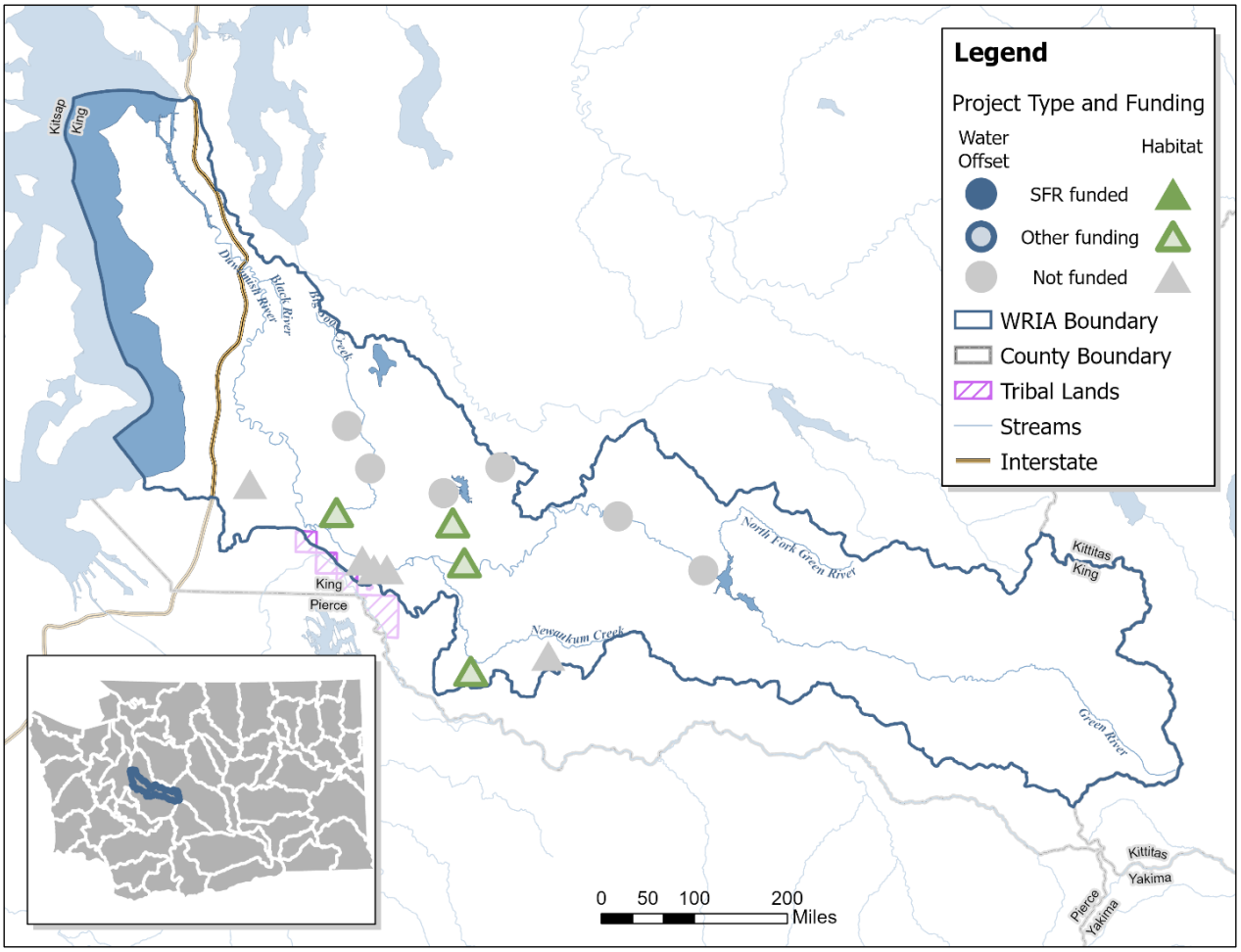
Watershed Plan Implementation Assessment for the Duwamish-Green Watershed

The Washington Department of Ecology adopted the Duwamish-Green Watershed Restoration and Enhancement Plan on May 11, 2021. Plan implementation is ongoing as local entities develop their projects and secure funding. The Duwamish-Green Watershed is also known as Water Resource Inventory Area (WRIA) 9.

This plan implementation assessment provides an update based on the best currently available information:

- Local water offset and habitat projects (as defined in the watershed plan) implemented to offset the consumptive water use impacts from new domestic permit-exempt (PE) and achieve a net ecological benefit.
- Current and projected new domestic PE wells.
- Current estimated and projected consumptive water use impacts from these new wells.

Projects in WRIA 9 (Duwamish-Green Watershed)



Approximate locations of water offset and habitat projects in WRIA 9 from the adopted plan. Projects contribute to the anticipated net ecological benefit and offset the impacts from new PE wells. Projects are funded through either Ecology's Streamflow Restoration (SFR) grant or other funding sources. Basin-wide projects are not shown on the map.

Watershed plan implementation

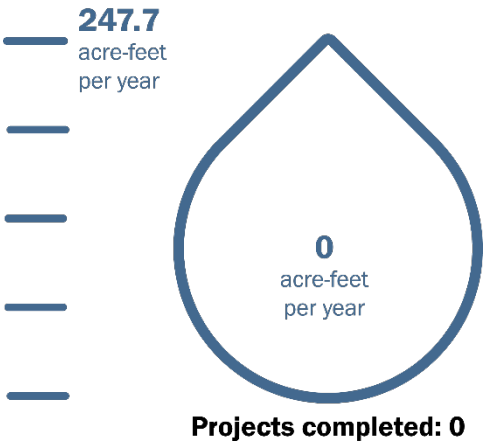
Ecology is using the following parameters to track progress on plan implementation. We will update these parameters in future versions of the publication.

Number of new permit-exempt (PE) wells

Projected (2018 – 2038)	Current (2018 – Sept. 2021)
632 PE wells	24 PE wells

Projected (2018 – 2038)	Calculated (2018 – Sept. 2021)
247.7 acre-feet per year	9.41 acre-feet per year

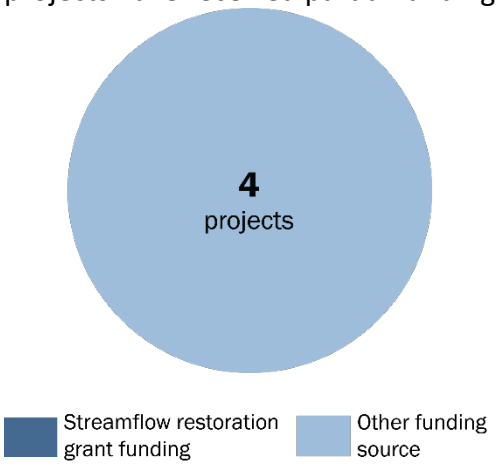
Water offset from plan implementation



Projects completed: 0

Funding sources

Plan implementation is in early stages. Some projects have received partial funding.



Implementation snapshot

- Installation of new permit exempt wells in WRIA 9 (Duwamish-Green Watershed) is proceeding at a slower rate than the local watershed plan projected (78% below the projected rate). Using the plan's assumption of consumptive water use per new PE well, Ecology estimates the consumptive water use impacts from these new wells is likewise proceeding at a slower rate (78% below the projected rate).
- King County, Washington State, and the federal government contributed over $10 million to partially fund four habitat projects. Implementation of water offset projects identified in the plan has not yet been initiated. In 2019 and 2020, Ecology received one application seeking competitive streamflow restoration grant funding for a project in the Duwamish-Green watershed plan. This project did not earn a sufficient score to receive a funding offer.

Project sponsors can update Ecology on the status of project implementation by emailing WRProjects@ecy.wa.gov.

Watershed plan summary

The Duwamish-Green watershed planning committee met from October 2018 to February 2021 to develop a new watershed restoration and enhancement plan that:

- Projected 632 new PE wells from years 2018 to 2038.
- Estimated the impact of these wells on rivers and streams at 247.7 acre-feet per year.
- Identified 6 water offset[1] and 10 habitat projects to provide a net ecological benefit to streamflows.

Projected PE well growth and consumptive water use (years 2018 - 2038)

688
PE wells

247.7
acre-feet per year

Projected streamflow benefits from planned projects

1,075
acre-feet per year

A volume of 247.7 acre-feet is about 122 Olympic-sized swimming pools.

Benefits of plan implementation

Initiates locally led solutions.

Improves rivers and streams for salmon.

Offsets consumptive water use from rural homes.

Streamflow Restoration Law (RCW 90.94)

In January 2018, the Washington State Legislature passed the Streamflow Restoration law (RCW 90.94) to help restore streamflows to levels necessary to support robust, healthy, and sustainable salmon populations while providing water for homes in rural Washington.

Ecology has been actively implementing this law since its passage. Ecology, in coordination with state and local agencies, tribal governments, and non-profit organizations has funded, led, and supported a range of 15 diverse local watershed plans across the state. Ecology, with generous support from the Legislature has also implemented a competitive grant offering to help state and local agencies, tribal governments, and non-profit organizations implement projects in their local watershed plans required by this law.

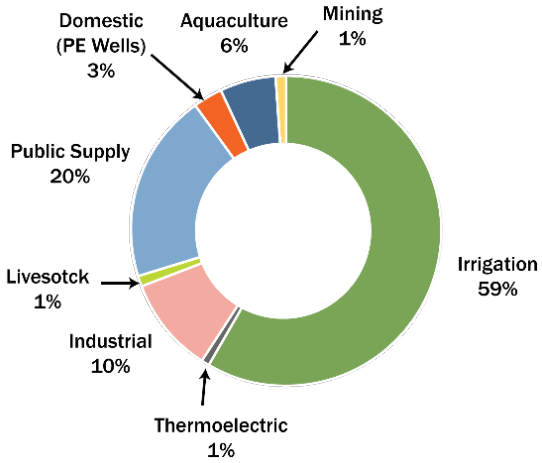
[1] From NEB Guidance (Publication number 19-11-079): Offset is the anticipated ability of a project or action to counterbalance some amount of the new consumptive water use over the next 20 years (2018 – 2038). Offsets need to continue beyond the 20-year period for as long as new well pumping continues.

Consumptive water use in Washington State

Significant resources and collaboration went into statewide and local planning and ongoing local plan implementation to offset water use from domestic permit-exempt (private) wells in Washington State.

Consumptive water use from these wells accounts for about 3% of water use in Washington, a small portion compared with other consumptive water uses.

Consumptive Water Use in Washington State (2015)



Data adapted from U.S. Geological Survey's report on Water Use in Washington (2015).

Webpages

- Streamflow Restoration: ecology.wa.gov/StreamflowRestoration
- Streamflow Restoration Grants: ecology.wa.gov/StreamflowGrants

Publications

- Streamflow Restoration Program Status: Publication number 21-11-016
- WRIA 9 Watershed Restoration and Enhancement Plan: Publication number 21-11-009
- Final Guidance for Determining Net Ecological Benefit: Publication number 19-11-079

Streamflow restoration program
WRProjects@ecy.wa.gov
360-407-6757

To request an ADA accommodation, contact Ecology by phone at 360-407-6872 or email at WRPubs@ecy.wa.gov, or visit https://ecology.wa.gov/accessibility. For Relay Service or TTY call 711 or 877-833-6341