

## DOCUMENT E – TECHNICAL COMMITTEE INITIAL INPUT ON CORPS MEASURES

**Note:** The following criteria are the ones that were used by the Technical Committees when considering and evaluating the measures. They are included here because the Technical Committees often referenced which criterion they were considering when evaluating a specific measure. When the Technical Committees evaluated the measures, they used a color coding scheme to indicate their level of desire to see a particular measure advance.

Remember that the purpose of this effort is for the Advisory Committee to provide an initial indication of what Skagit GI measures should be further considered. This effort is not intended to be a detailed, final prioritization of measures.

### **Dike and Drainage District Technical Committee Screening Criteria**

#### **First Tier – Fatal Flaw criteria**

1. Does the project maintain or improve Public Safety and critical infrastructure protection when compared to existing flood risk?
  - a. Reduce the potential for levee failures?
  - b. Increase conveyance efficiency of the existing levee system?
  - c. Reduce risk of catastrophic failure due to inadequate interior drainage?
2. Can the project be implemented without increasing the flood risk up and downstream of the project area? If no, can the increased risk be mitigated?
3. Can the project maintenance and operations be sustained locally?
4. "Will the project reduce risk to soils and drainage in agricultural resource lands."

**Key point:** Projects need to be designed from bay-front up to address interior drainage and downstream impacts.

## Land Use Technical Committee Criteria Recommendations

LUTC recommended the original Option #2 from Document C (AC Meeting 12/15/08)

### OPTION 2: THEMES FROM THE TECHNICAL COMMITTEES

1. Critical infrastructure protection
2. Other existing infrastructure protection
3. Minimal known land use conflicts
4. Minimal known regulatory conflicts
5. Could be designed to benefit multiple objectives
6. Degree of environmental impact/mitigation and could it be designed for ecosystem benefits
7. Timeliness of implementation
8. Cost
  - Capital
  - Land acquisition
  - Maintenance
  - Cost-benefit
9. Perceived community acceptance
  - Shared burden
  - Impacts to privately-owned land

### Environmental Technical Committee “Fatal Flaw” Screening results 1/26/2009

#### Criteria Applied:

1. Does the project demonstrate a significant net gain in natural riverine processes? In particular, does the project:
  - a. Improve natural flood water conveyance?; and
  - b. Preserve or improve channel migration, and floodplain processes and reduce bank hardening?; and
  - c. Improve / restore riparian processes?
2. Does the project improve or preserve estuarine, near shore and marine processes, habitats, and resources?
3. Does the project demonstrate improvements to flood related Water Quality and contamination problems?
4. Can the project work in synergy with other planned actions i.e. up and downstream effects need to be evaluated and addressed?

Key point: No new bank armoring; existing bank armoring needs to be removed with minor excavation as needed to install effective fish habitat features.

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There is no measure 21.

<b>lip 1</b> <b>WHOLE BASIN EFFECTS -Storage</b> <b>(Range of Possible Additional Storage for Each Measure)</b>			
Committee	Comments (Focused on Criteria)	Missing Info.	Linkage with Other Measures
<b>Measure #1—Upper Baker</b>			
DD	<b>Green</b> – Meets all criteria and is consistent with Baker FERC Settlement Agreement	Need to continue Corps analysis and modify WCM	Stand alone and improves All
ENV	<b>Yellow</b> – must be consistent with Baker Settlement Agreement and Skagit GI completed.	Skagit GI Analysis	Yes All
LU	<b>Green</b> Maximize storage and modify operations to reduce flood flows (Measure #1C)	Need PSE input What about increasing flood storage capacity by raising the dam?	#2
AC			
<b>Measure #2—Lower Baker</b>			
DD	<b>Green</b> – Same as # 1, meets all criteria and is consistent with Baker FERC Settlement Agreement. Continues to demonstrate significant benefits during recent events. Dike Districts request that the Interim Protection Plan remain in effect until Corps Skagit GI study is completed.	Need to continue Corps analysis and modify WCM	Stand alone and improves All
ENV	<b>Yellow</b> – Same as # 1, must be consistent with Baker Settlement Agreement and Skagit GI completed.	Skagit GI Analysis	Yes All
LU	<b>Green</b> Maximize storage and modify operations to reduce flood flows (Measure #2C)	Need PSE input	#1
AC			
<b>Measure #3—Ross</b>			
DD	<b>Green</b> – Meets all criteria and could be improved with operational changes.	Need Corps analysis to modify WCM	Stand alone and improves All
ENV	<b>Red</b> as proposed due to likely high Chinook and pink salmon impacts; <b>Yellow</b> – if consistent with Skagit Settlement Agreement and Skagit GI completed.	Skagit GI Analysis	Yes All
LU	<b>Green</b> Maximize storage and modify operations to reduce flood flows	Need Seattle City Light input	
AC			

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There is no measure 21.

<b>Flip 2 WHOLE BASIN EFFECTS - Nonstructural</b>			
Committee	Comments (Focused on Criteria)	Missing Info.	Linkage with Other Measures
<b>Measure #25— Nonstructural (Evacuation, Flood Warning, Floodproofing)</b>			
DD	<b>Green</b> – No downside. Support good land use decisions.	Needs to be coordinated with DEM	Stand alone and improves All
ENV	<b>Green</b> – support concept. Need to review existing and potential land use regulations; SMA	Need information on specifics	Yes
LU	<b>Green</b>		
AC			
<b>Measure #27— Debris Management</b>			
DD	<b>Green</b> – Ongoing maintenance needs to be coordinated better.	Programmatic Permits	Stand alone
ENV	<b>Red</b> - If LWD is removed from system. <b>Green</b> - Need debris management program to keep LWD passing bridge structures		Yes
LU	<b>Green</b>		
AC			
<b>Measure #23— Estuarine Restoration</b>			
DD	<b>Yellow</b> – Only if project has positive impact on flood control and improves interior drainage and outlet facilities. Example: New Stanwood outlet WCS at bayfront.		# 38
ENV	<b>Green</b> – What are the projects? Design should meet Salmon Recovery goals.	Need location and design	Yes
LU	<b>Green</b>		
AC			

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There is no measure 21.

Flip 3 UPPER BASIN			
Committee	Comments (Focused on Criteria)	Missing Info.	Linkage with Other Measures
<b>Measure #22— Cockreham Island Levee Removal</b>			
DD	<b>Red/ Yellow</b> - Impacts farm land with minimal flood control benefits. Potential restoration project	Flood control benefits	
ENV	<b>Yellow</b> – Concerned with potential loss of main stem habitat	Need design info.	24 & 24A
LU	<b>Yellow</b>	Impacts unknown	
AC			
<b>Measure #24— Riparian Restoration</b>			
DD	<b>Yellow</b> - Needs to be combined with flood control projects.	Impact to critical infrastructure	Must be linked to other measures
ENV	<b>Green</b> – include 24A	Design – see # 23	Yes All
LU	<b>Green</b>	List could be expanded.	OK to have stand alone flood projects without restoration and vice versa
AC			
<b>Measure #26— Hamilton Relocation</b>			
DD	<b>Green</b> – Meets criteria	Funding Sources	
ENV	<b>Green</b> – Incorporate wetland and slough habitats where possible		Yes All
LU	<b>Green</b>		
AC			

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There is no measure 21.

Flip 4 MIDDLE/LOWER BASIN - Small-Scale Storage			
Committee	Comments (Focused on Criteria)	Missing Info.	Linkage with Other Measures
<b>Measure #4— Nookachamps</b>			
DD	<b>Yellow</b> - As presented. Project has support of Dike Districts and Cities.	Need design and elevation of weirs. Need to evaluate up and down stream impacts	Improved timing benefits other measures
ENV	<b>Red</b> – As presented. <u>No new hardened structures allowed along river.</u>	Acceptable design for restoration	24 & 24A
LU	<b>Green</b>	Provided design is modified and environmental concerns addressed	
AC			
<b>Measure #5— Hart's Slough</b>			
DD	<b>Yellow</b> – See # 4	Need design and elevation	
ENV	<b>Red</b> – As presented. <u>Same as # 4, no new hardened structures allowed along river.</u>	Acceptable design for restoration	24 & 24A
LU	<b>Yellow</b>	Needs additional evaluation	
AC			

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There is no measure 21.

Flip 5 MIDDLE/LOWER BASIN - Levees			
Committee	Comments (Focused on Criteria)	Missing Info.	Linkage with Other Measures
<b>Measure #9— Overtopping Levees</b>			
DD	<b>Red</b> – As presented if existing level of protection is reduced for adjacent areas. Yellow - Where suitable when combined with improved interior drainage	Locations	# 38
ENV	<b>Yellow</b> - 1) Where does water go? 2) Where are overtopping levees located in system?	Fish loss and up and downstream effects	23, 24 & 24A
LU	<b>Green</b> Overtopping happens! Need to direct flow to reduce damages.	Flow paths and easements needed	
AC			
<b>Measure #11— Raise All Levees</b>			
DD	<b>Red</b> – No 100-year protection for rural areas. Yellow – if less than 100-year protection for rural areas	Policy on level of protection	
ENV	<b>Red</b> – Doesn't meet criteria 1 -3, 4 is maybe.		
LU	<b>Red</b>		
AC			
<b>Measure #12— Setback Levees with Excavation</b>			
DD	<b>Red</b> – Loss of farm land. Yellow- Need to mitigate for loss of farmland and or if ag is allowed in set back area, need to compensate for inability to grow crops which must overwinter. Excavation can't increase risk to levees.	Need design, locations and elevation	
ENV	<b>Yellow</b> – Existing levee / rock armoring needs to be removed with minor excavation as needed to install effective fish habitat features. Needs to restore riverine processes.	Need location and design	23, 24 & 24A
LU	<b>Yellow</b> Excavate where appropriate	Needs additional analysis. Incorporate habitat restoration	
AC			
<b>Measure #13— Setback Levees Entire System</b>			
DD	<b>Red</b> – Doesn't meet criteria 4 and critical infrastructure needs to be protected.	Cost	
ENV	<b>Red</b> – Prefer # 12, existing levee / rock armoring needs to be removed with minor excavation as needed to install effective fish habitat features. Needs to restore riverine processes.		
LU	<b>Yellow</b> Unrealistic due to costs		

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There is no measure 21.

AC

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Flip 6 MIDDLE/LOWER BASIN - Levees			
Committee	Comments (Focused on Criteria)	Missing Info.	Linkage with Other Measures
<b>Measure #6a— Sterling Levee</b>			
DD	<b>Green</b> – Support from DD to combine 6a and 6b. Over-topping weir at Hwy 20. Levee should be realigned to south of Lafayette road. Need to establish use frequency and combined with interior drainage and bay front outfall project.	Flows and frequency of use, topo and overland flow pathway identified	# 38
ENV	<b>Red</b> – As presented. Same as # 4, no new hardened structures allowed along river. Same as # 11, doesn't meet criteria 1 -3, 4 is maybe.		
LU	<b>Red</b>		
AC			
<b>Measure #6b— Sterling Levee</b>			
DD	<b>Green</b> - Same as # 6a.	Same as 6a	# 38
ENV	<b>Green</b> – Preferred alignment for protection of Hwy 20.	Trigger flows	9, 24 & 24A?
LU	<b>Yellow</b> More study needed.	Realign per proposal from City of Burlington (see attached)	
AC			

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There is no measure 21.

Flip 7 MIDDLE/LOWER BASIN - Levees			
Committee	Comments (Focused on Criteria)	Missing Info.	Linkage with Other Measures
<b>Measure #7— Levee Setback below 3-Bridge (Main stem, S. &amp; N. Fork)</b>			
DD	<b>Red</b> – Same as # 13, doesn't meet criteria 4 and critical infrastructure needs to be protected. <b>Yellow</b> – Specific areas could be identified. Need to address loss of farm land and up and downstream impacts	Dike Districts will provide input on locations	
ENV	<b>Yellow</b> - Same as # 13, existing levee / rock armoring needs to be removed with minor excavation as needed to install effective fish habitat features. Needs to restore riverine processes. Preferred over # 10	Design, hydraulic and sediment transport impacts	23, 24 & 24A
LU	<b>Yellow</b> Needs additional analysis regarding levee heights		
AC			
<b>Measure #8— Levee Setback 3-Bridge</b>			
DD	<b>Yellow</b> – Need to address any identified impacts up and downstream.	Impact analysis	Most
ENV	<b>Red</b> – Criteria 4. <b>Yellow</b> – Only when combined with other measures. Same as # 13, existing levee / rock armoring needs to be removed with minor excavation as needed to install effective fish habitat features. Needs to restore riverine processes.	Design, hydraulic and sediment transport impacts	<u>Must be linked to downstream measures.</u>
LU	<b>Yellow</b> Downstream impacts need to be addressed. Should be noted that this project is phased. 1 <sup>st</sup> phase is levee setbacks. 2 <sup>nd</sup> phase will be modifications to bridge(s)		#7 and #10
AC			
<b>Measure #10— Levee Setback below 3-Bridge (Main stem &amp; N. Fork)</b>			
DD	<b>Red</b> – Same as # 13, doesn't meet criteria 4 and critical infrastructure needs to be protected. <b>Yellow</b> – Specific areas could be identified. Need to address loss of farm land and up and downstream impacts		
ENV	<b>Red</b> – # 7 is preferred because functions are restored in S. Fork as well. <b>Yellow</b> - Same as # 13, existing levee / rock armoring needs to be removed with minor excavation as needed to install effective fish habitat features. Needs to restore riverine processes.	Design, hydraulic and sediment transport impacts	23, 24 & 24A
LU	<b>Yellow</b> Needs additional analysis regarding levee heights		
AC			

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There is no measure 21.

Flip 8 MIDDLE/LOWER BASIN - Levees			
Committee	Comments (Focused on Criteria)	Missing Info.	Linkage with Other Measures
<b>Measure #14— Improve Left Bank Levees</b>			
DD	<b>Red</b> - As presented. Doesn't meet criteria. Improving all levees along one side will cause increased hazard on the opposite side. Yellow - if combined with appropriate measures	Location and elevation	
ENV	<b>Red</b> - Same as # 11, doesn't meet criteria 1 -3, 4 is maybe.		
LU	<b>Yellow</b>		
AC			
<b>Measure #15— Improve Right Bank Levees</b>			
DD	<b>Red</b> - As presented. Same as # 14, doesn't meet criteria. Improving all levees along one side will cause increased hazard on the opposite side. Yellow - if combined with appropriate measures	Location and elevation	
ENV	<b>Red</b> - Same as # 11, doesn't meet criteria 1 -3, 4 is maybe.		
LU	<b>Yellow</b>		
AC			
<b>Measure #16— Mount Vernon Floodwall</b>			
DD	<b>Green</b> - Has support of Dike and Drainage District Technical Committee		38
ENV	<b>Red</b> - As presented. Same as # 11, doesn't meet criteria 1 -3, 4 is maybe. <b>Yellow</b> - Same as # 13, existing levee / rock armoring needs to be removed with minor excavation as needed to install effective fish habitat features. Needs to restore riverine processes.	Need MV design	24 & 24A
LU	<b>Green</b> See new design and levee alignment information from Mount Vernon	Need to incorporate City of Mount Vernon info	
AC			

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There is no measure 21.

Flip 9 MIDDLE/LOWER BASIN - Bypass			
Committee	Comments (Focused on Criteria)	Missing Info.	Linkage with Other Measures
<b>Measure #17— Swinomish Bypass</b>			
DD	<b>Yellow</b> – Depends on design. Needs to protect impacted infrastructure. Support for farmed floodway concept.		
ENV	<b>Yellow</b> – Acceptable range of flows (when initiated and how much); design needs to include “significant” restoration	Biggest issues are: fish stocks and sedimentation	Yes
LU	<b>Yellow</b> Bypasses in general were deemed too expensive for the benefits derived		Perhaps necessary if levees are setback upstream
AC			
<b>Measure #18— Fir Island Bypass</b>			
DD	<b>Red</b> – As presented. Support for increasing conveyance in both forks.		
ENV	<b>Yellow</b> – Same as # 17, acceptable range of flows (when initiated and how much); design needs to include “significant” restoration	Biggest issues are: year round flows	Yes
LU	<b>Yellow</b>		
AC			
<b>Measure #19— Samish Bypass</b>			
DD	<b>Red</b> – As presented. Yellow - If frequency is greater than 75 year event and low velocity flows. Design needs to focus on existing low areas and include interior drainage and outfall structure.	Flow, velocity, use frequency, flow pathway	Lower basin measures
ENV	<b>Yellow</b> – Same as # 17, acceptable range of flows (when initiated and how much); design needs to include “significant” restoration	Biggest issues are: fish stocks and sedimentation	Yes
LU	<b>Red</b>		
AC			
<b>Measure #20— Mount Vernon Bypass</b>			
DD	<b>Red</b> – As presented.		
ENV	<b>Yellow</b> – Same as #18, acceptable range of flows (when initiated and how much); design needs to include “significant” restoration	Year round flow impact to low flows	Yes
LU	<b>Red</b>		
AC			

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There is no measure 21.

Flip 10 SPOT ISSUES Ring Dikes			
Committee	Comments (Focused on Criteria)	Missing Info.	Linkage with Other Measures
<b>Measure #28— Sedro-Woolley Ring Dike</b>			
DD	<b>Red</b> – No Picture.	All	
ENV	<b>Red</b> – Same as # 4, no new hardened structures allowed along river. Design should include Hart Slough restoration	All	24 & 24A
LU	<b>Red</b>		
AC			
<b>Measure #29— Sedro-Woolley WWTP Ring Dike</b>			
DD	<b>Green</b> – Get started.		
ENV	<b>Green</b> – design needs to address any habitat issues		24 & 24A
LU	<b>Green</b>		
AC			
<b>Measure #30— Sedro-Woolley Hospital Ring Dike</b>			
DD	<b>Green</b> – Get started. Must have plan in place to evacuate patients. Could increase risk if levee breaks on “pressure” side.		
ENV	<b>Green</b> – same as # 29, design needs to address any habitat issues		24A
LU	<b>Yellow</b>		
AC			
<b>Measure #31— Burlington Ring Dike</b>			
DD	<b>Red</b> – As presented. Yellow – Three sided and combined with interior drainage. Needs to address potential impacts	Design and evaluation of impacts	6a or 6b and 38
ENV	<b>Red</b> - As presented. Same as # 11, doesn't meet criteria 1 -3, 4 is maybe. <b>Yellow</b> - Same as # 13, existing levee / rock armoring needs to be removed with minor excavation as needed to install effective fish habitat features. Needs to restore riverine processes including restoration of Gages Slough.	Need Burlington design	24 & 24A
LU	<b>Red</b> as described <b>Green</b> if redesigned per latest City of Burlington Proposal. Not a ring dike but a 100 year levee certification project. See attached exhibits	City of Burlington proposal	
AC			

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There is no measure 21.

Flip 11  
SPOT ISSUES  
Ring Dikes

Committee	Comments (Focused on Criteria)	Missing Info.	Linkage with Other Measures
<b>Measure #32— North Mount Vernon Ring Dike</b>			
DD	<b>Red</b> – As presented. Yellow – Only if critical infrastructure is protected and existing levees remain. Need to provide existing level of protection.		
ENV	<b>Red</b> - Same as # 11, doesn't meet criteria 1 -3, 4 is maybe. <b>Yellow</b> - Same as # 13, existing levee / rock armoring needs to be removed with minor excavation as needed to install effective fish habitat features. Needs to restore riverine processes.	Design	24 & 24A
LU	<b>Yellow</b> w/modifications	Needs to be modified	
AC			
<b>Measure #33— West Mount Vernon Ring Dike</b>			
DD	<b>Red</b> – As presented.		
ENV	<b>Red</b> - Same as # 11, doesn't meet criteria 1 -3, 4 is maybe. <b>Yellow</b> - Same as # 13, existing levee / rock armoring needs to be removed with minor excavation as needed to install effective fish habitat features. Needs to restore riverine processes and not preclude potential benefits of #20.	Design	24 & 24A
LU	<b>Red</b>		
AC			
<b>Measure #34— East Mount Vernon Ring Dike</b>			
DD	<b>Green</b> – Some concern about impact to DD #3 levees and other infrastructure. Provides localized benefits only. Concerned with potential expansion of Mount Vernon UGA.	Benefit and impacted areas	Yes
ENV	<b>Red</b> - Same as # 11, doesn't meet criteria 1 -3. <b>Yellow</b> - Same as # 13, existing levee / rock armoring needs to be removed with minor excavation as needed to install effective fish habitat features. Needs to restore riverine processes including restoration of Britt Slough.	Design	24 & 24A
LU	<b>Yellow</b> w/modifications		
AC			

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Flip 12 SPOT ISSUES Ring Dikes			
Committee	Comments (Focused on Criteria)	Missing Info.	Linkage with Other Measures
<b>Measure #35— La Conner Ring Dike</b>			
DD	<b>Green</b> – Get started. Localized impacts and benefits.	Design	
ENV	<b>Red</b> - Same as # 11, doesn't meet criteria 1 -3. <b>Yellow</b> - Same as # 13, existing levee / rock armoring needs to be removed with minor excavation as needed to install effective fish habitat features. Needs to restore riverine processes including restoration of Sullivan Slough.	Need LaConner design	24 & 24A
LU	<b>Green</b> Project should be described as “gap filler”		
AC			
<b>Measure #36— Clear Lake Ring Dike</b>			
DD	<b>Green</b> – Localized impacts and benefits.		
ENV	<b>Yellow</b> – needs to include restoration of wetland and slough habitats		24 & 24A
LU	<b>Yellow</b>	Need more information	
AC			
<b>Measure #37— Anacortes WTP Ring Dike</b>			
DD	<b>Green</b> – Get started. Anacortes plant upgrade design includes flood protection for facility.		
ENV	<b>Green</b>	Need Anacortes design	24 & 24A
LU	<b>Green</b> Levee upgrade to 100 year protection already underway	Need update info from Anacortes	
AC			

### New Projects:

#### From Drainage District Technical Committee:

#38 - Need interior drainage projects to handle excess flows.

Comments: Need to identify locations to direct overland flow to discharge via control structures into Samish, Padilla and Skagit bays. Everything needs to be engineered from the bottom to upstream.

#### From Environmental Technical Committee:

Habitat restoration projects in Upper basin tributaries could be evaluated for habitat restoration projects with flood damage reduction potential. Benefits include reduction in sedimentation and LWD (mass wasting) and increased off channel flood water attenuation (storage). Possible locations include Hansen, Coal, Wiseman, Jones creeks etc. Sources of information include the Chinook Recovery Plan and the Skagit Watershed Council strategy document and “Three year list.”

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## From City of Burlington:

- Burlington levee segment certification project
- Clarify the three-bridge corridor project is in phases:
  1. certified setback levee with existing bridges
  2. setting back the bridges (like in 30 years)

## Comments from the City of Mount Vernon about the USACE Skagit GI Measures that have a direct and significant impact on the City of Mount Vernon.

### **Measure 16 – Mount Vernon Floodwall**

Part of the GI Measures slide show mentions four “Potential Disadvantages” to the MV Floodwall.

The City has some level of concern with all four of the potential disadvantages comments.

- ***Does not provide significant flood protection as a standalone project*** – The floodwall will provide significant flood protection to downtown Mount Vernon. The City can show that this is the case with both the ACE GI Hydrology model and the Cities own modeling.
- ***Impacts to commercial structures (i.e. parking)*** – The Downtown and Waterfront Master Plan, which the flood wall is a key part of, calls for the replacement of all parking plus more in the downtown area. A parking structure will be built between the transportation hub and the waterfront. No long term affect on commercial business. The retail business will be replaced and additional upscale residential condos will allow local residents the full enjoyment of the Skagit River.
- ***Restricts public access to the river*** – The City will remove the existing parking revetment which is currently a restriction to public access to the river. The City intends to increase the density of downtown, building on and enhancing existing retail activity along First Street to create a vibrant, attractive and safe waterfront and downtown, with enhanced public access to the shoreline and river, new and improved public amenities, and mixed-use redevelopment that will generate new jobs and create housing that preserves the character of downtown Mount Vernon. It is a place where people come to live, work, and play, enjoying the riverfront promenade, boutique shopping, fine dining, and entertainment of all sorts. Its public spaces are enlivened to include a farmer’s market and live music. People will come for its fairs, festivals, and riverfront setting.
- ***Need to determine if impacts to historic buildings*** – The City has completed the NEPA process and consultation with the tribes. As part of the NEPA process the City has a firm inventory of all the significant buildings within the area of impact. Of all the buildings in the area of impact only one was found to be of historic significance, the Eddy Laughlin building. The City mitigated the impacts of demolishing the building by working with the Skagit County Historical Museum and an architectural salvage company to save those building elements which have some value before we raze the building. The City of Mount Vernon inventoried the historic buildings within the entire downtown area. The City has all of the concerns addressed in a Memorandum of Understanding between the City, Washington State Historic Preservation Officer (SHPO), and the Skagit County Historical Museum.

On an additional note related to the floodwall and Skagit GI hydraulic model. It has come to the City’s attention that the historic sandbag wall is not included in the existing conditions hydraulic model. The City has historically constructed flood protection along Main Street during every major flood event. In addition the City has recently purchased a mobile flood fence and constructed a concrete footing to further assure that the flood fighting operation in downtown Mount Vernon is facilitated. The City’s concern is that if a 4-foot flood or sandbag wall is not included in the existing conditions hydraulic model but the proposed 4-foot Mount Vernon Flood Wall is added to the future conditions (measures) hydraulic model then the

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future conditions model may indicate changes in upstream and/or downstream conditions that, in reality, do not exist.

It is completely understandable that modeling protocols need to be followed. However, the decision makers and public still needs to understand what the actual impacts of the Mount Vernon Flood Wall will be. If the ACE modeling protocols require only permanent structures can be placed within the existing hydraulic model then this should be noted in any report. Any hydraulic report or modeling results associated with the change in conditions related to the floodwall should be fully explained to include the fact that upstream and downstream impacts may be insignificant or none at all due to the fact that the historic City of Mount Vernon sandbag wall was not included in the existing conditions hydraulic model.

## **Measure 20 – Mount Vernon Bypass**

The bypass has some very good advantages and could provide substantial flood protection especially in conjunction with the floodwall.

One concern worth mentioning is low flow design. The City of Mount Vernon is working extremely hard to create a waterfront and downtown environment that enhances the public access to the shoreline and Skagit River. Many of the envisioned uses, like the farmers market, live music, fairs, and riverfront festivals, would take place during the traditional low flow season. The City would like to see a design that keeps the maximum amount of the river's low flows along Mount Vernon's historic downtown waterfront area.

The City appreciates all of the USACE's hard work and dedication. We look forward to an ongoing relationship and future successes.

Take care,

*Blaine Chesterfield*

Engineering Manager

*Program Coordination Division*

Public Works

**City of Mount Vernon**

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