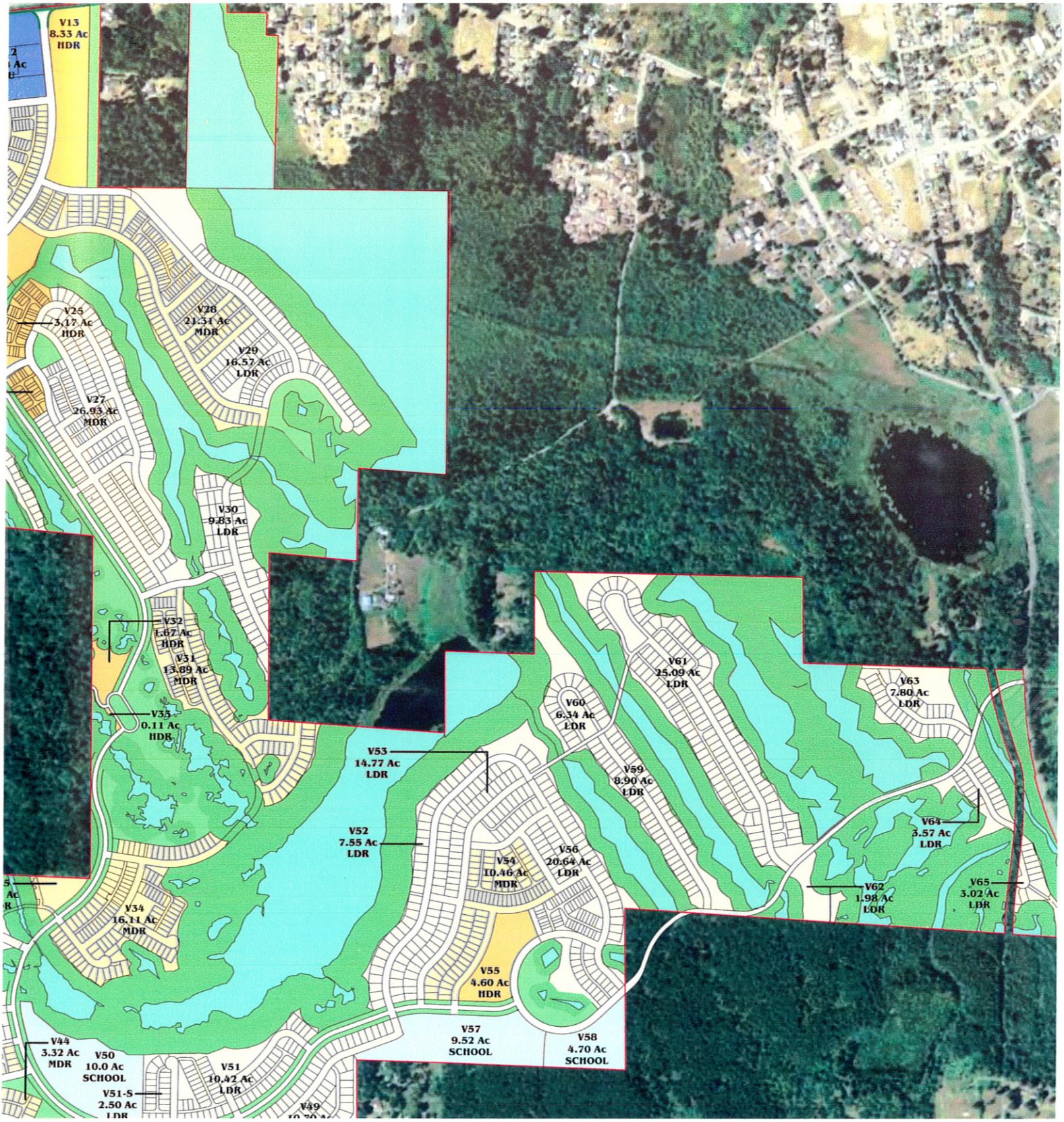
THREATS TO MY PROPERTY AND WAY OF LIFE INCLUDED IN THE CURRENT DEVELOPMENT AGREEMENT PROPOSAL.

The Development Agreement fails to provide plans for a high degree of connectivity and compatibility for wildlife on- and offsite. The wildlife corridor, although not designated as such on the Constraint Maps, is apparently through the core wetland-stream-Black Diamond Lake complex with no coordinated use of non-wetland habitat. King County has criticized the open space/habitat plan as not providing sufficient connectivity and has offered to provide a map that would show more open space connectivity for wildlife.

A Wildlife and Habitat Preservation Plan is needed as a blueprint for enhancing existing wildlife habitat and corridors to meet the needs of large animals such as deer and elk to migrate on- and offsite by coordinating the use of non-wetland and wetland habitat. Placement of open space/habitat lands around Black Diamond Lake, already proposed in the City's Comprehensive Plan as an additional Fish and Wildlife Conservation Area, needs to be part of a Wildlife and Habitat Preservation Plan that reflects the City's vision of a high degree of compatibility for wildlife with new development. The Lawson Hills Triangle provides no buffer between development and King County's Black Diamond Natural Area to the north. This must be rectified.

Specific concerns I have with the agreement as it stands: **The depiction of Black Diamond Lake and the surrounding buffer are wrong and misleading.** The bank to the east of Black Diamond Lake is at 660 feet and the lake is at 550 feet from Yarrow Bay's platt map, this is 110 feet of vertical drop, but the red capped rebar delineating the boundary of the sensitive area is about three feet into the logging road as it circles the east side of the lake. The result is a very steep, 80 degree clay cliff over which any surface water descends directly and quickly into the lake. Yarrow Bay is counting the near vertical climb as part of their buffer. Further their depiction of this area are painted out with the wildlife corridor and buffer green on their depiction to occlude the open water lake edge from the reviewers perception. This is because anyone viewing the actual situation will see plainly that there has not been an adequate buffer, the one that exists in actually some what less then 10 feet in very critical places. You are invited to observe my overlays which demonstrate these facts. There must be a condition added that the depths of the buffers are to be measured horizontally so the intent of the buffers to protect the water bodies in upheld. The clear backed overlays that I included helps visualize this somewhat though the scale is so small and the satellite photo also is from the south so overhanging trees also hide the actual lake edge and that must be taken into account. The next two pages are transparencies which are spoken of above.

Black Dia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V62
1.98 Ac
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V65
3.02 Ac
LDR
V34
16.11 Ac
MDR
V55
4.60 Ac
HDR
V57
9.52 Ac
SCHOOL
V58
4.70 Ac
SCHOOL
V44
3.32 Ac
MDR
V50
10.0 Ac
SCHOOL
V51
10.42 Ac
LDR
V51-S
2.50 Ac
LDR

Delineation of Fish and Wildlife Habitat Conservation Areas (FWHCA)

The Development Agreement deems the delineation of the FWHCA's as final and complete (Villages, Development Agreement, Section 8.2.2, June, 2011) and the FWHCA's shown on the Constraints Map (Villages, Development Agreement, Exhibit G, June, 2011). **The Development Agreement fails to show the FWHCA's on the Constraint Maps.** The City can not be satisfied the FWHCA's, types and buffers are final and complete when City is updating the SAO, the construction phase may find sensitive area boundaries to vary from currently mapped, and sensitive areas may change over time due to their dynamic nature. According to the City, the SAO is currently being updated and criteria for FWHCA's may be revised (Black Diamond Comprehensive Plan, Chapter 4-10, June, 2009, p. 4-10). The City needs to be assured the FWHCA's and their buffers have been field identified, reviewed, and delineated on project Constraints Maps before Development Agreement approval.

The Development Agreement needs to provide plans for a high degree of compatibility for wildlife from urbanization impacts on- and offsite. **A Wildlife and Habitat Preservation Plan is needed to enhance existing wildlife habitat and corridors to meet the needs of large animals such as deer and elk who migrate on- and offsite by coordinating the use of non-wetland and wetland habitat.** Guidelines for the size, placement, and connections of on- and offsite habitats should be done in consultation with King County and other agencies and with region-wide wildlife networks. **Placement of open space/habitat lands around Black Diamond Lake, already proposed in the City's Comprehensive Plan (June, 2009) as an additional Fish and Wildlife Conservation Area (Fig. 4.2), needs to be part of the Wildlife and Habitat Preservation Plan.**

My property is continually described as the connection on the north east of Black Diamond lake for the wildlife corridor. I have stated before that my property can not and will not be put to this use. My property is adequately fenced and patrolled by my active dog pack all the time, I can not have the cougar, black bear and or lynx preying on my livestock period. The cliff in front of my house is 65 feet high and at least 80 degrees steep as well as being patrolled from the top and there is no wildlife corridor for non-aquatic species along my south west corner. **The quality of Black Diamond Lake as a wildlife corridor has also been regularly mischaracterized and this continues in this Development Agreement.** Black Diamond Lake is a peat bog developing into a peat meadow. This means people who attempt to circumnavigate the lake sooner or later slip off the submerged log they are walking on and their foot gets wedged between the kris crossed logs below and they are likely to have to leave their boot in the lake. If large animals with small feet attempt this they break their legs and drown so their mothers teach them to stay away. There are just two places where these animals can get near the lake for a drink but they can not trudge around the lake. Another misleading piece of information is the depth measurement for Black Diamond Lake, these measurements are from data related to clarity which works with a rocky lake bottom. A peat bog's bottom however is covered with a more and more dense soup of wood bits, depth measurements do not mean that there is a bottom there over which one could walk, thinking there is a bottom results in becoming a "Peat Bog corpse" that may be excavated in 1000 years as an archaeological find from a field.

If the runoff from the Lawson Hills development is rushed into the Jones Lake complex Abrams Ave will be flooded more often. Abrams Ave currently is already experiencing high water more of the time just from the several wetter years. Abrams Ave can only be responsibly maintained by the building of a 169 yard, that is a 507 foot bridge over the wetland, I actually rue the day that this happens but if any added water finds its way into this wetland even after it has been properly cleaned up in a gray water filtering system the only mitigation is YB pays for this bridge because they are the cause of upstream changes in

water distribution, and dumping water from one property to the next has consequences. I know there are plans to improve Abrams Ave but the ideas presented are fatally flawed and are not properly addressed here. I will be meeting with the road engineer to come to a more proper result separately, but rest assured whatever is done it must be porous to water and can not allow silting.

Upholding of intergovernmental agreements: Earlier this year I found and shared with all the intrested parties a copy which I had kept called
City of Black Diamond Proposed Annexation for State Boundary Review Board Hearing
dated July 1991. I remember that we citzens who worked on the city comp plan considered this agreement to be a perpetual covenant to not exceed the perscribed density. We considered this a very fine accomplishmnet along our road of citizen guidance for Black Diamond development, and that is why I kept my bound copy. Upon reviewing this simple document I was struck by a few points.

1. It totally explains the acreage / dwelling ratio that King County Comp Plan describes for Black Diamond.
2. There are what appear to be "perpetual covenants" in the stared notes: (**) Property owner stipulation to not exceed total development density available under K.C. F-R Zoning.
3. This document was only about Lot #1698 and Lot #1699 but the density is repeated in the County comp plan for all the over 1700 acres of YB's planned development.

It struck me that clearly there must be additional material and further agreements about these properties on record somewhere. So I contacted the Executive Secretary of the Boundary Review Board, who put me in touch with the King County Archives where these documents reside. I have included my e-mail correspondance with these parties but have not yet had the time to take them up on their invitation to go down and review their "over two cubic feet" of material but I ask that since these pages include official government sigatures on prescriptions about land use on these properties, that they be included as part of this hearing so they can be part of the closed record hearing that will follow.

CITY OF BLACK DIAMOND

PROPOSED ANNEXATION

FOR

STATE OF WASHINGTON
BOUNDARY REVIEW BOARD
HEARING

JULY 22, 1991

TABLE OF CONTENTS

PAGE

TABLE OF CONTENTS 1

BLACK DIAMOND AREA MAP COLOR-UP 2

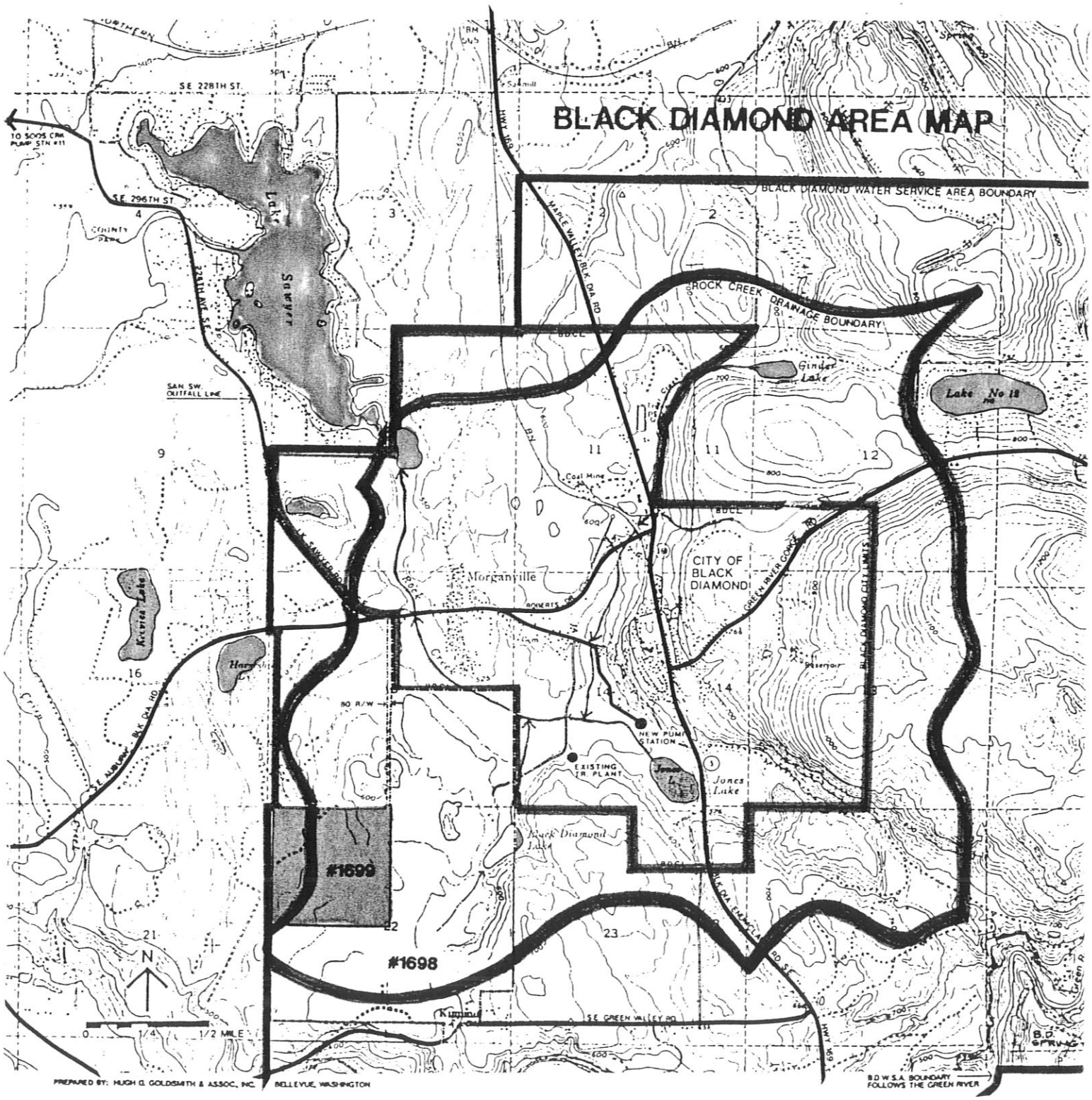
ENVIRONMENTAL PROTECTION 3

LAND USE COMPARISONS 4

ADEQUACY OF CITY SERVICES 5

SERVICES / FINANCIAL 6

SUMMARY OF COMPARISONS 7


BLACK DIAMOND AREA MAP
BLACK DIAMOND WATER SERVICE AREA BOUNDARY
ROCK CREEK DRAINAGE BOUNDARY
CITY OF BLACK DIAMOND
Morganville
Lake Sawyer
Ginder Lake
Lake No 12
Jones Lake
Black Diamond Lake
NEW PUMP STATION
EXISTING TR. PLANT
#1699
#1698
SE 228TH ST.
SE 296TH ST.
SAN SW. OUTFALL LINE
SE GREEN VALLEY RD
HWY 169
MAPLE VALLEY-BLK DIA RD
GREEN RIVER GORGE RD
BLACK DIAMOND CITY LIMITS
SE AUBURN-BLK DIA RD
Coal Mine
Reservoir
80 R/W
N
0 1/4 1/2 MILE
PREPARED BY: HUGH G. GOLDSMITH & ASSOC., INC. BELLEVUE, WASHINGTON
B.D.W.S.A. BOUNDARY FOLLOWS THE GREEN RIVER

I. ENVIRONMENTAL PROTECTION

	KING COUNTY	BLACK DIAMOND
1. REGULATORY CONTROLS:		
A. SENSITIVE AREAS ORDINANCE	• KC, SAO	• CBD, SAO
B. WETLANDS PROTECTION	• KC, SAO, CORPS	• CBD, SAO, CORPS
C. WATER QUALITY PROTECTION		
1. SURFACE WATER	• KC, WDOE	• CBD, WDOE
2. GROUND WATER	• KC, WDOE	• CBD, WDOE
2. STORM & SURFACE WATER SYSTEMS:		
A. SSW CONTROL/TREATMENT	• YES	• YES
B. SSW POLLUTION POTENTIAL	• NO DIFFERENCE	• NO DIFFERENCE
3. SANITARY SEWERAGE SYSTEMS:		
A. SEWAGE CONTROL/TREATMENT	• SEPTIC SYSTEM (DISBURSEMENT)	• SAN. SEWER (TO METRO/ RENTON)
B. SEWAGE POLLUTION POTENTIAL: 1) GROUND WATER	• LEACHATE RISKS	• NO RISK
2) SURFACE WATER A) ROCK CREEK DRAINAGE BASIN WETLANDS - STREAMS	• LEACHATE RISKS / NUTRIENT POLL.	• NO RISK
B) LK SAWYER & DRAINAGE BASIN	• LEACHATE RISKS / NUTRIENT POLL.	• NO RISK

EXHIBIT -

II. LAND USE COMPARISONS

	KING COUNTY	BLACK DIAMOND
ZONING CLASSIFICATIONS: A. KC: FORESTRY AND RECREATION	• F-R (FORESTRY -RECREATION) • MINERAL EXTRACTION ALLOWED (CONDITIONAL USE PERMIT REQ'D)	
B. CBD: MINERAL EXTRACTION/FORESTRY (INITIAL ANNEXATION ZONING BY CITY ORDINANCE)		• ME / F(*) (MINERAL EXTRACTION / FORESTRY)
C. DEVELOPMENT DENSITY LIMITATIONS	• 35,000 SF - MIN. PLANNED UNIT DEVELOPMENT • 1 DU/AC ESTIMATED	• 1 DU/AC (**) ESTIMATED

(*) CITY CONDITION OF ANNEXATION - SPECIAL REVIEW AUTHORITY

(**) PROPERTY OWNER STIPULATION TO NOT EXCEED TOTAL DEVELOPMENT DENSITY AVAILABLE UNDER K.C. F-R ZONING.

EXHIBIT -

III. ADEQUACY OF CITY SERVICES

	KING COUNTY	BLACK DIAMOND
1. WATER UTILITY:		
A. JURISDICTION/PURVEYOR	• BLACK DIAMOND, WSA	• BLACK DIAMOND
B. WATER RESOURCE CAPACITY:		
1) CBD SPRINGS SOURCE QUANTITY	• BLACK DIAMOND	• 9,000 GPM
2) CBD WATER RIGHTS @ CBD SPRINGS	• BLACK DIAMOND	• 342 GPM (4,500 POPULATION)
3) SECTION 22 WATER SOURCE (WELLS)	• UNKNOWN	• 350 GPM (4,600 POPULATION)
4) CITY/TACOMA PIPELINE 5 AGREEMENT	• BLACK DIAMOND	• QUANTITY OPEN
C. FINANCIAL EFFECT OF ADDED USERS	• UNKNOWN	• POSITIVE
2. SANITARY SEWER UTILITY:		
A. JURISDICTION REQUIREMENTS	• SEPTIC SYSTEM	• SEWERS REQUIRED
B. AVAILABLE SEWER CAPACITY	• NOT ALLOWED	• YES
C. FINANCIAL EFFECT OF ADDED USERS	• N/A	• POSITIVE
3. FIRE PROTECTION		
A. JURISDICTION REQUIREMENTS	• CBD/K.C.FPD #17 JOINT OPERATIONS	• CBD/K.C.FPD #17 JOINT OPERATIONS
B. ADDITIONAL FACILITIES	• UNKNOWN	• REQUIRE SATELLITE STATION SITE
C. FINANCIAL EFFECT OF ADDED USERS	• POSITIVE	• POSITIVE
4. POLICE	• KC POLICE	• CBD POLICE INCREASED SERVICE LEVEL (RESPONSE TIME)
5. ROAD MAINTENANCE	• KC DPW	• CBD DPW
6. GARBAGE COLLECTION	• MERIDIAN VALLEY DISPOSAL CO.	• MERIDIAN VALLEY DISPOSAL CO.

EXHIBIT -

IV. SERVICES / FINANCIAL	
1. DEVELOPMENT DENSITY	
A. EXISTING CBD HOUSING STOCK	BLACK DIAMOND
1) MOBILE HOMES	• 238 UNITS
2) SITE-BUILT RESIDENCES	• 289 UNITS
EXISTING CITY TOTAL	• 527 UNITS
B. CBD EXISTING LAND AREAS	
1) CBD NET AREA DEVELOPED	• 450 ± ACRES
C. EXISTING CITY DEVELOPMENT DENSITY (UNITS / ACRE)	
1) BASED ON AREAS ACTUALLY DEVELOPED	• 1.25± UNITS/ACRE
2. ANNEXATION AREA/DENSITY LIMITATIONS	
A. SECTION 15 & 22 ANNEXATION LAND AREAS	
1) TOTAL ANNEXATION AREA	• 783 ACRES
2) ESTIMATED TOTAL NUMBER OF UNITS CAPABLE OF BEING DEVELOPED	• 783 UNITS (**)
3) ESTIMATED DEVELOPMENT DENSITY (KC F-R)	• 1 UNIT/ACRE (***)
3. FINANCIAL	
A. DEVELOPMENT AT DENSITY OF K.C. F-R ZONE (CLUSTERED)	• NET REVENUE POSITIVE

(**) PROPERTY OWNER STIPULATION TO NOT EXCEED TOTAL DEVELOPMENT DENSITY AVAILABLE UNDER K.C. F-R ZONING.

(***) DENSITY MAY BE GREATER IN ACTUAL AREAS DEVELOPED, IF A CLUSTER ZONING IS UTILIZED.

SUMMARY OF COMPARISONS
BLACK DIAMOND ANNEXATION - (783 AC.) EXHIBIT -

	ITEM	COUNTY	CITY
I.	ENVIRONMENTAL PROTECTION: • SENSITIVE AREA ORD. • WETLANDS • WATER QUALITY A) SURFACE WATER B) GROUND WATER	• EQUAL	• EQUAL • BETTER • BETTER • BETTER
II.	LAND USE: • DENSITY STIPULATION(**)	• F-R ZONING • 783 AC = 783 LOTS	• DENSITY STIPULATION(**) • 783 AC = 783 LOTS
III.	ADEQUACY OF SERVICES: • WATER • SEWAGE DISPOSAL • SCHOOL/PARK/ETC. • FIRE • POLICE • ROAD MAINTENANCE • GARBAGE DISPOSAL	• EQUAL • EQUAL • EQUAL • EQUAL • EQUAL • EQUAL	• EQUAL • BETTER • EQUAL • EQUAL • BETTER • EQUAL • EQUAL

(**) PROPERTY OWNER STIPULATION TO NOT EXCEED TOTAL DEVELOPMENT DENSITY AVAILABLE UNDER K.C. F-R ZONING.

From: "Blauman, Lenora" <Lenora.Blauman@kingcounty.gov>
Subject: **RE: black diamond anexations**
Date: July 18, 2011 12:15:10 PM PDT
To: 'smile meadow' <smilemeadow@tx3.net>

Good Morning Ms. Morgan

I am in receipt of your e-mail concerning Boundary Review Board File No 1698 and File No. 1699 which were reviewed by our agency in 1991.

These files are stored in King County Office of Records and Archives. The most efficient way for you to access the files, therefore, would be through that Office. You will want to speak with Deborah Kennedy at 206-205-1396. If she cannot answer your questions directly, we can work together to have the records sent to our office. In that situation, we will be pleased to set an appointment with you to come in to our office to review those records and obtain copies of relevant documents.

Lenora Blauman
Executive Secretary
Washington State Boundary Review Board for King County

From: smile meadow [mailto:smilemeadow@tx3.net]
Sent: Thursday, July 07, 2011 4:13 PM
To: Blauman, Lenora
Cc: smile meadow
Subject: black diamond anexations

Good Afternoon Ms Blauman:
I am hoping you can find for me when exactly parts of section 22 and 15 were annexed into Black Diamond, that would be lot #1698 and #1699 which was done for "Black Diamond Associates". I have a copy of the City of Black Diamond Proposed Annexation for the Washington State Boundary Review Board Hearing Dated July 22,1991.

This is a copy that was presented to the folks who worked on developing

Black Diamond's comp plan, we citizens regarded this as containing a covenant in perpetuity, to not exceed the total development density as presented in this plan by the property owners . If this agreement was amended before becoming law, could you please forward us a copy of the standing agreement.

Thank you
Erika Morgan
33624 Abrams Ave.
Black Diamond Wa. 98010
<smilemeadow@tx3.net>

From: "Kennedy, Deborah" <Deborah.Kennedy@kingcounty.gov>
Subject: **Boundary Review Board files**
Date: July 20, 2011 4:41:23 PM PDT
To: "smilemeadow@tx3.net" <smilemeadow@tx3.net>

Dear Ms Morgan,

I wanted to let you know that I received your voice mail message and will get back to you with more information tomorrow.

Deborah Kennedy
County Archivist
1215 East Fir Street
RED-ES-0100
Seattle, WA 98122
206-205-1396
www.kingcounty.gov/archives

"Archivists have a first, second and third life: we preserve for the past, provide access in the present, and select for the future." Robin Chandler

From: "Kennedy, Deborah" <Deborah.Kennedy@kingcounty.gov>
Subject: **Boundary Review Board files**
Date: July 21, 2011 10:08:49 AM PDT
To: "smilemeadow@tx3.net" <smilemeadow@tx3.net>
1 Attachment, 44.1 KB

Dear Ms,

The King County Archives does have the two files you asked about, 1698 and 1699. I am not sure from your voice message if you want the document you mentioned or if you were more interested in whether or not sections 22 and 15 were annexed.

According to the, "Resolution and Hearing Decision," on July 15, 1994 the Boundary Review Board approved the "Black Diamonds Associates annexation, with modification by the addition of territory, and the Palmer Coking Coal Company annexation, as submitted."

I have attached a copy of the Notice of Public Hearing which gives the legal description of the property in question.

If you have other questions or would like to make an appointment to review the files, please contact the Archives at archives@kingcounty.gov or 206-296-1538.

Deborah Kennedy
County Archivist
1215 East Fir Street
RED-ES-0100
Seattle, WA 98122
206-205-1396
www.kingcounty.gov/archives

"Archivists have a first, second and third life: we preserve for the past, provide access in the present, and select for the future." Robin Chandler

NOTICE OF PUBLIC HEARING

NOTICE OF PUBLIC HEARING

WASHINGTON STATE BOUNDARY REVIEW BOARD

CITY OF BLACK DIAMOND - BLACK DIAMOND ASSOCIATES AND PALMER COKING COAL COMPANY ANNEXATIONS

The Washington State Boundary Review Board for King County located at the Central Building, Suite #608, 810 3rd Avenue, Seattle, WA 98104-1693, Telephone # 206-296-6800, will be conducting a public hearing for the purpose of considering the proposed annexations to the City of Black Diamond of areas known as "Diamond Associates and Palmer Coking Coal Company", File Nos. 1698/1699, on remand by order of the Washington Supreme Court for the sole purpose of evaulating the annexations in light of the Environmental Impact Statement (EIS). The annexations, all in King County, Washington, generally described as:

The Southeast Quarter and the East 80.00 feet of that portion of the West half of Section 15, Township 21 North, Range 6 East, W.M., King County, Washington, lying Southerly of S.E. Auburn-Black Diamond Road;

TOGETHER WITH the Northeast Quarter and the Southwest Quarter LESS the South 30.00 feet thereof and the North half of the Southeast Quarter and the Southwest Quarter of the Southeast Quarter LESS the South 30.00 feet thereof and the West half of the Southeast Quarter of the Southeast Quarter LESS the South 30.00 feet thereof all in Section 22, Township 21 North, Range 6 East, W.M., King County, Washington;

TOGETHER WITH that portion of Government Lot 1 in Section 27, Township 21 North, Range 6 East, W.M., King County, Washington lying Northwesterly of S.E. Green Valley Road;

TOGETHER WITH all those portions of Auburn-Black Diamond Road and Maple Valley-Lake Sawyer Road lying within the East 80.00 feet of the Northwest Quarter of said Section 15;

TOGETHER WITH the South 30.00 feet of the West half of the Southwest Quarter of the Southeast Quarter of the Southeast Quarter of Section 22, Township 21 North, Range 6 East, W.M. lying Westerly of a line being located 30.00 feet Northwesterly of and parallel with the centerline of S.E. Green Valley Road;

TOGETHER WITH the Northwest Quarter of Section 22, Township 21 North, Range 6 East, W.M., King County, Washington.

A COMPLETE LEGAL DESCRIPTION IS ON FILE AND AVAILABLE AT THE OFFICE OF THE BOUNDARY REVIEW BOARD.

DATE: TUESDAY JUNE 14, 1994
TIME: 7:00 P.M.
LOCATION: BLACK DIAMOND COMMUNITY CENTER
ADDRESS: 31605 THIRD AVE, BLACK DIAMOND, WA

At said time and place, any and all interested persons may appear and be heard with reference to proposed annexation areas.

WASHINGTON STATE BOUNDARY REVIEW BOARD
FOR KING COUNTY

From: smile meadow [mailto:smilemeadow@tx3.net]
Sent: Saturday, July 23, 2011 5:41 PM
To: Kennedy, Deborah
Cc: smile meadow
Subject: Re: Boundary Review Board files

Hello Ms Kennedy,
I am glad you found my email
I do know that these properties were annexed but it is true that the timing is important to me, also I am wondering about any conditions in the annexation agreement. My copy of the proposed annexation which I will also include contains some language under an
(***) Property owner stipulation not to exceed total development density available under K.C. F-R zoning (which was 1du/ac) 783ac=783lots and
(**) Density may be greater in actual areas developed, if the cluster zoning is utilized.

Black Diamond residents regard these conditions as covenants on these properties in perpetuity and it is important to us if this language made it into the annexation agreement.

You may know that we are in the middle of a Development Agreement with YarrowBay. At each meeting their densities become more fantastical. At their presentation for the HE they announced that their 6050 dwelling units could each have an accessory unit functionally turning them all into duplexes. (they say there must be at least 4du/ac where services are brought, they intend on leaving no part of the ground undisturbed in violation of our comp plan provision for 64% open space with no more then 10% developed open space)

Thank you Erika Morgan

From: "Gomes, Janette" <Janette.Gomes@kingcounty.gov>
Subject: **RE: Boundary Review Board files**
Date: July 25, 2011 1:25:46 PM PDT
To: "'smilemeadow@tx3.net'" <smilemeadow@tx3.net>

Dear Ms. Morgan,

Deborah Kennedy is out of the office today and asked me to follow up on your request below.

We have more than 2 cubic feet of records regarding files 1698 and 1699. I took a quick look through the files and found nothing specifically referred to as an annexation agreement. Maybe the Boundary Review Board's Resolution and Hearing Decision would include the information you need? This document has several sections and a few of them discuss land use, density and zoning. I would suggest that you take a look at the records yourself to determine if they serve your needs.

We would be happy to set up an appointment for you to view the records here. Our research room is open 9-4, Monday-Friday. We just ask that you let us know at least 24 hours in advance when you would like to come in so we can make sure the room is available and we have the records ready for your review.

If an appointment is difficult for you and you think the Resolution and Hearing Decision would answer your question, we can send you a copy. The fee would be $3.25, for which we could send you either an electronic version as an email attachment or send a hard copy through the mail. If you would like to order a copy, please send a check or money order, made payable to the King County Treasury, to the Archives at the address below.

Please let us know if you have further questions.

Janette Gomes
Assistant Archivist
King County Archives

1215 E. Fir Street
Seattle, WA 98122-5424

www.kingcounty.gov/archives
206-296-1538

From: Kennedy, Deborah
Sent: Monday, July 25, 2011 11:14 AM
To: Gomes, Janette
Subject: FW: Boundary Review Board files

From: smile meadow [mailto:smilemeadow@tx3.net]
Sent: Saturday, July 23, 2011 5:41 PM
To: Kennedy, Deborah
Cc: smile meadow
Subject: Re: Boundary Review Board files

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Thank you Erika Morgan

From: "Gomes, Janette" <Janette.Gomes@kingcounty.gov>
Subject: **RE: Boundary Review Board files**
Date: August 1, 2011 8:49:44 AM PDT
To: "'smilemeadow@tx3.net'" <smilemeadow@tx3.net>

Dear Ms. Morgan-

Below is the email message I sent you last Monday about the files we found in response to your request. Please feel free to contact me if you have additional questions or when you are ready to make an appointment.

Janette Gomes
Assistant Archivist
King County Archives
1215 E. Fir Street
Seattle, WA 98122-5424

www.kingcounty.gov/archives
206-296-1538

From: Gomes, Janette
Sent: Monday, July 25, 2011 1:26 PM
To: 'smilemeadow@tx3.net'
Subject: RE: Boundary Review Board files

Dear Ms. Morgan,

Deborah Kennedy is out of the office today and asked me to follow up on your request below.

We have more than 2 cubic feet of records regarding files 1698 and 1699. I took a quick look through the files and found nothing specifically referred to as an annexation agreement. Maybe the Boundary Review Board's Resolution and Hearing Decision would include the information you need?

This document has several sections and a few of them discuss land use, density and zoning. I would suggest that you take a look at the records yourself to determine if they serve your needs.

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Please let us know if you have further questions.

Janette Gomes
Assistant Archivist
King County Archives
1215 E. Fir Street
Seattle, WA 98122-5424

www.kingcounty.gov/archives
206-296-1538

From: Kennedy, Deborah
Sent: Monday, July 25, 2011 11:14 AM
To: Gomes, Janette
Subject: FW: Boundary Review Board files

Quality of product: Past behavior is the best possible predictor of future behavior. What follows here is the half example of what the partnership between YB and the Government of Black Diamond. Where notices about the coming development appear on State and County major routes they are kept up as a credit to their creators, I have seen actually both YB and city personnel activity maintaining them.

The sign along the Lake Sawyer road was actually flat on its face before the DA agreement paper was added to it. Whom ever added this notification drug the whole unearthed sign about 100 yards down the road and propped it against the bush it leans on when they added new notification. The one leg of the sign pictured along Green Valley Road was split at the time the notification was added and then the wind dislodged this breach so the result is this hanging by a corner nail.

My point here is who ever hung the DA notices knew and understood that these postings were in poor repair, but they chose to do nothing about it in these spots. Were they convinced they had the city in their pocket and it was unnecessary to court them anymore? Where they attempting to show their contempt for residents of Green Valley Road and Lake Sawyer who dared to challenge their planned development? Did they still need to court the County and State to their side, so they wanted to show "best behavior"? While there is no way for me to understand which of these were motivators, it is a mute point because the operating point is that this was allowed to happen and persists to this day 8/4/2011. I do understand that County and State seem to have gotten better treatment because they have a larger baseball bat and a firmer grip on the YB pocket book. This are important lessons for the BD City Council if they intend to go forward with the signing of contracts with these folks.

1. There is no way I would hire folks who demonstrate this level of workmanship to do anything on my place. An average teen would have a better attention to a job worth doing then has been demonstrated by these parties.
2. Evidently there needs to be exceptional language about what, when, how, where, and probably why each responsibility is expected.
3. There must be very strong penalties for discrepancies in performance including "make whole physically and financially" provisions throughout the DA.
4. There must be financial provision for actual minute by minute third party professional on the job oversight for every aspect of these projects.
5. There must be provisions for any necessary change orders on the spot as the third party experts encounter them.

Lake Sawyer Trail

GREEN VALLEY Rd.

Green Valley Rd

Note for the BDCC:

I noticed that for the MPD process our BDCC after using public money to pay for the expert HE time and expertise choose to ignore many of his recommended conditions for the project. Mr. HE Phil Olbrechts was attempting to firm up reasonable city control over this product from the advantave of his experience. BDCC behavior in this regard was insane and needs to be avoided at all cost going forward. Each of those 162 conditions was necessary to overcome a bad result for Black Diamond that Mr. Olbrechts or his proffesional colegues could forsee with their proffesional experience. If you don't like what your independent expert tells you, You need to include, as a part of decisions you make, in the name of your constituents, go and find another independent expert, pay him, see if he agrees or disagrees with your first independant expert, where you find disagreement ask a third independent expert to break the tie.

It is never under any circumstance ok or justified, when you are using someone else's money, and are representing their interests, to override independent expert advice, especially advice they paid for, with only your inexpert feelings.

Thank you

Erika Morgan

33624 Abrams Ave

EXHIBIT
144

Waterworks Consultants
4017 Willowbrook Lane
Bellingham, WA 98229
360-927-3078
llynadele@gmail.com

August 4, 2011

Lawson Hills and The Villages Stormwater Impacts

This memo presents analyses and recommendations regarding the stormwater runoff from the proposed construction of the Lawson Hills and the Villages projects in Black Diamond, Washington, with respect to their treatment in the *Lawson Hills, City of Black Diamond Planned Development* application and the *Villages, City of Black Diamond Master Planned Development* application (both dated December 31, 2009) and the *Villages Master Planned Development Draft Development Agreement* (June 2011) and the *Lawson Hills Master Planned Development Draft Development Agreement* (September 2010). It has implications for how the stormwater runoff impacts are analyzed, regulated and managed should be incorporated into the project(s) permits.

Stormwater management measures are addressed in the Master Planned Development Project document for each of these projects (Lawson Hills, City of Black Diamond Planned Development application document and The Villages, City of Black Diamond Master Planned Development application document, both dated December 31, 2009). Chapter Six of both documents addresses stormwater management objectives and approach. In addition, the Master Planned Development application documents for both projects provide brief descriptions of the existing project area surface water runoff patterns and the water bodies anticipated to receive stormwater runoff generated from the project(s) construction.

The basis for assertions that the stormwater management objectives identified in each of the Master Planned Development application documents will be met must be based on quantitative analyses of the project(s) vicinity hydrology, geology, topography and climate. Further, the alterations to those conditions due to the project(s) construction must be considered in analyses of the project impacts to stormwater. The Master Planned Development application documents describe the general hydrology of the development sites, and the receiving areas for what is inferred to be stormwater runoff that will be generated from the project construction. General stormwater management goals are listed for each project, along with key stormwater management issues and general standards for stormwater receiving basins. The Master Planned Development application

document(s) do not purport to address what the stormwater runoff generated by each of the projects is, what areas of each project development will generate stormwater runoff, how much stormwater will be generated under the range of precipitation rates measured for each area and each land cover type, and what the constituents and their concentrations in the stormwater runoff from these areas is. Without this information, it is impossible to assess whether either of these projects will meet the stormwater management goals identified in the Master Planned Development application documents.

Given the general nature of the Master Planned Development applications, it is to be expected that the Draft Development Agreement documents for each of these projects (the Villages Master Planned Development Draft Development Agreement, dated June 2011, and the Lawson Hills Master Planned Development Draft Development Agreement, dated September 2010) are the source for the specific information about how the stormwater management goals listed in the Master Planned Development application documents will be accomplished. In large part, the stormwater section of the Villages Draft Development Agreement (Section 7.4) lists verbatim the content of the Villages Master Planned Development application document Section 6. The stormwater management goals have been expanded upon and the standards governing the stormwater facilities are described in greater detail in the Draft Development Agreement than in the Master Planned Development application. However, the actual stormwater runoff calculations required under the Washington Department of Ecology's 2008 Phase II NPDES Stormwater Permit and the Stormwater Management Manual for Western Washington, while acknowledged as the regulations governing the project in the Villages Draft Development Agreement, are not employed in the analyses of stormwater runoff or the measures by which that stormwater runoff will be collected, conveyed, infiltrated, detained or treated. As such, the Villages Draft Development Agreement does nothing more than reiterate the same information presented in the Villages Master Planned Development application. The Draft Development Agreement does not serve to describe and clarify the terms necessary for implementation of the Master Planned Development application at all; it simply restates the project stormwater goals, standards and general description. The same is true for the Lawson Hills Master Planned Development application and Draft Development Agreement.

These projects rely on information presented in the FEIS (Appendix M of both documents) to document the water quality impacts and the groundwater conditions of the development project(s) area, which can be summed up simply with the statement that, despite the existing degraded water quality conditions in water bodies in the project(s) vicinity, water quality impacts from the development(s) proposed were found to be small enough that no water quality degradation will be associated with stormwater runoff from either project. While the FEIS Appendix M documents provide detailed estimates and forecasts of the constituents concentrations in stormwater runoff generated from the

project(s), without the use of actual analyses of stormwater runoff quantities and rates in forming those estimates significant uncertainty in their precision is introduced.

Recommendations for Draft Development Agreement(s) Content

In order to implement the goals listed in the Master Planned Development Applications, a range should be drawn of the potential metrics for project(s) development area(s) and their possible building areas, pavement areas, landscaped areas, and other land uses projected. Stormwater runoff for the low and high aerial extents of each project should be used to calculate the potential range of stormwater generated from each area. These values should be used then to evaluate the dimensions of the stormwater conveyance, detention and infiltration systems that will be needed to meet the project objectives. A similar approach should be used for analyses of water quality impacts associated with stormwater runoff to receiving water bodies.

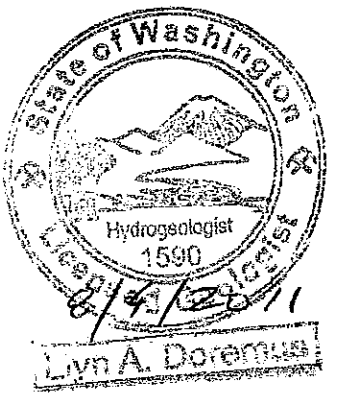
In particular, Sawyer Lake, Black Diamond Lake and Jones Lake, water bodies that will be receiving stormwater runoff from the projects proposed for development, have been documented by the Washington Department of Ecology as violating water quality standards. Detailed studies regarding loading sources that contribute to the water quality violations have been completed by Ecology. Subsequent monitoring indicates that these water bodies under current conditions are meeting water quality standards for the most part, but are typically in violation of those standards for some portion of the year. While the stormwater management goals described in the Draft Development Agreements for both development projects include avoidance of impacts to water quality in Lake Sawyer and Black Diamond Lake, how the project will achieve compliance with water quality standards, the actual conditions of those lakes, the existing contaminant loading to them, and the potential loading that might result from the construction of these projects have not been defined. The already degraded conditions of these water bodies demand that more detailed analyses of their current conditions and the potential stormwater runoff impacts to those water bodies be included in the project permit conditions.

The lack of basic information on the stormwater runoff generating area and associated runoff quantities, in addition to the absence of specifications regarding how stormwater will be collected, conveyed, infiltrated, detained or treated (which must be based on the runoff quantity analyses) makes it impossible to assess the actual impacts of stormwater runoff on receiving water bodies (i.e. Lawson Creek, Lake Sawyer, Jones Lake, and Black Diamond Lake). The goals listed in the Master Development application documents for protection of these water bodies are laudable. However, the means by which these goals will be met are not yet apparent, and as such, cannot be reliably assumed to be accomplished with the information presented in the Draft Development Agreements. Further analyses of impacts to Lawson Creek flows, wetlands hydrology, groundwater infiltration and discharge from stormwater runoff will also be facilitated by

the completion of, and incorporation into those analyses, stormwater runoff calculations using the Washington Department of Ecology Western Washington Stormwater Management Manual specified methods (specifically the Western Washington Hydrology Model).

Llyn Doremus

Washington Professional Hydrogeologist license no. 1590



Brenda Martinez

From: Peter Rimbos <primbos@comcast.net>
Sent: Friday, August 05, 2011 10:42 AM
To: Brenda Martinez
Cc: Andy Williamson; Stacey Borland; Steve Pilcher
Subject: REFORMATTED WRITTEN STATEMENT
Attachments: Transportation_Testimony--WRITTEN--Stop-Light_Table--Reformatted.doc; ATT00001..htm

Importance: High

Brenda,

Hi. As we discussed on the phone this morning, I was told by several people that when I converted my Written Statement from Apple *Pages* to Microsoft *Word* that a multi-page Table I had included did not show up correctly. So, I reformatted the Table (no content was changed) and have attached it along with its accompanying words from my Written Statement and submit it as a "Supplement" (it is so labeled on the Title page). Thank you. Sorry to bother you with these types of things. Have a good sunny weekend.

Peter Rimbos
primbos@comcast.net

"To know and not to do is not to know."-- Chinese proverb

Please consider the environment before printing.

EXHIBIT
145

Black Diamond
Master Planned Developments

DEVELOPMENT AGREEMENT
OPEN-RECORD HEARINGS

July/August 2011

Transportation

Reformatted Stop-Light Assessment Table

Supplement to

Written Statement

by

Peter Rimbos

Presented to

Hearing Examiner Phil Obrechts

Transportation Written Statement

"Stop-Light" Assessment

The Development Agreements do not meet the minimum requirements of the MPD Application Ordinances' *Exhibit C--Conditions of Approval*. The Development Agreements are supposed to be the mechanism by which the "Master Developer" shows in detail how it plans to meet the MPD Application Approval Ordinances, which are the *"law of the land."*

Specifically, the following *minimum* transportation requirements have not been met in the Development Agreements (please note: The basic elements of all "Plans" discussed herein are described in the **GLOSSARY**):

(1) A **Traffic Analysis Plan** that provides sufficient detail to determine, analyze, and mitigate future traffic scenarios.

(2) Any specificity on needed **Transportation Mitigation** costs, schedules, risks, and funding mechanisms.

(3) No real **Transportation Plan** to address future traffic loads, develop and finance needed mitigations, and provide contingencies.

A **"Stop-Light Assessment Table"** on the next several pages summarizes all Transportation Requirements; provides an Assessment of compliance or non-compliance of the Development Agreements against those requirements; and lists Grades for the Development Agreements. The Grades are based on the following:

🔴 RED: Failure to meet requirements of MPD Ordinances' *Exhibit C--Conditions of Approval* or Black Diamond Municipal Code.

🟡 YELLOW: Partial compliance of a Ordinance Condition or Municipal Code; insufficient information provided; or non-compliance with a provision of either Black Diamond Comprehensive Plan policies or King County Code (primarily permitting provisions).

⚪ WHITE: MPD Condition *itself* is deemed inadequate. Although there are many Transportation Conditions that possess inadequate portions, there is one, Condition

Transportation Written Statement

15--Outside Black Diamond Mitigation, graded in the table as "White." It completely fails the needs of the region in that it *"supersedes"* all aspects of the MPD Ordinance Conditions of Approval and does not provide for ANY changes should mitigations prove inadequate. Details are provided in Section VI. *Proposed "New" Conditions.*

There are no GREENs (i.e., full compliance), since the Development Agreements possess some deficiency against every measure evaluated.

Transportation Written Statement

			Stop-Light Assessment		
Docum.	**Sect./No.**	**Subsect.**	**Citation**	**Assessment of DAs**	**Gr.**
MPD Ordi-nance	# 10	Trans-portation Planning	...construct any new roadway alignment or intersection improvement....specify for which projects...eligible for either credits or cost recovery and by what mechanisms....	☐ No ***Transportation Plan*** detailing tasks and schedule. ☐ No details on Credit or Cost Recovery mechanisms.	🔴
Exhibit C--Condi-tions of Appro-val	# 11	Traffic Demand Model	The new model must be validated for existing traffic, based on actual traffic counts collected no more than two years prior to model creation.	☐ No ***Model Validation Plan*** to validate and re-validate the model leading to identification and evaluation of additional mitigation.	🔴
	# 12	Model Assump-tions & Analyses	The model must be run with currently funded transportation projects...shown in the applicable 6-yr & (unfunded) 20-yr TIPs.	☐ No ***Traffic Analysis Plan*** ☐ No details on assumptions.	🔴
	# 14	Model Internal Capture Rate (ICR)	The new model must include a reasonable ICR assumption. The assumed ICR must be based upon and justified by an analysis....	☐ No ***Traffic Analysis Plan*** ☐ No details on assumptions.	🔴
	# 15	Outside BD Mitigation	Any agreement so incorporated supersedes all other conditions and processes that may set mitigation measures and that are contained in the MPD Conditions or DAs.	***[White, because the Condition isn't violated. Poorly worded Condition allows Outside Mitigation Agreements that cannot be changed.]***	⚪
	# 17a. thru j.	Trans-portation Analysis ***[most critical Transp. Conditio n]***	[Three pages long.] 17f.: Proposed conditions & mitigations ...shall be revised if...the conditions or mitigation measures...have resulted in an unsatisfactory level of mitigation....	☐ No ***Traffic Analysis Plan*** describing what will be done with results and how they will be used to inform needed mitigations. No [post-850-building-permit] ***Traffic Analysis Plan***.	🔴

Peter Rimbos *19711 241st Ave SE, Maple Valley, WA 98038*

Transportation Written Statement

			Stop-Light Assessment		
Docum.	Sect./No.	Subsect.	Citation	Assessment of DAs	Gr.
	# 18	Funding Responsi-bility & Pro-Rata Shares	The responsibilities and pro-rata shares of the cumulative transportation mitigation projects shall be established...which must cover the complete mitigation list.	□ No ***Financial Plan*** that provides assurance obligations can be met, nor provides a process to evaluate pro-rata shares amongst jurisdictions.	🔴
	# 20	Trans-portation Monitorin g Plan	The monitoring plan shall ensure that construction of improvements commences before the impacted street or intersection falls below the applicable level of service....	□ Transportation Monitoring Plan is re-active, not pro-active; does not identify proper "trigger mechanisms" that can be measured and assessed.	🟡
	# 25	Pre-Phase Modeling	...model...traffic impacts of a...phase before submitting land use applications...to determine at what point a ...(facility)...is likely to drop below...adopted LOS....	□ No ***Traffic Analysis Plan*** [Also, Condition conflicts with provisions of Conditions 11 and 17 on timing.]	🔴
	# 29	Regional Infra-structure Implemen -tation Schedule	Prior to the first implementing project...being approved, a more detailed implementation schedule of the regional infrastructure projects...shall be submitted for approval.	□ No ***Transportation Plan*** that includes a detailed implementation schedule (i.e., What information will inform such a Schedule and How will it be vetted?).	🔴
	# 33a	Limiting Green Valley Rd Traffic	...a description of the process and timing required for the Applicant to seek permits from King County should King County allow installation of the (calming) improvements....	□ The "process" simply states the Master Developer will submit permit applications. No description of a process whereby the Master Developer, GVR residents & KCDOT develop mutually agreeable solutions. ***[Traffic Calming Study was simplistic.]***	🟡
	# 33b	Green Valley Rd Review Com-mittee	A Green Valley Rd Review Committee shall be formed....The Committee...specifically shall meet to review the study required by Condition 33(a) and attempt to reach agreement on whether any suggested traffic calming devices should be provided....	□ No Committee has been formed. ***[MPD Ordinance constrained Committee to only 2 residents (of 5 members), didn't include KCDOT, and mandated a "take-it-or-leave-it" approach.]***	🟡

Peter Rimbos *19711 241st Ave SE, Maple Valley, WA 98038*

Transportation Written Statement

			Stop-Light Assessment		
Docum.	Sect./No.	Subsect.	Citation	Assessment of DAs	Gr.
	# 34a	Project Responsi-biltity Split	...address which traffic projects will be built by the developer, which projects will be built by the City and what projects will qualify for cost recovery.	□ No ***Financial Plan*** that provides cost estimates, timing, funding sources, contingencies, or risks. □ No ***Cost-Benefit-Risk Plan***.	🔴
BD Munici-pal	18/98.010 (H); [COL 11]	---	Provide environmentally sustainable dvmt. (COL 11 implies this includes Vehicle Trip Reduction)	□ No ***Vehicle Trip Reduction Plan***.	🔴
Code	18.98.010 (I); [COL 12]	---	Provide needed...facilities in an orderly, fiscally responsible manner.	□ No ***Transportation Plan*** □ Insufficient detail	🔴
	18.98.020 (G); [COL 23]	---	Timely provision of all necessary facilities, infrastructure....	□ No ***Transportation Plan*** detailing tasks & schedule.	🔴
	18.98.080 (A)(4a); [COL 30]	---	...Prior to or concurrent with final plat approval...improve-ments have been constructed ...to have concurrency at full build-out...for...transportation improvements to serve the project....	□ No ***Transportation Plan*** including process whereby mitigations may change to as issues develop. □ No ***Transportation Concurrency Plan***. □ No enfrcm'nt mechn'sms	🔴
BD Comp. Plan	7.2.2	LOS & Concur-rency	...To ensure...future dvmt. will not cause City's transp. system performance to fall below the adopted LOS, the jurisdiction must do one or a combination of...: modifying...land use element, limiting or "phasing" dvmt., req'g appr. mitigation, or changing...adopted std.	□ No ***Transportation Concurrency Plan***.	🔴
	7.6	Travel Forecasts	A 1.0% annual growth rate...along SR 516, and a 1.5% annual growth rate...for all other intersections within the study area.	□ The MPDs, as described, will vastly exceed these forecasts.	🟡
	7.6.1	Future Land Uses/Tra nsp. Concepts	The City intends for the...Transportation and Land Use Elements work together to maintain the City's "small town" character....	□ The MPDs, as described, will not meet this policy.	🟡

Peter Rimbos *19711 241st Ave SE, Maple Valley, WA 98038*

Transportation Written Statement

			Stop-Light Assessment		
Docum.	**Sect./No.**	**Subsect.**	**Citation**	**Assessment of DAs**	**Gr.**
	7.7.2 Road	Table 7-8 Inter-sections	[Much detail on Intersection LOS and Time Delays including potential mitigations]	☐ With mitigations planned it's improbable times cited in this policy can be met.	
	Condi-tions--2016	Table 7-9: Improve-ments	SR 169---Widen to 4 lanes from SE 288th St to Roberts Dr---Provides add'l capacity....	☐ No ***Transportation Plan*** or ***Financial Plan*** to make this happen.	
	7.8 Funding Strategy	Table 7-11: Sources	Impact Fees...Developer Contributions....the potential for immediate concurrency....	☐ No ***Financial Plan*** showing details to meet.	
	7.9.2	Concur-rency	...imprvmnts...are in place at... dvmt., or a financial commitmnt is in place...to complete... improvements...within 6 yrs....	☐ No ***Transportation Concurrency Plan***.	
	7.11.1 Transp.	T-13--Concur-rency	...transp. improvements...are constructed or financed concurrent with development.	☐ No ***Transportation Concurrency Plan***.	
	Goals/Po licy	T-14--Sources	Secure adequate long-term funding sources...through all feasible...methods.	☐ No ***Financial Plan***. ☐ Encourages City seek Grants & lobby for CFDs!	
		T-15--Mitigation	Require developers to contribute (to) transp. imprvmts ...to meet the LOS stds.	☐ No ***Financial Plan***. ☐ No ***Vehicle Trip-Reduction Plan***.	
King County Code	TITLE 14--ROADS	14.46 Public & Private Utilities	[This pertains to siting and permitting Utilities on King County real property]	☐ Stormwater Detention Facility outside UGA does not meet guidelines.	
	AND BRIDGES	14.65 Integr'd Tranps. Program	Transportation Concurrency Management, Mitigation Payment System, & Intersection Standards.	☐ The Development Agreements do not meet permitting guidelines.	
		14.70 Transp. Conc. Mgmt.	Permitting "...based on adequate transportation improvements needed to maintain LOS."	☐ Schools sited outside UGA do not meet permitting guidelines.	
		14.75 Mitigation Payment System	"...applies transportation impact fees to new development for ...improvement(s)... needed...."	☐ The Development Agreements do not meet permitting guidelines.	

Peter Rimbos *19711 241st Ave SE, Maple Valley, WA 98038*

Transportation Written Statement

			Stop-Light Assessment		
Docum.	Sect./No.	Subsect.	Citation	Assessment of DAs	Gr.
		14.80 Intersec-tion Stds.	"...to assure...improvements to mitigate...impacts...are completed...."	☐ The Development Agreements do not meet permitting guidelines.	

Overall Grade: Meeting <u>Ordinance Conditions</u> or <u>BC Municipal Code</u>

Overall Grade: Meeting Provisions of <u>BD Comprehensive Plan</u> or <u>KC Code</u>

Transportation Written Statement

Against the *MPD Ordinance Conditions* and *Black Diamond Municipal Code* the Development Agreements receive an <u>overall</u> Grade of RED because they fail to meet several requirements or supply insufficient information, as enumerated in the "Stop-Light Assessment Table."

Against provisions of either *Black Diamond Comprehensive Plan* policies or *King County Code* provisions the Development Agreements receive an <u>overall</u> Grade of YELLOW because they only partially comply with these provisions or supply insufficient information, as enumerated in the "Stop-Light Assessment Table."