



FLOODPLAINS BY DESIGN – King County Projects

PROGRAM GOALS: Floodplains by Design is a collaborative partnership led by The Nature Conservancy, the Department of Ecology & Puget Sound Partnership. It supports the integration of flood risk reduction and habitat restoration, and brings together everyone with a stake in floodplain management to develop solutions at the scale of each river. Our program focuses on funding projects in Washington State that focus on integrated floodplain management, and will have multiple benefits of flood reduction, ecosystem restoration, agriculture, recreation and clean water.

KING COUNTY PROJECTS: Since 2013, the Floodplains by Design grant program has provided \$30 million spread across seven projects throughout King County. Below is a summary of accomplishments to date.

Lower Cedar River Integrated Floodplain Restoration Phase 2: Mobile Home Buyout/Relocation

Grantee: King County

Grant amount: \$4,103,000

Other funding leveraged: \$743,000

Total project cost: \$4,846,000

Legislative districts: 5, 11

Description: Work with residents of a mobile home park, which is located in the floodplain and channel migration area of the Cedar River, to purchase their mobile homes or recreational vehicles. Once all 129 families are relocated and all mobile homes removed, the County will begin construction work to remove the levee protecting the mobile home park and restore the floodplain.

Planned outcomes:

- Acres reconnected and restored: 40
- Acres acquired: 17
- Feet of levee removed: 1,200

Snoqualmie River at Fall City Floodplain Restoration

Grantee: King County

Grant amount: \$3,328,000

Local contribution: \$4,385,398

Total project cost: \$7,713,398

Legislative district: 5

Description: Restore natural riverine processes of floodplain inundation and channel migration along the Snoqualmie River, as well as promote fisheries habitat. Actions include acquiring easements, restoration project planning and design work, removing an obstructing levee, constructing a setback levee and revetment, and revegetating to reduce flood and erosion risks, protect agriculture, and provide long-lasting improvements to fluvial processes and salmon habitat.

Planned outcomes:

- Acres restored: 105
- Acres acquired: 27
- Acres reconnected: 134
- Feet of levee/revetment removed: 2,800
- Feet of constructed side channel: 2,500

Thornton Creek Confluence Floodplain Restoration

Grantee: City of Seattle Public Utilities

Grant amount: \$1,200,000

Local and county funding leveraged: \$2,722,190

Total project cost: \$3,922,190

Legislative district: 46

Description: Provided floodplain storage to help relieve urban flooding at the location of the City's largest confluence. An undersized culvert often caused the creek to overtop and flood a major arterial road, as well as back up and flood a high school and community center. Replacing this culvert with a bridge reconnected Thornton Creek to its historical floodplain.

Project outcomes:

- Feet of armoring removed: 700
- Feet of stream re-aligned: 730
- Acres of fill excavated: 2
- Acres of floodplain storage: 2
- Acres restored: 2.5

Property Acquisition for the Lower Green River Levee Improvements & Habitat Restoration Project

Grantee: King County Flood Control District

Grant amount: \$4,901,000

Local match: \$1,225,250

Total project cost: \$6,126,250

Legislative districts: 11, 33

Description: Focuses on property acquisition for the larger, comprehensive floodplain project in the Lower Green River Valley between River Miles 17.85 and 19.25 along the right bank.

Planned outcomes:

- Acres acquired: 60
- Easement reserved to enable eventual construction of a levee setback and floodwall, relocation of Van Doren's Park, construction of public access trails, and restoration of aquatic and riparian habitat

Porter Levee/Middle Green River Flood, Habitat, & Farmland Enhancement

Grantee: King County

Grant amount: \$3,649,000

Federal match: \$912,250

Total project cost: \$4,561,250

Legislative district: 31

Description: Restore riverine processes to enhance floodplain ecosystem structure and functions; create a mosaic of floodplain, aquatic, wetland, and riparian habitats; reconstruct aging levee to allow channel migration and improve salmon habitat while protecting existing farmland; and provide agricultural preservation through the purchase of conservation easements adjacent to the project area.

Planned outcomes:

- Acres of farmland development rights acquired: 112
- Acres restored: 10
- Feet of levee removed: 1,550
- Logjams installed: 6
- Deflector jams installed: 5

Cedar River Corridor Plan Early Implementation

Grantee: King County

Grant amount: \$5,000,000

Local match: \$2,000,000

Total project cost: \$7,000,000

Legislative districts: 5, 11

Description: Advance implementation of the Cedar River Corridor Plan to improve ecosystem functions, flood protection, water quality, recreation, and other local interests. Focuses on large-scale floodplain reconnection, including restoration and/or protection of floodplain in three key reaches. Acquire land and design projects to restore channel migration, side channel formation, large wood recruitment, and other floodplain processes.

Planned outcomes:

- Reduced flood hazard to Renton, Highway 169, and associated fiber optic line
- Acquisition of up to 15 key properties
- Final design and permitting package for the contiguous Riverbend, Cavanaugh Pond, and Herzmann Levee Setback and Restoration Projects

Riverbend Reach Construction Phase I

Grantee: King County

Grant amount: \$7,500,000

Local match: \$1,818,750

Total project cost: \$9,318,750

Legislative district: 11

Description: Restore floodplain in the project area for Chinook, coho, steelhead, and wildlife species while reducing flood and channel migration risks. The primary objectives for achieving this are to:

- Partially remove the levee and two revetments in this reach of the Cedar River on the left bank.
- Reconnect the river with its floodplain.
- Restore the structure and function of this riparian habitat and floodplain.
- Provide floodwater conveyance and storage.
- Reduce scour in spawning habitat on the main stem.
- Create better channel rearing habitat for salmonids.

Planned outcomes:

- Acres of habitat created for juvenile salmonids: 9
- Acres restored: 55
- Acres opened to public access: 18.6
- Pieces of large woody debris installed: 213
- Linear feet of levee and revetment removed: 1,400
- Cubic yards of fill excavated: 147,000
- Linear feet of constructed side channel: 6,400
- Flood storage increased by: 40 acre-feet
- Miles of ecosystem functions improved: 1.2
- Base flood elevation lowered by: 2 feet
- Structures removed from floodplain: 3