



US Army Corps
of Engineers®
Seattle District

SKAGIT RIVER FLOOD RISK MANAGEMENT

General Investigation

Economic Benefits and Costs for Comprehensive Urban Levee Improvement Alternative



NED Plan

Damage Reach(es)	Without-project EAD	1.3% ACE (75-year)		1% ACE (100-year)		0.4% ACE (250-year)*	
		EAD (Residual Risk)	Benefits (EAD Reduced)	EAD (Residual Risk)	Benefits (EAD Reduced)	EAD (Residual Risk)	Benefits (EAD Reduced)
Burlington (Reach 1A)	\$14,737,000	\$2,925,000	\$11,812,000	\$1,770,000	\$12,967,000	\$955,000	\$13,782,000
Mount Vernon (Reaches 2A, 4A, and 5A)	3,740,000	837,000	2,904,000	338,000	3,401,000	99,000	3,640,000
La Conner (Reach 7)	872,000	283,000	589,000	134,000	738,000	86,000	786,000
Rural Floodplain (all other reaches)	20,550,000	19,453,000	1,096,000	19,099,000	1,452,000	18,974,000	1,577,000
Total Expected Annual Damages/Benefits	\$39,899,000	\$23,498,000	\$16,401,000	\$21,341,000	\$18,558,000	\$20,114,000	\$19,785,000
Total Investment Cost (Sep 2013 price level)			\$203,226,000		\$215,278,000		\$227,687,000
Total Annual Cost (3.5% discount rate, 50 years)			\$9,565,000		\$10,079,000		\$10,608,000
Net Benefits (Annual Benefits - Annual Costs)			\$6,836,000		\$8,479,000		\$9,177,000
Benefit-Cost Ratio (BCR) (Annual Benefits / Annual Costs, 3.5% discount rate)			1.7		1.8		1.9

**National Economic Development (NED) Plan* = plan that reasonably maximizes net benefits; Federal interest/objective is to contribute to National Economic Development where benefits > costs (i.e. BCR>1.0)

EAD = Expected Annual Damages

ACE = Annual Chance of Exceedance

BCR = Benefit-Cost Ratio