

Random Skagit Notes

1. **Mouth of River.** According to Kunzler, Padilla Bay is where the mouth of the Skagit was 1,750 years ago. He favors the Avon Bypass, therefore.
2. **1975 Flood.** Had 129,200 cfs discharge at Mt. Vernon; recurrence interval of 12 years. Contained within levees, but with extensive flood fight. COE says 10-year flood will be contained within levees (10-year is 132,000 cfs near Sedro Woolley, according to FIS). This flood was used to calibrate most models in FIS.
3. **Levees.** Are 16 diking districts that maintain ~56 miles of levees and ~39 miles of Sea Dikes in Skagit Co.
4. **Flows in Channel and Levees.** FIS estimates that channel will carry 110,000 cfs; 130,000 cfs will be contained by channel and levees (as happened in 1975). Are gaging stations at Concrete, near Sedro and near Mt. Vernon.
5. **Discharge in Q100.** The text says 240,000 was used near Sedro for the discharge distribution (though the Summary of Discharges Table says 229,000 near Sedro. The 240,000 assumes only 110,000 in channel (no levees, because analysis done assuming no levees); of the remaining 130,000, the split shows 86,000 to Padilla/Samish Bays, 44,000 to Skagit Bay.
6. **Channel Elevations.** Elevations for Q100 within the channel were taken from flood profiles of the 1975 flood.
7. **November 1990 Floods.** COE Tables show the November 11 peak at Mt. Vernon was 142,000, which was a 17-year event (previous record was February 1951 flood, with 144,000, also a 17-year flood. But the November 25 peak was 155,000cfs, which was a 40-year event (and is the flood of record).
8. **COE Feasibility Discharges.** They're using 230,000 cfs as Q100 in the "Skagit Valley" (Sedro or MV?). Of that, they say 150,000 will be contained in the channel (as augmented in the 3-bridges and MV areas); 80,000 will be carried by the flood control option (bypass if County preferred option is chosen).
9. **Q for Commissioner D.** What does he know of the talk that the bypass would be used in less than the 25-year event?
10. **Samish re Padilla.** Samish bypass option does not enter Padilla Bay; goes to Samish Bay, instead.
11. **Environmental Question.** Will Padilla Bay receive greater inputs of sediment and freshwater with the bypass than would result in the no-action alternative?

12. **Locke letter.** Any bypass proposal must address land use of the existing floodplain, design features critical for fish habitat and impacts upon stream flow, existing water rights and the Padilla Bay National Estuarine Research Reserve. Need to do EIS.
13. **Ecology \$.** Have provided \$1 million in state funds since 1997 to cover a portion of the match for the COE Feasibility Study.
14. **US F&W.** The Service stresses the importance of continuing to consider overtopping as an alternative until the issue of potential development in the floodplain is resolved. They favor overtopping, and have reservations about the bypass: "If a flood project eliminates flooding of the delta and results in a redesignation of the floodplain, the dampening effect on development that currently exists would be lost."
15. **1995 Flood.** The 1995 flood had a Q of 141,000 cfs @ MV, making it another 17-year event; were 17-year floods in 1975, 1990 (11/25) and 1995. The Q @ Concrete was 160,000 – attenuation.
16. **Use Bypass in <25-Year?** Some may want in order to take pressure off the levees, especially in longer-duration floods. With high, sustained flows, is piping; releases would relieve this. Downside is that more freshwater gets into the Bay.
17. **Nookachamps.** Is reduced flooding there because of the setback levees and extended bridges; passes water d/s more quickly. Will still be flooding in Nookachamps, but will be reduced (not known by how much, tho).
18. **Fish.** The Skagit River has 30% of the remaining Puget Sound wild Chinook salmon.
19. **WR Involvement.** Dan Swenson is who wrote the letter to the Commissioners re the In-Stream Flow Rule and the Bypass (he's Section Manager for WR at NWRO).
20. **COE Sediment Routing Study.** The assessment will calculate how much sediment is carried in floodwaters and how that sediment will be routed over land or through the bypass to Padilla Bay. In addition, rough calculations will be made as to the freshwater input to the bay from both alternatives. This will be factored into the eelgrass assessment. Assumption is that bypass won't result in an increase in sediment or freshwater input to the Bay vs. an uncontrolled levee breach. (\$50,000, 6 months, start ~March)
21. **Summary of Recent Floods:**

Year	Discharge	Frequency
1951	144,000 cfs	17 year
1975	129,000	12
1990 (11/11)	142,000	17
1990 (11/25)	155,000	40
1995	141,000	17

22. **Ecology Concerns.** From the 6/1/01 meeting between Skagit County and DOE, Ecology concerns that were listed were (see also Briefing Notes for Tom Fitzsimmons, May 30, 2001):
 - Potential impacts to Padilla Bay
 - In-Stream flow regulation
 - Post project floodplain development
 - Nookachamps/Sterling
23. **Skagit In-Stream Flow Rule.** Was recently adopted (~early 2001) and is found at Chapter 173-503 of the WAC. Joe Stohr asked AG to review alternatives re impact on the rule and senior water right holders.
24. **Land values.** Are going down, making it less attractive to those who will want fair market value.
25. **History.** Project was suggested in 1922, approved by Congress in 1936 (would be \$1.8 million then, now \$225 million; would pass C/B at \$650 million, according to newspaper article). The revived project in 1962 would cost \$19 million
26. **FEMA Discharges.** Q100 is 229,000 cfs; Q10 is 132,000 (similar to the 1975 flood); Q50 is 200,000, so Q25 would be somewhere around the 150,000 of the COE.
27. **CFHMP.** Phase I was a comprehensive mapping of the Skagit River floodplain along with development of a hydraulic model. Also study alternatives. Phase II is completing detailed design and analysis of the preferred alternative and completing documentation of the Feasibility Report and EIS. Phase III is finalizing the CFHMP and Feasibility Report, together with required environmental studies.
28. **Phases.** First phase was \$350,000 (\$262,500 Ecology). Second phase was \$225,000 Ecology (probably \$300,000 total cost). Phase 3 is \$350,000 Ecology (TPC for Feasibility Study is \$5,334,831). Thus, Ecology has provided \$837,500. Perhaps more (e.g., year-end money). If total local share of Feasibility has been \$1,600,000, Ecology has contributed over half of that. If total cost of Feasibility is \$5,334,831, Ecology can pay no more than \$1,280,359 (25%). If total local share of county is \$4,984,821 (as stated in 2001 Agreement 110), then Ecology has contributed 17% of total local share.
29. **The numbers.** Ask Tim what these numbers mean. Is the \$5,334,831 new costs in this year's program, or is this a summary of all costs through the 3 cycles?
30. **Mapping.** COE says new phase is just starting for mapping that will revise the FIRM. That's not what the Phase III app says – it says this was produced, and that the FIRMs are being revised.
31. **Insurance.** Are presently 4,247 PIF in Skagit Co. for \$547,483,200 coverage (average coverage=\$128,911). Total premium=\$2,164,813, ave = \$444. Would be

higher without CRS. Have been 763 total claims, for \$6,506,287 (average claim is \$8,527). Tho the County has 2% of the State's population, it has 14% of PIF, and 11% of claims. Ranks first in PIF and ~3rd in claims.

32. **1995 flood.** One fourth of all claims were in Skagit. They also had 30-35% of all PA, emergency housing, IFG and SBA loans.
33. **Coverage.** About 38% of all floodplain households in Skagit Co have insurance (so 62% do not have coverage).
34. **Buyouts.** County has had 21% of the State's total buyouts. Involved 69 parcels, costing close to \$5 million (47 were from HMGP).
35. **CRS.** The County is Class 7, Burlington is Class 6, LaConner and Mt. Vernon are Class 8.