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*Dated = the date actually received by the City

September 1, 2015

RECEIVED

SEP 01 2015

CITY OF MONROE

SUBJECT: Questions re: DSEIS

Mr. Osaki,

- 1) **Please give me a list and/or a map of available property in North Kelsey area(Walmart, and Lowes)?**
- 2) Per Water Shed Memo
 - a. Currently, the only water entering the slough at its upstream end enters via a roadside ditch from a local tributary area of about 273 acres, including areas North of SR 2 and areas between SR 2 and the BNSF tracks.
 - b. **What is the elevation of the water at the bottom of the upstream culvert?**
 - c. **What is the elevation of the water at the down steam culvert bottom?**
 - d. **Does the ditch between SR 2 and BNSF (tracks) run all the way to the river?**
 - e. **What is the approximate width and depth of this ditch?**

Thank you in advance for your prompt attention.

Lowell Anderson
129 E. Rivmont Drive
Monroe, WA 98272
Baa444@comcast.net
360.794.7075

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SEP 08 2015

CITY OF MONROE

September 7, 2015

SUBJECT: Questions Re: DSEIS

Mr. Osaki – SEPA Responsible Official

Ref: Page – 41 of DSEIS

Statement: Additional field surveying was also conducted to verify, confirm and/or refine previous surveys and LIDAR data.

Question:

Where are the copies of the field surveys and supporting data?

Please send me a copy for our use. There is a huge discrepancy between the topographical survey (Rod on the ground) and LIDAR from the September 2013 FEIS.

My apologies for not requesting this information per my September 01, 2015 request.

Our email doesn't work. May I pick up the above information at the front desk? Please notify me.

Thank you for your help.



Lowell Anderson
360.794.7075

September 23, 2015

Monroe City Council
806 West Main
Monroe, WA 98272

RECEIVED

SEP 23 2015

CITY OF MONROE

Dear Monroe City Council and other interested individuals,

As a local resident and business owner, I strongly oppose the rezoning of the 43 acres of property on the east side of Monroe.

Historically this land has been agriculture land. The city of Monroe needs to be encouraged to recognize the history and future importance of maintaining agriculture lands for further generations. The protection of agriculture land needs to be viewed as a community infrastructure investment. Current world and economic indicators suggest that the local and sustainable food production will continue to grow. Responsible land use and zoning that allows for local farmers to produce products that reduce carbon footprint impact, support local employment, and produce products available for local businesses must be supported. The average farm size in Snohomish County is just 46 acres; any reduction in the agriculture acreage reduces the potential for the industry that is growing. In ten years between 2002 and 2012 the county saw an increase by 100 farms. The Snohomish county agriculture industry was worth to the county over \$126 million dollars alone in 2007. Once paved over and built up, ag-land is too expensive to "undo" to make farming available again. The Local Farm, Food, and Jobs Act of 2013, Senate Bill 679 and House Bill 1414, encourage the creation of jobs and measures that spur economic growth through food and farms. All 50 states have farm to school programs in place and the reduction of agriculture land will reduce the effectiveness of such programs.

Monroe is positioned ideally to support agriculture. Major transportation corridors, prime climate, farm land, and local family based communities all prime Monroe to continue to be on the cutting edge of the ever growing local agriculture enterprises.

Susan Boyd, in the Economic Impact Statement, noted several constraints to the land in question that directly benefit the further support to maintaining this land as open farm land. The farm land, mountains, rivers and valleys create a natural separation that occurs by cresting the hill and exiting Monroe. This is a welcome feel after navigating the chaos of the city. Noise, aesthetics, public utilities, and traffic are all non-issues if this land is to be maintained as ag-land. Additionally, the flood mitigation and filling of the location would directly impact fellow farmers in the area. To ignore the fact that during flood occurrences the water that would be displaced would impact neighbors is concerning. Our farm is located upstream from this property. Therefore, any reduction or impingement in flow and dispersment of water has a direct result on my farm and fellow individuals upstream.

Please do not neglect the open space that this location provides for wildlife. This valley is rife with wildlife. Farm land provides habitat to animals large and small and any rezoning of this property will have dire consequences for the wildlife that thrive in these areas. Proper drainage, invasive species removal, and habitat restoration are reasonable improvements to the property but this can more realistically be accomplished by maintaining this land in open space and not paving it over with small habitat sanctuaries located with in developed lots.

As a fifth generation farmer in the Monroe-Snohomish area, I recognize that changes occur. However, I encourage you as individuals to consider both the immediate and long range consequences involved in rezoning this acreage. Protecting the land base for local-sustainable agriculture usage makes good stewardship usage. Please oppose the rezone of this property east of Monroe.

Sincerely,

Anna Groeneveld
29524 Fern Bluff Road
Monroe, WA 998272



Monday, September 21, 2015

Mr. David Osaki
City of Monroe
806 W. Main St.
Monroe, Wa. 98272

RECEIVED

SEP 23 2015

CITY OF MONROE

Re: Supplemental Environmental Impact Statement – Proposed East Monroe Rezone

Dear Mr. Osaki:

We submit the following comments regarding the subject EIS.

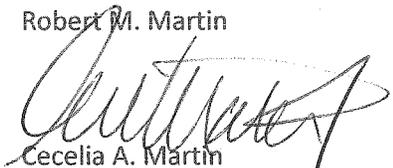
We continue to assert, as we have previously in oral testimony, that severe flooding has occurred over most of this site multiple times during the past 25 years, and is likely to continue in the future. Photographic evidence of this was provided by us to the City some years ago. Without this fact as a baseline, the EIS contains insufficiently compelling evidence to lead us to believe that development of the site will not result in additional water runoff issues during flooding episodes, the solution or mitigation for which is not adequately addressed.

The effects of additional water volumes or flows on the East Monroe site are unknown and not well understood. Our concern as 30 year residents of the area above is first and foremost potential impacts on the adjacent steep slopes. These slopes are unstable with continual sliding and movement eroding the top of the slope. Logic tells me that changing the hydraulics of the area is bound to eventually adversely affect the slope no matter how much buffer is provided. The EIS places excessive confidence in buffers in our view.

Extension of the necessary utilities to the East Monroe area for up to ½ mile will be required. We understand that the initial cost of this extension is to be borne by future developer(s). However, the additional proportional cost of maintaining these extensions, because it is likely to be shared by few if any other developments, could be substantial and is not addressed in the EIS.

Thank you for the opportunity to comment on this matter.

Robert M. Martin



Cecelia A. Martin

Cecelia A. Martin
103 Rivmont Dr E.
Monroe, Wa. 98272

Received 9-25-2015

24 Sept 15

My name is Charles Strub. My wife Susan and I have lived at 21810 Calhoun Rd since February 1971. From our property we have an excellent view of much of the parcel of land being considered for re-zone from open/agriculture to commercial.

During this time frame of 44+ years, we have seen that land flooded on four (4) occasions. While I have never measured the depth of the water during those episodes, we distinctly recall seeing someone in a rowboat traversing the area on one occasion.

With regard to slippage of the bluff; one neighbor two lots to our east and another 6 lots to the east experienced significant loss of hillside as well as another to the west of us.

The flooding and hillside loss have occurred with the combination of an early heavy snowfall in the mountains, followed by a warm spell and accompanied by heavy rains. It is foolish to assume this constellation of events will not occur again, which makes commercial development of this area a silly undertaking.

During this 44 years we've also had the opportunity to observe the significant increase in traffic on Highway 2. Accessing or leaving the property in question will require a left turn at least once; a disaster waiting to happen.

Sincerely, Charles R and Susan Strub

Charles R. Strub MD
Susan K. Strub

RECEIVED
SEP 25 2015
CITY OF MONROE

From: [David Osaki](#)
To: [Christina LaVelle](#); [Kim Shaw](#)
Cc: [Brad Feilberg](#); [Kristi Kyle](#); [Melissa Place](#); [Eilean Davis](#); [Susan Boyd](#)
Subject: FW: East Monroe - 2015 DSEIS comment
Date: Monday, September 28, 2015 8:26:39 AM
Attachments: [City of Monroe - DSEIS comments 092715.docx](#)

Tina,

Can you please print these out for hand out to the PC tonight. That would include the letter and pictures, as well as the email below.

Thanks

From: Chad [mailto:chadmc1968@gmail.com]
Sent: Sunday, September 27, 2015 9:47 PM
To: David Osaki
Cc: Geoffrey Thomas
Subject: East Monroe - 2015 DSEIS comment

Mr. David Osaki,

Attached is a document concerning the recent DSEIS for the East Monroe property of which I feel is still not adequate. I have many concerns as you can see in the attached word document. I have also attached some photographs that have been submitted in the past regarding the East Monroe Rezone. Please forward this to all those involved in the project including council members and the planning commission. Thank you.

Chad McCammon

City of Monroe

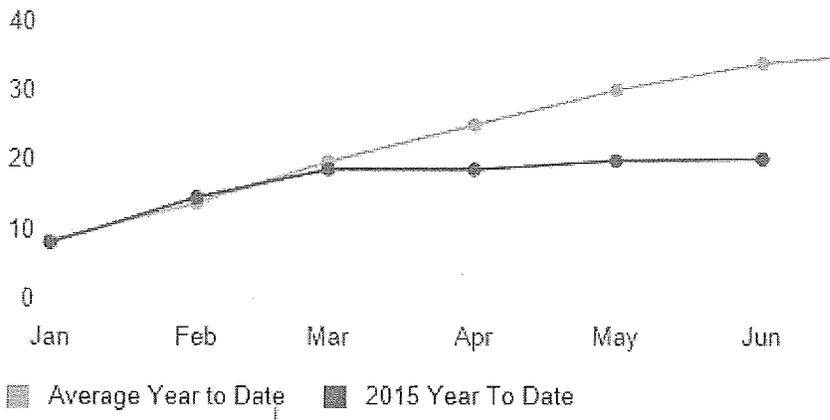
806 West Main St.

Monroe, WA 98272

RE: East Monroe rezone DSEIS

To Whom It May Concern,

I am a concerned citizen about the East Monroe rezone and recently submitted DSEIS. My first concern is that the company PACE Engineers which has prepared the statement has a vested financial interest in the property since they have filed a lien on the property. It is not apparent in the DSEIS that they have used the best available information in their research and may not be using all available information. Over the past several years the citizens of Monroe have presented many photographs of the property showing a vast majority of the property underwater during higher water levels of the Skykomish River. The photos are not of just one flooding event of the property but of many floods over the past few decades. Another item I found interesting in the wetland studies were conducted in June this year in which the average rainfall by June was about 14" below normal. The water levels are much lower than an average year as well as the water levels during the winter.



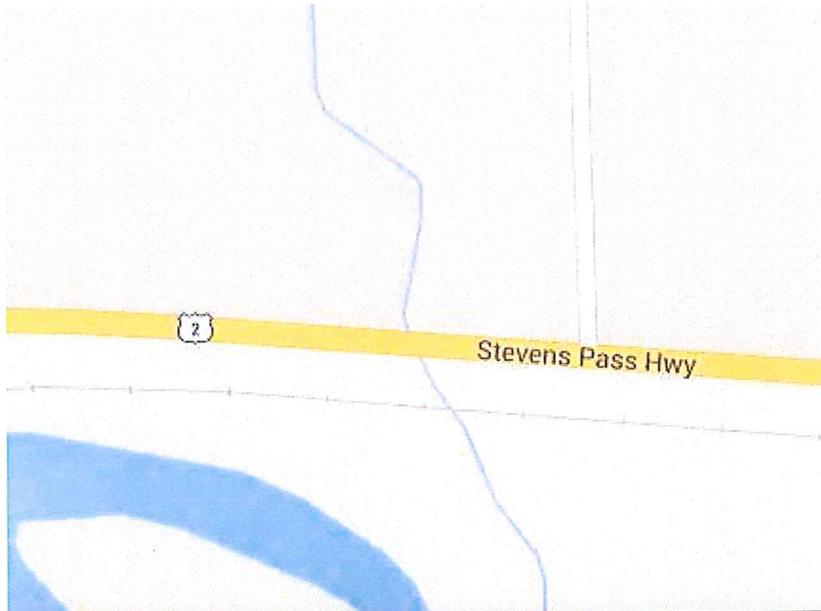
It is also interesting that the report indicates no fish were noticed in June. Salmon are not in the river this time of the year. When the Salmon run in the fall is when they would need to check for Salmon. How did they arrive at this data – just look at the water and didn't see a fish jump. The document doesn't mention any scientific data or studies. Bald eagles have nested in trees just to the South along the Skykomish River just across the highway from this site.

One of my other major concerns is the amount of taxpayer dollars that continue to be poured into this project. I would like to see a report of how many man hours of city employees this has taken. Under normal projects the landowner would bear all costs and not the city.

The report on page 9 discusses that the steep slope is characterized by thickly vegetated deciduous trees and shrubs. This is not true as it is mostly covered in blackberries except on the very Western end and

near the bottom of the bluff. This would not be known by only researching from the pasture below though. The document does not mention that any survey was done from the top of the bluff.

The document notes that no culvert was spotted on the eastern end. I am not sure how hard they looked for one but the google maps suggest the stream continues thru on both sides of the highway and railroad tracks. The vegetation is so thick it could be difficult to find and I am not confident in their statement that no culvert exists on the Eastern end.

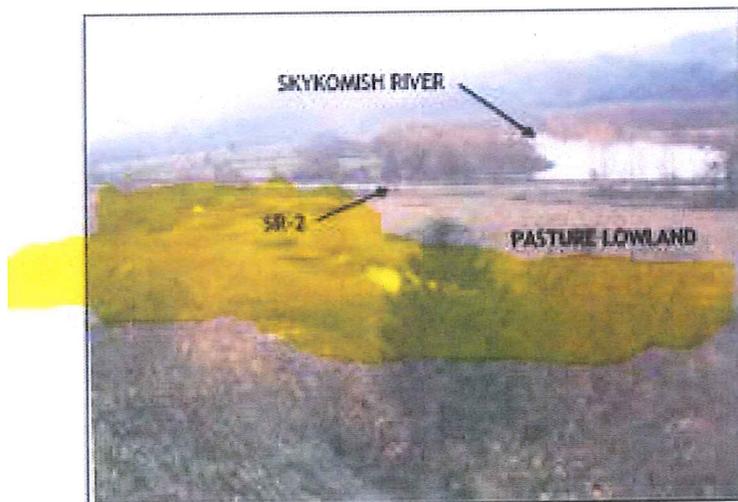




On page 55 of the report are alleged pictures taken during the 2006 storm. The pictures were obviously not during the peak water time. I had previously submitted my photos which are taken from a different angle but show the areas on the East side of the photograph underwater. I would like to see a day and time stamp from the photos. I attached photos taken during the 2006 storm. Here are some snips from my photographs.



Below is the photographs from the report which clearly were not taken on the same day or time as our photographs. The highlighted areas are dry on the report picture but underwater on our photographs.



During this event the water did go up fairly quickly and receded fairly quickly also so the report photograph could have been taken within 24 hours of our photographs. The speed at which the water filled and retreated the property is also contrary to the DSEIS findings (or should I say projections). I also find it quite interesting that the historical peaks graph used is for peak river heights near Gold Bar which as the river flows is about 14miles away. Many other rivers and streams dump into the Skykomish River in this 14 miles so the data presented is not accurate. The Snohomish River just downstream a few miles registered several other higher peak times than during the 2006 storm. Yes the Snoqualmie river dumps in at that location but if the Snoqualmie is flooding it has a tendency to back up the Skykomish into Monroe as far up as the project site but not far enough to register at the Gold Bar meter.

It appears to me that the latest attempt of the DSEIS is just to tell people what they think they will want to hear and not the entire story. I feel the latest DSEIS is still not adequate and subjects taxpayers to possible future costs to deal with poor planning if the site were ever to be developed commercially. I also feel that not much effort was put into really studying the wildlife impacts. I would also be interested to see a document stating how many on-site hours were spent to prepare the DSEIS as we have only seen people on site a couple times.

Thanks for your time to read this.

Sincerely a concerned citizen,

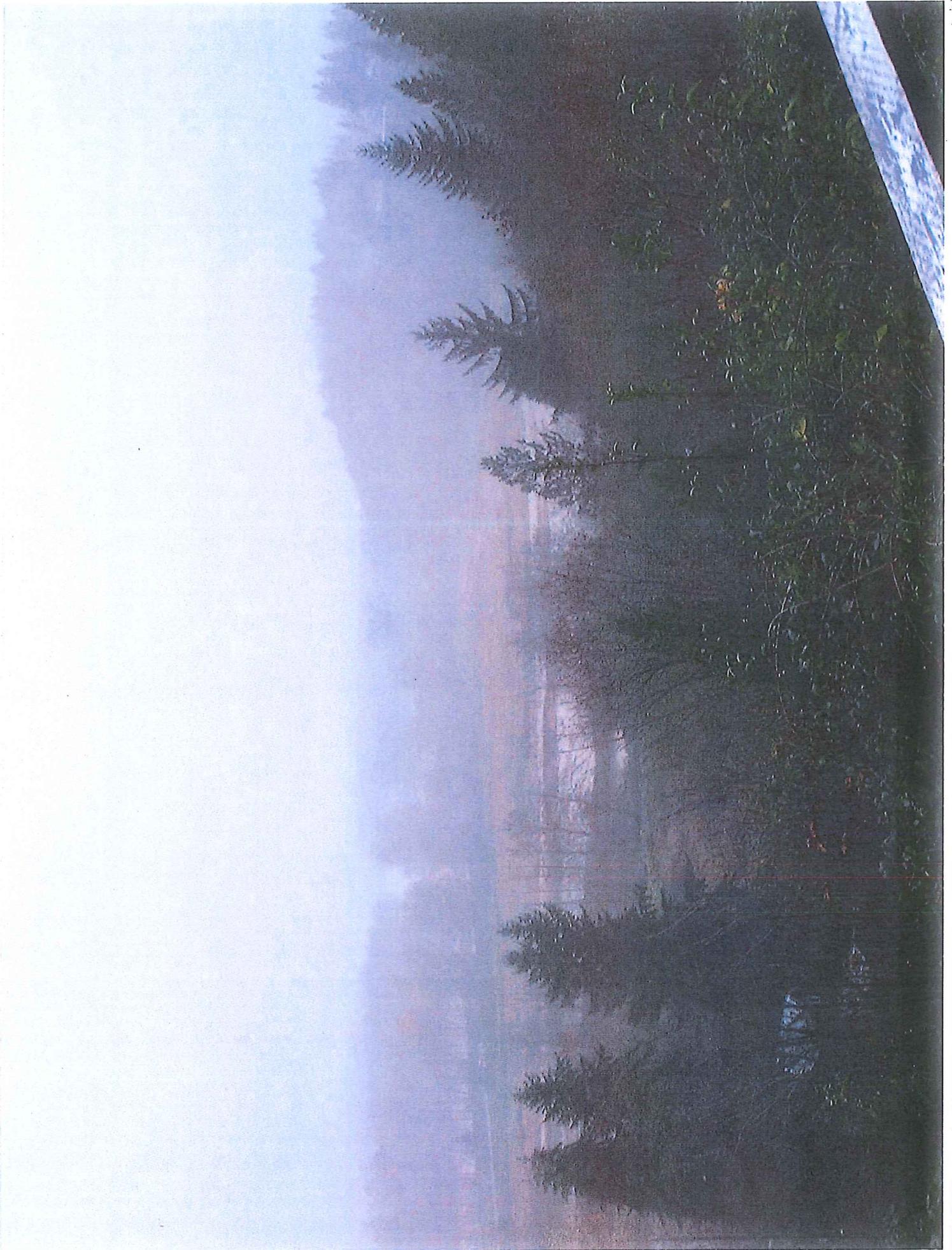
Chad McCammon













September 26, 2015

Monroe City Council
806 West Main
Monroe, WA 98272

CITY OF MONROE
RECEIVED
SEP 28 2015
COMMUNITY DEVELOPMENT

Dear Monroe City Council and other interested individuals,

As local residents and business owners, we strongly oppose the rezoning of the 43 acres of property on the east side of Monroe.

Beginning in the late 1930's and continuing through today, our family lives the rich history of farming in the Skykomish Valley. We are very conscious of the transformation of this majestic area, the Skykomish Valley that we call home. Because of this longevity in the greater Monroe area we are keenly aware of the importance of open spaces, farm land, and riparian buffers. As the land in this hotly contested issue is considered for rezone, some simply describing it as "merely changing the colors on the map", the importance to the community that open space and farmland provide cannot be ignored. The land must be considered a community infrastructure investment not simply a print color on a piece of paper.

Much of the following argument has been stated before; however it is no less important today. Perhaps one could argue that it is more relevant today than two years ago.

As the city of Monroe considers future development plans, the recognition of its vital position in relation to transportation corridors, climate, farm land and communities place the city in a unique situation. As current indicators suggest, the local and sustainable food movement is growing. The city itself supported this movement over this past summer through "The Farm to Table Farmers Market" that was located on Wednesdays in the small park at the east end of town. Responsible land use and zoning that allow for local farmers to produce products that reduce carbon footprint, support local employment, and still market products to local businesses must be supported. As we stated in a previous letter, but still relevant, the Local Farm, Food, and Jobs Act of 2013, Senate Bill 679 and House Bill 1414, encourages the creation of jobs and measures that spur economic growth through food and farms. All 50 states have farm to school programs in place and the reduction of agriculture land will reduce the effectiveness of such programs. Once paved over and built up, former ag-land is too expensive to "undo" to make farming available again.

Fallow farm land and natural or undeveloped lands provide areas for what the Natural Resources Conservation Service consider important for animal pollinators. With out these insects and animals, much of the food consumed, as much as one out of every three bites would not be available. Additionally, large animals including elk, deer, and others utilize these open spaces. Small habitat sanctuaries in a rezoned lot do not provide the same habitat for many of these species, large or small.

The greater Monroe area and Skykomish river basin pride themselves on the local fishing that draws visitors to the area; described by some as "home to some of the best salmon and steelhead fishing in the world". As the rezone is considered the argument can not be made that this land or the resulting consequences will not impact the nature of the environment. Perhaps the small amount of wetland and adjoining acreage, wildlife habitat and waterways will not significantly impact the fishing in the river. The larger concern is the precedent that is set. The change and rezone of the proposed land opens the door to future rezoning that has the potential to create one large urban sprawl from Monroe east thus compromising the environmental stability of the area.

Progress and change must occur simultaneously with the actual needs of the community and the environment. The long range consequences of rezoning this acreage must be evaluated. Good stewardship and evaluation of past land uses and current and future needs must be carefully considered.

Sincerely,
Wiard and Jean Groeneveld
Chris and Anna Groeneveld
29524 Fern Bluff Road
Monroe, WA 98272

September 25, 2015

RECEIVED

Mr. David Osaki
Community Development Director City of Monroe
806 West Main Street
Monroe, WA 98272

SEP 28 2015
CITY OF MONROE

RE: NOTICE OF AVAILABILITY DRAFT SUPPLEMENTAL ENVIRONMENTAL IMPACT STATEMENT (DSEIS) FOR THE EAST MONROE COMPREHENSIVE PLAN AMENDMENT AND SUBSEQUENT REZONE

Dear Mr. Osaki,

The intent of this letter is to request that you reconsider your position regarding this potential Comprehensive Plan Amendment and Rezone. The following is a list of substantive issues that the City should consider during the SEPA process related to this Comprehensive Plan Amendment and Rezone in order to properly inform your decision makers and the public of the environmental impact of this proposal. It is my expectation that you as part of the City's obligation to meet WAC 197-11-550 & WAC 197-11-560 will address these issues in your response to SEPA comments. In addition, I expect that this comment letter will remain in the City's record for the remainder of the East Monroe proposal process.

The FEIS contains the flaws, which resulted in a bias document based on misinformation or inadequate information that has not reasonably informed the decision makers or the public. Additional significant environmental impacts need to be evaluated before a reasonably informed decision can be reached.

To satisfy the requirements of SEPA we request the following actions:

1. As per WAC 197-11-440(5), the City should modify alternatives including the proposed action. The action alternatives should reflect a reasonable range of options. The No-Action alternative must reflect reasonably likely development under the current LOS zoning (single-family residential development at 1 home per 5 acres). This EIS needs to be re-done with a new set of Alternative: No-Action, the preferred Alternative and two (2) reasonable Alternatives to give the decisions makers and the public a realistic understanding of the potential impacts and options.
2. As per WAC 197-11-440(6), the City should utilize the existing baseline environmental conditions of the property to analysis the potential adverse impacts of the proposal (Comprehensive Plan Amendment and Rezone from LOS to GC). Re-evaluate the on-site and adjacent wetlands with the current WA State Department of Ecology 2014 Rating Forms.
3. The FSEIS must clearly identify and incorporate the zoning code, Shoreline Master Program provisions, applicable development standards of MMC to accurately reflect the maximum development scenario under each alternative (including a No-Action Alternative consistent with WAC 197-11-440(5)).
4. Clearly identify what Flood Hazard regulations are currently applicable to the subject site and evaluate potential adverse environmental impacts of the each Alternative based on

the existing regulatory framework. Floodplain **habitat** and flood storage impacts associated with allowing 100% lot coverage under GC needs to be addressed. The FEIS should be revised to accurately reflect the development potential of these parcels under the LOS zoning restrictions and GC zoning restrictions.

5. The EIS should be redrafted. The level of detail is excessive for some project components and lacking altogether for other environmental components under review. The FEIS should be reframed to answer this question - Would rezoning the property from LOS to GC have unavoidable environmental impacts that are not or could not be mitigated by the Cities other regulatory codes during the future development phase? This is not a site specific proposal under review it is an area wide rezone, that once adopted will not limited the development area to 11 acres. All the supporting documents (wetland, hydrology, geotechnical report) assume a project area of only 11 acres and caution that additional impacts are possible if additional impervious surface is added.
6. Resolve WSDOT access issue or accurately analyze the different access requirements under the LOS zoning and GC zoning based on realistic development potential for each zone.
7. With an appropriate range of reasonable Alternatives including a SEPA consisted No-Action Alternative, Mitigation Measures will be more apparent and should be incorporated into a new EIS.

Issues for Consideration

Procedural

1. **A Supplemental EIS is not the appropriate process for correcting the type deficiencies determined to exist within the previously invalidated FEIS.** A supplemental environmental impact statement is prepared if the new or amended proposal has likely significant adverse impacts that have not been analyzed in an existing EIS. The supplemental EIS adds to the analysis in an existing EIS without needing to duplicate it. In this case the original alternatives and analysis were determined to be inadequate; therefore the EIS needs to be redone not supplemented. Specifically in this case, scoping (per WAC 197-11-792) is required to re-address the Alternatives, Mitigations Measures, and Impacts Analysis; therefore the work needed to create an adequate FEIS exceeded the parameters of the SEIS process. No new draft ordinances have been issued for review, so it is assumed that no changes to the proposal have occurred. Furthermore, new information was not provided indicating that the proposal may have significant adverse impacts. In this case, the original FEIS was based on false assumptions and insufficient alternatives that were not consistent with the requirements of RCW43.21C and the Growth Management Hearings Board determined it inadequate.

WAC 197-11-405(4)

(4) A supplemental EIS (SEIS) shall be prepared as an addition to either a draft or final statement if:

- (a) There are substantial changes to a proposal so that the proposal is likely to have significant adverse environmental impacts; or*
- (b) There is significant new information indicating, or on, a proposal's probable significant adverse environmental impacts.*

Preparation of a SEIS shall be carried out as stated in WAC 197-11-620.

WAC 197-11-620 Supplemental environmental impact statement—Procedures

- (1) An SEIS shall be prepared in the same way as a draft and final EIS (WAC 197-11-400 to 197-*

11-600), except that scoping is optional. The SEIS should not include analysis of actions, alternatives, or impacts that is in the previously prepared EIS.

(2) The fact sheet and cover letter or memo for the SEIS shall indicate the EIS that is being supplemented.

(3) Unless the SEPA lead agency wants to prepare the SEIS, an agency with jurisdiction which needs the SEIS for its action shall be responsible for SEIS preparation.

WAC 197-11-792 Scope

(1) "Scope" means the range of proposed actions, alternatives, and impacts to be analyzed in an environmental document (WAC 197-11-060(2)).

(2) To determine the scope of environmental impact statements, agencies consider three types of actions, three types of impacts, and three types of alternatives.

2. **The DSEIS has selectively chosen to address only a few of the many inadequacies and errors in procedure that lead to the Boards decision of inadequacy and invalidity.** The deficiencies determined by the Growth Management Hearing Board necessitate a much more extensive overhaul of the previous FEIS than has been provided in this DSEIS. A list of other substantive issues that need to be addressed to produce an adequate FEIS are provided below:

- In response to GMA Goal (10) **Environment** the Board notes that,

Respondent declares that development of the site in compliance with applicable City regulations would actually enhance the currently degraded ecological function of the property, but the Board does not find evidence in the record to support a finding that the Property is currently in a degraded state. Further, because the FEIS (see arguments in Section Four) does not evaluate a legitimate "no-action" alternative, the Board finds no basis for the City's claim that the preferred alternative would result in enhanced ecological functions over the current LOS zoning.¹

Additional MMC analysis is needed justifying the finding that any development of the site under a Commercial zoning designation will result in enhancement of the existing ecological functions and values. A no-action alternative must be developed in accordance with RCW43.21C and WAC 197-11.

- In response to GMA Goal (3) **Transportation** the Board commented that,

While the Board does not buy Respondent's assertion that traffic impacts arising under proposed Alternative 2 would not vary significantly in comparison to development of the site under the current LOS, the underlying problem here lies with the lack of a true no-action alternative in the EIS design – discussed at length in Section Four.²

The Board found that the Petitioners had not met our burden of proof to show that the City had failed to consider RCW 36.70A.020(3), but they highlighted the underlying problem with the traffic analysis contained within the FEIS. Upon inclusion of appropriate alternatives the City needs to re-evaluate traffic impacts associated with this proposed Comprehensive Plan Amendment and Rezone.

¹ CPSGMHB Case No. 14-3-0006c, Corrected FDO, 9-19-2014, at 13.

² CPSGMHB Case No. 14-3-0006c, Corrected FDO, 9-19-2014, at 11.

- In response to **SEPA Compliance** issues the Board found,

The FEIS for the Property failed to consider meaningful alternatives to redesignation of the Property from LOS to GC because it failed to properly formulate the "no-action" alternative and assessed the impacts of the chosen alternatives in relation to each other rather than in relation to the existing conditions.³

The DSEIS formulated a "no development scenario," not a "no action" alternative. Furthermore, this DSEIS does not even address the inadequacies of the other three (3) alternatives or attempt to re-evaluate those alternatives in relation to the existing conditions rather than in comparison to each other.

- The Board found that the City failed to consider RCW 36.70A.020(10). In their consideration of GMA Goal (10) **Environment**, the Board states,

Frankly, the idea that substantially slopes above a Type I stream (currently home to endangered and listed species) while simultaneously adding tens of thousands of cubic yards of fill in order to raise the desired building site above the 100-year floodplain (which presently provides flood storage capacity) constitutes enhancement of ecological functions does more to suggest the City did NOT seriously consider GMA's environmental protection goal.⁴

- 3. The DSEIS lacks a proper Summary in accordance with WAC 197-11.** After reading both the original FEIS and the DSEIS it is often unclear that the proposal is a Comprehensive Plan Amendment and Rezone. What is the objective of the comprehensive plan amendment and rezone? Are any specific mitigation measures being proposed?

The SEPA Handbook section 3.3.4 EIS Summary Section clarifies that,

The summary section, which should be at the beginning of the EIS text, is the portion most likely to be read by decision-makers and members of the public. It should include a summation of the main issues in the EIS, including a concise description or discussion of:

- *the proposal,*
- *the proposal's objective*
- *purpose and need*
- *environmental impacts,*
- *alternatives,*
- *mitigation measures, and*
- *significant adverse impacts that cannot be mitigated.*

The summary should also identify: (1) the major conclusions and significant areas of controversy, and (2) any remaining uncertainties and issues to be resolved. The discussion is useful because it presents the proposal as a whole, rather than separated by individual element.

Matrices and charts, although not required, can be useful for summarizing alternatives, impacts and mitigation measures. See WAC 197-11-440(4) for additional detail.

In this case, the proposal is the Comprehensive Plan Amendment and Rezone, but those documents are not contained within the DSEIS or referenced in a way that the

³ CPSPGMHB Case No. 14-3-0006c, Corrected FDO, 9-19-2014, at 24.

⁴ CPSPGMHB Case No. 14-3-0006c, Corrected FDO, 9-19-2014, at 13.

public can find. It is not clear if any changes to the previous versions of Ordinances 022/2013 & 02/2013 have occurred. While at public hearings and information sessions, PACE refers to this as just a zoning map amendment, there are in fact accompanying changes to the Comprehensive Plan text.

4. **How are these GMA and SEPA documents combined?** It is unclear what combination path the City has chosen for processing the Ordinances and SEIS. Please clarify in accordance with WAC 197-11-230.
5. **The City has not cited what authority allows them to waive the local administrative appeal procedures provided for this action under the provisions of MCC 20.04.200.B.1.** The Notice of Availability prepared by the City and Draft Supplemental EIS prepared by PACE, each claim that "[t]here is no administrative appeal of the SEIS". However, WAC 197-11-680 and MMC 20.04.200.B.1 each appear to provide for an administrative appeal process for all Final EIS determinations. The City should also be aware that by not providing a local administrative appeal process, any appeals of this SEIS can be brought directly to the CPSGMHB and will likely be consolidated into the ongoing compliance proceedings associated with Case 14-3-0006c.
6. **Please consider extending the public comment period to allow the public additional time to comment on this DSEIS and consider allowing an administrative appeal process so that some of these substantive issues can be resolved at the local level rather than in front of the GMHB.** The City has requested and been granted a series of extensions to the compliance schedule for the preparation of this DSEIS from the GMHB case 14-3-006c. However, the City is now pursuing a December 1st deadline for compliance as if it cannot be amended. The City should not rush the public phase of this action. The DSEIS was released for public review and comment on August 28th 2015 and the City plans to adopt the Comprehensive Plan Amendment and Rezone prior to December 1st 2015. That allows for an approximately 3 month public process, when the City spent over a year preparing this DSEIS (July 2014-August 2015). We understand that many other members of the public, some of which attended the Public Hearing on September 23rd 2015, would like an additional 14-days to review and comment on this DSEIS. We very much support that and think the City should show the same understanding to the public that the Board has shown the City.

Substantive

1. **The Board found that "...the FEIS must properly assess the maximum development possible under the GC designation".**⁵ Limiting the "proposed Development" or "potential development" area to only 11 acres is inappropriate. This limitation is not supported by the provisions and allowances contained within MMC. This is a proposed Comprehensive Plan Amendment and Rezone that converts 43 acres of Limited Open Space (LOS) to General Commercial (GC). The DSEIS does not address why the all three (3) action alternatives involve a rezone of 43 acres if the apparent objective is to convert the 11 acres of "developable area" to commercial uses. Once rezoned to Commercial all 43 acres are developable utilizing the provisions of MMC 20.05.050 and based on the existing floodplain designation contained within MMC 14.01; therefore the DSEIS must address the entire property.

⁵ CPSGMHB Case No. 14-3-0006c, Corrected FDO, 9-19-2014, at 25.

The DSEIS attempts to address this issue in the response to Growth Management Hearing Board Decision, but it fails to provide any new information to the record to substantiate conclusionary claims.

East Monroe Comprehensive Plan Amendment & Property Rezone 2015 Draft Supplemental Environmental Impact Statement at 5:

*As noted throughout the DSEIS, the regulatory framework pertaining to steep slopes, streams, shorelines and wetlands **prohibit** development of the majority of the site. A Native Growth Protection Area (NGPA) combined with critical area designations required by the Monroe Municipal Code limits the developable area to approximately 11.3 acres **regardless of the land use development alternative.** (Emphasis added).*

Prohibit is commonly defined by Merriam-Webster⁶ as-

- : to order (someone) not to use or do something
- : to say that (something) is not allowed
- : to make (something) impossible to do

Prohibit is not the correct verb to use to describe the development restrictions that exist outside the 11 acres of identified development area on this property. The City's Critical Areas Ordinance (MMC 20.05) and Flood Hazard Management regulations (MMC 14.01) do not prohibit expansion of additional development area outside the identified 11 acres.

Based upon the Critical Area Ordinance

The CAO allows for reasonable use of the property based upon the underlying zoning. So by changing the zoning from very low intensity to very high intensity the City is opening the property to additional intrusion into the on-site critical areas and buffers as necessary to accommodate a reasonable commercial use on each parcel.

MMC 20.05.050 allows exceptions to the Cities Critical Area regulations when the applicant can demonstrate it is needed to allow a reasonable use of the property based upon the uses allowed under the zoning code. Under the existing zoning of LOS a reasonable use exception would not likely be needed or approved, but under a rezone to general commercial an applicant would be far more likely to utilize this exception criteria thereby impacting or reducing the protective buffer. The DSEIS does not include any analysis of the eligibility of an allowed use under the LOS compared to the eligibility of an allowed use under the general commercial zoning.

The DSEIS still fails to address issues with the adequacy of the alternatives analysis that go all the way back to the 2012 Hearing Examiners Decision. The HEX found that, "commercial developments that would logically locate along an arterial highway are usually land extensive and would want to maximize use of the available non-NGPA-restricted portions of the site."⁷

The Native Growth Protection Easement (NGPE) is referenced as one of the limiting factors restricting development to the 11 identified acres; however the NGPE is just a notice on title easement that restricts actions that could impact native vegetation at the discretion of the City.

⁶ <http://www.merriam-webster.com/dictionary/prohibit>

⁷ HEARING EXAMINERS DECISION – REVISED AFTER RECONSIDERATION, RE: AP2012-01, Anderson v. Monroe (August 8, 2012) at 17.

MCC 18.02.140 N Definitions

"Native growth protection easement (NGPE)" means an easement granted to the city of Monroe for the protection of native vegetation within a critical area or its associated buffer. The NGPE shall be recorded on the appropriate documents of title and filed with the Snohomish County recordings division.

MMC 20.05.070 Protection and mitigation measures.

*Subsection A. Native Growth Protection Easements. A native growth protection easement (NGPE) is an easement granted to the city for the protection of a critical area and/or its associated buffer. NGPEs shall be required as specified in these rules and shall be recorded on plats, short plats and final development permits and all documents of title and with the county recorder at the applicant's expense. The required language is as follows: Dedication of a Native Growth Protection Easement (NGPE) conveys to the public a beneficial interest in the land within the easement. This interest includes the preservation of existing vegetation for all purposes that benefit the public health, safety and welfare, including control of surface water and erosion, maintenance of slope stability, visual and aural buffering, and protection of plant and animal habitat. The NGPE imposes upon all present and future owners and occupiers of land subject to the easement the obligation, enforceable on behalf of the public of the city of Monroe, to leave undisturbed all trees and other vegetation within the easement. The vegetation in the easement may not be cut, pruned, covered by fill, removed, or damaged **without express permission from the city of Monroe, which permission must be obtained in writing. (Emphasis added).***

The DSEIS Summary concedes that, "...compensatory storage and enhancements may occur as mitigation measures within portions of the NGPA and stream buffer and wetland buffer areas.⁸ The DSEIS continues to refer to this mitigation measure as enhancement and mitigation, when although it may be necessary to provide compensatory storage mitigation it will in fact create wetland/stream buffer impact. On a site with such a complex variety of critical areas and their buffers covering nearly 75% of the 43 total acres extra care needs to be taken to ensure the mitigation intended to compensate for one impact doesn't in itself create additional impacts to another critical area.

The City's August 28, 2015 Draft Supplemental EIS does not resolve this issue and has still not seriously considered RCW 36.70A.020(10). No Monroe Municipal Code sections have been referenced that would require enhancement of the ecological functions. In fact, mitigation of any kind is only required if adverse impacts occur. Then impacts are mitigated in order to restore or provide compensatory actions to not result in a loss of functions. The City's Critical Areas regulations contained within *Monroe Municipal Code (MMC) 20.05* does not require that development proposals improve upon the existing ecological conditions.

Based upon the City's Floodplain

The limitations associated with cut/fill quantities and compensatory storage clearly do not belong in this DSEIS as they are based upon proposed 2007 FIRM Maps and not implementable by the current flood management code which regulates to the 1999 FIRM Maps. Additionally, the DSEIS focuses on flood elevations and flood storage capacity, but still neglects to recognize or analyze this proposals potential adverse impacts to the Floodplain habitat, especially as it relates to ESA listed species. The DSEIS fails to

⁸ East Monroe Comprehensive Plan Amendment & Property Rezone 2015 Draft Supplemental Environmental Impact Statement, at 5.

recognize the role of ecosystems such as the slough/stream in providing off-channel habitat and flood refuge. The compensatory storage mitigation discussed within the DSEIS does not compensate for lost refuge, recharging, and off-channel habitat functions of the reduced floodplain area. See Attachment A (NOAA Fisheries Service, *Importance of Healthy Floodplains to Puget Sound Salmon, January 2011*) and Attachment B (WA Department of Ecology, *Focus on Flood Plain Management Assistance Program, March 2008*) for additional information on this topic.

2. **The 11 acres is defined as the buildable area, but significant development will occur outside of this envelope.** However, the SEIS and original FEIS do not quantify this area. Only argues that it will not occur within the critical areas themselves (except floodplains, maybe?). This section of the EIS is misleading as it states that development is limited to 11 acres when it is acknowledged that development, as defined by MMC 14.01, 18.02, and the SMP, in the form of dredging, filling, and grading will have to occur outside the 11 acres in all three (3) action alternatives in order to accommodate compensatory storage and mitigation.

Flood Hazards 14.01.090.G and Planning and Zoning 18.02.040.D define development as,

"Development" means any manmade change to improved or unimproved real estate, including, but not limited to, buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations or storage of equipment or materials. "Development" also means subdivision of a parcel or parcels into two or more lots.

Based on that definition of development the all alternatives (except the new "no development" alternative) include development actions within the critical areas buffers and shoreline designation.

The DSEIS continues to confuse and blur the distinction between 'non-project actions' and "private project proposals". When convenient the DSEIS defers to the non-project actions provisions to explain why detailed information has not been provided, but when reviewing the range of potential impacts the DSEIS defers to this arbitrary 11 acre development envelope and refuses to acknowledge that this is a rezone effecting 43 acres not only 11.

3. **All three (3) Alternatives provided in the original FEIS and this DSEIS are the same and as such do not provide the decision makers or the public with a reasonable range of options.** This is not appropriate for a non-project policy action taken by the City. The Board noted and concluded that "...all three of the FEIS alternatives include activity within the shoreline environment on the Property to create developable area by using the area within the Urban Conservancy designation for provisions of compensatory flood storage, i.e. excavating and removing soils along the slough. The FEIS simply fails to provide alternatives that inform City Council members of the range of environmental impacts of their action."⁹

⁹ CPSPGMHB Case No. 14-3-0006c, Corrected FDO, 9-19-2014, at 25.

The Board also found that “[t]he assumption that commercial development is the goal, and therefore alternatives for more intensive development should shape the analysis, is inappropriate for a nonproject policy action.”¹⁰

The *Focused Geotechnical Hazards Evaluation, East Monroe Rezone –Heritage Baptist Church Monroe, Washington for PACE Engineering, Inc., June 10, 2015* provides the following project description:

A total of four alternatives are being evaluated for the SEIS. The “No Action- No Development” is for the project property to remain in its existing state and not be developed. The other three options include commercial development of the properties. Each of the alternatives would require placing fill pad to elevate the developed area above the 100-year elevation. We understand that the fill pad for each of these alternatives would have the same dimensions. In addition, the impervious area for each alternative would have the same dimensions... Therefore, from the perspective of geologic hazards, there are essentially only two alternatives: the No Action-No Development Alternative and a developed alternative.”¹¹

4. **The No Action Alternative in accordance with Non-project actions must include a development scenario reasonably foreseeable absent the proposed action (Comprehensive Plan Amendment and Rezone).** WAC 197-11-402 General Requirements (9) The range of alternative courses of action discussed in EISs shall encompass those to be considered by the decision maker. If the decision makers do not move forward with this Comprehensive Plan Amendment and Rezone the property will remain in LOS with its existing development potential. The No-Action – No Development Alternative included in this DSEIS is not a realistic outcome as the property owner has existing development rights under the existing zoning. The City does not have the authority to implement a No Development Alternative, so it is not within the realm of alternative courses of action that the decision makers can take.

The previous No-Action Alternative proposed within the September 2013 FEIS was also inappropriate as it was based on Conditional Use provisions for the City’s Zoning Code rather than permitted uses. The Board notes that, “[b]y formulating a ‘no-action’ alternative under conditional use provisions rather than permitted uses, the FEIS avoided a true analysis of the environmental impacts of the GC designation.”¹² The City should refer to WAC 197-11-440(5) to re-evaluate the No-Action Alternative and make adjustments to be consistent with the letter and intent of this section.

5. **The DSEIS erroneously places restrictions on the development envelope based on floodplain regulations that currently don’t apply to the property subject to the rezone.** The DSEIS still reviews potential environmental impacts and bases the “developable area” on the un-adopted 2007 FIRM maps, which placed the East Monroe property with the 100-year floodplain. However, the City has not adopted the 2007 FIRM, but rather uses the 1999 FIRM maps that place the Property in the 500-year floodplain. As such, under the existing codes the Property is not subject to the provisions of MMC 14.01 related to floodplain development.

The DSEIS has failed to evaluate the impacts allowed under the changed designation

¹⁰ CPSGMHB Case No. 14-3-0006c, Corrected FDO, 9-19-2014, at 24.

¹¹ *Focused Geotechnical Hazards Evaluation, East Monroe Rezone–Heritage Baptist Church Monroe, Washington for PACE Engineering, Inc., June 10, 2015*, at 2.

¹² CPSGMHB Case No. 14-3-0006c, Corrected FDO, 9-19-2014, at 24.

based on the provisions of MMC in effect at the time of this proposed non-project action. As PACE has pointed out, the 2007 FIRM maps may never be adopted by the City, therefore the potential environmental impacts should be analyzed based on the existing 1999 FIRM map designated 100-year floodplain or the FSEIS should include mitigated actions that require the application of the 2007 FIRM maps.

Western Board case, *Whidbey Environmental Action Council v. Island County*¹³, the Board's decision paralleled the facts of this case (emphasis added):

The [environmental] impacts that must be considered for this non-project action are the impacts that are allowed by virtue of the change in designation itself. While project level impacts may properly be deferred to the permitting stage, the **County must evaluate the impacts allowed under the changed designation at the time of that non-project action.**

According to CPSGMHB Case No. 14-3-0006c, FDO, 9/19/2014, at 13, *Respondent declares that development of the site in compliance with applicable City regulations would actually enhance the current degraded ecological function of the property,¹⁴ but the Board does not find evidence in the record to support a finding that the Property is in a degraded condition. Further, because the FEIS (see arguments in Section Four) does not evaluate a legitimate "no-action" alternative, the Board finds no basis for the City's claims that the preferred alternative would result in enhanced ecological function over the current LOS zoning. Frankly, the idea that substantially slopes above a Type I stream (currently home to endangered and listed species) while simultaneously adding tens of thousands of cubic yards of fill in order to raise the desired building site above the 100-year floodplain (which presently provides flood storage capacity) constitutes enhancement of ecological function does more to suggest the City did NOT seriously consider GMS's environmental protection goal.*

The DSEIS still seems to argue that the site is not in the floodplain while simultaneously saying that compensatory flood storage will be needed as part of any future development proposal. The City appears to be considering undated unaccredited City photos of the property as evidence that flooding didn't occur in 2006. However, residents have also provided personal photos showing the property flooding. We would like to add to that collection a newspaper article with the subject property on the front page and an accompanying photo showing the entire property underwater in the 1970's (see Attachment C). Keeping in mind that a photo of the property dry does not substantiate that flooding never occurs, while it only requires one photo of the property underwater to demonstrate that it does flood. If the City determines, as our previous Hearing Examiner and the GMHB have, that the actual occurrence or likelihood of flooding is more relevant to this review than the currently adopted floodplain designation maps, then the City must include mitigation. This EIS must address the gap in floodplain regulatory authority at this site.

6. **The existing condition is necessary as a baseline to compare each alternative's potential environmental impacts.** The existing condition is not intended to be the No-Action Alternative, as interpreted by PACE and the City. The existing conditions

¹³ *Whidbey Environmental Action Council v. Island County*, CPSGMHB Case No. 03-2-0008, FDO (August 25, 2003).

¹⁴ Respondent's Prehearing Brief at 23.

including the presents of endangered and listed species, should be acknowledged and utilized to analyze the potential impacts of each alternative including the "no-action" development potential. The Wetland Resources, Inc. *Critical Areas Study and Habitat Conservation Report for East Monroe Rezone*, as revised June 2015 does not appear to actually add any additional information or analysis. The same out dated 2013 rating forms are still attached, despite the fact that the WA Department of Ecology updated their rating forms in 2014 and has required use of these new forms for all state reviewed proposals since January 2015. WAC 197-11-440(6) ***Affected environment, significant impacts, and mitigation measures*** outlines the existing condition requirement and is provided in part below:

(a) This section of the EIS shall describe the existing environment that will be affected by the proposal, analyze significant impacts of alternatives including the proposed action, and discuss reasonable mitigation measures that would significantly mitigate these impacts. Elements of the environment that are not significantly affected need not be discussed. Separate sections are not required for each subject (see WAC 197-11-430(3)).

7. **If WSDOT access issues are not resolved prior to the Comprehensive Plan Amendment and Rezone, this action could render the site undevelopable, therefore infringing on the property owner's development rights.** WSDOT provided a serious of comments during this process, all of which are part of the City's record. It is important to note that WSDOT owns the access rights in front of the East Monroe Property, so WSDOT has final approval of any new, expanded or change in access proposals. Therefore, their business need to comment vigorously in this process is limited. WSDOT did comment that the existing access can continue for the purpose of single-family residential uses and that more intensive uses would need to work with WSDOT on a traffic plan. This section of the highway is 55mph and has been the site of many accidents (including fatal ones) in the recent past. If this Comprehensive Plan Amendment and Rezone is accomplish and WSDOT does not grant access improvements for commercial uses at this location, the site would not be developable. The WSDOT approved access is for single-family residential (which is a prohibited use under a commercial zoning designation) would be useless. And as part of the State Highway system with a limited access easement, the City does not have the authority to authorize the improvements that would be necessary to provide access to this property. This property does not have commercial access approval off SR-2.
8. **Recent Landslide was not fully investigated or properly sited and need additional evaluation for compliance with WAC 197-11-440(6).** The DSEIS attempts to address the landslide potential on and adjacent to the site, but fails to provide the level of detail necessary to achieve the clarity on the potential impacts of this Comprehensive Plan Amendment and Rezone. The geotechnical work added to this DSEIS is only reconnaissance, and did not include actual field data test pits or other site-specific information from the slope itself. The level of detail provided in the recent geotechnical reconnaissance is mostly available as public information from the WA State Department of Natural Resources (see Attachment D). The reports were based on site observations for the subject property. It was referenced that they did not have access to the slopes due to property rights issues, but access was not requested from the slope property owners and there is street right-of-way and/or easements on the slope that could be more extensively investigated.

9. **Unsubstantiated conclusions about the sites hydrology have been incorporated into this DSEIS which leads to a misrepresentation of the existing site conditions.** The DSEIS concludes, "that the 100-year flood elevation, under developed conditions, is at 65.35 feet. That is 1.7 feet lower than the flood elevation shown on the FEMA Preliminary (unadopted) Flood Maps and used in the September 2013 FEIS. Reduction of the floodplain elevation is primarily due to the lack of connectivity to the Skykomish River at the eastern (upstream) side of the stream/slough."¹⁵ This conclusion is based on field observations and an undocumented reference to BNSF maps. This apparently casual observation was then misconstrued to conclude that, "there is no connection between the stream/slough and the Skykomish River at the southeast corner of the property."¹⁶
10. **This DSEIS does not include any analysis of the Proposals compatibility with the City's Shoreline Master Program (SMP).** Portions of the subject site included in this Comprehensive Plan Amendment and Rezone are located within the Urban Conservancy (UC) environment designation. The existing LOS zoning was reviewed and determined consistent with the UC when the SMP was comprehensively updated in 2008; however this Comp Plan Amendment and Rezone also rezones the area within the Shoreline Jurisdiction and that has not been reviewed for consistency with the City's SMP. UC is generally a low intensity designation when water-oriented uses, public access/recreation, and environmental protection/preservation are given priority. The City's 2008 SMP Shoreline Restoration Plan (at 113 & 114) and the 2005 *Snohomish River Basin Salmon Conservation Plan* actually identify the subject property as one of four potential salmon recovery project sites within Monroe's boundaries. This Comp Plan Amendment and Rezone from Limited Open Space to General Commercial appears to be inconsistent with those priorities and the goals of RCW 90.58.020.
11. **Mitigation is not included.** The first step in mitigation sequencing is avoidance, then minimization, restoration and finally compensatory mitigation. This DSEIS fails to consider basic avoidance and minimization actions that could reduce the adverse environmental impact of this proposal. For example,
- Parcel D and E could be eliminated from the Comp Plan Amendment and Rezone. These two parcels are almost entirely covered in critical areas and buffer plus commercial access upgrades would need to cross the slough/stream and would likely have an adverse impact. In fact, many intrinsic impacts associated with creating a commercial ingress and egress (especially for access to Parcel D) are not even included within the development area even though commercial development could not occur on that parcel without crossing the slough itself. The existing crossing may be sufficient for single-family residential or agricultural access, but would require extensive upgrades including expansion, impervious surface and a new culvert in order to provide commercial use access.
 - The Rezone could be limited to only areas outside the floodplain, wetlands, streams and steep slopes therefore not requiring the compensatory flood storage

¹⁵ East Monroe Comprehensive Plan Amendment & Property Rezone 2015 Draft Supplemental Environmental Impact Statement, at 8.

¹⁶ East Monroe Comprehensive Plan Amendment & Property Rezone 2015 Draft Supplemental Environmental Impact Statement, at 8.

and other impacts that would likely occur within the Shoreline Jurisdiction and/or within critical areas buffers.

- The proposed action could be placed on hold pending an approved access plan.

In accordance with WAC 197-11-420 EIS preparation this SEIS "*...is the responsibility of the lead agency, but or under the direction of its responsible official...no matter who participates in the preparation of the EIS, it is the EIS of the lead agency. The responsible official, prior to distributing an EIS, shall be satisfied that it complies with these rules and the procedures of the lead agency.*" As the City's responsible SEPA official, we hope that you will take the time to review and careful consider our comments. We believe that they demonstrate that this DSEIS does not comply with WAC 197-11 and that it is still inadequate to properly inform the decision makers and the public of the environmental impacts of this proposed Comp Plan Amendment and Rezone.

For the above outlined reasons, we respectfully request that the City reconsider the adequacy of this EIS as a matter of law.

Thank you for considering these comments.

The Blair Family –

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Brandi Blair
328 S. Lewis Street, Monroe, WA 98272



NOAA FISHERIES SERVICE

For information on Puget Sound fish recovery efforts:

www.psp.wa.gov/

For information on floodplain management and the Endangered Species Act, visit FEMA's website at:

www.fema.gov/about/regions/regionx/nfipesa.shtm

The Importance of Healthy Floodplains to Puget Sound Salmon

How do floodplains contribute to healthy salmon runs?

Floodplains are vital to the health and viability of Pacific salmon runs because they provide important habitat during the freshwater phase of the salmon life cycle.

In particular, healthy floodplains contribute to the biological processes necessary for salmon survival by:

- Inundating and creating access to spawning and rearing habitat during high flow seasons;
- Allowing large woody debris to accumulate for ecologically sound, complex habitat;
- Providing off-channel areas with high abundance of food;
- Allowing younger, smaller salmon into areas where there are fewer predators;
- Providing refuge for juvenile salmon to avoid high flow volume and velocities, allowing them to rear as long as necessary and conserve energy for their entry to the ocean;
- Providing coarse beds of sediment through which flow passes, which filters nutrients and other chemicals to maintain high water quality; and
- Providing an expanded area for depositing and storing excess sediment, particularly fine sediment. This reduces the effects of turbidity on fish.

Additionally, the water storage and recharge function of floodplains ensures a source of cold water in summer months. Water seeps into the groundwater table during floods, recharging wetlands, off-channel areas, and shallow aquifers. In turn, these areas release water to the stream during the summer months. Without this recharge, flows are typically lower and water is warmer. Finally, the groundwater storage/recharge process reduces the likelihood of high-energy flood events that can scour away salmon nests during the winter months.

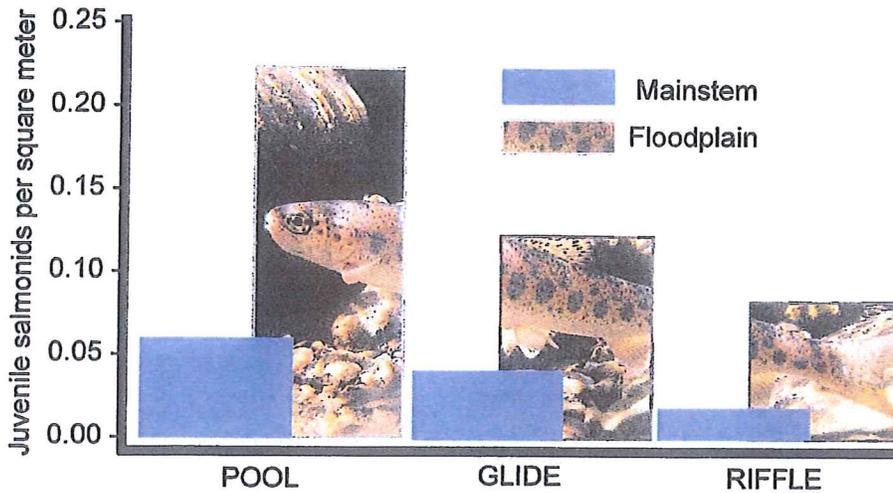
What does the best available science tell us about floodplains and their relationship to salmon?

Connectivity

Floodplain connectivity, forage, and natural cover in the form of undercut banks and backwaters are important for the long-term productivity of salmon populations. When rivers are connected to floodplains, floodwaters and channel migration are able to disperse and develop channels away from the mainstem. This off-channel habitat provides important refuge for young salmon.



Attachment A



In the lower Elwha River, juvenile salmon used floodplain habitat (pools, glides and riffles) more than mainstem habitats to grow.¹

relationship between floodplains and salmon production is pronounced. For instance, roughly 73 percent of the wetland vegetation in major deltas of Puget Sound rivers have been lost in the last 100 years. This loss of functioning habitat directly correlates to the declining status of salmon runs. However, it is one factor among many. Loss of functioning habitat in conjunction with disconnected mainstem and tributary habitat due to dam operations, unsustainable harvest practices, and hatchery operations have all contributed to the listing of Pacific salmon under the Endangered Species Act (ESA).

Rearing Habitat

Coho salmon in particular rely heavily on floodplain habitat for rearing. Juvenile coho show strong preference for pools and woody debris cover in the summer months and for side-channel and pond habitats in the winter months. But other salmon species also depend on functioning floodplain habitat. Chum salmon, for example, rely primarily on floodplain areas for spawning. Chinook juveniles use the floodplain for rearing when it is inundated.

How does development impact floodplains?

Large portions of floodplains no longer function in their natural form because they have been restructured to meet urban and agricultural needs. Development affects floodplain by disconnecting river channels from their floodplain and by destroying natural riparian upland and wetland vegetation.

There is a direct relationship between this loss of floodplain function and trends in declining salmon runs. In particular, altering the natural processes that allow habitat to form and recover from disturbances such as floods, landslides, and droughts has the following effects on salmon:

- Elimination of off-channel habitats and refuge areas;
- Increased flow velocity during flood events;
- Increased severity and frequency of peak and low flows;
- Reduced subsurface flows and groundwater contributions to the river;
- Simplified habitat complexity, due to loss of large woody debris, meanders, and side channels; and
- Reduced shade that helps to regulate water temperatures.

When viewing these effects on a regional scale, the rela-

How do functioning floodplains contribute to ecosystem health?

Currently, salmon listed under the Endangered Species Act in Puget Sound include Puget Sound Chinook salmon, Puget Sound steelhead and Hood Canal chum salmon. Functioning floodplains allow for effective habitat formation—providing refuge to salmon, increasing their energy reserves, and protecting the reproductive processes necessary for salmon recovery. To achieve recovery objectives, like adequate population distribution and genetic diversity, it is important to both preserve and restore those floodplains used by salmon.

Floodplains not only serve an important role in the freshwater phase of the salmon life cycle, but they contribute to the health of the larger ecosystem as well. Salmon, for instance, is the primary food source for numerous other species.

¹Pess, G. R., M. L. McHenry, T. J. Beechie, and J. Davies. 2008. Biological impacts of the Elwha River dams and potential salmonid responses to dam removal. Northwest Science 82 (Special Issue):72-90. Photo: John McMillan

Functioning floodplains are part of healthy ecosystems

During high water episodes, floodplains provide a vast low-water-velocity area where suspended particles fall out of the water column and are deposited. These materials are a result of higher water velocity upstream which scours the channels, cleaning the gravels and cobbles and reducing their width:depth ratio. The resulting clean gravel and cobbles are a better environment to aerate salmon eggs, to provide cover for juveniles and invertebrate forage species. The deeper, narrower stream is an ideal habitat for growing salmon and reduces solar heating. Not coincidentally, this process also contributes to excellent soil quality on the floodplains. Those superb soils support complex vegetation development.

Focus on Flood Plain Management Assistance Program



Aerial view of Chehalis River floodplain, December 2007

Assistance for Communities

As many Washington communities grow, flood plains have become desirable areas to develop. Flood plain management aims to reduce losses to life and property – while protecting the natural resources and functions of a flood plain. Communities can reduce risks with proper planning, regulations, and mitigation measures when they develop in flood plains. The Federal Emergency Management Agency (FEMA) and Washington State Department of Ecology (Ecology) can also provide assistance to these communities. The National Flood Insurance Program (NFIP) is one resource for communities with flood plain areas.

Flood Plain Management

When a community builds in a flood plain, it should:

- Adopt local land use regulations, including construction practices, based on the traits of each flood plain.
- Take steps to put planning and mitigation measures in place to offset the possible adverse effects of developing in a flood plain.
- Raise awareness among property owners and the public to help them understand the potential risks of flood hazards – and what they can do to reduce the threat to human life, safety, property, and public health

BACKGROUND

A flood plain is the flat or nearly flat land that borders a stream, river, or other water body and experiences occasional floods in typically dry areas. It includes:

- The floodway or stream channel and adjacent areas that carry higher velocity flows.
- The flood fringe or the area on either side of the floodway that floodwaters inundate, but generally flow more slowly.

Flood plains perform vital functions. They store flood waters, recharge aquifers and provide habitat for wide variety of fish and wildlife. Wet flood plain soils also can contain nutrients that provide rich, fertile farm land.

Contact information:

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National Flood Insurance Program (NFIP)

Flooding can cause great damage to dwellings, buildings and other development in a flood plain. The National Flood Insurance Program (NFIP) run by FEMA helps lower the economic effects of flooding.

NFIP lowers flood-related disaster costs by shifting the burden from general taxpayers to the property owners and businesses in a flood plain. The federal program provides coverage for flood damages not usually available on the private market.

NFIP ties insurance rates and flood plain management activities to the “base flood elevation” in each unique flood plain. Some people call the base flood elevation the “100-year flood” elevation – a term that might seem a bit misleading. A 100-year flood means that the water in a flood plain has a 1 percent chance of reaching the base flood elevation in any given year. It does not mean that a 100-year flood only happens every 100 years.

Under NFIP, local communities must adopt building and land use regulations that meet minimum federal and state standards. While the federal standards are minimum standards that apply nationally, Washington urges local governments to adopt higher standards to address the flood risks unique to their community. To get NFIP coverage, communities must agree to follow federal flood plain development rules. For example:

- Federal rules don’t allow communities to build lower than the base flood elevation. The state encourages communities to place buildings in a flood plain at least one foot above the base flood elevation level.
- Federal rules allow any method, such as compact dirt pads, concrete, rock and sand, to raise structures in a flood plain to meet the base flood elevation level. The state encourages communities to use “flow through” construction such as posts and pilings to keep flood damage to a minimum, reduce environmental impacts, and maintain flood storage capacity.
- Federal rules place no restrictions on the type of facilities that communities can build in a flood plain, such as homes, businesses and important infrastructure. A U.S. Presidential executive order prohibits federally-funded infrastructure such as government buildings, hospitals, and electrical stations from being built in flood plains – unless there are no other viable options.

Local jurisdictions with better land use controls for flood plains get lower premiums on flood insurance

December 2007 Chehalis River Flood photos



I-5 at Chamber Way exit in Centralia



Louisiana Avenue in Chehalis



I-5 at exit 81 in Centralia

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State and Federal Roles in the NFIP

In addition to managing the NFIP, the federal government conducts engineering studies and publishes maps that identify the flood hazard areas in each community. In Washington the state coordinating agency for the NFIP is the Department of Ecology (Ecology). Ecology works with FEMA and local governments to address state concerns. The state provides technical assistance to local communities regarding flood plain management issues. The state also assists FEMA by evaluating community flood plain management programs, and reviewing and approving local ordinances. Property owners must purchase and maintain NFIP insurance for any structures in regulated flood hazard areas if they have any federally-backed loans or mortgages. Policy holders can buy coverage and make claims through any licensed insurance agent handling NFIP policies.

Regulatory Measures

Local, state, and federal government develop regulations to address flood plain concerns. Communities face tough choices about developing in flood plains. In some cases, local topography, past development patterns, and other land use decisions can deeply affect how and if communities can develop in a flood plain. Local flood plain development rules can include flood damage prevention ordinances, critical areas ordinances, and building codes. Other local duties include:

- Requiring permits for all flood plain development.
- Ensuring specific measures are met regarding land alteration and construction.
- Obtaining elevation and “flood proofing” certification.
- Maintaining records
- Enforcing compliance



Home destroyed by floods in the Upper Cowlitz watershed in November 2006

Hazard mitigation

To offset the physical changes to the environment that building and development can cause in a flood plain, communities should also adopt mitigation measures to reduce potential flood damages. They should tailor these to address the specific hazard and hydrogeologic conditions in a particular area. Flood hazard mitigation can include building levees, dikes, floodwalls, dams, bank armoring, and diversion channels. Other tools also might include buying flood-prone properties, or relocating and elevating structures. Communities should base these measures on in-depth planning including creating:

- **Comprehensive Flood Hazard Management Plans** to determine the need for flood hazard management work, assess alternatives, analyze environmental impacts, evaluate problems and proposed solutions, and prioritize recommendations through Ecology.
- **Community Hazard Mitigation Plans**, which FEMA and the state Department of Military’s Emergency Management Division (EMD) require for FEMA hazard mitigation funding.
- **Flood damage reduction project feasibility studies** that involve a specific engineering analysis of an identified local condition – and the benefits and impacts of the proposed measure.

Other projects can include:

- Emergency flood-related projects. Communities should limit these to flood-related work that requires immediate action to protect public health, safety, and property.
- Hazard mapping.
- Flood warning systems.
- Bank stabilization projects.
- Purchasing property.

Federal, State and Local Assistance

FEMA and the U.S. Army Corps of Engineers (Corps) usually complete an in-depth analysis of known major flood risks after federally-declared flood disasters. FEMA and the Corps typically provide financial and technical resources, while also seeking varying levels of matching local funds. Ecology and EMD coordinate between federal and local agencies, provide technical consultation, match funding support for federal projects, and sometimes contribute significant funds for non-federal projects. Local governments provide data and site-specific expertise, labor for project implementation, and funding for the local share portion. Perhaps most importantly, local governments work to raise public awareness about flood plain hazards.

Public Awareness

Raising public awareness about local flood risks in each community is crucial. Local governments must identify the awareness needs of their citizens and coordinate with state and federal authorities to develop programs tailored to their unique flood hazard issues. Local governments can use an array of education and outreach tools, including classes and workshops, printed materials, and public service announcements. At the national level, FEMA markets its NFIP using radio and television commercials. FEMA also produces a wealth of flood plain management materials for states, communities, schools, and interest groups. Find these at: www.floodsmart.gov. Ecology and EMD help distribute these materials and also develop their own materials. They also hold meetings and workshops to help local governments meet their communities' specific needs. You can find information about flood plain management and hazards at local libraries and schools.

GEOLOGIC MAP OF THE MONROE 7.5-MINUTE QUADRANGLE, KING AND SNOHOMISH COUNTIES, WASHINGTON

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WASHINGTON
DIVISION OF GEOLOGY
AND EARTH RESOURCES
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WASHINGTON STATE DEPARTMENT OF
Natural Resources

Peter Goldmark - Commissioner of Public Lands

Attachment D

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Geologic Map of the Monroe 7.5-minute Quadrangle, King and Snohomish Counties, Washington

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INTRODUCTION

The Monroe quadrangle map presented here is the latest of several 7.5-minute scale geologic maps that comprise a years-long mapping effort to document surficial geology and structures in eastern King County and southwestern Snohomish County, a populated region that is seismically active. To further this effort, we have added detailed field observations and several types of geological analyses to existing data, including prior geologic mapping. Major sources of geologic mapping include Tabor and others (1993), Booth (1990), and Associated Earth Sciences (1999, 2002b, 2010). We have also incorporated geotechnical findings from the Washington Department of Transportation, King and Snohomish County Public Works Departments road and bridge engineering studies, and surface and subsurface information obtained by several geotechnical companies for site-specific projects, some of which are referenced below. A data supplement for this study (Dragovich and others, 2011) provides a compilation of radiocarbon, optically stimulated luminescence (OSL), and infrared stimulated luminescence (IRSL) age information for Quaternary deposits and U-Pb age data for a Tertiary tuff. It also includes new geochemical and petrographic data, as well as fault, neotectonic, potential field geophysical, and earthquake hypocenter information and further interpretation of the sedimentary provenance, stratigraphy, sedimentology, igneous petrogenesis, and tectonics of the area. To aid our geographic descriptions, we informally name the uplands covering the southeastern part of the map area the 'southeast highlands' (SE highlands)(see Fig. 3 on map sheet)—an extensive rocky upland from 'High Rock' on the northwest to Cherry Creek on the southeast. Also the finger-like upland north of the Skykomish River, southeast of Woods Creek, and area surrounding age sites OW-8 and OW-5 is informally named 'Cougar Ridge'. We follow the nomenclature of Booth (1990) for the naming of glacial features, such as Vashon proglacial lakes. We herein informally name all the faults, folds, and geomorphic features shown on the geologic map, such as the Monroe fan.

TERTIARY TO QUATERNARY DEFORMATION AND SEDIMENTATION ALONG THE RATTLESNAKE MOUNTAIN AND SOUTHERN WHIDBEY ISLAND FAULT ZONES

Fault Nomenclature, Activity, and General Structure

Geologic mapping of the Monroe 7.5-minute quadrangle is a continuation of our efforts to better understand the connection between the Rattlesnake Mountain fault zone (RMFZ), initially mapped by Walsh (1984) in the North

Bend area, with the southern Whidbey Island fault zone (SWIF). The SWIF was recently extended eastward by Sherrod and others (2008) to the Maltby 7.5-minute quadrangle directly west of the Monroe quadrangle. Dragovich and others (2007, 2009a,b,c, 2010a,b) extended the RMFZ through the Fall City, North Bend, Snoqualmie, and Carnation 7.5-minute quadrangles and correlated this broad fault zone with the SWIF of Sherrod and others (2008). Major faults of the RMFZ in the Carnation 7.5-minute quadrangle directly south of the map area include, from northeast to southwest, the Cherry Valley fault, Snoqualmie Valley faults no. 1, 2, and 3 (SVF-1, -2, -3), and Rattlesnake Mountain faults no. 1 and 5 (RMF-1, -5). The Cherry Valley fault, SVF-1, and the Cherry Creek fault zone are extended into the Monroe quadrangle. (See Dragovich and others [2007, 2009a,b,c, 2010a,b] for earlier mapping of the SVF-1 to -3, and RMF-1 through RMF-11 in the Fall City, Snoqualmie, and North Bend areas.) The northeast-trending Cherry Valley fault zone is conjugate to the northwest-trending RMFZ and likely merges with this major fault zone in the Carnation quadrangle (Dragovich and others, 2010a,b). RMF-1 is the main strand of the RMFZ and was correlated by Dragovich and others (2010a,b) with the Cottage Lake lineament of the SWIF of Sherrod and others (2008), mapped directly southwest of the map area. For the remainder of this document the correlated RMFZ and SWIF composite structure is called the SWIF.

The SWIF from Monroe to the south is likely a strike-slip fault zone and has some active or potentially active fault segments (Dragovich and others, 2007, 2009a,b,c, 2010a,b), some of which align with probable active fault strands mapped by Sherrod and others (2008) in the Maltby area west of this study area. (See Dragovich and others (2010a) for a detailed discussion of individual fault strands, including fault-strand geophysics, structure, certainty, and activity directly south of the map area.) Not all faults in the SWIF are northwest-trending strike-slip faults; reverse faults in the Carnation and Monroe quadrangles include (1) the Carnation faults of Dragovich and others (2010a,b), and (2) the informally named Monroe and Fontal Road faults (this study). These reverse faults are tentatively interpreted to be strike-slip duplex structures and are associated with flexural slip anticlines and synclines that parallel these east- to east-northeast-trending faults. This interpretation is made on the basis of (1) parallelism of these structures, (2) current north-south compression of the Puget Lowland, (3) geophysical data, and (4) limited kinematic data in subsidiary fault zones. The northerly vergence of these reverse faults in the Monroe quadrangle is opposite to the vergence of the Carnation faults to the south. This opposite vergence *may* demark a pop-up or positive flower structure within the SWIF. It is noteworthy that this pop-up occurs where bedrock is shallow or at the surface, such as along the SE highlands. Active uplift of the SE highlands via transpressional reverse faulting may explain the vertical and lateral distribution and structure of ancient Pleistocene alluvial deposits as discussed briefly below.

Current seismicity and outcrop structures indicate that the Cherry Valley fault and the Cherry Creek fault zone are probable active or potentially active structures in the Monroe quadrangle; the remaining mapped faults in the map area are potentially active or not active as discussed further in Dragovich and others (2011). For example, deformation observed in Pleistocene deposits near the Cherry Valley fault differs from the ice-shear soft-sediment deformation noted in advance lake deposits and is interpreted to be of likely tectonic origin. This northwest-trending fault was previously interpreted to be the northeastern boundary of the SWIF in the Carnation area by Dragovich and others (2010a,b). However, our more current mapping suggests that the SWIF is bounded on the north by a fault or faults that control the west-northwest trending Snohomish valley near Monroe. The 1996 Duvall earthquake epicenters (max. $M_L=5.3$) occurred in the southeastern corner of the Monroe quadrangle and originated at a shallow depth (~2–8 km) along the Cherry Creek fault zone (Dragovich and others, 2010a,b, 2011). This fault zone is an apparent northeast-trending conjugate fault to the SWIF, similar to the northeast-trending Tokul Creek fault in the Snoqualmie 7.5-minute quadrangle (Dragovich and others, 2009a,b).

Some Pleistocene deposits have distinct liquefaction sedimentary features, particularly pre-Vashon nonglacial deposits but locally including some Vashon deposits. Liquefaction is widespread and also occurs in all ancient alluvial sediments of at least three nonglacial intervals. (See 'SP' below.) The extent and intensity of bed liquefaction suggests that Quaternary tectonism is the primary disturbance mechanism, rather than landsliding or glacial ice shear, similar to conclusions of Dragovich and others (2007, 2009a,b,c, 2010a,b, 2011). Liquefaction features include sand dikes, flames, destroyed or chaotic bedding, (rootless) tight to isoclinal folding, and rare dish structures. Some of the best-exposed areas of intense liquefaction are located at significant sites 1G, 37D, 46A, 46W, 49H, and 56B (Dragovich and others, 2011). This liquefaction probably records seismic shaking in saturated ancient alluvial environments.

Pull-Apart and Inverted Basins and Ancient Snoqualmie and Skykomish River Alluvium in Pleistocene Nonglacial Units

Throughout the Snoqualmie valley, ancient Snoqualmie River alluvium representing several nonglacial intervals is pervasive, mappable, and has a vertical and lateral distribution and internal structure that imply significant tectonic control of these old river deposits within the broad SWIF. The distinct Snoqualmie River provenance (SP) of these deposits is discussed in Dragovich (2007) and Dragovich and others (2007, 2009a,b,c; 2010a,b, 2011). SP strata that are similar to modern Snoqualmie alluvium dominate older nonglacial deposits such as Olympia beds (unit Qc_o) and the Whidbey Formation (unit Qc_{ws}). During this study we discovered that Pleistocene nonglacial units in the northern part of the map area are ancient Skykomish River alluvium, which has a provenance very similar to the ancient SP alluvium. 'SP' below refers to ancient and modern alluvium with a Skykomish and Snoqualmie provenance. SP has a distinct granodiorite to granite Tertiary batholith and volcanic provenance signature with significant monocrystalline quartz (~10–20%), plagioclase, volcanic and sedimentary lithic clasts, granitic lithic clasts, and potassium feldspar and lesser, but significant, green pleochroic hornblende and biotite. The ratio of monocrystalline quartz to polycrystalline quartz is distinctly high and comparable to SP nonglacial (units Qc_o, Qc_{ws}, Qc_h, Qc_{pt}) and modern Skykomish and Snoqualmie River alluvium (unit Qa). Geochemically, SP is very similar to modern alluvium and can be distinguished from glacially derived samples because: (1) nonglacial samples have higher average major element values yet lower average SiO₂ than glacial samples; (2) nonglacial samples have higher abundances of low field strength elements (for example, Pb, Ba, and Sr); and (3) nonglacial samples have higher chondrite-normalized La/Lu ratios (Dragovich, 2007; Dragovich and others, 2010a, 2011). Both the petrography and geochemistry show that nonglacial sands are predominantly derived from an arc source, whereas glacial sands are from arc sources and older accreted sedimentary and metamorphic terranes.

We apply the growth folding, pull-apart, and inverted basin models to the structures and stratigraphic relations we observe within the SWIF and extend these structural-stratigraphic concepts to Quaternary strata. For example, a SWIF pull-apart basin is hypothesized south of the present map area where the Miocene volcanic rocks of Snoqualmie Falls of Dragovich and others (2009a,b) are likely the result of intrusion of the Snoqualmie batholith along RMF-1 around Snoqualmie, synchronous with fault-controlled basin deposition for the volcanic rocks of Snoqualmie Falls within the RMFZ strands. Much younger inversion of sub-basins was hypothesized along the length of the SWIF in the Snoqualmie valley (Dragovich and others, 2007, 2009a,b,c, 2010a,b, 2011; Littke and others, 2009) whereby the Snoqualmie River has been structurally trapped within the SWIF basins during the Pleistocene. Some of this ancient SP alluvium is anomalously thick. It is commonly tilted or broadly folded and is observed at many stratigraphic levels and variable elevated positions along the Snoqualmie and Skykomish valleys. The thickness and structural style of nonglacial SP strata suggest that they are entrained in SWIF pull-apart basins and were locally uplifted to form shortened (formerly extensional) inverted basins. The transition from transtensional to transpressional basins is indirectly evidenced by the exceptional thickness of some of the alluvial basin sediments that are now tilted, folded, and (or) uplifted in blocks between apparent subparallel faults. In this hypothesis, formerly extensional pull-apart basins are uplifted as a result of kinematic changes along the fault zone. We previously postulated that ancient SP sequences up to ~800 ft (~250 m) thick south of the quadrangle formed in fault-controlled transpressional or transtensional basins along the SWIF. In the present study area, geotechnical borings in several locations across the Snoqualmie and Skykomish valleys indicate that micaceous SP Pleistocene sands and silts with peat are 100 to 200+ ft (30–61+ m) thick (for example, Snohomish Co. Dept. of Public Works, 2002). Observations such as these beg the question: To what degree can active SWIF tectonism control the thickness, deformation, and stratigraphic geometry of ancient alluvial sediments in the area. Also, does normal river aggradation allow for alluvial deposits with thicknesses in excess of ~100 ft? Although further work is required, there seems to be a link between the activity of the SWIF strands that bound the inferred basins and the exceptional thicknesses of ancient SP alluvium. Also, our new Quaternary age information combined with outcrop structural data suggest that SP strata, such as the Olympia beds, Whidbey Formation, and Hamm Creek formation of Troost and others (2005), have been uplifted along the Monroe fault inferred along the Skykomish valley and perhaps down-dropped along the inferred Monroe syncline (Cross Section B). For example, the southerly tilt of ancient alluvium in units Qc_o, Qc_{ws}, and Qc_{pt} north of the Skykomish River is tentatively interpreted to be the result of folding along the northern limb of the proposed Monroe syncline. The age, structure, and distribution of ancient SP alluvium suggest that the Skykomish River has migrated southward since the late Pleistocene, possibly as a result of tightening of the Monroe syncline. In this model, the amount of tilting of ancient SP alluvium increases with age, and younger alluvium, such as Olympia beds (unit Qc_o), are inset against older units, such as the Whidbey

Formation (unit Qc_{WS}). Offset along the Monroe fault may be actively uplifting the SE highlands. Active uplift is suggested by the distribution and internal structure of ancient SP alluvium, the shape of the highlands and surrounding gravity isopachs, and outcrop-scale structures observed in both bedrock and Quaternary deposits. Some uplift of Olympia and Whidbey Formation SP deposits seems likely given the distribution, elevation, age and structure of these SP beds across the map area.

ISOSTATIC GRAVITY AND AEROMAGNETIC ANALYSES FOR THE MONROE QUADRANGLE

Aeromagnetic data come from a project contracted by the U.S. Geological Survey in 1997 (Blakely and others, 1999). An unpublished regional database constrains the isostatic gravity anomalies for this region. (See Anderson and others [2006] for an overview of this database.) Information on data reduction is included in the data supplement (Dragovich and others, 2011). Cross sections produce predictable magnetic and gravity anomalies, constrained by physical property measurements for units in the region (Dragovich and others, 2011). Though all of the andesitic flows of the volcanic rocks of Mount Persis are moderately to highly magnetic (Dragovich and others, 2011), the most magnetic geologic unit of the quadrangle is associated with basaltic flows in the volcanic rocks of Mount Persis (unit Ev_{bp}). These basalts are exposed coincident with one of the strongest magnetic anomalies on the map (BA on aeromagnetic map, Fig. 1 on map sheet) and predominantly control the magnetic anomalies on the map and in the models. We have interpreted that another strong anomaly in the southwest corner of the map (BF, Fig. 1) may be due to large percentages (~50%) of basalts included in the buried Mount Persis units within the Seattle basin. Based on the spatial limitation of the flows within basin accommodation spaces, we interpret the source to be generally east of the map area; flows therefore traveled long distances to be preserved in the ancient lowlands. This interpretation is consistent with the linear shape of magnetic anomaly BC (Fig. 1). This linear geophysical anomaly may reflect an Eocene tributary channel feeding these flows into the basin. Isostatic gravity anomalies largely reflect the Seattle basin deepening westward, thus the overall gradient with decreasing anomaly values to the west. Other smaller amplitude magnetic highs on the quadrangle are likely related to lithologic variations within the Mount Persis between more strongly magnetic andesitic flows and other volcanoclastic and tuffaceous components with low magnetization values. Gravity anomalies strongly support the position of the Cherry Valley fault and its role in producing a large offset on the basement rock with west side down (geophysical model A–A', Fig. 2 on map sheet), as well as the large vertical offset on the Monroe and High Rock faults (geophysical model B–B', Fig. 2). Discrete basalt flows modeled at depth on B–B' may connect to exposed unit Ev_{bp} just to the west of the line (magnetic anomaly BA, Fig. 1). Magnetic anomalies produced by offset of these units by the Monroe and associated reverse faults match our model and strengthen our interpretation of the position and offset along these faults. These large fault offsets imply that the SE highlands are a long-lived geologic feature.

DESCRIPTION OF MAP UNITS

We used the Udden-Wentworth scale (Pettijohn, 1957) to classify unconsolidated sediments, Dickinson's (1970) terminology for sandstones, and Le Maitre and others' (2002) terminology for volcanic rocks. Clinopyroxenes are collectively described as 'augite' but may include other petrographically similar varieties. We use the time scales of the U.S. Geological Survey (USGS Geologic Names Committee, 2007) and Wolfe and others (1998). Description of weathering rinds on basaltic clasts follows the methodology of Colman and Pierce (1981). Thin-section point-count data on the sand-size fractions aids differentiation of several glacial and nonglacial units. An important compositional discriminator for Quaternary strata found in these studies is the average percentage of monocrystalline quartz (Q_m) versus quartz-mica tectonite / polycrystalline quartz / chert (Q_p) versus potassium feldspar normalized to just the three-component system and shown as Q_mQ_pPF_x (Dragovich, 2007; Dragovich and others, 2009b, 2010a,b). Q_mQ_pPF_x provided below were obtained from these previous studies to the south as well as petrographic examination of 41 sand samples from the present map area (Dragovich and others, 2011). Percentages given for individual mineral or lithic grains in the unit descriptions are not normalized and represent the whole clast population.

Quaternary Sedimentary Deposits**HOLOCENE NONGLACIAL DEPOSITS**

- Qf Artificial fill and modified land (Holocene)**—Mixed earth materials, including sand and gravel fill and natural deposits that have been disturbed at major construction sites where the original strata have been significantly obscured; includes artificial fill and modified land along parts of State Routes 2 and 203.
- Qp Peat (Holocene)**—Peat, muck, and organic silt and clay, with local thin beds of tephra; loose or soft. Mazama ash is locally interstratified with Holocene peat (Knoll, 1967). Peat occurs in abandoned channels in the Snoqualmie and Skykomish River valleys, as well as in the Cherry Valley alluvial plain and in upland depressions, hummocks, and kettles over low-permeability glacial deposits. These bogs are mapped mostly using LiDAR (Light Detection and Ranging), topographic maps, aerial photographs, and previous mapping of Booth (1990).
- Qa Alluvium (Holocene)**—Sand, silt, (cobble) gravel, gravelly sand, sandy pebble gravel, peat, and organic sediments; sands are gray to yellowish green-gray, weathering orange-gray to yellowish brown; subrounded to rounded clasts; loose; well stratified and sorted; plane-bedded sands, wood debris, and detrital wood are common. The lower-energy Snoqualmie River alluvium consists mostly of sand and silt, with some clay, organic mud, and peat—typical of a meandering river depositional style. The higher-gradient Skykomish River is dominated by cobble gravel deposits—typical of a higher energy, braided river depositional style. Snoqualmie River sand (Qm₅₉₋₆₅Qp₁₂₋₂₉PF₁₂₋₂₆) contains distinct monocrystalline quartz, plagioclase, and potassium feldspar, and minor but significant mica and hornblende, and has fewer metamorphic lithic clasts, chert, and polycrystalline quartz than northern-sourced glacial deposits. These sands are compositionally similar to ancient SP alluvium in pre-Fraser nonglacial alluvium (units Qc_o, Qc_{ws}, Qc_h, and Qc_{pf}) and have a Snoqualmie batholith and Tertiary volcanic igneous signature and an intermediate, continental-arc geochemistry (Dragovich, 2007; Dragovich and others, 2007, 2009a,b,c, 2010a,b, 2011). Skykomish River alluvium is compositionally very similar to Snoqualmie River alluvium, due to the similar basin geology, and contains distinct monocrystalline quartz, plagioclase, and potassium feldspar, and minor but significant mica and hornblende. Granitic lithic clasts are significant and the provenance is strongly influenced by the Tertiary granitic to granodioritic bodies, such as the Index and Grotto batholiths (Dragovich and others, 2011). Similar to Snoqualmie River sands, the geochemistry of Skykomish River sands suggests they were derived from an intermediate, continental-arc source (Dragovich and others, 2011). Woods Creek alluvium channel deposits located in the northern part of the study area are mostly pebble gravel and gravelly sand derived from local sources. Subsurface information suggests that modern alluvium is typically thin (~10–50 ft; ~3–4.5 m thick) over much of the map area (Cross Sections A and B). Associated Earth Sciences (2001b) obtained a radiocarbon age of 1,760 ±70 yr B.P. from wood in Snoqualmie River alluvium directly south of the quadrangle near the intersection of Novelty Hill Road and Snoqualmie Valley Road (Dragovich and others, 2010a). Locally divided into:
- Qa1 Levee deposits (Holocene)**—Sand, silt, and mud; brownish gray to yellowish brown; subrounded to rounded clasts; loose; well stratified and sorted; plane bedded to ripple cross stratification common, with local bioturbation. Levees are mapped only along the current margins of Snoqualmie and Skykomish River channels where wedge-shaped accumulations of overbank flood sediments are observable on topographic and contoured lidar-based maps. Levees form at the edges of channels where floodwaters lose much sediment-carrying ability as rising floodwaters decelerate. The contact with the broad valley floodplain is inferred from the contoured lidar data where the wedge grades into the flatter floodplain.
- Qoa Older Alluvium (Holocene to latest Pleistocene)**—Cobble gravel to pebble gravel, sand and silt with minor peat, and organic sediments; sands are gray to brown; subrounded to rounded clasts; loose; well stratified and sorted; plane-bedded sands common. Older alluvium is mapped along the margins of the Skykomish valley as terraced bodies that are elevated 10 or more feet (several meters) above the floodplain and are inset against Pleistocene glacial and nonglacial deposits. Contacts are the result of field

mapping, lidar elevation information, and previous mapping by Booth (1990), who also mapped several unit Qoa bodies north of the Skykomish River in the adjacent Sultan quadrangle. We cannot distinguish between Skykomish River fluvial incision due to changes in base level or sediment input and (or) incision due to tectonic uplift as the cause of the isolation of these elevated terraces (Dragovich and others, 2011).

- Qls** **Landslide deposits (Holocene to latest Pleistocene)**—Diamicton or boulder gravel; contains minor sand or gravel beds where locally modified by stream processes; includes a few areas of thick colluvium; loose or soft; typically poorly sorted and nonstratified. Clasts are angular to subangular where derived from bedrock, but may contain mostly rounded clasts where landslides originate in Quaternary deposits. Landslides include rock falls, slump-earthflows, debris slumps, and debris flows. (See Varnes, 1978a,b, landslide classification system.) This unit may include chaotic, stratified slump blocks or debris-flow aprons originating from unstable recessional deposits perched on hillsides, particularly kames and recessional deltas. Not shown are the numerous thin debris-flow chutes evident on some steep slopes by lidar. Some landslides may be seismically induced or initiated during late Pleistocene deglaciation.
- Qaf** **Alluvial fan deposits (Holocene to latest Pleistocene)**—Debris-flow diamicton, alluvial sand and gravel, and local boulder gravel; loose; mostly poorly to moderately sorted; massive to moderately stratified. The reduced gradient where streams emerge from confining valleys causes some of the sediment load to be deposited as a fan. Deposits mapped as unit Qaf were distinguished from those in unit Qls by location and the regular lobate geomorphology of alluvial fans. Fans were partly distinguished using lidar elevation data. Some fans may have initiated as fan deltas that graded to glacial lake Snoqualmie or Skykomish at the close of the last glaciation. (See 'Monroe fan' discussed in unit Qgod.)

PLEISTOCENE GLACIAL AND NONGLACIAL DEPOSITS

Recessional Deposits of the Vashon Stade of the Fraser Glaciation

Recessional sands have a mixed local (Cascade Range) and northern metamorphic-granitic provenance. For example, most recessional sediments contain more local Cascade-provenance mélange belt and Tertiary volcanic provenance clasts, such as metasandstone, meta-argillite, metachert, greenstone, volcanic lithic clasts, amphibolite, and serpentinite, with low monocrystalline-quartz grain content and polycrystalline quartz greater than monocrystalline quartz (Dragovich, 2007; Dragovich and others, 2009b; 2010a,b, 2011). As compared to average SP strata (for example, units Qc₀ and Qa; Qm₅₆₋₅₉Qp₂₆₋₃₁PF₁₃₋₁₄), average recessional sands contain little potassium feldspar (Qm₄₁Qp₅₆PF₃) due to the scarcity of this mineral in metamorphic and plutonic rocks of the Cascades directly north and east of the map area. Their geochemistry also suggests a mixed arc and sedimentary source (Dragovich and others, 2011). Vashon deglaciation in the map area commenced about 14,000 yr B.P. along the Cascade Range foothills directly to the east, and the map area was fully deglaciated by about 13,500 yr B.P. (Porter and Swanson, 1998). The Puget lobe ice front receded across the map area in a northwesterly direction, depositing recessional ice-contact, fluvial, deltaic, and lacustrine sediments. Many of these facies are laterally and vertically gradational and commonly interfinger. During ice recession, a series of ice-marginal lakes and connecting glaciofluvial channels formed behind the retreating ice lobe; the geometry, inset relations, and elevation of these deposits reflect a general lowering of base level as lower valleys successively became deglaciated and new spillways emerged during ice recession. These spillways controlled the level of glaciolacustrine lakes and connecting channels that migrated westward and northward during deglaciation (Knoll, 1967; Booth, 1990; Porter and Swanson, 1998). Booth (1990) subdivided recessional outwash deposits into five stages of deglaciation and emphasized the importance of both ice-marginal and subglacial meltwater paths. For example, some of the small southwest-trending valleys traversing the glacial uplands may have originated as channels in subglacial tunnels. Our mapping also shows that ice-marginal meltwater followed several elevated pathways during glacial recession, depositing kame and lake sediments. Inset recessional outwash bodies are graded to a local base level that lowered over time and resulted in younger inset recessional deposits. Glacial lake Snoqualmie was an ice-dammed lake that covered Snoqualmie valley during deglaciation (Mackin, 1941; Booth, 1990; Dragovich and others, 2007, 2009a,c, 2010a,b). Glacial lakes Snoqualmie and Skykomish of Booth (1990) were two separate proglacial lakes that likely merged as ice tongues receded down the Snoqualmie and Skykomish valleys to the area near the City of Monroe.

- Qglr** **Recessional glaciolacustrine (glacial lake) deposits (Pleistocene)**—Silt, clayey or sandy silt, and silty sand, typically with scattered dropstones (stones dropped from melting icebergs); may contain lenses and

beds of sand or gravel; loose or soft; massive, laminated to thinly bedded with some varve-like rhythmites; kame lake deposits may contain some soft-sediment deformational features. Sediments mostly deposited in relatively small proglacial lakes formed in kames or other upland ice-marginal settings. Upward-coarsening sequences may begin as glacial-lake deposits (units Qglr and Qgos) and grade into overlying terrestrial deposits (unit Qgof) as a result of progradation of fluvial-deltaic complexes. Upward-fining sequences record waning lake sedimentation during ice recession.

- Qgos** **Outwash sand (Pleistocene)**—Sand and pebbly sand, with some interbeds of silty sand, silt, or gravel; sands typically dark blue-gray; loose or soft; varies from nonbedded to weakly stratified to plane bedded, laminated, and rarely crossbedded. Vertical and horizontal fining trends indicate deposition mostly as shallow-water glaciolacustrine deposits. Unit Qgos complexly interfingers with recessional lake deposits (unit Qglr), fluvial deposits (unit Qgof), and deltaic deposits or kame deltaic deposits (unit Qgod). Some unit Qgos sands coarsen upward into unit Qgod sands and gravels, and often fine downward to unit Qglr silty lake deposits due to deltaic progradation.
- Qgod** **Deltaic outwash and kame deltas (Pleistocene)**—Sandy cobble gravel, gravel, pebbly sand, and minor sand; sands are typically dark blue-gray, weathering to yellowish brown; loose; moderately to well sorted; thin to very thickly bedded and well stratified. Deltas have high-amplitude planar foreset beds graded to temporary ice-dammed lake levels. This unit includes either deltaic front portions of kames or ice-free deltas graded to varying glacial levels. Delta sediments have a distinct Cascade or local provenance similar to unit Qgof (for example, Dragovich and others, 2010a). It is common for deltaic deposits to grade laterally to bottomset beds of glaciolacustrine sand (unit Qgos) and silt or clay (unit Qglr). Gravels (unit Qgof) that cap deltas were fed by upland braided rivers, which vigorously incised the newly exposed and unstable upland surfaces. Non-kame deltas lack evidence for near-ice deposition and are thus mostly younger than nearby ice-contact deposits. The Woods Creek delta-front beds dip west to south as determined from measurements in past sand and gravel pits within Monroe (this study and Booth, 1990), and the delta is a large complex of glaciofluvial, deltaic, and glacial-lake deposits that was sourced by the early outwash channels on the Woods Creek outwash plain (unit Qgof). The complex likely prograded significantly into glacial lake Skykomish, forming a lobate delta front. Fluvial terraces on the delta top record incision as glacial lakes dropped during glacial recession. The delta complex has a persistent glaciofluvial-delta front interface at about 180 to 200 ft (55–61 m) in elevation, similar to the front interface to parts of the nearby High Rock kame complex on the SE highlands. Although conjectural, this similarity in delta tops suggests a similar age. The Woods Creek delta and High Rock kame complex might have formed a compound deltaic system that followed an ice margin occupying the northwestern portion of the Monroe quadrangle prior to glacial lake Snoqualmie merging with glacial lake Skykomish—thus the High Rock kame complex might have formed an ice-contact meltwater pathway between glacial lakes Snoqualmie and Skykomish. The varying elevation of these proglacial lakes controlled the altitude of many delta tops, recessional channels, and the distribution of most glaciolacustrine deposits. For example, it is apparent that delta tops are graded to lowering glacial lakes Snoqualmie and Skykomish during deglaciation as ice receded in a north-northwesterly direction, with delta deposits at successively lower elevations, such as in the High Rock kame complex. We suggest that the Monroe fan (~60–70 ft amsl elevation) is a subtle low-elevation deposit that graded to the final glacial lake episode in the Snohomish, Skykomish, and Snoqualmie valleys and represents the youngest Vashon glacial deposits in the quadrangle. This fan is (1) graded to a glacial lake level of about 60 to 70 ft (18–21 m)(Cross Section B), and (2) evident on lidar. The elevated Woods Creek delta is likely partially preserved as a result of the southern deflection of the Skykomish River by the lower elevation latest Pleistocene Monroe fan. This fan has been defended against Holocene Skykomish River erosion by dense Olympia beds that underlie the Monroe fan and are presently exposed along the terminus of Woods Creek. Borings and test pit observations indicate that the Monroe fan forms a coarsening upwards sequence from sands to cobble gravel as a result of latest glacial deltaic progradation into the emergent Skykomish valley. Sands along the subtle western portion of the delta front are overlain by Holocene Skykomish River overbank sediments (Associated Earth Sciences, 2000).

- Qgof Fluvial outwash deposits (Pleistocene)**—Bouldery cobble gravel, gravel, pebbly sand, sand, and rare silt; loose; moderately to well stratified; commonly contains medium to very thick subhorizontal beds, local bar or ripple crossbedding, and rip-up clasts. This unit lacks ice-contact sedimentary structures and other geomorphic and stratigraphic evidence for nearby ice deposition, although unit Qgof in the High Rock kame complex was likely ice-proximal. Unit Qgof was deposited as broad braided-river outwash sediments along valley trains (Woods Creek outwash plain) or as topset beds on deltas (unit Qgod), including the Woods Creek delta. Valley trains are typically southwest-trending recessional meltwater pathways incised into older glacial deposits. Outwash terraces and meltwater channels generally decrease in elevation to the west and southwest. Fluvial outwash terraces above deltas are due to fluvial incision as glacial lake Skykomish or Snoqualmie levels dropped. The incision, dropping lake levels, and migrating delta fronts results in compound nested deltas.
- Qgic Ice-contact deposits, undivided (Pleistocene)**—Bouldery cobble gravel with lesser diamicton, silty pebbly gravel, and (pebbly) sand and silt; loose; mostly moderately stratified and medium to very thickly bedded; variably sorted with abrupt grain-size changes common. Ice-contact primary structures include oversteepened and contorted bedding and other ice-shear or slump features producing variably dipping strata. Soft melt-out, flow, and water-laid diamictons are interstratified with granular supraglacial, englacial, and subglacial meltwater deposits observed rarely (see subglacial depositional model of Booth, 1984, 1986, 1990). The upper surface is typically hummocky and contains numerous kettle depressions, indicating sedimentation in, around, and on stagnant or active ice in moraine and pitted outwash-plain settings. Active ice recession in the Monroe quadrangle is evidenced by the general lack of ice-contact deposits with kettled and hummocky dead-ice geomorphology. Locally divided into:
- Qgik Ice-contact kames (Pleistocene)**—Sand and gravel, pebbly sand, sand, and cobble gravel, with rare lenses of diamicton (mostly flow till or melt-out till from buried sediment-laden ice blocks); sands are typically dark yellowish gray to gray; loose; moderately to well stratified and commonly medium to very thickly bedded; contains till or silt rip-up clasts, crossbedding, cut-and-fill structures, and localized oversteepened or slumped bedding. Receding ice tongues likely occupied the Snoqualmie and Skykomish valleys during recession (this study; Dragovich and others, 2010b; Minard, 1985; Minard and Booth, 1988; Booth, 1990). These elevated fluvial deposits were mapped where sedimentary structures, geomorphology, and (or) geologic setting imply lateral ice-buttressing. A wasting ice tongue impinged upon the SE highlands during ice recession, resulting in perched ice-contact deposits, such as the High Rock kame complex, veneering parts of the valley walls. Unit Qgik may include some undivided kame delta deposits. In some kames, the fluvial deposits grade laterally into or overlie divided kame deltas (unit Qgod) and (or) proglacial lake deposits (units Qgos and Qglr), forming coarsening-upward deposits.
- Qgog Outwash gravel deposits, undivided (Pleistocene)**—Bouldery pebble cobble gravel to pebbly sand; loose; massive to crudely bedded; deposited mostly as ice-contact deposits, including kame outwash bodies, but may include any of the gravelly Vashon recessional facies, including fluvial outwash. We were unable to assign a depositional environment to these gravelly recessional deposits because of their generally poor exposure. Similar to the Carnation quadrangle directly to the south (Dragovich and others, 2010b), the current map area apparently lacks the late-glacial strandlines and associated glacial lake beach deposits (unit Qgog) mapped in the Fall City and North Bend quadrangles by Dragovich and others (2007, 2009a,c).

Advance Proglacial and Subglacial Deposits of the Vashon Stade of the Fraser Glaciation

Deposits related to the Vashon Stade of the Fraser Glaciation of Armstrong and others (1965) occur widely across the study area. Glacial ice and meltwater deposited drift and carved extensive areas of the southern Puget Lowland into a complex geomorphology that provides insight into latest Pleistocene glacial processes. Throughout the map area, numerous drumlins and flutes reveal that Puget lobe ice advanced over the map area from northwest to southeast (azimuth ~140–150°). Ice advance occurred about 14,500 yr B.P. and blocked ancient rivers, creating extensive temporary ice-dammed lakes across much of the area (Mackin, 1941; Booth, 1990). The resulting glacial

lake deposits (unit Qgl_v) are widespread and complexly interlayered with proglacial river and delta sediments (unit Qgav_v). Facies relations between units Qgav_v and Qgl_v, as well as thickness and areal distribution, indicate that one or more large proglacial lakes progressively occupied significant portions of the map area during ice advance, similar to findings south of the map area (Knoll, 1967; Dragovich and others, 2007, 2009a,c, 2010b). Advance outwash (average ~Qm₄₀Qp₅₄PF₆) and lake deposits are similar to other glacial outwash deposits, are a mixture of northern and local Cascade detritus, and have a predominantly intermediate igneous provenance geochemistry with contributions from accreted sedimentary or metamorphic material (Dragovich, 2007; Dragovich and others, 2009b, 2010a,b, 2011). Sands are polycrystalline quartz-rich, polymictic sediments, typically containing significant volcanic and granitic lithic clasts, plagioclase, and metamorphic and sedimentary lithic clasts. Advance outwash contains lower amounts of monocrystalline quartz and potassium feldspar than SP deposits such as the Olympia beds (unit Qc₀, average Qm₅₅Qp₂₆PF₁₄). Bedding is common in Vashon deposits. Beds in advance outwash and lake deposits commonly have a primary dip to the east, southeast and south as a result of glaciofluvial or deltaic deposition away from the advancing ice and into temporary glacially dammed lakes or onto steep-gradient and high-energy braided streams sloping away from the advancing ice front. Thus dips of Vashon strata shown on the geologic map record subtle paleocurrent directions and primary bedding sloping away from the ice as foreset beds on deltas or the lee side of fluvial bar deposits and probably do not indicate significant tectonic tilting. This differs from the ancient alluvial nonglacial deposits (for example, unit Qc₀) which are dominated by overbank (flood) sediments having originally sub-horizontal primary bedding deposited along flat alluvial floodplains.

- Qgtv Vashon lodgment till (Pleistocene)**—Mixture of clay, silt, sand, and gravel (diamicton) with rare lenses of sand and gravel; grayish blue to very dark gray; locally slightly weathered to mottled yellow-brown; dense; matrix-supported; unsorted with disseminated cobbles and boulders in a silt-sand matrix; unstratified; locally contains a friable shear fabric as a result of ice shear. Clast types include both northern-source and local rounded to subangular clasts. Till on the uplands unconformably overlies advance deposits, older Quaternary deposits, and bedrock. This unit may contain angular clasts where directly overlying local bedrock. Basalt-clast weathering rinds are less than 0.5 mm. Till is generally about 5 to 50 ft thick (Cross Sections A and B) and was accreted at the base of Vashon ice.
- Qgav Vashon advance outwash (Pleistocene)**—Sandy (pebble) gravel, sand, and cobble gravel, with local silt interbeds; sands are typically dark green-gray, weathering to (light) yellowish brown; dense; mostly well sorted and stratified; thinly to very thickly bedded; local laminated silt interbeds and (or) rip-up clasts; contains deltaic and bar foreset beds, cut-and-fill structures, and rare ice-shear structures in some outcrops. Basalt clast weathering rinds are less than 1.0 mm. Unit Qgav_v was deposited by streams emanating from the advancing ice front and is complexly interlayered with, conformably overlies, or may locally underlie glacial-lake deposits (unit Qgl_v). Advance outwash deltas occupied parts of Skykomish and Snoqualmie valleys and prograded into smaller proglacial lakes along the southeastern part of the SE highlands with distinct deltaic foreset beds mapped in the area northwest of Johnson Swamp and Lake Fontal. Advance outwash may include some fluvial-deltaic kame sediments deposited between advancing ice and restrictive highlands and is overlain by Vashon lodgment till (unit Qgtv) along a sharp contact. Composite sections of fluvial-deltaic advance outwash and glacial-lake deposits are fairly thick in the Snoqualmie and Skykomish valleys where fluvial-deltaic deposits prograded into proglacial lakes during ice advance. Radiocarbon ages from south to southwest of the map area are 14,500 ±130 yr B.P. (Associated Earth Sciences, 2003; Dragovich and others, 2007) and 14,450 to 14,560 yr B.P. (Porter and Swanson, 1998). Local and regional radiocarbon ages for the older Olympia beds (unit Qc₀ and Qc_{0l}) provide additional age constraints (for example, Dragovich and others, 2010a, 2011).
- Qglv Vashon advance glaciolacustrine deposits (Pleistocene)**—Silt, clayey silt, pebbly silt, and diamicton; typically contains scattered dropstones and beds or lenses of massive diamicton that may be iceberg melt-out till or flow till; stiff or dense; stratification and sorting variable; varies from massive to thinly bedded, laminated, or varved. Some lenticular diamicton beds in unit Qgl_v have a till-like appearance. Several exposures are mostly diamicton with thin, wispy interbeds of silt or laminated silt and fine sand. Some outcrops contain contorted or folded bedding and rare sand dikes. Folded sand and silt beds at significant sites 25M and 27C are likely the result of glacial ice shear. Conversely, distinct sand dikes that intrude unit Qgl_v beds of diamicton, pebbly silt, and gravel observed at significant site 3C may be the result of

earthquake liquefaction. Basalt clast weathering rinds are less than 0.5 mm. Unit Qgav typically overlies unit Qglv regionally, but unit Qgav underlies thick successions of unit Qglv in some areas; in other areas the two units are complexly interbedded. Unit Qglv includes some of the transitional beds of Booth (1990) and correlates with the Lawton Clay mapped elsewhere in the Puget Lowland.

Deposits of the Olympia Nonglacial Interval

Qc₀ **Olympia beds of Minard and Booth (1988), Snoqualmie and Skykomish River provenance (Pleistocene)**—Sand, sandy silt, silty sand, and silt, with some clay, organic silt-clay, and minor peat; gravel beds are more common in ancient Skykomish alluvium (see below); typically yellowish brown-gray to grayish brown with distinctive orange-gray oxidation; dense; laminated to very thickly bedded and well stratified. Unit Qc₀ contains charcoal, disseminated detrital organic matter, trough and ripple crossbedding, graded beds, sand dikes, chaotic or folded bedding, and flutes with rare dish structures. Thick exposures of orangish well-bedded sand and silt (fluvial overbank deposits) that form thick, upward-fining pebbly sand–sand–silt sequences typical of meandering river systems are the norm. Lenticular beds of sand and gravel represent channel deposits; some exceptionally thick beds of sand are probably fluvial levee or splay overbank deposits. Unit Qc₀ is the “ancient Snoqualmie River alluvium” (Qm₄₀₋₈₂Qp₁₀₋₄₆PF₈₋₂₆) of Dragovich (2007) and Dragovich and others (2007, 2009a,b,c, 2010a,b, 2011). Ancient Skykomish River alluvium is mapped in the Skykomish valley around the city of Monroe and areas to the east, and is compositionally and geochemically very similar to ancient Snoqualmie River alluvium (Dragovich and others, 2011). Compared to glacial deposits, ancient river deposits of the Snoqualmie and Skykomish Rivers alluvium contain more potassium feldspar (up to ~10%) and limited amounts of polycrystalline quartz, and have the same SP signature as units Qc_{pf}, Qc_{ws}, and Qc_n. Sands from this unit are geochemically dacitic to rhyolitic and were predominantly derived from an intermediate to slightly primitive arc source with minor mixing from older accreted sedimentary and metamorphic sources (Dragovich and others, 2010a,b, 2011). Olympia bed sands at age site 24D on the northeastern part of the SE highlands contain a higher percentage of more diverse lithic grain types and slightly more serpentinite, metasedimentary lithic clasts, and polycrystalline quartz, suggestive of mixing of ancient Skykomish River alluvium with alluvium derived from the Western mélange belt to the east. We suspect these beds incorporated older Quaternary sediment as the ancient Skykomish River incorporated emerging local highlands detritus. Other beds at this site contain the distinctive ancient Skykomish River composition, with significant monocrystalline quartz, potassium feldspar, and minor but significant hornblende and mica. Multiple Olympia bed ages from 17,150 yr B.P. to >44,020 yr B.P. were obtained previously by Associated Earth Sciences (2001a, 2002a, 2004, 2007) and Dragovich and others (2007, 2009a,b,c, 2010a,b) in quadrangles south of the map area, including the Carnation 7.5-minute quadrangle directly south of the quadrangle. These beds have a distinct SP composition and were assigned to the Olympia nonglacial interval (~15–60 ka). We have obtained several new radiocarbon ages in the present quadrangle, including ages of 17,500 ±80 yr B.P. and 19,920 ±130 yr B.P. from age site 56A. We also obtained radiocarbon ages of 18,703 ±110 yr B.P., 24,790 ±170 yr B.P., and >43,500 yr B.P. from age sites 50H, 49E, and 24D, respectively. Finally, we obtained two infrared-stimulated luminescence (IRSL) ages of ~50,500 and 51,500 yr B.P. (50.5 ±3.53 and 51.5 ±3.84 ka) from age sites 24A and 24D near Monroe and along the northeastern slope of the SE uplands. Unit Qc₀ within the SWIF to the south of the area is locally folded and uplifted into ‘inverted basins’ (Dragovich and others, 2010a; Littke and others, 2009). Similarly, the distribution of Olympia bed ages around the Skykomish River, combined with the structural geometry and elevation of these beds, suggests uplift of unit Qc₀ along the proposed Monroe fault. In this scenario, the elevation difference between ancient Skykomish River alluvium (unit Qc₀), exposed along the present river and perched along the northeastern slopes of the SE highlands, is at least partially the probable result of folding and uplift across the tentatively mapped Monroe fault, suggesting a potentially active structure. The orientation of bedding in pre-Fraser SP deposits in the area north of the Skykomish River indicates that these units are tilted to the south, perhaps as a result of folding around the proposed Monroe syncline. Bedding in these ancient alluvial sediments was originally horizontal, likely deposited on the floodplain as overbank material during floods. We believe the measured southerly tilt is the result of tectonism. (See persistent southerly dipping strata in units Qc₀, Qc_{ws}, and Qc_{pf} north of the Skykomish River on the geologic map.) Olympia beds include some of the transitional beds of Booth

(1990) and correlate with the deposits of the Olympia nonglacial interval of Pessl and others (1989). (See “Pull-Apart and Inverted Basins and Ancient Snoqualmie and Skykomish River Alluvium in Pleistocene Nonglacial Units” above and Dragovich and others [2007, 2009a,b,c, 2010a,b, 2011] for more information.) Locally divided into:

Qc_{ol} **Olympia beds of Minard and Booth (1988), local provenance (Pleistocene)**—Silt, sand, and (pebble) gravel, with some peat and organic sediments, including paleosols; dense; thickly to thinly bedded and well stratified and sorted. Unit Qc_{ol} sediments were mapped only on Cougar Ridge in the northern part of the map area, but this thin unit may be present in the subsurface in other parts of the quadrangle. Sands encountered in boreholes on Cougar Ridge contain significant numbers of lithic mélange belt grains of metamorphic and Tertiary volcanic provenance, including metasandstone, meta-argillite, and greenstone. This detritus is eroded and recycled from nearby older glacial and nonglacial units and bedrock, and has a provenance that is petrographically distinct from the SP provenance described for unit Qc_o. The geochemistry of unit Qc_{ol} sediments in the Carnation quadrangle (Dragovich and others, 2010a) is consistent with our local-source interpretation for these lithic-rich deposits. Unit Qc_{ol} sediments were deposited in alluvial, alluvial fan, and swamp settings, and likely represent small ancient-tributary basin deposits of limited extent. A similar local geologic setting was envisioned for Redmond Ridge southwest of the Monroe quadrangle in the westernmost part of the Carnation quadrangle and the easternmost part of the Redmond 7.5-minute quadrangle where several finite radiocarbon ages (n = 11) were derived from similar unit Qc_{ol} strata. Radiocarbon ages in that area ranged from 29,730 ±260 B.P. to 45,540 ±1,930 B.P., but also include several infinite radiocarbon ages (n = 19) (Saltonstall and others, 2003; Associated Earth Sciences, 2001a,b, 2002a, 2004, 2007; Dragovich and others, 2010a,b). In the present study area, a thin (~10 ft; 3 m) sequence of unit Qc_{ol} strata underlies recessional and advance outwash (units Qg_{of} and Qg_{av}) and overlies probable Possession glacial deposits (unit Qg_{lp}) on Cougar Ridge (Associated Earth Sciences, 1999). We obtained radiocarbon ages of 23,090 ±110 yr B.P. and 38,660 ±390 yr B.P., respectively, from age site samples OW-8 and OW-5 at respective geotechnical drill hole sample depths of 75 and 35 ft (23 and 11 m) (Dragovich and others, 2011). The contact between the Olympia beds and Possession glacial deposits appears to dip to the south as a result of either original paleogeography and (or) tectonic tilting on Cougar Ridge.

Deposits of the Possession Glaciation

Qg_{lp} **Glaciomarine and glaciolacustrine deposits (Pleistocene)**—Silt, silty clay, and silt with scattered gravel (dropstones) and lesser sand and diamicton; hard or dense; moderately to well sorted and typically massive or moderately stratified, with laminations common (Associated Earth Sciences, 1999). Diamictons and silts with scattered gravels encountered in boreholes on Cougar Ridge are probable glaciomarine drift (reacts with HCl). These deposits are probable ice-distal marine deposits with dropstones. Unit Qg_{lp} lies below Olympia beds dated in the subsurface at 23,090 ±110 and 38,660 ±390 yr B.P. (See unit Qc_{ol} above.) Possession glacial deposits were also mapped in the Carnation quadrangle directly south of the present map area by Dragovich and others (2010a,b) and Associated Earth Sciences (2004 and 2007).

Whidbey Formation

Qc_{ws} **Whidbey Formation, Snoqualmie and Skykomish River provenance (Pleistocene)**—Sand, silt, and silty sands with lesser pebbly sand, clay, gravel, organic sediments including peat, and lesser lenses of (cobble) gravel; sands are yellow-gray or brown and weather to a distinctive orange-gray; dense or hard; well sorted and stratified; mostly occurs as laminated to thickly bedded sands and silts with thin beds or laminae of clay locally; commonly plane bedded; may contain charcoal, disseminated organic matter, trough and ripple crossbedding, graded beds, flutes, flames, sand dikes, and dish structures; folds and chaotic bedding are evident in liquefied areas. These SP sands are generally lithic poor and contain abundant monocrystalline quartz (~20%) with lesser but significant potassium feldspar, granitic lithic

clasts, hornblende, and mica similar to units Qa, Qco, Qch, and Qc_{pf}. Geochemically, they were predominantly derived from an intermediate arc source with minor sedimentary or metamorphic input (Dragovich and others, 2010a,b, 2011). Sands microscopically appear to be more weathered at some sites (for example, age site 24E) than the younger nonglacial sands. We obtained an IRSL age of 123 ± 8.24 ka ($\sim 123,000$ yrs B.P.) at age site 24E north of Monroe. The position of the unit along the northern limb of the Monroe syncline, combined with outcrop structure and distribution of the nonglacial SP, suggests that the younger Olympia beds are inset against the Whidbey Formation along the northern limb of this syncline (Cross Section B). We also obtained OSL ages of 101 ± 4.47 ka and 107 ± 9.87 ka at age sites 25A and 25B, as well as radiocarbon ages of $40,000 \pm 350$ yr B.P. and $>43,500$ yr B.P. at age sites 22A and 25A from thick, crossbedded ancient SP sands and pebbly sands that underlie advance outwash in the Cadman quarry on the western SE highlands (Dragovich and others, 2011). The finite age of $40,000 \pm 350$ yr B.P. is interpreted to be the result of contamination by modern organics. We correlate these strata with the Whidbey Formation ($\sim 80,000$ – $130,000$ yr B.P.) on the basis of age, composition, and stratigraphic position. This ancient Snoqualmie River alluvium is elevated (410 ft or 125 m a_{psl}) and likely has been uplifted by offset along the Cherry Valley and (or) Monroe faults. Ages of ~ 122 to 128 ka were obtained from unit Qc_{ws} in the Carnation quadrangle. (See Dragovich and others [2007, 2009a,c, 2010a,b] for previous mapping and dating of the Whidbey Formation south of the Monroe area and Capps and others [1973] for mapping of the Whidbey Formation directly west of the Monroe map area.)

Deposits of the Double Bluff Glaciation

Qgt_d Double Bluff till (Pleistocene)—Dominantly diamicton; very dense and massive. Basaltic clasts have distinct 1 to 2 mm weathering rinds. This older till is overlain by probable Whidbey Formation sands and silts with a distinct southerly tilt in a steep ravine north of Woods Creek in the northernmost part of the map area. We obtained an age of 123 ± 8.24 ka at age site 24E for the overlying unit Qc_{ws} sediments west of the ravine. A correlation with the Double Bluff Drift (~ 130 – 180 ? ka) of Easterbrook and others (1967) is made on the basis of this age and the moderate weathering characteristics of the till, analogous to the probable Double Bluff Drift in the Carnation area where Dragovich and others (2010a,b) dated similar overlying unit Qc_{ws} strata to 122 to 128 ka. Unit Qgt_d tills are distinctly less weathered than some older glacial tills in the Snoqualmie valley south of the map area, such as unit Qgd_{pd} of Dragovich and others (2010b), tills in unit Qgn_{pf} of Dragovich and others (2009a,b), or old glacial deposits described in Booth (1990).

Deposits of the Hamm Creek Formation of Troost and Others (2005)

Qch Hamm Creek formation, Snoqualmie and Skykomish River provenance (Pleistocene)—Sand, silt, and silty sands, with lesser pebbly sand, clay, organic sediments including peat, and lenses or beds of gravel; sands are weathered to a distinctive orange-brown; dense or hard; well sorted and stratified; mostly occurs as laminated to thinly bedded sands and silts; may contain charcoal, disseminated organic matter, crossbedding, and graded beds; beds are disrupted, folded, and extended, as a result of moderate to intense liquefaction similar to other ancient SP units in the map area. Sands are lithic poor and contain abundant monocrystalline quartz ($\sim 20\%$) with lesser plagioclase and potassium feldspar and some polycrystalline quartz and lithic clasts. Fine sands and silty fine sands contain minor but significant hornblende and mica similar to other ancient (units Qco, Qc_{ws}, and Qc_{pf}) and modern (unit Qa) SP sands. Unit Qch sand geochemistry suggests they were predominantly derived from an intermediate to slightly primitive arc source (Dragovich and others, 2011). Sedimentary structures, stratification style, and provenance indicate that the unit was deposited as ancient alluvium. Unit Qch is exposed in the core of a syncline on the northwestern edge of the SE highlands south of the Monroe fault, where the unit is inferred to be about 100 ft (30 m) thick (Cross Section B). In this case, the unit may represent another inverted basin within the broad SWIF (Dragovich and others, 2007, 2009a,b, 2010a,b). We obtained an IRSL age of 233 ± 10.9 ka ($\sim 233,000$ yrs B.P.) at age site 24B. Sands and silts at this site are intensely liquefied and display rootless isoclinal folds. Similar intensely liquefied nonglacial beds to the southeast of age site 24B at significant site 46A are also assigned to unit Qch, suggesting that the unit is tilted to the north and likely broadly folded south of the Monroe fault (Dragovich and others, 2011). We also obtained an OSL age of >155 ka from age site 24C, which is directly south of the Monroe fault and which we

tentatively correlate with unit Q_{Ch}. We correlate these nonglacial strata with the Hamm Creek formation of Troost and others (2005) on the basis of age and their nonglacial sedimentary character. The Hamm Creek formation is presently mapped by Troost and others (2005) southwest and west of the Monroe area in southwest Seattle, Redondo, and in Snohomish County. They indicate that the formation was deposited during the marine isotope stage 7 interglacial episode, which spans 188 to 243 ka (~188,000–243,000 yrs before present) (Morrison, 1991), although this warmer interval might have a short glacial or cooler interval from ~219 to 233 ka (~219,000–233,000 yrs before present).

PRE-FRASER GLACIAL AND NONGLACIAL DEPOSITS

- Q_{Cpf} Pre-Fraser continental nonglacial deposits, Snoqualmie and Skykomish River provenance (Pleistocene)**—Sand, silt, clay with some organic silt-clay and peat, lesser pebbly sand and gravel, and rare cobble gravel deposited prior to the Fraser Glaciation; sands typically yellow-brown-gray, weathering to a distinctive orange-gray or light yellowish brown; dense; laminated to very thickly bedded and mostly well stratified; may contain charcoal, disseminated organic matter, trough and ripple crossbedding, and graded beds; liquefaction features are observed in most outcrops and include sand dikes and flames; distorted or destroyed bedding is evident in liquefied areas (Dragovich and others, 2011). Petrographic inspection of several sand samples reveals that the deposits contain significant monocrystalline quartz (20–25%), potassium feldspar, and lesser but significant hornblende, mica, and granitic lithics similar to the other SP units, including modern Skykomish and Snoqualmie alluvium (Dragovich and others, 2011). Geochemically, they were predominantly derived from an intermediate arc source with minor sedimentary or metamorphic input (Dragovich and others, 2010a,b, 2011). Similar to the Carnation quadrangle directly south of the map area (Dragovich and others, 2010a,b), unit Q_{Cpf} is tentatively inferred to be up to ~500 ft (~150 m) thick on Cross Section A where thick successions of sand and silt with some clay and a few beds of gravel are tentatively correlated with unit Q_{Cpf}. Exploration borings penetrated peat, wood, sticks, and logs, indicative of nonglacial deposition, and generally lack reports of the diamicton, hardpan, or thick beds of coarse (cemented) gravels that are commonly correlated with glacial intervals. Similar to modern Snoqualmie River deposits, stratigraphic style and the dominance of sands and silts suggest deposition as thick fining-upward gravel-sand-silt sequences typical of meandering river systems, where thick successions of thinly bedded sand and silt likely represent overbank deposits. Unit Q_{Cpf} deposits compositionally match ancient SP alluvial units and thus are likely correlative with units such as the Olympia beds (unit Q_{Co}), Whidbey Formation (unit Q_{Cws}), or the Hamm Creek formation (unit Q_{Ch}). We obtained a radiocarbon age of >43,500 yr B.P. from unit Q_{Cpf} strata on the Snoqualmie River (sample site 690 ft west of age site 28D in the Maltby quadrangle) (Dragovich and others, 2011). The silts and sands at this site are intensely liquefied as well as fractured (Dragovich and others, 2011). We suspect these deposits were deformed by Quaternary offset along the Cherry Creek fault, which projects to near this site and appears to align with fault scarps and lineaments mapped by Sherrod and others (2008) along the southwestern slopes of Lords Hill in the western Maltby 7.5-minute quadrangle.
- Q_{gnpf} Pre-Fraser glacial and nonglacial deposits, undivided (Pleistocene to Pliocene?)(cross sections only)**—Mostly (boulder) gravel, sand and gravel, sand, silt, clay, diamicton, and some wood or peat; dense to very dense. The few wells or boreholes that penetrated this undivided geologic unit encountered diamicton or hardpan suggestive of significant glacial strata. However, available data are limited and can only be used to suggest undivided glacial or nonglacial deposits with limiting ages depending upon the inferred local stratigraphic arrangement. For example, unit Q_{gnpf} is locally overlain by unit Q_{Co} on Cross Section B and thus is demonstrably older than the Olympia nonglacial interval below much of the city of Monroe. Dragovich and others (2007, 2009c, 2010a,b), Booth (1990), and Knoll (1967) also describe older glacial and nonglacial deposits elsewhere in the Snoqualmie valley area, including the highly weathered tills and outwash in unit Q_{gnpf} of Dragovich and others (2009a,b) south of the map area.

Tertiary Volcanic and Sedimentary Rocks

Mvc **Volcanic and sedimentary rocks (Miocene)(cross sections only)**—Nonmarine volcanic to tuffaceous sandstone, pebbly sandstone, volcanic to polymictic conglomerate, tuff, claystone, siltstone, and lignite; may locally contain volcanic breccia or agglomerate with some petrified logs. Pebbly sandstones and lithic vitric lapilli tuff are exposed on High Bridge Road directly west of the quadrangle. The dark gray-green vitric lapilli tuff is composed of andesite and dacite, plagioclase, pumice, and a few scattered exotic grains of polycrystalline quartz and sedimentary lithic grains set in a matrix of volcanic glass. The poor sorting, angularity of most grains, high proportion of volcanic grains, and glassy matrix suggest deposition as a pyroclastic flow. Dragovich and others (2010a,b) obtained a $^{206}\text{Pb}/^{238}\text{U}$ zircon age of ~18 Ma from a lapilli tuff sample (located 800 ft [244 m] west of age site 09-54Z) in the Maltby quadrangle. The age indicates the sample is Miocene and, given the pyroclastic nature of the deposit, is likely a distal equivalent of the volcanic rocks of Snoqualmie Falls (18–23 Ma) of Dragovich and others (2009a,b) mapped southeast of the sample site. Very thickly bedded pebbly sandstones that crop out near the lapilli tuff contain about 95 to 98 percent subrounded andesitic clasts with a few grains of plagioclase, polycrystalline quartz, and greenstone. The bedding style suggests deposition in a fluvial setting. We petrographically examined other fluvial volcanic sandstones cropping out in the easternmost part of the adjoining Maltby quadrangle. These deposits are similarly volcanic-clast-rich (20–90%) with some plagioclase, monocrystalline quartz, and sedimentary lithic grains. Minard (1985) tentatively assigned these fluvial deposits to the Blakeley Formation (see unit $\text{\textcircled{E}c}$ below). However, given the similar stratigraphy and composition to the fluvial sandstones near the 18-Ma tuff site, we suspect that some of the sedimentary rocks along the eastern part of the Maltby quadrangle are Miocene and not correlative with the Blakeley Formation. Because stratigraphic relations are similar to those in the Carnation area (Dragovich and others, 2010a,b), we infer that: (1) unit **Mvc** overlies the Blakeley Formation on Cross Section A and is preserved in a SWIF synclinal basin in the Snoqualmie valley between the Cherry Valley fault and Snoqualmie Valley fault no. 1; (2) distal Miocene volcanic and volcaniclastic deposits are preserved in other restricted strike-slip basins of the SWIF; and (3) Miocene deposits exposed along the eastern part of the Seattle basin are predominantly fluvial volcanic sedimentary deposits with interbedded volcanic rocks related to nearby volcanic centers (Dragovich and others, 2009a,c; Littke and others, 2009). Unit **Mvc** may be chronostratigraphically equivalent to the volcanic rocks of Snoqualmie Falls of Dragovich and others (2009a,b) directly south of the map area and the nonmarine Blakely Harbor Formation of Fulmer (1975) near Seattle. Some of the Miocene ages southwest of the map area include hornblende K-Ar ages of 9.3 to 14.7 Ma (Yount and Gower, 1991) and an Ar-Ar laser fusion age of 11.40 \pm 0.61 Ma (Dragovich and others, 2002). (For a more regional context of similar Miocene rocks south and southwest of the present map area, see Dragovich and others [2002, 2007, 2009a,b,c, 2010a,b]).

$\text{\textcircled{E}n}$, $\text{\textcircled{E}c}$ **Blakeley Formation (Oligocene to latest Eocene?)(cross sections only)**—These two subunits are inferred to be separate depositional facies in the subsurface. Unit $\text{\textcircled{E}n}$ includes (tuffaceous) sandstone, pebble conglomerate, tuff, and minor siltstone and shale deposited in a nearshore marine environment. Unit $\text{\textcircled{E}c}$ includes fluvial-deltaic lithofeldspathic to volcanic lithic volcanic sandstone or conglomerate, tuffaceous siltstone, siltstone, tuff, lapilli tuff, claystone, and coal (Yount and Gower, 1991). Both units are predominately well stratified, and laminated to thickly bedded. We infer that the nearshore marine-deltaic-fluvial transition between these units occurs in the subsurface on Cross Sections A and B. The Blakeley Formation in the eastern part of the Seattle basin is rich in volcanic lithic sedimentary and tuffaceous rocks derived from Cascade volcanic arc to the east, and generally contains quartz, feldspar, and lithic volcanic grains in varying amounts. Our examination of outcrops directly west of the study area previously correlated with the Blakeley Formation shows that these crossbedded fluvial deposits contain abundant volcanic lithics and plagioclase, with some sedimentary lithics and monocrystalline quartz grains similar to both the Blakeley Formation and nearby Miocene rocks. (See unit **Mvc** above.) Although some of these rocks may be Miocene, directly west of the map area in the Maltby quadrangle, Minard (1985), Capps and others (1973), and Yount and Gower (1991) correlate sedimentary rocks locally with tuff and coal to the Blakeley Formation and (or) rocks of Bulson Creek of Marcus (1981). Four miles (6.4 km) directly west of the northwest corner of the Monroe quadrangle, in the Fiddlers Bluff area of the Maltby quadrangle, Lindquist (1957) convincingly correlated siltstones and sandstones containing middle

to upper Oligocene shallow-marine (0–120 ft; 0–37 m) pelecypods and other marine fossils to the Blakeley Formation. Although turbidites and other deep-water depositional facies are common in the marine part of the section farther to the west, Lindquist's (1957) work shows that nearshore deposits likely underlie at least part of the Monroe area. The Blakeley Formation was also mapped in the subsurface south of the map area by Dragovich and others (2007, 2009a,b, 2010a,b). On the basis of geophysical modeling and local field relations, we infer on Cross Sections A and B that the Seattle basin is locally truncated by the Cherry Valley fault and conjecture that the Blakeley Formation occurs under the city of Monroe, thus defining the southeastern-most portion of the Everett basin. The thick (3000+ ft; 910+ m) sedimentary rocks ~2 to 3 mi (3–5 km) NNW of the quadrangle (McFarland, 1981) are likely Eocene to Oligocene (Dragovich and others, 2002) and part of the Everett basin. The Johnsons Swamp fault zone may extend north of the quadrangle and structurally separate exposed mélangé belt basement rocks directly north of the Monroe quadrangle from thick Eocene to Oligocene sedimentary rocks (units OEc and OEn) ~2 to 3 mi NNW of the quadrangle. (See gas and oil wells Sh-3, Sh-4, Sh-8, and 74 in McFarland [1981].) Regionally, late Eocene to middle or late Oligocene ages are typical for the Blakeley Formation (Fulmer, 1975; Walsh, 1984; Yount and Gower, 1991; Rau and Johnson, 1999). However, the Restoration Point Member of the Blakeley Formation on Bainbridge Island may span only the latest Oligocene to earliest Miocene (Prothero and Nesbitt, 2008).

Evsp **Volcanic rocks of Mount Persis of Tabor and others (1993), undivided (Eocene)**—Interbedded andesitic flows, dacitic lithic to crystal lithic breccia and tuff breccia, and dacitic to rhyolitic crystal lithic to lithic to vitric tuff, volcanic lithic sandstone, tuffaceous siltstone, and lahar and volcanic (boulder) conglomerate, with minor silty shale, claystone, and rare coal; tuffs and breccias vary from andesitic to rhyolitic; clasts in breccias are commonly dacitic (Tabor and others, 1993; Dragovich and others, 2009b, 2010a,b, 2011). Flows vary from andesite to basaltic andesite with some dacite and basalt. Rocks are locally strongly altered, particularly near tectonic zones (units tz and tz_h). The geochemistry of this unit suggests that it originated from a calc-alkaline arc that had an enriched mafic source that underwent assimilation as the magma evolved (Dragovich and others, 2011). Volcaniclastic sections are mostly moderately to well stratified and typically contain interbedded flows, tuffs, and breccias. The dominance of tuffs and volcanic-rich sedimentary rocks over coarse volcanic breccias and flows suggests a more distal volcanic depositional setting for areas south of the map area (Dragovich and others, 2009a,c, 2010a,b). Conversely, the dominance of flows and coarse breccia mapped by Tabor and others (1993) around Mount Persis and Youngs Creek headwaters and a possible intrusive center along the eastern part of the map area (unit Eip) point to a volcanic center or centers along the eastern edge and (or) east of the present study area. Mount Persis rocks unconformably overlie the Western mélangé belt across a broad area east of the Cherry Valley fault (Tabor and others, 1993; Danner, 1957), but underlie a thick section of younger Tertiary sedimentary rocks along the eastern part of the Seattle basin (Dragovich and others, 2009a,b, 2010a,b; Sherrod and others, 2008). For example, west of Cherry Valley fault and north of the proposed Monroe fault on Cross Sections A and B, respectively, Mount Persis rocks likely underlie the Blakeley Formation (units OEn and OEc) and, locally, Miocene rocks (unit Mvc). Tabor and others (1993) assigned a late Eocene age to the volcanic rocks of Mount Persis on the basis of a poor apatite fission-track age (47.4 Ma), a hornblende K-Ar age (38.1 Ma), and the observation that the Mount Persis unit is intruded by the Index batholith (34 Ma) and mafic dikes (33 Ma) east of the map area. Dragovich and others (2009a,b) obtained a U-Pb zircon age of 36 ± 2.3 Ma (late Eocene) from a thick felsic tuff bed in the Snoqualmie quadrangle southeast of the map area. The Mount Persis volcanism may span several million years (~36–47 Ma) and thus may involve several intrusive centers. Like Dragovich and others (2010b), we suspect that the Mount Persis unit thins to the west where it is dominated by distal volcaniclastic and tuffaceous strata with interbedded basalt and basaltic andesite flows in the subsurface. We suggest that the distal Mount Persis rocks interfinger with the undivided Puget Group (unit Evspg) in the western part of the area on Cross Sections A and B. We note here that although the Mount Persis likely originally thinned to the west, it currently may actually thin to the east because of uplift and subaerial erosion of the volcanic rocks in the SE highlands. Locally divided into:

Evap **Volcanic rocks of Mount Persis, andesite flows (Eocene)**—Medium-K calc-alkaline andesite flows (~56–63% SiO_2) with minor dacite flows (~67% SiO_2); greenish gray, dark green, or

(dark) gray, weathered or altered to dark reddish (brown)-gray, maroon-gray or yellow-brown-gray; flows typically massive but locally exhibit flow structure, including aligned phenocrysts, microlites, amygdules, or vesicles; flow breccia, altered flow tops, and well-formed columns are rarely observed. These two-pyroxene flows contain phenocrysts of plagioclase, augite \pm hypersthene, and rare chloritized hornblende. Glomerophyric textures and oscillatory-zoned plagioclase are common and they locally contain quartz microphenocrysts. Geochemically, these flows most likely originated from a continental arc source (Dragovich and others, 2010a, 2011). Flows are ~30 to 100+ ft (~9–30+ m) thick, but are most typically 40 to 75 ft (12–23 m) thick (SubTerra, 1999), with thick flows likely the result of compound lava flows. Flows in the area are mostly lenticular canyon flows traversing ancient volcanic highlands. Magnetic highs in the map area east of SVF-1 likely reflect a greater percentage of unit Ev_{ap} , Ev_{bp} , and Ev_{apd} flows in the shallow subsurface. Cross Sections A and B show a greater concentration of andesite flows to the east, consistent with (1) magnetic susceptibility data, and (2) regional field information indicating an overall greater amount of proximal volcanic rocks to the east (this study; Danner, 1957; Tabor and others, 1993; Dragovich and others, 2010a,b). We suspect that the volcanic center(s) for the Mount Persis unit is (are) towards Youngs Creek east of the study area or along the easternmost part of the study area as discussed in units Ei_p and Ev_{bpb} .

- Ev_{apd} **Volcanic rocks of Mount Persis, dark basaltic andesite flows (Eocene)**—Medium-K calc-alkaline basaltic andesite to andesite flows (~54–61% SiO_2); typically dark gray to very dark gray, weathering to reddish gray; typically fine-grained and massive; commonly show flow structure defined by aligned phenocrysts or microlites, amygdules or vesicles. Well-formed columns are observed in Cadman quarry. Thick compound flows are common. Unit Ev_{apd} contains microphenocrysts of plagioclase (<0.5 mm) and augite \pm hypersthene with significant disseminated magnetite grains ($\leq 15\%$) coloring the rock dark gray. Some flows have altered hornblende and biotite, and a few flows have blocky plagioclase (1–3 mm). Unit Ev_{apd} is typically holocrystalline with patches of glomerophyric microphenocrysts. If present, minor interstitial glass is typically chloritized or sericitized or is replaced by secondary carbonate. Geochemistry indicates that these flows most likely originated from a continental arc source (Dragovich and others, 2011). Outcroppings of the mafic flows and tuffs (units Ev_{apd} and Ev_{tpd} , respectively) are megascopically similar, dark, fine-grained rocks that are typically difficult to classify in the field; thus, many unit Ev_{apd} exposures had to be confirmed petrographically. Also, although most of these dark volcanic rocks are demonstrably volcanic flows, we cannot exclude the possibility that some of these rocks are dikes or sills.
- Ev_{bp} **Volcanic rocks of Mount Persis, basalt flows (Eocene)**—Medium-K calc-alkaline basalt (~51.3% SiO_2); massive and dark gray; contains phenocrysts of plagioclase and augite \pm hypersthene or hornblende. Although dark volcanic rocks are common in the study area (for example, unit Ev_{apd}), true basalts are relatively rare and could only be confidently identified (using geochemical analyses) near the State Reformatory and along the center of the map area on the SE highlands (Dragovich and others, 2011). Geochemically, the basalt is primitive and most likely originated from a continental arc source (Dragovich and others, 2011). We suspect that basalts are common in the distal subsurface on the western and northwestern parts of Cross Sections A and B. This is supported by geophysical modeling that suggests that mafic flows (units Ev_{apd} and Ev_{bp}) with a high magnetic susceptibility flowed into these more distal volcanic environments because of their low viscosity, perhaps pooling on flatter plains bordering volcanic highlands.
- Ev_{tp} **Volcanic rocks of Mount Persis, tuffs (Eocene)**—Medium-K calc-alkaline dacitic to rhyolitic tuffs, mostly lithic dacitic tuffs with lesser vitric dacitic to rhyolitic tuffs; typically light to dark gray to light yellowish brown and massive. Limited petrographic information indicates that the more felsic tuffs are composed of euhedral to anhedral quartz and plagioclase phenocrysts in yellowish glass and locally contain plagioclase microlites and (or) ash-sized pumice fragments.

Geochemistry indicates that the tuffs most likely originated from a continental arc source (Dragovich and others, 2011).

- Evtpc** **Volcanic rocks of Mount Persis, cream-colored lapilli tuffs (Eocene)**—Medium-K calc-alkaline dacitic crystal vitric, vitric crystal, and (lithic) vitric lapilli tuffs, locally with some tuff breccia; typically pale brown, weathering to a distinctive yellowish brown (cream); pumice clasts are white and lithic clasts are variable in color from green to gray. Lapilli tuff with scattered pumice lapilli and lapilli or breccia clasts of andesite or dacite in a cream-colored glassy matrix is typical. Pumice lapilli are flattened and lithic grains are somewhat aligned to form a crude primary bedding structure in most outcrops. Some lithic clasts are tuffs. Rocks microscopically contain angular grains of broken plagioclase, quartz, and fragments of pumice with variable volcanic lithic grains. The yellowish-brown glassy matrix between the large blocky plagioclase grains contains microlitic plagioclase, and in some samples, the glass is extensively replaced by carbonate. This very thick unit occurs on the SE highlands and is likely a composite of many beds (Cross Sections A and B). Pumice grains microscopically appear welded, suggestive of deposition as a hot pyroclastic flow. In the present study area, we obtained a single $^{206}\text{Pb}/^{238}\text{U}$ zircon age of 43.7 ± 1.0 Ma from age site 40Y on the central part of the SE highlands (Dragovich and others, 2011). This age is from the weighted average of the $^{206}\text{Pb}/^{238}\text{U}$ zircon age data as presented in Dragovich and others (2011). These felsic tuffs are compositionally dissimilar to the dark felsic tuffs (unit Evtpd) mapped in the Monroe quadrangle and were also extensively mapped in the Snoqualmie quadrangle southeast of the map area by Dragovich and others (2009a,b), who obtained a U-Pb single zircon age of 36 ± 2.3 Ma (late Eocene). However, the accidental detrital zircon histogram ages in both Mount Persis age samples are similar, suggesting a similar magmatic source and magmatic basement environment (Dragovich and others, 2011). In other words, the uniformity of older zircons in the two tuffs suggests that they assimilated similar rock types during magmatic ascent. Geochemistry indicates that these tuffs underwent a high degree of assimilation, which is in agreement with the large number of zircon xenocrysts found (Dragovich and others, 2011).
- Evtpd** **Volcanic rocks of Mount Persis, dark tuffs (Eocene)**—Dark medium-K calc-alkaline dacitic to rhyolitic crystal vitric and vitric tuffs; typically dark gray, weathered or altered to a brownish yellow to very pale brown. Very thick beds of aphanitic dark volcanic rock are the norm. Petrographically unit Evtpd consists of scattered blocky and broken plagioclase in a clear glass matrix containing disseminated grains of opaque minerals that color the rock dark gray. Samples from a few sites also contain minor augite (rimmed by biotite), sparse lithic grains, and small fragments of pumice. Although unit Evtpd is mostly massive, aligned plagioclase microlites form a subtle flow or flattening fabric in some outcrops. Outcrops of the dark mafic flows and tuffs (units Evapd and Evtpd, respectively) are similar fine-grained rocks that are typically difficult to classify in the field and apparently occur widely across the SE highlands. Subsequent petrographic examination revealed that many dark tuffs classified in the field are flows. Unit samples were devoid of zircons and efforts to date the unit were unsuccessful.
- Evbxp** **Volcanic rocks of Mount Persis, volcanic breccia (Eocene)**—Medium-K calc-alkaline dacitic lithic tuff breccia, agglomerate, and lapilli tuff; multicolored but generally gray-brown to dark green-gray to gray with brownish weathering. Volcanic clasts vary from subrounded to subangular to locally angular, with rounding of some clasts likely due to airborne emplacement, mutual interaction, and bouncing of hot, ductile pyroclastic fragments (not water erosion). Although many outcrops are limited in exposure, breccia beds are generally very thick, massive, and moderately to poorly sorted. A few of the breccia beds we observed were thinner and interbedded with either volcanic sedimentary rocks or bedded pyroclastic surge deposits. Unit Evbxp clasts to the south are mostly two-pyroxene andesites that are petrographically and geochemically similar to the andesite flows (unit Evap) in the complex and probably represent flow breccia; elsewhere pyroclastic breccias also contain clasts of semi-

vesicular light green dacite (~66% SiO₂) set in a clear glassy matrix with scattered small grains of augite (Dragovich and others, 2009a,b, 2010a,b). In the present study area, breccia clasts appear to be mostly hornblende dacite (~68% SiO₂) surrounded by a chaotic matrix containing variable smaller lapilli clasts, plagioclase, and quartz in a brownish glass matrix (≤20%) lacking augite and hypersthene. Some breccia may also contain exotic clasts of greenstone, metasandstone, and metachert (Danner, 1957). Breccia is typically poorly exposed, but likely represents pyroclastic flow deposits, including dome collapse breccia. The occurrence of thin interbeds of epiclastic volcanic sandstones in a few outcrops suggests that the substantial thickness of some of the breccia units is the result of emplacement of stacked pyroclastic deposits into a restricted basin or area. The dacitic composition of the clasts in the Carnation and Monroe map areas (Dragovich and others, 2010a,b, 2011) suggests that part of the unit may correlate with the hornblende dacite breccia unit mapped extensively by Tabor and others (1993) east of the map area. Our finding in the Monroe quadrangle that dacite dominates the breccia clasts and that many are hornblende-phyric supports this correlation and the model that many of the breccias are the result of a nearby dacite dome collapse. (See unit Evbx_{pb}.)

Evb_{xpb} Volcanic rocks of Mount Persis, volcanic bomb breccia (Eocene)—Medium-K calc-alkaline dacitic lithic bomb breccia; typically with reddish gray or dark gray clasts. Bombs are mostly subrounded to subangular and are locally up to 7 ft (2 m) in diameter, but average ~2.6 ft (~80 cm). Deposits appear to be relatively homogeneous and almost clast-supported in most outcrops. Beds are very thick, massive to subtly graded (coarse fraction), and moderately to poorly sorted. A few outcrops contain thin lenticular volcanoclastic interbeds, demonstrating that at least locally the breccia is a composite of several pyroclastic flows. Clasts are dominated by dacite (~68–70% SiO₂) as in unit Evbx_p, and they most likely originated from a continental arc source (Dragovich and others, 2011). They also contain subhedral to euhedral phenocrysts to 1 mm with a glassy matrix containing plagioclase microlites and altered mafic minerals, including euhedral hornblende. Many of the clasts have holocrystalline volcanic flow textures, including aligned microlites. Bomb breccias are well-exposed along the northern part of the SE highlands, where they tend to form subvertical cliffs. These breccias were likely deposited as dome collapse breccias near an edifice, as in unit Evbx_p. Given the impressive size of some of the bombs (up to 2 m), it seems likely that the volcanic source of the breccias is in or near the map area. (See unit Eip.) The dacitic composition of the breccia clasts in the Carnation and Monroe map areas (Dragovich and others, 2010a,b, 2011), along with our finding that many are hornblende-phyric, suggests that part of the unit may correlate with the hornblende dacite breccia mapped extensively by Tabor and others (1993) in the volcanic rocks of Mount Persis east of the map area. (See unit Evbx_p above.)

Evc_p Volcanic rocks of Mount Persis, volcanoclastic rocks (Eocene)—Lithic and feldspatholithic volcanic to tuffaceous sandstone and siltstone; may include interbeds of volcanic conglomerate, shale, tuff and lapilli tuff, and rare beds of coal or shale; color variable but mostly light yellowish brown to very pale brown to light bluish gray with some dark red volcanic siltstone; volcanic sediments are mostly well sorted and stratified and contain angular to subrounded grains; strata vary from massive to medium to thickly bedded, with plane and ripple crossbedding typical of fluvial environments commonly observed; rare antidune crossbedding typical of pyroclastic surge deposits rarely observed. Fossil leaves, stems, and fragments of black carbonized or brown petrified wood are common and consist mostly of fragments of broadleaf trees as well as stems of rushes similar to modern *Equisetum* (Dragovich and others, 2010b; Danner, 1957). Most volcanoclastic rocks are rich in volcanic lithics; for example, volcanic sandstones contain abundant andesite to dacite clasts, but also locally contain altered volcanic glass, plagioclase, and a few grains of polycrystalline quartz and sandstone-siltstone. However, there is a spectrum of compositional volcanoclastic rock types. For example, crystal-rich sediments with significant subangular to angular plagioclase, volcanic quartz, and variable amounts of fragmental pumice are probably fluvially reworked crystal-vitric ash flow tuffs. Sandstones rarely have a mixed volcanic and Western mélange

belt (unit KJm) provenance (Dragovich and others, 2009a). Conglomerate mostly contains subrounded clasts dominated by andesite and dacite. Danner (1957) describes andesitic boulder conglomerates with shale lenses, which are likely fluvial deposits, directly east of the map area. Because these volcanic sediments are generally more erodible than volcanic deposits, such as lava flows, these rocks tend to be recessive or covered with colluvium and other Quaternary deposits, and thus rarely form prominent outcrops. This is supported by subsurface drilling information that suggests that volcanoclastic rocks, such as volcanic sandstone and shale, are more common in the subsurface. Unit Evc_p was deposited mostly as fluvial stream deposits within a dissected volcanic highland setting. As a result of this moderately proximal volcanic setting, unit Evc_p forms lenticular beds surrounded by flows, tuffs, and breccias. In more distal settings, such as the inferred depositional environment for the western part of the study area (Cross Sections A and B), volcanic sediments might have been deposited in a lower energy plain setting, mostly with tuffs and basaltic andesite and basalt flows.

Evl_p Volcanic rocks of Mount Persis, lahars (Eocene)—Cohesive to noncohesive lahar and lesser volcanic (boulder) conglomerate; clasts dark gray, commonly weathered or altered to gray-green; contains subrounded to subangular pebbles, cobbles, and boulders of andesite (~60% SiO₂) up to ~3 ft (~1 m) in diameter, with petrified wood, log or stick casts, and a few clasts of opal and volcanic sandstone and siltstone. Weathering masks some original textures, but the lahar matrix generally varies from volcanic sand to ashy, silty, clayey sand, and is locally semi-cohesive. Unit Evl_p occurs as very thick massive beds with possible subtle overall grading. Clast composition (~95–100% andesite), matrix texture, and overall moderate to poor sorting suggest deposition mostly as lahars. Contacts are generally poorly exposed, but the spatial association with volcanoclastic fluvial sedimentary rocks, including clast-supported cobble-boulder conglomerate with thin interbeds of volcanic siltstone, suggests deposition as lenticular beds within valleys emanating from a volcanic highland to the east of the map area. In the Carnation and Monroe quadrangles, deposits vary from matrix-supported lahar to clast-supported hyperconcentrated flood deposits or volcanic alluvium (this study, Dragovich and others, 2010b). Geochemically, one medium-K calc-alkaline clast from unit Evl_p sampled directly south of the current study area has a higher aluminum saturation index and is more chemically altered than other Mount Persis samples (Dragovich and others, 2010b, 2011). Geochemical and petrographic analyses of lahar clasts indicate that the original flows were sourced by andesitic lavas exhibiting pervasive silica, K-feldspar, and clay alteration (Dragovich and others, 2010a,b). Zones of alteration around andesitic stratovolcanoes can lead to edifice instability, collapse, and to the generation of high-volume cohesive mudflows (lahars) or hyperconcentrated flood deposits (lahar runouts) similar to the mapped deposits. However, given the preponderance of dacitic breccias in the Monroe area and areas to the east (Tabor and others, 1993), and the restricted lahar clast chemical data, some of the lahars might have been a sourced by dacitic pyroclastic deposits. (See units Eip and Evbx_p.)

Eip Volcanic rocks of Mount Persis, intrusive complex (Eocene)—Uniquely textured medium-K calc-alkaline dacite flows (~68% SiO₂) with lesser andesite flows and pumiceous crystal-lithic to vitric lapilli tuff and dacitic bomb breccia; rocks are bluish gray to gray. These flows, fragmental volcanic rocks, and possible hypabyssal intrusive rocks are exposed in logging road cutbanks north of Lake Fontal on the SE highlands in the east-central part of the map area. The flows or possible hypabyssal intrusives in this complex all contain glomerophyric mafic ellipsoids or “knots” that define a subvertical mafic mineral lineation suggestive of vertical flow; however, this lineation is very limited in spatial extent and thus its causation requires further study. The flows are mostly holocrystalline and contain blocks of euhedral to microclitic plagioclase and augite, with lesser altered hornblende. Nearby lapilli tuffs contain a variety of clasts, including pumice, basalt, hornblende-augite dacite, and hypidiomorphic intrusive rocks, as well as clasts of the Western mélange belt basement (prehnite- and pumpellyite-bearing metasandstone and meta-argillite). Geochemically, unit Eip most likely originated from a continental arc source (Dragovich and others, 2011). We tentatively hypothesize that the

subvertical flow lineation, along with the apparent glomerophytic hypabyssal(?) rocks and the unusual composition of the tuffs, may be due to intrusion, necking, or doming at a volcanic plug. (Compare with unit Evbx_{pb}.) In addition, the unusual high percentage of mélange belt fragments in the lapilli tuffs suggests plucking of basement rocks during ascent and, along with the gravity signature of the easternmost part of the map area (Dragovich and others, 2011), suggests magmatic erosion of basement that is only 500 to 900 ft (150–275 m) below the present surface.

Evspg Puget Group, undivided (Eocene)(cross sections only)—Continental feldspathic to volcanic lithic subquartzose sandstone, siltstone, claystone, and lesser lapilli tuff, tuff, carbonaceous shale, pebble conglomerate, and coal, and rare or absent andesitic flows and breccia. The Puget Group is exposed to the south and southwest of the map area and includes the Renton, Tukwila, and Tiger Mountain Formations. The middle to late Eocene Renton and older middle Eocene Tiger Mountain Formations were deposited as meandering-river fluvial-deltaic sediments on a coastal plain. The andesitic volcanic deposits of the Tukwila Formation erupted onto this coastal plain south of the map area and interrupted the fluvial deposition of the Renton and Tiger Mountain Formations southwest of the Monroe area. The distance to the andesitic volcanic center(s) of the Tukwila Formation suggests that flows and breccias are not part of the Puget Group shown on Cross Sections A and B. Rau and Johnson (1999) showed the Puget Group to be locally at least 4,000 ft (1,220 m) thick in the Seattle basin west of the map area. This thickness is similar to that given by ten Brink and others (2002), who showed the undivided Eocene sediments in the basin to be about 3,500 to 4,200 ft (1,060 to 1,280 m) thick. We infer on Cross Sections A and B that the middle and late Eocene Puget Group (1) thins or is truncated by faulting to the east, and (2) interfingers with moderately distal rocks of the Eocene volcanic rocks of Mount Persis. (See Mount Persis age information in units Evsp and Evtpd.)

Mesozoic Low-Grade Metamorphic Rocks (Prehnite–Pumpellyite Facies)

KJm Western mélange belt of Tabor and others (1993)(Cretaceous to Jurassic)(cross sections only)—Dominantly metamorphosed argillite, sandstone, greenstone, metagabbro, and diabase, with minor metachert, metatonalite, slate, phyllite, marble, and rare ultramafite (Dragovich and others, 2007, 2009a,b,c, 2010b). Most metasedimentary rocks were deposited as turbidites along an accretionary wedge. The Western mélange belt is inferred to underlie the map area (Cross Sections A and B). Geophysical modeling suggests that the volcanic rocks of Mount Persis unconformably overlie the mélange belt over much of the map area (Dragovich and others, 2010a,b, 2011). Danner (1957), Tabor and others (1993), and Dragovich and others (2009a, c) also mapped this unconformity to the east and south of the Monroe map area.

Tertiary to Holocene Tectonic Zones

tz, tz_h, Qtz Tectonic zone (Tertiary to Holocene)—Cataclasite, fault breccia, clay-rich fault gouge, protomylonite, and strongly slickensided and fractured rocks in fault zones; variously colored, mottled, and veined as a result of local hydrothermal alteration or strong weathering. Dragovich and others (2007, 2009a,b,c, 2010a,b) map tectonic zones along faults south of the map area. Sherrod and others (2008) map many strands of the SWIF west of the map area. Most kinematic indicators, such as shallow slickenlines on steep shear planes and (or) en echelon vein arrays, suggest right-lateral strike-slip or oblique-slip offset along strands of the SWIF. Wide zones of cataclasis are common in the Cherry Creek fault zone, parts of the Johnsons Swamp fault zone, and the Fontal Road reverse fault. **Hydrothermally altered tectonic zones** (unit tz_h) are mapped where tectonic zones host broad mappable zones of hydrothermal alteration. Unit tz_h contains principally low-temperature carbonate (calcite) mineralization with local silicification producing a widespread whitish rock. **Quaternary tectonic zones** (unit Qtz) are mapped only in the subsurface on Cross Sections A and B adjacent to active or potentially active faults. This tectonic deformation is characterized by high-angle fractures and (or) discrete faults with bedding offsets in Pleistocene deposits near probable active faults, such as the Cherry Valley fault, as discussed more fully in Dragovich and others (2011). More information related to the mapping of faults, fault deformational

structures, liquefaction, earthquake hypocenters and focal mechanisms, and geophysical lineaments are provided in Dragovich and others (2011). For example, we describe the numerous (locally intense) liquefaction and tectonic features associated with the Cherry Valley fault, as well as the shallow seismicity associated with the Cherry Creek fault zone.

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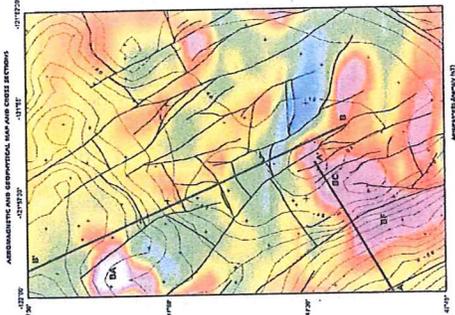
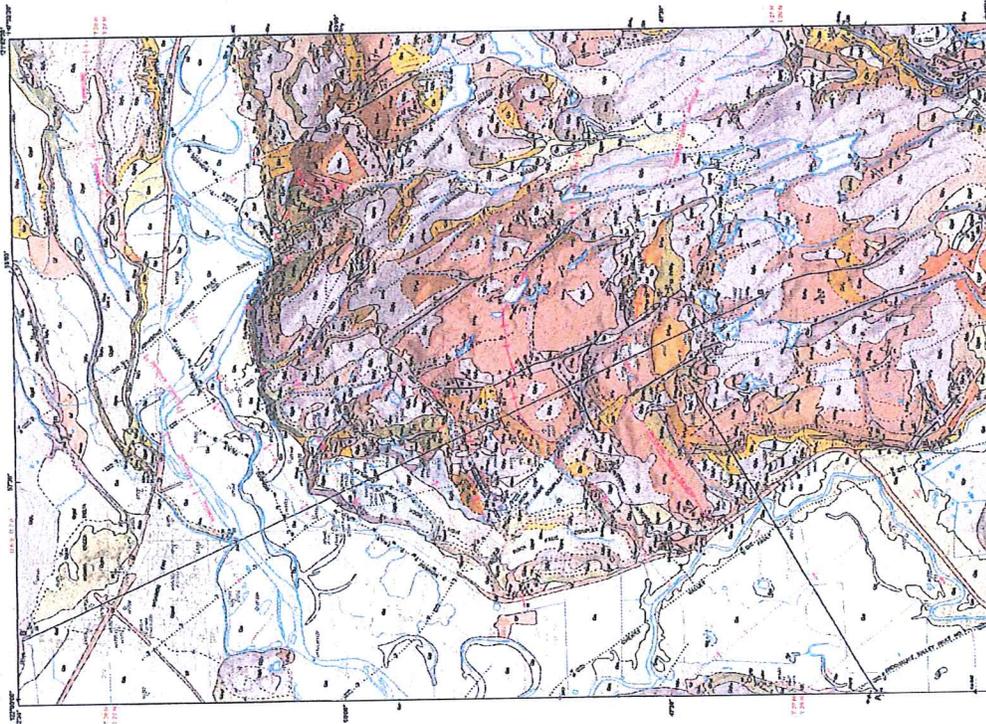
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- Dragovich, J. D.; Anderson, M. L.; Walsh, T. J.; Johnson, B. L.; Adams, T. L., 2007, Geologic map of the Fall City 7.5-minute quadrangle, King County, Washington: Washington Division of Geology and Earth Resources Geologic Map GM-67, 1 sheet, scale 1:24,000. [http://www.dnr.wa.gov/Publications/ger_gm67_geol_map_fallcity_24k.zip]
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- Dragovich, J. D.; Littke, H. A.; Anderson, M. L.; Wessel, G. R.; Koger, C. J.; Saltonstall, J. H.; MacDonald, J. H., Jr.; Mahan, S. A.; DuFrane, S. A., 2010b, Geologic map of the Carnation 7.5-minute quadrangle, King County, Washington: Washington Division of Geology and Earth Resources Open File Report 2010-1, 1 sheet, scale 1:24,000, 21 p. text. [http://www.dnr.wa.gov/Publications/ger_ofr2010-1_geol_map_carnation_24k.zip]
- Dragovich, J. D.; Littke, H. A.; MacDonald, J. H., Jr.; DuFrane, S. A.; Anderson, M. L.; Wessel, G. R.; Hartog, Renate, 2009b, Geochemistry, geochronology, and sand point count data for the Snoqualmie 7.5-minute quadrangle, King County, Washington: Washington Division of Geology and Earth Resources Open File Report 2009-4, 35 p. text, 3 Microsoft Excel files. [http://www.dnr.wa.gov/Publications/ger_ofr2009-4_snoqualmie_suppl.zip]
- Dragovich, J. D.; Logan, R. L.; Schasse, H. W.; Walsh, T. J.; Lingley, W. S., Jr.; Norman, D. K.; Gerstel, W. J.; Lapen, T. J.; Schuster, J. E.; Meyers, K. D., 2002, Geologic map of Washington—Northwest quadrant: Washington Division of Geology and Earth Resources Geologic Map GM-50, 3 sheets, scale 1:250,000, with 72 p. text. [http://www.dnr.wa.gov/publications/ger_gm50_geol_map_nw_wa_250k.pdf]

Geologic Map of the Monroe 7.5-minute Quadrangle, King and Snohomish Counties, Washington

by Joe D. Dingeldey, Megan I. Anderson, Shannon A. Mahan, Curtis J. Kees, Jennifer H. Salenault, James H. MacDonald, Jr., Gregory R. Wessli, Bruce A. Stoker, John P. Bethel, Julia E. Labadie, Rocco Calkin, Jeffrey D. Bowman, and S. Andrew DuFrane

November 2011

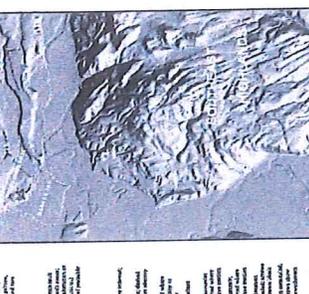


LEGEND

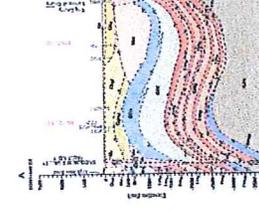
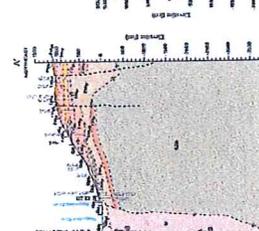
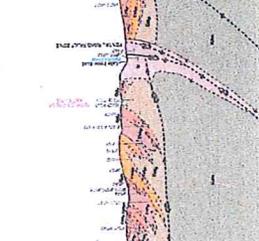
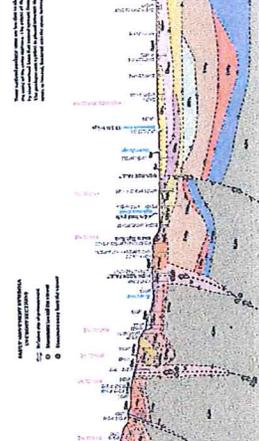
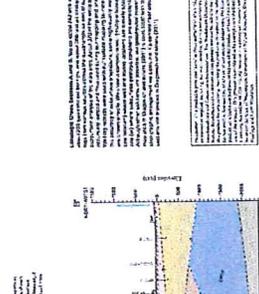
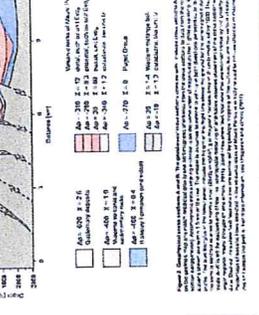
Symbol	Description
[Red box]	Unit 1000: 1000-1000
[Yellow box]	Unit 2000: 2000-2000
[Green box]	Unit 3000: 3000-3000
[Blue box]	Unit 4000: 4000-4000
[Brown box]	Unit 5000: 5000-5000
[Black line]	Major fault
[Dashed line]	Minor fault
[Blue line]	Stream
[Black line]	Road
[Black dot]	Well
[Black dot]	Structure

ASSEMBLAGE AND ORIENTATIONAL MAP CROSS SECTION

This figure provides a detailed view of the geological units and their orientations. It includes a legend for 'ASSEMBLAGE AND ORIENTATIONAL MAP CROSS SECTION' and a scale bar.



- SYMBOLS AND ABBREVIATIONS**
- 1000-1000: Unit 1000
 - 2000-2000: Unit 2000
 - 3000-3000: Unit 3000
 - 4000-4000: Unit 4000
 - 5000-5000: Unit 5000
 - Major fault
 - Minor fault
 - Stream
 - Road
 - Well
 - Structure
- EXPLANATION**
- This section provides detailed explanations for the symbols and abbreviations used on the map. It includes information about the map's scale, projection, and data sources.





MONITOR

MONROE

Page One

1975
12/02/75

Merle G. Smith
212 Old Owen Road, Sp. 17
Sultan, WA 98294

AFTERMATH— A Pictorial Review Of The Most Devastating Flood To Strike The Valleys



.....

Most of the flood waters have receded now -- but for more than 72 hours last week, the Rivers of the Skykomish, Snoqualmie, Snohomish and their tributaries rushed into the valleys with an awesome force never before witnessed.

Since about 4 a.m. last Tuesday, December 2, through late last Thursday, raging waters damaged millions of dollars of properties. During its course, unchecked waters covered tens of thousands of acres of land, spelled death for untold thousands of livestock and other animals, washed out roads and bridges as if they never existed and crashed through dykes once built to protect the

area from such disasters. While hundreds were left homeless, no human deaths or serious injuries were attributed to the tragedy.

Friends and neighbors opened their hearts and their homes to those that were stranded and emergency personnel from county law enforcement agencies to Naval Air Station personnel risked their lives for those who were endangered.

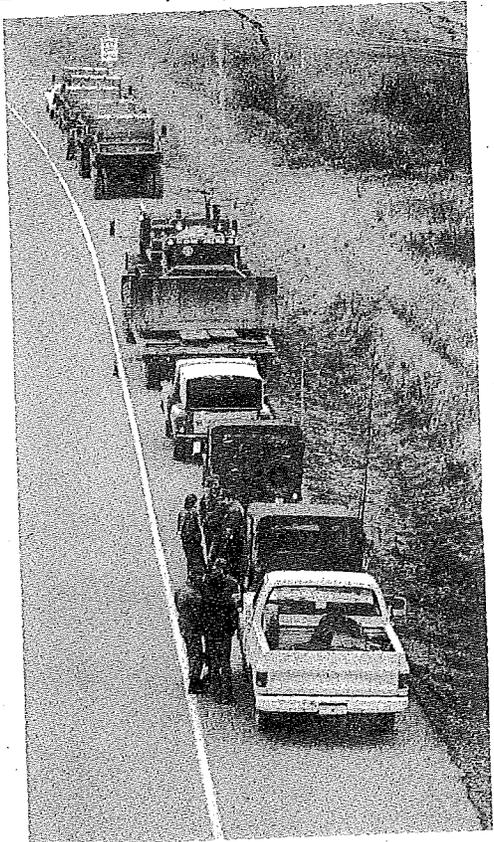
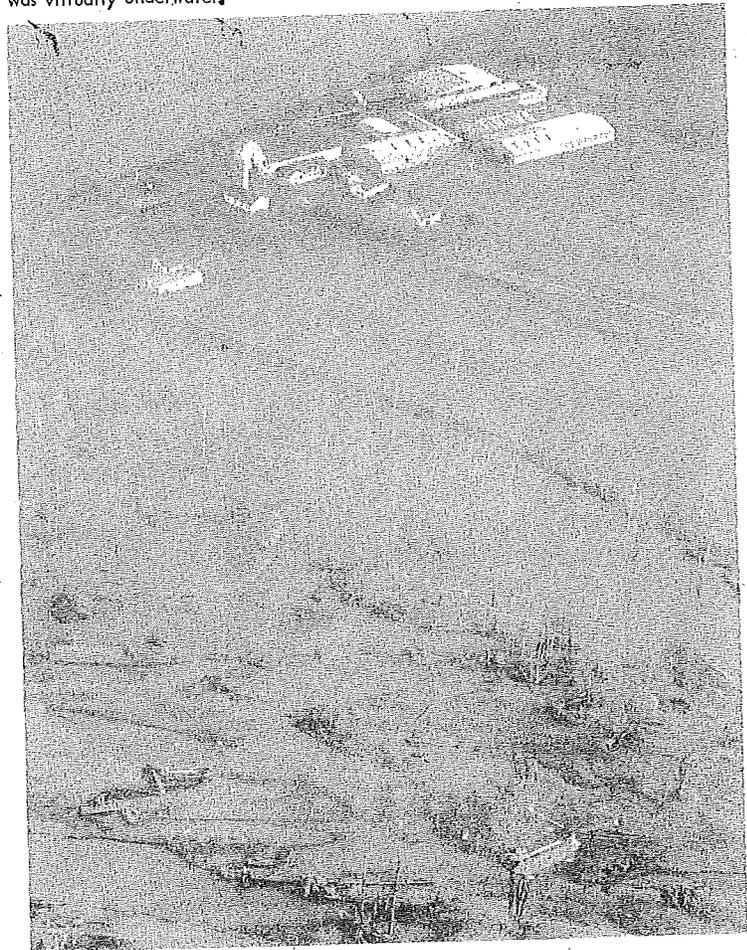
It was a battle created by mother nature and one that could not have been won without mother nature's eventual cooperation.

Herethen are a number of photographs that attempt to capture the moments experienced by us all in the valleys.

.....



When the dikes gave way near Snohomish Wednesday evening Highway 2 was closed between Monroe and Snohomish. High Bridge and the entire Tualco valley was virtually underwater.



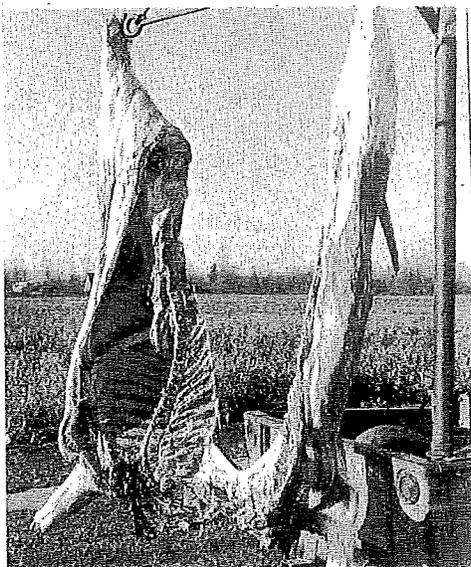
Whidbey Island Naval helicopters became a common sight during last week's ordeal. At left, a pair of choppers worked at the John Hansen farm. By Friday and Saturday, scores of National Guard personnel were sent to help with the clean-up.



State Senator Frank Woody toured the flood area and Tuesday was scheduled to meet with the Vice-President to seek federal aid.



Ward Lawler talked with Pan Alaska employees, above, who used a boat to survey damage to several small businesses just west of Monroe. At left, the only way to get to the WSR Honor Farm for a time was by tractor or boat, while below, hundreds of dump trucks hauling rocks and rip rap were pressed into service to restore damaged dikes.

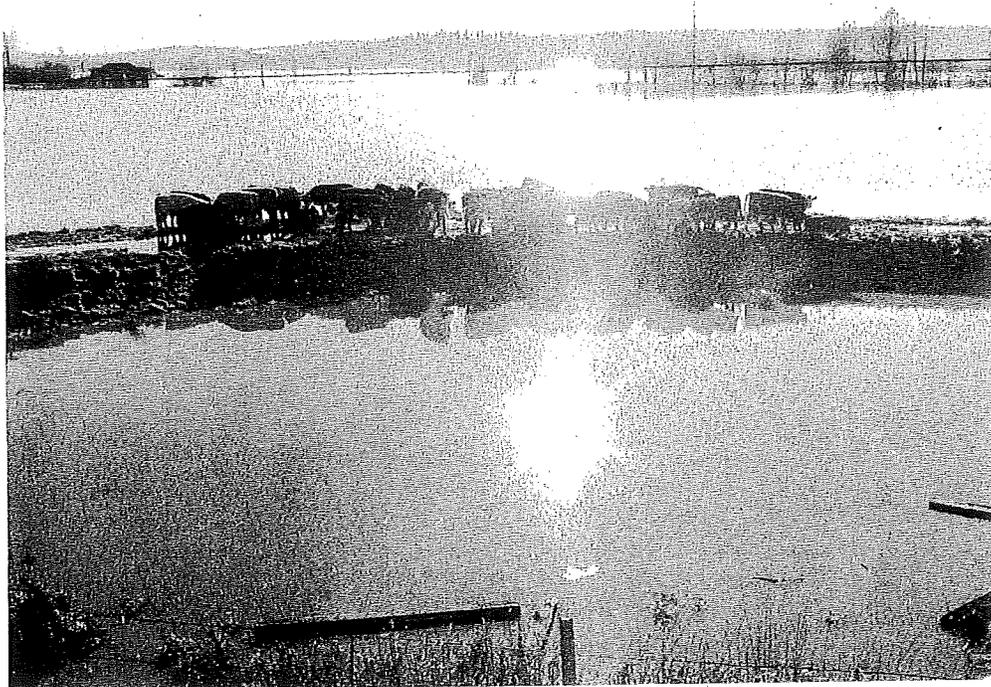


raging flood waters took their toll on numerous livestock and in some cases forced an early slaughter.





An entire lake was formed in the valley between Monroe and Snohomish as water spilled across Highway 2.



Some surviving cows found refuge on a narrow dike.

Lowell Anderson's

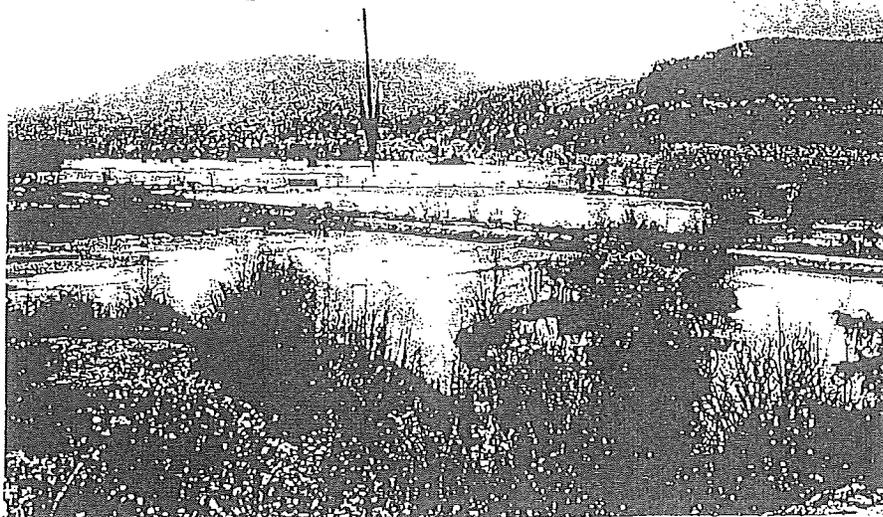
September 28, 2015

Written comments regarding East
Monroe Draft Supplemental
Environmental Impact Statement
(August 28, 2015) and Comprehensive
Plan Amendment and Rezone

Project Site shown below.

CITY OF MONROE
RECEIVED
SEP 28 2015
COMMUNITY DEVELOPMENT

Farmland under water
during flood events



1995 Flood, 8th highest on record, cresting at 20.24 ft.

September 28, 2015

Mr. David Osaki,
Community Development Director
City of Monroe
806 W. Main Street
Monroe, WA 98272

Subject: Written comments regarding DSEIS, (August 28, 2015), East Monroe
Comprehensive Plan Amendment and Rezone Draft Supplemental
Environmental Impact Statement

CONFLICT OF INTEREST

The City of Monroe should not rely on the EIS prepared by Pace Engineering given that it has a vested financial interest in an outcome that would support the rezone from LOS to General Commercial. As such, the report is not objective and prepared by an independent, unbiased firm.¹ Pace Engineering has secured a lien on the subject property that is intended to provide the necessary funds to compensate Pace for its EIS related work. Realistically, Pace will only be able to realize on its lien if the subject property is rezoned so that the property value is increased and subsequently sold. An EIS prepared by a firm that has a clear conflict of interest should not be the basis of the City's decision on the environmental impacts of a potential rezone. The City should require that any EIS be prepared by a qualified firm with no financial stake in the outcome other than receiving financial remuneration from the property owner at the time the EIS is completed.

MISLEADING INFORMATION PROVIDED BY CITY OF MONROE

April 2015, City of Monroe hired a new Community Development Director, Mr. David Osaki. Mr. Popelka had resigned and Melissa Sartorius Place was expecting her first child and went on leave sometime after. I expected better after writing Mayor Geoffrey Thomas² (January 13, 2014), stating my frustration by City Staff's unwillingness to take an objective and unbiased approach to evaluating the Comprehensive Plan Amendment and Rezone.

Example 1). Figure 9 – 2006 Historical Flooding Data.

Statement Note: Even when flood waters reached their highest elevation the conceptual developable area remained above water.

We provided both photographic and oral testimony from long term residence of the Rivmont/Calhoun neighborhood of the subject property being flooded. Reference from document list October 18, 2013:

- 1). Flood of 2006.
- 2). Mr. McCammon photos from the East L-13, L-14, L-15.
- 3). Anderson photos from the West L-16, and L-17.
- 4). Dr. Charles and Susan Strub's letter L-5
- 5). L-11 Ruth Reality letter page 2, paragraph 3
- 6). Plus other oral testimony

Other information:³ Mr. Douglas Hamar booklet dated September 16, 2014, and November 18, 2014 titled *Reasons to Accept the GMHB Decision and Take No Further Action*.³ See Photo's on page 9 which is self explanatory. Book is attached for reference

NO ACTION-NO DEVELOPMENT Location, Location, Location, but not in a flood plain .

Alternate sites per DSEIS main complaint sites 1, 2, 3 and 4 do not have direct access to SR 2. Additionally, of the 57.7 vacant GC property 49.5 acres is located in North Kelsey area, again PACE's argument is no direct access to SR 2 from any of these parcels.

The proposed site figures 4, 5 and 6, page 19, 20 and 21 of FEIS attached⁶ shows conceptual layout of frontage road from roundabout located on SR 2, a 55 mile per hour highway, then a road continues through the wetlands to the 1.16 acre site to be paid for by developer. This 42.8 acre location in my opinion is the worst location for GC and has the most expensive access to SR 2 and is also isolated from GC core (North Kelsey); please see commercially zoned land North Kelsey highly accessible and visible location one block north of Highway 2 off North Kelsey Street, the primary road that serves the majority of the retail trade area. Various lots sizes are available for sale, all superior to the proposed site.⁴

The proposed 42.8 acre GC site is the worst possible location for the following reasons which include but are not limited to:

- 1). Located in the flood plain
- 2). Has an Oxbow (stream/slough) running through it.
- 3). Has seasonal flooding
- 4). Is isolated from Monroe's business center.
- 5). Has three wetlands.
- 6). The slough/stream lies within shoreline jurisdiction and is designated as (UC) under the Cities Shoreline master program.
- 7). A Native growth protection easement (NGPE) is associated with the area covered by the slough/stream and associated wetlands.
- 8). To the North and West of slough/stream lies steep slopes atop which perch many single family residences.
- 9). Is located along SR 2 (The highway of death) with a small driveway for current access. Is not pedestrian accessible.
- 10). My opinion the City should expand to the North and Northwest not East into the flood plain for commercial development.
- 11). PACE statement: MMC Limits the Developable area to approximately 11.3 acres regardless of the land use development alternative.

Problem: Once the property is rezoned to general commercial (GC) the project proponent would be eligible for reasonable use exceptions that could allow additional intrusions into the critical areas or buffers in accordance with Monroe Municipal Code (MMC) 20.05.050.

MMC 20.05.050 allows exceptions to the Cities Critical Area regulations when the applicant can demonstrate it is needed to allow a reasonable use of the property. Based upon the existing zoning a reasonable use exception would not likely be needed or approved, but under a rezone to general commercial an applicant would be far more likely to utilize this exception criteria thereby impacting or reducing the protective buffer. Other exceptions are certain.⁵

EARTH

Per FEMA 100-year flood plain the elevation is set at 67 feet. Unless and until the 65.31 100 foot elevation is approved by FEMA the City will use Chapter 14.01 Flood Hazard and Regulations 14.01.050 basis for establishing the areas of special flood hazard as follows:

“The Flood Insurance Study for Snohomish County, Washington and Incorporated Areas,” dated September 16, 2005, and any revisions thereto, with accompanying Flood Insurance Rate Maps (FIRMS), are adopted by reference and declared to be a part of this chapter. The Flood Insurance Study shall be on file in the office of the city engineer, 806 West Main Street, Monroe, Washington. (Ord. 004/2006 2; Ord. 021/205 1)

Flood Plain policies are set at a National level and implemented through National, State, and Local regulations not policy created by PACE Engineering or Watershed Science Engineering.

Reference L-19 photograph 1959 flood across from project site The 1959 Flood flow Discharge cfs was substantially lower than the 2006 but had the cfs to wash out the track bed leaving the train tracks hanging in the water.

Reference: Per ³Mr. Douglas Hamar’s booklet dated September 16, 2014 and November 18, 2014 titled *Reasons to accept the GMHB decision and take no further action*. See pages 10, 11, 12 and 13. The impact of climate change and population growth on the National Flood Insurance program through 2100, states in part a significant increase in coastal and riverine flooding in our nation. **How was this information utilized in the model?**

Question: What would the model look like based on the 1959 flood that washed out the tracks across from the site?

During the flood of 1996 I observed the flood water fence post deep on the old fence line running parallel to SR 2 which would make the case for a 67 foot flood evaluation.

A coordinator for flood-insurance programs for the State Department of Ecology has said in part “The more things you put in a flood plain the more things are at risk.” Then said “We can never assume we have seen the worst of what nature can do.” A U.W scientist argues in part that commercial and residential flood plain development ends up costing everyone else. “We should not be subsidizing those land uses through flood

plain control measures and rebuilding things and bailouts.” He said “the question is why did we build there in the first place?” Reference Lynda V. Mapes – Seattle Times April 2004 Chehalis flood.

Reference page 2 – PACE statement. No salmonid were observed during site visits by Wet Land Resources Inc.

I have fished the Skykomish river for many years, for the last five years that I fished I haven't caught a fish or observed any caught. Does that mean no fish are present in the Skykomish river?

OBJECTIVE OF PROPOSED ACTION

Respond to demand for any lack of undeveloped commercial property along the SR 2 transportation corridor.

Per Mike Armstrong and Associates Reference the current state of US-2 “I don’t know if you know this you have a mess out here.” Armstrong said. “People won’t stop at your business, because they don’t want to try to get back on it. We should fix it.” Monroe Monitor, September 8, 2015

Note: Little or no money is provided to fix SR 2, very little money has been provided for the last 40 years.

SUMMARY:

- 1.) One of the most obvious examples of PACE's conflict of interest is not looking at alternate sites
- 2.) PACE statement Monroe Municipal Code limits the developable area to approximately 11.3 acres regardless of the land use development alternative.

Question: Is PACE requesting a rezone from LOS to GC on just the 11.3 acres, or the entire 42.8 acres?

⁵The MMC provides exceptions for development, see our letter dated November 07, 2013 to Ms. Sartorius and Mr. Cox pages 1 and 5.

- 3.) PACE implies the developer must follow the MMC then ignores Chapter 14.01 Flood Hazard and Regulations and sets the 100 year elevation at 65.35 feet, 1.7 feet lower than FEMA, which must be approved by FEMA.

It's my opinion this was necessary to compensate for the lack of cut material available to fill the entire 10.17 acre site.

Note: The rod on the ground survey indicates approximately 21,871 cubic feet of cut material available. Professional land surveyors will tell you that the rod on the ground topographical survey is more accurate than the current LIDAR, because of vegetation etc.

Per Mr. Hamar analysis 65,630 cubic yards are required to fill 10.17 acres to 1 foot above FEMA flood elevation of 67 feet.

PACE Lidar calculations of 46,500 cubic yards should provide copies of relevant earth work calculations, including cross sections and other calculations showing that the proposed grading and fill is properly balanced, as well as a plot of the areas to be graded.

- 4.) Geo Engineers site conditions states in part; "We were not able to observe much of the upper slope because of access restrictions."

Who did they contact?

I find this puzzling.

RE: Monroe's Draft scope of work October 08, 2014 page 6, Landslide Potential states in part "It is anticipated that borings and modeling will be necessary for a full assessment. Borings may be obtained from private property owners above the slope with their consent; alternatively directional boring may be accomplished from the Rivmont Drive right of way if necessary.

Reference November 14, 2014 PACE Draft Scope of Work Land slide potential states in part soil borings are not anticipated in this proposal and the

geotechnical analysis will be based in part on the storm modeling accomplished under task 2 etc. (No intention of Borings). Since the stream modeling reduces the FEMA flood plain elevation approximately 1.7 feet and **is not approved by FEMA** this study is eyewash.

VERIFICATION OF S/B INVERT CULVERT ELEVATIONS:

Reference letter dated September 15, 2015
Subject: Culvert Elevations
September 15, 2015

Information from Sadler/Barnard & Assoc., Inc. dated 5/25/99,
Topographical Survey

Culverts 3 &4

Watershed Science/PACE dated 5/28/2015

Sadler/Barnard dated 5/25/99

3) 24 inch CMP

Upstream invert elevation 56.34 feet NAVD;
Downstream invert elevation; 56.43 feet NAVD

3) 30 inch CMP

Upstream IE 56.31 NAVD
Downstream IE 55.92 NAVD

4) 3 foot Concrete Pipe Culvert

Upstream invert elevation; 55.23 feet NAVD
Downstream invert elevation; 55.33 feet NAVD

4) 38 inch concrete culvert

Invert Elevation 55.21 NAVD

This information validates the Sadler/Barnard & Assoc., Inc. 5/25/99 Topographical Survey. These elevations from Sadler/Barnard & Assoc., Inc. 5/25/99 Topographical Survey are more accurate than the LIDAR provided by PACE Engineering September 2013 East Monroe EIS Topographical Map Appendix J with reference to the areas to be cut and filled.

MY FINAL THOUGHTS:

For the history of this rezone read Ruth Realty letter dated October 14, 2013, L-11.

I would add that PACE Engineering has a vested financial interest in the outcome of this rezone.

PACE Engineering is walking back a lot of their previous information based on subcontractors findings which include but are not limited to the following:

- a). Confirming the culvert i.e., elevations by S/B survey thereby confirming its accuracy.
- b). Lowering the 100 year flood elevation by approximately 1.7 feet which as of this date is unapproved by FEMA.
- c). Fill volume estimates derived from hydraulic modeling are 30% lower than those put forth in September 2013 FEIS. Current fill estimates are approximately 33,000 cubic yards compared to PACE 46,500 cubic yards put forth in September 2013 FEIS.
- d). Mr. Hamar's analysis based on S/B Rod on the Ground Survey indicates approximately 21,871 cubic yards of potential cut for fill on the entire property based on raising property elevation to 1 foot above flood stage of 67 feet approximately 65, 630 cubic yards are required.
- e). Water Shed Inc., states in part "It was determined that the LIDAR was consistently high by approximately 0.6 feet in the East Monroe Rezone area, most likely because of the density of tall grass and blackberry bushes in the area."

Note: per our FEIS appeal we stated "The FEIS used Lidar methodology rather than the 1999 Field Study which we believe is a more accurate reflection of site elevations. Lidar's accuracy is affected by the type of terrain on the site as hard services are more accurate than sites covered with vegetation. The East Monroe site is covered with extensive vegetation. Inaccuracies in the Lidar readings could lead to incorrect estimations of the necessary cut and fill amounts required to bring the elevations to a level above flood stage for the 10 acre area that is developable on the site. This is further evidence that the FEIS failed to use the best available science."

Based on S/B Rod on the ground survey the 0.6 feet is still substantially off.

See Mr. Hamar's reasons to accept the GMHB decision and take no further action. Lidar verses Conventional Survey pages 3-8.

It's obvious to me that substantially less than the 10.17 acres are available for development which makes this property the most expensive and most undesirable in the city for commercial development.

The additional field surveying to verify, confirm and/or refine previous and LIDAR data per my letter were not received in a timely manner therefore could not be evaluated. This information should have been included in the DESIS and that taints the outcome.

I am requesting a 15 day extension for the written comment period. My letter to Mr. Osaki, dated September 07, 2015, requesting copies of the Field Survey's and supporting data that was conducted to verify, confirm, and refine previous surveys and LIDAR data per page 41 of DSEIS.

I contacted Eilean Davis at PACE Engineering by phone September 22, 2015 and also spoke directly to her at the meeting at City Hall. She assured me she had sent this information to me.

The LOS, (Limited Open Space), zoning of this property suits it to a tee. If Monroe City Council wants to rezone this property to General Commercial they should insist on a report that is objective and prepared by an independent, unbiased firm.

Respectfully,



Lowell Anderson
129 Rivmont Drive
Monroe, WA 98272

- * Already part of Record
- * Resubmitted for Mr. Osaki's benefit.

References/Attachments

- 1). Deed of Trust dated May 31, 2013.
 - Note: No changes to Deed of Trust as of August 28, 2015
 - 2). January 13, 2014 letter to Mayor Thomas
 - 3). Mr. Hamar booklet September 16, and November 18, 2014 titled Reasons to Accept the GMHG Decision and Take No Further Action.
 - 4). Commercially Zoned Property North Kelsey
 - Marketing Brochure
 - Available property map
 - 5). November 7, 2013 letter to Melissa Sartorius and Mr. Cox.. *
 - 6). Proposed site figures 4, 5, & 6, pages 17, 18, and 19 of FEIS. *
 - 7). September 1, 2015 questions Re: DSEIS
 - 8). September 1, 2015 received information for question 1
 - 9). September 15, 2015 received partial information
 - Question 2d unanswered
 - 10). September 7, 2015 questions Ref: page 41 of DSEIS
 - 11). PACE LIDAR – East Monroe EIS Topographical Map, Appendix J, Dates September 2013, project number 13372.10
-
- | | | | |
|------|---|---------------------------------|---|
| L-5 | Dr. Charles and Susan Strub letter September 11, 2013 | | * |
| L-11 | Ruth Reality Letter October 14, 2013 | | * |
| L-13 | Photograph 2006 Flood From the East | McCammon | * |
| L-14 | Photograph 2006 Flood From the East | McCammon | * |
| L-15 | Photograph 2006 Flood From the East | McCammon | * |
| L-16 | Photograph 2006 Flood From the West | Anderson | * |
| L-17 | Photograph 2006 Flood from the West | Anderson | * |
| L-18 | Photograph 1990 Flood from the Center | Martin | * |
| L-19 | Photograph 1959 Flood near Project Site | Historical Society and Anderson | * |
| L-21 | Topographical survey for HBF dated | May 25, 1999 | * |
| L-22 | Memo to file | | |

And

Section 05 Township 27 Range 07 Quarter NW - LOT 1 CITY OF MON SP 199005 REC UND AFN
200405035216 BEING PTN SW1/4 NW1/4 SD SEC 5

And

Section 05 Township 27 Range 07 Quarter NW - LOT 2 CITY OF MON SP 199005 REC UND AFN
200405035216 BEING PTN SW1/4 NW1/4 SD SEC 5

And

Section 05 Township 27 Range 07 Quarter NW - LOT 3 CITY OF MON SP 199005 REC UND AFN
200405035216 BEING PTN SW1/4 NW1/4 SD SEC 5

And

Section 05 Township 27 Range 07 Quarter NW - LOT 4 CITY OF MON SP 199005 REC UND AFN
200405035216 BEING PTN SW1/4 NW1/4 SD SEC 5

Abbreviated Legal (Required if full legal not inserted above)

Tax Parcel Number(s) 27070600102500, 27070500206100, 27070500206200, 27070500206300, and
27070500206400, together with all the tenements, hereditaments, and appurtenances now or hereafter thereunto
belonging or in any wise appertaining, and the rents, issues, and profits thereof

This Deed of Trust is for the purpose of securing performance of each agreement of Grantor(s) contained in this
Deed of Trust, the Consulting Agreement between Grantor and Beneficiary, the Promissory Note between
Grantor and Beneficiary of even date herewith, including but not limited to the payment of the sum of

Dollars (\$ 170,000)

plus any accrued interest, as defined in the Promissory Note, under the Consulting Agreement between the
Grantor and Beneficiary, with interest, in accordance with the terms of a Promissory Note of even date herewith,
payable to Beneficiary or order, and made by Grantor(s), and all renewals, modifications, and extensions thereof,
and also such further sums as may be advanced or loaned by Beneficiary to Grantor(s), or any of Grantor(s)'
successors or assigns, together with interest thereon at such rate as shall be agreed upon

DUE DATE. The entire balance of the sums due under Promissory Note secured by this Deed of Trust and the
Consulting Agreement between Grantor and Beneficiary, together with any and all interest accrued thereon shall
be due and payable in full in accordance with signed Consulting Agreement between Grantor and Beneficiary
dated May 31st, 2013

To protect the security of this Deed of Trust, Grantor(s) covenant(s) and agree(s)

- 1 To keep the property in good condition and repair, to permit no waste thereof, to complete any building,
structure, or improvement being built or about to be built thereon, to restore promptly any building,
structure, or improvement thereon which may be damaged or destroyed, and to comply with all laws,
ordinances, regulations, covenants, conditions, and restrictions affecting the property

- 2 To pay before delinquent all lawful taxes and assessments upon the property, to keep the property free and clear of all other charges, liens, or encumbrances impairing the security of this Deed of Trust
- 3 To keep all buildings now or hereafter erected on the property described herein continuously insured against loss by fire or other hazards in an amount not less than the total debt secured by this Deed of Trust All policies shall be held by the Beneficiary, and be in such companies as the Beneficiary may approve and have loss payable first to the Beneficiary, as its interest may appear, and then to the Grantor(s) The amount collected under any insurance policy may be applied upon any indebtedness hereby secured in such order as the Beneficiary shall determine Such application by the Beneficiary shall not cause discontinuance of any proceedings to foreclose this Deed of Trust In the event of foreclosure, all rights of the Grantor(s) in insurance policies then in force shall pass to the purchaser at the foreclosure sale
- 4 To defend any action or proceeding purporting to affect the security hereof or the rights or powers of Beneficiary or Trustee, and to pay all costs and expenses, including cost of title search and attorney's fees in a reasonable amount, in any such action or proceeding, and in any suit brought by Beneficiary to foreclose this Deed of Trust
- 5 To pay all costs, fees, and expenses in connection with this Deed of Trust, including the expenses of the Trustee incurred in enforcing the obligation secured hereby and Trustee's and attorney's fees actually incurred, as provided by statute
- 6 Should Grantor(s) fail to pay when due any taxes, assessments, insurance premiums, liens, encumbrances, or other charges against the property hereinabove described, Beneficiary may pay the same, and the amount so paid, with interest at the rate set forth in the note secured hereby, shall be added to and become a part of the debt secured in this Deed of Trust
- 7 DUE ON SALE The property described in this security instrument may not be sold or transferred without the Beneficiary's consent Upon breach of this provision, Beneficiary may declare all sums due under the note and Deed of Trust immediately due and payable, unless prohibited by applicable law

Grantor initials

Beneficiary initials

IT IS MUTUALLY AGREED THAT

- 1 In the event any portion of the property is taken or damaged in an eminent domain proceeding, the entire amount of the award or such portion as may be necessary to fully satisfy the obligation secured by this Deed of Trust shall be paid to Beneficiary to be applied to said obligation
- 2 By accepting payment of any sum secured by this Deed of Trust after its due date, Beneficiary does not waive its right to require prompt payment when due of all other sums so secured or to declare default for failure to so pay
- 3 The Trustee shall reconvey all or any part of the property covered by this Deed of Trust to the person entitled thereto, on written request of the Grantor(s) and the Beneficiary, or upon satisfaction of the obligation secured and written request for reconveyance made by the Beneficiary or the person entitled thereto

- 4 Upon default by Grantor(s) in the payment of any indebtedness secured by this Deed of Trust or in the performance of any agreement contained in this Deed of Trust, all sums secured hereby shall immediately become due and payable at the option of the Beneficiary subject to any cure period provided in the note secured by this Deed of Trust. In such event and upon written request of Beneficiary, Trustee shall sell the trust property, in accordance with the Deed of Trust Act of the State of Washington, at public auction to the highest bidder. Any person except Trustee may bid at Trustee's sale. Trustee shall apply the proceeds of the sale as follows: (1) to the expense of the sale, including a reasonable Trustee's fee and attorney's fee, (2) to the obligation secured by this Deed of Trust, and (3) the surplus, if any, shall be distributed to the persons entitled thereto.
- 5 Trustee shall deliver to the purchaser at the sale its deed, without warranty, which shall convey to the purchaser all right, title and interest in the real and personal property which Grantor(s) had or had the power to convey at the time of the execution of this Deed of Trust, and such as Grantor(s) may have acquired thereafter. Trustee's deed shall recite the facts showing that the sale was conducted in compliance with all the requirements of law and of this Deed of Trust, which recital shall be prima facie evidence of such compliance and conclusive evidence thereof in favor of bona fide purchaser and encumbrancers for value.
- 6 The power of sale conferred by this Deed of Trust and by the Deed of Trust Act of the State of Washington is not an exclusive remedy, Beneficiary may cause this Deed of Trust to be foreclosed as a mortgage.
- 7 In the event of the absence, death, incapacity, disability, or resignation of Trustee, or at the discretion of the Beneficiary, Beneficiary may appoint in writing a successor trustee, and upon the recording of such appointment in the mortgage records of the county in which this Deed of Trust is recorded, the successor trustee shall be vested with all powers of the original trustee. The trustee is not obligated to notify any party hereto of pending sale under any other Deed of Trust or of an action or proceeding in which Grantor(s), Trustee, or Beneficiary shall be a party unless such action or proceeding is brought by the Trustee.
- 8 This Deed of Trust applies to, inures to the benefit of, and is binding not only on the parties hereto, but on his/her/their heirs, devisees, legatees, administrators, executors, and assigns. The term Beneficiary shall mean the holder and owner of the note secured hereby, whether or not named as Beneficiary herein.
- 9 ADDITIONAL TERMS AND CONDITIONS (check one)
- a None
- b As set forth on the attached Exhibit _____ which is incorporated by this reference
- (Note: If neither "a" nor "b" is checked then option "a" applies.)

REQUEST FOR FULL RECONVEYANCE - *Do not record To be used only when note has been paid*

TO TRUSTEE

The undersigned is the legal owner and holder of the note and all other indebtedness secured by the within Deed of Trust. Said note, together with all other indebtedness secured by said Deed of Trust, has been fully paid and satisfied, and you are hereby requested and directed, on payment to you of any sums owing to you under the terms of said Deed of Trust, to cancel said note above mentioned, and all other evidences of indebtedness secured by said Deed of Trust delivered to you herewith together with the said Deed of Trust, and to reconvey, without warranty, to the parties designated by the terms of said Deed of Trust, all the estate now held by you thereunder.

Dated _____

RECEIVED

1

January 13, 2014

JAN 13 2014

CITY OF MONROE

Monroe City Hall
Attention: Mayor Geoffrey Thomas
806 W. Main Street
Monroe, WA 98272

Dear Mayor Thomas,

As you know I have been long opposed to the recently approved East Monroe Comprehensive Plan Amendment and Rezone.

I recognize the political deck was stacked against us under the former mayor and city council. However, I remain very frustrated by city staff's unwillingness to take an objective and unbiased approach to evaluating the Comprehensive Plan Amendment and Rezone.

It was apparent throughout the process that city staff was working hand in glove with the proponent to advocate for the Comprehensive Plan Amendment and Rezone which favored a narrow private interest to the overall public good.

While there are many examples of the biased nature of the city staff's involvement I would like to highlight three examples.

1). We provided both photographic and oral testimony from long term residents of the Rivmont/Calhoun neighborhood of the subject property being flooded. City staff refuted this evidence and sided with the proponent. In my judgment, ignoring this compelling evidence and siding with the proponent's position that the property was not flooded was very misleading.

2). City staff also ignored the 1999 topographical survey and relied on the less reliable LIDAR study that was completed in late summer 2013. Once again we can understand the proponent's consultant relying on the LIDAR study rather than the topographical study, but city staff should have used the more reliable data of the earlier topographic survey.

3). We provided ample evidence of the significant discrepancies in the proponent's "cut and fill" analysis that was essentially ignored by Ms. Sartorius.

Those of us who actively participated in this long standing comprehensive plan amendment and rezone process never felt the city staff gave us the time of day. It was clear that they were advocates for the Minnick proposal as a result of considerable pressure from the former mayor.

I do not believe that City staff involved in the Comprehensive Plan Amendment and Rezone particularly Ms. Sartorius and Paul Popelka treated the proposal fairly and objectively and have no confidence in their ability to do so in future projects.

I would appreciate the opportunity to discuss these concerns with you in greater detail in a face to face meeting.

Very truly yours,



Lowell Anderson
129 E. Rivmont Drive
Monroe, WA 98272
360.794.7075

**Reasons to accept
the GMHB decision
and take no further action**

September 16, 2014

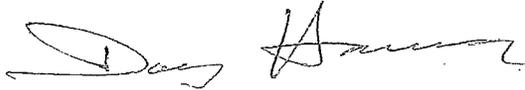
City of Monroe
Attention: Mayor and City Council
806 W. Main Street
Monroe, Wa 98272

RE: Accepting the Growth Management Hearings Board decision to invalidate the rezoning of the East Monroe property.

See the following 15 pages.

Thank you for your attention.

Sincerely,



Douglas Hamar
PO Box 1104
Monroe, Wa 98272

**Reasons to accept the Growth Management Hearings Board decision
and take no further action**

Safety First.....pg. 1
Consider OSO

LIDAR vs Conventional Survey.....pg. 3

Does it (will it) flood and how high?.....pg. 9
Excerpts from FEMA Climate Change Study.....pg.10

Noise—A 2000 sq foot Big Box store?.....pg.10

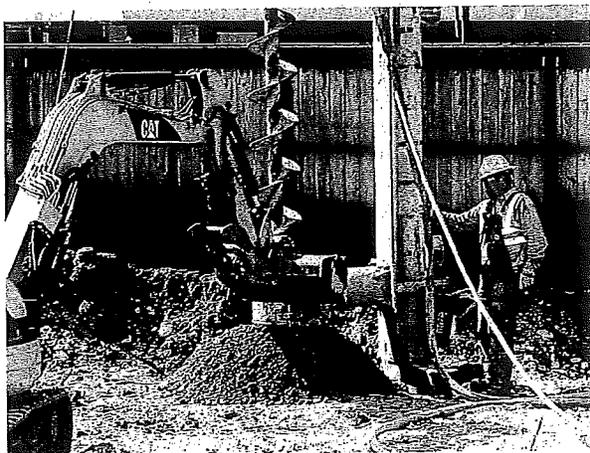
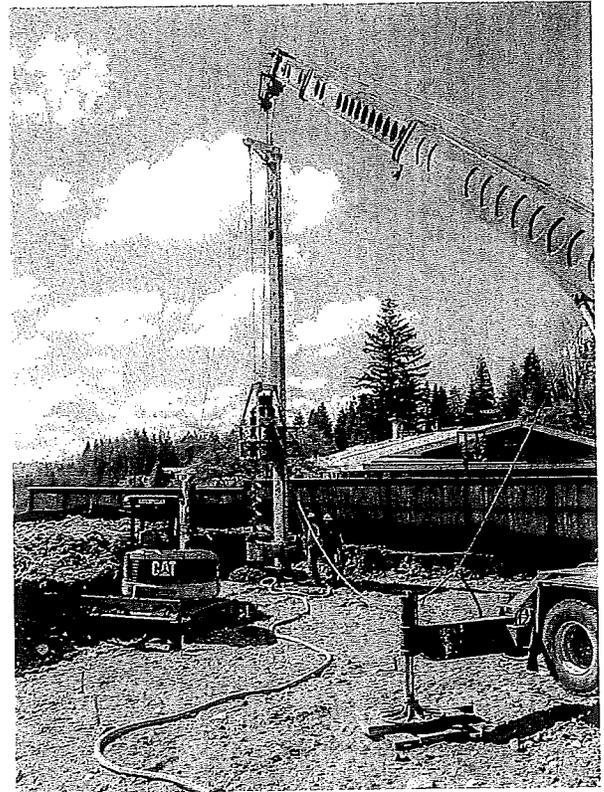
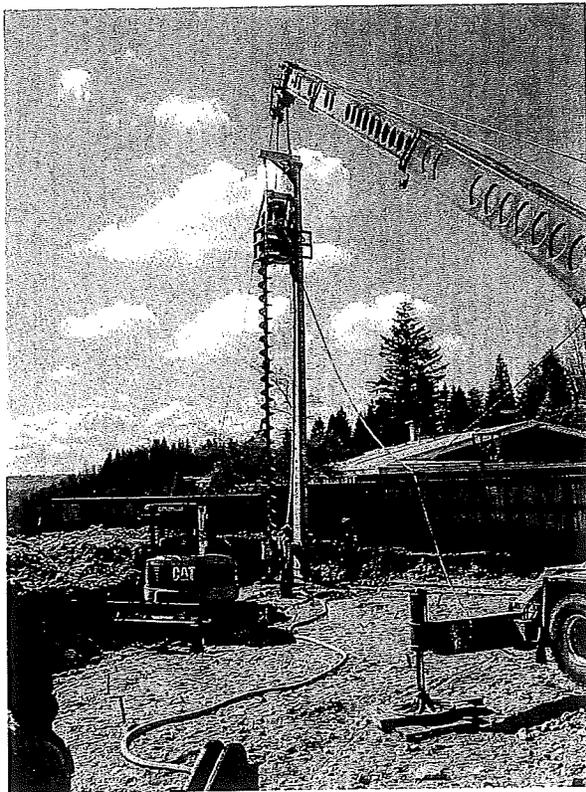
Traffic.....pg. 15

Alternative 1.....pg. 15

Question for policymakers.....pg. 15

SAFETY FIRST--THE HAZARDS OF A STEEP UNSTABLE SLOPE

Throughout the public process that preceded the City of Monroe's passing of Ordinances 022/2013 and 024/2013, the neighborhood on the bluff above the East Monroe property has raised concerns about commercial development undermining the steep slope and increasing the chances of further landslides—either by direct action or by a change in flow patterns of inevitable future flooding. The City has maintained that these concerns are not valid as long as the development is south of the slough and the 1:1 compensatory flood storage requirement is met. Whether these concerns are valid or not, the horrific tragedy in Oso recently raises public safety concerns for development of the East Monroe property from an entirely different angle. Is it prudent to invite perhaps 1000 customers and employees onto a piece of property below an unstable slope of this magnitude? The City is well aware of just how unstable this slope is. In 2008, my next door neighbors were required—by the City—to buttress the foundation of their new home with 16 re-enforced concrete pillars, 18 inches in diameter, extending 20 feet into the ground (see below).



Full map available @<http://www.heraldnet.com/article/20140430/NEWS01/140509933>

DATA SOURCES:
 Potential Landslide Areas
 40' Raster Cells; 3' cell/min to approximate a minimum of 50'
 Hillside Height. Data layer derived from Snohomish
 County Lidar; multiple area, multiple resolution, multiple
 vary, and multiple dates 2006 - 2014. City Jurisdictions
 and Mount Baker-Snoqualmie National Forest Areas Excluded
 Landslide Hazard Areas:
 Washington State DNR Data for existing DNR Landslide
 Hazard Areas is published at a 1:24000 scale
 One Half Mile Buffer:
 Methodology used to create the half mile buffer zone is based
 upon a 50' Hillside Height and 33% Slope delineation
 Assessor Parcels:
 Snohomish County Assessor parcels dataset is used as a source
 for indicating tax parcels located within the half mile buffer radius.
 The Usecode attribute of this dataset provided statistics for number
 of residences within the buffer zone

DATA and MAP DISCLAIMER:
 All maps, data and information set forth herein ("Data"), are for
 illustrative purposes only and are not to be considered an official
 citation to, or representation of, the Snohomish County Code.
 Amendments and updates to the Data, together with other applicable
 County Code provisions, may apply, which are not depicted herein.
 Snohomish County makes no representation or warranty concerning
 the content, accuracy, currency, completeness or quality of the Data
 contained herein and expressly disclaims any warranty of
 merchantability or fitness for any particular purpose. All persons
 using or otherwise using this Data assume all responsibility
 for use thereof and agree to hold Snohomish County harmless from
 and against any damages, loss, claim or liability arising out of
 any error, defect or omission contained within said Data. Washington
 State Law, Ch. 42.56 RCW, prohibits state and local agencies from
 providing access to lists of individuals intended for use for commercial
 purposes and, thus, no commercial use may be made of any Data
 comprising lists of individuals contained herein.

Subject to redaction

SNOHOMISH COUNTY

All Landslide Hazard Areas with One Half Mile Buffer Area

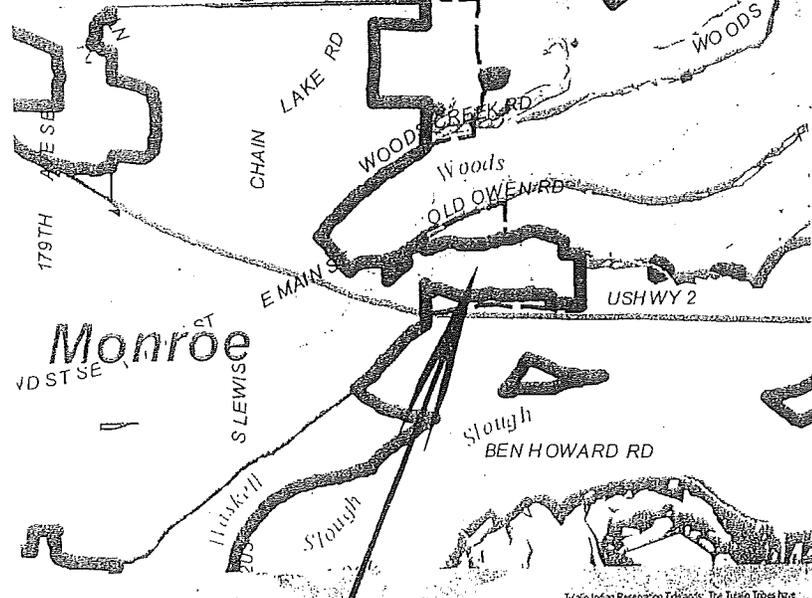
Includes Slopes Greater Than 33% with
an Elevation Change Greater Than
or Equal To 50 Feet **APRIL xx, 2014**

DRAFT
all are
onal Forest

City Jurisdictions and Mount Baker-Snoqualmie
National Forest Areas Excluded

EFFECTIVE/ADOPTED BY SNOHOMISH COUNTY COUNCIL
AMENDED ORDINANCE XX-XXXX, XXX X, XXXX

Detail Enlargement of Monroe Area



- One Half Mile Buffer Area Boundary
- ▨ Washington State Department of Natural Resources Land Slide Hazard Areas
- ▨ Potential Landslide Areas (CAR Modified Slopes Greater Than 33% with an Elevation Change Greater Than or Equal To 50 Feet)
- ▨ One Half Mile Buffer Area (From Potential Landslide Hazard Areas)
- Incorporated City Area (No Jurisdiction)
- ▨ Assessor Cadastral Parcel Boundary
- ▨ U. S. Forest Service Land (Limited Jurisdiction)
- Water Body
- Streams
- Urban Growth Area Boundary
- Tutalip Indian Reservation Boundary

Summary Statistics:	Square Miles
DNR Landslide Hazard Areas -	
Potential Landslide Areas -	
Area of 1/2 Mile Buffer -	
Number of Parcels Affected -	
Number of Residences Affected -	

East Monroe Property

Tutulip Indian Reservation Lands: The Tutulip Tribes have made jurisdictional claims on lands which have not been acknowledged or agreed upon by Snohomish County or the State of Washington. For a discussion of these jurisdictional issues see Section 2.5 of the SUP.



Map of potential landslide areas CAR Modified Slopes Greater Than 33% with an Elevation Change Greater Than or Equal To 50 Feet with One Half Mile Buffer Area. Produced by Snohomish County Department of Planning and Development Services. Cartography: GIS

LIDAR vs Conventional Survey

The FEIS for the East Monroe rezone and Comprehensive Plan Amendment relied exclusively on LIDAR mapping for determining availability of compensatory flood storage. Despite substantial evidence to the contrary, a case was made by Pace Engineering, and accepted by the City, that the LIDAR elevations were more accurate than the elevations from the conventional Topographical Survey prepared in 1999 by Sadler/Barnard & Associates. In the following pages, we have layered images of the LIDAR map (Fig.1), the 1999 Topographical Survey (Fig.2), and an aerial photograph of the East Monroe property (Fig.3), allowing us to more clearly illustrate in Figure 4 and 5 that the LIDAR is perceiving blackberry bushes as solid ground. We have featured a few elevations around the property that exemplify the substantial (more than 8 feet in places) differences between the LIDAR-produced elevations and those of the conventional survey. However, the LIDAR map shows contour lines around the blackberry bushes all across the property, which make those areas appear more as "steep slopes" than as the relatively flat terrain they actually are. As far as we know, there is no way to get flood storage from blackberry bushes. Therefore, as we have stated before, decision makers were misinformed. The "no net loss" of flood storage capacity required by law is physically impossible to achieve with the development and mitigation strategies described in the East Monroe FEIS.

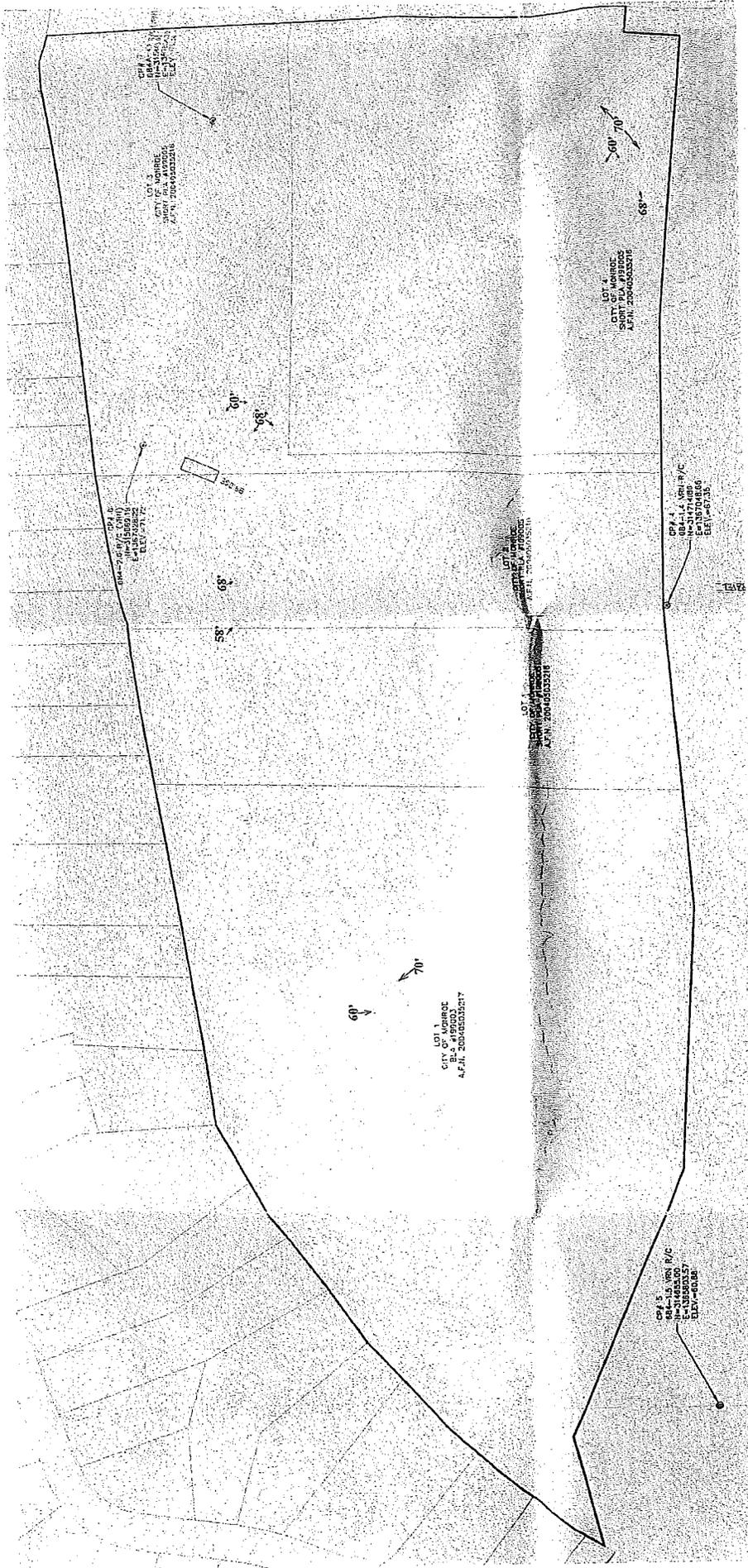


Figure 1. LIDAR map for East Monroe property, with featured elevations called out with arrows.

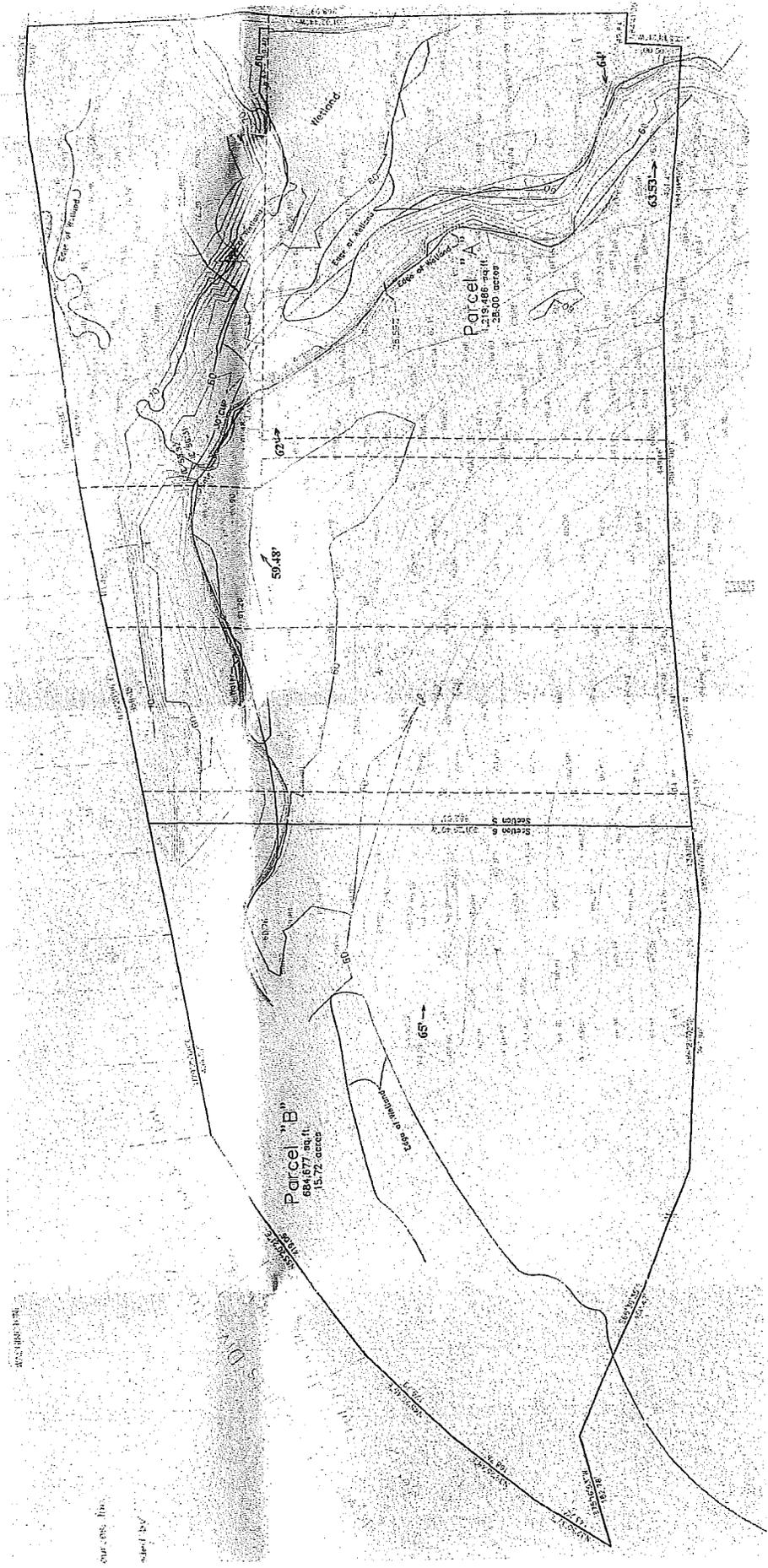


Figure 2. 1999 Survey map for East Monroe property, with featured elevations called out with arrows.

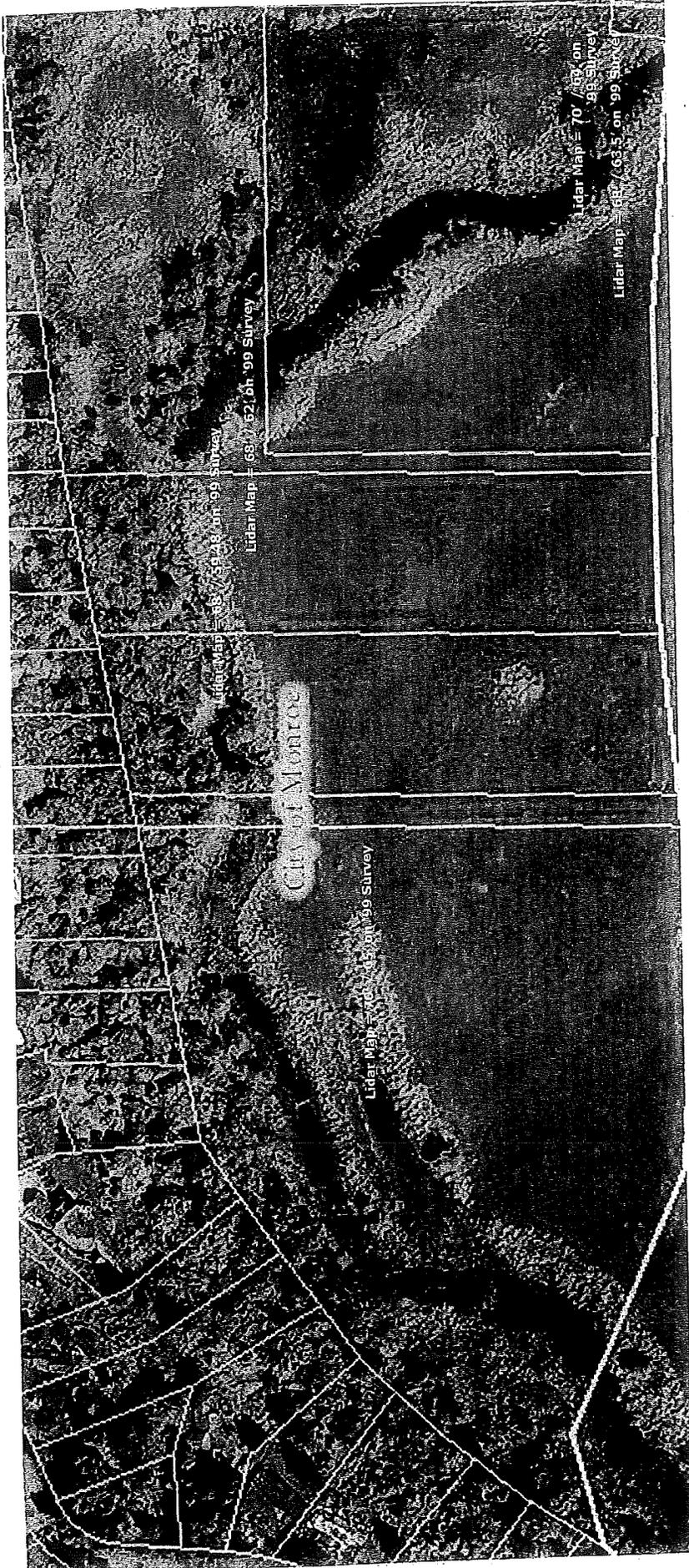


Figure 3. Aerial photograph of East Monroe property, with featured elevation discrepancies noted.

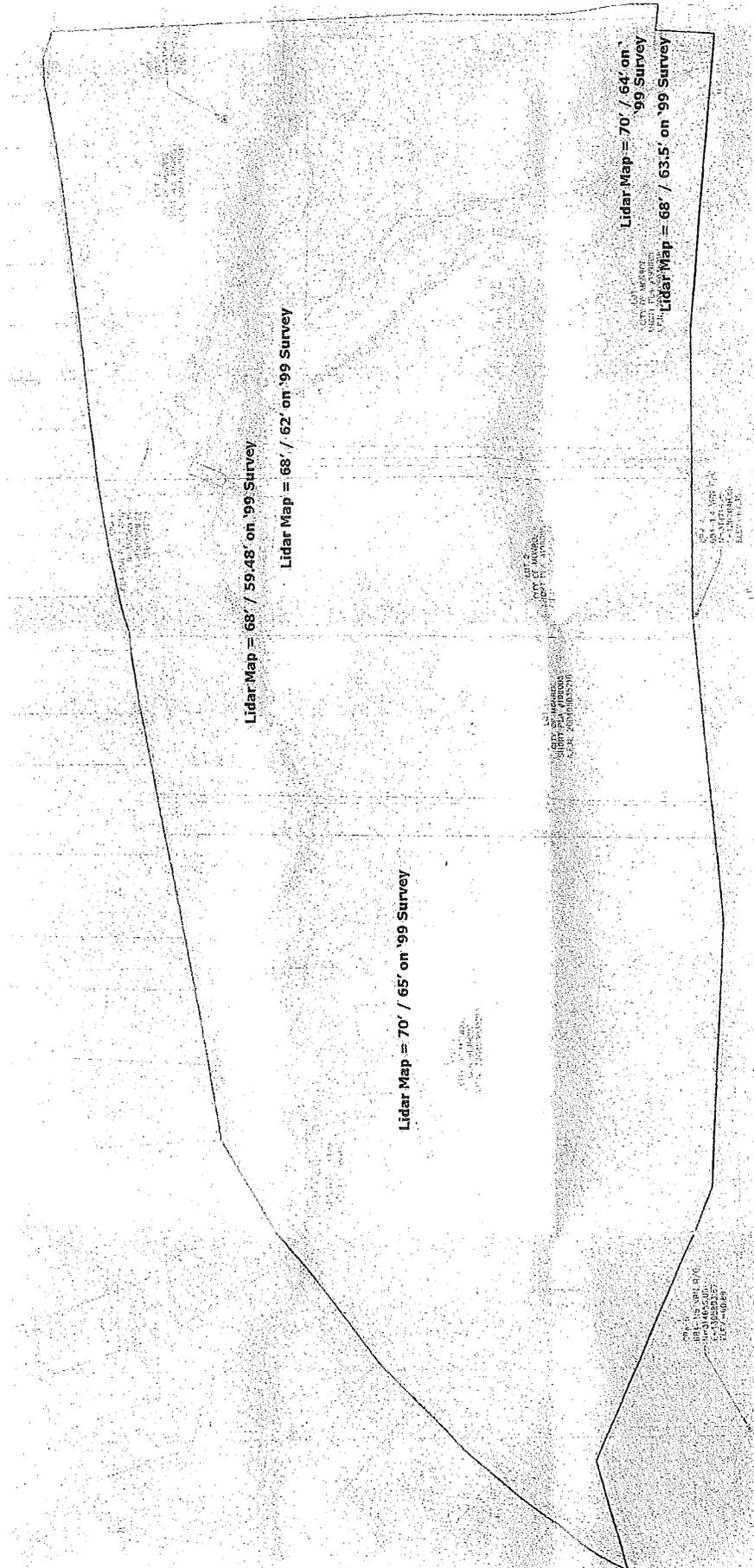


Figure 4. LIDAR map of East Monroe property superimposed over 1999 Survey map of same, with featured elevation discrepancies noted.

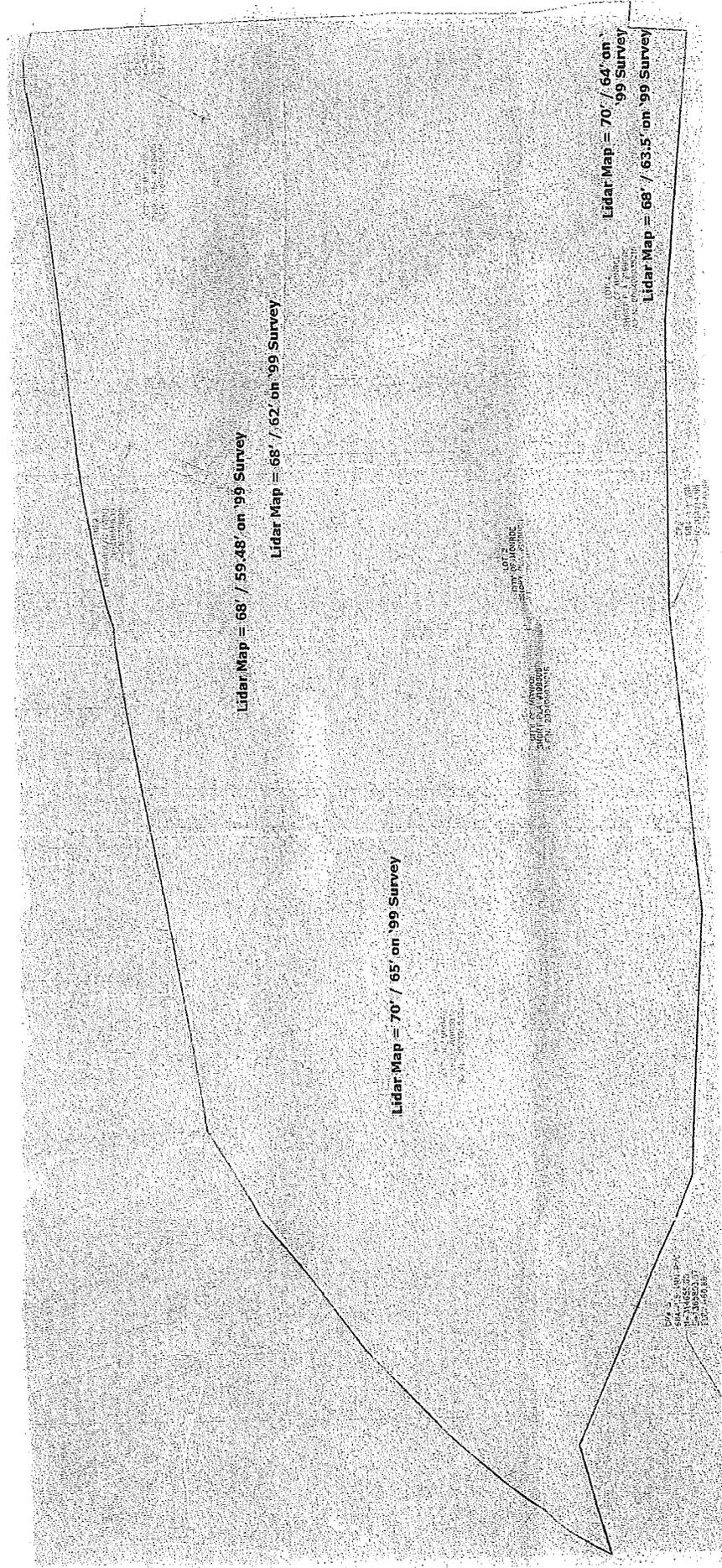
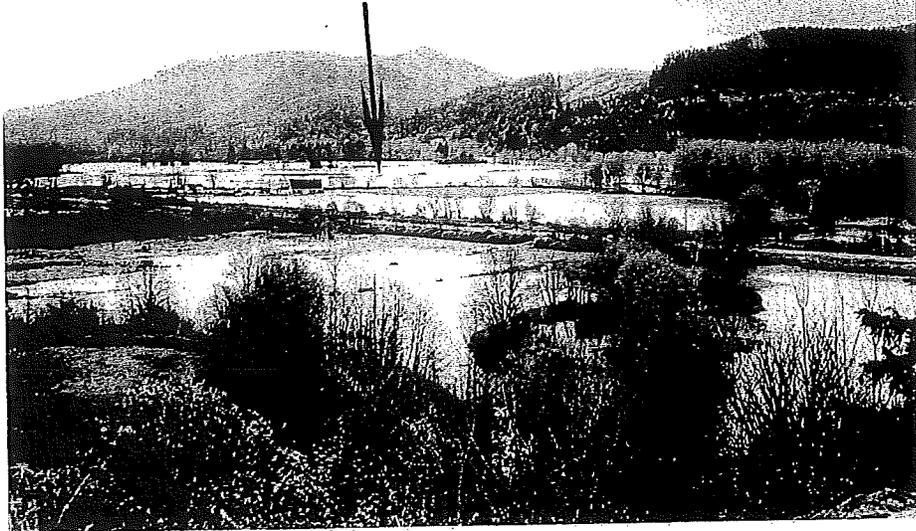


Figure 5. LIDAR map and 1999 Survey map of East Monroe property, superimposed over aerial photograph of same, with featured elevation discrepancies noted.

The photo below was taken from the bluff above the East Monroe property during the 1995 flood--which crested at 20.24'. This photo corroborates a slew of testimony given at the appeal hearing for the East Monroe FEIS, specifically, that the City's photo at the bottom of this page cannot have been taken during the 2006 flood--which crested at 24.51'. The two photos here are clearly taken from different viewpoints along the bluff, but the important point is that during any significant flood, the farmland visible in the distance in both photos (south of US-2) would be under water. In the City's photo, the river is not even over its banks.

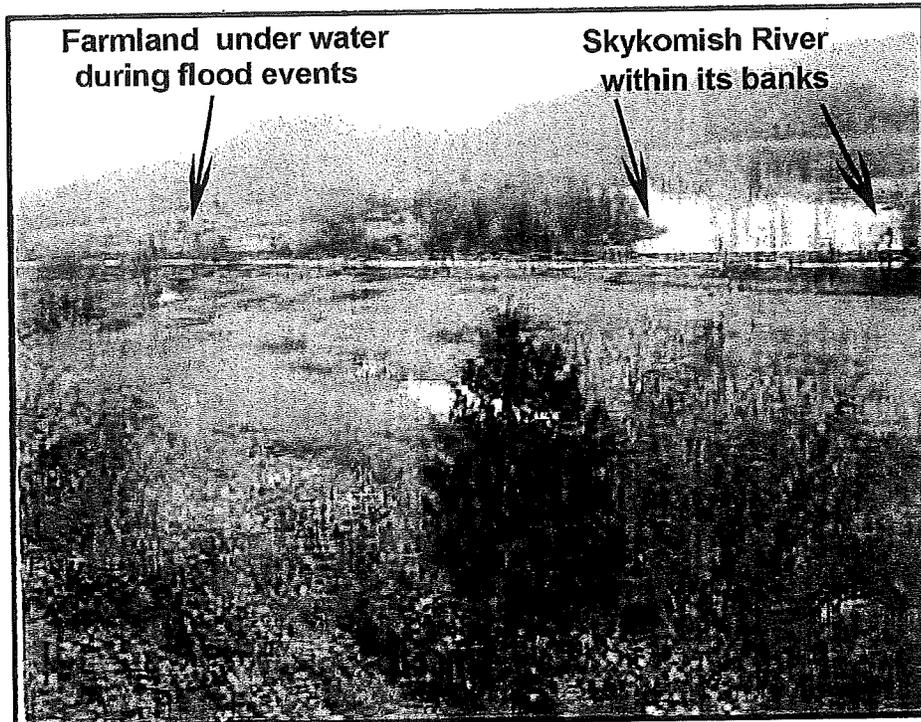
Farmland under water during flood events



1995 Flood, 8th highest on record, cresting at 20.24 ft.

Farmland under water during flood events

Skykomish River within its banks



In the FEIS, page 42, Figure 13: 2006 Flood Elevation Imagery the City claims this is a photo of the 2006 flood, the highest on record, cresting at 24.51 ft, and "the site remained above water."

Excerpts from:

**The Impact of Climate Change and
Population Growth on the
National Flood Insurance Program
Through 2100
June 2013**

prepared for

**Federal Insurance and Mitigation Administration
Federal Emergency Management Agency**

prepared by AECOM

in association with

Michael Baker Jr., Inc.

Deloitte Consulting, LLP

The study finds that over the next 90 years, there will likely be (50-percent chance) a significant increase in coastal and riverine flooding in our nation, which will have a significant impact on the NFIP. The Federal Insurance and Mitigation Administration (FIMA) supports the findings in this study and is committed to increase public awareness of flood risk and promote action that reduces risk to life and property. If the risk of flooding increases as described in this report, there will be a need for FEMA to directly incorporate the effects of these changes into various aspects of the NFIP. As a nation, we need to acknowledge our risk, establish our roles, and work together to prepare for the future. *Pages vii, viii of the Forward.*

General Findings

For the riverine environment, the typical 1% annual chance floodplain area nationally is projected to grow by about 45%, with very large regional variations. The 45% growth rate is a median estimate implying there is a 50% chance of this occurring. Floodplain areas in the Northwest and around the Great Lakes region may increase more, while areas through the central portions of the country and along the Gulf of Mexico are expected to increase somewhat less. No significant decreases in floodplain depth or area are anticipated for any region of the nation at the median estimates; median flood flows may increase even in areas that are expected to become drier on average. *Page ES-6, Executive Summary*

6.1.1 Technical Findings

Riverine Environment – By the year 2100, the relative increase in the median estimates of the 1 percent annual chance floodplain (floodplain) depth and area (Special Flood Hazard Area or SFHA) in riverine areas is projected to average about 45% across the nation, with very wide regional variability. Depths and areas may increase by over 100% in some areas of the Northwest and in the vicinity of the Great Lakes, whereas smaller relative increases of about 20 to 40% may be typical of areas of the central and Gulf regions. *Page 6-1*

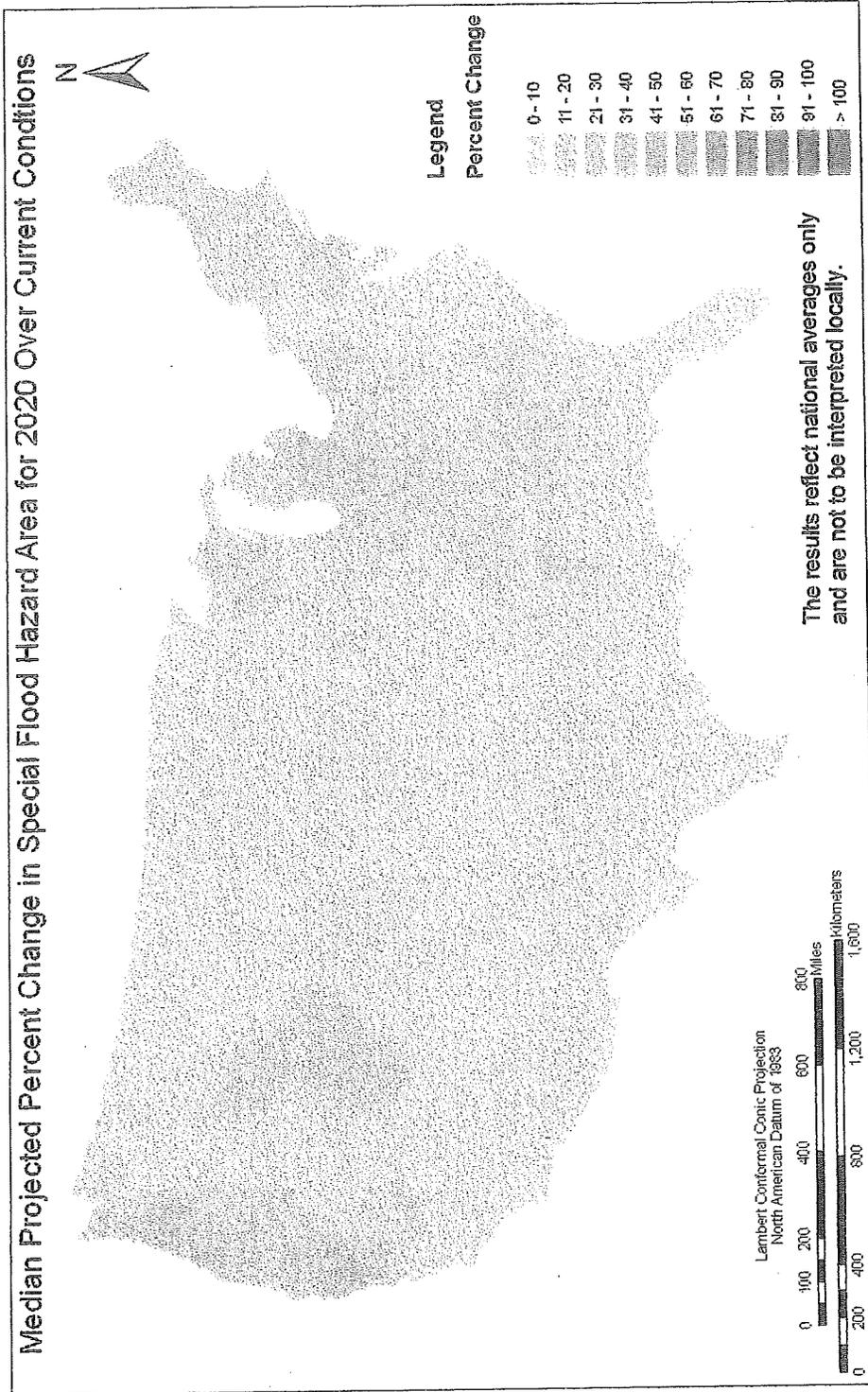


Figure 4-6. The median (50th percentile) relative change of the SFHA at epoch 1 (2020). Changes are with respect to current conditions.

4-13

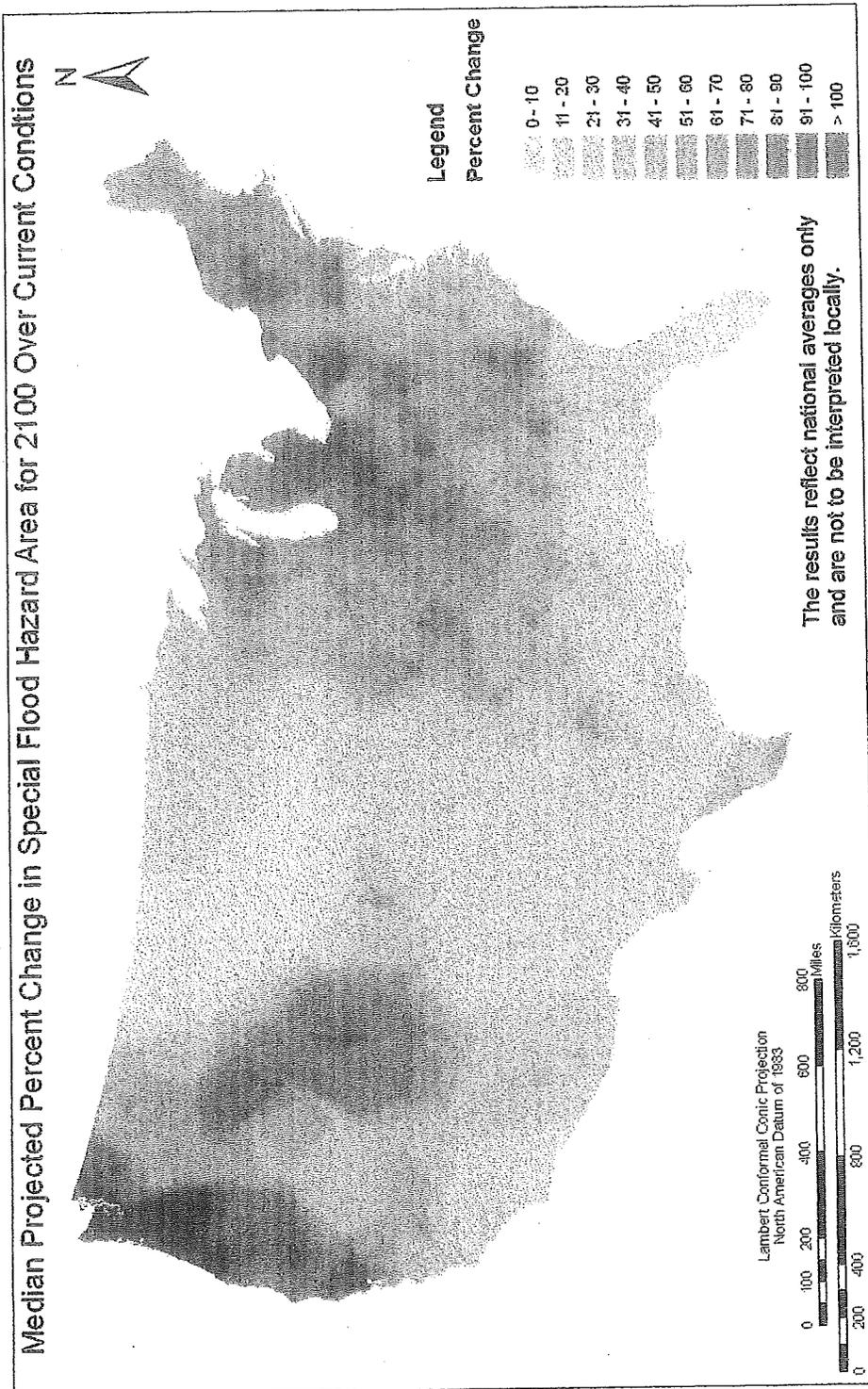


Figure 4-10. The median (50th percentile) relative change of the SFHA at epoch 5 (2100). Changes are with respect to current conditions.

23-4

Climate Change Study

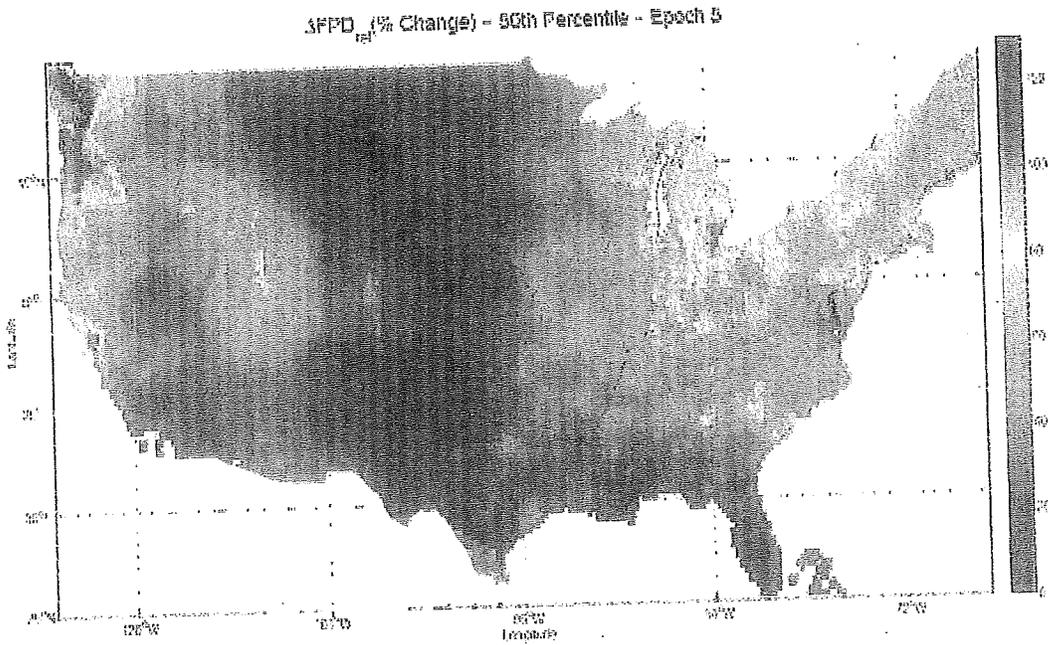


Figure D-8. Spatially continuous ordinary Kriging estimates of the 50th percentile (or median) change in FPD (or equivalently, the change in FPA) over current conditions for the time period 2080–2099. Estimates produced in areas of Mexico and Canada should be ignored as they are the result of extrapolating from gage locations from within the U.S. Estimated changes in FPA toward the end of the century range from little to no change in the Midwest, to more than 100 percent change in the Pacific Northwest and highly urbanized areas of the Northeast.

A 2000 Sq Foot Big Box Store?

Obviously, you cannot accurately spec the size of an air conditioning unit without knowing the exact space requirement, climate, and particular use, but "for the purpose of comparison," the EAST Monroe FEIS uses a 5 ton unit that they claim is "common for a home improvement store." See *The East Monroe FEIS*, page 49. As Mr. McCammon pointed out in his testimony as an expert before the Hearings Examiner, a 5 ton unit is more appropriate for a 2000 sq ft home. From my own research, which I was compelled to do because, again, the margin of error here is astounding, I found that the HVAC "rule of thumb" for a residence with 8' foot ceilings is 1 ton/ 400-700 sq ft. Clearly, a 5 ton unit for a 130,000 square foot building with 30 foot ceilings is considerably undersized. The FEIS says a 5 ton unit has a noise rating of 87db, as much as the upper range of a "typical" lawnmower. For comparison purposes, imagine a rooftop in the yard of the neighbor below you with 65 (130,000/400/5=65) lawnmowers humming along day in and day out. Then add a parade of delivery trucks coming and going and forklifts scurrying about. Like so many findings in this FEIS, the noise level impacts that would result from the development envisioned by this rezone are fudged to fit the desired narrative.

Traffic

Over a stretch of Highway 2, already serving 20,000 + vehicles a day, the traffic analysis in the FEIS determines that the General Commercial zoning will likely add "5,230 average daily trips with 459 PM peak-hour trips" (FEIS, pg. 58) to the mix—vehicles attempting to enter and exit the East Monroe property. On the very next page, The FEIS declares, "Based on these results, the change in zoning is not anticipated to result in a significant impact to the access or the surrounding off-site intersections.

Alternative 1, the "no action" alternative, envisions a building footprint of 83,000 sq ft, for a fitness center, a daycare center and a church, along with 220,000 sq ft of parking to accommodate the "1602 new average daily trips" by vehicles accessing the property from US-2.

The FEIS insists this is the "**most likely**" development on this property under the LOS Zoning and carries out its impact analysis as if these conditions already exist on the property. Which, of course, skews every result toward a "no impact" conclusion.

Our question to City Policymakers:

Do you want your names associated with spending additional taxpayer dollars defending or otherwise championing the "expert" conclusions presented in the 2013 FEIS for the East Monroe property?

November 18, 2014

City of Monroe
Attention: Mayor and City Council
806 W. Main Street
Monroe, Wa 98272

RE: 1.Extent of available compensatory flood storage on the East Monroe property.
2.Photographic evidence that—contrary to Pace's recent assertions—the property is indeed in the floodplain.

See the following 4 pages.

Thank you for your attention.

Sincerely,

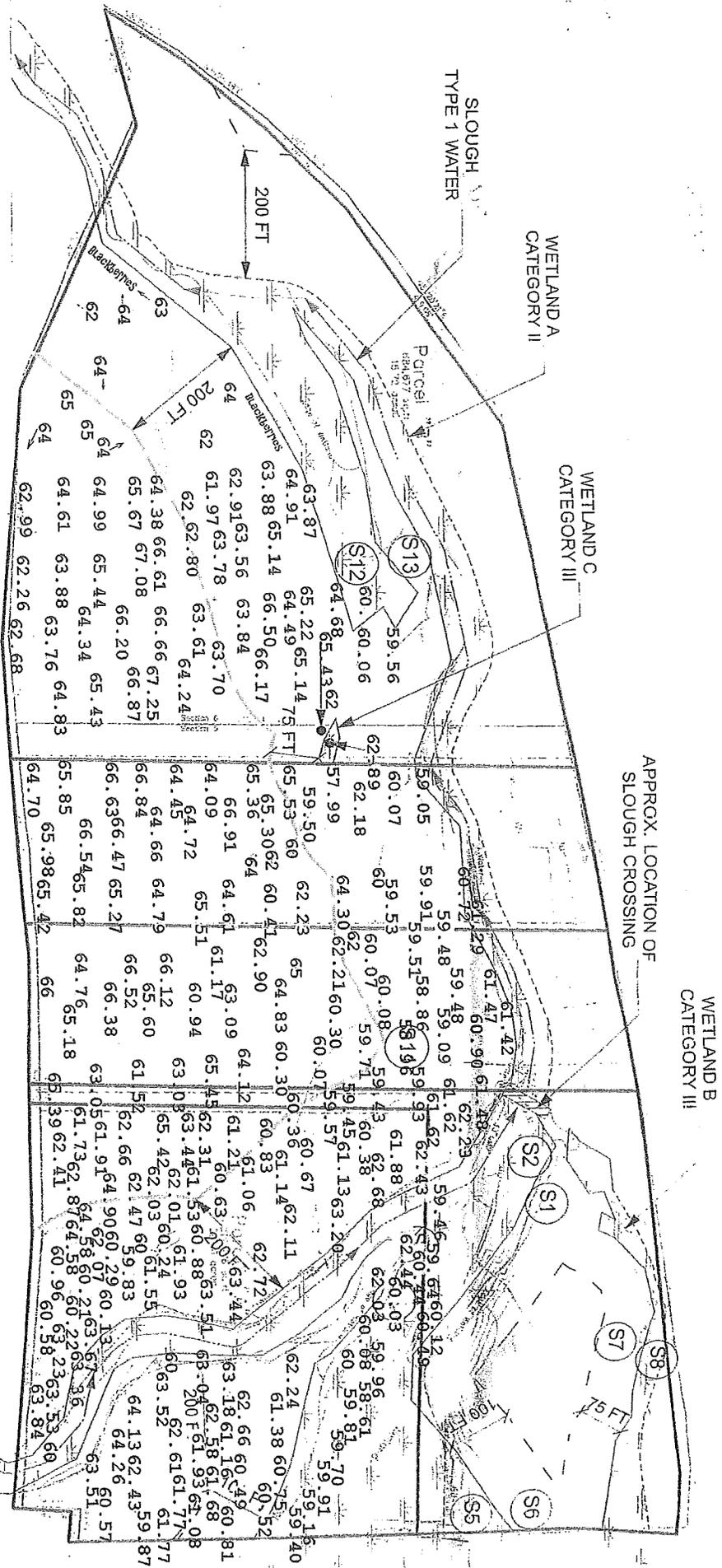
Douglas Hamar
PO Box 1104
Monroe, Wa 98272

Sadler Barnard 1999 Survey with Elevations Enlarged for Better Visibility

Total compensatory flood storage capacity

available on the entire East Monroe property = 21,871.4 cubic yards

See accompanying calculations, pages 2 and 3



Total fill needed to raise the 10.17 acres (area outlined in Green)

one foot above floodplain = 65,630 cubic yards

See accompanying calculations, pages 2 and 3

AVAILABLE COMPENSATORY FLOOD STORAGE ON THE EAST MONROE PROPERTY

The 2013 EIS for the East Monroe property calls out 10.17 acres on the point bar of the oxbow as “developable.”

I went back and recalculated in great detail the available compensatory flood storage capacity available on the East Monroe property. The result is 21,871.4 cu yd (cubic yards). This is less than half the 46,500 cu yd Pace claimed was needed to raise the “developable” 10.17 acres one foot above flood plain. And that claim was more than 20,000 cu yd short of what would actually be required (65,630 cu yd) to allow the raising that acreage above flood plain.

The Sadler Barnard 1999 survey provides 90 elevations within that 10.17 acre area. For the area left blank at the western edge in the Sadler Barnard Survey, I have used the one elevation (64') provided for this area in the infamous LIDAR survey. As it is reasonable to assume that some of the blank area may be as high as 65', I have taken that into consideration as well with two 65' elevations and an additional 64' elevation, for a total of 94 elevations.

The average elevation for the 10.17 acres is 63.99' ($6015.22 / 94$)

To raise this 10.17 acres to 68' (one foot above floodplain), you need four feet of fill—65,630 cu yd. (10.17×43560 (sq ft per acre) = $443,005 \times 4 = 1,772,020$ cubic ft / $27 = 65,630$ cubic yards.)

The Sadler Barnard 1999 survey provides 83 elevations within the 200' buffer that surrounds the “developable” 10.17 acres. Again, for the western edge, I have included elevations from the LIDAR survey—even though it is reading blackberry bushes in this area as solid ground—for a total of 89 elevations.

The average elevation for the surrounding 200' buffer area is 61.89' ($5508.66 / 89$).

The Ordinary High Water elevation is 59.8'

59.8' from 61.89' leaves 2.09' of elevation in the surrounding buffer area.

The outer edge of the surrounding buffer area—that bordering the slough—is 2470' long.

The inside edge—that bordering the “developable” area—is 1833' long.

$2470 + 1833 = 4303 / 2 = 2151.5 \times 200 = 430,300$ sq ft (square feet) $\times 2.09 = 899,327$ cu ft

$899,327 \text{ cu ft} / 27 = 33,308.4$ cu yd

The buffer must retain a 1% slope from the slough to the “developable” pad to prevent the stranding of fish—1% over 200' = 2'.

$430,300 \times 2 = 860,600 \text{ cu ft} / 27 = 31,874$ cu yd of which half must be retained for the 1% slope.

$31,874 / 2 = 15,937$ cu yd—the amount that must be retained to achieve a 1% slope.

Total volume available within the surrounding buffer area = 33,308.4 cu yd

33,308.4 - 15,937 = 17,371.4 total cu yd available for compensatory flood storage within the surrounding 200' buffer.

The Sadler Barnard 1999 survey provides 25 elevations between the wetlands and the slough in the Southeast corner of the property.

The average elevation here is 61.9'.

$61.9 - 59.8$ (OHM) = 2.1' over an area that is approximately 300'x300'

$300 \times 300 \times 2.1 = 189,000$ cu ft / 27 = 7000 cu yd

Maintaining the 1% slope here is more complicated because the ground drops to the OHM on three sides. For these calculation, we will pretend it is only two sides that have to rise to 1.5' in the middle.

$300 \times 300 \times 1.5 = 135,000$ cu ft / 27 = 5,000 cu yd / 2 = 2,500 cu yd needed to maintain a 1% slope.

$7000 - 2500 = 4500$ cu yd of potential compensatory flood storage in the Southeast corner.

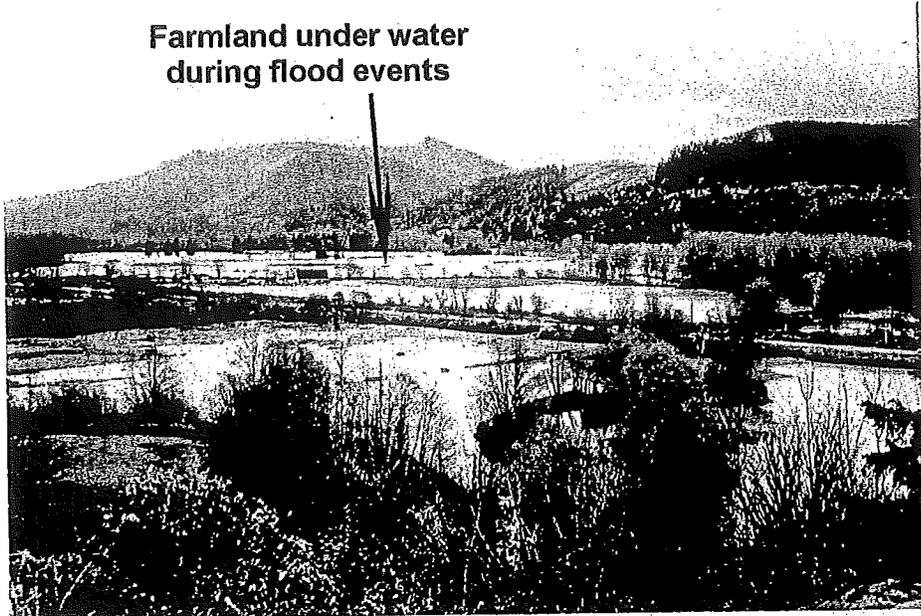
$17371.4 + 4500 = 21,871.4$ cu yd of potential compensatory flood storage available on the entire property.

21,871.4 cu yd is 43,758.6 cu yd short of the 65,630 cubic yards necessary to raise the 10.17 acres a foot above the flood plain.

Yet Another False Claim In The 2013 East Monroe FEIS

The photo below was taken from the bluff above the East Monroe property during the 1995 flood--which crested at 20.24'. This photo corroborates a slew of testimony given at the appeal hearing for the East Monroe FEIS, specifically, that the photo at the bottom of this page cannot have been taken during the 2006 flood--which crested at 24.51'. The two photos here are taken from different viewpoints along the bluff, but the important point is that during any significant flood, the farmland visible in the distance in both photos (south of US-2) would be under water. In the photo from PACE's FEIS, the river is not even over its banks.

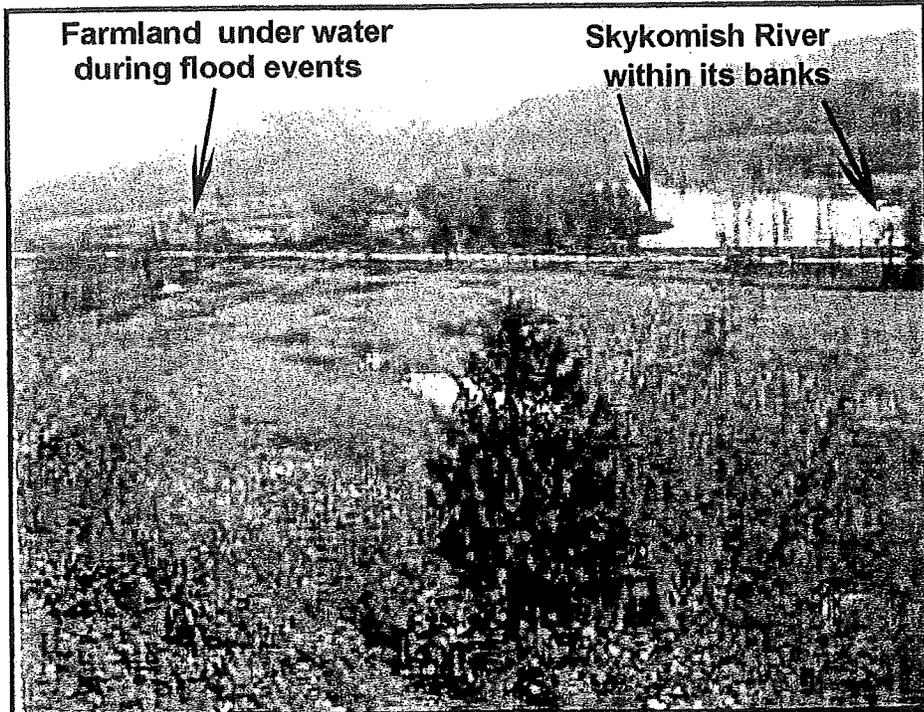
Farmland under water during flood events



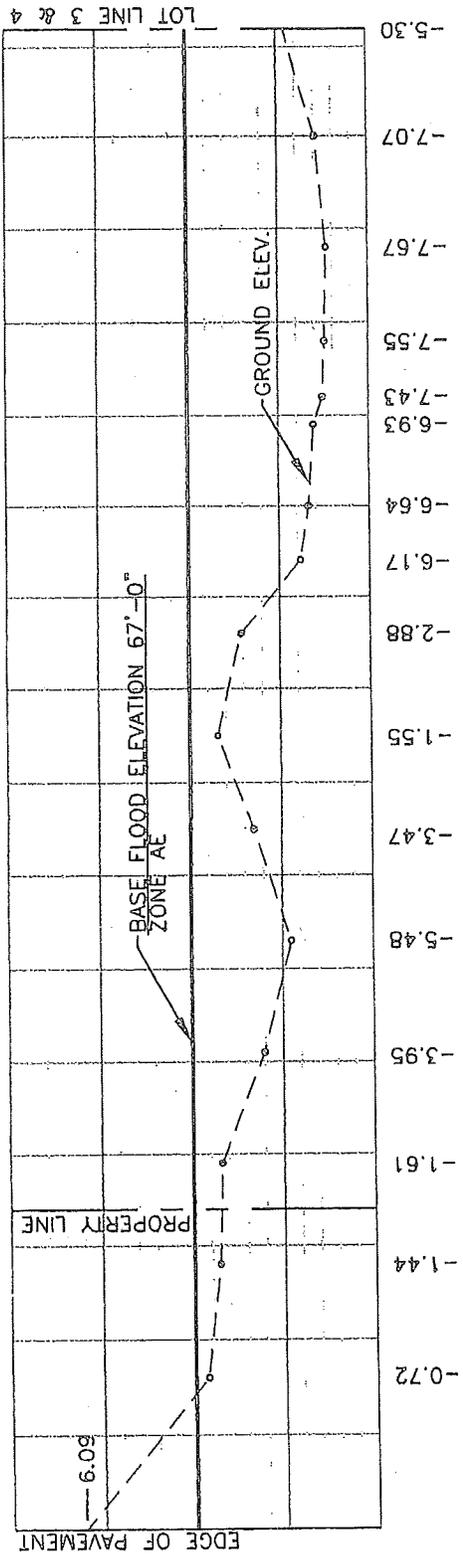
1995 Flood, 8th highest on record, cresting at 20.24 ft.

Farmland under water during flood events

Skykomish River within its banks



In the FEIS, page 42, Figure 13: 2006 Flood Elevation Imagery the City claims this is a photo of the 2006 flood, the highest on record, cresting at 24.51 ft, and "the site remained above water."



**SECTION @ APPROX. LOT LINE 4
(LOOKING WEST)**

SCALE: 1"=100± H., 1"=10'± V.

REF. TOPOGRAPHICAL SURVEY SHI. 1 OF 1 DATED 5/25/99

SADLER/BARNARD & ASSOC. INC.

In August of 2013, Susan Boyd, described the oxbow/slough to the the planning Commission as: **And I quote:**

“a stream that provides flood management, it floods when the river floods.”

Later after their FEIS had asserted that the property had never **been** under water, she testified before the Hearings Examiner in response to the **historical record**,—and I quote: “we have no idea why the site flooded”

And she went on to implicate beavers as the possible cause.

At the recent November 4th Council meeting Ms Boyd declared, **and I quote,**

“I want to be really clear, this property is not in the floodplain, it's not in the floodplain. According to FEMA, and according to code, it is excluded from floodplain.”

Here is the FEMA Flood Insurance Rate Map which Pace themselves provided in the FEIS for East Monroe, and it very clearly shows all but the Northeast corner of this property designated as “AE,” “Special Flood Hazard area,” that is 100yr flood plain. This is the “**Best available science**” on the subject—and considering it as such—has been upheld both by the hearings examiner and the Growth Management Board.....I don't think you want to spend **any** more taxpayer money on the notion that this property is **not** in the floodplain.

Also at the November 4th Council meeting, Ms Boyd tried to dispel any concerns about Pace's bogus, blackberry infused calculations for the compensatory flood storage—that is required.... in the **Floodplain**—by assuring you all that they could easily find that storage elsewhere. They could put it underground. Pace is **so** familiar with this property, they don't know that it is an old riverbed, and the underground is **already** being used as flood storage capacity? She also suggested a developer could get the storage on some other property nearby.

Local farmers have testified on numerous occasions their steadfast opposition to this rezone. Are you going to rezone this property on the **hope** that those farmers are going sacrifice their own acreage to make commercial development of **possible**.

To obfuscate the potential noise impact on the bordering residential neighborhood, Pace claimed an air conditioning unit of the size suitable for a 2 – 3000 sq ft home with 8 ft ceilings was “**common for a home improvement store.**” Here once again, reality was inconvenient to the narrative desired by the property owners.

Which brings me to some information that I only recently received, and that is, that Pace accepted a lien on this property for the cost of the EIS in May of 2013 which counts **them** among the owners of this property. I'd like to know if the City was made aware of that at the time, because when I'm trying to gather **accurate** information about something, I like to know the extent of potential bias on the part of the providers of that information—especially when it involves me investing my money in it.

It **should** be clear by now which side of this debate has a well documented record of being **disingenuous**, and tonight you are considering letting **them** have another go at it?

Our appeals are not the cause for the great expense incurred by the City pursuing this proposal. The cause of that expense has been all the inaccuracies and misrepresentations sold to you by the **proponents** of this rezone. Those misrepresentations are **why** our appeals have been successful and the **responsibility** for having **accepted** them rests with this body. That acceptance came despite a **complete** lack of evidence that a rezone would benefit the City in any way. In fact, **common sense** and the experience of other communities across the country would suggest the opposite.

Consider this from the

UNIVERSITY OF COLORADO LAW REVIEW on THE LEGACIES OF **POOR** PLANNING DECISIONS

Big box stores, the defining retail shopping location for the majority of American suburbs, are being abandoned at alarming rates. These empty stores impose numerous negative externalities on the communities in which they are located, including blight, reduced property values, loss of tax revenue, environmental problems, and a decrease in social capital.

Retailers are deserting big boxes in such large numbers that commentators have anointed the empty behemoths with their own name: ghostboxes.

Is changing the color of the map **so** important? Does one property owner's "**right**" to a **rezone** trump the the interests of the entire community?

Where is the evidence upon which you are basing your decisions to ignore the obvious.

Where is the example of a struggling retail district that has benefited from a new retail area a mile away?

Where is the example of **any—any** commercial development in an old oxbow floodplain still connected to a river?

The board did dismiss most of our claims because they do not have the legal authority to override a City's decision based on whether or not what the City wants to do makes any sense. But they invalidated the the rezone because of the inadequacy of the Environmental Impact Statement which was prepared by Pace and all their **unimpeachable** experts.

Where is the evidence that Pace will not continue to obfuscate and misinform as they have done thus far?



For Sale: Commercially Zoned Land

North Kelsey Area • Monroe Washington



For Sale: Various lot sizes available starting at +/- 40,000 SF (\$15/SF and above)

- Prime Commercial Land next to super Walmart (planned opening 10/2014)
- Roadway Improvements include Extension of Tieme Place Road and a new roundabout at Chain Lake and North Kelsey intersection
- 230,000 contiguous square feet
- Highly Accessible and Visible Location: One block north of Hwy 2 off North Kelsey Street, the primary road that serves the majority of the retail trade area.
- Neighboring retailers: Fred Meyer, Lowe's, Safeway, Albertson's and Galaxy Cinemas



For further information, please contact our exclusive agent:
Jan Lanford 425.653.3000 janford@ngkf.com

www.ngkf.com

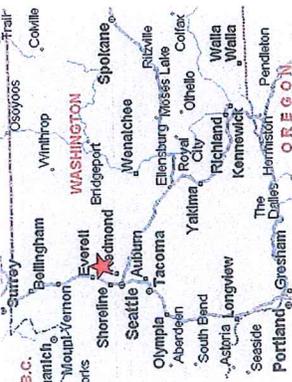
Newmark Grubb Knight Frank

Proceeding herein shall only be entitled in a commission, calculated in accordance with the rates approved by our principal only if such proceeding either secures a brokerage agreement acceptable to us and our principal and the necessary information to make brokerage agreement are fully and unconditionally satisfied. Although all information furnished herein is believed to be true and correct, it is not guaranteed, and is subject to change without notice and to any special conditions imposed by our principal. No fee is to be required as to the recovery thereof until the completion of the sale.



For Sale: Commercially Zoned Land

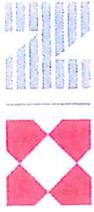
North Kelsey Area • Monroe Washington



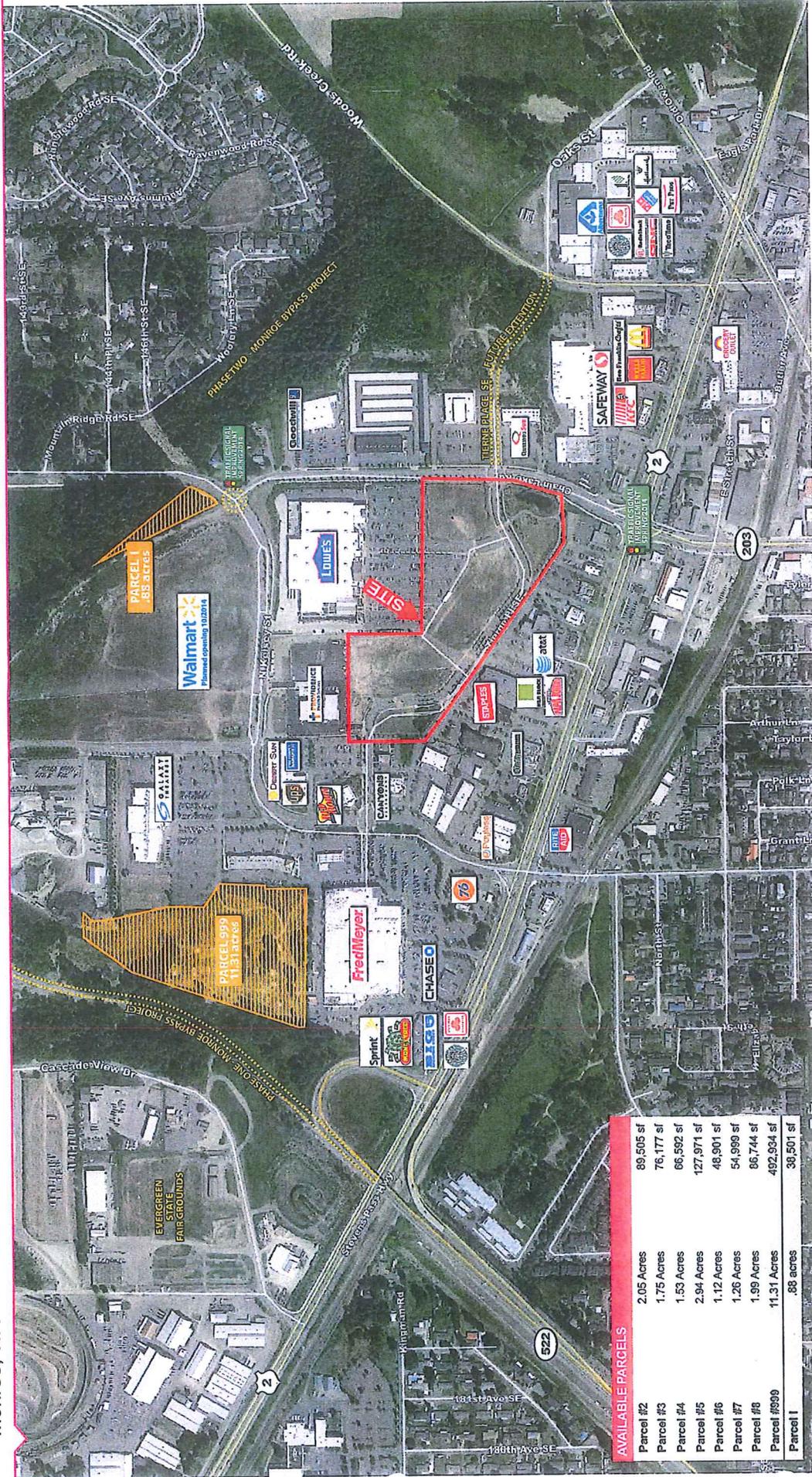
DEMOGRAPHICS	1 Mile	3 Miles	5 Miles
Population	6,758	27,713	37,172
2016 Projection	6,218	25,401	34,265
Households	2,488	8,819	12,096
2016 Projection	2,305	8,101	11,170
2011 Estimate	\$65,245	\$78,713	\$83,935
2011 Medium Income	\$55,361	\$68,136	\$71,096
Population in the City of Monroe • 2016 Projection			19,732
Population in the City of Monroe • 2011			16,102

For further information, please contact our exclusive agent:
Jan Lanford 425.653.3000 janford@ngkf.com

Newmark Grubb Knight Frank

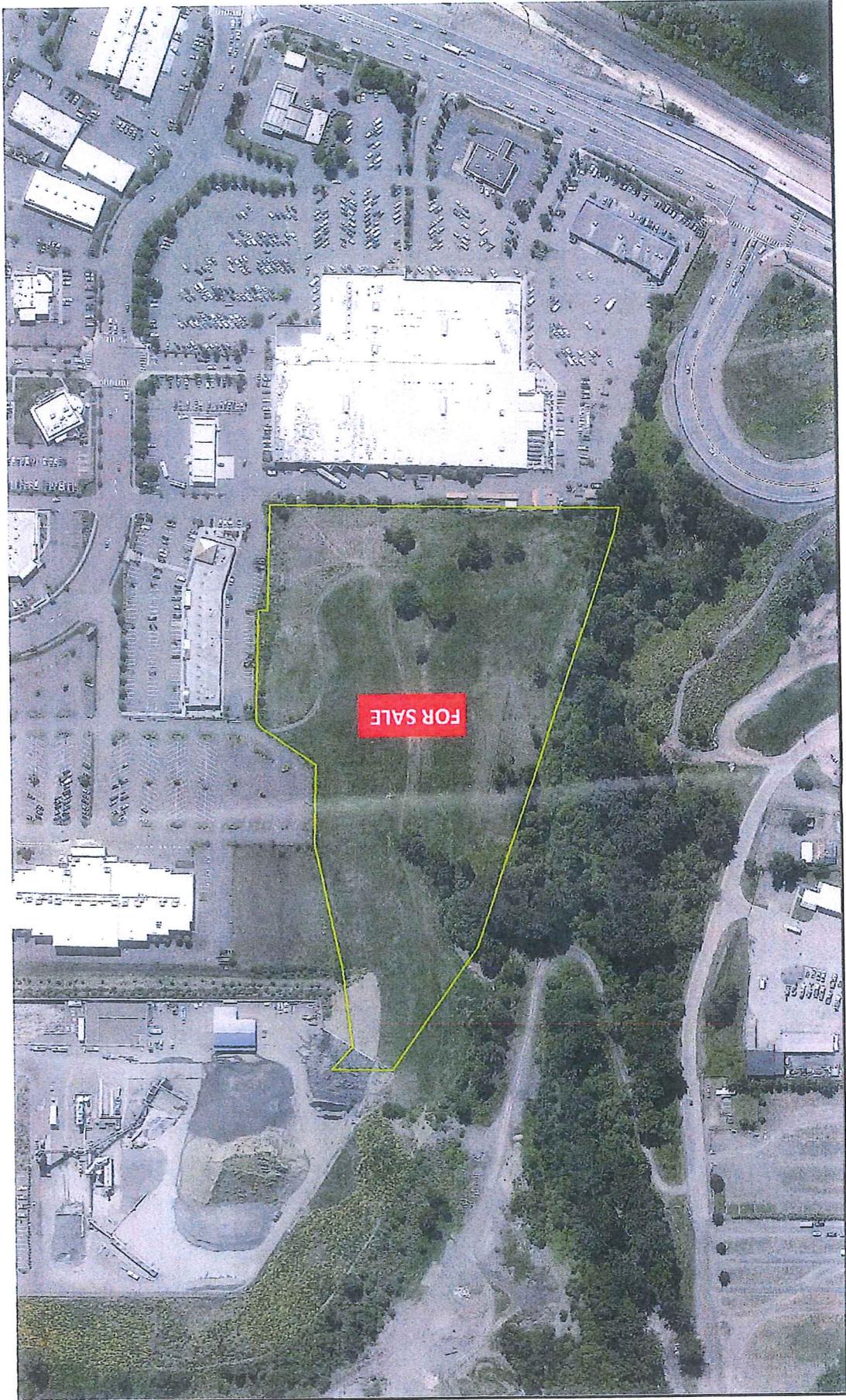


For Sale: Commercially Zoned Land in the North Kelsey Area Monroe, WA



AVAILABLE PARCELS	
Parcel #2	89,505 sf
Parcel #3	76,177 sf
Parcel #4	66,592 sf
Parcel #5	127,971 sf
Parcel #6	48,901 sf
Parcel #7	54,959 sf
Parcel #8	86,744 sf
Parcel #9/90	492,934 sf
Parcel 1	38,501 sf

Newmark Grubb Knight Frank



November 7, 2013

City of Monroe
Attention: Melissa Sartorius, SEPA Official & Mr. Carl Cox, Hearing Examiner
806 W. Main Street
Monroe, WA 98272

RE: Appeal Hearing Comments - Appeal of FEIS East Monroe Comprehensive Plan Amendment and Subsequent Rezone

Dear Ms. Sartorius and Mr. Cox:

This letter is intended to become part of the official appeal record to address issues raised in the City of Monroe's October 31st 2013 appeal response letter. In response to the content of Ms. Sartorius' letter this rebuttal will consolidate some of our previous issues into fewer responses. In addition, this letter seeks a redraft of the FEIS to address our concerns outlined below.

Standard of Review

According to WAC 197-11-402(10), EISs shall serve as the means of assessing the environmental impact of proposed agency action, rather than justifying decisions already made. It is clear from the history provided by the City that this proposal has been attempted previously and we would argue that the City had already decided to pursue this rezone and has only completed this EIS in order to justify the decision the City has already made. This is evident in the fact that in 2012 the City Council attempted to adopt the Comprehensive Plan Amendment and Rezone proposal prior to the completion of the EIS decision, which they had to subsequently void while they waited for this FEIS decision.

Furthermore with respect to how the EIS evaluates the content of the "project" proposal we assert that the level of detail included in this EIS provides a false sense of certainty that is not appropriate. Once the property is rezoned to general commercial (GC) the project proponent would be eligible for reasonable use exceptions that could allow additional intrusions into the critical areas or buffers in accordance with *Monroe Municipal Code (MMC) 20.05.050*. Under the existing Limited Open Space (LOS) zoning reasonable use could be used to afford only limited low intensity development such as one (1) single family home per 5-acres, agricultural, and green house retail.

MMC 20.05.050 allows exceptions to the Cities Critical Area regulations when the applicant can demonstrate it is needed to allow a reasonable use of the property. Based upon the existing zoning a reasonable use exception would not likely be needed or approved, but under a rezone to general commercial an applicant would be far more likely to utilize this exception criteria thereby impacting or reducing the protective buffer. The FEIS does not include any analysis of the eligibility of an allowed use under the LOS compared to the eligibility of an allowed use under the general commercial zoning.

As this SEPA Determination and associated FEIS is a non-project proposal we assert that the "non-action alternative" is based upon inaccurate assumptions and has not been executed at the appropriate level of detail. The appropriate level of detail required for an informed decision would at a minimum include a code analysis of the allowed uses and general development

standards in the existing and proposed zones. An abbreviated version of such an analysis is provided below:

According to *MMC 18.10.140 Table A*, LOS rural residential development requirements the existing parcels must meet these standards:

- 1 unit per 5 acres minimum lot size
- 70 foot minimum lot width
- 30% maximum lot coverage
- 35' max building height
- 50' from arterials and 25' from other streets front yard setback
- 25' side yard setback
- 25' rear yard setback

MMC 18.10.140 Table D, as it applies to Limited Open Space (LOS) has the following requirements for non-residential development:

- 5 acres minimum lot size
- 70 foot minimum lot width
- 30% maximum lot coverage
- 35' max building height
- 50' from arterials and 25' from other streets front yard setback
- 25' side yard setback
- 25' rear yard setback
- 5' landscape buffer

Whereas according to *MMC 18.10.140 Table C*, General commercial development has the following requirements:

- No minimum lot size standard
- No minimum lot width standard
- 100% maximum lot coverage
- 35-45' building height
- 20' front yard setback
- Side and rear yard setbacks as allowed according to the IBC/IFC
- 5' perimeter and 20' residential landscape buffer

Issue 1

Ms. Sartorius points to the SEPA Handbook FAQ - *If a rezone is proposed, what is the most likely development on the site under existing zoning?"*

We assert that the FEIS makes some errors in assumption regarding the existing zoning and therefore existing potential development. The subject parcels do not have conditional use or special use permit approvals to allow a religious institution and daycare center; therefore this is not currently an allowed use for this site. As a Director decision with public process and appeal options these uses are not outright allowed, so there is no guarantee that they would be authorized at this location.

As you can see from the *MMC 18.10.140* code references above, this rezone proposal would remove many land use restrictions currently on the property. The FEIS erroneously omits this from its analysis of potential impacts to the floodplain. Regardless of the proposal under the

current LOS zoning the property would remain in at least 5-acre parcels and each parcel could only be built out to 30% lot coverage. Once rezoned to general commercial the parcels could be further subdivided into any configuration with no minimum lot size and no maximum lot coverage. *MMC 18.10.220* states the following with regard to lot coverage:

The total impervious area to be covered by buildings, driveways, parking areas, sidewalks, pools, and similar impervious surface areas shall not exceed the percentage of a building lot area defined in the bulk requirement tables (MMC 18.10.140).

This rezone would drastically increase the intensity of development and allow development without limitation on the amount of impervious surface. This rezone would therefore invite, if not require, a level of development that is not compatible with the adjacent critical areas, shoreline or the floodplain, which it resides in.

Table 3 of the FEIS inaccurately assumes equal environmental impacts and mitigation measures for all alternatives. WAC 197-11-444 defines the water element of the environment to include, topography, surface water movement, runoff/absorption, floods and groundwater movement/quantity/quality. This rezone would increase the amount of impervious surface and developable area of these parcels thereby affecting all elements of the water environment of the site. The FEIS points to the minimum requirements of the Western Washington Stormwater Manual to address the water issues associated with the eventual development of the property, but does not address the intrinsic impacts of this rezone. The minimum stormwater requirements address flow control and water quality, but they will not mitigate the fish refuge and critical floodplain habitat components lost when the developable area of the parcel increases from 30% to 100%. Specific analysis of this intrinsic change needs to be included in the FEIS for it to provide its purpose of an informed baseline for decision-making.

Table 4 of the FEIS does not accurately depict the current 30% lot coverage restriction within the LOS zone for Alternative 1. In accordance with the LOS zoning restrictions of *MMC 18.10.140* the estimated lot coverage would look something like this:

- Lot A is a total of 15.73 acres, 30% lot coverage area would be 4.72 acres, but the buildable area is already reduced to 2.92 as a result of critical area impacts.
- Lot B is a total of 5.01 acres, 30 % lot coverage would be 1.50 acres; therefore the proposed 2.29 developable acres is not accurate within the LOS.
- Lot C is a total of 5.20 acres, 30% lot coverage would be 1.56 acres; therefore the proposed 2.77 acres of developable area is not accurate within the LOS.
- Lot D is a total of 6.85 acres, 30% lot coverage would be 2.06 acres, but buildable area is already reduced to 1.16 acres based on critical area impacts.
- Lot E is a total of 10.02 acres, 30% lot coverage would be 3.01 acres, but buildable area is already reduced to 2.19 acres based on critical areas impacts.

Therefore based on this information the estimated buildable area for all five (5) parcels within the LOS zone would actually be closer to 9.33 acres not 11.3 as described within Table 4 of the FEIS. The FEIS should be revised to accurately reflect the development potential of these parcels under the LOS zoning restrictions. In contrast, the proposed Alternative 2 option could build out to 100% lot coverage. The FEIS depicts a development scenario for Alternative 1 that requires compliance and approval in accordance with *MMC 18.96 & 18.97*. Conditional Uses are allowed per *MMC 18.96* provided the proposal meets certain criteria such as the performance standards within the zoning district and demonstration that the proposed use is compatible with the surrounding land uses. According to *MMC 18.97.10* Special Use *permits are*

for uses possessing characteristics of such unusual, large-scale, unique or special form as to require special scrutiny, above and beyond the requirements of a conditional use, and requiring final action by the Monroe city council. In addition, Conditional Use and Special Use approvals can be heavily conditioned to even increase the requirements in standards, criteria or policies established with MMC Title 18. The FEIS assumes the approval of uses within Alternative 1 that would be subject to conditions that are unknown and therefore not included.

If the FEIS is going to show a conditional use and special use only allowed via MMC 18.96 & 18.97 within the LOS as Alternative 1, it should also show how in Alternatives 2 and 3 with critical areas permits allowed under MMC 20.05.050 the development could extend to 100% of the property. The provided estimated buildable areas analysis within the FEIS has become so convoluted that it reads more like a project action proposal. Furthermore, the FEIS has placed limitations on the estimated buildable area for Alternative 2 & 3 that are not founded in the MMC, while the estimated buildable area under Alternative 1 does not apply basic restricts of MMC 18.10.140.

As Ms. Sartorius points out on page 6 of the City's response letter, there are no lands within the City of Monroe designated solely for agriculture; as such this piece of Limited Open Space is one of the last remaining areas where agricultural uses are even allowed in the City. Rather ironic for a City with such a rich farming, logging and agricultural history. A history documented and displayed in the Western Heritage Center erected at the Evergreen State Fairgrounds on the West end of town. Maybe preserving zoning districts that are not abundant has more value to the community than adding another General Commercial District when so many now sit developed and vacant everywhere from the Albertsons shopping center, to Main Street and the Industrial Park. The current zone does not require agriculture, but it allows it while the rezone would prohibit farming on what may be the last piece of appropriately zoned Limited Open Space property in Monroe. So while this may not be construed by the City of Monroe as a direct loss of agricultural land it is a loss of potential agricultural lands.

We still assert that this property has been tilled and farmed within the last 5 years. A crop of canola was harvested along with other cover crops in approximately 2009. That being said, the City appears to be taking the position that the property owner has not used this land for agriculture at any time since they took ownership 15 years ago, however, there is nothing in the record provided by the applicant or the City to substantiate that claim.

Issue 3

Ms. Sartorius states on page 7 of the City response –

The only standard by which an FEIS is to be judged is the "rule of reason," which merely requires that the environmental impacts of a proposal are reasonably disclosed, discussed, and substantiated with supporting opinions and data. According to WAC 197-11-420, the lead agency must assure that the EIS is prepared in a "professional manner and with appropriate interdisciplinary methodology."

We would like to stress the fact that floodplain habitat impacts have not been reasonably disclosed or discussed, because the FEIS alternatives analysis failed to acknowledge the changes to lot coverage maximums as they pertain to the rezone of these parcels. We believe the proposed rezone is in conflict with the City's obligation to protect ESA list species and their habitats, which include overtop floodplains such as this.

Issue 4

On the non-project action level it would be appropriate for the FEIS to compare the size and extent of utility infrastructure required for the uses allowed in the LOS as compared to uses allowed in the GC. The summary provided in Table 3 of the FEIS fails to acknowledge the difference in the potential impacts of the three (3) alternatives presented because the initial nonaction alternative is based on a flawed scenario that does not include the 30% lot coverage or other general standards for the LOS. For example the infrastructure required to accommodate the development of a Church, large retail center and/or gas station would far exceed that required for an agricultural use or single family dwelling. In addition this alternatives analysis is based on conditional and special use provisions not outright permitted uses.

Issue 5

While Ms. Sartorius attempted to resolve this issue on page 9 & 10 of the City response letter, we feel the City has failed to properly incorporate those comments into the FEIS.

Ms. Sartorius provided the following response on page 10, *DOE's more general concern that discussion of environmental impacts in the FEIS is cursory and general in nature is explained by the fact that the proposal is a non-project action. The EIS acknowledges that additional analysis and permitting will be required at the project application stage.* However, in response to this assertion, there are many potential development options within the outlined buildable area that could occur after this rezone with only a building permit. While the alternative 2 scenario provided in the EIS is for a more expansive build out of the parcels and would require additional analysis and permitting a less expansive scenario could be permitted without additional discretionary permits. For example if a convenient store of less than 20,000 square feet with less than 500 cubic yards of grade and fill was proposed that would be outright allowed without SEPA in a general commercial use district. Therefore, there are development scenarios that could occur on these parcels without additional environmental review, public comment or appeal periods. This fact is not clear in the FEIS, which appears to be punting the environmental review of this non-action proposal onto the future development proposal.

We still feel the FEIS has failed to adequately address issues identified in comments by the Washington Department of Ecology as well as other commenters. We would like to further emphasize that The Washington State Department of Ecology is listed numerous times in WAC 197-11-920 as an agency with environmental expertise; therefore we believe additional consideration should be given to the DOE's previous comments. Furthermore, if the DOE is fully satisfied with the outcome of this EIS as the City of Monroe appears to assert in their response letter, a recant of the DOE letter or a follow up letter from the commenting agency would be appropriate for the record to validate these claims.

Ms. Sartorius is correct in that the question is not whether or not to develop the property. The question is - Are the subject parcels most appropriately zoned LOS or GC and would rezoning the property from LOS to GC have unavoidable environmental impacts that are not or could not be mitigated by the Cities other regulatory codes during the future development action phase.

Issue 6

The access requirements and trip generation analysis in the TIA is based on the same flawed assumptions regarding Alternative 1 and is therefore biased toward the proposed rezone because it attempts to portray the rezone as a minor change when in fact it is a substantial difference in

intensity of uses and developable area on each parcel. The calculations and conclusions for traffic flow and loss of service in the TIA rely too heavily on population distribution as a determining factor, and on previous analyses of very differently situated areas in Monroe, without considering more probable usage patterns generated by the proposed development on this specific site. In addition, the critical areas report does not include an evaluation of the off-site area such as the ditch on the south side of the property, which would be impacted by the access. The issues with the TIA should be vetted during this the earliest phase of the proposed development, because the rezone property will only allow general commercial uses onsite and the access will need to be extensive enough to accommodate the increase in traffic.

If the access issues are not resolved with WSDOT prior to the rezone it could render the parcels undevelopable. Under the current zoning and based on previous letters from WSDOT a single access point for residential dwelling is authorized. Other similar intensity uses outright permitted within the LOS zone could use the existing single access point. While accomodation of conditional and special uses within the LOS and all allowed uses in the GC would require major intersections, traffic calming structures and pedestrian access on a State Highway.

Issue 2, 8, 9, & 10

Figure 13 of the FEIS appears to be asserting that the property is not in the floodplain or that the site does not actually flood. This is not the venue to make that argument and is contrary to the existing elevation provided in both the LIDAR and survey. The City of Monroe is not the subject matter experts on floodplains and they have not created the applicable floodplain maps. This information does not belong in the FEIS, as it appears to be advocating for something outside of purview of the City. If the applicant would like to argue that this property does not flood they should go through the official map revision process with FEMA. Until such as time this is mapped floodplain and arguments to the contrary should be removed from the FEIS because they are misleading.

On page 12 of the City's response letter Ms. Sartorius' states that the FEIS uses the best information available and goes on to acknowledge that the site is in the flood plain and has historically flooded. That being said, the Federal Emergency Management Agency (FEMA) strongly discourages the intensification of uses within active floodplains. Furthermore, it is the position of FEMA that high intensity development should be discouraged within the floodplain. That is in fact what the current Comprehensive Plan and LOS designation does for this site. By rezoning the property to General Commercial the City of Monroe is encouraging high intensity development within the floodplain. This action should be vetted through the City's FEMA coordinator to determine if this is in compliance with the City's agreements with FEMA. Floodplain habitat and flood storage capacity are diminished by the rezone and that is not adequately addressed in the FEIS.

Improper floodplain development approval by the City of Monroe can jeopardize the eligibility of Monroe citizen to access FIRM flood insurance. We believe this rezone should be fully vetted through a request for consultation with the Services or confirmation from FEMA that this action will not adversely affect insurance eligibility. The floodplain regulations outlined by Ms. Sartorius are applicable to development proposals through the International Building Code (IBC), but nonproject actions or other activities that don't even require a building permit still must comply with floodplain regulations. In this case, the proposed rezone will increase the allowable lot coverage within the floodplain therefore allowing a loss of functioning floodplain. The existing zoning only allows 30% lot coverage while the proposed zoning would allow up to 100 % lot coverage. While stormwater structures and compensatory storage can be created onsite; there are no MMC

regulations that can or will mitigate for the allowable loss of floodplain habitat. We request written confirmation from FEMA, U.S. Army Corps of Engineers (USACE), and/or the National Marine Fisheries Services (NMFS) to alleviate our concerns regarding the impacts to floodplain habitat for ESA listed species and loss of functioning floodplain associated with increased allowable area of impervious surface on the subject parcels.

Item 12

Our issues with Growth Management Act compliance will be taken up with the Growth Management Hearing Board if the City Council adopts the proposed Comprehensive Plan Amendment and subsequent Rezone. However, we still believe the following information has merit in this review process:

18.10.030 Purpose of the commercial zoning districts

The purposes of the commercial districts are to provide opportunities for the enhancement of existing commercial uses and for the location of new commercial development.

A. General commercial uses (GC) should be located on traffic corridors that have adequate capacities for traffic flow. Such location assures that uses do not generate traffic through residential areas. Uses located in this (GC) class should be designed into planned centers with safe and convenient access to minimize curb cuts and facilitate better parking and traffic flows.

8.10.045 Purpose of the limited open space zoning district

The purpose of the limited open space zoning district is to provide for low-density residential uses on lands that lack the full range of public services and facilities necessary to support urban development and that are severely impacted by critical areas. This zone also provides a buffer between urban areas and transitional land uses on the urban growth boundaries of the city, and/or may also provide for enhanced recreational facilities and linkages to existing trails or open space systems.

Based on the fact that the property is currently within the LOS zoning district the City has already acknowledged that the property lacks the full range of public services and facilities. Furthermore, up zoning this property would remove the existing buffer it provides between the urban areas. The property is still encumbered by critical areas and is still located on the urban growth boundary of the City, so it is unclear why this is not still the appropriate zoning designation for this property.

Conclusion

Ultimately, the City has failed to meet the requirements of WAC 197-11-060. Specifically WAC 197-11-060 (4) requires that impacts be considered or assessed in the following ways:

(a) SEPA's procedural provisions require the consideration of "environmental" impacts (see definition of "environment" in WAC 197-11-740 and of "impacts" in WAC 197-11-752), with attention to impacts that are likely, not merely speculative. (See definition of "probable" in WAC 197-11-782 and 197-11-080 on incomplete or unavailable information.)

(b) In assessing the significance of an impact, a lead agency shall not limit its consideration of a proposal's impacts only to those aspects within its jurisdiction, including local or state boundaries (see WAC 197-11-330(3) also).

(c) Agencies shall carefully consider the range of probable impacts, including short-term and long-term effects. Impacts shall include those that are likely to arise or exist over the lifetime of a proposal or, depending on the particular proposal, longer.

(d) A proposal's effects include direct and indirect impacts caused by a proposal. Impacts include those effects resulting from growth caused by a proposal, as well as the likelihood that the present proposal will serve as a precedent for future actions. For example, adoption of a zoning ordinance will encourage or tend to cause particular types of projects or extension of sewer lines would tend to encourage development in previously unsewered areas.

(e) The range of impacts to be analyzed in an EIS (direct, indirect, and cumulative impacts, WAC 197-11-792) may be wider than the impacts for which mitigation measures are required of applicants (WAC 197-11-660). This will depend upon the specific impacts, the extent to which the adverse impacts are attributable to the applicant's proposal, and the capability of applicants or agencies to control the impacts in each situation.

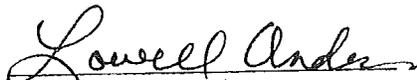
In conclusion, the FEIS contains a series of flaws, which resulted in a biased document based on misinformation or inadequate information that has not reasonably informed the decision makers or the public. Additional significant environmental impacts need to be evaluated before a reasonably informed decision can be reached.

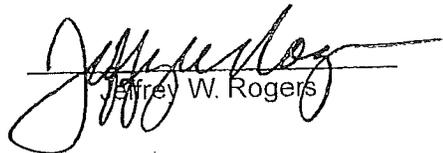
To satisfy the requirements of SEPA we request the follow actions:

1. As per WAC 197-11-560, the City should complete the following:
 - Modify alternatives including the proposed action. The FEIS should be modified to include and clearly incorporate the development standards of MMC 18.10.140 and modify alternative 1 to accurately reflect uses that are permitted without conditional use or special use approvals.
 - Supplement, improve, or modify the analysis related to the floodplain habitat and flood storage impacts associated with allowing 100% lot coverage. The FEIS should be revised to accurately reflect the development potential of these parcels under the LOS zoning restrictions and GC zoning restrictions.
 - Update all associated documents and reports to accurately analyze the potential impacts of the rezone based upon the modification suggested throughout this document and specifically in this conclusion.
 - Provide an explanation for any requests or comments in this document that are not incorporated into the SEPA Determination.
2. The FEIS should be redrafted. The level of detail is excessive for some project components and lacking altogether for other environmental components under review. The FEIS should be reframed to answer this question - Would rezoning the property from LOS to GC have unavoidable environmental impacts that are not or could not be mitigated by the Cities other regulatory codes during the future development phase?
3. Resolve WSDOT access issue or accurately analyze the different access requirements under the LOS zoning and GC zoning based on realistic development potential for each zone.

4. Provide an additional comment letter from DOE confirming that their comments and concerns have all been addressed.
5. Provide written confirmation from FEMA, U.S. Army Corps of Engineers (USACE), and/or the National Marine Fisheries Services (NMFS) to alleviate our concerns regarding the impacts to floodplain habitat for ESA listed species and loss of functioning floodplain associated with increased allowable area of impervious surface on the subject parcels.

For the above outlined reasons, we respectfully request that the Hearing Examiner rule this FEIS inadequate as a matter of law.


Lowell Anderson


Jeffrey W. Rogers

2.2.1 ALTERNATIVE 1: NO ACTION - RETAIN LIMITED OPEN SPACE ZONING

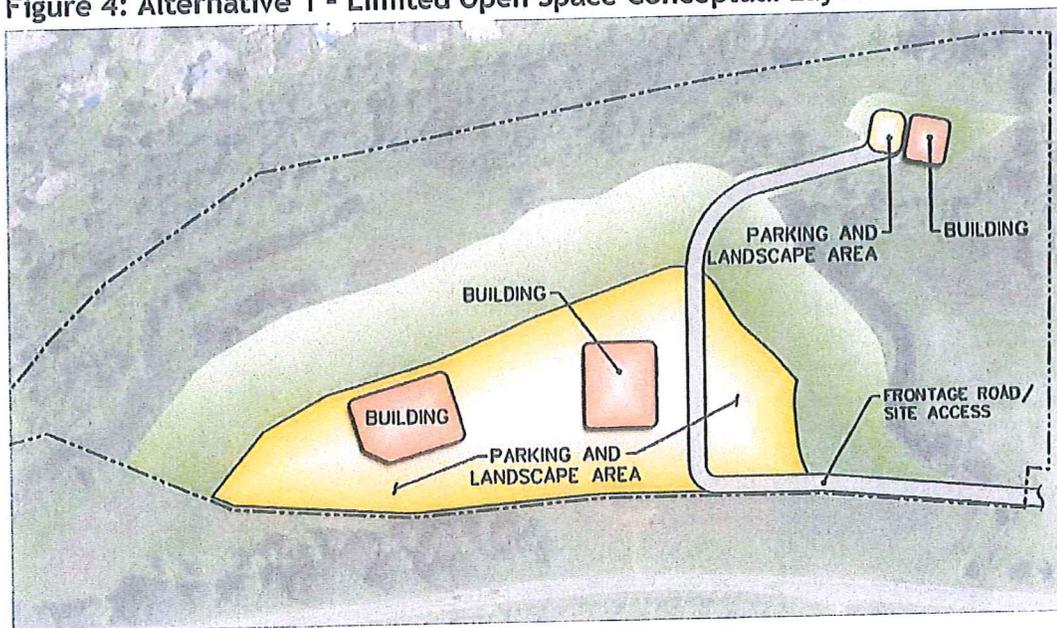
Alternative 1 is a “no action” alternative in that no change to the existing Comprehensive Plan or rezone is proposed. It is presented to demonstrate the likely impacts associated with collective development of the property under current LOS zoning as allowed by Monroe Municipal Code (MMC) Section 18.10.045. Alternative 1 also shows the similarity of mitigation measures that would be required under any of the development alternatives put forth in this DEIS. The current or future property owner may develop the property within the constraints for LOS zoning as outlined in the MMC, and applicable state, and federal regulations provided that all applicable permits are obtained and critical area protection is achieved. Under Alternative 1, no changes to the existing Comprehensive Plan are proposed and development plans could begin immediately.

At a minimum level of development, one dwelling unit per five acres is allowed under LOS zoning. The maximum development scenario suggested under Alternative 1 includes a fitness club, daycare and church. Other uses allowable (either outright, as special or conditional permits or as essential public facilities) under the current LOS zoning are:

- Government and education facilities: fire stations and schools;
- Industrial uses: animal slaughtering/processing and/or incidental rendering, cement manufacturing, processing of sand/gravel/rock/soil; and
- Infrastructure and utility uses: electrical transmission lines, transit stations, and sewer treatment plants.

A full list of land uses comparing the LOS, GC, and MUC zoning (per MMC Section 18.10.050) is included in Appendix B. A conceptual layout of Alternative 1 is presented in Figure 4 and is based on a mixture of uses that include fitness/health club, a daycare facility, and public gathering place such as a church. These uses were identified to provide the basis for evaluating potential space, parking and setback requirements and transportation impacts.

Figure 4: Alternative 1 - Limited Open Space Conceptual Layout



2.2.2 ALTERNATIVE 2: REZONE TO GENERAL COMMERCIAL (PROPOSED ACTION)

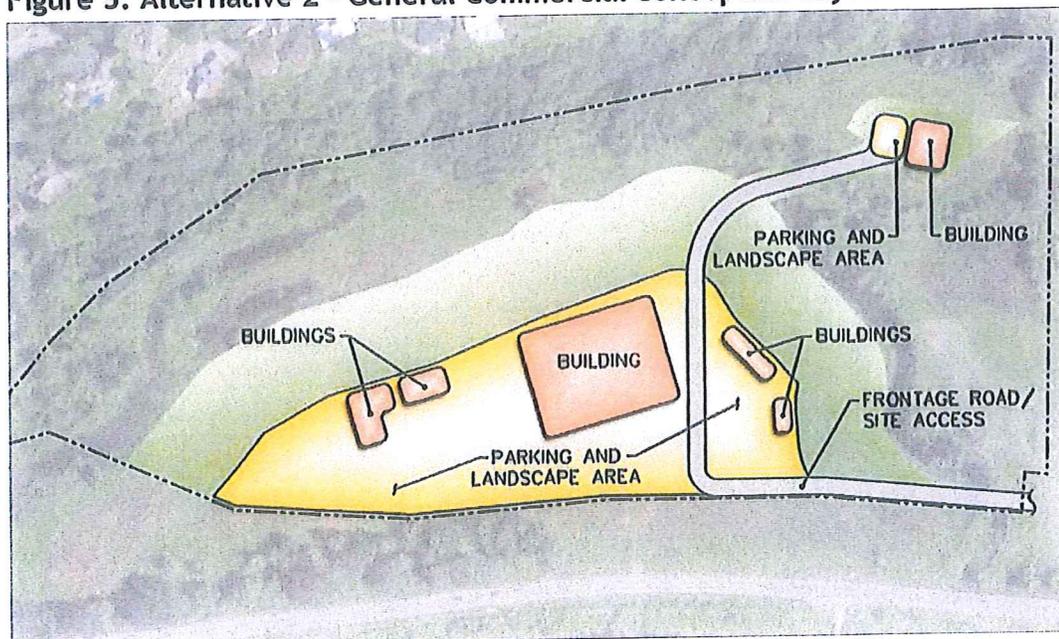
Alternative 2 is consistent with the applicant's desire to change the land use designation and zoning from LOS to General Commercial (GC) and is the Proposed Action for this DEIS. Upon approval of the required Comprehensive Plan Amendment and subsequent rezone by the Monroe City Council, a variety of commercial activities will be possible, provided development is accomplished in accordance with the City's Critical Areas Ordinance, City Plans and Policies, the MMC and all requirements of necessary permit approvals.

The Proposed Action is for commercial development is a response to a lack of limited undeveloped commercial property and support economic development within the City of Monroe. The property has valuable commercial frontage potential on SR-2 and provides the City with an economic opportunity to create a quality gateway presence at the eastern entrance to the City. It is consistent with the Growth Management Act (GMA) objective of directing greater density and higher uses to properties within the established Urban Growth Area (UGA). It supports the GMA mandate for provision of an urban level of service to areas within the UGA. Also consistent with GMA objectives, Alternative 2 balances development with environmental protection through conservation, preservation and enhancement of critical areas. The site has valuable potential to enhance critical areas and support local flood management systems. Site grading, strategic plantings and enhanced drainage facilities will ensure no net loss of wetlands and improve wetland with a low to moderate value rating up to systems with higher function and value ratings, as discussed in Appendix D.

Alternative 2 is conceptually shown in Figure 5 and could include design features to enhance the community feel of the development, contribute to the greater good of the City, and promote economic development. Examples of potential design features are landscaping and screening with appropriate plant species, trails, enhanced wetland and shoreline buffers, and hardscape features, such as seating, planters and public art.

Alternative 2 contemplates a high-volume or discount store accompanied by other sundry establishments common to this type of development, such as a delicatessen, specialty service shops, convenience store, coffee shops, etc.

Figure 5: Alternative 2 - General Commercial Conceptual Layout



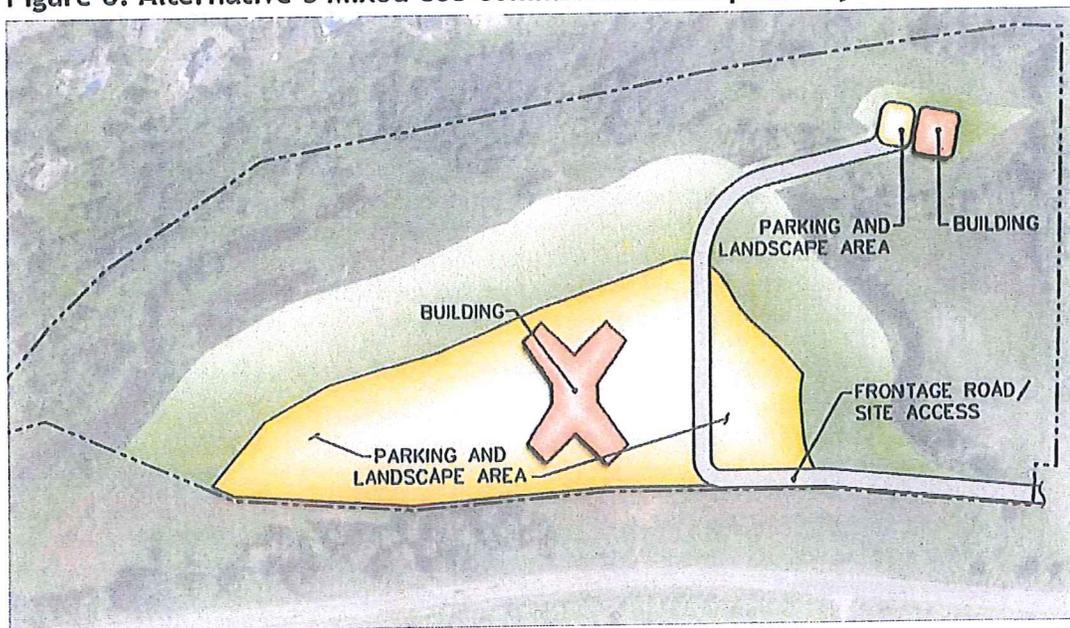
2.2.3 ALTERNATIVE 3: REZONE TO MIXED USE COMMERCIAL

Alternative 3 includes an amendment to the City of Monroe Comprehensive Plan changing the land use designation to Mixed Use (MU) and a subsequent rezone to Mixed Use Commercial (MUC). The Mixed Use alternative was chosen to respond to the lack of undeveloped commercial land in the SR-2 corridor, promote economic development and determine the range of impacts and mitigation measures that would be associated with mixed use development.

Consideration of Alternative 3 helps identify the highest and best use of the property, shows that other zoning options are available and analyzes an expanded range of activities and uses. MU allows for many of the same land uses as those contemplated in Alternatives 1 and 2 but allows for residential, professional office, medical clinics, and other retail and commercial uses. Similar design features as listed for Alternative 2 can be implemented for Alternative 3 to enhance the community feel of the development, contribute to the greater good of the City, and promote economic development.

Figure 6 shows a conceptual configuration of mixed uses to illustrate the potential character of development. This alternative contemplates retail, restaurants, commercial, and service uses and considers the potential for professional office space, medical clinics, and multi-family residential uses. The northeast portion of the site proposes a multiple story mixed use building with offices and services on the first floor and multi-family residential units above.

Figure 6: Alternative 3 Mixed Use Commercial Conceptual Layout



2.3 PLANNING REQUIREMENTS

This DEIS has been prepared to reflect appropriate community growth as planned for in the state Growth Management Act. It also considers local planning and regulatory requirements including but not limited to those outlined in the following paragraphs.

2.3.1 GROWTH MANAGEMENT ACT

The Washington State Growth Management Act (GMA) was adopted because the Washington State Legislature found that uncoordinated and unplanned growth posed a threat to the environment, sustainable economic development and the quality of life in Washington. The GMA (WAC 197-11-158 and RCW 36.70A) requires state and local governments to manage Washington's growth by identifying and protecting critical areas and natural resource lands, designating urban growth areas, preparing comprehensive plans and implementing them through capital investments and development regulations.

The GMA established state goals, set deadlines for compliance, offered direction on how to prepare local comprehensive plans and regulations and set forth requirements for early and continuous public participation. Within the framework provided by the mandates of the GMA, local governments have many choices regarding the specific content of comprehensive plans and implementing development regulations.

The City of Monroe is subject to GMA planning for Snohomish County and the establishment of an Urban Growth Area (UGA) Boundary. The Proposed Action occurs entirely within the Monroe city limits and UGA. As such, an urban level of service is proposed and planned.

2.3.2 CITY OF MONROE COMPREHENSIVE PLAN

The City of Monroe Comprehensive Plan dictates public policy as a means to guide future decisions related to land use, transportation, housing, parks and recreational facilities, capital facilities, utilities, economic development, and shoreline management. The City of Monroe 2005-2025 Comprehensive Plan (Comp Plan) and subsequent amendments were used for analysis of the proposed land use action. A comprehensive plan amendment and rezoning the project area are required to accomplish the proposal put forth herein. Copies of the Comp Plan can be found on the City of Monroe's website.

2.3.3 CITY OF MONROE MUNICIPAL CODE

The Monroe Municipal Code (MMC) is a published compilation of City laws and their revisions organized according to subject matter. The MMC is updated periodically as new ordinances are adopted by the City Council. All future growth, action, development, etc. must be in accordance with the code under penalty of law. This proposal assumes that any future development on the subject property, regardless of its consistency with the alternatives put forth herein, will be subject to the review and approval process prescribed by the MMC at the time of application.

2.3.4 CITY OF MONROE CRITICAL AREAS ORDINANCE

The purpose of the City of Monroe's Critical Areas Ordinance is to protect the public health, safety and welfare by preventing adverse impacts of development. It also preserves and protects critical areas as identified by the Washington State Growth Management Act by regulating development, mitigating unavoidable impacts, preventing adverse cumulative impacts, protecting the public and public resources from hardship due to flooding, erosion, landslides, and soils subsidence or steep slope failure. The Critical Areas Ordinance implements the goals, policies, guidelines and requirements of the City of Monroe Comprehensive Plan and the Washington State Growth Management Act.



September 1, 2015

SUBJECT: Questions re: DSEIS

Mr. Osaki,

- 1) **Please give me a list and/or a map of available property in North Kelsey area(Walmart, and Lowes)?**
- 2) Per Water Shed Memo
 - a. Currently, the only water entering the slough at its upstream end enters via a roadside ditch from a local tributary area of about 273 acres, including areas North of SR 2 and areas between SR 2 and the BNSF tracks.
 - b. **What is the elevation of the water at the bottom of the upstream culvert?**
 - c. **What is the elevation of the water at the down steam culvert bottom?**
 - d. **Does the ditch between SR 2 and BNSF (tracks) run all the way to the river?**
 - e. **What is the approximate width and depth of this ditch?**

Thank you in advance for your prompt attention.

Lowell Anderson
129 E. Rivmont Drive
Monroe, WA 98272
Baa444@comcast.net
360.794.7075

barbara

From: "David Osaki" <DOsaki@monroewa.gov>
Date: Thursday, September 03, 2015 10:00 AM
To: <Baa444@comcast.net>
Cc: "Elizabeth Smoot" <ESmoot@monroewa.gov>
Subject: September 1, 2015 Letter - Maps

Mr. Anderson,

Just to follow up on our phone conversation today, I will put maps addressing the item in your September 1, 2015 letter regarding a map of available property in the North Kelsey area (Wal-Mart/Lowes) with the front counter staff here at City Hall so you can pick the maps up there. I'll have the maps available for pick up by noon today.

FYI, in the event for some reason you cannot make it to City Hall, the same maps are also available online on the City of Monroe [Economic Development](#) home page as follows:

- [Available Property Map](#); and
- [Marketing Brochure](#)

I will work with Pace Engineers to respond to the questions in your email (2b-e).

Thank you.

David Osaki



TO: Mr. Lowell Anderson
FROM: David Osaki, Community Development Director, City of Monroe
SUBJECT: Culvert Elevations
DATE: September 15, 2015

In response to your request for information, we have contacted the consultant/sub-consultant who have worked on the Draft Supplemental Environmental Impact Statement (DSEIS) and have been provided with the following.

Please use Figure 1 in the DSEIS Watershed Science and Engineering Memorandum from Shaina Sabatine P.E. and Larry Karpack P.E. to Pace Engineers, Inc. dated May 28, 2015 as the culvert location reference.

Figure 1 identifies four (4) culverts as follows:

- 1) 6 foot Concrete Pipe culvert (under Railroad tracks discharging to the Skykomish River)
- 2) 5 foot x 6 foot Concrete Box Culvert (under SR 2 draining from the Slough to the railroad tracks)
- 3) 24 inch CMP (under the access road over the slough near the northeast part of the site)
- 4) 3 foot Concrete Pipe Culvert (under SR 2 draining from south to north near East end of the project area)

Information regarding invert elevations for these culverts provided by the consultant/sub-consultant are:

- 1) 6 foot Concrete Pipe culvert
Upstream invert elevation: 54.14 feet NAVD
Downstream invert elevation: 52.92 feet NAVD
- 2) 5 foot x 6 foot Concrete Box Culvert
Upstream invert elevation: 54.75 feet NAVD
Downstream invert elevation: 53.82 feet NAVD
- 3) 24 inch CMP
Upstream invert elevation: 56.34 feet NAVD
Downstream invert elevation: 56.43 feet NAVD

- 
- 4) 3 foot Concrete Pipe Culvert
Upstream invert elevation: 55.23 feet NAVD
Downstream invert elevation: 55.33 feet NAVD

Adding any measured water depth at the culvert inverts to these invert elevations would provide the water surface elevation at each culvert.

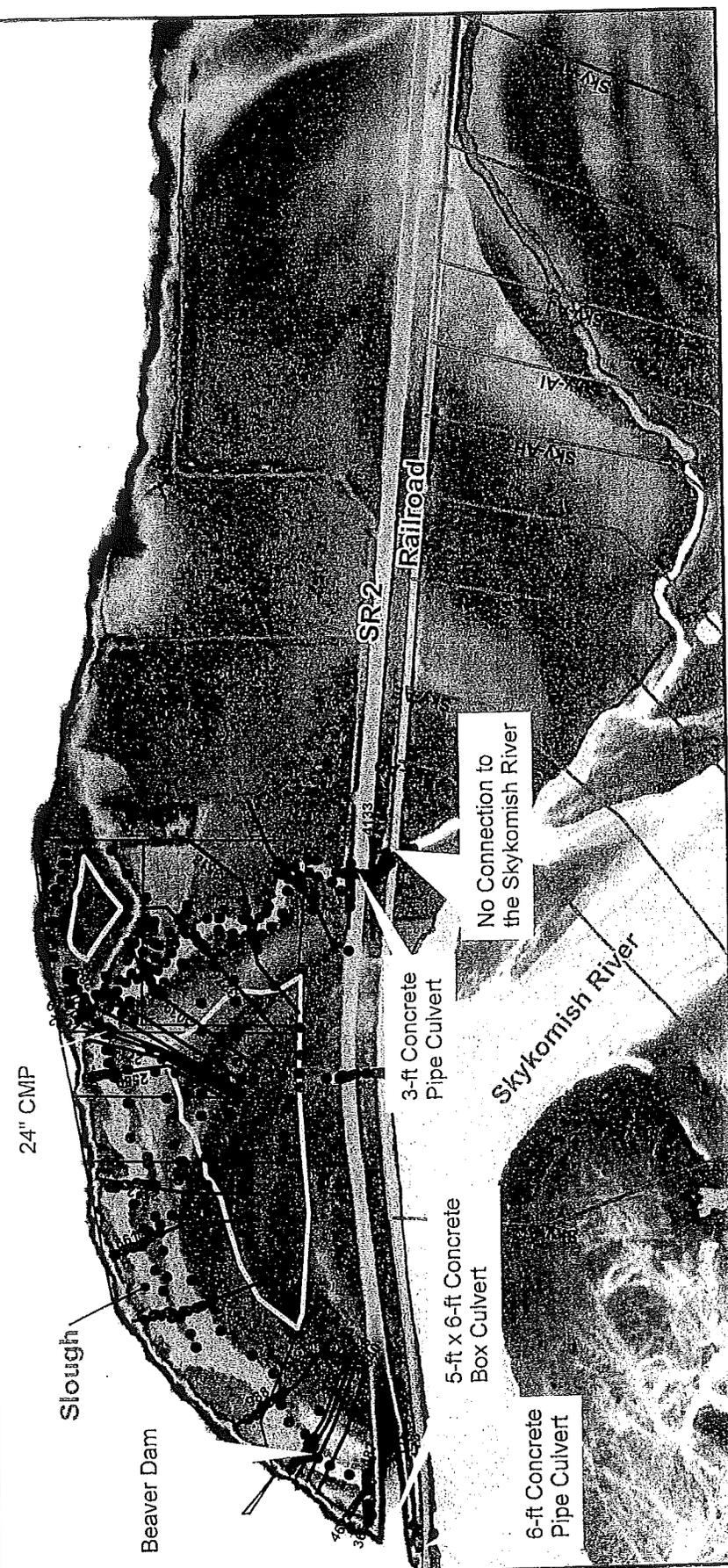
The ditch, from the sub-consultant's recollection is small, maybe 1-2 feet wide at its bottom and a few feet deep.

cc: Susan Boyd, Pace Engineers, Kirkland Washington

**2014 LIDAR
Elevation (ft, NAVD88)**
High : 100
Low : 50

Proposed
Developable Area
Parcel Boundary

Legend
● Survey Point
— HEC-RAS Cross Section
— HEC-RAS Cross Section
— in 2005 FEMA model



Scale: 1:7,500
NAD: 1983 HARN
StatePlane Washington
North FIPS 4601 Feet

28 May 2015

WATERSHED
SCIENCE & ENGINEERING

0 500 1,000 Feet

**East Monroe Rezone
Project Reach Map and HEC-RAS
Cross Sections**



Figure 1
a

RECEIVED

SEP 08 2015

CITY OF MONROE

September 7, 2015

SUBJECT: Questions Re: DSEIS

Mr. Osaki – SEPA Responsible Official

Ref: Page – 41 of DSEIS

Statement: Additional field surveying was also conducted to verify, confirm and/or refine previous surveys and LIDAR data.

Question:

Where are the copies of the field surveys and supporting data?

Please send me a copy for our use. There is a huge discrepancy between the topographical survey (Rod on the ground) and LIDAR from the September 2013 FEIS.

My apologies for not requesting this information per my September 01, 2015 request.

Our email doesn't work. May I pick up the above information at the front desk? Please notify me.

Thank you for your help.

Lowell Anderson
360.794.7075

barbara

From: "Elizabeth Smoot" <ESmoot@monroewa.gov>
Date: Tuesday, September 15, 2015 3:55 PM
To: <baa444@comcast.net>
Cc: "David Osaki" <DOsaki@monroewa.gov>
Attach: PR15-170 Anderson -- PDR Form.pdf
Subject: PR15-170 Anderson

Mr. Anderson,

Good afternoon! In follow up to your discussion this afternoon with Mr. Dave Osaki, please see the following information.

Pursuant to RCW 42.56.520, this letter via email serves as the City of Monroe's response to your request for public records (attached) received Tuesday, September 8, 2015.

The City of Monroe estimates it will require additional time to locate, assemble, and review responsive documents. We will reasonably attempt to provide documents responsive to your request in regular installments, as necessary. We anticipate that the first (and potentially final) installment of responsive records pertaining to your request will be produced no later than Friday, September 18, 2015. Any records or portions thereof that are exempt from disclosure under state or federal law will be denied or redacted as appropriate, and the justification for any such denial or redaction will be included within the City's final written response.

I have sent a copy of this letter via email to the residential address on file; and will notify you of the same via phone message.

Please feel free to contact me with any questions!

Thank you,

Elizabeth M. Adkisson Smoot, MMC | City Clerk



City of Monroe, Washington
 806 West Main St., Monroe, WA 98272
 phone: 360.863.4538 | fax: 360.794.4007
esmoot@monroewa.gov | <http://www.monroewa.gov>

Comment Letter 3

From: Melissa Sartorius <MSartorius@monroewa.gov>
Sent: Wednesday, September 11, 2013 4:36 PM
To: charles strub
Cc: Kim Shaw; Susan Boyd; Megan Hawkins
Subject: RE: Planning observations

Dear Mr. and Mrs. Strub,

Thank you for your comments on the East Monroe Draft Environmental Impact Statement (DEIS). We appreciate your input and it will become part of the record of the DEIS. The Final Draft Impact Statement is anticipated to be issued on September 27, 2013. You will be notified of its issuance.

Thank you, Melissa

From: charles strub [mailto:legmanbass@msn.com]
Sent: Wednesday, September 11, 2013 4:05 PM
To: Melissa Sartorius
Subject: Planning observations

Melissa,

My wife and I attended the recent meeting at city hall on Sept. 5th where an EIS was presented regarding the proposed re-zone east of Monroe along Hwy 2. We did not speak as we came to listen and learn. We learned that preparing an EIS while adhering to state, county and city regulations is obviously a quagmire to traverse and were impressed with the effort required.

We have lived at 21810 Calhoun Rd. for 42 1/2 years so feel qualified to offer some historical perspective.

We have observed three (3) major and one minor flooding of a good portion of the land in question during the past 40+ years. It will happen again; all that is needed is a large snow pack in the mountains, coupled by a warm spell and some heavy rain. Will that ever happen again? The water WILL come and will have an impact. After the most recent flooding our neighbors 2 lots to the east of us and also 7 - 8 lots east of us lost significant parts of their bluff as well as a lot 1/4 mile+ to the west of us. Regardless of engineer reports to the contrary, it is obvious that the bluff is subject to slippage if certain conditions are met.

We also observed the eastern portion of Calhoun Rd washed out some time after development was begun where the old Monroe golf course used to be. The road has never been repaired or re-opened.

We have also had the opportunity to observe traffic density increase on Hwy 2 over time, and it is significant. We understand the idiocy of establishing a commercial business where proposed, wherein left turns would need to be made off Hwy 2 for access. As far as the DOT building a round-about at that intersection; we tried buying a lot at the point of Rivmont Heights in 1966 and were told a by-pass would be built around Monroe and be completed shortly, so it was not available for purchase. That was 47 years ago and it hasn't happened yet. Who believes they would undertake a round-about in a relatively isolated area on fast track basis with all the other state wide traffic needs at present?

Lastly, I would hope that anyone on the planning commission or city council that has ANY relationship to the Baptist church or the other un-named owner would have the decency to recuse themselves from voting on this issue as that would certainly be conflict of interest.

Thank you, Dr. Charles and Susan Strub

E-mail is a public record and subject to public disclosure.

TO: Lowell Anderson

DATE: 10/14/13

FROM : Mitch Ruth

SUBJECT: East Monroe Rezone;
Property Owners, Heritage Baptist Church,
(Currently known as; The East Monroe Economic Development Group)

You have asked me to address the historical facts and my conclusions surrounding the proposed rezone of the subject property that I am intimately familiar with by virtue of my prior position as a Councilmember for the City of Monroe, having been an owner of adjacent property and as a Real Estate Broker in Monroe providing residential and commercial development consulting.

My first of many exposures to this proposed project was as a seated Councilmember for the City of Monroe. The applicant stated that they had purchased the property on speculation; to build a church and to develop the remaining property for resale to help defray the costs of building their church. They had requested Industrial zoning.

Almost as immediately as it was presented to the city for consideration of docketing and we were provided with the facts of the special nature and conditions of the property, it became abundantly clear that this property had so many significant issues that rezoning the property would be ill advised. In fact, the concerns were so great and likely presented such significant immediate and long term detrimental impacts to the surrounding properties and significant portions of the valley as a whole, the matter was rejected for docketing.

The problems were in part; no safe/adequate ingress or egress, increased flooding of surrounding areas, lack of onsite infiltration, lack of utility services (water, sewer, etc.), loss of existing hydraulic buffer to mitigate frequent flood waters, degradation of sensitive adjacent slopes that would endanger adjacent homes and property, loss of sensitive wet lands and habitat for protected and endangered species. As a result, the matter was not docketed.

The applicant soon returned again with another rezone request; this time as Commercial. Because of the continued complaints from the applicant that they had never been treated fairly or given a fair chance to have the matter heard, rather than flatly rejecting the application, the matter went before the city Planning Commission.

In this instance the matter had become even more contentious and politically charged because the applicants' son, Chad Minnick, a Monroe City Councilmember, who was prohibited from voting on the matter due to the City Ethics Ordinance was spearheading an effort to repeal/change the ethics ordinance which would allow him, despite being the applicants son, to vote on the rezone.

Approximately a year later, I purchased a home that was adjacent to the subject property, on the bluff overlooking the property. I was then prohibited from voting on the matter as a conflict of interest. Ken Berger, another Councilman who owned a nearby home had also recused himself from voting. An additional factor was that Mayor Robert Zimmerman, then a Councilmember, also recused himself from the vote by announcing that he had contributed and undisclosed sum of money to the building fund of Heritage Baptist Church and felt that his donation created a conflict of interest. Once this last "conflict of interest" was disclosed, the City Attorney, Phil Olbrechts, announced that under what he called the Doctrine of Necessity, and the need for government to be able to do the peoples business allowed everyone with a conflict of interest in the matter to legally vote on the matter.

I questioned the truthfulness of Councilman Zimmerman's contribution to the applicants building fund, as I viewed it as a political contrivance intended to allow the applicants son to vote, ensuring the docketing and rezone of a property intended only to financially enrich the applicant. I continued to refuse to vote on the matter based upon what I saw as a political manipulation and advised Councilman Minnick to do like wise. Ultimately, both Minnick and I left the Council Chambers and did not return until the vote was taken. The vote failed with the Mayor of that time breaking the tie; the application was not docketed.

I must also add that I had invited Pastor Minnick to come to my home during flooding and view the effects and impacts of the routine flooding below. The view from directly above the flooded land was exceedingly enlightening. He declined to do so, but on at least two occasions Chad Minnick did come to my home to view the land below. On both of these occasions, the land was almost entirely covered in flood waters. Less than an acre was above the flood waters, and only by scant few inches at that. Neither of these occasions were the so called great floods we hear of. The land is routinely inundated by flood waters to varying degrees.

During my ownership of the adjacent property, Paul Hackney, whom I have known for over 30 years, was renting the land from Heritage Baptist Church to farm canola on it. Because of the clear and unobstructed view of the Heritage Baptist property, he came to me and asked if I had viewed the huge flocks of Trumpeter Swans in the field below. I said that I had watched them every year during their migration. Paul advised me that being a protected species, he was prohibited from harming or disturbing the protected water fowl in any way and the government had a program to financially compensate farmers who had crops damaged by protected species. He asked that I write a letter for him about the large migratory flock spending their days eating his crop. I did so.

As an aside, as a result of continued submissions by the applicant, the political pressure to repeal the cities Ethics Ordinance by some on Council, the previous City Administrator and the City Attorney (Phil Olbrechts) that the matter received much public attention and local newspaper coverage. In fact it became the focus of a Public Records Disclosure request that became the center of a legal action against the city. Ultimately the

failure/refusal to disclose certain emails regarding attempts to repeal the city Ethics, plaintiff awards and legal costs.

So much public attention had been drawn to this by the newspaper coverage of the law suit against the city that after reading the news reports, the Dept. of Ecology issued a very pointed letter in opposition to the rezone of this property. The Dept. of Ecology letter cited the very same reasons as were the basis for every other prior refusal for docketing of the project application.

This very rezone request was a significant issue in next Mayoral and Council election cycle. So much in fact, that immediately upon the swearing in of the new Mayor, Robert Zimmerman, (the cash contributor to the Heritage Baptist Church building fund) the very first public comment and request for action of the Mayor and Council was the real estate broker representing Heritage Baptist Church on this property. He requested that the city docket the rezone application for full study and hearing as a city initiated action. As a side note; if accepted as a city initiated action the entire action would come at city expense, not the applicant.

Very shortly after this, a local news paper interviewed the previous Community Development Director for the city on this project/application. Hiller West was not in favor of the project and clearly stated that he saw no reason the project should be reconsidered, particularly in such a short time after having been rejected twice before, when no new information existed to support its reconsideration. Hiller West was interviewed by the paper on Tuesday, the paper was printed on Wednesday, delivered and read on Thursday and he was personally fired by the Mayor on Friday morning and escorted out of city hall. While no reason for the abrupt termination was ever stated by the Mayor, it was clear that Hiller West had spoken out against an application of the close friends and political supporters of the newly elected Mayor and Council majority.

While city records demonstrate that the matter was not officially taken as a city initiated action, the city did in fact conduct an abbreviated Environmental Impact Study on the property; at full city expense. There is no precedent for the use of city funds and staff in conducting work for the applicant in projects and/or applications of this nature in the history of the city. This matter was the subject of an investigation during the cities most recent audit by the state Auditors Office. It was determined that city staff, resources and taxpayers funds had been used to perform the study on this rezone application. However, while there is no precedent for this sort of preferential treatment of an applicant, because of the poor phrasing used in city ordinance and policy, it was the opinion of the Auditors Office that the city funding of an applicants application was "legal".

Currently, an independent EIS totaling over 300 pages has been offered as evidence that all of the problem issues can be adequately mitigated and this application should be approved. A key point in understanding the EIS and the supporting claims of adequate engineering to mitigate the impacts can be best evidenced by some wise advice I have received many times over the years while a Councilman and in real estate development.

In fact this advice was even given by the City Engineer, Brad Feilberg and is a matter of public record; Engineers can theoretically engineer anything on paper. Whether it can actually be built or will work, is cost effective or is even advisable, is not the concern of an engineer. As a matter of record, even he was not supportive of the rezone application until after the last election when the new Mayor, a friend of the applicant, was elected and Hiller West was fired for speaking out against the application. And once again, the Dept. of Ecology issued a position letter advising the city against approval of this rezone application and strongly refuting the EIS report submitted on behalf of the applicant.

Also a matter of record, the rezone was previously approved by the Council. The rezone was appealed by a citizens group to the City Hearings Examiner. The citizens group won their appeal and was successful in overturning the Council action. The Hearings Examiner categorized his response as saying that there was no legal foundation or basis in fact for the approval granted by the city. The City appealed the matter and lost again.

Although it is argued by the Monroe Mayor as being "coincidental" the Hearings Examiner was dismissed after ruling against the city on its appeal of the matter. The Mayors position was refuted by the Hearings Examiner who issued a very clear letter on the matter; also of public record.

As a real estate professional providing development consulting services, I have been asked on numerous occasions to attempt to explain the feasibility and profitability of this project given all of the problems associated with the site and surrounding areas.

My professional opinion is that there is likely little to no potential for any buyer to develop the land in the foreseeable future; the costs in mitigating the impacts, even if that is possible to do, are far too high to make development and end use financially feasible. The cost of bringing city utilities to the site, building necessary transportation components, protecting against floods, the inability to build infiltration on site, the management of surface water and the hazards of slope degradation are phenomenal for this site.

Currently the land is zoned Limited Open Space. Under current zoning, most of the tax parcels would be allowed to build one single family home each upon them. However, with limited and essentially unsafe ingress and egress, coupled with the specific location, the marketing and sale of homes there would make that ill advised. In short, the land has relatively little value except for season agricultural purposes.

An additional factor which presents additional complicating factors in the successful development and construction on this land is that this parcel is perceived to be the last piece needed to construct the by-pass around the city of Monroe. Until this is clearly understood, any reasonable buyer/developer would not construct anything that would likely be condemned or at least severely impacted by a taking of land for the future by-pass construction. If residential properties were constructed, this factor would also

diminish finished value and make the sales of the homes even more difficult than they would already be.

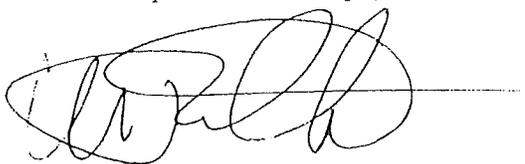
We know that much of the value of land stems from what use it may be put to; which comes through zoning. If the land is rezoned from LOS to Industrial or Commercial zoning, the value would be increased exponentially based solely upon permitted uses. Yet the mere act of rezoning would not reduce the costs, or the difficulty of mitigating the impacts to wet lands, sensitive slopes, area flooding, protected water fowl, utilities, infrastructure, etc., and create a financially feasible project.

There does appear to be one scenario that would greatly financially benefit the land owners. The taking of this final piece of land for the land necessary for the construction of the US 2 by-pass around the City of Monroe. This property sits directly between US HWY 2 and the land owned by DOT for the by-pass. It is the last piece needed to be able to build the by-pass and is already shown as the path of the planned construction.

When government does a taking of land for purposes such as the building of roads and by-passes for the public good, the land must be first appraised for value by the government in preparation for that taking by the government. Once the appraisal is complete, an offer is made. The single biggest factor of determining the value of vacant land in this process is the appraisal. The single largest factor in the appraisal of vacant land is its zoning and permitted uses. If the offer is rejected, typically the land owner will have the land appraised to argue a higher value and the negotiation phase commences. If no agreement is reached, and no other land is available to satisfy the public purpose, such as in this case, the matter is ultimately resolved through judicial process. The end result, whether by judge or jury, is substantially driven by the appraised value, based upon zoning and permitted use(s) of the property.

Additionally, zoning being a political process of the local jurisdiction, is subject to the application of political pressure and manipulation. This case is undeniably rife with these issues and has been the subject of much concern, controversy and news coverage over the years.

It is my opinion that this is the crux of the matter; the use and pandering of political influence to bring about the rezoning of a property to artificially increase its value in preparation for its taking by the government to build the US 2 by-pass around Monroe; all at the expense of the taxpayers.

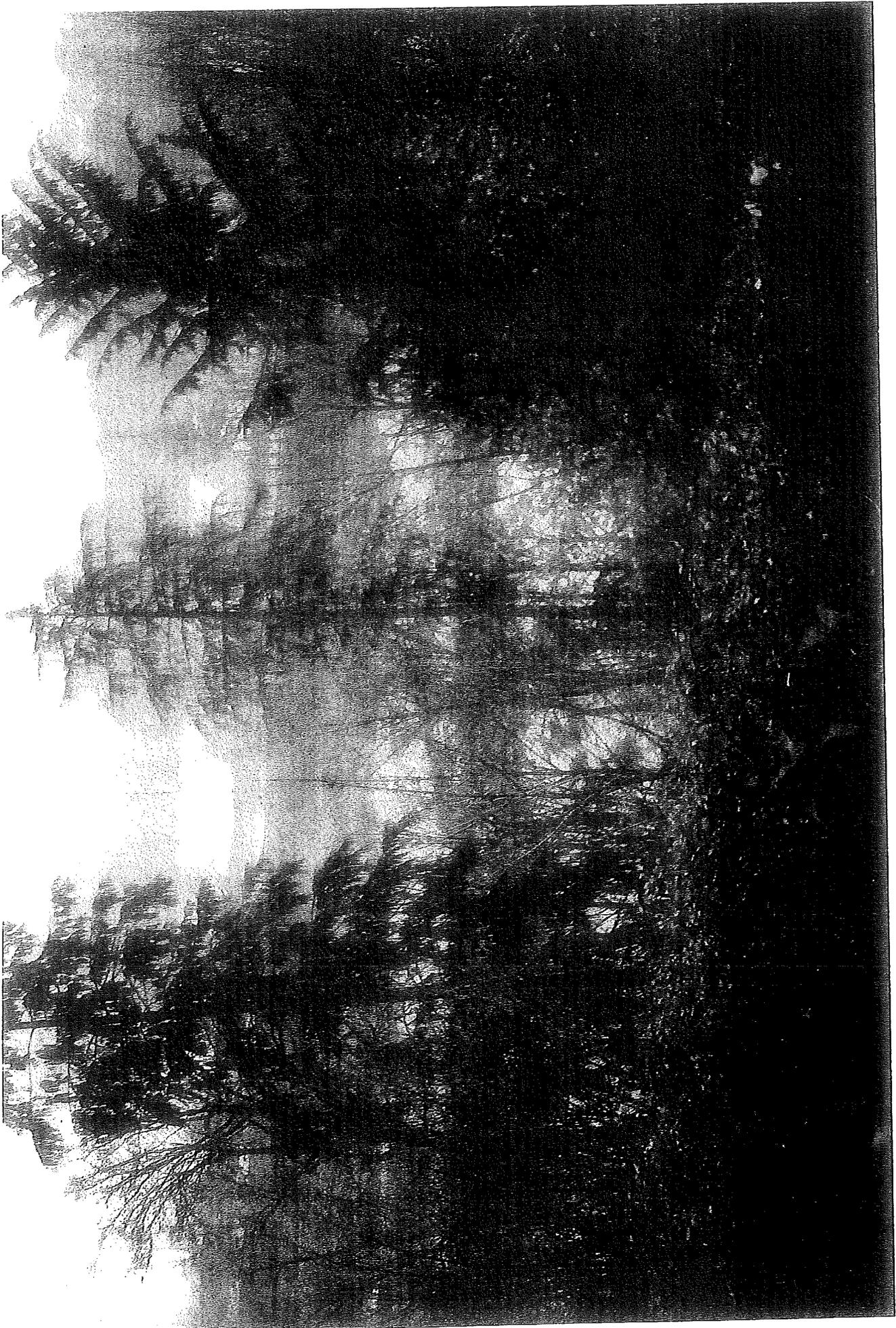
A handwritten signature in black ink, appearing to be "J. R. [unclear]", written over a horizontal line.







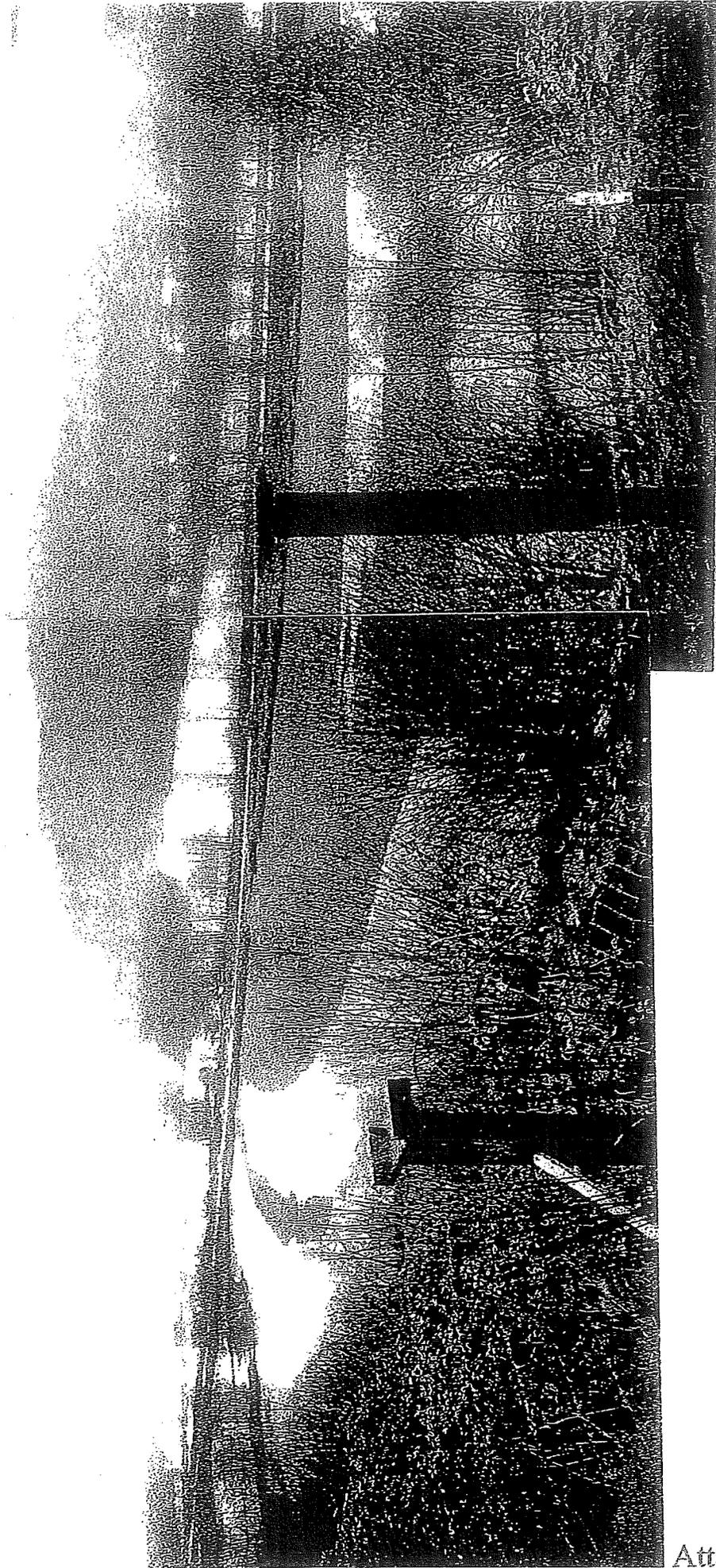
L-15



L-16



6-17



November 1990
picture taken from Rivmont Dr.

L-18



Photo of 59. Canal with trees

MEMO TO FILE

At 3:51 pm, September 18, 2015 Mr. Osaki called and asked me to call PACE Engineering for information per my letter of September 07, 2015. Letter was to Mr. Osaki regarding my questions, (please reference my Letter of September 7, 2015 page 41), of the DSEIS which he was unable to provide. He referred me to the contact below. Friday, September 18, 2015 at 3:46 pm Elizabeth Smoot sent me an email stating "Your request is respectfully denied, as the City currently has no responsive public records in its possession or control."

Contact at PACE is: Eilean Davis, a planner

Phone: 425-827-2014

barbara

From: "Elizabeth Smoot" <ESmoot@monroewa.gov>
Date: Friday, September 18, 2015 3:46 PM
To: <baa444@comcast.net>
Cc: "David Osaki" <DOsaki@monroewa.gov>
Attach: PR15-170 Anderson -- PDR Form.pdf
Subject: RE: PR15-170 Anderson

Mr. Anderson,

Good afternoon!

Please accept the following as the City of Monroe's formal response to your September 7, 2015, letter addressed to City of Monroe Community Development Director David Osaki (attached). Your letter asks for "copies of the field surveys and supporting data" referenced on page 41 the East Monroe Draft Supplemental Environmental Impact Statement. Your request is respectfully denied, as the City currently has no responsive public records in its possession or control.

For your convenience, please see the below contact information for PACE Engineering if you are interested in contacting them directly regarding these records. They have been notified that you are seeking this information.

PACE Engineers

Eilean Davis | Senior Planner

11255 Kirkland Way | Suite 300 | Kirkland, WA 98033

p. 425.827.2014 | f. 425.827.5043

I have sent a copy of this letter via email to the residential address on file; and Mr. Dave Osaki will notify you of the same via phone message.

Upon receipt, the City will consider this request fulfilled, and closed. If erroneous, please contact the City in writing with any clarification on this request. Please confirm receipt at your earliest convenience; and feel free to contact me with any further questions!

Thank you,

Elizabeth M. Adkisson Smoot, MMC | City Clerk



City of Monroe, Washington
 806 West Main St., Monroe, WA 98272
 phone: 360.863.4538 | fax: 360.794.4007
esmoot@monroewa.gov | <http://www.monroewa.gov>

From: Elizabeth Smoot
Sent: Tuesday, September 15, 2015 3:56 PM
To: baa444@comcast.net
Cc: David Osaki
Subject: PR15-170 Anderson

Mr. Anderson,

Good afternoon! In follow up to your discussion this afternoon with Mr. Dave Osaki, please see the following information.

Pursuant to RCW 42.56.520, this letter via email serves as the City of Monroe's response to your request for public records (attached) received Tuesday, September 8, 2015.

The City of Monroe estimates it will require additional time to locate, assemble, and review responsive documents. We will reasonably attempt to provide documents responsive to your request in regular installments, as necessary. We anticipate that the first (and potentially final) installment of responsive records pertaining to your request will be produced no later than Friday, September 18, 2015. Any records or portions thereof that are exempt from disclosure under state or federal law will be denied or redacted as appropriate, and the justification for any such denial or redaction will be included within the City's final written response.

I have sent a copy of this letter via email to the residential address on file; and will notify you of the same via phone message.

Please feel free to contact me with any questions!

Thank you,

Elizabeth M. Adkisson Smoot, MMC | City Clerk

City of Monroe, Washington
806 West Main St., Monroe, WA 98272
phone: 360.863.4538 | fax: 360.794.4007
esmoot@monroewa.gov | <http://www.monroewa.gov>

Letter to David Osaki

September 28, 2015

Comments from Douglas Hamar
on the 2015 DSEIS for East Monroe

RECEIVED

SEP 28 2015

CITY OF MONROE



The Skykomish Valley
And Monroe
Deserve Better

September 28, 2015

Mr. David Osaki
Community Development Director
City of Monroe
806 West Main St.
Monroe WA, 98272

RE: East Monroe 2015 DSEIS

Dear Community Director Osaki:

I have lived on Calhoun Road directly overlooking the subject property of this SEIS for the past 10 years. Before that, I visited my relatives, living in this same house, several times a year from 1987 onward. I look down on a verdant farming valley and—as it has been described in the Comprehensive Plan for many years—Monroe's “scenic gateway from the east.”

The scenic value of this gateway is a great asset to Monroe and worth preserving. This peaceful environment is a mile down the road from Monroe's notorious traffic congestion and a large retail area that has been plagued with a considerable glut of retail space—also for many years. The last thing Monroe needs is a totally auto-dependent retail area that draws consumers away from its walkable retail areas and stretches out the City's traffic congestion several miles to the east.

In the 2015 DSEIS, the proponents of this rezone continue their strategy of drowning inconvenient truths in volumes of data and professional-looking graphics. In the following I will bring some of those inconvenient truths to light for your consideration.

Flood History of the Property

*44 CFR Section 60.3(b)(4) requires that you make every effort to use any flood data available in order to achieve a reasonable measure of flood protection.
NFIP requirements, Unit 5, pg 10*

On page 55, Figure 9 of the DSEIS we find:

The “Historical Peaks” graph to the left shows the year 2006 **had the highest recorded flood water elevations in the history of Snohomish County**. The images below are official City photos (date) and show the site conditions of the project area during the 2006 flood, under the highest river levels for the Skykomish river since 1928.

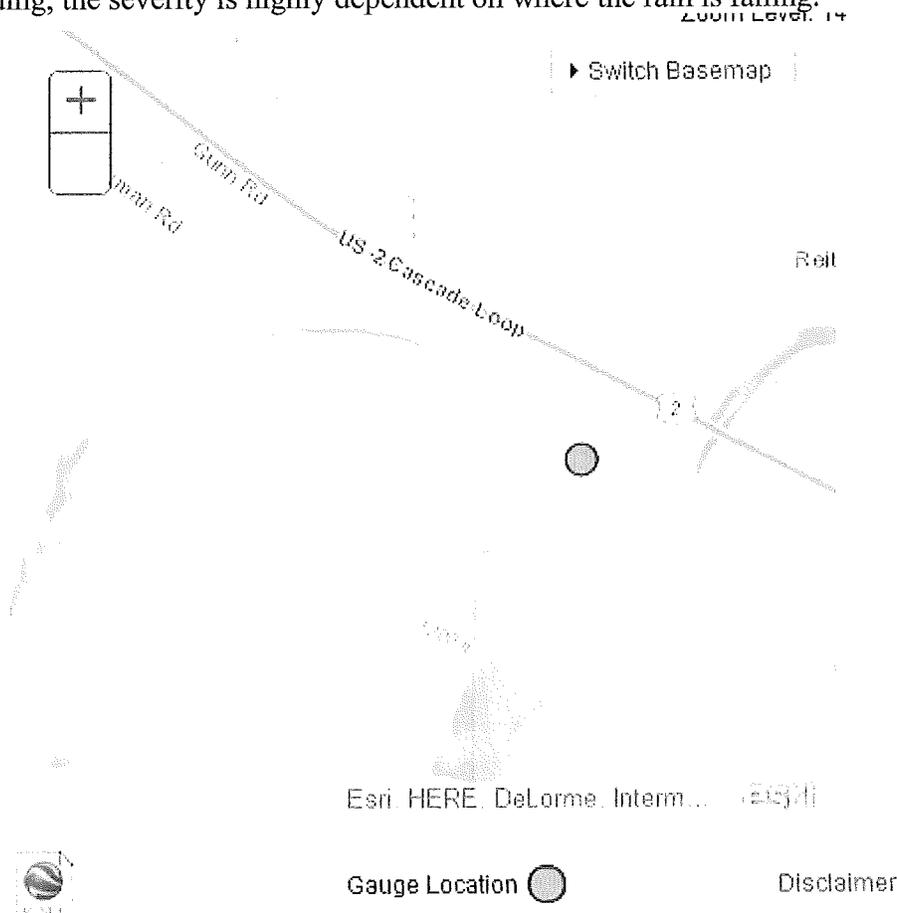
Note; even when flood waters reached their highest elevations, the conceptual developable area remained above water.

These statements are completely and shamefully false. Snohomish County includes more than just the area surrounding the flood gauge at the east end of Gold Bar. Anyone familiar with flooding in the area can easily recognize that the images here were not taken during the peak of any flood. The river is only bank full. The flood way—everything to the south of the railroad tracks and SR2 in these photos—is

always under water in a major flood. In these photos it is not. The area south of the tracks is designated "flood way" because there is plenty of historical evidence to support that designation.

The City has heard many eyewitness testimonials from those who experienced it, stating that the subject property was completely under water during the 1990 flood, that people were traversing it in row boats, and that the residents of the home just to the east of the subject property had to be rescued by helicopter. I heard the same from my relatives when I arrived on the scene a few days after the peak of the Thanksgiving 1990 flood. It is my—albeit fuzzy—recollection that the entire property was still under water at that time, but I definitely remember a pickup truck halfway along the drive to that house being submerged up to the very top of the cab. Depending on the make of the truck, this would put the water level at or over the highest point on the so-called "developable" portion of the property.

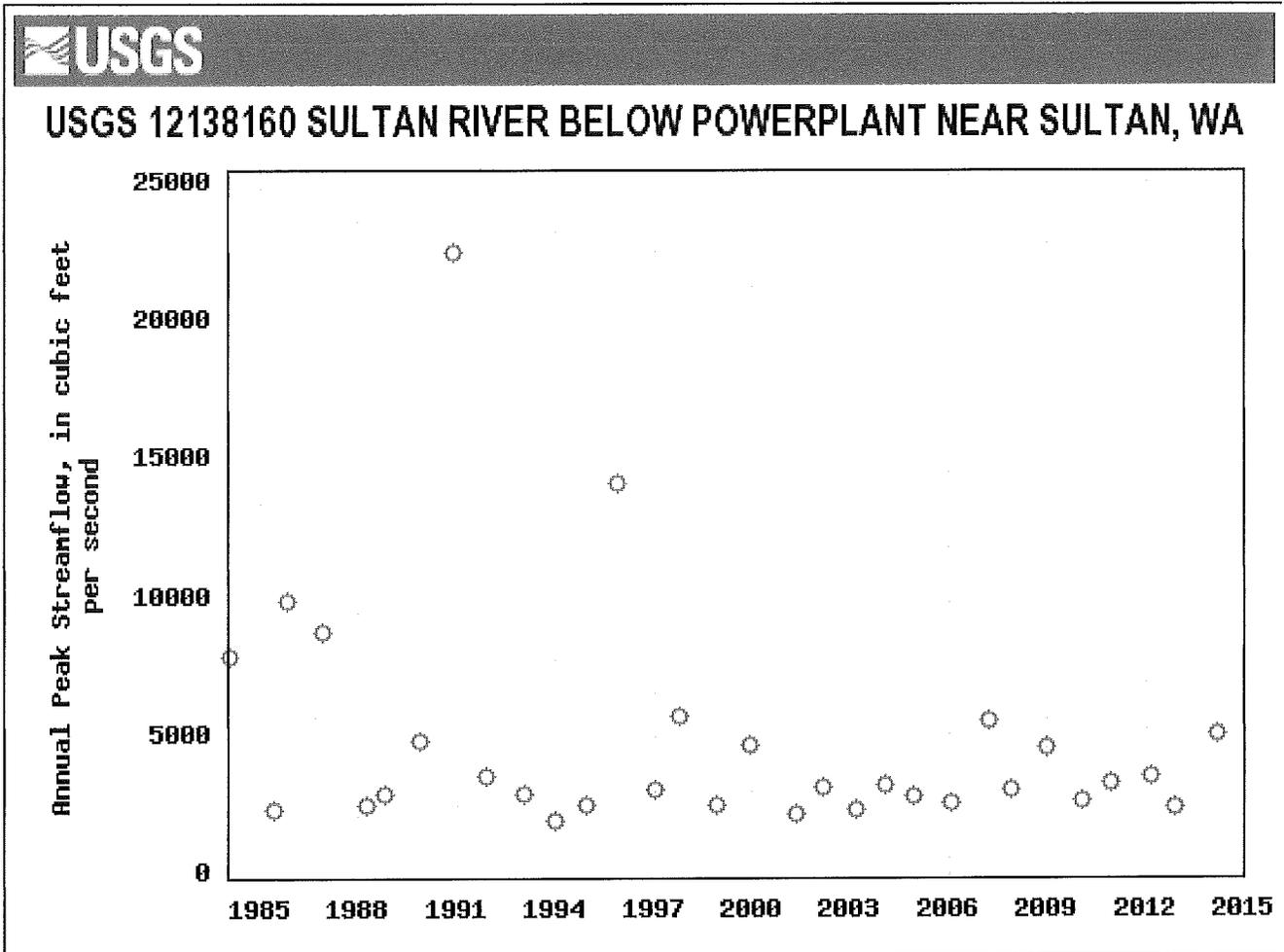
The graph in the DEIS and the aforementioned testimony do beg the question, why was the flooding in the lower Skykomish Valley so much more severe in the 1990 flood? The flood gauge at the east end of Gold Bar is measuring the flow upstream from where the Wallace river, the Sultan river, and a multitude of smaller tributaries enter the Skykomish—about 150 square miles of watershed. As with most river flooding, the severity is highly dependent on where the rain is falling.



Latitude/Longitude Disclaimer: The gauge location shown in the above map is the approximate location based on the latitude/longitude coordinates provided to the NWS by the gauge owner.

SKYKOMISH RIVER BASIN WEST OF GOLD BAR





Why has Pace Engineering focused on one river gauge and some mislabeled photos? Because the actual historical record runs entirely against commercial development of the East Monroe property.

The following pages, 5 through 14, are representative of coverage afforded the 1990 flood by the Monroe Monitor. I'm sorry the print is so small. The originals can be viewed at the Monroe Historical Society.

The voice of the valley for more than 100 years

Monroe Valley Monitor-News

\$2⁵⁰ • SPECIAL EDITION • NOVEMBER 1990

EXTRA! EXTRA!
 This special edition of the Monroe Monitor-Valley News is devoted to the record 1990 floods of Veterans Day and Thanksgiving.

Everyone will remember the floods of November

by Kurt Batdorf

Nov. 24, 1990 will be a day etched into the memory of Skykomish and Tualco valley residents for years to come.

Record rainfall conspired with high temperatures and super-saturated ground from the Nov. 10 floods to send the Skykomish River and its tributaries to record flood levels.

The damage was widespread and extensive. And it promises to be expensive. No one has been able to give a complete estimate of how much the damage will cost to fix.

Homes and summer cabins were washed away. Farmers and other property owners lost acreage to the river. Dikes gave way, sending water through normally dry areas. Dozens of roads were covered with water or washed out altogether. New river channels were created. Old river channels were re-established. Scores of people had to be airlifted from their flooded homes.

But everyone pulled together to make the best of what quickly became a bad situation.

Innumerable volunteers quickly mobilized to lend hands where help was needed.

Help was needed all over. Volunteer fire fighters went to as many homes as they could to

warn people of the rapidly rising flood waters and helped evacuate those who needed to be.

Students from Monroe and Sultan helped farmers move damaged grain and hay.

Neighbors helped each other get to safety and assess and clean up the damage. Inmates from the Washington State Reformatory farm were dispatched to help neighboring farmers get back in operation, even though the Honor Farm itself was under three feet of water.

When Dave and Kay Bradley's Gold Bar home was in danger, friends and volunteers helped them move out as many of their possessions as they could before the river took possession of their home. That included several cars and their farm animals. They're staying with friends.

In Sultan, volunteers worked all night Nov. 23 and 24 filling sandbags. The flood waters reached the intersection of Fifth and Main streets and covered SR 2 in a couple of spots. With a foot of water covering the post office floor and two feet in the parking lot, mail deliveries from Sultan were cancelled on Saturday, Nov. 24.

In Monroe, the Church of Jesus Christ of Latter Day Saints was giving away free hay to

farmers whose hay was soaked. The Monroe School District volunteered the use of its buses to transport flood evacuees from the airport to Red Cross and local church shelters.

Volunteers from Clearview Fire District 7 rounded up clothing and household goods to help residents of the flood-ravaged Three Rivers Mobile Home Park, where the Snohomish River knocked the homes around like toys.

The damage from the flood reveal how much water was flowing down the Skykomish Valley.

At Gold Bar, the Skykomish crested at 22.49 feet between 7 and 8 a.m. Nov. 24. The previous flood record was 21.34 feet, set in 1980. Flood stage is 15 feet.

West of Monroe, the Snohomish River crested at 33.54 feet at 1 p.m. Nov. 25, exceeding the record of 33.16 feet set in the December 1975 flood. Flood stage is 15 feet.

A lot of people thought the 1975 flood was the worst they had seen, but it doesn't measure up to the Thanksgiving weekend flood.

The Skykomish River normally flows at 30,000 to 40,000 cubic feet per second, county executive



Stuart Nichols of Sultan slogs out of his trailer after the Nov. 24 flood inundated his trailer. He carries his possessions in a plastic garbage bag. The flood rendered him homeless.

Willis Tucker told the Monroe Kiwanis Club. The river reaches flood flows at 90,000 cfs. The 1975 flood reached 115,000 cfs. But this year, the Skykomish

River recorded a peak flow of 185,000 cfs, Tucker said. Up at Spada Lake, Snohomish County PUD drew down the (continued on page 8)

Sultan couple expected flood, but they didn't expect such a big one

by Nellie E. Robertson

Judy and Ron Ingram knew it was going to flood on Thanksgiving weekend, but they had no idea it would be so bad.

The Ingrams have two rental homes on 311th Avenue S.E. in Sultan between SR 2 and the Mann Road. They still had personal equipment and livestock on the land, even though they had moved to another place on Woods Lake Road not long ago.

After the flood two weeks before the big one on Nov. 24, they moved 3,000 bales of hay out of the barn for fear it would spontaneously catch fire. They stacked it in the center of their first pasture. They also strung three new fence lines which had been wiped out.

The water started to rise on Friday night, Nov. 23. At 11 p.m., they could still drive down the driveway. By 3:30 a.m., it was coursing through the houses.

It rose to a foot above the floor in one house, and eight inches in the other. The tractor was covered and three cats were submerged.

Judy Ingram said the most recent flood wiped out one of the new fences they had put in.

"Every year, it comes in different," Ingram said of the flood waters. "It cuts a new path."

"They were new poles so they weren't rotted," she said. "And the pasture looked like someone had used a broom and swept all 3,000 bales of hay away. We lost the hay and gained an old freezer and a river boat."

From the original 5,000 bales they had, the Ingrams now have about 450 bales, which should be just enough to care for their reduced herd. They had sold some stock when they moved.

A bale of local hay costs \$2.75 to \$3 each, she said. They have insurance to cover the loss of the hay and equipment, but the houses weren't insured. The Ingrams had lived in their house (continued on page 2)



And how is the fishing downtown?

Jim Sattler, in front, and his fishing buddy "Don" troll the waters in front of Sultan Sporting Goods during the Nov. 24 flood. As muddy as the water was this day, they probably got skunked.

Page Two, Monroe Monitor-Valley News Special Flood Edition December 1990

Editorial:

Floods touched us all

Record high river levels that caused record flooding during two weekends in November brought with it many dramatic moments.

In Snohomish County, 81 homes and apartment units were destroyed by the flood waters. Another 425 sustained some sort of damage. Dozens of roads were washed out. Dikes broke along the Skykomish and Snohomish rivers. At the peak of the flood, the water flowed at nearly six times its normal rate. Scores of volunteers and friends quickly geared up to lend help in the great disaster.

Numerous stories developed simultaneously when the flood waters rose and then receded, and we tried to cover as many as we could. It isn't possible to tell everyone's story, but we have gathered many stories that we think represent the way people in the Skykomish, Tualco and Snohomish valleys were affected during those historic weeks.

From Baring to Snohomish, and everywhere in between, the raging Skykomish, Snoqualmie and Snohomish rivers touched the lives of thousands of people in some way. Where people had grown accustomed to annual flooding, they were prepared for some sort of inconvenience. This time, however, the inconvenience became immediately acute as flood waters rose extraordinarily fast. Instead of talking about 100-year floods, people started talking about 500-year floods.

These floods are one of the most dramatic natural events in the tri-valley area. Here are a few of the stories we want to share with you.

—Ken Robinson and Kurt Batdorf

BN is back on track after rail lines are washed out

Burlington Northern is back on track.

The record floods of Nov. 24 gave the railroad a big headache when flood waters washed out several sections of its main east-west line across the state.

But BN spokesman Howard Kallio said repairs were finished four days sooner than expected, and the line reopened at 11:15 p.m. Dec. 1. He said BN didn't expect to reopen the line until Dec. 5 at the earliest.

The washed-out tracks stranded two freight trains in Gold Bar and Skykomish, said Kallio. One of the trains contained U.S. mail, which was unloaded Nov. 26. The next day, the track was opened between Everett and Skykomish.

The fact that the flooding was so widespread caught BN off guard.

"We didn't expect the washouts," said Kallio. "There's been nothing so widespread in the history of the company, as far as we know."

BN lost several sections of track to the flood waters between Everett and the east side of Stevens Pass, Kallio said. The repairs alone are estimated to cost \$1.1 million.

But the washouts let the company see its contingency plan in action, he said. BN has temporary tracks and equipment for hauling rock, and keeps a list of contractors who can work on short notice. BN rerouted east-west trains through Vancouver, Wash., and the Tri-Cities.

"We've had to reroute trains before," Kallio said. "We just haven't had as big an outage as this."

A big one, cont.

(continued from front page) beside the slough for 11 years, and the water had never been in either one.

"Every year, it comes in different," Ingram said of the flood waters. "It cuts a new path."

She said the Monday weather report prior to Thanksgiving told of warm and wet conditions so they were expecting some flooding. If the word had reached them from Gold Bar when the waters rose so rapidly, they'd have had two hours or so to move more possessions out of the way.

Ingram figured the water rose at the rate of 1 1/2 feet an hour.

It cut grooves in the driveway alongside the house.

Ron Ingram has started ripping out the carpeting and the wooden floors. The flooring can be burned, but the carpeting and other damaged goods have to go to the dump. They have a dump pass that allows them deposit the garbage in one of three dump stations — Mountlake Terrace, Everett, and Arlington.

He shook his head as he looked at the damaged house. The refrigerator was ruined and they haven't tried the stove yet. The flip side of the coin is someone already wants to rent the house again.

Staff photos by Kurt Batdorf, Nellie E. Robertson and Jay L. Moran

For additional copies of this special issue, write the Monroe Monitor-Valley News, P.O. Box 399, Monroe, WA 98272. Enclose \$2.50 for each copy ordered.

You can get flood insurance, even if you're in a flood plain

by Nellie E. Robertson
All flood insurance is written through the National Flood Insurance Program, says Kathy Heichel, agent-manager of C. Don Filer Insurance Agency in Monroe.

The premiums are set according to the zone the dwelling is in. The limit on a single-family dwelling is \$185,000.

"The rates are the same at any agent," Heichel said, "so you don't need to shop around."

The maximum loss allowed on residential contents is \$60,000 actual cash value, which means the depreciated value of the items. Both the dwelling and

contents policies carry a \$500 deductible.

The dwelling is settled on actual cash value unless the insured purchases at least 80 percent of the replacement cost of the dwelling.

For example, Heichel said, if you have a \$100,000 home in a flood zone and buy only \$30,000 worth of insurance, then the claim is settled at actual cash value. If you buy \$80,000 worth of insurance, then the claim is settled at replacement cost.

Flood insurance can be tailored to need — contents, basement and above, floor and above, basement only, first floor

only.

To determine the flood zone, a person can call the county or city with the property's tax number. With that information, the governmental agency can tell what flood zone it's in.

Policies are written for one- or three-year terms. There is a \$45 expense fee for writing the insurance. In a three-year policy, the fee is waived for each of the remaining two years of the policy.

Insured vehicles are covered for flood damage under the comprehensive coverage. The contents are not covered.



Roiling flood waters severely damaged the Old Snohomish-Monroe Highway.

Floods take toll on roads

by Kurt Batdorf
November's record flood waters caused extensive damage to roads throughout the Skykomish, Tualco and Snohomish valleys.

Southeast Snohomish County suffered "really severe damage," said Susan Thornton of the county Department of Public Works. About 20 county roads remained closed, most of them in the southeast part of the county.

The damage won't be cheap to fix, either. Thornton said the department's preliminary damage estimate is \$5 million to roads alone.

But much of that money will come from Uncle Sam — either from the Federal Emergency Management Agency or the Federal Highway Administration, said Thornton.

FEMA will pay for 75 percent of the repairs to roads not on the federal highway system, said Thornton. The state will pay 12.5 percent of the repairs, and local governments will pay the final 12.5 percent.

The FHWA will pay 80 percent of the repairs to damaged federal highways while local governments pay the remaining 20 percent, said Thornton.

County Executive Willis Tucker said the repair work will cost the county about \$800,000,

which will come from the general fund.

"It won't break us, but it sure will hurt," Tucker told Monroe Kiwanis Club members last week.

Tucker also said the regional FEMA director has promised an "open checkbook" to pay for flood repairs in Snohomish County.

The county is repairing damaged roads to give access to local residents and emergency vehicles, said Thornton. But some roads will be closed for quite a while.

"Major repairs have to be done," she said.

Major sections of the Index-Galena Road washed out in the first flooding on Nov. 9 and 10, and Thanksgiving weekend flooding caused additional damage. The county hasn't determined when the road will be opened, said Thornton.

South of Monroe, crews are working on the approach to High Bridge from the Crescent Lake Road, she said. The Nov. 24 flooding washed out the approach and lifted the bridge from its footings.

Near Snohomish, the Old Snohomish-Monroe Highway remained closed, along with Tresli and Marsh roads, said Thornton. Airport Road was re-

opened, but Springhetti Road will remain closed for several weeks. Trestli Road will be closed indefinitely.

The flooding wasn't kind to the state of Washington, either.

Brent Olsen of the state Department of Transportation said the agency spent over \$61,000 on flood-related repairs to SR 2 in Snohomish County.

Rip-rap was installed at the Anderson Creek Bridge west of Index. A log jam was removed upstream from the Proctor Creek Bridge, east of Gold Bar. Drift debris was removed from in and around the Snohomish and Skykomish river bridges. The Snohomish River Bridge needed repairs after a barge sank beneath it.

SR 2 was closed Nov. 24 east of Monroe when water covered the highway in Sultan. There was also concern that debris in the overflowing Sultan River might damage the Sultan River Bridge, so it was closed for about an hour Nov. 24 until the danger passed.

The highway was reopened to Stevens Pass on Nov. 28, but remained closed to the east by a washout between the summit and Leavenworth, Olsen said. SR 2 was reopened Dec. 1 with a detour around Tumwater Canyon.

December 1990, Monroe Monitor-Valley News Special Flood Edition, Page Three

Safely cleaning up after flood waters requires a lot of work

by Nellie E. Robertson
Health measures that need to be taken following a flood are a prime concern of the Snohomish Health District.

They've provided a list of procedures to help prevent disease for those who have been flooded.

Water sanitation

Private water systems that have been flooded should not be used until the water is boiled or treated. Boil the water for at least two minutes before drinking or using to brush teeth or wash dishes or foods.

If large quantities of water are required or boiling is inconvenient, ordinary liquid household chlorine bleach can be used. Add a half teaspoon to each five gallons of water or eight to 10 drops to a gallon of water. Allow the water to stand for 30 minutes before use.

Well disinfection

Before disinfecting a well, remove any debris that may have entered during flooding. Roughly calculate the volume of water in the well — multiply the number of cubic feet of water by 7/8 to determine the number of gallons.

For a 36-inch diameter casing, each foot of water equals about 50 gallons. For a six-inch diameter casing, each foot of water equals about two gallons.

Use liquid chlorine bleach in an amount equivalent to one gallon for each 1,000 gallons of water in the well.

Pour the bleach into the well, then connect a garden hose to the nearest outside faucet and circulate the water through the hose and back into the well. This mixes the chlorine with the water. The pump will draw the chlorine to the bottom of the well.

After chlorine can be smelled in the water coming out of the hose, rinse the upper portion of the well with the disinfected water.

Draw water at every outlet connected to the system until a strong chlorine odor is perceptible. Allow the disinfectant to remain in the system overnight — 24 hours is preferable.

Use one or more outside faucets to draw water out of the well to remove the chlorine. The well should be repeatedly flushed to

remove the chlorine. All the water lines should be also flushed.

After disinfecting and flushing the well, wait a minimum of seven days before sampling it for contaminants. This bacteriological analysis will tell whether or not the underground water source is safe.

Water sample bottles may be obtained at the Snohomish Health District, Environmental Health Section, located at the county courthouse in Everett, or the East County Clinic, 615 W. Stevens Ave., in Sultan behind the Country Kitchen Restaurant.

The cost of the well water analysis is \$10, payable when the bottle is picked up. Turn in collected water samples to the health district's courthouse office between 8 a.m. and 2 p.m. Monday through Thursday.

Immediately deliver water samples to the lab or Snohomish Health District. Samples more than 24 hours old will not be tested.

Randal Darst, supervisor of the Water and Wastewater Section of the county's Environmental Health Division, said only 80 water samples have been submitted for testing since the Thanksgiving flood.

"That's not a great response," he said. "Some will disinfect their private systems before they take samples."

Food contamination

Fruits, vegetables, foods, medicines and cosmetics in cardboard containers should be destroyed. So should other packages that are not hermetically sealed and have contacted floodwaters. This includes flour, cereal and other commodities in bags or packages.

Fresh fruit and vegetables that have an impervious or watertight peel or skin may be used by first washing with detergent and water, rinsing in clear water, or rinsing in a disinfecting solution of one ounce of bleach to four gallons of water.

Sewage disposal

Septic tanks should be checked and pumped out if necessary after flood waters recede. Drainfields may also need replacing.

If temporary pit privies are used, frequently add lime to the pit to keep down odors and flies. Add more lime when the pit is

abandoned.

Valley residents were concerned about the flooding of the sewer treatment plant in Sultan. Darst researched the matter with the Department of Ecology and found that water was three or four inches deep in the lab and flooded the oxidation ditch. The sludge drying bed was flooded, too.

"They shut the whole thing down," Darst said. "If it hadn't been stopped, it would have caused a hazard because of the electrical systems. By stopping the agitation, it let the solids settle."

He said any effluent was so diluted in the flood waters it caused no further health problem.

"Everything together is a health hazard, but not the plant specifically," Darst said.

The Monroe sewage treatment plant was not flooded, although sandbags were around it just in case. It came to within 18 inches of entering the plant, said chief operator Ivan Dannar.

The high water caused sewage to back up because nothing could flow from the plant into the river. They closed the pump down for 24 hours.

When it reaches that static point — once or twice during Dannar's 10 years with the city — the sewage flows in a circle. It backs up into the sewer lines, triggering the bypass mechanism that sends sewage directly into the river.

"Everything is so polluted during a flood that (the added sewage) is nothing to worry about," Dannar said.

Household effects

Effects made of wood, metal or of other hard substances, including glass and chinaware, should be thoroughly scrubbed with soap and hot water and then allowed to dry.

Clothing, bedding, upholstery and other effects made of soft materials should be either thoroughly laundered or dry cleaned.

Wet-washed goods should be dried for 10 hours. Whenever possible, drying should be done in direct sunlight.

Wash hands in soap and water immediately after handling objects that have been recovered from flood areas.



Volunteer Gerald Johnson shovels wet hay at the Frohning farm.

Tualco Valley hit hard by raging Skykomish

by Wendy Laird

Many Skykomish and Tualco valley residents are trying to get back to normal after the devastating Thanksgiving floods ripped through the area, taking land and property with it.

Margaret and Harold Ohlsen lost three to five acres to the river.

"There are fields that are simply gone, covered by the river," said Margaret Ohlsen. "It just moved over our property."

The Ohlsens have talked with the U.S. Army Corps of Engineers, which agreed to investigate, but no one knows when.

"We're in a wait-and-see period," she said. "I'd guess the Corps will just have to survey the damage and prioritize. The sooner the better, because it doesn't just affect us, it affects everyone downstream from us."

Ohlsen said they've talked to disaster assistance people at the Evergreen State Fairgrounds in Monroe, but there wasn't much they could do.

"They don't really deal with that kind of loss," she said. "Some people didn't lose much land, just property."

Tim and Sandy Frohning, along with Elmer and Betty Frohning, own and operate a dairy in the Tualco Valley, and their families have done the same for generations. And none of them have seen flooding like this.

"Tim's dad (Elmer) says it's worse than the 1921 flood. He

was just 4 then, but he remembers that the water got into the barns, but not very far," said Sandy Frohning. "This time, it was over Tim's head in some places."

Sandy Frohning said they've only lost two cows, so far.

"The cows were belly-deep in water for I don't know how long," she said. "They went for 36 hours without a milking. It's a miracle they survived. One heifer drowned. We don't know if any others will go. We'll see if any get pneumonia or mastitis."

Mastitis is an inflammation of the cow's udder, and it can result in death.

She said the calves were brought to a higher spot, but the water was up to their backbones anyway.

"One was too young, and couldn't take the cold and wet, and died. The rest were OK," Frohning said.

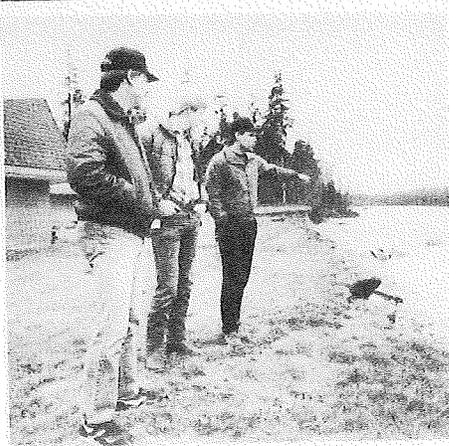
Frohning, who is pregnant, said a miracle has been wrought. "It's a miracle that things are still in one piece," she said. "Our church has been wonderful, helping us out. So has the high school. We didn't even have to dump any milk during the flood. It's amazing how everything has turned out."

It will be a couple of weeks before the Frohnings know the extent of the damage, she said. "We'll have to wait and see how the cows do, and it'll take a while to get the house and barns cleaned out."



Flood waters overran the Sultan sewage treatment plant Nov. 24, but officials said that didn't pose a health problem because the flood waters were already so polluted.

Page Four, Monroe Monitor-Valley News Special Flood Edition, December 1990



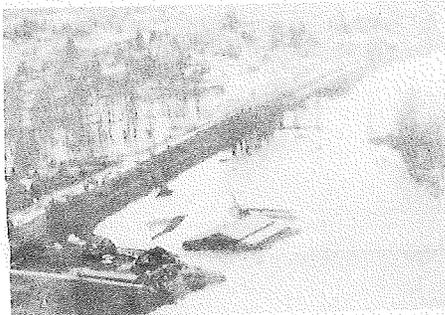
Erosion endangers house

The home of Bill Clao, right, was 100 feet from the Skykomish River when it was constructed more than two years ago. Floods have eroded the bank to within 28 feet of the house. He discusses possible solutions with contractors Steve Reed, left, and Phil Ruhnke.



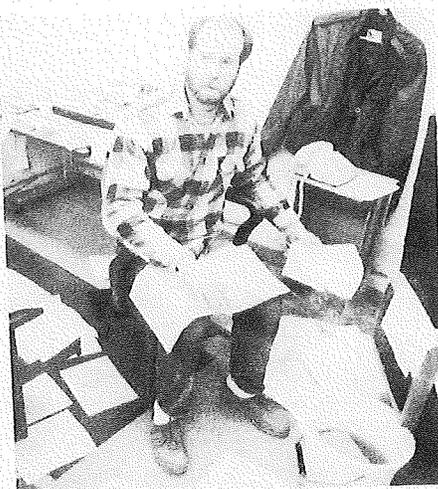
Couple's pride and joy is all washed up

Above, Kenneth Petersen III watches the Nov. 9 flood waters flow under and around his son's and daughter-in-law's A-frame on Proctor Creek between Gold Bar and Index. Below, the younger Petersen's sister looks at the aftermath of the creek's current, which washed the house off its piers, spun it around and swept it downstream about 50 feet. A log jam caused Proctor Creek to change its course, damaging the Petersen's property in the process.



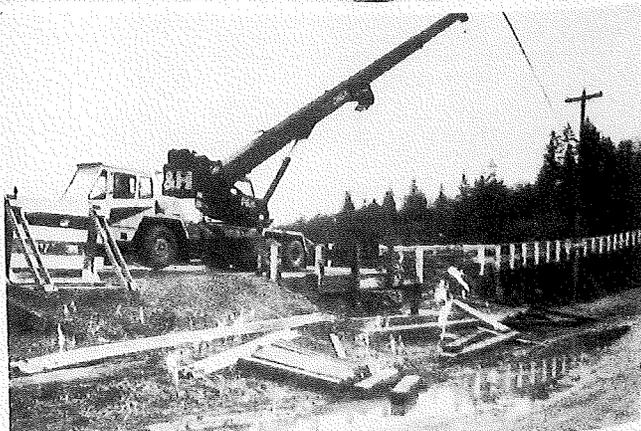
Dike breaks in Sultan

The dike at the confluence of the Sultan and Skykomish rivers broke in the Nov. 10 flood, causing extensive and costly damage to Steve Stephens' Riverside Ranch.



Flood soaks WSR farm

Washington State Reformatory farm superintendent Paul Leeberg sorts through soaked paperwork in his office, which was under three feet of water in Nov. 24 flood. He estimated \$500,000 in damage at the farm.



High Bridge got really high

The east end of High Bridge across the Snoqualmie River in the Tangle Valley south of Monroe rode a few feet high during the Nov. 24 flood. It was left high and dry when the waters receded. Snohomish County road workers recently started repaling the damage. The old planking is being removed and a new approach is being constructed.

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Flood damage, other dangers close all Forest Service roads

by Nellie E. Robertson
 All forest roads in the area are closed, according to Phyllis Green, district ranger for the Skykomish Ranger Station.
 "Due to extensive damage from the flood and snow conditions in the district, the U.S. Forest Service is unable to repair road systems this year," she said.
 The roads are closed to all vehicles — automobiles, snowmobiles, four-wheel drives, and all-terrain vehicles. The closures include Mineral Butte, North Fork Skykomish, Becker River, Beck-

ler Peak, Martin Creek, Tunnel Creek, Foss River, Miller River, and Proctor Creek.
 Cross country skiing on Tonga Ridge is also prohibited.
 "We'll be issuing citations for vehicles found behind barriers," Green said.
 The heavy November snows were followed by heavy rain, giving a dramatic start to the avalanche season, said Sue Ferguson of the Forest Service's avalanche forecasting team.
 The Forest Service issues avalanche advisories on a 24-hour line. Call 526-6677 for avalanche

advisories for the Washington Cascades and Olympics. Avalanche hazards range from low to moderate to high to extreme.
 Those who have Christmas tree tags for cutting in the federal forest can get a refund, go to Darrington to get their tree, or save the tag and use it next year.
 "We're sorry," Green said, "But it's hazardous."
 If there are groups who would like to work as volunteers with the forest service to help repair some of the road damage, it might be possible to open something up, Green said.



Asphalt takes a detour

Strong flood waters lifted two portions of the asphalt covering 311th Avenue S.E. in Sultan between SR 2 and the Mann Road and deposited them in the field next to the road. Pat Mauldin stands on one of the slabs to show its size. He was doing some work for Ron Ingram who owns two houses nearby and was spending the night in one when he woke up at 3 a.m. "I saw 2 1/2 feet of water in the yard and it was coming up fast," he said. "We got the horses out then waded through 3 1/2 feet of water to the neighbors." He said he was scared and shaking.

After a 'minor atomic bomb,' Baring finds itself high and dry

by Nellie E. Robertson
 November's floods left part of the town of Baring high and dry. Baring was platted in 1901 on the north side of the railroad tracks that parallel SR 2. The Baring Water Co-op, which serves 11 families in the area, was started in 1908.
 The water in the system came from a series of springs on Baring Mountain.
 In 1988, the water company's watershed was clearcut over the protests of the water co-op's members.
 During the Thanksgiving weekend flood, water gushed through the clearcut and washed out the water system completely.
 "It was like a minor atomic bomb," said Ron Trammell, whose home was served by the co-op.
 "There were two 1,000-gallon settling tanks and it washed them away completely," he said. "There's no possible way of restoration because of the delicate ecosystem."
 Trammell said the water system had withstood all of the floods since 1908.

The co-op has applied for a low-interest disaster loan. Trammell said the co-op did not qualify for a grant. With the \$25,000 they are applying for, they'll dig a deep well that will supply the town.
 "It will take two months to get the money, and then several more months to get the well drilled," Trammell said. "It'll be next summer before we have a domestic water supply."
 Presently, the National Guard has a tank truck supplying them with water for 30 more days. After that and until the new well is finished, neighbors will have to get water from Trammell's farm down the road, and from a couple of developments across the highway.
 Phyllis Green, district ranger for the U.S. Forest Service's Skykomish Ranger Station, confirmed that the water co-op had protested the size and scope of the Barclay timber sale above Baring.
 She said the cut was reduced and protective measures were mandated to protect water quality.

When the flood occurred, she sent an investigative team to find out if the protective measures were taken and if they were reasonable. She also asked them to discover what effect the clearcut had during the flood and if that effect was significant.
 Bob Snyder, with 25 years of experience as a soil scientist, led the team.
 Two aspects investigated included rooting strength and canopy removal. They found that because the harvest was so recent, the root structure was sound.
 Removal of the canopy had little effect because trees are dormant this time of year and had the trees been there, they would not have absorbed much of the rainfall.
 "Because of the topography, only three acres out of 12 (clear cut) were part of the drainage," Green said. "It was not a significant factor."
 Over 23 inches of rain fell Nov. 21-24, with six inches falling in one 12-hour period, Green said. The supersaturated soil liquified and slipped.



They're wet but safe

Jean Personeus of Sultan comforts her damp cat just before heading back to her flooded riverside home. Her house was completely surrounded by water from the Nov. 24 flood. She planned to stay with a friend.



Old snag finds new home

The flood waters deposited this huge snag on the road approaching High Bridge in the Taulco Valley south of Monroe. It attests to the force of the water that inundated the Snoqualmie Valley on Nov. 24.

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Bossy gets a helping hand

Diamond M Dairy workers and volunteers gently guide a stranded and reluctant Holstein milker up an embankment along SR 2. The cow became stranded in the ditch Nov. 25 while the rest of the Diamond M herd was being driven to the Evergreen

State Fairgrounds a mile away to escape the flood waters that covered the fields surrounding the farm.



Double whammy, part one

The first part of a double whammy struck Sultan's Skywall Drive Nov. 9 and 10 as flood waters surged over the banks of the Sultan River. The area flooded again two weeks later, just as some residents had finished repairs from the first flood.



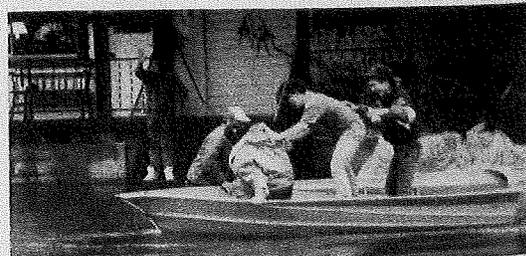
It's in the bag

Sultan's second shift of volunteer sandbaggers gets into gear for the Nov. 24 flood. The first shift of sandbaggers worked all night Nov. 23 as the waters rose.



Kids get ride they won't forget

These kids were some of the many people who had to be flown by helicopter from their flooded homes in the two floods.



It's the only way to travel

A boat was the only way to get around parts of Sultan in the November floods, as these gentlemen can attest.

Anglers will have to remember the 'old' Sky

by John Beath

For eons, snow-melt and rains have drained and seeped from the high reaches of the Cascades into the tributaries that form the Skykomish River.

In the summer, the Skykomish River, affectionately called the "Sky," runs low and gin-clear. Over the years hordes of sightseers and outdoor enthusiasts flock to the river banks of the Skykomish Valley to enjoy every nook and cranny of this scenic river and its tributaries.

Flora and fauna attract many to the banks of the Skykomish. Perhaps the most noteworthy attraction during winter months is the mighty steelhead. Anglers spend countless hours fishing for this anadromous sea-run rainbow trout.

Many non-fishermen consider steelheaders flawed in character, even crazy. Who else would stand knee-deep in icy waters while nearly frozen rain beats at our brow for hours at a time? But steelheading on the "old" Sky and its tributaries are now only a fond memory.

After what many are calling the worst flood this valley's river system and residents have ever experienced, the previously pristine river has been devastated and changed forever.

Countless acres of riverbank were swept away. Alder trees growing from the gravel bars and banks of the Sky endured as best they could. High water filled with abrasive projectiles tore away limbs, leaves and cleaned the bark from thousands of these small trees. Now the river's edge resembles an albino porcupine with its quills pointing towards an unknown enemy.

As time passed during the eventful floods, the Sky swelled and raged out of control, beyond anyone's expectations. It plucked trees of all sizes, roots and all, from its banks and hurled them downriver with reckless abandon. Our mighty Skykomish River cut new channels in the river like a double-edged sword.

Boulders as big as Volkswagens clanked beneath the water during this awesome display of power, permanently changing the river's personality and character. Sand, gravel, silt and debris washed in and out of once-productive fishing grounds.

Old logs, freshly plucked trees, cabin doors, 20-foot long planks, old furniture and just about anything else you can imagine clutter the length of the Sky and the fields that surround it.

Flood waters turned the valley into a giant lake. When high waters receded, hundreds of tiny ponds remained, many containing chum salmon and trout.

Fish trapped inland will perish, along with their precious eggs — a generation of fish in the years to come.

Chinook salmon that spawned naturally by depositing untold numbers of eggs along the river's bottom died natural deaths before flood waters surged. Their eggs, hidden beneath gravel spawning beds, are most likely washed away or suffocated by silt and debris. At least 50 percent or more of these precious eggs were destroyed by the river that gives them life — now death.

If it weren't for the state salmon hatchery on the Wallace River, flood waters could have devastated Chinook and silver salmon runs on the Sky.

Workers at the salmon hatchery had their take of 13 to 13½ million silver salmon eggs, along with 200,000 spring Chinook eggs and 1 million fall Chinook eggs.

No eggs at the hatchery were lost during November floods, said Don Rudnick, the hatchery's manager.

"The rack holding surplus silver salmon in May Creek washed out during both floods," he said. "Seven thousand to 8,000 silvers followed their instincts and went up the creek to spawn naturally."

"Those fish would have produced another 7½ to 8 million surplus eggs to help other hatcheries and river systems."

In places, the riverbank is now steep where it once gradually sloped to the water's edge. Unearthed roots from trees that survived twist and turn towards the river like a thousand tentacles reaching for life.

Log jams crowd previously productive gravel bars and slots in the river where steelhead once flourished. The unprecedented power of the Skykomish River system cut deeply in both the riverbank and the pockets of residents who live near it.

But steelhead will return this winter, in spite of the Thanksgiving weekend flood. According to Loren Dingwall, the Reiter Ponds hatchery manager, no major damage occurred at the facility.

"We have a ton of silt and debris here," he said. "Winter-run steelhead started showing after high waters though. We didn't lose any fish in the rearing ponds. They were designed to withstand a 500-year flood on the upper end and a 250-year flood on the lower end."

"Fish clean spawning beds when they spawn, so I don't expect any great loss of steelhead this winter."

Drift boaters familiar with the High Bridge float above Gold Bar frequently called this drift mildly difficult. Now it's treacherous. Caution should be used when boating any section of the new Skykomish River.

At Sultan, the dike that held the Sky within its banks and allowed easy access for fishermen is gone. The drift below Jim's Rock seems inaccessible at this time. Much of the Cracker Bar is now gone and the drift is totally different than before.

Access once easily gained by anyone with "two bits" on the Ben Howard Road is inaccessible now. The Two-Bit Hole remains, but the river cut a channel through property used to gain access to the river, all that remains is a deserted island.

The riverfront trail linking Cadman's to the parking lot is gone. In its place is a bank at least eight feet high. Three feet from the river's edge, the river is at least three feet deep. On the south side, commonly known as Seattle Bar, the water appears very deep. Only time will tell if Seattle Bar was spared.

Don't ever forget, the river can rise at any time and show the vengeance and unlimited power it displayed during the notorious Thanksgiving weekend flood.

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Flood waters rolled over the banks of the Skykomish River, inundating this farm west of Monroe.

Dunn's property wasn't supposed to flood, but then the water came

by Walt Dunn

The Culmback Dam at Spada Lake is supposed to protect our home and five acres. The Sultan River doesn't flood like the Skykomish. There is no need to worry.

This had been true for 11 years. But I was worried during the Thanksgiving weekend of heavy rains.

Ordinarily, our home is 180 feet from the Sultan River, and is 14 feet above the average flow. Our front yard, between the house and river, is all cleared. We can see the river in the daytime. And we can hear the splash over the rocks as we go to sleep at night.

My wife Alice awoke first at 7 a.m. Saturday, Nov. 24. She looked out our bedroom window, then screamed, "Walt, the water is nearly up to our house!"

This got my attention. I looked. The river was awesome. A huge log out in the main channel scouted by at about 15 miles per hour.

"Alice, we have to get out of here, now."

We dressed quickly. I remembered our farm tractor and riding mower. They were in a drive-through shed which is several feet lower than our house. Son-in-law Bill and I hurried to the shed. It was full of muddy water.

I waded in, knee-deep, got a rope on the riding mower. We wanted to get it out the steep uphill side, away from the river. I pleaded, "Pull, Bill, pull, we have to get this equipment out before we leave."

He pulled on the rope, I pushed on the mower. It came part-way out, but at the steepest part it bogged down. Would the engine start? Surprisingly it did. I put it in low gear, then we both pushed. Out it came.

I then waded back and got on the tractor. The tail pipe was nearly under water. It spluttered a couple of times, then started. The tractor is an oldie, but a goodie. It came up out of the steep incline in second gear. I parked the tractor and mower on high ground across the road.

I ran back to the house. Alice was about ready. Bill grabbed a few clothes. I got my bag with writing materials, tape recorder,

camera. We had three cars to get out. Bill led the caravan. Alice is thoughtful. She insisted, "I'll go last in case my little low Datsun stalls. I don't want to block the other cars."

I followed Bill in our pickup. The first water over Trout Farm Road, our exit, was at the lower edge of our property. It was only a few inches deep. No problems there.

We then had to cross three more road overflows on the two-mile drive to Sultan. We got through OK. Alice left her Datsun on high ground in town. She joined me in the pickup.

We tried several of the higher roads through Sultan to get to SR 2, but they were closed. I thought we were going to have to go back to high ground in Sultan and stay there overnight.

Then we spotted a car ahead turning towards SR 2. We followed it to Fifth Street, the only one in Sultan with access to SR 2. As we reached the highway we could see water over the road just east of the Sultan River bridge. It was about six inches deep, but we got through OK. What a relief. We went on to Seattle and stayed overnight with our kids.

Alice and I headed back for Sultan Sunday morning. Would our house be flooded? Would our dog and cat be OK? Trout Farm Road was clear by then, no overflows. We hoped and prayed for the best.

When we arrived at our five acres the river had receded. We could see the highwater mark left by debris. It was at just about the same place as when we left the day before. The river had been up to nine feet over its average flow. This was the highest it had been in the 12 years we owned the property. But our home had not been flooded. Things looked good.

Then Alice turned on the sink faucet. No water. We went to the south edge of our property to look at the well. Oh no, it couldn't be!

The upper piece of eight-foot concrete casing had been washed loose and knocked over. The lower eight-foot piece of casing was still in place, but it was filled with gravel and rock. The sub-

mersible motor and pump was at the bottom. We had a well filled with sand and gravel. Water, water, everywhere, but not a drop for the house.

There was a 10-foot pile of logs just below the well site. Logs had toppled the upper well casing.

There is an old saying I heard in Montana as a boy, "Tis an ill wind that blows no good." And Romans 8:28 KJV says, "And we know that all things work together for good to them that love God..."

What was the "good" that happened to us? We were safe. Our home and sheds were not damaged. The dog, cat, tractor, mower, cars were safe. And we got a bonus. Fine silt was deposited over much of our property. The flood brought us many cords of firewood which hung up on trees adjacent to the river.

Many families lost everything. We were fortunate.

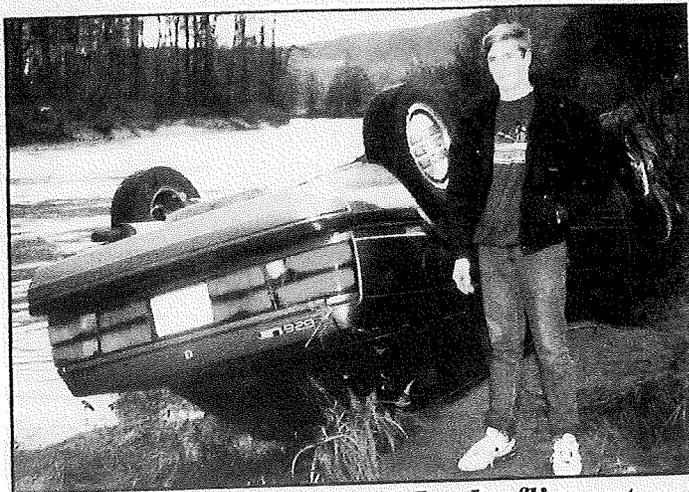
Nephi Johnson is plant superintendent at PUD's hydroelectric plant three miles upriver from us. He told me the high water level over the top of the morning glory spillway at Culmback Dam was 6.9 feet. Spada Lake had filled. Any more rain coming into the lake had to come on down the river.

Johnson said their procedure is to draw down the lake level 20 to 30 feet starting Oct. 15. This usually allows them to hold back heavy rainfall coming in the next few months. But this year the lake had filled from the heavy rains that came the weekend of Nov. 10.

Johnson said PUD takes many precautions when the lake becomes filled. They keep workers on duty 24 hours a day when the water rises five feet above the glory spillway. This includes people at the power plant and up-ripar at Culmback Dam.

The Town of Sultan and PUD have installed an emergency siren at Sultan Elementary School. They plan to install another siren upriver soon. The Sultan Emergency Committee also plans to hold public meetings in the near future. Emergency plans and procedures will be explained and discussed.

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Flood waters make Mazda flip out

The thundering Nov. 24 flood waters of the Skykomish River made this Mazda flip out. Owner Dennis Humphreys probably didn't jump for joy when he saw how his car was parked. Judd Tinius checks out the damage.

Remember November

(continued from front page)

lake's level before the Nov. 10 rains arrived. But those filled the lake, and the level was only two feet below the spillway when more heavy rain arrived Nov. 23 and Nov. 24.

There was so much water in Spada Lake that it was 6.9 feet above the spillway on Nov. 24.

Many people said they had never seen so much water in the Skykomish, Tualco and Snohomish valleys.

Madeline Ray and Ina Lee Foye have lived in the Tualco Valley all their lives, and they said the flooding is the worst they have ever seen.

The 1975 flood put a couple of inches of water on the floor of the administration building at the Washington State Reformatory farm. This time they had three feet inside, said administrator Paul Leeberg.

That caused about \$500,000 damage to office equipment, the recently completed inmate's library and the kitchen, Leeberg said. Inmates and staff were evacuated and spent the night at the reformatory in the gym. The

farm's kitchen was reduced to cold meals only for a few days.

Al Weishaupt Jr. said his family has lived in the Tualco Valley since 1933. He said he has never seen flooding so bad.

Until Nov. 24, the Weishaupts had never had flood water inside their home. This time, they had 1 1/2 feet inside and had to be flown to safety by helicopter.

Tualco Valley berry farmer Tony Broers said the Nov. 24 flood was the biggest since 1921.

The Federal Emergency Management Agency set up a disaster application center at the Evergreen State Fairgrounds. By Dec. 6, 416 individuals had come through, seeking help from one agency or another.

At a meeting of flood victims in Sultan Dec. 6, state Representative Art Sprengle, D-Monroe, and Senator Cliff Bailey, R-Snohomish, promised to push the Legislature to develop a coordinated river management plan for the entire state.

"If we can figure out how to handle this," said Sprengle, "we can handle anything."

East county gets hammered by record floods

by Kurt Batdorf
Snohomish County is assessing damage to its dikes, but there are two it can't miss.

One is the 850 feet that are missing from the Hansen dike just south of Monroe along the Skykomish River.

The other is the severely damaged dike at the confluence of the Sultan and Skykomish rivers.

The dike between John Hansen's dairy farm and the Washington State Reformatory started to give way late Saturday morning, Nov. 24. By the time the river dropped to normal levels, at least 850 feet of the dike had disappeared to downstream points unknown.

Hansen was cut off from the city until an emergency access road was bulldozed through the rocks and silt deposited through the break in the dike.

Snohomish County river management engineer Anthony P. Nahajski said repair of the broken Hansen dike has a high priority because it's also a county road.

The U.S. Army Corps of Engineers expects to start work next week to repair the dike, said Paul Komoroske of the Corps. He said the work is expected to cost about \$423,000.

Below the Hansen break, the Haskell Slough dike suffered some damage in the high water, Nahajski said.

Dikes in Gold Bar and Startup held up well, he said. The county helped with some repairs to the Wallace River dike and identified bank erosion problems in Index.

Nahajski is working with Green Water Meadows property owners east of Gold Bar. The river devoured part of their bank, taking two cabins with it. Some property owners are attempting to get permits to move their homes, he said.

The dike that was extensively damaged Nov. 10 in Sultan near the confluence of the Sultan and Skykomish rivers was private, Nahajski said.

But that dike's ownership appears to be in dispute. Stephen Stephens, owner of the Riverside Ranch below that dike, says the Corps of Engineers claims the county "sponsored" the dike, making it the owner. The Soil Conservation Service concurred, Stephens said.

He said the flood waters washed through the broken dike and surged through his horse arena and fields, causing hundreds of thousands of dollars of damage.

In the Nov. 24 flood, water gouged a hole 60 feet long, six feet deep and nine feet wide, knocked out one wall of the arena, and ate the asphalt out of the arena's alleyways, he said.

He said it took 24 hours using heavy machinery to remove the stumps, silt, sand and gravel from the arena.

But that damage is nothing compared to the new channel of the Skykomish that runs through his field, Stephens said.

Stephens said the dike that protected his property is now about 100 feet long, but it once lined the river for one-quarter mile.

He said he will repair the face of his arena but won't make any other repairs until the dike itself is fixed.

And there's no indication of when that might happen because of the ownership question, Stephens said.

County Councilman Peter Hurley promised the county will try to find a solution to Stephens' dike problem.

"We have to fix it," said Hurley.

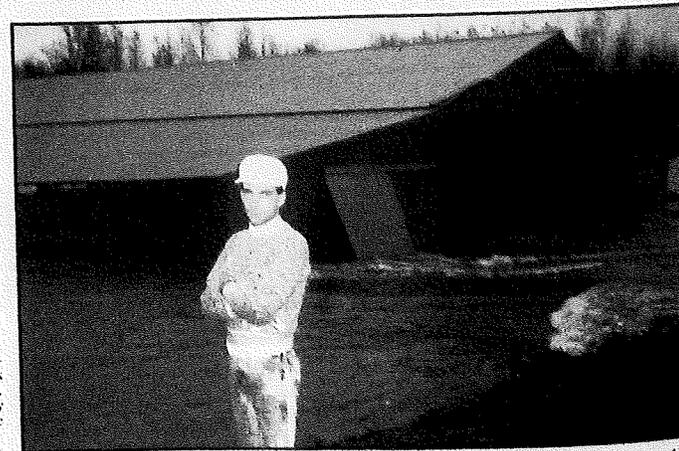
Les Soule of the Corps of Engineers said the agency will fix the dike if the county asks it to.

The flood damage wrought by the Skykomish last month will be long-lasting, Nahajski said.

"It will take a number of years for the river to settle down," he said. "There will be a lot of hardship for people."



Leo Ottlari surveys the damage wrought by the Skykomish at the Hansen dike just south of Monroe.



Steve Stephens, owner of the Riverside Ranch in Sultan, says his property sustained hundreds of thousands of dollars of damage in the two November floods after a dike broke.

The flood damage shown below occurred two weeks before the larger Thansgiving flood. Note that the water reached 8' high in the park at that time. The eastern corner of Buck Island Park (now Al Borlin Park) is only a few hundred feet from the western corner of the East Monroe property.



Buck Island Park is closed for a good reason

Flood waters last weekend took some of Buck Island Park downstream. Sand, slick mud and dead wood covered much of the island and blocked roads and paths. One high water mark in a low part of the island was at least eight feet up the tree. The currents washed away one riverside trail that connected the north and south ends of the island. Many trees were leaning precariously because of the waterlogged ground. Because of the damage and dangerous trees and river banks, the city has closed Buck Island Park to the public until further notice. Above, City Administrator Doug Jacobson inspects the damage and discusses possible solutions to the eroded riverbanks with Steve Crueger, the city employee who is responsible for the upkeep of Buck Island Park. —staff photo by Kurt Batdorf

Across the valley from the East Monroe property, the river takes a right-hand turn and heads directly at the so-called “developable” area of the site. The current accelerates around the outside edge of the next turn to the left—just a few hundred feet from the property. It is not difficult to imagine a more powerful flood than that of 1990 taking out the railroad bed, the highway, and the oxbow's old point bar (the “developable” area of the property) with it. For obvious reasons, point bars such as this have been ruled out as construction sites since the dawn of civilization. It seems to me, the height of irresponsibility to break that precedent now in an era of increased flooding.

Some memorable out takes

Snohomish County Red Cross set up shelters in Sultan and Monroe for those who were forced to leave their homes. Snohomish County Sheriff's Office officials said the county's Search and Rescue unit and the U.S. Navy were combining to airlift trapped residents, from roofs in some cases.

By Monday, flood waters had re-
(continued on page 8)

Nephi Johnson is plant superintendent at PUD's hydroelectric plant three miles upriver from us. He told me the high water level over the top of the morning glory spillway at Culmback Dam was 6.9 feet. Spada Lake had filled. Any more rain coming into the lake had to come on down the river.

Johnson said their procedure is to draw down the lake level 20 to 30 feet starting Oct. 15. This usually allows them to hold back heavy rainfall coming in the next few months. But this year the lake had filled from the heavy rains that came the weekend of Nov. 10.

Fire Chief Roger Knowlton said the water was at least two feet higher Saturday than it had been in the flooding two weeks ago.

Janet Petersen has lived in her house at First and Birch for 20 years. Saturday, she said she had never seen the water as high as it was.

Petersen said she had five to six feet of water in her basement.

Sultan resident Cindy Jordan said she and her husband had just finished cleaning out their flood-prone house and were ready to hang new sheetrock when the latest high water arrived.

She estimated that they had a little over four feet of water in the house during the flood two weeks ago. By Saturday, there were seven feet of water in the Jordans' two-story home.



Shop Monitor-Valley News Classifieds 794-7116

Just how high will that water go?

Janet Peterson surveys the flood waters Saturday from the Sultan and Skykomish rivers as they creep ever closer to her house on First Street in Sultan. Peterson has lived in Sultan for 20 years and said she never saw the water as high as it was Saturday. She said she had five to six feet of water in the basement of her house.
—staff photo by Kurt Baldorf

really is.

Burlington Northern lost its east-west railroad line when several sections of track washed out between Snohomish and the east side of Stevens Pass.

BN spokesman Howard Kallio said at least three of the washouts appear to be as serious as the washout in Snohomish. There, the Snohomish River undermined the railroad bed, leaving tracks and railroad ties hanging in the air. Other sections of track have four to five feet of mud on them.

Two freight trains are stranded in Gold Bar and Skykomish because of the washouts, he said.

Once the flood waters recede,

Just several hundred miles to our east, high winds were fanning fires in dry Montana and Colorado. Ironic? Or just one of Mother Nature's more unpredictable multi-act plays? One thing for sure: Mother Nature can never be taken for granted.

Flood waters turned the valley into a giant lake. When high waters receded, hundreds of tiny ponds remained, many containing chum salmon and trout.

Fish trapped inland will perish, along with their precious eggs — a generation of fish in the years to come.

Don't ever forget, the river can rise at any time and show the vengeance and unlimited power it displayed during the notorious Thanksgiving weekend flood.

But this is the era of the dike. We can control the rivers, or so we thought. Time obviously erased the memories of floods past.

Again, the originals can be viewed at the Monroe Historical Society.

The Lack of Compensatory Flood Storage

As I pointed out at the September 23 hearing, throughout the proceedings for the 2013 SEIS, Pace kept insisting that the blackberry bushes on the property were actually solid ground and that excavation and removal of those bushes could provide the necessary compensatory flood storage. Those within Monroe's City government eager to give this rezone a pass at every opportunity were not bothered by the notion of blackberries providing flood storage. Fortunately, the Growth Management Hearings Board was not subject to the same pressures. But, even with the blackberries as solid ground, there was not enough flood storage because Pace was low-balling the amount of fill needed to raise the project area a foot above the Base Flood Elevation (BFE).

Pace's only option is to lower the BFE.

In Appendix C, on page one of the memorandum from Watershed Science & Engineering (WSE), we find the following statement:

Currently, the only water entering the slough at its upstream end enters via roadside ditches from a local tributary area of about 273 acres, including areas north of SR 2 and areas between Sr 2 and the BNSF tracks.

Frankly, I was more stunned by the absurdity of that statement coming from a firm that purports to know something about watersheds and hydrology than I was about the blackberries. We've been experiencing a drought. Those ditches had been dry for months and yet there is always water entering from the east end because the slough is fed by the old river bed that runs right under those tracks. Yes, during a flood, a culvert would bring the water in more quickly, but if WSE has no clue how the water is getting there now, they certainly have no idea how fast the water would work its way through that railroad bed or how likely it is to be breached as it has in the past during flood conditions.

Consider this from Physical Processes, Landscapes and Riverscapes, Jack A. Stanford 2006:

Pg5

Hence, water from the river may penetrate deeply into the substrata of the river bottom. Moreover, substrata of floodplains are composed of alluvial gravels and/or sands and silts, which allow lateral flow of river water. Hence, interstitial flow pathways constitute a vertical dimension in the river channel and on the floodplains.

Pg 6

Overland flooding from the channel to the floodplain is obvious as bankfull flow is exceeded and water spills out of the channel network. Flooding from below ground is less intuitive, but in gravel-bed rivers the initiation of overbank flooding usually is preceded by filling of the alluvial aquifer to the extent that the surface is saturated and hyporheic water erupts into swales and abandoned channels, creating wetlands and spring brooks. Change from dry to wet condition associated with above and below ground flooding is called the flood pulse, and it allows aquatic and terrestrial biota to use the same space but at different times, thus vastly increasing biodiversity and bioproductivity of the riverscape (Junk 2005).

Just as the blackberry bushes served to prop up the sham findings in the 2013 EIS, this fiction of river water entering only the west end of the slough supposedly allows PACE to come up with the numbers to justify lowering the BFE by 1.7 feet. Where is their certificate from FEMA allowing this reduction?

If the community intends to appeal preliminary data, it must be done during the official appeals period. Otherwise, you will have to wait for the new map to become official and submit a request for a map amendment or revision.

NFIP requirements, Unit 5, p14

I believe the appeal period referenced above is long past; but, even if it wasn't, it seems unlikely that FEMA would approve lowering the BFE when every climate change study out there, including those sponsored by FEMA itself, predict drastically increasing flood levels in the riverine environments of the Northwest.

Riverine Environment – By the year 2100, the relative increase in the median estimates of the 1 percent annual chance floodplain (floodplain) depth and area (Special Flood Hazard Area or SFHA) in riverine areas is projected to average about 45% across the nation, with very wide regional variability. Depths and areas may increase by over 100% in some areas of the Northwest and in the vicinity of the Great Lakes, whereas smaller relative increases of about 20 to 40% may be typical of areas of the central and Gulf regions.

The Impact of Climate Change and Population Growth on the National Flood Insurance Program Through 2100, June 2013, prepared for Federal Insurance and Mitigation Administration, Federal Emergency Management Agency. Prepared by AECOM in association with Michael Baker Jr., Inc. and Deloitte Consulting, LLP. 6.1.1 Technical Findings.

Changes in river-related flood risk depends on many factors, but warming is projected to increase flood risk the most in mixed basins (those with both winter rainfall and late spring snowmelt-related runoff peaks) and remain largely unchanged in snow-dominant basins....

This increase in heavy downpours could increase flood risk in mixed rain-snow and rain-dominant basins, and could also increase stormwater management challenges in urban areas.

Climate Change Impacts in the United States, Chapter 21, Northwest, p.489 and 490, Thomas R. Karl, Jerry M. Melillo, and Thomas C. Peterson, (eds.). Cambridge University Press, 2009, 2014

Overall, the entire region is projected to undergo elevated flood magnitudes....

Impacts of 21st century climate change on hydrologic extremes in the Pacific Northwest region of North America, Changes in Flood Risk, pg7, Ingrid Tohver, Alan F. Hamlet, Center for Science of the Earth System, Climate Impacts Group, University of Washington, Dept of Civil and Environmental Engineering, University of Washington, 2014

Clearly, under “present conditions,” raising the BFE makes more sense than lowering it.

Furthermore, the DSEIS for the East Monroe rezone contains no provision for raising the elevation of the approximately 1000 feet of “internal street system” on the property above the flood plain, or the compensatory flood storage required for that amount of fill.

Pace knows they don't have enough compensatory flood storage even under their lowered BFE scenario, so, on page 45, they hedge with "To completely compensate for lost flood storage due to fill placement, some compensatory storage will most likely also be required within the developable areas." Just how small will the developable area be by the time they get the real numbers figured out?

Alternative Sites

Lets take a closer look at Site 3:

- It is larger than the East Monroe site
- It is already zoned General Commercial
- It has none of the environmental restrictions, or the flood hazard
- It is walkable and within walking distance of much of Monroe's existing retail space
- It is more easily accessible from both SR2 and 522
- It is owned by the City!

Shouldn't the City see Site 3 developed to its full potential before adding more empty retail space a mile out of town—and in the process—lowering the property values of an entire neighborhood of 40 family homes?

The DSEIS calls the alternative sites out for not having direct access to SR 2 as if the East Monroe site does have direct access. It does not. WSDOT has only allowed for access at the existing driveway of the adjoining property to the east. Meaning, the "developable" area nearest the highway will need a 700ft frontage road and a bridge over the slough.

Does the owner of the East Monroe property have a legally binding right-of-way to that driveway? Or can the owners of the adjacent property decide they don't want "5,230" vehicles a day coming and going in their driveway and leave the newly zoned GC property with no commercially viable access at all?

Landslide History and Potential

My concern for the stability of the steep slope that connects my home with the East Monroe property was heightened when the City required my next door neighbor to drive 16 reinforced concrete columns 20 feet into the ground to support the foundation of their house. Then after the OSO slide, Snohomish County's first reaction was to call for a ban on all construction within a half a mile of their portion of this same slope only a couple of thousand feet to the east of my house. They did not follow through with that ban, but they must have seen sufficient hazard in this slope to call for the ban in the first place.

In Appendix D of the DSEIS, Figure 2, The slide labeled as "Interpreted Older Slide" is on my property. On page 11 and 12 of Appendix D, under "Observed Slope Conditions", I do not find any reference to this slide. The only "older" interpreted slide is described as relatively small and shallow. In Figure 2, the "Interpreted Older Slide" is about 200 feet in length and slightly wider than the "Recent Slide" they estimate to be 40-50 feet wide. In Figure 9, which depicts a cross section of this area, the lines representing "Geologic Contact Uncertain" are cause for alarm, particularly the one running

across the page at the 150ft elevation. When a major earthquake strikes, I will be running for the street!

If I understand correctly, GeoEngineers was interpreting these slides by examining satellite photos with a microscope. As I recall, that is the level of analysis that got the US into the Iraq war. Had GeoEngineers asked for access to that slide, I would have given it. Though, granted, it is not easy to get to.

Speaking of the street, the DSEIS fails to mention the nearby half mile stretch of Calhoun road which used to connect it to SR2. It has been closed for years because the repeated efforts to keep the road bed from sliding down the hill all failed. Nature always wins in the end.

In Conclusion

The 2015 DSEIS, on page 1 makes the following claim:

Based on the Board's Final Decision and Order, this DSEIS evaluates:

- A No Action- No Development Alternative, to provide a baseline to inform decisions-makers of the relative impacts of other alternatives.
- Alternative sites in the City of Monroe.
- Environmental values of the entire property, including those related to wetlands, the stream/slough, and habitat, with additional analysis on potential impacts to stream/slough, wetlands and salmon habitat.
- Volumes and placement of fill.
- Flood hazards and hydraulic analysis related to flood water velocities and potential erosion of stream banks.
- Landslide history and potential.

The following environmental elements are analyzed in response to the Board decision:

- Earth (Topography, Soils, Erosion and Landslide Hazard).
- Surface Water (Streams, Wetlands and Flood Hazards).

I believe it fails on every point. I hope you agree.

If given more time—say another 30 days—I could produce more evidence, but as usual, PACE has months and minions to produce this lunacy and we have a few short weeks to respond.

Sincerely,

A handwritten signature in black ink, appearing to read "Douglas Hamar". The signature is written in a cursive style with a long, sweeping underline.

Douglas Hamar

From: [Ashley Sellers](#)
To: [David Osaki](#); [Melissa Place](#); [Melissa Place](#)
Subject: East Monroe Letter Submission for DSEIS and extension request
Date: Monday, September 28, 2015 5:56:05 PM
Attachments: [Monroe DSEIS.docx](#)

Dear Mr. Osaki and Mrs. Sartorius,

Attached please find our letter regarding the East Monroe DSEIS. Please note I am requesting a 15 day extension so that I may further investigate and document my concerns. Please see this and other comments in the attached document. Please confirm receipt.

Thank you,

Ashley Sellers
661-874-9336
20930 E Rivmont Drive
Monroe, WA 98272

SEP 28 2015

COMMUNITY DEVELOPMENT

September 28, 2015

Dear Mr. Osaki and Mrs. Sartorius,

First, I'd like to thank you again for holding a very well run, thoughtful hearing on September 23rd. Although there are differing opinions on this issue I believe you did a great job clearly discussing the DSEIS. With that being said I apologize if the terminology I use is not correct as this is not my area of expertise, and I also have not been involved in this movement for several years so with that it is a bit more to dive into for my husband and I than most parties who are very familiar with the DSEIS. With that being said I will call out a few items that struck me from a quick glance at the DSEIS but I also would like to request an extension for the review time of the DSEIS. When speaking with Melissa I expressed my concern and frustration that the period provided has been relatively short for those of us that work full time, travel for work, and are not experts in the field. While I value your time and understand the eagerness to bring this to a close, I am requesting a 15 day extension. I feel compelled to research more and would like the opportunity to form a clearly articulated response to the DSEIS. Below are a few items I would like to address now and hope you will grant me the opportunity to present more well-rounded questions and observations with an extension:

1. The culvert below our property- It is very evident that PACE is using this as their winning argument in the DSEIS. I'd like to point out that this culvert changes levels with the river which granted has a correlation with rain as well. However, it is not just sitting water and maintains a level throughout the year. I'd also like to point out that the effect of building below and having a parking lot and structure would definitely decrease the lands ability to absorb that water therefore increasing the culvert size and water flow/pressure. I do not want to be dramatic as I do not feel it helps our cause but many of earth's natural treasures were carved out by water. With this being said, that same water will continue to carve out the bluff that sits below the Rivmont neighborhood.
2. People/lives- Of all the things that have been talked about in the DSEIS I feel that probably the most important has not been. There are hundreds of people that call the bluff above the proposed rezoned home. People=lives and as Oso should have taught us, sometimes we give the least consideration to this. I'd like to note that I have walked this bluff and knocked on the doors of almost every neighbor and we have not been asked if we would be open to core samples from our properties. To state that developing the property below us will have no effect on the bluff we call home seems like an atrocious lie that the city should consider unacceptable especially when testing has not been done to ensure the safety of the bluff and those on it. I personally welcome you, and strongly encourage you to perform geotech studies of the actual bluff. Yes, this comes at an additional expense but the city has used countless tax dollars to represent one land owner and it seems only right to help all land owners.
3. Property Rights- I actually am not in the same box as some members of our movement, if you will. I believe that people do have rights to their property. I also believe that those rights should not impinge on other people's rights especially when it is a huge financial gain plug for one property owner. The property owner of the east Monroe property bought the property as it is currently zoned, "Limited Open Space", and now he is seeking to make a

September 28, 2015

Dear Mr. Osaki and Mrs. Sartorius,

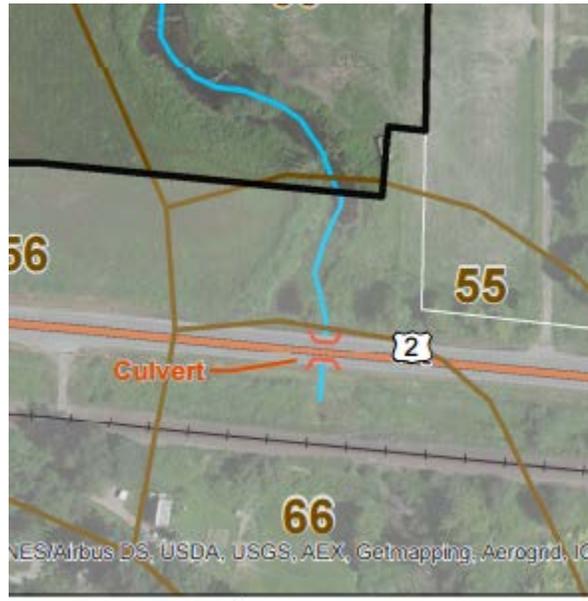
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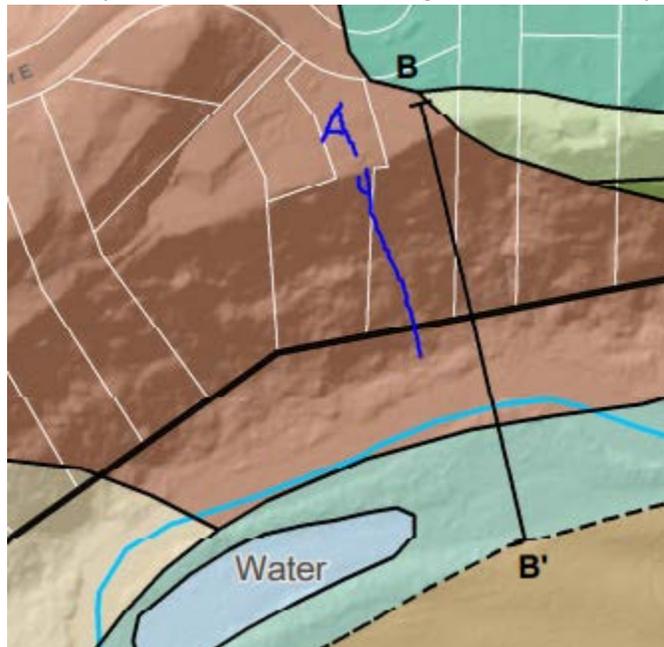
large financial gain at the cost of the environment and the stability of others' homes. I would also like to point out that the said owner also does not attend informational meetings and often times does not have supporters.

4. Landslide depiction and study: I reside at 20930 E Rivmont drive and our property shared a landslide earlier this year with our neighbors. The depiction of the landslide on the map doesn't even show the landslide on our property and it is not the right height. It is a sizeable slide that took fully mature trees with it. I would encourage the city to investigate this more and would like to reiterate that I am always happy to accommodate the City at my property for testing/observation. Furthermore I have observed that the bluff has become more steeply sloped over the last year.
5. The DSEIS states that the LIDAR was incorrect, so they made adjustments. Why are we adjusting a report that they are admitting is incorrect? Shouldn't we have required the proper testing for the land be done?
6. Most water flow testing etc has been done during the summer months when the levels are obviously lower. Washington has also experienced one of its driest summer so these numbers are a false positive. It seems that these tests should have to take place in the rain season as well as even PACE says in the DSEIS that "landslide activity is generally expected to increase during periods of extended precipitation or rain-on snow events" (page29)
7. This statement is from GeoEngineers page 17:
"Some of the measures suggested above (e.g. cribwalls, riprap/rock buttress) for erosion mitigation along the abandoned meander channel could be designed and implemented along the north bank of the channel to help improve slope stability if slope movement becomes a concern. Such measures would only be effective for stabilizing the lower portion of the slope. However, it is our opinion that the likelihood that such measures would be needed is low, provided that conditions at the top of the slope are properly managed (i.e. yard waste or other materials are not deposited on slopes and runoff is controlled so as not to exacerbate erosion of the slope). During design phase, appropriate setbacks will need to be established from the toe of the slope in the northeastern portion of the project property. It does not appear that additional setbacks from landslide hazards will need to be established for the primary development area where fill is to be placed." The highlighted area seems like a misrepresentation as I have not spoken to anyone who has had the City or Pace request testing. How can they state the likelihood of measures needed without testing to know the actual information.
8. Conflict of interest – Pace has a substantial conflict of interest as they have a lien on the property. It is in their best interest to rezone this property and speed up the sale. Whether they have done this or not is speculation and some of the inconsistencies in the report suggest it to be fact. However, it should be plain knowledge that this is a conflict of interest.
9. Pace did studies on other "like" sites around Monroe that could house the same type of commercial property. I suggest that the sites provided are limited and self-serving. I also would like to point out that Haggens is now closing as well. Monroe needs to focus on its core business corridor that is already struggling and not move people further away from the businesses that have trusted Monroe to cultivate an area of growth and opportunity for them and their employees.

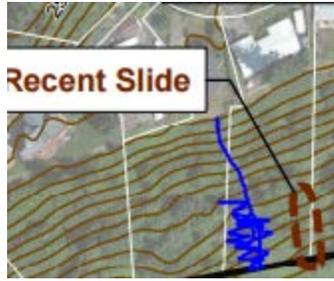
10. Culvert: PACE suggests that there is no tie between the west end of the Culvert. However, even their drawing shows the Culvert crossing the road (Figure 4)



11. Here is a snip it of the slide that from figure 3 that recently occurred on the bluff:



The horribly written Letter A represents our property. The recent slide is exhibited in this drawing by the line labeled B. Please note this slide is not at all in the right place. It shows the slide in the neighbor's yard to the NE of us and then partially to the NE of them when in fact the slide is shared with our property. If this doesn't prove an erroneous report I don't know what will. The slide is clearly visible and should have been documented properly in a well-studied report. Furthermore here is another picture of the false location of the slide:



Again, the blue represents where the slide mass ended up and the line represents the shared slide. Please note I do not have the computer software to draw exactly where it is but I think this should be a start in evidencing the incorrect information provided in the report.

I apologize again that this report is not well articulated but I beg you for more time to construct my thoughts and thoroughly investigate some of the claims in the DSEIS. Thank you again for your time and I look forward to hearing from you.

Thank you again for your time.

Sincerely,
Ashley Sellers
661-874-9336

From: [David Osaki](#)
To: [Eilean Davis](#); [Susan Boyd](#); [Christina LaVelle](#); [Melissa Place](#); [Kim Shaw](#); [Brad Feilberg](#)
Subject: FW: rezone of east Monroe
Date: Monday, September 28, 2015 10:49:06 AM

DSEIS Comment

From: Doug Fisher [mailto:dfish5@comcast.net]
Sent: Monday, September 28, 2015 10:40 AM
To: David Osaki
Subject: rezone of east Monroe

I would like to add my objection to the many who have already objected to this rezoning for very good reasons. Wildlife corridor from the river to valley and beyond, natural water overflow, hillside erosion, the beginning of open space. I agree whole heartedly with these important concerns. No one has yet to talk about the traffic problems from creating an access to and from the propose commercial site. Another roundabout is not what we need on state highway 2. If you look at the roundabout in east Sultan for example, it backs up traffic during commute times and on the weekends it brings traffic coming west bound to a standstill. East bound traffic thru Monroe is already at a standstill with people trying to get home from work. You can just imagine what a roundabout would add to all of this. Another point I would like to add is the concern for open space, once you open the door for commercial development to this farming area, there will be no end to the destruction of our quiet and pleasant valley. As far as alternate locations for commercial space I would suggest the fry lands commercial, industrial park. Seems to be several vacant spaces there. No rezoning needed.

Doug Fisher
110 east rivmont drive
Monroe,Wa. 98272

From: [David Osaki](#)
To: [Eilean Davis](#); [Susan Boyd](#); [Melissa Place](#); [Kim Shaw](#); [Christina LaVelle](#)
Cc: [Brad Feilberg](#); [Kristi Kyle](#)
Subject: FW: Ecology SEPA comments for the record on East Monroe Rezone DSEIS
Date: Monday, September 28, 2015 9:13:23 PM
Attachments: [East Monroe DSEIS SEPA Letter 9-28-15.pdf](#)

From: Anderson, Paul S. (ECY) [mailto:paan461@ECY.WA.GOV]
Sent: Monday, September 28, 2015 3:45 PM
To: David Osaki
Subject: Ecology SEPA comments for the record on East Monroe Rezone DSEIS

Mr. Osaki:

Thank you for letting us know that the Draft Supplemental Environmental Impact Statement for the proposed East Monroe Rezone is available for our review and comment. We are pleased to have another opportunity to comment on this proposal.

Attached, please find Ecology's comments for the record on this project. If you have any comments about these comments, please let me know.

Paul

Paul S. Anderson, PWS
Wetlands/401 Unit Supervisor
Washington State Department of Ecology
3190 - 160th Ave. SE
Bellevue, WA 98008
Phone: (425) 649-7148
Cell: (425) 765-4691
Fax: (425) 649-7098
Email: Paul.S.Anderson@ecy.wa.gov



**STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY**

Northwest Regional Office 3190 160th SE Bellevue, Washington 98008-5452 (425) 649-7000

September 28, 2015

David Osaki, Community Development Director
City of Monroe
806 West Main Street
Monroe, WA 98272

**RE: Ecology SEPA Comments for East Monroe Comprehensive Plan Amendment
Draft Supplemental Environmental Impact Statement**

Dear Mr. Osaki:

Thank you for notifying the Washington State Department of Ecology (Ecology) that the Draft Supplemental Environmental Impact Statement (DSEIS) for the proposed East Monroe rezone is available for our review and comment. Ecology wishes to have the following comments entered for the record. This proposal involves amending the City of Monroe (City) Comprehensive Plan to rezone approximately 43 acres immediately north of U.S. Highway 2 near the eastern city limits. The five parcels are currently zoned Limited Open Space (LOS) and the DSEIS analyzed a new no action alternative as well as three alternatives ranging from limited development under the current zoning to rezoning the parcels as Mixed Use, the most intensive development. The proposed action is to rezone the site to General Commercial (Alternative 2).

Alternatives Analysis

The DSEIS has incorporated a No Action Alternative that describes the existing conditions on the site and updated information related to habitat value (Critical Area Study and Habitat Conservation Report; Appendix B) and potential flooding (Hydraulic Analysis; Appendix C). The remaining alternatives have not been appreciably revised from those in the final environmental impact statement (FEIS) and it is still difficult to distinguish significant differences (and impacts) from the various development proposals. The DSEIS did not include updated drawings of the development proposals for each of the alternatives and Table 1 only compares the No Action Alternative with the other combined alternatives, leaving the impression that there are only two alternatives being assessed (no new development and development).

In addition, the proposal is to rezone all five parcels within the 43-acre site, yet the analyses in the DSEIS only focus on development of 11.3 acres outside of critical areas and a designated Native Growth Protection Area (NGPA), stressing that this is the only

development footprint allowed under the current Monroe Municipal Code (MMC). More information is needed on whether the NGPA has already been recorded for all of the critical areas on the site and their associated buffers. The note on DSEIS Figure 5 states that NGPA boundary is representative and to see the recorded Snohomish County survey documents for more accurate information. It would help the City and reviewers understand potential impacts from future development if the recorded easements were provided as a figure or figures in the Final Supplemental Environmental Impact Statement (FSEIS).

As a clarification, development within wetlands and fish and wildlife habitat areas is not outright prohibited as the DSEIS would seem to indicate. Rather, development within these critical areas requires additional analyses and unavoidable impacts typically need to be mitigated, but development is not prohibited. If the current rezone were to be approved without a recorded NGPA on each parcel and parcels were sold off separately, then each new owner could then apply for development under a reasonable use exception. The cumulative impact from this scenario has the potential for significantly more environmental harm than development of the site with a recorded easement (NGPA) already in place. The cumulative impacts analysis in the DSEIS (Section 1.6) did not address independent development of the five parcels, and the associated impacts. If the proponents are sincere about minimizing environmental harm and in only developing 11.3 acres of the site, then the rezone request should only consider 11.3 acres and not the entire 43 acre site.

The DSEIS indicates that impacts to critical areas will be avoided under all of the development proposals. It is unclear how development of Parcel D (northeast corner of the site) will occur without impacting the slough and associated wetlands since the parcel is located on the far side of the slough and the current farm road and bridge are not adequate for commercial traffic or emergency access. Based on the wetland boundaries shown in Figure 5, it is hard to imagine how a new road accessing Parcel D could be constructed without impacting wetlands and their associated buffers.

Affected Environment

Conclusions in two sections of the DSEIS are not entirely supported by available information and Ecology recommends that additional information on these sections be provided in the FSEIS. These two sections include the assessment of existing conditions for surface water and also fish and wildlife habitat.

The Surface Water discussion (Section 3.2.1), as well as a statement in the Summary (Section 1.3, p. 9), concludes that because there is no culvert beneath the railroad at the southeast end of the slough, there is no surface water connection between the slough and the Skykomish River and that the southeast end of the slough receives water from the State Route 2 roadside ditches. It is my understanding that the railway base is composed of relatively porous rip rap that does have a hydrologic connection with the river during high flows. The railroad base does preclude fish access to the southeast end of the slough, but it is not an impermeable barrier. Also, wetlands to the east of the site on the north side of

David Osaki
RE: Ecology SEPA Comments for East Monroe DSEIS
September 28, 2015
Page 3

State Route 2 appear to drain towards the slough; input from the ditch system to the southeast end of the slough is not simply road runoff.

The Hydraulic Analysis (Appendix C) modelled flood elevations on the site based on the current flood model prepared for FEMA (Northwest Hydraulic Consultants, Inc., 2006), available LiDAR data and field-surveyed elevations. The modelled 100-year flood elevation used in the Hydraulic Analysis for the existing conditions is 65.31 feet which would increase by 0.04 feet under the built out condition. The Hydraulic Analysis used a 100-year event discharge of 64,600 cubic feet/second (cfs) at the Gold Bar Skykomish River gage. However, the USGS and FEMA list the 100-year event discharge as 119,300 cfs for this gage. More explanation should be provided for the rationale of using 64,600 cfs as the 100-year event discharge, when the FEMA model was developed using the 119,300 cfs discharge. Figure A-1 in the Hydraulic Analysis should also be revised to show 119,300 cfs discharge.

The fish and wildlife analysis concludes that because the slough is not accessible to fish at the upstream end, the in-water habitat value of the slough is greatly diminished. Because the southwest (downstream) end of the slough is fully accessible to Skykomish River fish, it still has the potential to provide critical off-channel refugia for fish, particularly during high flow events. The velocities in the slough would be much lower than in the main channel and would provide resting and foraging areas for fish. This type of habitat has been identified as critical for juvenile Chinook salmon by the National Marine Fisheries Service (Federal Register, 70:170 52630-52858). The fact that fish were not observed during a single site visit in June and that the slough is not accessible at the upstream end does not negate the potential importance of the slough as fish habitat.

We look forward to receiving a copy of the FSEIS for our review and comment. If you have any questions or would like to discuss my comments, please give me a call at (425) 649-7148 or send an email to paan461@ecy.wa.gov.

Sincerely,



Paul S. Anderson, PWS
Wetlands/401 Unit Supervisor
Shorelands and Environmental Assistance Program

PSA: awp

From: [Ryan Faye](#)
To: [Christina LaVelle](#)
Cc: [Kim Shaw](#); [Matulich, David B](#)
Subject: RE: Notice of Planning Commission Public Hearing E. Monroe Heritage Baptist Fellowship
Date: Tuesday, September 29, 2015 3:46:45 PM

Tina,

PSE has no electric transmission or gas lines through these parcels and no easements. We have no objection to the proposed change of zoning.

Faye Ryan, SR/WA
Senior Real Estate Representative
Northern Region

Puget Sound Energy
Right-of-Way Department
1660 Park Lane
Burlington, WA 98233

Easement ?s

<http://pse.com/accountsandservices/YourProperty/Pages/Easements.aspx>

faye.ryan@pse.com
360-766-5455 (ofc)
360-628-2864 (cell)

From: Christina LaVelle [mailto:CLaVelle@monroewa.gov]
Sent: Tuesday, September 22, 2015 9:52 AM
Cc: Kim Shaw; Christina LaVelle
Subject: Notice of Planning Commission Public Hearing

Dear Interested Parties and Agencies,

Attached please find the Notice of Planning Commission Public Hearing on the East Monroe Comprehensive Plan Amendment and Rezone an corresponding vicinity map. The subject property is comprised of five parcels approximately 43 acres in area located within the eastern portion of the City of Monroe north of the Skykomish River along the north side of State Route 2.

Interested person(s) may provide public testimony regarding the comprehensive plan amendment and/or rezone at the public hearing. Written comments must be received in original form prior to or at the public hearing. For additional information regarding the above project, please contact David Osaki, Community Development Director @ (360) 863-4544 or email @ dosaki@monroewa.gov.

Thank You,

Tina

Tina LaVelle

Planning Technician

PH 360.863.4533

Email clavelle@monroewa.gov

www.monroewa.gov

RECEIVED

OCT 07 2015

CITY OF MONROE

10/06/2015

David Osaki
City of Monroe

RE: SEIS East Monroe Rezone Comment

To Planning Commission, Council, City Staff and others concerned:

From SEIS: "A key new finding of this Draft SEIS is that the onsite stream/slough is not directly connected to the Skykomish River at the "upstream" side, at the southeastern corner of the site.

This is contrary to longstanding previous assumptions that, during flood conditions, water from the Skykomish River entered the stream/slough at the upstream corner of the property and drained back to the River through culverts at the downstream end of the slough.

Instead, the stream/slough is fed by a combination of local drainage ditches draining to the stream/slough at the southeastern corner of the site and backwater from the Skykomish River, during high water events, through a culvert located at the southwestern corner of the site".

In fact, according to the EPA, the connectivity to rivers is often unseen, with no apparent connection to surface water, like the river. Often wetland areas have critical groundwater connections. Pace seems to fail to address this upstream source of flooding through groundwater.

The longstanding assumptions, was undoubtedly observed as flood waters entered and receded over the years and should be considered as a true observation.

An acre of wetland has the ability to store 1-1.5 million gallons of floodwater.

One half of the lower 48 states original wetlands have been converted to other uses. The increasing flood damage, drought damage, declining bird population are in part the result of degradation, fill and destruction of wetlands.

The beauty of this green space as an entry to the City of Monroe has greater economic value than one isolated building outside general shopping/commercial areas that adds sprawl of roads, parking lots; costs to City for utilities and maintenance. This area is the first part of the Cascade Greenway...it is time to protect the areas we consider scenic, agricultural, and irreplaceable wetlands...from random acts of commercialism. Growth management has no meaning when we allow sprawl.

Sincerely,



Jackie Kiter

12513 Chain Lake Rd, Snohomish

From: [David Osaki](#)
To: [Eilean Davis](#); [Susan Boyd](#)
Cc: [Melissa Place](#); [Kim Shaw](#); [Christina LaVelle](#)
Subject: FW: East Monroe Rezone
Date: Wednesday, October 07, 2015 1:40:07 PM

From: DIANA OLSON [mailto:dolson7715@msn.com]
Sent: Wednesday, October 07, 2015 12:32 PM
To: David Osaki
Subject: East Monroe Rezone

To Whom It May Concern:

Here we are again - spending our time, energy and funds to revisit once more the East Monroe Rezone issue. I must admit I am struggling to find words that have not already been said to express my concerns during yet another "opportunity" for public comment.

The thing that keeps me involved in trying to find balance on this issue is that there are rarely opportunities in life to revisit a topic over and over again until you get the answer that you want. Yet that appears to be the status of this rezone request. It has been rejected multiple times by multiple sources over multiple issues. However the Monroe City Council has on more than one occasion refused to accept that this rezone is flawed and has allowed further action. They have even reversed their own actions!

I can list again my concerns as a Monroe citizen and taxpayer:

- The amount of time and resources (both human and financial) that have been expended by the City of Monroe on this issue is alarming. I have two questions:

1. Where else in the city has such a biased approach been used? I certainly don't know all of the city's business, but if this is common than as a citizen I would like to see a list of similar projects that have been revisited over and over before a final determination is reached and accepted. It would certainly inform my future view of City Council elections as I look for elected officials to govern.
2. If this situation is unique, what makes it so? Is it because of the special interest of the landowner and their relationship to certain council members?

- Our property overlooks the proposed rezoned area. We have lived here for over 25 years. In that time, this land has seen multiple occurrences of flooding. To not consider this as a flood plan is incomprehensible. I don't care who is hired to give an assessment - I have to trust my own eyes and common sense. This land should not be rezoned for development just because it is not underwater at the moment.

- Several issues in the Table 1 Potential Impacts & Mitigation Measures list "unavoidable impacts". This area contains wetlands, a stream, wildlife, and vegetation. While most impacts are listed as temporary, what assurances are there that they will not cause permanent change? For example, we already see wildlife in the residential area above this proposed rezone. Will further disruption of that area bring more coyotes to my front lawn? Not a welcome outcome, trust me!!

- Traffic on Highway 2 leaving Monroe to the east (past this proposed rezone area) is often bumper to bumper. Again, I don't need a traffic study - I can see the highway with my own eyes. Common sense says that there is no way to seamlessly add additional traffic entering at the exact point that is already jammed up. And what about the proposed

bypass - how would that affect this area in the future?

As elected officials of the City of Monroe and all of its citizens, please use some common sense and vote to reject this rezone forever.

Sincerely,

Diana Olson

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OCT 09 2015
CITY OF MONROE
aizzam

October 09,2015

Mr. David Osaki,
Community Development Director
City of Monroe
806 W. Main Street
Monroe, WA 98272

SUBJECT: Written comments regarding DSEIS East Monroe
Comprehensive Plan and Rezone Draft Supplemental
Environmental Impact Statement.

Dear Mr. Osaki,

Thank you for extending the written comment period. My hope was that PACE would supply information originally requested September 07, 2015. As you may recall you could not obtain the information to confirm PACE's claim, page 41 of DSEIS stating additional field surveying was also conducted to verify, confirm, and/or refine previous survey's and LIDAR data.

My September 29, 2015 letter to Eilean Davis went unanswered, and I cannot tie the data received September 28, 2015 to WSE (Water Shed Science and Engineering) to figures 1, 2, or 3. CORRECTION RECORD MAP 110/8/15 R

Quite frankly the WSE information did more to confirm our assertions that:

- a) LIDAR elevations were too high because of vegetation.
- b) PACE's original fill volumes were wrong.
- c) Confirmed key elevations by S/B Survey which either should have been used or another Rod on the Ground Survey as a basis for this study.
- d) WSE lowered the flood elevation by approximately 1.7 feet so that the full 10.17 acres could be filled to an elevation of 66.35 feet. FEMA elevation is 68 feet, one foot higher than flood stage of 67 feet. WSE ignores MMC Chapter 14.01 Flood Hazard and Regulations and their 66.35 feet must be disregarded until approved by the FEMA process.
- e) PACE implies development must follow MMC and WSE then ignores Chapter 14.01.

Watershed Science and Engineering states in part currently the only water entering the Slough at its upstream end enters via roadside ditches from a local tributary area of about 273 acres, including areas North of SR 2 and areas between SR 2 and the BNSF tracks.

Mr. Hamar refuted this by stating “It doesn’t take an expert in watershed hydrology to understand particularly in the drought we have been experiencing, that none of that water is coming from the drainage ditches along the highway.

Hamar said “And it certainly isn’t backing up on the west end of the slough a half a mile downstream.”

WSE states the 100-year flood modeled in the 2006 FEMA study was used as the basis for the current analysis.

The worst flood in this area was the 1990 flood. See USGS Chart for the Sultan River for a comparison between 1990 and 2006. Additionally, Snohomish River gage at Monroe per Snohomish County Flood system the 1990 was much more severe than the 2006. See additional information and pictures per the Hamar report.

How was the Climate change used in this study?

What was the safety factor?

The 2006 flood is simply the wrong flood.

Geo Engineers:

Geo Engineers site conditions states in part, “We were not able to observe much of the upper slope because of access restrictions.”

Who did they contact?

I find this puzzling.

RE: Monroe’s Draft Scope of work October 08, 2014, page 6 Landslide Potential states in part “It is anticipated that borings and modeling will be necessary for a full assessment. Borings may be obtained from private property owners above the slope with their consent. Alternatively directional boring may be accomplished from the Rivmont Drive right of way if necessary.

Additionally, multiple bore holes have been made and information most likely is available if you know who to ask or where to look.

Reference November 14, 2014 PACE Draft Scope of Work Land slide Potential states in part soil borings are not anticipated in this proposal and the geotechnical analysis will be based in part on the storm modeling accomplished under task 2 etc. (No intention of Borings).

Reference OSO mudslide, Grandy Lake Forest Associates is asking to be left out of the lawsuit filed by families who lost loved ones and homes.

In support, they point to evidence that emerged last fall when drillers for the state punched a hole more than 650 deep into the hill above the slide. The finding is their partial defense. This supports the importance of Boring above our slope, which clearly PACE had no intention of doing.

Since the stream modeling reduces the FEMA flood plane elevation approximately 1.7 feet and **is not approved by FEMA** this study is eyewash.

WETLAND RESOURCES INC.,

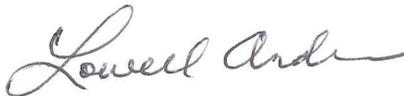
**CRITICAL AREAS STUDY AND HABITAT CONSERVATION
REPORT FOR EAST MONROE REZONE REVISED JUNE 2015:**

The last go round Wetland Resources provided information more than five years old, therefore no good.

This go round per Blair report, "...The same out dated 2013 rating forms are still attached, despite the fact that the WA Department of Ecology updated their rating forms in 2014 and has required use of these new forms for all state reviewed proposals since January 2015."

This report is technically flawed.

Sincerely,



Lowell Anderson
129 Rivmont Drive
Monroe, WA 98272

Letter to David Osaki

October 9, 2015

More Comments from Douglas Hamar
on the 2015 DSEIS for East Monroe

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11:14



The Choice

Beautiful Snow Covered Valley

Or

Snow Job

October 9, 2015

Mr. David Osaki
Community Development Director
City of Monroe, 806 West Main St.
Monroe WA, 98272

RE: East Monroe 2015 DSEIS

Dear Community Director Osaki:

Thank you for this opportunity to add to my comment letter of September 28, 2015, concerning the Draft Supplemental Environmental Impact Statement (DSEIS) for East Monroe.

I just discovered that the two copies I made of that Sept 28 letter are missing page 15, with the heading, "The Lack of Compensatory Flood Storage." In the event that the original I turned in to your office is also missing that page, I have attached a copy of it at the end of this letter. I was in a bit of a rush that day. So, again, thank you for the extended comment period.

Magic Drainage Ditches

Though I believe PACE's contention that the only water feeding the east end of the Slough is coming from seasonally dry drainage ditches is obvious malarkey. I have learned in this process that "obvious" doesn't count. I am submitting here more evidence that the river does indeed flow beneath the railroad bed, and what's more, that flow is an important ecological feature of the river system.

Floodplains of large alluvial rivers are often expansive and characterized by high volume hyporheic flow through lattice-like substrata, probably formed by glacial outwash or lateral migration of the river channel over long time periods. River water downwells into the floodplain at the upstream end; and, depending on bedrock geomorphology and other factors, groundwater from the unconfined aquifer upwells directly into the channel or into floodplain springbrooks at rates determined by head pressure of the water mass moving through the floodplain hydrologic system. These large scale (km³) hyporheic zones contain speciose food webs, including specialized insects with hypogean and epigeal life history stages (amphibionts) and obligate groundwater species (stygobionts). Biogeochemical processes in the hyporheic zone may naturally load groundwaters with bioavailable solutes that appear to exert proximal controls on production and biodiversity of surface benthos and riparian vegetation. The effect is especially evident in floodplain springbrooks. Dynamic convergence of aquifer-riverine components adds physical heterogeneity and functional complexity to floodplain landscapes. Because reaches of aggraded alluvium and attendant ecotonal processes occur serially, like beads on a string, along the river continuum, we propose the concept of a hyporheic corridor in alluvial rivers. We expect predictable zonation of groundwater communities and other aquifer-riverine convergence properties within the corridor from headwaters to river mouth. The landscape-level significance and connectivity of processes along the hyporheic corridor must be better understood if river ecosystems, especially those involving large floodplain components, are to be protected and/or rehabilitated.

An Ecosystem Perspective of Alluvial Rivers: Connectivity and the Hyporheic Corridor
Jack A. Stanford and J. V. Ward
Journal of the North American Benthological Society
Vol. 12, No. 1 (Mar., 1993), pp. 48-60

*An **alluvial river** is a river in which the bed and banks are made up of mobile sediment and/or soil. Alluvial rivers are self-formed, meaning that their channels are shaped by the magnitude and frequency of the floods that they experience, and the ability of these floods to erode, deposit, and transport sediment. As such, alluvial rivers can assume a number of forms based on the properties of their banks; the flows they experience; the local riparian, ecology, amount, size, and type of sediment that they carry. These forms can be meandering, braiding, wandering, and (occasionally) straight.*

Fluvial Processes in Geomorphology

Leopold, Luna B., Wolman, M.G., and Miller, J.P., 1964., San Francisco, W.H. Freeman and Co.

The alluvial nature of the Skykomish river is what created the oxbow and point bar proposed for commercial development in the 2013 FEIS and 2015 DSEIS.

Hydrologically, the hyporheic zone is established by channel water advection and may be defined as a "middle zone" between channel waters above and groundwaters (if present) below.

Perspectives on Defining and Delineating Hyporheic Zones

David S. White

Journal of the North American Benthological Society

Vol. 12, No. 1 (Mar., 1993), pp. 61-69



LAND MANAGEMENT IMPLICATIONS



- The hyporheic zone is an important type of stream habitat—for the juvenile stages of many stream-dwelling insects and for eggs and the earliest life-history stages of salmon in streambed gravels.
- The hyporheic zone is sensitive to land management activities. Channel simplification through channelization and loss of large wood all lead to the loss of those morphologic features that drive hyporheic exchange flows.

Following A River Wherever It Goes

Steve Wondzell

Pacific Northwest Research Station

Science Findings, Issue 67, October 2004

Pace would have us believe this “hyporheic zone” does not exist. It does.



Slough north of railroad bed Photo by Douglas Hamar 2015

On November 1, 2013, FEMA published the FAQ: What are the Compliance Options available to my community and what is required to implement each? In it, they specifically call out the hyporheic zone.

Outside the Protected Area, any floodplain development shall avoid, rectify, or compensate for loss of floodplain storage. Additionally, any indirect adverse effects of development in the floodplain (effects to stormwater, riparian vegetation, bank stability, channel migration, hyporheic zones, wetlands, etc.) must be mitigated such that equivalent or better salmon habitat protection is provided.

Incidentally, we find in this same FAQ:

In all 100-year floodplain areas (SFHAs) the following criteria apply:

1. Restrict development in the Riparian Buffer Zone for all watercourses including off channel areas (areas outside this zone but within the Special Flood Hazard Area) to provide necessary protection to the RBZ. The RBZ is the greater of the following:

● *250 feet measured perpendicularly from ordinary high water for Type S (Shorelines of the State) streams, 200 feet for Type F streams (fish bearing) greater than 5 feet wide and marine shorelines, and 150 feet for Type F streams less than 5 feet wide, for lakes. For type N (nonsalmonid-bearing) perennial and seasonal streams a 150 foot or 225 foot buffer applies, depending on slope stability (the 225 foot buffer applies to unstable slopes), [updated per the May 14, 2009, errata letter]*

● *the Channel Migration Zone 22 plus 50 feet; and*

● *the mapped Floodway.*

The Riparian Buffer Zone is an overlay zone that encompasses lands as defined above on either side of all streams, and for all other watercourses including off channel areas. The RBZ is a no disturbance zone, other than for activities that will not adversely affect habitat function. Any property or portion thereof that lies within the RBZ is subject to the restrictions of the RBZ, as well as any zoning restrictions that apply to the parcel in the underlying zone.

It is unclear to me how the oxbow type 1 stream, most of which is designated “Shoreline” in Monroe's Shoreline Master Program, escapes the 250' buffer requirement.

PACE's record on this project demands a high level of skepticism!

As I believe you stated at the September 23, 2015, hearing for the DSEIS, the document in question is “Supplemental” because it is supplementing the 2013 FEIS. The 2015 DSEIS is focused only on those issues where the Growth Management Hearings Board felt they had the authority to override the “substantial weight” they are legally obligated to give the City's decision-makers. However, there are at least two additional findings in the 2013 FEIS that deserve consideration when reflecting on the validity of the “science” presented in the 2015 DSEIS.

1. On page 49 of the 2013 FEIS, PACE makes the absurd claim that a heat pump of the size appropriate for a 2000-3000 sq ft home is what is “common for a home improvement store.” They compare the noise level of such a heat pump with that of a single lawnmower. This comparison allows them to conclude (page 68) that “cumulative impacts to noise are considered insignificant.” Though we presented the testimony of our own expert, Chad McCammon, refuting this claim, and backed it up with ample documentation throughout the hearings and appeal process, as always, it was reality that was considered insignificant by those intent on approval of the East Monroe rezone. For your consideration, I here submit additional evidence showing just how preposterous their claim is:

[What Size Air Conditioning Unit Do I Need for My Business? | eBay](#)

Steps	Description
Step 1	Calculate the square footage of the area to be cooled. If the business is divided up into zones that will be cooled by separate air conditioning units, then keep these measurements separate.
Step 2	Multiply the square footage obtained for each area by 25.
Step 3	Add 400 for each person who works in that particular area.
Step 4	For each window, add 1,000.
Step 5	The number gained from steps 1 to 4 represent the minimum BTUs that the air conditioning unit should provide.

Not the 30ft ceilings of a big box store.

The calculations above are for rooms with an 8-foot ceiling. Higher ceilings require a higher number of BTUs to adequately cool the area.

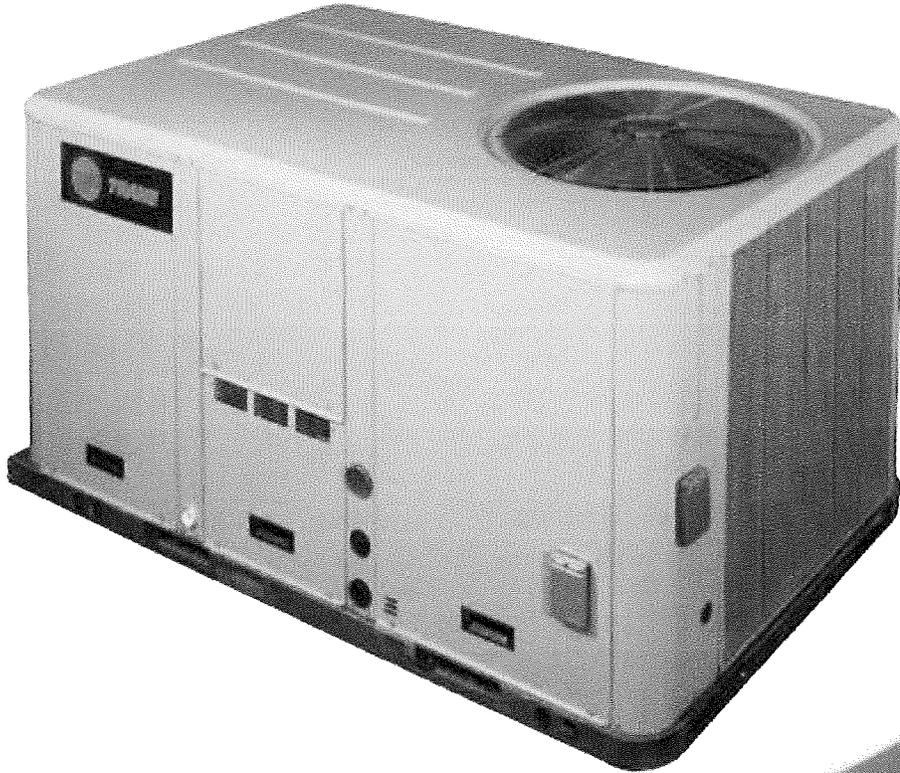
BTU and Ton Chart

While calculating BTUs is not rocket science, converting those calculations to tons might be a little more involved, since most large rooftop units are sold in tons. Assuming a minimum amount of doors and windows in an area, the chart below gives some base BTUs and their ton equivalents for office managers to consider when purchasing an air conditioning unit or units for a business.

Square Feet	Tons	BTUs/Hour
1,000 to 2,000	2 to 4	25,000 to 50,000
2,001 to 3,000	4 to 6	50,025 to 75,000
3,001 to 4,000	6 to 8	75,025 to 100,000
4,001 to 5,000	8 to 10	100,025 to

<http://www.ebay.com/itm/What-Size-Air-Conditioning-Unit-Do-I-Need-for-My-Business-/1090900176344?gclid=10462015124720PM>

PACE specifically defines their “common for a home improvement store” equipment as a “5 ton 'Trane' packaged rooftop heat pump” like the one on the following page :



Light commercial rooftop units

Retail applications



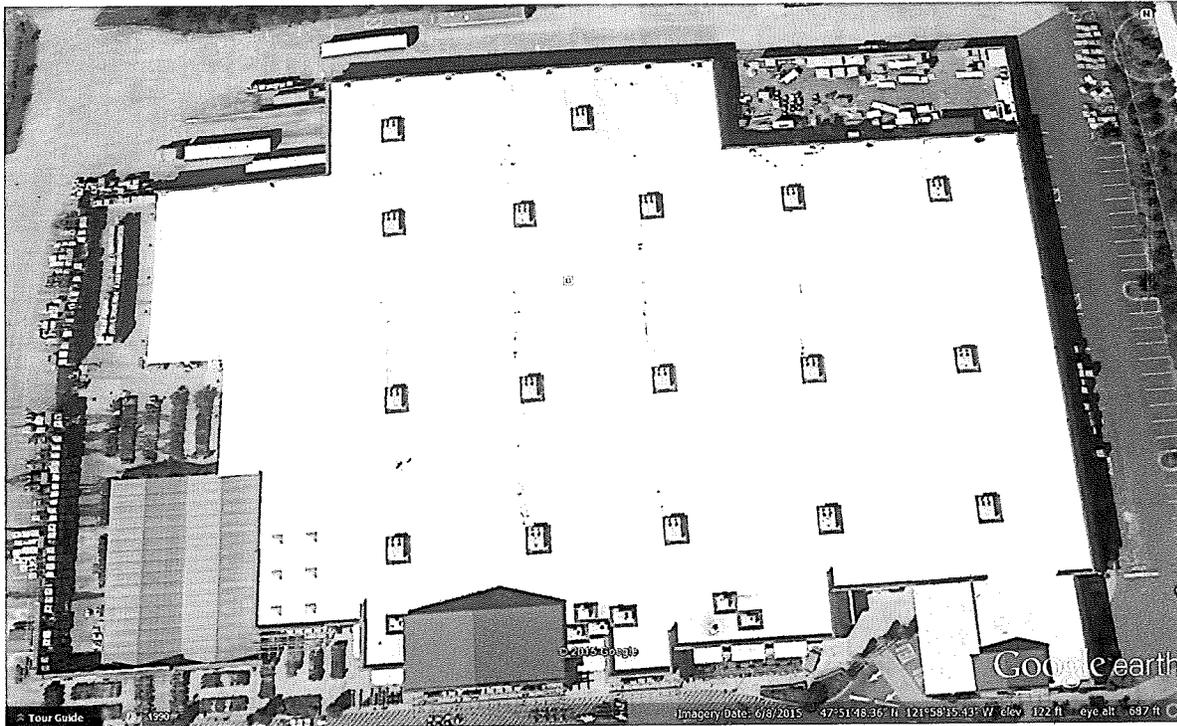


Specifications

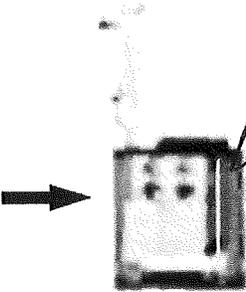
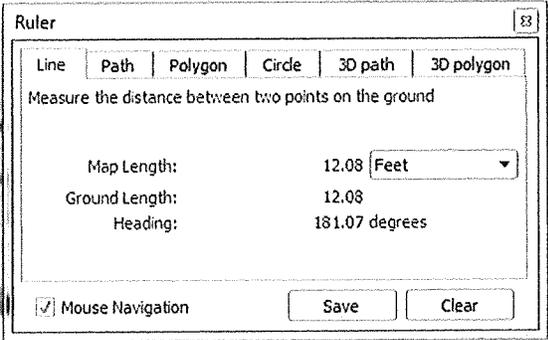
Product Offering	COOLING DATA				HEATING DATA			PHYSICAL DATA	
	Nominal Size	Model (MBH)	Capacity	SEER/EER	Low	Med.	High	L x W x H (in.)	Shipping Weight (lbs.)
PRECEDENT™	3	T/YSC036E	37.2	13 SEER	60	80	120	69% x 44% x 36%	514
	4	T/YSC048E	49.4	13 SEER	60	80	120	69% x 44% x 36%	525
	<u>5</u>	T/YSC060E	<u>62.4</u>	13 SEER	<u>60</u>	80	120	<u>69% x 44% x 36%</u>	682
	6	T/YSC072E	75	11.2	60	80	120	88% x 53% x 40%	936
	7.5	T/YSC090E	90	11.2	80	120	150	88% x 53% x 46%	988
	7.5	T/YSC092E	94	11.2	120	150	200	88% x 53% x 46%	1059
	8.5	T/YSC102E	102.1	11.2	120	150	200	88% x 53% x 46%	1096
	10	T/YSC120E	118	11.2	150	200	250	88% x 53% x 46%	1173
VOYAGER™	12.5	T/YC*150E	158	11	--	150	250	107% x 71% x 50%	1952
	15	T/YC*180E	189	11	--	250	350	122% x 85% x 54	2474
	17.5	T/YC*210E	212	11	--	250	350	122% x 85% x 54	2573
	20	T/YC*240E	250	10.2	--	250	400	122% x 85% x 54	2575
	25	T/YC*300E	282	10	--	250	400	122% x 85% x 54	2583
PRECEDENT™	3	T/YHC036E	38	15 SEER	60	80	120	69% x 44% x 36%	637
	4	T/YHC048E	49	15 SEER	60	80	120	88% x 53% x 40%	869
	5	T/YHC060E	62	15 SEER	60	80	130	88% x 53% x 40%	984
	6	T/YHC072E	68	12.6	80	120	150	88% x 53% x 46%	997
	7.5	T/YHC092E	89	13	120	150	200	99% x 63% x 50%	1334
	8.5	T/YHC102E	98.2	13	120	150	200	99% x 63% x 50%	1359
	10	T/YHC120E	119	12.5	150	200	250	99% x 63% x 50%	1369
VOYAGER™	12.5	T/YC*151E	149	12	--	150	200	122% x 85% x 54	2610
	15	T/YC*181E	181	12	--	250	350	122% x 85% x 54	2613
	17.5	T/YC*211E	215	12	--	250	350	122% x 85% x 64%	2677
	20	T/YC*241E	264	11	--	250	400	122% x 85% x 64%	2680
	25	T/YC*301E	285	11	--	250	400	122% x 85% x 64%	2684

The "5 ton" is the third one down on this spec sheet. Note the capacity and the dimensions.

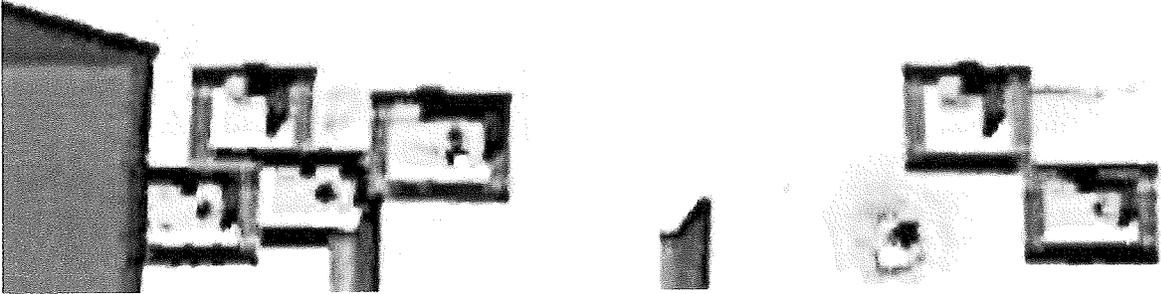
Below is the rooftop of Monroe's Lowe's home improvement store:



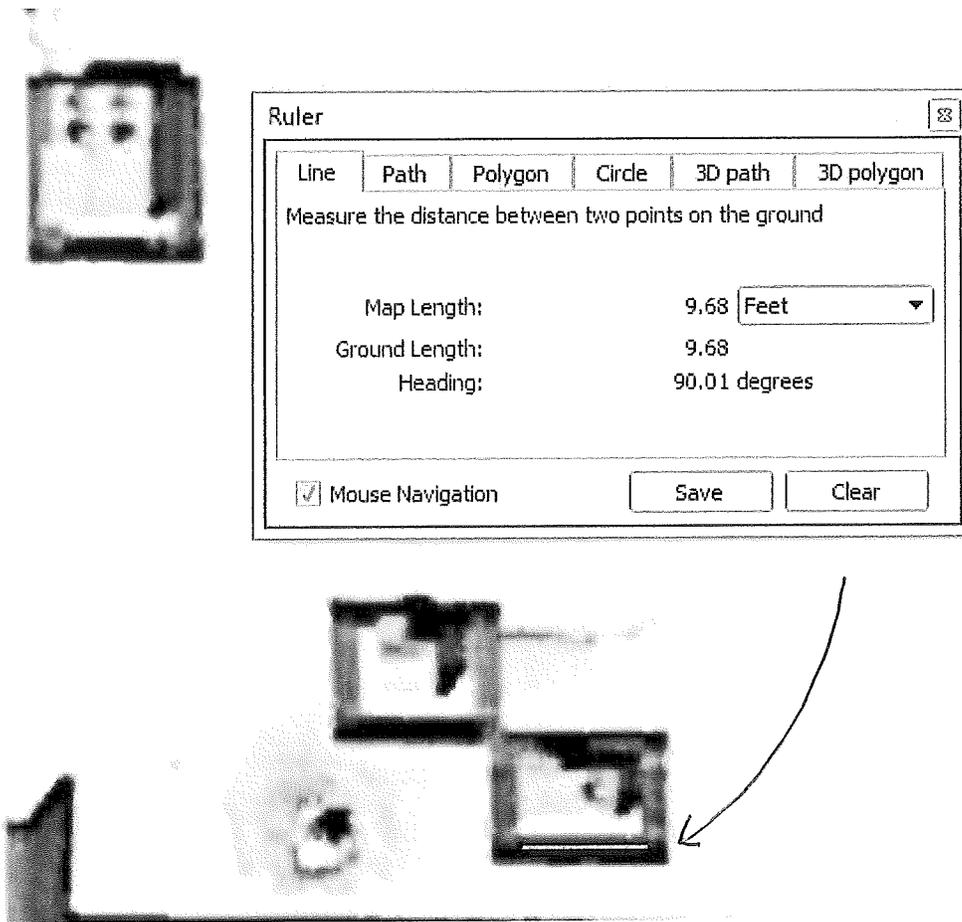
There are 24 heat pumps arrayed across this rooftop, all of them considerably larger than the Trane 5 ton.



The yellow line is Google Earth's measuring stick.



Even the smaller units (following page) are dimensionally in the 10 to 12 ton range.



2. The findings in the 2013 FEIS with regard to traffic congestion are equally absurd—they defy common sense. The consequences of accepting these findings as a real world assessment are far reaching. The “Transportation Goals” of the City, the State and the region all stress the requisite of less auto-dependent development for getting us to less congestion, less pollution, and a more sustainable future—ecologically and economically. The unavoidably auto-dependent development envisioned in the 2013 FEIS, will, by their own estimate, introduce 5,230 new vehicles daily entering and exiting a narrow two lane stretch of road already accommodating 18,000 or more a day. And yet, they conclude on page 21, Appendix F, of the 2013 FEIS, that:

Based on these results, the change in zoning is not anticipated to result in a significant impact to the access or the surrounding off-site intersections.

Technically, this statement is true, but it recalls the argument put forth in the 2012 version of the East Monroe EIS, that the change in zoning has no impact other than “changing the color of the map.”

PACE resisted our demands to include the roundabout—that WSDOT had called for—in their calculations to the bitter end. When they finally did, were they surprised that—using their own trip data—the roundabout performed significantly better than their preferred left-hand turn /

right-hand acceleration lane “solution?” I don't think so. From a public relations perspective, dropping a roundabout down in the middle of a 55mph stretch of highway is going to draw more attention and protest. Never mind that roundabouts are far and away safer than left-hand turn / right-hand acceleration lanes. Never mind that, despite many head-on collisions, WSDOT has not been able to find the space in that roadway for anything more than a rumble strip divider. Where is a developer going to find the room for two additional lanes or the additional compensatory flood storage? With the highway as it is, a tightly configured roundabout is the only option. I know expanding that stretch of highway to four lanes.....someday, is WSDOT's plan, but I have not been able to find any reference to a definitive time line for that happening. In the meantime, who will want to pay for a roundabout they will have to replace in 2-3 or who knows how many years? I have to wonder where WSDOT will get compensatory flood storage if not from that point bar.

A roundabout is the only option; even so, the trip data used in the 2013 FEIS for the roundabout analysis is skewed to produce a far more positive result than reality would dictate. The analysis (page C 31, Appendix F) looks at the “PM Peak-hours” between 4pm and 6pm. The trip directions appear to be based entirely on the geographic location of the “access” roundabout with respect to population densities without factoring in why all those cars are on the highway at that time. As a result, we see 222 shoppers making a special trip from the west (the higher population density) to this retail area during the rush hour commute. All of those shoppers plus 8 store employees(?) then exit and return west. We see 54 shoppers making a special trip from the east, and all of those plus 13 employees(?) exit and return east. In several previous hearings concerning this East Monroe EIS, I have pointed out that my own years of experience as a shopper and commuter revealed these statistics to be ridiculous. Only in an emergency would I make a special shopping trip of this nature during the rush hour. On the other hand, doing a stop and shop on the way home would be quite likely, and I am not unique:

A consistent finding of these studies has been that the commute pattern is becoming more complex due to an increasing tendency to make nonwork stops during the commute, especially in the evening. For example, Lockwood and Demetsky (1994) noted that almost 44% of workers in the Washington D.C. metropolitan area make stops during the morning or evening commutes, and that individuals are almost twice as likely to make stops in the evening as in the morning. Bhat (1997a) found in another study using the 1991 Boston Household Travel Survey that about 38% of individuals made stops during the commute and that evening commute stop-making was about twice as prevalent as morning commute stop-making. Davidson (1991) found similar results from her analysis of commute behavior in a suburban setting. Other studies (such as Gordon et al., 1988 and Purvis, 1994) also provide empirical evidence of increased stop-making during the commute periods.

Modeling the Commute Activity-Travel Pattern of Workers: Formulation and Empirical Analysis, Chandra Bhat, Department of Civil Engineering, University of Texas at Austin

The vast majority of the drivers on this road at that time are commuters returning to their homes in Sultan and parts further east. The numbers for the vehicles exiting the property and headed either east or west should be reversed. This is critical because those exiting the property through the roundabout and headed east will have the right of way and block the progress of the commuter traffic coming from the west. The situation on the weekend would likely be worse with recreational enthusiasts picking up last minute provisions as the head for the mountains.

The application of the model indicates that failure to accommodate the joint nature of the activity decisions during the evening commute can lead to misdirected policy actions for traffic

congestion alleviation and for mobile-source emissions reduction.

Modeling the Commute Activity-Travel Pattern of Workers: Formulation and Empirical Analysis, Chandra Bhat, Department of Civil Engineering, University of Texas at Austin

How much deception and gross misinformation in the various versions of this EIS do we the public have to expose before the authors of the EIS lose all credibility in the eyes of our city officials and are dismissed—with prejudice? With enough time, energy and resources, I am reasonably confident I could discover additional misinformation in the 2015 DSEIS, but considering PACE's record in this process, I shouldn't have to.

Finally, Wallace Properties has had the East Monroe property listed for sale as General Commercial for several years.

For Lease
For Sale
SERVICES
PROFILE
ABOUT W.P.
CAREERS
HOME

WALLACE
PROPERTIES
COMMERCIAL REAL ESTATE

Monroe Commercial Acreage — Monroe

21509 HWY 2
Monroe, WA 98272
County: Snohomish

Highlights
Newly zoned general commercial. Property has complete and approved EIS. Excellent exposure just East of Monroe's retail core. Great location for big-box retail and shopping center, etc. Strong trade area attracting retailers such as Lowes, Safeway and brand new 156,000 SF Walmart. Traffic counts of 21,000 + VPD. Option 1: up to 14 usable acres \$1,995,000. Option 2: up to 5 usable acres \$995,000. Option 3: purchase both for \$2,850,000.

Description
Property Type: Land
Price: \$2,850,000
Land Area: 1,864,804 SF
Parcel No: 27070600102500, 27070500206100, 27070500206200, 27070500206300, 27070500206400
Zoning: General Commercial

No developer has stepped forward with a project proposal. There doesn't seem to be anything preventing the property owner from continuing to list it as is. There is nothing preventing a developer from coming forward with a specific project where the environmental impact and benefit to the Monroe community of the project could be judged on its merit. But, even if no developer ever steps forward with a proposal—which considering the cost, seems likely, as soon as it is rezoned to General Commercial, the values of an entire neighborhood of forty family homes plummet. For what purpose?

Sincerely,

Douglas Hamar

The Lack of Compensatory Flood Storage

As I pointed out at the September 23 hearing, throughout the proceedings for the 2013 SEIS, Pace kept insisting that the blackberry bushes on the property were actually solid ground and that excavation and removal of those bushes could provide the necessary compensatory flood storage. Those within Monroe's City government eager to give this rezone a pass at every opportunity were not bothered by the notion of blackberries providing flood storage. Fortunately, the Growth Management Hearings Board was not subject to the same pressures. But, even with the blackberries as solid ground, there was not enough flood storage because Pace was low-balling the amount of fill needed to raise the project area a foot above the Base Flood Elevation (BFE).

Pace's only option is to lower the BFE.

In Appendix C, on page one of the memorandum from Watershed Science & Engineering (WSE), we find the following statement:

Currently, the only water entering the slough at its upstream end enters via roadside ditches from a local tributary area of about 273 acres, including areas north of SR 2 and areas between Sr 2 and the BNSF tracks.

Frankly, I was more stunned by the absurdity of that statement coming from a firm that purports to know something about watersheds and hydrology than I was about the blackberries. We've been experiencing a drought. Those ditches had been dry for months and yet there is always water entering from the east end because the slough is fed by the old river bed that runs right under those tracks. Yes, during a flood, a culvert would bring the water in more quickly, but if WSE has no clue how the water is getting there now, they certainly have no idea how fast the water would work its way through that railroad bed or how likely it is to be breached as it has in the past during flood conditions.

Consider this from Physical Processes, Landscapes and Riverscapes, Jack A. Stanford 2006:

Pg5

Hence, water from the river may penetrate deeply into the substrata of the river bottom. Moreover, substrata of floodplains are composed of alluvial gravels and/or sands and silts, which allow lateral flow of river water. Hence, interstitial flow pathways constitute a vertical dimension in the river channel and on the floodplains.

Pg 6

Overland flooding from the channel to the floodplain is obvious as bankfull flow is exceeded and water spills out of the channel network. Flooding from below ground is less intuitive, but in gravel-bed rivers the initiation of overbank flooding usually is preceded by filling of the alluvial aquifer to the extent that the surface is saturated and hyporheic water erupts into swales and abandoned channels, creating wetlands and spring brooks. Change from dry to wet condition associated with above and below ground flooding is called the flood pulse, and it allows aquatic and terrestrial biota to use the same space but at different times, thus vastly increasing biodiversity and bioproductivity of the riverscape (Junk 2005).

Received 10-9-2015

From: [David Osaki](#)
To: [Eilean Davis](#); [Susan Boyd](#)
Cc: [Melissa Place](#); [Christina LaVelle](#); [Kim Shaw](#); [Kristi Kyle](#)
Subject: FW: East Monroe Letter Submission for DSEIS and extension request
Date: Friday, October 09, 2015 11:01:37 AM
Attachments: [DSEIS 2nd review.docx](#)

From: Ashley Sellers [mailto:ashleysellers0406@outlook.com]
Sent: Friday, October 09, 2015 10:59 AM
To: Melissa Place
Cc: David Osaki
Subject: RE: East Monroe Letter Submission for DSEIS and extension request

Happy Friday Mr. Osaki and Mrs. Sartorius!!!!

Attached please find my 2nd submission regarding the DSEIS. Thank you very much for allowing me more time to review the document.

Sincerely,
Ashley Sellers
661-874-9336

From: ashleysellers0406@outlook.com
Subject: Re: East Monroe Letter Submission for DSEIS and extension request
Date: Tue, 29 Sep 2015 17:01:32 -0700
To: MPlace@monroewa.gov
CC: DOsaki@monroewa.gov

Thank you Melissa! Have a great evening.

Sent from my iPhone

On Sep 29, 2015, at 5:00 PM, Melissa Place <MPlace@monroewa.gov> wrote:

Hi Ashley, I can confirm that we did indeed receive your comments on the East Monroe rezone.

Thank you, Melissa

Melissa Place, MCP
Senior Planner
City of Monroe
PH-360.863.4608
Fax-360.794.4007

From: Ashley Sellers [<mailto:ashleysellers0406@outlook.com>]
Sent: Tuesday, September 29, 2015 4:29 PM
To: David Osaki; Melissa Place; Melissa Place
Subject: RE: East Monroe Letter Submission for DSEIS and extension request

Good Afternoon,

I apologize for bugging you again however I wanted to confirm that you have received my submission for the East Monroe rezone.

Thank you,
Ashley Sellers

From: ashleysellers0406@outlook.com
To: dosaki@monroewa.gov; mplace@monroewa.gov;
msartorius@monroewa.gov
Subject: East Monroe Letter Submission for DSEIS and extension request
Date: Mon, 28 Sep 2015 18:38:52 -0500
Dear Mr. Osaki and Mrs. Sartorius,

Attached please find our letter regarding the East Monroe DSEIS. Please note I am requesting a 15 day extension so that I may further investigate and document my concerns. Please see this and other comments in the attached document. Please confirm receipt.

Thank you,

Ashley Sellers
661-874-9336
20930 E Rivmont Drive
Monroe, WA 98272

Dear Mr. Osaki,

Firstly, thank you for extending the deadline for review. I very much appreciate you taking that into consideration and I appreciate having additional time to review the report. Secondly this report is a lot to tackle and although I thought I could get further than I have been able to I still appreciate the opportunity to review it in more detail. Because I was not able to review to the depth I would have liked I've decided to focus on in one area of the report in this letter. Below is a list of points and questions regarding the DSEIS and its inefficiency regarding landslide potential:

1. The DSEIS states on page 1 that one of its six points is Landslide history and potential and that they will be evaluating this based on the Board's Final Decision and order. It is my belief that this is the area given the least amount of evaluation and yet provides the most amount of hazard to the residents of Monroe.
2. The below image from page 6 of the DSEIS shows that the site is currently zoned for five homes but that the alternative was not evaluated. Why has Monroe not evaluated the impact of the current zoning vs the proposed zoning? It seems as though to evaluate the whole picture you would want to know all the options, and most certainly starting with what the option is if the site is left as zoned. (The way the property owner bought it before seeking financial gain at the city's expense)

GMHB Comment: *A No Action Alternative is required to define a baseline for evaluation of other alternatives.*

Response: A new No Action - No Development Alternative has been added to establish baseline conditions for a comparative analysis of all other alternatives in accordance with WAC 197-11-450. It is noted that under current City Limited Open Space (LOS) district zoning as many as five homes could be developed as permitted uses. This alternative was not evaluated in favor of the true No Action Alternative (with no development) identified by the GMHB to establish baseline conditions.

3. What forms of "field reconnaissance" was used to evaluate the existence of salmon?
4. It seems very apparent that the DSEIS is using its "new findings" that the slough is not connected to the river upstream as their baseline winning argument for this draft. I'd encourage you to reevaluate this statement as the prior EIS did not support this and that in itself shows flaws in the reports that have been provided to the city of Monroe.
5. The DSEIS states that they now require less fill. Having been down to this property to evaluate a landslide I know that it is very much wetland and the statement regarding fill seems erroneous. It also seems as the DSEIS contradicts itself frequently. Does that not make the City of Monroe question its validity?
6. Page 7 of the DSEIS says that "Landslide Hazard analysis is provided in conjunction with the flood analysis performed by Watershed Science & Engineering" (See appendix C)" Interesting enough, when reviewing Appendix C the word landslide appears ZERO times. Appendix C is supposed to be our source of the landslide study information and yet the terms "landslide" and "bluff" cannot be found once. This is an area of great inaccuracy and really

misleading. Where is the study from Watershed Science & Engineering in regards to the landslide risk?

GeoEngineers, Inc. Focused Geological Hazards Evaluation (Appendix D).

GMHB Comment: The FEIS fails to address impacts on flood/landslide hazards.

Response: Detailed hydraulic modelling was conducted for the current conditions and proposed development by Watershed Science & Engineering and shows that the flood volumes and velocity would not have a significant adverse impact. Flood volumes could be mitigated with compensatory flood storage. Field reconnaissance, soils testing, and review of past geologic activity was conducted by GeoEngineers, Inc. (see Appendix D). **Landslide hazard analysis is provided in conjunction with the flood analysis performed by Watershed Science & Engineering. (See Appendix C.)**

Analysis Provided In: Section 3.1 (Earth), Watershed Science & Engineering stream and flood hazard analysis (Appendix C), GeoEngineers, Inc. geotechnical hazards analysis (Appendix D).

No work or disturbance is permitted within the OHWM of the steam slough or within the wetlands. Replanting of adjacent compensatory flood storage areas would be anticipated to enhance stream/slough conditions and animal habitat. Evaluation of existing stream/slough, erosion, and landslide conditions has been accomplished through additional field explorations and analyses. As noted in Section 3 and in the detailed reports provided in the appendices, changes to stream hydrology will be minimal, especially when considered in relation to the low anticipated stream velocities.

Analysis Provided In: Section 3 (Affected Environment, Impacts & Mitigation Measures),

7. Section 1.3 on page 8 of the DSEIS states that:

1.3 EXISTING CONDITIONS

This DSEIS presents findings from additional field reconnaissance and reports by PACE Engineers, GeoEngineers, Watershed Science & Engineering (WSE), and Wetland Resources, Inc. (WRI). The reports address baseline conditions for the entire site and surrounding areas to accurately depict and evaluate potential landslide, erosion, flood, and habitat impacts.

The work accomplished included:

Yet, the word landslide is not found under the “work accomplished” section once. In fact it is never mentioned again in section 1.3 even though section 1.3 was to address existing conditions. The word landslide in fact does not appear again until page 20.

8. Movement to the ground below will result in earth movement and one can only deduce that this would increase the landslide risk, therefore this statement does not suffice especially since studies of the bluff have not been performed.

Landslide activity on the northern slope will continue as it currently occurs under existing conditions	Mitigation measures not required	Not Applicable	None
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9. Appendeix D

The geological analysis (titled “Focused Geological Hazards Evaluation”) prepared by GeoEngineers (Appendix D) addresses the Board’s concerns related to topography and soils, and landslide and erosion hazards.

Geologic units in the vicinity of the site were mapped by Dragovich et al. (2011), and are presented in Figure 3. With the exception of one recent landslide deposit, older deposits are generally mapped on the slope along the northern margins of the project area and along the ridge top north of the project area. More recent deposits are mapped in the lowland area of the Skykomish River floodplain located at the toe of the slope.

The above statement from Appendix D states that older landslides happened on the Northern Slope of the bluff however our neighbors at 103 E Rivmont Drive experienced a large landslide on their property several years ago. The statement also suggest that the slope is changing which is to be expected with time and thus more studies should be done to assess the stability of the slope.

time that can contribute to slope movement. Adding mass at the top of the slope can increase the loading and cause instability. Removal of material at the toe of the slope can cause loss of support, whether removal is from natural processes or excavation of material by humans.

As stated under the discussion of Existing Conditions for Erosion Hazards, development on the ridge top was completed prior to modern codes that provide more specific requirements for control of surface water discharge. Because of lack of access permission, it was not possible to determine if surface water runoff and storm drain facilities discharge to slopes. Therefore it is not possible to evaluate how runoff in the ridge top area presently affects erosion and therefore slope stability.

The above states that “because of lack of access permission, it was not possible to determine if surface water runoff and storm drain facilities discharge to slopes.” This is a blatant misrepresentation as I could provide you the names and addresses of at least 8 people that would let you do this testing and if I went door to door I guarantee I could provide even more.

The report clearly states that there is “increased potential for erosion during grading activities”. Which seems like a great risk to take when there is evidence of recent movement and slides on the bluff.

Temporary increased potential for erosion will occur as the result of grading activities. However, preparation and implementation of a Stormwater Pollution Prevention Plan (SWPPP) and a TESCP should address the anticipated temporary impacts.

10. In my initial letter I stated that slide B on figure 3 is drastically mismarked on the map, again showing erroneous work. This matter involves people's homes and lives and erroneous work should not be allowed. It definitely builds mistrust in me and others.
11. The recent landslide depicted in Figure 8 does not depict the accurate height of the landslide
12. On page 29 of the DSEIS Pace states:

- Removal of tree cover, mass added at the top of the slope, and removal of materials at the toe of the slope are likely causes of slope instability. Because conceptual development would only occur south of the stream, and away from the toe of the slope, there would be no construction related impact to the north stream bank and there would be no impacts or change in slope stability or landslide activity.

Based on the amount of vegetation within the stream channel there is However this is in direct contradiction to the statement from Appendix D that states:

Temporary increased potential for erosion will occur as the result of grading activities. However, preparation and implementation of a Stormwater Pollution Prevention Plan (SWPPP) and a TESCP should address the anticipated temporary impacts.

The report constantly states that in response to the GMHB Decision and order, that additional detail and analysis was given to Landslide hazards. However, information in the report contradicts itself and there is no actual testing that has been done on the bluff. Just observations from pictures and walking and I'd like to point out that those observations show the recent slide in the wrong place. I am proposing that the City of Monroe do testing on the bluff and do the reconnaissance work that has been stated they did not have access too

As stated under the discussion of Existing Conditions for Erosion Hazards, development on the ridge top was completed prior to modern codes that provide more specific requirements for control of surface water discharge. Because of lack of access permission, it was not possible to determine if surface water runoff and storm drain facilities discharge to slopes. Therefore it is not possible to evaluate how runoff in the ridge top area presently affects erosion and therefore slope stability.

However, like I said previously I guarantee you I can get you access to multiple properties to perform these inspections.

Mr. Osaki I strongly encourage you to truly delve into the landslide issue of this proposed change. There are so many factors that are driving peoples motivations both with the church and those of us who own homes but I think this is a strong enough point of hazard that should be addressed. Your help with this would be greatly appreciated and I thank you for taking the time to review this letter.

Sincerely,

Ashley Sellers
661-874-9336

CITY OF MONROE
SPECIAL PUBLIC HEARING FOR EAST MONROE DEIS
September 23, 2015

David Oskai

Well, first of all, its 7:00 and I do want to get started on time. I really do appreciate the fact that you're taking the time to be here, but I do want to respect everyone's time because I know this is a work day, work night and some of you have to go to work tomorrow, so I'd like to be able to get out of here at 9 at the latest. If we need to go a little longer we can go a little longer, but it all depends on how many of you are planning to speak tonight and when we get to that point what I'm going to do is just kind of ask how many people are planning to speak to kind of get a sense of just how much time to allot each speaker, so that you can hopefully get your points across as part of the process but we give everybody a chance and opportunity to express themselves. My name's Dave Oskai. I'm the Community Development Director for the City of Monroe. I'm also what's called the SEPA Responsible Official for the City of Monroe which means I'm responsible for overseeing all of the environmental documents that relate to the State Environmental Policy Act and I know that when I go through this, I'm going be throwing out terms and phrases that are basically jargon to some extent it is technical and if I do, just try to ask me to explain that a little bit more. But the whole basis for the hearing tonight is to take testimony on a document called a Draft Supplemental Environmental Impact Statement which is required by the city for a development proposal, a non-project proposal, and it's also to comply with the requirements of the State Environmental Policy Act. There is, or has been, before the city, a proposal to amend the future land use map of the city, so the Comprehensive Land Use map, and concurrent with that, or the same time with that, is a proposal in terms you're probably more familiar with, a rezone, for 43 acres of property on the North side of US 2 near the eastern city limits of Monroe and we'll have presentation from the consultant tonight and show you the vicinity map and show you the exact parcels if you're not familiar with them, ah, but then the application came in and the city made a decision that it would require that an Environmental Impact Statement be prepared as part of that proposal. Ah, that proposal went through the Planning Commission hearing, went through City Council hearing, the City Council approved the Comp. Plan amendment, it approved the rezone and as part of that overall process, there was something called a Final Environmental Impact Statement that was prepared that evaluated the environmental impact of that Comprehensive Plan amendment and rezone. And so, that council action to approve the comp plan amendment from what's called Limited open space to General Commercial, and to approve the zone change from what's called limited open space zone to general commercial, was appealed. And appeals of a legislative action by comprehensive plan amendments and rezones go to a body called the Growth Management Hearing Board and that's a state body set up to hear appeals of Comprehensive plan amendments or comp plan or code amendments, related to the growth management act. And what the hearing board did is basically invalidated the city's passage of the comprehensive plan amendment ordinance and the rezone ordinance because it said that it failed to accurately address the environmental impacts in a specific area and I'm just generalizing right now but that specific area was issues related to natural environment, things like hydrology, erosion, land slide hazards, flood plain, habitat management. Basically the hearing board said your environmental analysis of that rezone of that comprehensive plan amendment is inadequate and we're invalidating the city's approval of the comprehensive plan amendment and the rezone, go back and do it again. And by going back and doing it again, what they're saying is do some more detailed environmental analysis. And so, what we have prepared is what's called a draft supplemental environmental impact statement. And the purpose of tonight's hearing is to listen to what you have to say about this document. Two key words here, well all five words are key, but two key words here, draft. And that means this is a draft and there's a public comment period, that public comment period is 30 days, it started August 28th, ends September 28th at 5 p.m., during that 30 day comment period, it's actually 31 days only because ah, 8/30 falls on a Sunday, so we carried it over to the next Monday. But basically what it's saying is during that 31 day comment period, we're asking you, members of the public, to give us comments on this document and those comments can be in written form again and we need those by 5

o'clock Monday, September 28th or they can be orally if the city decides to hold a public hearing. And so this hearing tonight isn't required, it's optional, ah, but if you're like me, sometimes you don't have a lot of time to write a lot of long letters and it's just easier to come, speak and provide the comments orally but you can also provide comments orally tonight or, and/or, you can provide written comments by that 5 o'clock deadline on the 28th. Now, what that means is ah, you have a draft, but then we have to prepare a final environmental impact statement and in that final environmental impact statement, we as a city, are obligated to provide written responses to all your comments. So, if you give oral comment tonight and in the final environmental impact statement, there will be a section that basically summarizes the meeting tonight for transcribes the text of tonight's public hearing and there will be written response from the city back to your comments. If you provide written comments to the city, we will respond back in writing in the final environment impact statement. So, your comments are very, very important. SEPA is intended to give the public an opportunity to comment on the environmental impacts of the proposal, so that's the purpose of why we're having the hearing tonight and that's the purpose of that 30 day comment period.

The other key word in this is supplemental, ah and the reason it says supplemental, well supplemental that means that it's supplementing something, and what this document basically does is build on the final environmental impact statement that was produced back in September of 2013 to a company of the prior rezone and the prior comprehensive plan amendment that I spoke about earlier that was approved by the City Council and subsequently invalidated by the growth management hearing board. So, this document goes out under my signature, so when you speak tonight, I'm the one that's really going to be listening to what you have to say. I'll be taking your comments into consideration, I'll be taking these comments into consideration and we'll be preparing that final environmental impact statement. Helping the city prepare this is the consultant team, which is Pace Engineers, and they're here tonight and they're going to give a short presentation to kind of walk you through this document to give you a sense of, a little bit of summary of where we've been, what the hearing board again said, a maybe a little bit of a synopsis so that when you review this document you'll be in a position to give us the comments by that deadline, oops, excuse me, on the 28th. A few things, this document's on line on the City of Monroe web site, so if you need to find it you can find it there. We have some CD copies of this document; typically we sell those CD copies for 5 dollars, if you really want a CD copy really bad tonight, ah if we have enough, I'll give them to you. Um, but then you can also purchase a copy and that one I just can't give to you because the cost of producing this document ran about 75 – 80 dollars, but if you need to get a copy, let us know and we'll produce a copy for you and we can sell it to you. But with the time between now, which is the 23rd and the deadline for written comments which is the 28th, again we'd be happy to produce those documents for you, but it'd be quicker for you to go on line or get the CD copy if you want to do it that way. Um, I know like I said, I know SEPA is a lot of terms, uh, a lot of jargon, but basically the intent is reproduce the document, that supplements the final environmental impact statement, it supplements it in areas of the growth management hearings board said take a look and do some more work on this and this is a public comment period for 30 days for you to weigh in on what you think and you can, you can weigh in tonight orally or you can weigh in in writing or you can do both, uh, but again we have to respond as a city and the final environmental impact statement document in writing and any comments that come to us before 5 pm September 28th. So, let me uh, just take a little more time here. That's the environmental impact statement portion of this. That's evaluating the environmental impacts of the proposal to amend the comprehensive plan and to amend the zoning map for a rezone. Uh, comprehensive plan amendment and the rezone also have a process associated with them and there will be a public hearing before the City of Monroe Planning Commission on October 12th, Monday at 7 pm here in the Council Chambers where the Planning Commission will take testimony on the comprehensive plan amendment and the rezone. So, there's multiple portions to this process and if I'm not clear at all, uh, I'll make sure I have some cards here for you tonight, just give me a phone call tomorrow and I'll try to explain it and make sure you understand it. But there is more opportunities to comment on the actual comprehensive plan amendment and the rezone. The planning commissions are 7 member advisory bodies, they'll take testimony and they'll make a recommendation to the City Council and the City Council again will make a final decision on the comprehensive plan amendment and the rezone. I can't give you a day when the City Council will actually consider this; we need to wrap this up by December 1st to comply with the growth management hearings board

deadline, uh, but the actual days that the City Council will consider the comprehensive plan amendment and the rezone won't get set until the Planning Commission actually completes its work and makes its recommendation. So I see some heads going up this way, which is a good sign, so, uh, and I'll be here for the rest of the night, so if some ideas or questions come up I'd be happy to answer them about process later on. But now what I'd like to do is introduce the, um, consultant team that worked on the preparation of the IS, and I'll let you introduce yourselves, but it's Pace Engineers out of Kirkland. Uh, they have a short power point presentation, and then at that point we'll just move into taking testimony, uh, from anyone that wants to speak tonight. So, thank you very, uh, thank you very much for coming here tonight, really appreciate it.

Susan Boyd

Perfect intro, Dave, thank you. Um, I'm Susan Boyd for those of you who haven't met me yet. Um, I'm a PACE engineer (unintelligible). The lead on this project with me tonight is Eileen Davis, and um, one of our, one of our engineers (unintelligible) is Phil Cheesman. Um, if you don't mind I'm going to sit and do my presentation from there and I've never been accused of not having a loud enough voice, so I think it will work out just fine.

David Osaki

Want to hit the lights (unintelligible)? Thank you (unintelligible). Thank you.

Susan Boyd

So welcome again. Here we are talking about the, the Environmental Impact Analyses for the East Monroe Comprehensive Plan Amendment and Rezone. I think everybody, well I hope everybody knows that what we will be talking about is a forty-two acre site located in the eastern end in town. Um, and, in an area that, uh, is currently zoned for the limited open space. Also an area that has some developable area on the site that's, uh, that's really what we're going to be talking about tonight, and what we talk about throughout the EIS. Let's get this together (unintelligible) here. Um, the project team, PACE Engineers, myself, Eileen Davis I introduced. The project team hasn't changed a lot. We've gone a little deeper and, uh, thicker into some of our resources as we prepared this supplemental EIS, um, to do more analyses, more modeling, more technical stuff. Um, in general, wetlands resources remains the overall, um, be-all that didn't, uh, experts on plants and animals, the habitat evaluation. They are the specialists for Snohomish County. Scott Brainard I think a lot of you have met in the past. He engaged some of his, um, some of his staff to do a little bit more research and evaluation as we went through the supplemental EIS process. Watershed Science and Engineering, um, wasn't talked a lot about during the draft EIS and planned the EIS process, but, um, their role in this i-is really pretty, pretty important. They are the, um, engineers that, uh, that evaluated and determined all the new FEMA-proposed flood plain elevations. They did all the FEMA modeling for the Skykomish River. Um, they got involved in this process by doing a bunch more modeling, a bunch more field and constants and, uh, just digging deeper and further into hy—how hydraulics on the site were. GeoEngineers, similarly, was more involved in that we were telling that it was a non-party cash in. They were involved more on the, not-so-detailed level as w-, as we went into for the supplemental EIS. For this process GeoEngineers went out there with a bunch of field guys, digging holes, poking, poking the rods in the soil and, and really looking at the hillside in, uh, much more detail, much more, much more emphasis on that. Um, I guess before I leave that slide, maybe the biggest change in the project team since last time we met is having Dave Osaki on board. The city has a whole new (unintelligible) official who, well, quite frankly put us through the wringers, and it went through, went through the entire process start to finish and looked every aspect of the Environmental Impact Statement from the Draft EIS to the Final EIS and then to the SEIS and really made us repeat everything again, and over and over again. And, um, and just added a new set of eyes, I guess I'll leave it at that, and-and we're appreciative of that, we found many things as a result. Um, uh, I feel that we're more prepared than we were previously because some of the questions he asked, and, and I just appreciate his involvement in the process. So just a bit of history—as Dave mentioned, this the Comprehensive Plan Amendment and Rezone for Limited Open Space (unintelligible) commercial. Um, the FEIS was issued and the Comp Plan Amendment and Rezones was approved by the council in 2015—no, it was actually the second approval of this Rezone and Comp Amendment. August 2014, um, as a result of, of some appeals the, um,

growth management (unintelligible) spore came back with a, with a decision and finding that indicated that the Comp Plan Amendment and Rezone was essentially invalidate pending additional environmental analysis to address an impasse. The existing site conditions, um, despite the fact that this is not a project-level um, um, proposal, it's a non-project action; they wanted more information on existing site conditions to follow the surface water and habitat. And I, I can't imagine anybody in this who doesn't, doesn't agree with the fact those are the key issues for this site, and the, and the things that need to be looked at. So we did just that. Uh, again, (unintelligible) the site. Forty-three acres total and just over eleven acres that are developable. Five parcels, US 2, many of your homes (unintelligible) up on Rivmont and the EIS to the north, on the top side of the project and you can see the Skykomish River on the south. So once they issued their, their findings, we had to go back and do a, a Supplemental EIS. It was prepared following, (unintelligible), following the guidelines that GMHB gave us. One thing that was really key was that they didn't feel that they were reading the baseline conditions of the site as clearly as they could have, so they asked us to, was to add an alternative that said "no action, no development, clarify baseline conditions". We've done that. And then they asked us to, to really be a little bit more succinct and clarify what happens to the entire forty three-acre site in terms of landslide, erosion hazard, um, potential impacts with fill placement, um, values and functions of environmental site features. We've got wetlands, we've got habitat, we've got streams, we've got a-a bunch of environmental site features that, that were worthy of discussing and, um, let me expand on that. Potential development impacts to habitat. Um, flooding is-is something that's come up over and over and over again and, uh, we have expanded on that. And then, um, one thing that we didn't do but the City did, was look at where else in the City could general commercial development happen and have the same sort of impact. Many were positive as, as the site that we're dealing with today. So—are there other sites that could accommodate the same sort of development, that, um, that this site might be able to. Again, by, by way of history we had three alternatives. Um, typically a no-action alternative on a, on a, uh, a non-private action, uh, proposal you don't have to do a "no action, no development", you do a "no action under current zoning". Growth Management Hearing Board said they wanted to see a "no action, no development" alternative. What happens if we leave the site the same, identical to what it is today and nothing happens there. So we added that alternative. Um, and we love getting alternate tips the same, there was no questions on those. And, uh, I guess just by way of, of revisiting—alternative one was, "what would you do if you had limited open space zoning and you developed it to the highest and best use under that zoning". Um alternative two, which was the proposed action "rezoning to general commercial", alternative three "rezoning to mixed-use commercial". So those were the three original alternatives plus the alternative that we added. Um, I probably didn't see this, um. One of the biggest challenges, exciting parts, interesting parts of, about this project has been the myriad of restrictions that are associated with the site. It's forty three acres, eleven of those acres, 11.33 or whatever it is, you know, just, just over a fourth of the area is actually considered developable. The sort of white, grayish, shaded area is native-growth protection area, and that area is filed on record with Snohomish County as "can't touch it", "can't do anything". Um, that takes 23 acres out of, out of the mix. Beyond that you can see some different hash lines that you can look at too in the EIS in the, in the handouts it's probably more, more, um, apparent. Those are areas are further protected, or protected in their own way from, from various environmental constraints associated with the property. So the property owner owns forty three acres, eleven acres are, are developable under current code.

Unknown person

Is it possible to ask a question?

Susan Boyd

(unintelligible)

Unknown person

Uh, well I think...

Susan Boyd

Maybe we should go...

Unknown person

It shouldn't get to this, (voices overlapping) (unintelligible) first?

Susan Boyd

Can you remember it, that's the...

Unknown person

(unintelligible) possible

Susan Boyd

Um, findings of the SEIS, uh, one of the biggest things is, is the topography and landslide potential. And let me, let me find page up here. The brown area that you see on the, uh, on the slide there is the (unintelligible) slope, erosion and landslide potential area. I can see very little of it is actually on the property, it's, it's on the adjacent properties but, but nevertheless, you know, this is a cumulative impact analysis, so. So you can see that by the landslide hazards are. Um, when a landslide, or when the, uh, two technical engineers would now go with their probes and their shovels and, and whatnot, they found evidence of previous of shallow sliding on the site, or on the site, on the area north of the site. Um, they also found that, that no impact of steep slopes was associated with development of the site if it was done to code. I want to really point out over and over, as loud as I can say it, that no disturbance is proposed north of the slew, nor, no disturbance is proposed within the slew. We're not looking at touching anything within, within the, uh, (unintelligible) high watermark of, of the slew. Another key finding, a-a-a really important finding, a really strong one, sorry about that, is that as we got in there and we looked at the, the model closer, and we looked at the onsite conditions closer, we realized that, that previously everybody and his brother thought that water would come through here and flow through the slew and back up here to the river. What we realized since then is there is no hydraulic direct hydro...drol...direct hydraulic continuity to the Skykomish River here. All that's coming into the slew from here is ditch water along the, along the SR 2. So, so that was a big finding for us. What we realized is that water will come in here and it will back water into, into the wetlands here, and then during really high water events, water will come up in this culvert, back water into the slew and then back out. Um, interesting finding for us, interesting finding for FEMA (unintelligible). But, uh, really key to what we looked in the SEIS process, is that when it's (unintelligible) makes us understand better how water flows through the system or doesn't flow through the system. And, um, lead to I think some, some pretty important conclusions in the SEIS. Uh, yes, let's see we have the surface water, we clarified the hydraulic connection, and we clarified non-direct connection on the east side of the property and limited fish use and fish passage through, through the site. (unintelligible) storage, flood storage, <coughs>, excuse me, has always been questioned on this site and a lot of you have brought it up, uh, over and over again. Um, I think the important thing here is there, the provision compensatory flood storage will determine how much development is allowed at the time the development proposal is made. And that's kind of bottom line to the whole thing. Um, provision of this sort, it's maybe it's ten acres to be developed, maybe it's eleven acres, maybe it's more depending on compensatory flood storage. But the, the point is, is that what the code says is that we will do whatever it takes to ensure no impact is (unintelligible) velocity or elevation of surface water in the stream. And that's why you have those codes, and, and that's, um, that's what the SEIS view is. Some of you have seen this, this slide before, um, unless there's questions I don't know that we need to go into it in detail. But it shows, I guess where the hundred, hundred-year flood elevation is at sixty-five feet.

Unknown person

Three five

Susan Boyd

Three five, thank you. And where we would need to cut and, and fill two to make sure that the site continues to provide the same amount of flood storage that it has in the past. It doesn't impact upstream properties or downstream properties. Um, you know, we could argue forever about the (unintelligible) here and there, but it all gets determined at the time of development. It's a non-project action. The point is, is that we've had the best experts in, in region look at it and say that we can develop this property without any impact to upstream or downstream properties. And, and I think that's what's critical point needs to be made. Um, gosh I felt like I had more to say, but here we are at the end. Tonight we're looking for, for verbal comments, um, as Dave mentioned September 28th is the deadline for written comments. Dave's taking the comments, um, excellent representation of the city that provides with Dave and...I, I hope we get through this, I guess, is, is my final closing argument, or closing statement. So did I miss anything, or..?

Dave Osaki

No, I mean, you know if you have a, if you have a question, that I think we don't have to focus all the team here (unintelligible) question that we've barely answered, and go ahead and just ask it. Um, if we can't answer it, then either put it down in writing or if you speak tonight, just mention it because then we have to, we're obligated to respond to it and find the (unintelligible).

?

I think it's a basic, simple question is, when you're looking at 43 acres, thereabouts, you're looking at 11 acres are buildable, thereabouts, 11.3, whatever.

Susan Boyd

Right, right

?

Why are you attempting to rezone all 43 acres? That's what scares me.

Susan Boyd

Because of how code is written, you can't rezone half of a parcel. It that-those prop—those portions of the property that are under restriction, we may not have restriction, but you can't rezone half of a parcel. You'd have to subdivide the parcel and go from there. It's uh...

?

Why not?

Susan Boyd

...uh...

David Osaki

Well let me, ok,...

Susan Boyd

(unintelligible) ask what procedure (voices overlapping) (unintelligible)

David Osaki

Yeah, let me; let me respond to it this way. Um, this is an application to the city for a (unintelligible) amendment and a rezone, so the actual application to us came in that form, so we're responding to a request for an application from a private party. So that's, that's basically the proposal for us.

?
Ok

Susan Boyd

If, if I could add that the property owner is fully acknowledges throughout the document that the other three-quarters of the property is not developable, and it's already under restriction in, in at the county assessor's office. So they acknowledge that and, they're willing to give it up.

?

I-I-I guess in the back of my mind is, is, uh, Fryelands, you know, which was under water blah, blah, blah, two million yards of fill later, you got houses all over the place. You know what I mean? Things can be done. But you said this can't be done, because...

Susan Boyd

It's an (unintelligible) growth protection area easement, and it's, it's recorded and...

?

If I could just make one little comment...

David Osaki

Actually when you, uh, if you get to the point, uh, of making a comment I actually prefer you came up to the podium and gave your name and address....

?

Sure...

David Osaki

Oh, but let's wait a quick second, I'm sorry...

?

Ok

David Osaki

Um, if it's a real quick question that you (unintelligible) the answered in (unintelligible) I'm seeing a hand but I can't see, I'm sorry...

? #2

(unintelligible) a real quick question. So, you said the property owner acknowledges that he also (unintelligible) property, so that's not very comforting (unintelligible) to a lot of people. But my big question is, you said as the property's zoned right now there's a lot undevelopable acres, so as it zoned now. What are you hoping to develop? What will change when it changes? How do you develop (unintelligible) acres?

Susan Boyd

Um, it's, I-I think maybe there's a little bit of a misconception, yeah. It's not that they hope to develop, it's that all the eleven areas—eleven acres are under restriction from development. We don't have a development proposal. But the main portion of the property (unintelligible) one more time....

?#2

I guess, sorry, (unintelligible)

Susan Boyd

So everything outside of that yellow area in that, in the shaded brown is restricted from development. We don't have any choice in that, the code says "you may not go there".

?#2

As it's zoned now, though. Even when you change it, (unintelligible)

Susan Boyd

At, yes...

?#2

Ok, 'cause you just said (unintelligible)

Susan Boyd

I'm sorry, I mean...(unintelligible)

?#3

So (unintelligible) what is that showing up your, this, what's that referring to. Isn't that how...

Susan Boyd

So the, the white area that we sho—that you see here. The gray, I guess, is um, (unintelligible) but this area here, that's the shaded gray is native growth protection area easement. Really nothing can happen there.

?#3

Right, right (unintelligible)

Susan Boyd

Yeah, this area. This is wetlands. We have stream buffers, we have steep slope buffers leaving us with, under current conditions, (voices overlapping)...

???

Ok (voices overlapping) (unintelligible)

Susan Boyd

...(unintelligible) yellow line is...

???

(unintelligible) that can

Susan Boyd

That's what can be developed

???

And what's the green?

Susan Boyd

The green...

????

What's the green between the tan and the white?

Susan Boyd

Outside NGP, NGPA put in critical areas.

???

What is this, up to the right (unintelligible) there's, that's a driveway going up to the right of that up by the bluff on the right-hand side?

Susan Boyd

Yup

???

Yeah, and up there, the green and then the little (unintelligible), what's that referring to?

Susan Boyd

They're building a (unintelligible) house. There's a (unintelligible) house there.

???

Yeah, right?

Susan Boyd

We can develop with in the, the beige areas. These tan areas.

?????

And there's also a beige area extreme upper right?

Susan Boyd

Yes, there is, there's a high spot up there.

?????

And that's buildable? And that's (unintelligible) unbuildable if the, (voices overlapping) (unintelligible)

Susan Boyd

(voices overlapping) (unintelligible) Yeah, if we could do pie in the sky and we had a project, yes, it could be developed.

??????

How would you get to it across all the wetlands, though?

Susan Boyd

That's the project action part. That's where somebody comes up with a developable proposal—they'd have to prove to the city that they could do that there.

David Osaki

Can I just get a sense of how many people might actually want to speak tonight? So I'm looking at maybe, I'm looking in the dark, about 7? Ok. Because I actually, I actually want to get to the public testimony portion. And if we can get through that quick enough, then I can just kind of scan to the public testimony portion and if you're willing, for those that still want to stay around, we can decide to answer questions.

Susan Boyd

I think that's a, a great way to go, so I'd be happy (unintelligible)

David Osaki

Yeah, because I...

Susan Boyd

(unintelligible)

David Osaki

...I'm real sensitive to the people that need to be home at a certain time or anything like that. So for those who want to speak, I want to make sure you have a chance to get up and speak. And then if you need to go home, you can go home, and those of you who want to stay because you have some questions to answer we can certainly do that. Assuming we can finish at a reasonable time. But I'm looking at maybe about eight people that want to speak, so, if I gave you each 8 minutes, do you think you could finish yours... We'll give a shot. Let me just start off with about 8 minutes, um, maximum and then we'll just see where we are when everybody has a chance to speak. My guess is I think we need to speak soon if (unintelligible) in eight minutes, but let's give that a run. I want to make sure you have a chance to, um, say what you want to say. And if I'm not taking notes while you're speaking it's probably because I can almost promise you I'm going to listen to the tape again or I'm going to be reading a transcript of this, uh, before we go (unintelligible) the IS, so, uh, really I'm all ears right now and will be reading or either listening to this tape again. So, um, I have no order in terms of how you might get up to speak, so whoever wants to come up and speak, you're more than welcome to. Just need you to come up to the podium, give your name and address, and, uh, I'm not in a position to answer questions, so just listen to what you have to say, and that's the whole purpose of tonight. So...

Susan Boyd

A couple people signed up.

David Osaki

Anybody is welcome to start off. There we go. Thank you very much (unintelligible).

Darlene Wolf-Setzer

Is it on?

David Osaki

Yeah, we'll just turn the mic up

?

Put it closer to your mouth.

David Osaki

There you go. Thank you very much.

Darlene Wolf-Setzer

So, I'm, I'm Darlene Wolf, uh, Setzer. And I live right above the driveway which is to the right there. And I look down (unintelligible), you know, on the, to the right, but it shows that parcel. What is it? Where is it there, the parcel? And that's a swampy area, it's always very swampy in there. And, uh, yeah I-I've been up there since 1968 and I've seen, uh, the river, the flooding about three or four times when that, that (unintelligible) full of water, uh, over the driveway. Clear down the road to the driveway, clear on over to the (unintelligible) on this side to the, to the (unintelligible) district. Full of water, that whole area. I seen that three or four different times like that. Uh, and, uh, the-the ones that live down below had to be rescued by helicopter one of the times, and it's

a, it's a regular flood area, the river just, it (unintelligible) goes in there. There's no keeping it out of there. When that, when that, when it's flooding, and the river's up, the water's in there. Period. (unintelligible) it's usually swampy in that area too where it says, that parcel up there to the north, uh, east...

Susan Boyd

Do you mean parcel (unintelligible)

Darlene Wolf-Setzer

Yeah, and that's a swampy area, (unintelligible) there's tide pools and everything, there's ponds outside the road there too, always full of water.

David Osaki

All right. Thank you very much. Yes Sir.

Doug Hamar

Well I could have gone on for about two hours, but I, I'm just going to talk for the next three minutes, I think (laughing)

David Osaki

At least (unintelligible)

Doug Hamar

I am prepared for 80, so let's say 5 minutes I think. Anyway, we might have hoped,

David Osaki

oh, ok, I'm sorry. Can I get your name and address?

Doug Hamar

Oh Doug Hamar (laughing) I live at 21122 Calhoun Road.

David Osaki

Ok, very good. Thank you. Ok.

Doug Hamar

We might have hoped that this new SEIS, the product of PACE Engineering would be based on accuracy, and with full disclosure. As it should be. Instead once again, we are presented with a document where the findings are overwhelmingly purpose driven. I guess that is not surprising, when you consider that the reality of the ground and any common sense analysis of that reality runs overwhelmingly against their purpose. The rezoning of this property. In the 2013 FEIS proceedings, the same engineering firm calling on their expertise in the field, repeatedly testified that lidar provided most accurate topographical survey of the property. And why did they continually testify to that notion when they should have known better. I mean it seems reasonable to me to assume they did know better. After all, they are the experts. It is difficult not to conclude that they testified to this because the lidar interpreted the 8 foot high blackberry bushes throughout the property as solid ground. Which gave them the compensatory flood storage they needed for their development. Well, in the final analysis, that was a hard sell. They had to abandon their blackberry bushes in the face of facts. Gosh Darn, what are they going to do now? There really isn't enough compensatory flood storage available on that property. Their only option, is to convince people a 100 year flood plain is a couple of feet lower than what FEMA says it is. But how do they possibly do that? Well, surprise of all surprises, there is no culvert under the railroad tracks at the east end of the slew, therefore, there is no connection to the river at that end. In fact the only water entering the slew from the east, comes from the drainage ditches along the highway. How convenient is that? So convenient, they

repeat this contention numerous times through the SEIS. It is pretty clear, their whole strategy for approval is based upon this new discovery. So, why was it, a long standing assumption as stated in the SEIS, there was, there was a culvert at the east end. Well, in the aerial photo of the property you look at which is pretty much the level of detail they give, they've given the property in the past, clearly shows this is (unintelligible). It is the old course of the river. An old river bed runs right under those railroad tracks. No culvert needed. There is river water on the south side of those tracks, there's river water between the tracks, and on the highway. There's river water in the slew, immediately south of the highway, or north of the highway. It doesn't take an expert in watershed hydrology, to understand particularly in the drought we've been experiencing, that none of that water is coming from the drainage ditches along the highway. And it certainly isn't backing up from the west end of the slew a half mile downstream. I really think you ought to go down and look at the boulders under that stretch of track. They are the size of refrigerators. I can see how that was calculated by the railroad to keep the tracks from being washed out. As they have been in the past. I'm no expert, but I think it's reasonable, the size of those boulders was not calculated to prevent flood wash from flowing through those rocks at a reasonable enough pace to relieve the pressure on the south side, of the tracks. And that's way I have for today.

David Osaki

Thanks for coming out tonight.

Doug Hamar

Appreciate that

Lowell Anderson

Lowell Anderson, 129 E Rivmont Drive, Monroe, WA . Been here since, uh, 1950. This, uh, question, that was just raised about the zoning, you have the 43 acres and their.... What they're proposing giving.... We first of all I had planned to comment tonight, but I feel compelled to. I haven't finished my, uh, (unintelligible) for you. And it will be on your desk before 5 o'clock on the 28th.

David Osaki

I recognize that

Lowell Anderson

However, this business about the 10.31 – 11.3 acres that are developable gives you a false sense of security. Because once you develop this property, or zone it commercial, there are exceptions in the sec... in the in the code, in the MMC that makes for specific differences and changes. And I'm not going to go through those changes now, but that gives you a false sense of security. So, either you want to rezone the property at... and you say you can't, and if you can't then of course it can lead you 100% locked in priorities, if you have to go that route regardless of what the MMC says, you have the whole big fight ahead of yourself if you think you are going to just use the incredibly small 10.3 acres, or whatever it is. Not only that, as Mr. Hamar pointed out, they don't even have the actual compensatory flood storage. That property is going to shrink considerably. So, I don't think you're going to have 10 acres on the road side. You're access is off below the developer has to pay for it. It will cost oh, maybe 5 million for a roundabout, then you have a frontage road , you have to jump the slew, you have get to the property. This is absolutely the worst site that you could possibly have a commercial development. That I have ever seen. And, uh, as I say, I didn't plan to speak tonight, but I feel compelled to, to dispel this false sense of security that we have of only 11 acres of remaining to be developable. Once you change the zoning, it's fair game. Thank you.

David Osaki

All right, thanks for being here tonight. I know I saw more hands than three people. Ah.... There we go. Thank you.

Misty Blair

Would you like me to sign on the sheet?

David Osaki

Yeah, that would be great. Or if you would just speak really clearly with your name and address (unintelligible)

Misty Blair

(unintelligible) Misty Blair, my address is 15403 Calhoun Road

David Osaki

Very nice

Misty Blair

Uhm, let's see. I didn't prepare anything, I am preparing written comments on Monday, but but I think a couple of things should probably be clarified. Ah, the native growth protection area is the easement that the city has the authority to amend. And clearly says, in your code that you can, that the director has the ability to change or give exceptions to things that are in, and all it is a report in this one county, it's not it's not something you can't change. Uhm, and what Lowell Anderson was referring to that the reasonable use exceptions in the (unintelligible) ordinance ah... that this (unintelligible) these comments have been made since, the 2012 original draft EIS, on this. But, ah... that the EIS does not actually refer to code. To your codes, so it says, it says that the shorelines and wet lands and streams and steep slopes prohibit development on the majority of the site. You need to reference what, what codes do that... The prohibition because I don't see that in the code. Prohibition in lay use means you can't get around it. You can't get a variance to it, you can't get a conditional use permit for it, you can't get around it. These are not prohibitions, they're restriction that have exceptions. And I think that, that should be addressed in, in the review. Ahm.... The other main comment I have is, when PACE went through and chose what to, which of the growth management hearing boards comments to address. Some pretty big ones were left out. Uhm... and I'll be providing those specifically, but in my end of the... the main thing here is just that you guys are supplementing an inadequate FEIS. And the supplement has not cured those inadequacies. So, the alternative analysis, it wasn't just about a no development, the board doesn't even tell you to do no development, one option is that you should be looking at existing condition for all environmental impacts. So, each alternative, including the no action alternative should be compared to existing conditions. And the existing conditions analysis in the original kept downplaying the habitat value, and the water quality value of the site (clear throat) inadequately. So, you need to amend that so it's clear what the existing conditions are. In the no action alternative is very clear what the SEPA environmental 197-11 what a no action alternative is. It's developed under the existing, without the proposed change. In this case, the proposed change is a comp plan amendment. And a rezone. So you should be looking at the site, what is reasonable development is under the limited open space. And, no matter how you look at it, that is single family residential. Uh, the access, the only access allowances right now through WASH DOT, and they own the access, it's not owned by the property owner. Is, the existing access which they said can accommodate I believe 3 single family homes. So, we should be looking at the current condition, no action alternative as residential. And then you, compare that, those impacts to the existing condition, and then you look at your three alternatives, and compare those impacts, and then, that's when you can compare the 4 to each other. But the way its set up right now, and the board, the board mentions this, uhm in what you guys have as appendix A, if I'm seeing them in order, uhm, that was amended on, the amended one from September 19, 2014, ah, that – that more of the flaws in this original FEIS is that the goal is commercial development on the site. And that's not per the non-action, that shouldn't be the goal. Ah, whether it's the city's goal, and that's something that you can't find in the record anywhere. Ah, somebody applies for a comp plan amendment with you, but it's the city that gets to decide whether to move forward with it, and they can, you guys can limit it, you can change it, ah, they can apply for boundary line adjustment, and get it down to the developable area, ah.... None of those things have happened. And they're not reviewed to as alternatives, which they should be. Should not one of the alternatives be, to only rezone 11 acres. One of your alternatives should be

not to rezone parts of D and E because they have almost no developable area on them. There's no, the right now the little access road, you can get back to a house there maybe, between parcels C and parcel D. You can't get back to a commercial development without building a commercial capacity road. That's not analyzed in here. So, the no action alternative should show, could I get there, maybe I could, maybe I couldn't. Somebody needs to look at it. Could I get back to my house there? Under existing zoning. (clear throat) and then, if I rezone it, how am I going to get back there? Is there not an intrinsic impact that comes from rezoning it to commercial. And then now that person needs to build access commercial property, they're going to need a commercial entrance there. It's going to be a bigger road than that's there now. Those are the type of things that your alternative should be reviewing. Right now the alternate rive is just set up what PACE has determined to be an 11 acre developable envelope to the max build out in all three scenarios. And in no case is there any analysis done of what can happen if somebody came in and under a reasonable use exception and wanted to build outside of those 11 acres. Uhm... (clear throat) the, the other, the last point I want to make tonight is, like I said, you're ((unintelligible)) Is on the FEMA flood plain. So, the original EIS, FEIS and this one looks at the site under the proposed 2007 flood maps. Those are not adopted by the city. So, when they say what's developable under those, if I were to come in, if this was to be rezoned tomorrow, and I came in as a property owner, with an application, none of those FEMA regulations apply. Because it's not in, according to your code, it's not in the flood plain right now. It's not in the 100, it's in the 500. So, at least one of the alternatives should be looking at existing codes and how those, not these potential codes that PACE has already argued may not even happen. They don't want.... And then the other thing is that the SEPA could be proposing mitigation that could address some of this, like limiting the development area. Like requiring the most up to date FEMA maps be applied to the property, if you're going to rezone it. None of those things are even considered. I don't see where the document actually comes to, ah, leads you anywhere. It just is a lot of information without conclusions and without proposed mitigation. And I think I'll leave with that.

David Osaki

All right, thank you very much.

Clive Ellard

Am I the last comment...

David Osaki

Ah, I'll ask a couple of times before we close it out, so if you want to come back and

Clive Ellard

Sure, sure

David Osaki

Give your name and address before you speak, that's fine

Clive Ellard

Ok. Now?

David Osaki

Yes, please

Clive Ellard

Thank you. The name is Clive Ellard, I live at 21804 Calhoun Road, and I am remembering how this, if I can call this a debacle, got started. I remember the year, but after years of the Planning Commission saying, "no this is a bad project". During a Council meeting, and I don't remember the Council people but, there was a woman, and I do remember the person that seconded it was the other Baptist minister in this city. Monroe Baptist church. Ah,

fairly large, blonde, strawberry blonde, (unintelligible) somebody or other, you know. These are Congr.... These are Council people in the past. Ok, so, again just getting voted down, no, let's forget this thing, how many times is it going to be brought up? These two people, the woman started it, in her voice she said, "Well, it doesn't cost the city any money, let's have this... let him have his day in court." And the second Baptist minister seconded it. And Vooooom it got put on the agenda. That has cost thousands of dollars expense to the city, and hopefully somebody is going to come to their senses, and fix this thing before it goes any further. And it doesn't matter how many, how many tubes of lip stick you put on a pig, it's still a pig. (other voices and laughing)

Susan Boyd

I guess you're saying that to me, but....

Clive Ellard

You know, I'm addressing you because you're putting the lipstick on.

David Osaki

All right. So I saw some more hands.... I'm willing to wait a little bit, in case you really want get some thoughts. Again, ah, some of you may be thinking whether or not to come up here, if. I fully understand some people may not feel comfortable coming up and speaking in front of an audience. You shouldn't feel that way, because it, all we're going to do is just listen to what you have to say. Ah, certainly if you just want to provide comments in writing, 5 o'clock next Monday the 28th. And the, Planning Commission is ah.... I'm actually quite impressed by some of the comments here tonight. I really appreciate.... Cause I thought I was going to be talking to some (unintelligible) and things like that, at least many of you understand this is an environmental document, so it's basically to inform the Planning Commission and inform the City Council of the environmental impacts of potential comprehensive plan amendment and a rezone on a piece of property. Or, 5 pieces, 5 parcels technically. So, ah, the more feedback that you can give at this point in time, is the more that we as a city looking at the type of comments and the specific items you're raising so, ah... What remaining comments tonight.... I knew if I talked long enough someone would come up (other voices and laughing)

Ashley Sellers

Ah.... Ashley Sellers, 20930 E. Rivmont Drive.

David Osaki

Great, thank you

Ashley Sellers

Ah, I spoke to Melissa, before I bought my house. (laughing) She took us back and showed us all this. So, I want to start because everybody here gets beat up really bad so, thank you so much. You've done a great job of just like clearly saying what tonight's about, and informing people, and I know it's important we're all upset, and we all have stake in this, but really. This isn't fun for you guys either. So, thanks for that. And I agree you have a lot to gain because you have a lien on the property, ah... and I think that's a huge conflict of interest anyway you look at it. You have a company providing information that has a benefit, you can't.... I understand, I see your face I see your reaction over what people are saying. Like... ahhhh, and I get it, I would be the same way, it's like this is my company, this is my study. But you have to be able to address that. You have to say, "Wow these people are looking at a city that's allowed a lien to be kept on a property and that lien is the subject of payment for that company." That's a huge conflict of interest. But the biggest thing I want (unintelligible) that I saw in this, ah, is there has been a recent land movement slide, slope, whatever you want to call it, it's not 10 feet deep, thank God, because my house would be on the bottom of a hill, ah, but even where that land is, on that aerial map, it's not drawn in the right place. And it really lends to me, to kind of wonder how well that has been studied. Because it's a pretty significant movement. Ah, probably about, 15 or 20 feet wide, and half the bluff down. I mean, not.... It's like 2/3 high of the bluff. I meant it's a pretty significant.

Susan Boyd

Will that be in your written comments? Some... some sort of sketch of where you think that is...

Ashley Sellers

Yeah, no, absolutely, but well, I know where it is, because it's by my home and it's not even shown on that plot map. So, ah... I just think there's some things that are really inaccurate and I will address that more. But that's just one thing I wanted to bring up because that's a really recent slide. Ahm, also I can just tell you we've only lived up here a year and a half, and our back bluff is at a much more steep slant now than it was when we moved there. You can't tell me that heavy equipment and moving things in and out are not going to affect that. So, there is a lot of recent land movement out there, and I think that needs to be addressed a little bit more in detail. So, and this property owner bought this property with the current zoning. So, there is property rights there, but there's also property rights for some of these people that have lived up there, I mean longer than I've been alive. So, there's a lot to say about that.

David Osaki

Ok, so

Ashley Sellers

Ok, thank you

David Osaki

I, I Well, I know I said I wasn't going to ask people questions, but since you already gave the information, give me your address again,

Ashley Sellers

Ah, 20930 E. Rivmont Drive. And we share the recent slide with our neighbor.

David Osaki

Ok, all right

Ashley Sellers

And I know they're not.... I don't want to give it away, but it's there.

David Osaki

All right. Thank you very much. Ok, it's starting to get quiet again..... thank you for coming up. I appreciate it.

Brandi Blair

Ah, Brandi Blair 228 S. Lewis - Ah, I would like to (unintelligible) 'cause I hope that ahm... that this really does get... you said your name is on this, and ah, a fair review, ahm.... The one person who never shows up is the property owner. The people who do a lot of work and keep showing up, year after year, are here again. Taking their own time to protect the environment. I hope that, ah... hope that speaks to property planning.

Vicki Furrer

Vicki Furrer, 23811 SR 2, Monroe. Ah.... I was born here, and I've lived on a piece of property just 2 miles down, the road towards Sultan from this ah... acreage for the last 57 years. So we were farmers, we've farmed the land and ah... I guess one of the ah... the biggest things as far probably a little more boundary re... boundary review than environmental but yet it does carry over to the environmental... it's just that ah... you know the mountains, the river valley, just coming out of Monroe as you crest the hill and leave the chaos of the city behind, just is an automatic boundary to open up into the farm land. Ah, into the valley, and there isn't development

anywhere between Monroe and Sultan. It is farms, right and left all the way up the valley. Whether it be just you know a few horses that someone is raising or a farming like we are cattle and hay. And when I say as you leave Monroe the chaos behind, not just for the people, but for habitat for the wild life too. You can't tell me that paving over 12 acres and changing it to commercial, is going to welcome all the wildlife to still hang out in the woods and all in the area there. Ah... which contributes and carries over to the next property, and the next property, and even us down the road. Ah, as someone else brought up, property owners, you know, what are our rights? All of us are living there most of us have lived there forever. (laughing) You know it's been our home. And, here somebody comes in and purchases this, knowing what it was zoned, what it should be used for, and in trying to change that, ah... you know it was purchased knowing I think that's one thing that has frustrating especially, not just to homeowners, but all of us farmers is, farm land keeps getting pushed down, pushed back. And the average farm here in Snohomish County is only 46 acres. It's not the big 2 and 3 thousand dol... thousand acres like it is in California. There's been a lot of organic farms, (unintelligible) farms, and keeping this agricultural land to preserve for generations to come is very important. There's been a increase in farms in the county in the last, last few years. Again, not huge farms, but small pieces like those, the average acreage is 46 acres. So this would be prime for doing something agricultural. The agricultural lands are prime habitat for birds, wildlife, ah... you know we all try to be stewards of the land. And, as I said, it's frustrating for us long, old timers, that someone comes in and wants to change everything, change our lifestyle with houses coming in, you know then you get complaints, on the farm as someone else said, they knew what it was zoned, so why are they trying to change it? Then as I said, changing saying that only 12, 11 acres can be changed, what is going to once it's rezoned. Exactly, I feel like there's no guarantee what can happen after that. Because I think that all of us have seen that money does buy things. You know, from other development around our area just here in Monroe. So, I just feel like there's no guarantee that that will still all remain (unintelligible) uhm, uhm, cause as I said money, money does buy development, and it buys, buys fill, and we've all seen that down in Fryelands. Us oldies, never thought that could ever be built or developed on. But you bring enough fill in and that changes everything. So, ah... like I say wildlife, run off, water quality, all of that needs to be addressed. And as I said it just doesn't impact that 11 acres, but if that's paved over it's not going to welcome any, any habitat for wildlife. If anything it's going to push birds and the eagles, or seagulls, in the trees out there. As I said I've lived there my whole life along Highway 2 and ah... this would definitely impact the farmers all the way up the valley through Sultan and on up. So, thank you.

David Osaki

Thank you. Thank you for being here. I appreciate it. (unintelligible) I will let you come up again (laughing) I admire your determination. (unintelligible)

Darlene Wolf-Setzer

21608 Calhoun Rd. (unintelligible) and ah, anyway, ah, if the land development space now, that's what it's zoned...

David Osaki

You are correct

Darlene Wolf-Setzer

What?

David Osaki

Yes

Darlene Wolf-Setzer

And, and the one that bought it ah, he, he, he wants to build a church is that right? Something to that affect...

Susan Boyd

That was the original proposal that was protested and has led to

Darlene Wolf-Setzer

Well, I'm thinking....

Susan Boyd

Them not....

Darlene Wolf-Setzer

With the limited open space zoning, the one that bought the property, could build a church.

Susan Boyd

He could have, but it was protested.....exactly

Darlene Wolf-Setzer

Now, without rezoning it to commercial

Unknown voice

Who protested?

Darlene Wolf-Setzer

And I cannot see that property being zoned commercial, its agricultural. There, there been there Herons down there, there's hawks down there, there's been kyotes down there ah... it, it, it's a, a, a, raccoons they have kind of a wildlife area down there. And to change it to zone it to commercial makes no sense what so ever. Because it is ah... its rural. You know, and if they, if he did want to build a church he could build a church.... With the open space zoning... he wouldn't have to change the zoning to build a church. So, ah..

David Osaki

Ok, thank you. Ah....

Unknown voice

I would like to comment that protest... there's been no protest, we welcomed the church. All they had to do was put the church in. They decided that they wanted to flip it. If you want to read my letter from 2 thousand... or 2 thousand and 4 I state in that letter that this property was the perfect example of why wet land to develop into commercial. It's on record, it's here I testify there's been nobody that has protested...

Susan Boyd

I'll go back and look at that, I, I appreciate your clarification there.

Unknown male voice

There's been nobody protesting that. Build a church, put 5 houses in. That's fine. Nobody protested that.

Susan Boyd

I appreciate your clarification

Unknown female voice

And leave the zoning as it is now

Unknown male voice

Right

Unknown female voice

It doesn't need to be changed

David Osaki

Ok, so just ah... the issue about the actual zoning is something that goes before the Planning Commission and then the City Council. Ah...

Unknown female voice

(unintelligible) 'cause I've been up there probably I've seen the water over the whole, whole area. The whole area. From the (unintelligible) by the creek to that culvert across the driveway all over it.

David Osaki

Ok, thank you

Unknown female voice

Several times

David Osaki

Ah... I don't want to cut anyone short from getting up and speaking if you want speak, so.... again. So, anybody else want to have the opportunity to speak.... Might as well start rambling again.... (laughing) Just to give you a chance to speak if you want to. Ah.... Ah... Ok, so I'm not seeing anybody. If that's the case, for about the 6th time, I'll just say 5 o'clock next Monday. Get us your written comments, and we'll respond to that October 12th, 7 o'clock Monday here in the Council Chambers. Planning Commission holds public hearing on the comprehensive plan amendment and ah... the actual rezone. I'm just going to say thank you very much for coming here tonight. Because, on a personal level I've actually been on your side of the bias, in terms of speaking or trying to limit other projects and I know the amount of time it takes to actually come out here and try to gather your thoughts. Uhm, so I really appreciate your taking the time to do that. And, I want to say there have been very articulate comments tonight. So, thank you very much. And so what I'll do is I'll just, unless anyone else wants to get up and speak, I'll just conclude this portion and then the testimony portion and then folks can go home, and then I'm willing to stay here and I think PACE is willing to stay here and handle specific questions, and hopefully we can answer them. Recognizing we don't have all the (unintelligible) So, that being the case, ah... thank you very much for being here. I really appreciate your coming out.

<30:49>

CITIZEN COMMENT

Darlene Wolf-Setzer

21608 Calhoun Rd., Monroe WA 98272

Doug Hamar

21122 Calhoun Rd., Monroe WA 98272

Lowell Anderson

129 E Rivmont Dr., Monroe WA 98272

Misty Blair

1007 S Adam St., Tacoma WA 98405

Clive Ellard

21804 Calhoun Rd., Monroe WA 98272

Ashley Sellers

20930 E Rivmont Dr., Monroe WA 98272

Brandi Blair

328 S Lewis St., Monroe WA 98272

Vicki Furrer

23811 SR 2, Monroe WA 98272