

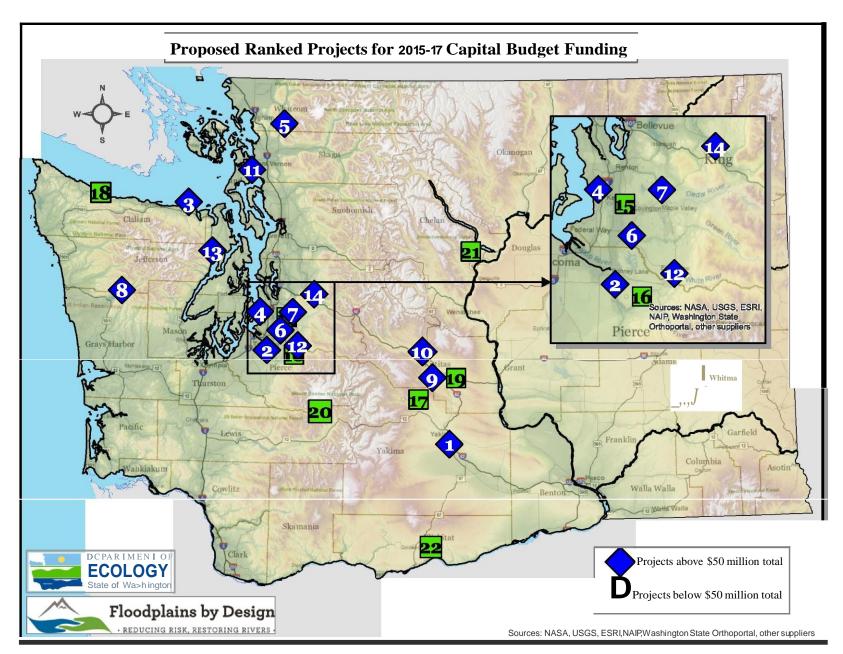


• REDUCING RISK, RESTORING RIVERS •



Work on the Puyallup River

Proposed Ranked List of Projects for 2015-17 Capital Budget Funding







# **Ecology FY 2015-17 Proposed Floodplain by Design Project List**

Rank	Project Description	Grant Request	Local Match	Project Total	Legis Dist.
	Yakima FP Management Program:	•			
	Rambler's Park Phase IV and Trout				
1	Meadows Phase II (Yakima County)	\$2,358,000	\$592,000	\$2,950,000	15
	Puyallup Watershed Floodplain				
2	Reconnections - Tier 1 (Pierce County)	\$10,240,000	\$2,544,250	\$12,784,250	31
	Lower Dungeness River Floodplain				
3	Restoration (Clallam County)	\$9,501,600	\$2,375,400	\$11,877,000	24
	Boeing Levee/Russell Road				
	Improvements & Floodplain Restoration				
4	(King County Flood & Control District)	\$4,900,000	\$24,400,000	\$29,300,000	33
	South Fork Nooksack - Flood, Fish and				
	Farm Conservation (Whatcom Land				
5	Trust)	\$3,216,958	\$811,090	\$4,028,048	42
	Middle Green River/Porter Gateway				
	Protection and Restoration (King				
6	County)	\$3,648,926	\$1,737,373	\$5,386,299	31
	Cedar River Corridor Plan				
7	Implementation (King County)	\$5,000,000	\$3,000,000	\$8,000,000	5
	Sustainable Management of the Upper				
	Quinault River Floodplain (Quinault				
8	Indian Nation)	\$560,000	\$140,000	\$700,000	24
	Manastash Creek Corridor Plan Phase II				
9	(Kittitas County Flood Control District)	\$1,460,000	\$565,680	\$2,025,680	13
	Yakima and Teanaway Reach Scale				
	Flood Hazard Management Plans				
10	(Kittitas County Flood Control District)	\$1,375,000	\$404,000	\$1,779,000	13
	Skagit Delta Farm, Fish & Flood				
	Initiative - Phase 2: Preliminary Design				
	and Feasibility (The Nature				
11	Conservancy)	\$397,075	\$99,275	\$496,350	10
	Boise Creek Habitat Restoration and				
12	Flood Attenuation Project (King County)	\$3,507,894	\$957,000	\$4,464,894	31
	Lower Big Quilcene Preliminary Design:				
	A Community Approach to Restoration				
13	(Jefferson County)	\$908,616	\$227,154	\$1,135,770	24
	Snoqualmie Riverfront Project (City of		4-1	4	
14a	Snoqualmie)	\$1,062,945	\$212,589	\$1,275,534	5





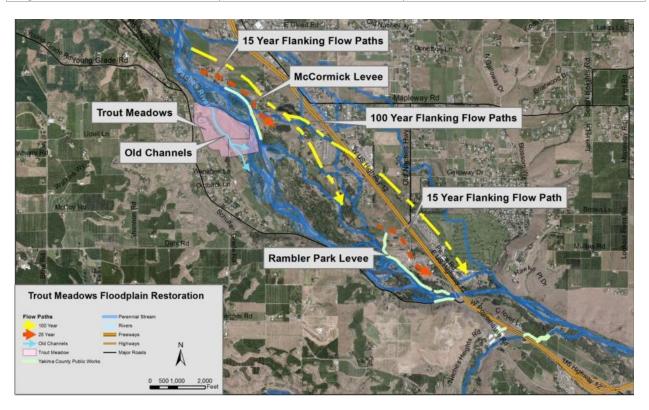
				т	
	FbD Staffing for Grant Management				
	(assumes \$50 million in grants. If				
	appropriation is lower, staffing costs				State-
	will be adjusted proportionately).	\$1,662,986		\$1,662,986	wide
	Cultural Resource Protection to fund				State-
	unanticipated expenses	\$200,000		\$200,000	wide
	Qualified project proposals b	elow \$50,000,0	000 funding line	,	
	Snoqualmie Riverfront Project –				
14b	Remainder of project	\$457,575	\$91,515	\$549,090	5
	Downey Farmstead Restoration (City of				
15	Kent)	\$4,735,940	\$1,183,988	\$5,919,928	33
	Puyallup Watershed Floodplain				
16	Reconnections - Tier 2 (Pierce County)	\$10,600,000	\$2,120,000	\$12,720,000	31
	Yakima River Nine Mile 30 Levee				
17	Removal (Yakima County)	\$480,000	\$120,000	\$600,000	14
	Pysht River Floodplain Restoration and				
18	Flood Reduction (Lower Elwha Tribe)	\$1,830,000	\$442,000	\$2,272,000	24
	Anderson Property - Yakima River Floodplain Restoration (Trout				
19	Unlimited)	\$151,164	\$43,000	\$194,164	13
	Upper Nisqually Community Channel				
	Migration Protection Project (Nisqually				
20	Land Trust)	\$140,000	\$35,000	\$175,000	2,20
	Entiat River Stormy Floodplain				
21	Reconnection Project (Chelan County)	\$500,000	\$590,000	\$1,090,000	12
	Lower Klickitat Floodplain Enhancement				
	Assessment (Central Klickitat				
22	Conservation District)	\$180,000	\$45,000	\$225,000	14





# 1. Yakima Floodplain Management Program: Rambler's Park Phase 4 and Trout Meadows Phase 2

Proponent:	Yakima	County	County:	Yakima	Requested Amount:	\$2,358,000
Legislative Dist	trict:	15	River:	Yakima	Match:	\$592,000



**Primary Objectives:** Flood Risk Reduction; Salmon Habitat Restoration

**Project Summary:** The Rambler's Park and Trout Meadow projects are part of a broadly supported vision and strategy to develop and implement a package of floodplain management projects geared at improved ecosystem function, salmon recovery and increased flood protection for the Yakima River. The work at Rambler's Park will be the final phase of a project aimed at reducing flood risk and restoring fish passage and habitat around Nelson Dam. It will include a new fish-friendly boulder bed overflow channel around Nelson Dam while ensuring two bridges are protected. The Trout Meadows project is also the second and final phase of work to reconnect and restore floodplain habitat while reducing risk to the McCormick Levee which has been breached at low level flows. The project will reduce pressure on McCormick levee, reduce flood heights in the immediate vicinity, and reconnect approximately 60 acres of quality floodplain habitat.





#### 2. Puyallup Watershed Floodplain Reconnections—Tier 1

Proponent:	Pierce County	County:	Pierce	Requested Amount:	\$10,240,000
<b>Legislative Dis</b>	trict: 31	River:	Puyallup	Match:	\$2,544,250

Primary Objectives: Flood Risk Reduction; Salmon Habitat Restoration; Agricultural Viability

**Project Summary:** The Puyallup River Watershed Floodplain Reconnections plan is a broadly supported multiyear strategy that serves as a model for the scale and level of effort necessary to achieve the Floodplains by Design vision. Tier I acquisition and construction projects include: the design and construction of Puyallup River floodplain protection such as engineered log jams or flood fences at Kapowsin Creek; land acquisition for Orville Road Channel Migration Protection in preparation for later phases; land acquisition and structure removal in the Neadham Road flood hazard area in preparation for future levee setback; and land acquisition and structure removal in the Clear Creek/Lower Puyallup River floodplain, in preparation for later phases which will reconnect over 500 acres of floodplain that have been subject to recent flooding – dramatically reducing flood risk while restoring critical tidal marsh habitat.

#### 3. Lower Dungeness River Floodplain Restoration

Proponent:	Clallam Co	ounty <b>Co</b>	unty:	Clallam	Requested Amount:	\$9,501,600
Legislative Dis	trict: 24	4 Riv	ver: D	Dungeness	Match:	\$2,375,400



**Primary Objectives:** Flood Risk Reduction; Salmon Habitat Restoration; Agricultural Viability

Project Summary: This project is a key element of the Dungeness River Management Plan to improve flood protection and ecosystem benefits along the Dungeness River while supporting local farms and other interests. This project would continue implementation of this larger floodplain management strategy, including a levee setback and habitat restoration to reconnect 112 acres of floodplain while reducing downstream flood risk.





# 4. Boeing Levee/Lower Russell Road Improvements and Floodplain Restoration

Proponent:	U	ounty Flood ol District	County:	King	Requested Amount:	\$4,900,000
Legislative Dis	trict:	33	River:	Green	Match:	\$24,400,000

**Primary Objectives:** Flood Risk Reduction; Salmon Habitat Restoration; Water Quality Improvement; Public Access and Open Space

**Project Summary:** This project is focused on meeting the goals of the Lower Green River System Wide Improvement Framework (SWIF). It will raise the existing levee to provide a higher level of protection to existing development and restore floodplain habitat on the right bank of the lower Green River. The project will replace and upgrade the existing levee to provide a higher level of flood risk reduction; restore 60 acres of floodplain; 4,400 feet of riparian buffer (4.6 acres); improve salmon habitat; and improve public access by integrating the new levee, road and reconnected floodplain with existing parks, the Green River Trail and open space.

#### 5. South Fork Nooksack--Flood, Fish, and Farm Conservation Integration

Proponent:	Whato Trust	com Land	County:	Whatcom	Requested Amount:	\$3,216,958
Legislative Dis	trict:	42	River:	Nooksack	Match:	\$811,090

Primary Objectives: Flood Risk Reduction; Salmon Habitat Restoration; Agricultural Viability

**Project Summary**: This project supports coordinated public investment to implement floodplain conservation, flood protection improvements and restoration actions on the South Fork Nooksack River. It includes permanent protection of up to 200 acres of floodplain habitat and 200 acres of farmland; improving salmon habitat through the removal of artificial constraints and restoration of log jams; and pre-construction work for future phases of shoreline armoring removal or setback to reduce flood hazard to Acme and other communities. It includes hydraulic modeling, alternatives analysis and engineering design.

#### 6. Middle Green River/Porter Gateway Protection and Restoration

<b>Proponent:</b> King (	County	County:	King	Requested Amount:	\$3,648,926
<b>Legislative District:</b>	31	River:	Green	Match:	\$1,737,373

Primary Objectives: Flood Risk Reduction; Salmon Habitat Restoration; Agricultural Viability

Ecology Publication #: 14-06-033

**Project Summary:** The project will protect long-term agricultural uses, reducing flood risks to an existing arterial road and adjacent farmland. It will be the culmination of 14 years of restoration projects and consist of removal of the 1400-foot long defunct Porter Levee; reconstruction of a raised gravel berm with placement of log structures to protect arterial road; restoration of floodplain forest; and purchase of development rights on 112 acres of farmland.





#### 7. Cedar River Corridor Plan Implementation

Proponent:	King County	County:	King	Requested Amount:	\$5,000,000
Legislative Dis	trict: 5	River:	Cedar	Match:	\$3,000,000

**Primary Objectives:** Flood Risk Reduction; Salmon Habitat Restoration; Water Quality Improvement; Public Access and Open Space

**Project Summary:** This project advances implementation of the long-term Cedar River Corridor Plan to improve ecosystem functions, flood protection, water quality, recreation and other local interests. The project will reduce flood hazard to Kent, Highway 169 and the associated fiber optic line while improving salmon habitat. Project activities include the development of a final design and permitting package for the contiguous Riverbend, Cavanaugh Pond and Herzman Levee Setback and Restoration projects; preparation work at the Riverbend site for future levee setback; and acquisition of up to 15 key properties that are high priority acquisition targets for subsequent floodplain reconnection projects on the lower Cedar River.

#### 8. Sustainable Management of the Upper Quinault River Floodplain

Proponent:	Quinat Nation	ılt Indian	County:	Jefferson	Requested Amount:	\$560,000
Legislative Dist	rict:	24	River:	Quinault	Match:	\$140,000



**Primary Objectives:** Flood Risk Reduction; Salmon Habitat Restoration; Public Access and Open Space; Agricultural Viability

Project Summary: The project will provide access roads to an economically important part of the Olympic Peninsula. The Upper Quinault River road system provides public access to Olympic National Park, private property and public recreation sites. However, these roads are located in high-risk areas within the channel migration

zone and floodplain of the Upper Quinault River. The road system artificially constrains natural channel migration and floodplain processes. Road washouts and emergency repairs have been a chronic, costly problem for decades. This project will assess the issues and develop a plan to improve public safety, restore fish and wildlife habitat and reduce the annual costs to the National Park Service, counties, and state. Alternative locations for existing roads and alternative access to the area will be assessed.





#### 9. Manastash Creek Corridor Plan Phase II

Proponent: Flood Control 2	Kittitas County Zone District	County:	Kittitas	Requested Am	ount: \$1,460,000
Legislative Dis	trict: 13	River:	Yakima	Match:	\$565,680

**Primary Objectives:** Flood Risk Reduction; Salmon Habitat Restoration;

**Project Summary:** The project will remove existing floodplain structures and ensure permanent protection of critical habitat as identified in the Manastash Creek Corridor Plan. Activities include hydraulic, hydrology & sediment analysis to support implementation of multiple projects identified in the plan; acquisition of three high-risk properties and the purchase of one conservation easement at the confluence of Manastash Creek and the Yakima River; increased public access to the creek; removal of Reed Diversion Dam to improve natural function and habitat conditions.

#### 10. Yakima and Teanaway Reach Scale Flood hazard Management Plans

Proponent:	Kittitas Co Flood Con Zone Distr	trol	Kittitas	Requested Amount:	\$1,375,000
Legislative Dist	rict: 13	River:	Yakima, Teenaway	Match:	\$404,000

**Primary Objectives:** Flood Risk Reduction; Salmon Habitat Restoration

**Project Summary:** Update Kittitas County's Comprehensive Flood Hazard Management Plan by performing smaller assessments within specific areas of the county. The planning process will include landowner and agency involvement in order to develop permit-ready projects when funding becomes available. The Upper Yakima River and Teanaway River (West, Middle and North Forks) have both been previously identified as high priority areas. The project will also analyze protection of the Hanson Ponds, the South Cle Elum Way Bridge and the Teanaway River Bridge.





#### 11. Skagit Delta Farm, Fish, and Flood Initiative—Phase 2

Proponent:	The Na		County:	Skagit	Requested An	nount: \$397,075
Legislative Dis	trict:	10	River:	Skagit	Match:	\$99,275

Primary Objectives: Flood Risk Reduction; Salmon Habitat Restoration; Agricultural Viability

**Project Summary:** A ranked suite of projects meeting fish, flood and farm objectives will be identified, along with outreach to landowners. This project continues previously identified work to identify and assess projects that restore fish habitat, and improve flood protection and agricultural viability in the Skagit Delta. Phase 1 was funded by an EPA Puget Sound National Estuary Program grant. Phase 2 will model the complex freshwater/saltwater system in this area to develop a ranked suite of projects based on their ability to meet the multiple objectives. The project includes outreach to landowners to evaluate, measure and assess the costs and benefits for private property owners to participate in salmon recovery and flood risk reduction projects.

#### 12. Boise Creek Habitat Restoration and Flood Attenuation Project

Proponent:	King County	County:	King	Requested Amount:	\$3,507,894
Legislative Dis	trict: 31	River:	White	Match:	\$957,000

Primary Objectives: Flood Risk Reduction; Salmon Habitat Restoration; Agricultural Viability

**Project Summary:** This project will reduce flooding of agricultural lands, improve salmon habitat by implementing the Boise Creek Restoration Plan (part of Puyallup River floodplains reconnection effort), and increase capacity of the creek through bridge reconstruction and channel restoration, including side channel habitat. Boise Creek is one of the most productive salmon areas in the Puyallup River system and is a key to improving salmon production on the White River. Project includes constructing two new bridges to reduce flood risk and increase sediment conveyance; improved drainage on private land; reduced animal access to the creek; revegetation along the creek; and purchase of development rights to 80 acres of farmland.





#### 13. Lower Big Quilcene Preliminary Design: A Community Approach to Restoration

Proponent:	Jeffer	son County	County:	Jefferson	Requested Amount	:: \$908,616
Legislative Dis	trict:	24	River:	Big	Match:	\$227,154
				Quilcene		



Primary Objectives: Flood Risk Reduction; Salmon Habitat Restoration; Shellfish Viability, Recreational Access, Water Quality Improvement

Project Summary: Develop a preliminary design to achieve integrated floodplain management objectives in the lower reach of the Big Quilcene River by identifying a suite of actions that increase flood protection, improve ecosystem functions and address other community

needs and priorities, including shellfish compatibility, recreational access, education of local students about the natural resources of the river and bay, and economic vitality. The project will acquire 1-3 floodplain parcels in the area at highest risk for flooding, including structure demolition and habitat improvements.

# 14. Snoqualmie Riverfront Project – Phase 1

<b>Proponent:</b> City of Snoqualmie	County:	King	Requested Amount: Funded \$1,062,945 of Funded \$457,575 be	above cutoff (A)
<b>Legislative District:</b> 5	River:	Snoqualmie	Match:	\$304,104

**Primary Objectives:** Flood Risk Reduction; Habitat Restoration; Public Access and Open Space; Economic Vitality

**Project Summary:** This is the first of three phases of the Snoqualmie Riverfront Project, part of a long-standing community effort to address flooding in an area that has the highest number of flood damage claims in Washington State. It will reduce flood risk, improve habitat, create public access and enhance livability and tourism in the city. This phase of implementation includes acquiring 5 high-risk parcels in the designated floodway and removing flood-prone structures; removing invasive plant species and replanting with native vegetation on 2.55 acres; and designing a trail for the south bank of river.

Note: The following projects are below the current proposed funding cutoff line. They may be funded if projects above receive funding from another source or other conditions change.





#### 15. Downey Farmstead Restoration

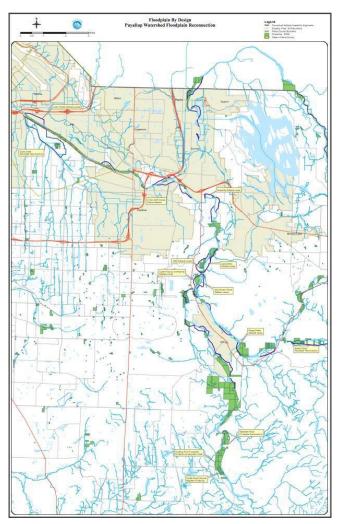
Proponent:	City of Kent	County:	King	Requested Amount:	\$4,735,940
Legislative Dis	trict: 33	River:	Green	Match:	\$1,183,988

Primary Objectives: Flood Risk Reduction; Salmon Habitat Restoration; Water Quality Improvement

**Project Summary:** This project will restore side channel and wetland habitat, move a farm access road away from the river's edge, and create additional flood storage in a frequently flooded area on the Green River. Habitat restoration will improve conditions for salmon. Frager Road will be relocated away from the river's edge, and existing recreational parking will be relocated west of the project site.

#### 16. Puyallup Watershed Floodplain Reconnections Tier 2

Proponent:	Pierce County	County:	Pierce	Requested Amount:	\$10,600,000
<b>Legislative Dist</b>	trict: 31	River:	Puyallup	Match:	\$2,120,000



**Primary Objectives:** Flood Risk Reduction; Salmon Habitat Restoration; Agricultural Viability

**Project Summary:** This project would support the Tier 2 components of the Puyallup River Watershed Floodplain Reconnections plan, including property acquisition and structure removal in preparation for the Horse Haven Creek levee setback project; property acquisition and structure removal in preparation for the Clear Creek floodplain reconnection project; and deconstruction and setback of the Needham Road levee. Additional funds would be applied to further top tier acquisition priorities, additional floodplain reconnection implementation, and implementation of agricultural program efforts such as identifying alternative land use strategies and addressing the long-term impacts of seasonal flooding on agricultural lands.





#### 17. Yakima River Nile Mile 30 Levee Removal

Proponent:	Yakima	a County	County:	Yakima	Requested Amount:	\$480,000
Legislative Dis	trict:	14	River:	Naches	Match:	\$120,000

Primary Objectives: Flood Risk Reduction; Salmon Habitat Restoration

**Project Summary:** This project is part of Yakima County's long-term efforts to reduce flood risks and recurrent flood damages while restoring ecosystem functions and recovering salmon habitat throughout the Naches River corridor. The project focuses on an island in the river, and includes acquisition of 15 acres of high-risk land; removal of 700 feet of levee; opening up and restoration of existing side channels, floodplains, and high priority habitat; and removal or demolition of the structure on island.

#### 18. Pysht River Floodplain Restoration and Flood Reduction

Proponent:	Lower Elwha Klallam Tribe	County:	Clallam	Requested Amount:	\$1,830,000
Legislative Dist	trict: 24	River:	Pysht	Match:	\$442,000

**Primary Objectives:** Flood Risk Reduction; Salmon Habitat Restoration

**Project Summary:** The Pysht River project is a collaboration between the Makah and Lower Elwha Klallam tribes, Washington Department of Transportation, and private citizens who reside along the river to reduce flood hazards to State Highway 112 and nearby houses, and to improve spawning and rearing habitat for native salmon. The project will include reactivating the floodplain by installing engineered log jams, log revetments and flood fencing in a 1.8-mile reach of Pysht River.

#### 19. Anderson Property—Yakima River Floodplain Restoration

Proponent:	Trout Unlimited	County:	Kittitas	<b>Requested Amount:</b>	\$151,164
Legislative Distri	ct: 13	River:	Yakima	Match:	\$43,000

Primary Objectives: Flood Risk Reduction; Salmon Habitat Restoration; Agricultural Viability

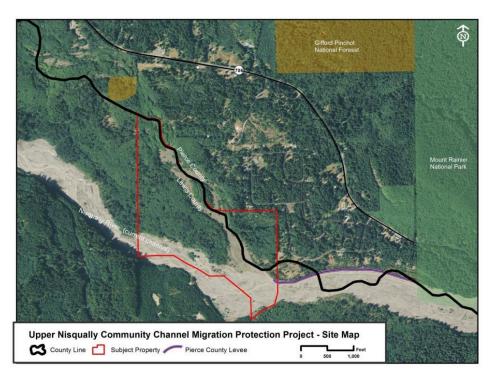
**Project Summary:** This project will develop a suite of actions that will better balance flood protection, ecosystem improvement efforts and agricultural viability in rural Kittitas County. The project will include assessments of reshaping and rebuilding a 3000-foot levee; removing smaller downstream levees and restoring floodplain and historic side channels; floodplain and riparian forest restoration to about 100 acres of cottonwoods; irrigation ditch removal and piping options; and protecting a farm operation.





# 20. Upper Nisqually Community Channel Migration Protection Project

Proponent:	Nisqua Trust	ally Land	County: Lewis	Pierce,	Requested Amount:	\$140,000
Legislative District: 2, 20		River:	Nisqually	Match:	\$35,000	



# Primary Objectives: Flood Risk Reduction; Salmon Habitat Restoration

Project Summary: This project will further decades of work by stakeholders in the Nisqually River system to protect and restore habitat while actively keeping new floodplain structures from being developed in harm's way. Specifically, it will acquire two parcels totaling 130 acres of flood-prone land in the channel migration zone

of the Nisqually River. The acquisition of these parcels may eliminate the need to do future flood protection efforts in Pierce County and bring flood hazard areas in Lewis County into conservation ownership for habitat and flood storage management. The acquisition of this project is also critical to maintaining the flexibility of the channel migration of the Nisqually River, one of the state's most dynamic and scenic rivers.

# 21. Entiat River Stormy Floodplain Reconnection Project

Proponent:	Chelan County	County:	Chelan	Requested Am	nount: \$500,000
Legislative Dis	trict: 12	River:	Entiat	Match:	\$590,000

**Primary Objectives:** Flood Risk Reduction; Salmon Habitat Restoration; Agricultural Viability, Water Quality

**Project Summary:** This project will improve natural channel and floodplain processes and prevent future flood risks to the Entiat River, a Columbia River tributary, through acquisition of development rights, levee and road removal and habitat restoration. The U.S. Bureau of Reclamation and Bonneville Power Administration are currently funding design for this broadly supported, reach-based project. The Chelan-Douglas Land Trust has secured an option and funding to purchase approximately 100 acres of





adjoining floodplain. Specifically, this project will remove part of the existing levee, access road and associated shoreline armoring; replant 12 acres of floodplain area behind the levee; and install engineered log jams to facilitate lateral channel migration.

### 22. Lower Klickitat Floodplain Enhancement Assessment

Proponent:		al Klickitat ervation ct	County:	Klickitat	Requested Amount:	\$180,000
Legislative Dis	trict:	14	River:	Klickitat	Match:	\$45,000

**Primary Objectives:** Flood Risk Reduction; Salmon Habitat Restoration; Water Quality Improvement; Agricultural Viability

**Project Summary:** This basin-wide effort will develop conceptual designs for several projects to reduce flood hazard and improve floodplain habitat and water quality on the Little Klickitat River, a Columbia River tributary. The project will include detailed modeling of hydrologic and hydraulic conditions; landowner outreach and education; and identification of potential floodplain enhancement projects over 16 miles of the Little Klickitat River.





# February 2019 Update

Floodplains by Design received \$35,560,000 in funding from the legislature for the 2015-2017 biennium. This provided funding to 7 projects, in ranked order, with the exception of the South Fork Nooksack – Flood, Fish, and Farm Conservation project.

- 1. Yakima FP Management Program: Rambler's Park Phase IV and Trout Meadows Phase II (\$2,123,000)
- 2. Puyallup Watershed Floodplain Reconnections Tier 1 (\$9,217,000)
- 3. Lower Dungeness River Floodplain Restoration (\$9,501,000)
- 4. Boeing Levee/Russell Road Improvements & Floodplain Restoration (\$5,000,000)
- 5. \*\*\* South Fork Nooksack Flood, Fish and Farm Conservation (\$3,216,958)
- 6. Middle Green River/Porter Gateway Protection and Restoration (\$3,649,000)
- 7. Cedar River Corridor Plan Implementation (\$5,000,000)
- 8. Sustainable Management of the Upper Quinault River Floodplain (\$560,000)

\*\*\* - Whatcom County withdrew the South Fork Nooksack project from funding consideration. This project was not funded.

The Department of Ecology received \$509,000 for Staffing for Grant Management and \$100,000 for Cultural Resources Protection.

As of February 2019, all funded projects are under contract and are actively implementing project elements.