



August 14, 2012

TO: Chehalis Flood Authority
FROM: Scott Boettcher
SUBJECT: Remaining Jobs Now Act Funding

At the July 26th Flood Authority call meeting, staff were tasked with developing a report on the projects before the Flood Authority that need further design work and to come up with options for how best to proceed. The following (along with the attached updated Reference / Background document) provides that report for further discussion at the August 16, 2012 Flood Authority meeting.

Part I -- Background:

Section 313 of Engrossed Senate Bill 5127 (<http://apps.leg.wa.gov/documents/billdocs/2011-12/Pdf/Bills/Session%20Laws/Senate/5127.SL.pdf>) provided the following funding categories and amounts to the Flood Authority for consideration beginning July 1, 2012 as part of the State's interest in flood relief and job creation:

- **Category A [\$1,875,000]:** "Repairing and Modifying Levees and Dikes (including but not limited to, airport levee, levees protecting Adna and Bucoda)."
- **Category B [\$2,075,000]:** "Modification of Sickman Ford Bridge and Floodplain Culverts (to open channel, increase conveyance and offer flood relief)."
- **Category C [\$50,000]:** "Installation and Calibration of a Rain Gauge on the Chehalis Reservation."
- **Category D [\$500,000]:** "Construction of Evacuation Routes and Pads (to avoid future livestock losses)."
- **Category E [\$500,000]:** "Improvements to Areas Affected by the Satsop River."

To date the Flood Authority has obligated some of Category A, all of Categories C and D, and none of Categories B and E. Category A obligations are detailed in Exhibit 1.

Exhibit 1				
Category A [\$1,875,000]: "Repairing and Modifying Levees and Dikes (including but not limited to, airport levee, levees protecting Adna and Bucoda)."				
Project	Cost	FA Obligated	Chehalis Tribe Concurred	OFM Approved
1. Airport Levee (Construct - Phase I)	\$ 1,239,829	7/13/2012	8/10/2012	
2. Adna Levee (Construct - Full Project)	\$ 244,145	7/13/2012	7/19/2012	
3. Bucoda (Preliminary Design, Costing)	\$ 42,000	7/26/2012		
Total Obligated-->	\$ 1,525,974			
Total Remaining -->	\$ 349,026			



While the Flood Authority has been able to readily obligate just over \$1.5 million in Category A funds, deciding how best to reasonably and equitably obligate the remaining \$349,026 in the face of the face of excess demand is a key topic for the Flood Authority to decide. Table 1 to this staff report lays out many of the projects before the Flood Authority that could fall into Category A funding. If taken in total, all projects in Table 1 far exceed the remaining \$349,026 available in Category A funds.

Part II -- Projects Before The Flood Authority That Need Further Design Work:

Over the past several weeks, a number of levee and dike projects have been recommended by project proponents for further design funding. At the last Flood Authority meeting, Commissioner Willis asked whether there was a standard definition with which to evaluate project design estimates. The following provides a breakdown of project design and delivery stages based on typical engineering practices:

1. **Need** – This stage involves identifying the problem or issue that needs to be solved or addressed.
2. **Alternatives Analysis** – This stage involves identifying various options and alternative approaches to address the need or issue previously identified. The conclusion of this stage involves the selection of a preferred alternative.
3. **Preliminary Design, Costing**– This stage involves an initial look at the scope, feasibility and cost of the preferred alternative. This stage is valuable in understanding the magnitude and scale of the preferred alternative as well its implementation (construction) costs.
4. **Final Design (PS&E), Permitting**– This stage follows preliminary design and costing with more detailed and refined engineering and cost analysis. This stage typically results in plans, specifications and engineering (PS&E) documentation as well as compliance with applicable regulatory and permitting requirements.
5. **Construction**– This is typically the final stage in a capital project and involves the on-the-ground and most visible aspect of project-delivery. [Note 1: “Construction” can also be “deconstruction” where delivery of the project requires removal of old infrastructure. Note 2: Post construction maintenance and minor repair and retrofit are typically not covered (at least in WA) by capital budget construction accounts.]

In addition to laying out many of the proposed projects before the Flood Authority that could fall into Category A funding, Table 1 places these projects at their correct stage based on the above design-delivery continuum and reports their costs and job creation numbers by stage. By doing so Table 1 should serve as a helpful tool for the flood Authority to consult as it considers how best to utilize remaining Category A funding. Table 2, while related to Category E funding, is provided to broaden the Flood Authority’s discussion as the projects it presents share similarity with several Category A projects, i.e., projects are at the alternatives analysis stage, projects are considering RFP processes, etc. The Flood Authority’s discussions will hopefully be enhanced by review and discussion of Tables 1 and 2 together.



Table 1
Levee/Dike Projects [Project Subcommittee and OFM Report] By Project Design-Delivery Stage

Proposed Project	Need	Alternatives Analysis	Preliminary Design, Costing	Final Design (PS&E), Permitting	Construction
<i>Airport Levee (Construct -- Base Improvement)</i>	✓	✓	✓	FY2013 \$1,239,829 17.2 FTE	
<i>Adna Levee (Construct -- Full Project)</i>	✓	✓	✓	FY2013 \$244,145 3.1 FTE	
<i>Bucoda Levee (Design)</i>	✓	✓	\$42,000 0.3 FTE	FY2014 ~\$*** 0.7 FTE	
Wishkah Road – Kersh	✓	\$100,000 [\$25,000 local hydraulic model] [\$60,000 full hydraulic model] 0.4 FTE Inform 2012 Cap. Budget? -- N	~\$200,000 ~1.0 FTE	FY2014/15 ~\$2,200,000 ~7.9 FTE	
Humptulips Dike Road					
Southside Dike/Levee Certification	✓	✓	\$50,000 0.2 FTE Inform 2012 Cap. Budget? – Y		
Dike Bank of Wishkah North of Highway	✓	✓	\$47,000 0.2 FTE Inform 2012 Cap. Budget? -- Y	FY2014 ~\$235,000 ~0.5 FTE	
Trail/Dike Behind Burger King	✓	✓	\$24,600 0.4 FTE Inform 2012 Cap. Budget? – Y	FY2014 ~\$124,500 ~0.6 FTE	
Market Street Dike	✓	✓	\$113,000 0.4 FTE Inform 2012 Cap. Budget? – Y	FY2014 ~\$564,988 ~1.3 FTE	



[OFM Report] Highway 6 openings and Scheuber Bypass	✓				FY *** ~\$30,000,000 ***FTE
[OFM Report] Mellen Street High Flow Bypass	✓				FY *** ~\$83,000,000 ***FTE
[OFM Report] Centralia Levees on Skookumchuck and downstream on Chehalis	✓				FY *** ~\$68,000,000 ***FTE
[OFM Report] Bucoda Main Street improvements	✓				FY *** ~\$3,700,000 ***FTE
[OFM Report] South Elma Road openings	✓				FY *** ~\$19,000,000 ***FTE
[OFM Report] Porter Creek Road openings	✓				FY *** ~\$23,000,000 ***FTE
[OFM Report] Revetment to Protect Montesano Rd, Sewage Treatment Plant and Mary's River Lumber	✓	\$100,000 [\$20-50,000 refined hydraulic model] 0.4 FTE Inform 2012 Cap. Budget? – N	~\$200,000 ~0.8 FTE	~FY2014/15 ~\$14,000,000 ****FTE	
[OFM Report] Minor Floodwall Improvement, I-5 near Dillenbaugh Creek	✓				FY *** ~\$1,600,000 ***FTE



Table 2
Areas Affected By Satsop River Projects By Project Design-Delivery Stage

Proposed Project	Need	Alternatives Analysis	Preliminary Design, Costing	Final Design (PS&E), Permitting	Construction
Satsop River Floodplain Restoration	✓	\$50,000 [\$15-20,000 HEC-RAS hydraulic model] [\$25,000 2-dimensional hydraulic model] 0.1FTE Inform 2012 Cap. Budget? -- N		~\$80,000 0.3 FTE	FY2014/15 ~\$500,000 2.7 FTE



Part III -- Options For How Best To Proceed:

At present, known demand for Category A funds (i.e., \$494,600) appears to exceed available dollars (i.e., \$349,026) by about 41%. To best and most fairly obligate these remaining dollars, the Flood Authority could consider such next step funding options/approaches as:

- A. Funding All Projects At A Level To Continue Their Advancement** – This option would involve funding two projects at the Alternatives Analysis stage at the \$75,000 level and funding twelve projects at the Preliminary Design, Costing stage at the \$16,500 level for a total cost of \$348,000.
- *Strengths of this approach* – All projects get some funding resource.
 - *Drawbacks of this approach* – Not all projects have known sponsors and may not really be “ready to go.”
- B. Funding A Percentage of Known Next Stage Costs Regardless Of Construction Date** – This option would involve funding projects with known costs at the 70% level for a total cost of \$346,220.
- *Strengths of this approach* – All projects with known costs get some funding resource.
 - *Drawbacks of this approach* – Funding amounts at level less than what has already been identified may be insufficient to really do much.
- C. Funding Strictly For Projects To Make It Into The Governor’s 2012 Capital Budget** – This option would involve funding four projects that could complete the Preliminary Design, Costing stage in time for consideration in the Governor’s 2012 Capital Budget (i.e., October/November 2012) for a total cost of \$234,600.
- *Strengths of this approach* – Clear focus on projects that can most readily be moved forward.
 - *Drawbacks of this approach* – Not all remaining Category A dollars are spent (i.e., \$114,426).
- D. Funding Projects On A Geographic Basis** – This option would involve funding known costs in defined geographic areas. One example option (D1) could be to fund all City of Aberdeen Dike projects and the Revetment to Protect Montesano Rd, Sewage Treatment Plant and Mary’s River Lumber project at the 94% level for a total cost of \$347,424. A second example option (D2) could be to fully fund the Wishkah Road – Kersh, Southside Dike Certification, and Revetment to Protect Montesano Rd, Sewage Treatment Plant and Mary’s River Lumber projects for a total cost of \$310,000.
- *Strengths of this approach* – Focuses on geographic distribution of projects and moves toward basin-wide consideration.
 - *Drawbacks of this approach* – Partial attention to a geographic areas may be insufficient to realize meaningful flood hazard reduction benefits.

Table 3 provides a breakdown of how these options cost out.

In addition, to these next step funding options, other options the Flood Authority could consider to realize cost efficiencies and stretch available dollars further include:

- E. Single RFP** – This option would involve using a single consultant/contractor for the three projects at the Alternatives Analysis stage that are independently seeking consultant/contractor support. These projects are:
- Wishkah Road – Kersh.
 - Revetment to Protect Montesano Rd, Sewage Treatment Plant and Mary’s River Lumber.
 - Satsop River Floodplain Restoration.



- F. One Hydraulic Model Development/Refinement Contract** – This option would involve once contract effort to develop and refine modeling capability needed for the three projects needing new or updated hydraulic models. These projects are:
- Wishkah Road – Kersh.
 - Revetment to Protect Montesano Rd, Sewage Treatment Plant and Mary’s River Lumber.
 - Satsop River Floodplain Restoration.
- G. Seeking Authorization To Reallocate Dollar Amounts Between Categories** – This option would involve seeking authorization to move ESB 5127 funding from one category to another to increase the level of funding resources available in a specified funding category, e.g., the levee/dike category.



**Table 3
Breakdown of Next Step Funding Options**

Proposed Project	A	B	C	D1	D2
1. Wishkah Road – Kersh (with \$25,000 local hydraulic model)	\$ 75,000	\$ 87,500			\$ 125,000
2. Humptulips Dike Road	\$ 16,500				
3. Southside Dike/Levee Certification	\$ 16,500	\$ 35,000	\$ 50,000	\$ 47,000	\$ 50,000
4. Dike Bank of Wishkah North of Highway	\$ 16,500	\$ 32,900	\$ 47,000	\$ 44,180	
5. Trail/Dike Behind Burger King	\$ 16,500	\$ 17,220	\$ 24,600	\$ 23,124	
6. Market Street Dike	\$ 16,500	\$ 79,100	\$ 113,000	\$ 106,220	
7. [OFM Report] Highway 6 openings and Scheuber Bypass	\$ 16,500				
8. [OFM Report] Mellen Street High Flow Bypass	\$ 16,500				
9. [OFM Report] Centralia Levees on Skookumchuck and downstream on Chehalis	\$ 16,500				
10. [OFM Report] Bucoda Main Street improvements	\$ 16,500				
11. [OFM Report] South Elma Road openings	\$ 16,500				
12. [OFM Report] Porter Creek Road openings	\$ 16,500				
13. [OFM Report] Revetment to Protect Montesano Rd, Sewage Treatment Plant and Mary's River Lumber (with \$35,000 refined hydraulic model)	\$ 75,000	\$ 94,500		\$ 126,900	\$ 135,000
14. [OFM Report] Minor Floodwall Improvement, I-5 near Dillenbaugh Creek	\$ 16,500				
Totals →	\$ 348,000	\$ 346,220	\$ 234,600	\$ 347,424	\$ 310,000

Staff Report:

Remaining Jobs Now Act Funding