



County Basic Information

Please add in your basic information below regarding the main submitter of this report and the general information from the county's work group approval.

Submitter Full Name

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Report Type

5-Year Report

Report Period Ending Date

March 7, 2026

Date Submitted

3/4/2026



Has the county work group approved the content and submittal of this report?

Yes

County Work Group Approval Date

2/10/2026



Are you using regulatory backstop to protect any critical areas?

Please describe how the regulatory backstop(s) are protecting the applicable critical area(s)

While no regulatory backstops are being used by Walla Walla County to protect critical areas, Walla Walla County is currently in the process of adopting its 2046 Comprehensive Plan Periodic Update and review of the Critical Area Ordinance. The most recent update was adopted in August 2019. In several sections, the consultants have noted that the list of activities exempt from the submission or approval of a critical area report includes more exemptions than other jurisdictions and may "deviate from no net loss policy goals". They suggest the removal of some exempt activities to "ensure exempted activities minimize impact to critical areas and align with no net loss principles". Some of these activities include agricultural practices such as the application of agricultural chemicals for new agricultural land uses. Other changes include refining Best Available Science (BAS) language and updating references to State agency guidance documents and resources.

Please refer to the attachment "2026 Periodic Comprehensive Plan Update Memorandum" attached in the Agricultural Viability section for specific details pertaining to suggested changes to the Walla Walla County Critical Area Ordinance.

Did the watershed work group assert that the work plan's PROTECTION goals and benchmarks have been met during the past reporting period (e.g. 5 years)?

Protection Goals Met

Yes

Did the watershed work group assert that the work plan's ENHANCEMENT goals and benchmarks have been met during the past reporting period (e.g. 5 years)?

Enhancement Goals Met

Yes

Summary Overview

Provide a summary of the major agricultural industries and examples of the primary conservation practices used in the watershed(s) to support agricultural viability.

Walla Walla County is located in southeastern Washington, bordered on the southern boundary by Oregon and situated between the Blue Mountains and the Snake and Columbia Rivers. Annual rainfall ranges from 8 inches in the western corner to 44 inches in the foothills of the Blue Mountains. Dryland wheat dominates the landscape in the north and central portions of the county, while hay, irrigated alfalfa seed, vineyards, orchards, and row crops can be found in western and southern portions. The majority of the County is in the Walla Walla River basin, and all flows ultimately contribute to the Columbia River.

According to the Port of Walla Walla, in 2023 the agricultural industry provided 12.5% of total employment in Walla Walla County (4th highest industry in the county). If you consider that many manufacturing jobs are also agricultural related, this percent could be as high as 26% of total employment (Port of Walla Walla, 2025). Approximately 713,416 acres are considered farmland in the county. About 579,774 of these acres are cropland and another 94,312 acres are pastureland. Of these acres about 12% (88,624 acres) are irrigated (USDA, 2022). According to the most recent Census of Agriculture released in February 2024 for the year 2022, the majority of cropland in Walla Walla County was growing wheat for grain (219,473 acres), vegetables (21,778 acres), hay (14,860 acres), field and grass seed crops such as alfalfa seed (13,467 acres), and potatoes (12,682 acres) (USDA, 2022). Walla Walla is known for its dryland wheat production, the Walla Walla Sweet Onion, numerous vineyards, hay, community supported agriculture, and the native Alkali bee which pollinates alfalfa seed, as well as other pulse crops.

In Walla Walla County, the Natural Resource Conservation Service (NRCS) and the Walla Walla County Conservation District (WWCCD) work to sustain agricultural viability by providing producers with technical assistance and financial support to implement conservation practices tailored to local resource needs. Economic barriers often limit producers' ability to address key challenges such as pest management, soil health, and limited water availability. Through programs like the Environmental Quality Incentives Program (EQIP) and the Conservation Stewardship Program (CSP), NRCS assists producers in adopting conservation practices including Pest Management Conservation Systems (595), Nutrient Management (590), Residue and Tillage Management, Reduced Till (345), and Conservation Crop Rotation (328).

WWCCD complements these efforts by focusing on irrigation efficiency, water monitoring, fish protection, and riparian enhancement. In a region characterized by low precipitation and over-

allocated water sources, irrigation efficiency upgrades are essential to maintaining sustainable agricultural production. However, the cost of modernizing irrigation systems can be prohibitive for many producers. To address this, WWCCD prioritizes funding and technical support for installing efficient irrigation systems that help conserve water and improve operational control.

WWCCD also assists producers in maintaining and replacing flow meters, which are critical for monitoring water use and ensuring compliance with state reporting requirements. Because flow meters are prone to damage and costly to replace, the district provides cost-share opportunities to reduce the financial burden. Similarly, WWCCD offers support for the installation and replacement of fish screens on surface diversions to prevent accidental fish mortality and avoid potential penalties associated with the Endangered Species Act (ESA)-listed species.

Riparian buffer establishment is another key conservation practice promoted in the county. These vegetative buffers help reduce sediment, nutrient, and pesticide runoff into nearby waterways, supporting both water quality and wildlife habitat. Some producers require technical or financial assistance to implement or maintain buffers to meet pesticide management standards or remain enrolled in the Conservation Reserve Enhancement Program (CREP), administered by the Farm Service Agency (FSA). Through these combined efforts, NRCS and WWCCD help Walla Walla County producers adopt effective conservation practices that protect critical resources while supporting the long-term sustainability of local agriculture.

Provide a summary of the major natural resource concerns and critical area protection and enhancement practices present in the watershed(s).

Walla Walla County includes two watersheds, WRIA 32 (Walla Walla) and WRIA 33 (Lower Snake), and five critical areas subject to VSP: Fish and Wildlife Habitat, Wetlands, Frequently Flooded Areas, Critical Aquifer Recharge Areas, and Geologically Hazardous Areas. Most agricultural lands and critical areas occur in WRIA 32, making it the primary focus of many VSP efforts.

Historically, the county's landscape was dominated by grasslands and shrub-steppe. The Umatilla, Walla Walla, and Cayuse Tribes were the first recorded people in the region, though major changes in the natural landscape can be attributed to Missionary settlements that established in the 1830s and converted land to agriculture. Today, the county's diverse landscape ranging from the Blue Mountain foothills to riparian corridors, supports a variety of fish and wildlife species. The area is home to ESA-listed Mid-Columbia summer steelhead and bull trout, and Washington Species of Greatest Conservation Need (SGCN) the ferruginous hawk. The Blue Mountain foothills provide key habitat for mule deer and elk, while a mosaic of CRP and riparian zones throughout the county supports migratory birds and other upland species. In recent years, fish passage and streamflow restoration have become central priorities, including the Confederated Tribes of the Umatilla Indian Reservation's efforts to reintroduce Spring Chinook salmon. For consistency with the Work Plan, this report will refer to aquatic organism passage as fish passage. However, Walla Walla County VSP acknowledges this term is not all inclusive. The VSP Work Group focuses on riparian monitoring, habitat restoration, fish passage improvements, and protection of Ferruginous Hawk and mule deer habitat.

Wetlands provide critical ecosystem functions including flood mitigation, water quality improvement, and wildlife habitat. In Walla Walla County, wetlands occur along major rivers and streams within WRIA 32, while WRIA 33 contains few due to limited surface water and altered hydrology from Snake River dams. Farming and development have left few streams and wetlands undisturbed, while the largest and highest quality wetlands are publicly managed, such as those in the McNary Wildlife Refuge. Wetland mapping accuracy has been a significant challenge; National Wetlands Inventory (NWI) data often misidentifies wetland boundaries or places them

within active river channels. To protect and enhance wetland functions and values, the VSP Work Group prioritizes improved mapping accuracy, restoration, and riparian buffer establishment.

With over 400 miles of waterways, large areas of Walla Walla County are mapped as frequently flooded, especially in WRIA 32. Flooding supports groundwater recharge, sediment movement, and habitat creation. In contrast, WRIA 33 experiences limited flooding due to dams and channelized flows. While floodplain reconnection can improve resilience, project costs and permitting often exceed VSP resources. Current efforts emphasize community education, flood planning, and maintaining riparian vegetation to reduce erosion.

The shallow aquifer in the Walla Walla Watershed, extending into Oregon, is closely connected to surface water and is essential for residents, agriculture, and summer streamflow. Ongoing U.S. Geological Survey studies are improving understanding of groundwater and surface water interactions. The VSP Work Group has identified aquifer recharge, pollution prevention, and efficient water use as practices of highest priority.

The county receives strong winds blowing out of the Columbia River Gorge, and annual rainfall ranges from 8 to 44 inches per year. These conditions contribute to extensive Geologically Hazardous Areas; more than 90% of the county is susceptible to wind and water erosion, with additional risks of landslides, steep-slope failure, and liquefaction along waterways. Many of these areas overlap with agriculture and conservation lands that also provide wildlife habitat. To mitigate these threats, the VSP Work Group aims to maintain vegetative cover where applicable, track irrigation efficiency improvements, and support conservation practices such as reduced/no till and cover cropping.

Together, these efforts reflect Walla Walla County's collaborative approach to sustaining working lands and ecological resilience through habitat connectivity, water quality protection, floodplain health, aquifer sustainability, and erosion control.

If desired, attach an image to support your summary. (Optional)

If desired, attach another image to support your summary. (Optional)



Please provide a summary of any VSP cost-share projects implemented in this 5 year period using

Capital Funding.

In this five-year period, VSP Capital Funding was used to implement 35 individual Best Management Practices (BMPs) through VSP cost-share projects and 2 DIP projects in Walla Walla County, totaling \$289,961.86. In Walla Walla County, VSP cost share projects are typically funded 85% by VSP and 15% by the participant. Over \$320,000 was invested in VSP projects through VSP Capital Funding and participants in Walla Walla County between March 7, 2021, and March 7, 2026.

In this period, VSP Capital Funding contributed \$114,200.25 to 10 Riparian Buffer (NRCS BMP 391) projects in Walla Walla County. Average buffer width of these projects was about 94 ft. In total, the projects protected 5,970 ft of streams (one side measured) and planted 3,420 woody plants over 11.66 acres. VSP Capital Funding also contributed \$113,043.11 to 16 Pumping Plant (NRCS BMP 533) projects that total 14 flow meter* replacements and 2 pump system* replacements. VSP Capital Funding contributed \$22,184 to 7 Aquatic Organism Passage (NRCS BMP 396) projects. These projects replaced 7 fish screens* for surface irrigators to protect ESA listed fish species over a total of 3.03 miles. VSP Capital funding also contributed \$33,500 to 2 DIP projects implementing Critical Area Plantings (NRCS BMP 342) over 40 acres* of burned riparian and wildlife habitat areas. Early in the five-year period, VSP Capital funding contributed \$2,807 to one 700 ft long Fence (NRCS BMP 382) project that protected 700 ft of stream, split 2.3 acres, and enclosed 0.56 acres. Lastly, VSP Capital funding contributed \$1,227.5 to 1 Upland Wildlife Habitat (NRCS BMP 645) project that consisted of seeding 1.75 acres with native species for wildlife forage.

Additionally, VSP Supplemental FY23 Funding contributed \$54,667.92 to 4 projects. For one project this funding contributed \$45,789.42 to implement 40 acres of Tree/Shrub Establishment (NRCS BMP 612), and \$6,456 for 40 acres of Herbaceous Weed Treatment (NRCS BMP 315). Another \$2,422.5 contributed to 2 Aquatic Organism Passage (NRCS BMP 396) projects that implemented 2 fish screen replacements to protect 0.11 miles of stream.

*Capital funds were awarded towards several projects from July-December 2025 in Walla Walla County. To capture total funding used towards implementation, these projects are included in the above narrative. However, it is important to note that not all of these projects have been completed. At the time of submission the projects still in progress include 2 flow meters, 2 pump replacements, 1 fish screen, and ~40 acres of Critical Area Plantings. Please refer to Attachment K: BMP Implementation, sheet 2, for more information on BMPs implemented using VSP Capital funds.

Please provide a summary of any VSP cost-share projects implemented in this 5 year period using Operating Funding.

In this five-year period, VSP Operating Funding was used to implement 4 individual BMPs through VSP cost-share projects in Walla Walla County, totaling \$11,103.98. In Walla Walla County, VSP cost share projects are typically funded 85% by VSP and 15% by the participant. Over \$13,063.51 was invested in VSP projects through VSP Operating Funding and participants in Walla Walla County between March 7, 2021, and March 7, 2026.

The Walla Walla County VSP Work Group recognizes the need to help producers and irrigators replace fish screens and flow meters for surface water irrigation diversions, as they are easily damaged and can be costly to replace. Over this 5-year period, projects funded by VSP Operating funds were used for 4 of these projects. VSP Operating Funding contributed \$5,100 to 1 Aquatic Organism Passage (NRCS BMP 396) project to replace 1 fish screen for a surface irrigation diversion and protect ESA listed fish species over 1.8 stream miles. VSP Operating Funding contributed \$6,003.98 for Pumping Plant (NRCS BMP 533) projects that replaced 3 flow meters in total.

Please refer to Attachment K: BMP Implementation, sheet 2, for more information on BMPs implemented using VSP Operating funds.

Goals Results

Below you will find all of your goals from your work plan. For each goal, indicate the type of goal, if the goal has been met, and a brief explanation. If you have goals that are not from your work plan, you can add those under Adaptive Management.

Goal Name:

Reduce landslide potential on rangeland

For the above goal, choose the applicable WRIAs:

For the above goal, choose the applicable goal type:

For the above goal, was the goal met?

Met

Need Adaptive Management?

Yes

For the above goal, provide a brief text explanation supporting whether the goal was or was not met:

Please refer to Adaptive Management.

Goal Name:

Reduce agricultural pollutants

For the above goal, choose the applicable WRIAs:

For the above goal, choose the applicable goal type:

For the above goal, was the goal met?

Met

Need Adaptive Management?

Yes

For the above goal, provide a brief text explanation supporting whether the goal was or was not met:

Please refer to Adaptive Management

Goal Name:

Protect critical areas from soil loss

For the above goal, choose the applicable WRIAs:

For the above goal, choose the applicable goal type:

For the above goal, was the goal met?

Met

Need Adaptive Management?

Yes

For the above goal, provide a brief text explanation supporting whether the goal was or was not met:

Please refer to Adaptive Management.

Goal Name:

No net loss of wetlands

For the above goal, choose the applicable WRIAs:

For the above goal, choose the applicable goal type:

For the above goal, was the goal met?

Met

Need Adaptive Management?

Yes

For the above goal, provide a brief text explanation supporting whether the goal was or was not met:

Please refer to Adaptive Management.

Goal Name:

Maintain existing 2011 wildlife habitat

For the above goal, choose the applicable WRIAs:

For the above goal, choose the applicable goal type:

For the above goal, was the goal met?

Met

Need Adaptive Management?

Yes

For the above goal, provide a brief text explanation supporting whether the goal was or was not met:

Please refer to Adaptive Management

Goal Name:

Limit aquifer level decline related to agricultural use

For the above goal, choose the applicable WRIAs:

For the above goal, choose the applicable goal type:

For the above goal, was the goal met?

Met

Need Adaptive Management?

Yes

For the above goal, provide a brief text explanation supporting whether the goal was or was not met:

Please refer to Adaptive Management.

Goal Name:

Increase flood event resilience

For the above goal, choose the applicable WRIAs:

For the above goal, choose the applicable goal type:

For the above goal, was the goal met?

Met

Need Adaptive Management?

Yes

For the above goal, provide a brief text explanation supporting whether the goal was or was not met:

Please refer to Adaptive Management

Goal Name:

Increase awareness of Liquefaction potential

For the above goal, choose the applicable WRIAs:

For the above goal, choose the applicable goal type:

For the above goal, was the goal met?

Met

Need Adaptive Management?

Yes

For the above goal, provide a brief text explanation supporting whether the goal was or was not met:

Please refer to Adaptive Management

Goal Name:

Increase awareness of critical areas (benefits & hazards)

For the above goal, choose the applicable WRIAs:

For the above goal, choose the applicable goal type:

For the above goal, was the goal met?

Met

Need Adaptive Management?

Yes

For the above goal, provide a brief text explanation supporting whether the goal was or was not met:

Please refer to Adaptive Management.

Benchmarks Results

Below you will be asked to give details on your benchmarks. Choose one benchmark at a time to provide information for each benchmark. For each benchmark, you can choose multiple goals, if multiple apply. For each benchmark, you can add multiple accomplishments, if it applies. For each accomplishment, you can choose multiple critical areas and WRIAs, if applicable.

Note: Any protection or enhancement Benchmark results are recommended to have at least 1 Accomplishment added.

Choose the applicable benchmark you'll be submitting your entry for:

Choose the applicable goals for the Benchmark:

Indicate the applicable benchmark types:

Was the benchmark met?

More data required

Need Adaptive Management?

Yes

What is the 2011 baseline for this entry?

Clearly identify how the reported implementation efforts contribute to meeting this goal and benchmark, and how the activities protect or enhance critical area functions and values.

Please refer to Adaptive Management for all Benchmarks.

(NOT REQUIRED) If your work plan notes accomplishments, click on 'Add Accomplishment' to add them to this benchmark. If you don't have any accomplishments for this benchmark, scroll past the next box to answer more benchmark questions.

Provide a brief text explanation supporting whether the benchmark was or was not met. (To share adaptive management activities, please share in the Adaptive Management section.)

Did you use monitoring data to evaluate this benchmark?

Yes

If yes, what monitoring tools or approaches did you use?

How does the monitoring data support whether your benchmark has been met?

Describe the attachments you are attaching that supports your Goals and Benchmarks results:

Attach any supporting documents for your Goals and Benchmarks results:

No attachments

Critical Area Losses (REQUIRED)

Did the monitoring data identify any critical area losses?

No

If yes, please provide WHAT critical area loss happened:

If yes, please provide WHY the critical area loss happened:

Is this a Protection loss or an Enhancement loss?

Select the WRIAs that were impacted by this loss:

Select the Critical Areas of this loss:

Please write in the functions or values monitored that found this loss:

Please identify how your implementation efforts have offset the reported losses:

Critical Area Monitoring (OPTIONAL)

Please describe the monitoring approach (e.g. Aerial imagery, NAIP) that you used:

The following monitoring approach is referred to as the Vegetation Change Analysis.

This monitoring approach was used to monitor the critical areas "Geologically Hazardous Areas: Wind and Water Erosion," and "Fish and Wildlife Habitat (in part)" by utilizing NAIP, aerial imagery, Sentinel-2 multispectral satellite imagery, and ground-truthing to measure change in vegetative land cover. Spatial analysis was performed with Sentinel-2 satellite imagery through a 'random forest' classifier algorithm. Mapping tasks were performed with NAIP, Aerial Imagery, and ground-truthing. Mapping tasks were also used in concert with spatial analysis tasks. Vegetative cover was classified on an annual timeline (2016-2023), where each year's multispectral data was combined into a single spectral median, calculated from a collection of "late summer" images on roughly a 5 day return interval between August 15th and October 1st of each year. "Late summer" is a locally dry period which allows for clearer delineation of vegetative cover with less cloud cover interference. This particular approach is being used for the first time in the 2025 report, yet annual landcover maps were generated for a range of 8 years (2016 through 2023). Sentinel-2 multispectral data was available at a 10-meter spatial resolution at the county/watershed scale. Please refer to the attached Summary of Vegetation Change Analysis for details on the approach and results.

Please enter how many years this particular monitoring approach has been in use/used:

2

Choose the goals that were monitored using your approach above:

Choose the benchmarks that were monitored using your approach above:

Choose the applicable critical areas monitored with this approach:

Fish and Wildlife Habitat Conservation Areas, Geologically Hazardous Areas,

Choose the applicable WRIs monitored with this approach:

32-Walla Walla, 33-Lower Snake,

Which monitoring support is this related to?

Benchmark-related / BMP-related, Watershed-related / Critical area functions,

Please explain your monitoring results from this approach:

These monitoring results relate to several goals, benchmarks, and critical areas. These results monitor vegetative cover at the county and watershed scale to determine if the benchmark "no decrease in vegetative cover on agricultural land" is met for the GHA: Wind and Water Erosion goal "Protect critical areas from soil loss." This monitoring tool is also used to analyze vegetation in riparian areas that intersect with agricultural activity per the Fish and Wildlife Habitat goal "protect riparian habitat" and benchmark "no decrease in riparian buffers."

The monitoring results of the spatial analysis on Sentinel-2 multispectral satellite imagery show no significantly detectable change at the county scale in vegetative cover for Walla Walla County as a whole or in agricultural areas in either watershed between the 2016-2019 and 2020-2023 change analyses. This is because any changes were much smaller than the measurement error, which is about 10% at the county scale.

Though some vegetation changes were visible on annual maps – such as in wildfire or flooding events – these changes were small at the county scale and not persistent across multiple years. Most changes were less than 1% of total county land cover and cannot be reasonably separated from "noise" or uncertainty in the classifier model. Further, change in a single year may be due to crop rotation schedules, intermittent disturbances, seasonal cycles, or weather events.

Under the critical area "Geologically Hazardous Areas: Wind and Water Erosion," these results directly relate to the work plan goal: "protect critical areas from soil loss." The specific metrics of total acres per landcover change type – such as about 73,000 acres of persistent 'green' vegetation – and how those results change over time are both necessary to monitor the ongoing maintenance and increase of vegetative cover in Walla Walla County. These metrics are best interpreted in the sections "Walla Walla County, unincorporated" and "Agricultural areas." The results section covering the entire county is useful for understanding these goals, since according to the critical area maps used in preparing the 2017 Walla Walla County Voluntary Stewardship Work Plan, most of the county is covered in erodible areas: there are 780,670 acres wind-susceptible and 753,553 acres water-susceptible of moderate to very high susceptibility, about 94% and 90% of total county acres (~831,360), respectively. The results section covering agricultural areas is also useful for understanding these goals, since many agricultural practices can lead to soil erosion across both WRIA 32 and 33.

Under the critical area "Fish and Wildlife Habitat" these results relate to the work plan goal "Protect riparian habitat." The results section "Riparian buffers, adjacent to agricultural areas" is most useful for interpreting this goal, since the acres of vegetative cover and how the acres change over time can be used to approximate large decreases in total acres in buffer across the county, and especially those areas most affected by agricultural practices.

According to the Walla Walla County Comprehensive Plan Update 2007 and 2009 (Stalzer and Associates et al., 2007), wildlife habitat in Walla Walla County is "dictated primarily by vegetation condition and the occurrence and proportion of vegetation types" and "is of relatively high quality in the upper reaches of the main rivers and tributaries."

Though this monitoring practice is useful for approximating broad vegetation condition in riparian buffers, it

is more valuable for county-level change detection than for these dynamic systems with a relatively small proportion of total county land cover (about 1%) and where ecosystem-relevant changes occur regularly at spatial scales finer than the best multispectral coverage (10x10 meters, or about 32x32 feet). Also, the Random Forest Classifier model was optimized to minimize error across the full county distribution of vegetative cover, and as a result, accuracy metrics are not directly transferable to small subsections. Since riparian areas are dynamic and heterogeneous, these results are best interpreted for their pattern direction and relative change, instead of precise quantification into acres. Further, the current remote sensing approach is limited by the spatial resolution of contemporary multispectral satellites. More insightful results will be possible as finer-resolution spectral data becomes publicly available.

Please describe the monitoring approach (e.g. Aerial imagery, NAIP) that you used:

The following monitoring approach is referred to as the Fish Passage Barrier Assessment.

This monitoring approach is for the goal "enhance fish passage via barriers" for the Fish and Wildlife Habitat critical area. The monitoring strategy for this goal is to assess 10 "unknown" fish passage barriers in Walla Walla County every two years.

Washington Department of Fish and Wildlife (WDFW) has a Fish Passage Barrier database for the state of Washington. In 2023, the local lead entity in Walla Walla County, the Snake River Salmon Recovery Board (SRSRB), processed that data and prioritized barriers in the county based on waterway and steelhead use. However, there are many fish passage barriers mapped that lack data in the prioritization, including an assessment, to determine whether they are actually barriers or not.

Staff randomly selected over 80 barriers mapped on the SRSRB Barrier Prioritization map that lacked data. WWCCD staff conducted several rounds of outreach, and in total were able to survey 21 culverts. For the assessment, WWCCD staff used WDFW's Level A protocol for fish passage barrier assessments for culverts. Information and methods for a Level A assessment can be found on the WDFW Fish Passage Barrier Prioritization webpage (WDFW, 2025) in the Fish Passage Inventory, Assessment, and Prioritization Manual (Barrett & Zweifel, 2019). After the assessments, WWCCD staff processed the data and submitted them to WDFW for barrier status determination. The data were uploaded to the WDFW Fish Passage Diversion, Screening, and Inventory database (FPDSI) and can be explored on the public WDFW Fish Passage Map.

Please refer to the attached Fish Passage Barrier Assessments document for more details on the approach, results, and an example of the Level A Field Form.

Please enter how many years this particular monitoring approach has been in use/used:

2

Choose the goals that were monitored using your approach above:

Choose the benchmarks that were monitored using your approach above:

Choose the applicable critical areas monitored with this approach:

Fish and Wildlife Habitat Conservation Areas,

Choose the applicable WRIs monitored with this approach:

32-Walla Walla,

Which monitoring support is this related to?

Benchmark-related / BMP-related, Watershed-related / Critical area functions,

Please explain your monitoring results from this approach:

WWCCD staff performed assessments in Spring 2024 and 2025. In total, 21 culverts were assessed in WRIA 32 within Walla Walla County. Of these sites, 5 were determined to be barriers, 2 non-barriers, and 14 remain

unknown. Culverts were determined to be barriers due to slope (2), water surface drop (2), and debris (1). All sites that remain "unknown" require a Level B assessment. A Level B assessment requires more training, time, and staff than WWCCD currently has access to. If funding and timing allow in the future, WWCCD will prioritize these areas for Level B assessments.

These results support Walla Walla County VSP efforts to better understand fish aquatic habitat and passage conditions for the goal "enhance fish passage via barriers" and the benchmark "no net increase in fish barriers".

Agricultural Viability

Please describe agricultural viability challenges or successes in your county:

The Walla Walla County VSP Work Group defined Agriculture Viability as "the ability of farmers and ranchers to maintain an economically successful agricultural business, keep the land in agriculture long-term, and sustain the land so it will remain productive into the future". VSP partners help maintain agricultural viability in the county by acting as a liaison between regulatory agencies and providing financial and technical assistance for implementing practices and projects.

Prior to the adoption of VSP, Walla Walla County experienced a decline in acres actively farmed and average farm size, while the number of farms increased. The Walla Walla County VSP Work Plan (2017) noted concerns about segmentation of farms to smaller parcels. Since 2012, these trends have switched. While the USDA Ag Census (2022) reveals a consistent decline in number of farms since the census in 2012, land in farms has increased. In 2012 there were 645,121 acres in farmland. According to the 2022 census, this has increased to 713,416 acres in farmland. The average farm size has also increased from 684 acres to 798 acres. The market value of products sold has also steadily increased since 2012. In 2022, market value of products sold was \$778,562,000 which is a 48% increase from 2017. Market value of products sold in 2017 was \$526,236,000 which was a 20% increase from 2012. However, there are some concerns that despite the increase in market sales, increases in input costs has outweighed crop values. This makes it difficult for producers to maintain production operations and makes it especially difficult to afford equipment upgrades. Walla Walla County VSP aims to mitigate these difficulties by providing technical and funding assistance for eligible equipment upgrades such as flow meters, fish screens, and variable frequency drives.

During the County Comprehensive Plan Update, Walla Walla County and their consultants are considering make some changes to agricultural zoning. See the attachment Ag Zoning Update Memo for more information (page 2). These changes are not intended to limit agricultural activity, but make land use more flexible.

Please choose your applicable Agricultural Viability goals from the dropdown menu:

Please choose your applicable Agricultural Viability benchmarks from the dropdown menu:

Describe any practices or actions taken to address the above goal(s):

At this time, the Walla Walla County VSP Work Plan does not include specific Agricultural Viability goals or benchmarks. However, the Walla Walla County VSP supports agricultural viability by addressing the key concerns identified in the Agricultural Viability section of the Work Plan (page 19). During this five-year period, the program has focused on the following challenges:

- Limited community understanding of agriculture (see outreach sections, and Attachment J: Outreach)
- Water scarcity, over-allocated water resources, and declining groundwater tables (see goals related to irrigation efficiency and flow meters)

Increasing herbicide and insecticide resistance in weeds and insects (NRCS BMPs 590 and 595)

While agricultural viability faces many obstacles, the Work Plan emphasizes implementing projects and practices that provide dual benefits; protecting and enhancing critical areas while also supporting viable

agricultural operations. These efforts include a suite of crop-specific farming practices designed to address multiple agricultural concerns, such as water, nutrient, pest, and residue management. Projects that prioritize systematic, integrated approaches are expected to provide the greatest benefits to both critical areas and long-term agricultural viability.

Partners in Walla Walla County are also contributing to Agricultural Viability. The Blue Mountain Land Trust (BMLT) has worked to protect lands and waters in the Blue Mountain region for people, agriculture, and wildlife for over 25 years (Blue Mountain Land Trust, Our Story). Before 2011, BMLT had protected about 230 acres of agricultural land through permanent conservation easements. Since 2011, they have protected an additional 831 acres of agricultural land resulting in a cumulative total of 1,060 acres in conservation easements. During the 2023-2025 biennium, they acquired one new conservation easement which consisted of 16.3 acres of agricultural land, 0.3 stream miles, and 5.2 acres of riparian/wetland area (A. Addressi, personal communication, March 28, 2025). In 2025, BMLT also purchased an 11.53-acre farm with long term plans to protect it from encroaching development, ensuring the farm's long-term viability (Martinez Neumann, 2025).

The Walla Walla County Conservation District staff receive notices of permit applications including SEPA, Critical Area Permits, Shoreline, and Subdevelopment. Some may be related to infrastructure improvements and others to development of barren land. Conservation District staff review these applications as it pertains to agriculture and critical areas and respond if relevant to VSP efforts. Twenty applications were reviewed in the 2023-2025 biennium. Staff provided comments with respect to VSP and critical areas on five of those applications. Staff have also attended information sessions and reviewed documents and contributed to the development on the FEMA Risk MAP (2022 to 2029) update process (FEMA, 2023), the Walla Walla County Community Wildfire Protection Plan update (Community Wildfire Protection Plan Steering Committee, 2023), and the Multi-jurisdictional Hazard Mitigation Plan update (Walla Walla County Emergency Management Department, 2024) process. A few contentious topics in these discussions include development on and adjacent to streams/waterways and converting agricultural land to residential lots. These issues will not be resolved through VSP, but staff continue to support the protection of critical areas and viability of agriculture in these discussions. Conservation District staff also participate in various committees (Blue Mountain Trust Advisory Committee, WWCC Ag and Natural Resources Advisory Committee, City of Walla Walla Water and Wastewater Advisory Committee, Walla Walla Basin Advisory Committee, etc.) as it pertains to agriculture and critical area protection.

Please describe outreach activities conducted:

Over the past 5 years, WWCCD has enhanced VSP outreach and Technical Assistance to boost landowner participation and promote the adoption of best stewardship practices. Please refer to Attachment J: Outreach for details on all outreach events. In total, Walla Walla County VSP reached 2,240 participants for outreach specific to Agricultural viability, and over 16,500 participants through all VSP related outreach.

Each year, the Walla Walla County Conservation District hosts an annual meeting bringing together local agricultural producers and partners. The meeting is free and offers pesticide recertification credits for both Oregon and Washington, as well as technical assistance from partners and researchers.

WWCCD purchased a small-scale direct seed drill/planter, called the Dew Drop Drill, in 2024 for landowners to rent for projects. The Dew Drop Drill has been rented five times and used to seed 12.5 acres conservation cover (NRCS BMP 327).

As part of the Walla Walla Watershed 2050 Strategy, WWCCD staff collaborated with staff from the Walla Walla Basin Watershed Council (WWBWC) to host educational community events about waters in the Walla Walla Basin. Between fall 2024 and spring 2025 staff hosted six Water & Wine events. Guest speakers from partner agencies shared on topics such as forest health and watershed resilience, aquifer storage and recovery, tribal practices, regenerative agriculture in vineyards, and more. In 2025, staff hosted four Pub Trivia with topics related to watershed functions and local watershed facts. In total, 230 people attended these events.

WWCCD staff hosted four Farmer mini sessions in 2025 for producers to hear from USDA: NRCS, USDA: FSA, WSU Extension, the Walla Walla County Noxious Weed Control Board and WWCCD. Discussion included a

wide range of topics related to conservation and agriculture including programs, funding opportunities, upcoming events, and evolving requirements. In total, 30 people attended these events.

What, if any, BMPs did you implement to address these goal(s) and/or benchmark(s)?

All BMPs implemented through Walla Walla County VSP are intended to benefit agricultural viability in some manner. In this five-year period, VSP has funded and implemented several irrigation improvement projects to support agricultural viability and several critical areas. Irrigation projects include flow meter replacements, fish screen replacements, pump replacements, and variable frequency drives. These equipment projects can be costly for an irrigator but are vital for efficient use of water and time. VSP has also funded several riparian planting projects that help improve runoff filtration and sediment loading from agricultural fields. Installing riparian areas protect critical areas while helping producers stay within CREP regulations and/or meeting pesticide application requirements. See Attachment K for more information on BMPs implemented with VSP funding and BMPs implemented through NRCS.

Describe the attachments you are attaching that supports your Agricultural Viability results:

Attachment: 2026 Periodic Comprehensive Plan Update Memorandum
- proposed updates to the Walla Walla County Comprehensive Plan, as provided by consultants working on the plan update. This attachment was referenced in the county info section, but was unable to be attached in that section.

Attachment: Ag Zoning Update Memo
- Memorandum provided by county consultants working on the Walla Walla County Comprehensive Plan, which details some proposed zoning changes for agricultural lands. See small section on page 2.

Attach any supporting documents for your Agricultural Viability results:

- Attachment_2026PeriodicComprehensivePlanUpdateMemorandum.pdf
- Attachment_AgZoningUpdateMemo.pdf

Landowner Participation

Provide a summary of approaches being used in landowner outreach and technical assistance:

Each goal includes an outreach strategy which summarizes relevant outreach information, please also refer to Attachment J for details on outreach events. For information on how Walla Walla County VSP originally determined participation goals and baselines, please refer to Section 5.2 Participation Benchmarks of the Walla Walla County VSP Work Plan.

Prior to 2025, WWCCD sent out physical newsletters to community members on a quarterly basis. To send out more frequent newsletters, WWCCD has recently transitioned to sending monthly digital newsletters that provide information on available programs, a highlighted BMP, and much more.

The Walla Walla County VSP Work Group approved using operating funds to contract a specialist to create an interactive map that will help the program showcase conservation success in the county (2025). This initiative will begin in early/mid 2026. The VSP technical lead, WWCCD, has also recently signed on as a Navigator for the Saving Tomorrow's Agricultural Resources (STAR) program. When producers sign up to use the STAR platform, they will have direct contact information to Technical Assistance providers and the VSP coordinator for Walla Walla County.

Number of outreach activities (e.g., newsletter articles, direct mailings, radio ads, tabling events, producer meetings):

143

Are agricultural producers participating in voluntary and incentive-based measures at a level sufficient to meet the county's goals and benchmarks?

Yes

Adaptive Management

Below you can enter your Adaptive Management Goals and Benchmarks that are NOT already in your work plan.

Note: Any protection or enhancement Benchmark results are recommended to have at least 1 Accomplishment added.

Please enter your new goal (not already in your work plan):

Protect Riparian Habitat

Please enter your new benchmark (not already in your work plan):

No decrease in riparian buffers

Indicate if this is a Protection or Enhancement Benchmark:

Protection

Clearly identify how the reported implementation efforts contribute to meeting this goal and benchmark:

The riparian areas in Walla Walla County provide important habitat for wildlife and have the highest biodiversity of any of the habitat areas identified under the county's Fish and Wildlife Critical Areas. These riparian areas provide habitat functions and values for aquatic species such as ESA-listed bull trout and Mid-Columbia Summer Steelhead, and terrestrial species such as Peregrine falcon, blue grouse, great blue heron, elk, and mule deer (HDR, Inc. 2008). For aquatic species, specifically salmonid species, riparian areas provide many functions including cover and temperature moderation (shade), bank and channel stability, filtering of pollutants, supply of large woody debris (LWD) which trap organic and inorganic matter and providing food and nutrients (HDR, Inc. 2008), as well as creating channel complexity and pool formation for cold water refugia. For terrestrial species, riparian areas provide habitat functions including habitat connectivity (daily movements, seasonal migration, dispersal of young), breeding habitat, and food and water (Formon and Godron, 1986; Noss, 1993; Thomas, 1979; as cited in HDR, Inc. 2008). In fact, "approximately 85% of Washington's terrestrial vertebrate species use riparian habitat for essential life activities and the density of wildlife in riparian areas is comparatively high" (Knutson & Naef, 1997).

From March 7th, 2021, to December 2025, the Walla Walla County Conservation District (WWCCD), Farm Service Agency (FSA), the non-profit Kooskooskie Commons and Tri- State Steelheaders, the local fisheries enhancement group implemented numerous restoration projects to protect and enhance riparian functions and values. Many more riparian projects are planned or ongoing but will not be complete by the report submission date. In Walla Walla County, riparian restoration projects occur along the Walla Walla River and its tributaries, all of which are in WRIA 32. The Snake River is the only major stream or river in WRIA 33 and is scarcely bordered by agriculture.

When the Walla Walla County VSP Work Plan was adopted, many acres in Walla Walla County were enrolled in CREP, which accounts for most of the known riparian acres listed as the baseline for 2011. CREP contracts are active for 10-15 years, with opportunities for landowners to re-enroll. While landowners are not required by VSP or FSA to uphold riparian buffers after their contract expires, the goal of CREP contracts is to create long-lasting and successful riparian buffers to mitigate resource concerns posed by agricultural areas. Riparian areas that expire or are withdrawn from the CREP program do not necessarily result in a loss of

protected riparian buffers. In nearly all cases, the areas that have been removed from contract in Walla Walla County are left undisturbed by landowners and continue to provide the habitat benefits outlined above. To better understand and monitor the true extent of riparian areas regardless of enrollment status with a specific program, WWCCD also conducts remote sensing analysis using data from 2016-2023. For more information, refer to the Vegetation Change Analysis in the monitoring section. Because riparian areas along the Snake River rarely intersect with agricultural areas (almost entirely bordered by roads or railroads), this analysis only pertains to WRIA 32. Only about 120 acres of riparian areas intersect with agriculture in WRIA 33, monitoring these areas would be too identifiable for private landowners.

(NOT REQUIRED) If your work plan notes accomplishments, click on 'Add Accomplishment' to add them to this benchmark. If you don't have any accomplishments for this benchmark, scroll past the next box to answer more benchmark questions.

Benchmark: No decrease in riparian buffers

Critical Areas:

Fish and Wildlife Habitat,

WRIAs:

32-Walla Walla,

Strategy:

This goal has an implementation strategy to “design and install riparian restoration projects, when funding allows”. WWCCD implements numerous riparian restoration projects through the SCC Riparian Grant Program (RGP), VSP, and as part of larger instream restoration projects funded by various sources including the Snake River Salmon Recovery Board, and the Department of Ecology Water Quality, Floodplains by Design, and Office of Columbia River. WWCCD also reaches out to local partners to inquire about their riparian restoration efforts. Furthermore, part of the implementation strategy is to “offset any riparian losses with BMPs”, applicable NRCS BMP metrics can be found in Attachment K.

Accomplishment:

At the time this report was written, over 30 riparian projects were actively being installed or maintained by WWCCD, but metrics were not included because they are yet to be completed. Between March 2021-June 2021, it is possible that riparian projects were completed, but to avoid accidentally including projects reported in the previous 5-year report only projects completed in the 2021-2023 and 2023-2025 state biennia are included. During the 2021-2023 biennium, WWCCD planted approximately 15,568 stems on 66.61 acres. An additional 40 acres and 12,129 stems were planted in the Pikes Peak Reforestation project, but some stems were planted in upland areas, so metrics were not included in the overall count. During the 2023-2025 biennium, WWCCD planted 14,167 stems over 55.7 acres. Of this, 440 stems (approximately 1.5 acres) were planted during maintenance on existing buffers. Not including maintenance, WWCCD planted 13,727 stems on 54.2 acres. From July 2021 to June 2025 WWCCD planted approximately 29,295 stems over 120.81 acres (not including maintenance projects in 2023-2025).

From March 7th, 2021, to March 7th, 2026, Tri-State Steelheaders implemented at least 2 projects that included riparian restoration efforts. In total these projects planted about 6.1 acres along 0.23 stream miles. Tri-State Steelheaders also leads the Whitman student Stream Team, a volunteer group of college students that restore riparian areas by removing invasive species such as Himalayan blackberry and planting native species, when their funding allows. From 2021-2025, the group has removed invasive species over approximately 4 acres and planted native species over 2 acres for two projects in 2024-2025.

From March 7th, 2021, to March 7th, 2026, the Blue Mountain Land Trust (BMLT) also acquired about 37.2 riparian/wetland acres along 1.43 stream miles in permanent conservation easements. Prior to 2011, BMLT protected 2.18 stream miles and 51.4 riparian/wetland acres. Since 2000, BMLT has permanently protected 5.9 stream miles and 130.6 riparian/wetland acres (A. Addressi, personal communication, March 28, 2025).

In total, these organizations planted over 29,295 stems and protected/enhanced over 164 acres. Many, if not most, of these projects are directly adjacent to agricultural properties, but it is important to note that riparian areas can mitigate water quality even downstream of agricultural activity. Walla Walla County is about 1,270 square miles of land, or about 812,800 acres. About 88%, 713,416 acres of this area is in farmland (USDA, 2022). Thus, all riparian restoration projects contribute to protecting the functions and values of fish and wildlife habitat provided by riparian areas.

Below, provide your targets and results for your benchmark. Targets are what you were aiming to achieve when you started. Results are what you actually achieved.

Target Metric Number

0

Target Metric Unit

acres

Target Metric Item

riparian areas restored

Result Metric Number

168

Result Metric Unit

acres

Result Metric Item

riparian areas restored

Choose applicable NRCS BMP

Riparian Forest Buffer (391);

If NRCS BMP not found, please enter your BMP in box:

Accomplishment Status

Exceeded

Benchmark: No decrease in riparian buffers

Critical Areas:

Fish and Wildlife Habitat,

WRIAs:

32-Walla Walla,

Strategy:

Although, as previously stated, CREP enrollment rates do not adequately depict riparian areas in Walla Walla County, Walla Walla County VSP tracks acres enrolled in CREP as part of understanding current riparian habitat. The original baseline of 3,174 acres was nearly entirely CREP, with another 239.8 acres planted between 2011-2016. As of 2015, the work plan states that ~3,000 acres were enrolled in ~140 CREP contracts.

Accomplishment:

Due to the state CREP audit, accurate acreage counts of cropland enrolled in CREP has been difficult to acquire. Local FSA and NRCS partners most recently shared that in October 2023, 2,500.71 acres were under active CREP contracts in the county, and as of December 2025, partners there were 496.42 acres were enrolled in CREP. However, it is unlikely that riparian acres enrolled in CREP in 2023 have been notably disturbed.

While CREP enrollment is helpful to understand where riparian acres may exist, many factors determine enrollment rates and participants are not required to reenroll after their contract expires. For this reason, the target metric below is zero though CREP acres help mitigate any potential riparian acre losses.

Below, provide your targets and results for your benchmark. Targets are what you were aiming to achieve when you started. Results are what you actually achieved.

Target Metric Number

0

Target Metric Unit

acres

Target Metric Item

CREP enrollment

Result Metric Number

496.2

Result Metric Unit

acres

Result Metric Item

CREP enrollment

Choose applicable NRCS BMP

Riparian Forest Buffer (391);

If NRCS BMP not found, please enter your BMP in box:

Accomplishment Status

Exceeded

Benchmark: No decrease in riparian buffers

Critical Areas:

Fish and Wildlife Habitat,

WRIAs:

32-Walla Walla, 33-Lower Snake,

Strategy:

This goal and benchmark include an outreach strategy to educate 30 people every 2 years on the importance of riparian habitat. WWCCD keeps records of outreach and education events in internal documents to track the number of individuals being reached. When possible, WWCCD also reaches out to partner agencies to track relevant outreach participation. For more information refer to Attachment J: Outreach.

Accomplishment:

Community members in Walla Walla County learn about the importance of riparian habitat and restoration through a variety of outreach efforts. Large community events, including the annual Return to the River celebration, create opportunities for natural resource agencies and organizations to share information about water quality, fish habitat, and riparian habitat. Attendance at this event has varied in recent years, with approximately 1,500 participants in 2022, 1,000 in 2024, and 700 in 2025.

Smaller, topic-focused events hosted by the WWCCD and partners also help engage the public. In 2023, 14 people attended a Conservation Conversations speaker event on two prominent fish-bearing streams in the county. Another 30 participants attended a WWCCD–CTUIR Water and Wine speaker event focused on fish habitat, which included conversation about riparian areas. Two Riparian and Soil Health speaker sessions were also held in 2023 and reached 13 participants.

The local fisheries enhancement group, Tri-State Steelheaders, has led the Salmon in Schools program since 2015. Each year, about 1,700 students learn about the life cycle of native fish species and the role riparian habitat plays. Tri-State Steelheaders also coordinates the Whitman University Stream Team, a group of college students that learn about riparian restoration before heading out to work on projects in the county. Stream Team events in 2022 had 8 attendees, 16 in 2023, 18 in 2024, and 70 in 2025.

WWCCD also hosts riparian planting volunteer events when possible. Attendees totaled 19 in 2022, 20 in 2023, and 33 in 2024.

Across the five-year period, outreach efforts reached at least 12,611 participants. The metrics below represent totals combined across all five years. The goal is to reach 30 people every 2 years, so for 5 years the target metric is 75 people.

Below, provide your targets and results for your benchmark. Targets are what you were aiming to achieve when you started. Results are what you actually achieved.

Target Metric Number

75

Target Metric Unit

number

Target Metric Item

individuals reached about riparian habitat

Result Metric Number

12611

Result Metric Unit

number

Result Metric Item

individuals reached about riparian habitat

Choose applicable NRCS BMP

If NRCS BMP not found, please enter your BMP in box:

Outreach

Accomplishment Status

Exceeded

Provide a brief text explanation supporting whether the benchmark was or was not met:

More data is required to determine if this benchmark was or was not met. The 2011 baseline was primarily determined by acres enrolled in CREP. However, recent challenges and declines in CREP enrollment have made this an unreliable way to monitor riparian acres. The Walla Walla County VSP work group continues to monitor riparian acres by different means, but more data is required to determine an accurate 2011 baseline and consistent monitoring tools.

How does the monitoring data support whether you have met or not met this benchmark?

This goal includes a monitoring strategy to measure stream buffers using a combination of contracted acres of CREP, aerial imagery, and field surveys. The Walla Walla County VSP technical lead, WWCCD, utilizes the Vegetation Change Analysis to survey changes in riparian habitat.

From the Vegetation Change Analysis, WWCCD has determined that between 2016-2019 and 2020-2023, there were nearly no net county-scale changes (

Unfortunately, very little data is available for years prior to 2016, making it impossible to determine an accurate 2011 baseline with this monitoring tool. More data is required to determine if there has been no net change since 2011.

Benchmark Status:

More data required

What is the 2011 baseline for this entry?

The baseline for this goal is derived from the original Walla Walla County VSP work plan. The Work Plan identifies the baseline as 3,174 acres of riparian buffers planted, nearly all of which were contracted acres in CREP. Data for baseline conditions may have also been obtained from WWCCD, WDFW, Tri-State Steelheaders, Blue Mountain Land Trust, Walla Walla Watershed Management Partnership, Walla Walla Basin Watershed Council, and the Snake River Salmon Recovery Board (and Habitat Work Schedule data system, now referred to as the Salmon Recovery Portal).

Did you use monitoring data to evaluate this benchmark?

Yes

If yes, what monitoring tools or approaches did you use?

Vegetation Change Analysis

Please enter your new goal (not already in your work plan):

Protect Fish Passage Via Diversions

Please enter your new benchmark (not already in your work plan):

No net increase in unscreened diversions

Indicate if this is a Protection or Enhancement Benchmark:

Protection

Clearly identify how the reported implementation efforts contribute to meeting this goal and benchmark:

This goal seeks to protect fish passage in Walla Walla County, specifically in areas within WRIA 32. This goal is designed to protect functions and values of the critical area Fish and Wildlife Habitat. As defined by the Walla Walla County Critical Areas Ordinance Best Available Science Review (2008), instream habitat functions to be protected include flow, water temperature, confinement, sediment, supply of LWD, and pools. However, for many aquatic organisms, the value of these functions is partially determined by the accessibility of the reach. For example, a spawning or migration reach with high quality habitat exhibiting each of the above functions is of little value to anadromous fish who cannot access the habitat due to obstructions and unscreened diversions in downstream reaches. In this sense, agricultural producers operating irrigation systems have a direct impact on the value of instream habitat. To improve habitat conditions, it is recommended to screen all surface water diversions (HDR, Inc. 2008). Fish screens were also listed as conceptual projects for WRIA 32 in the Snake River Salmon Recovery Region Provisional Work Plan 2013-2018 (HDR, Inc. 2008). Obstructions and unscreened diversions are also listed as imminent threats to Mid-Columbia steelhead and Columbia River bull trout major spawning area and priority reaches in areas of the Mill Creek and the Touchet River (WRIA 32) (SRSRB, 2025). The Walla Walla County VSP Work Plan seeks to protect the value of instream habitat functions and priority species by maintaining fish screen effectiveness, educating landowners about the importance of fish passage, and providing financial and technical assistance to replace or install fish screens when funding allows.

Irrigators along the Columbia and Snake River are subject to irrigation requirements of the Columbia-Snake River Irrigators Association (CSRIA), including screen requirements reviewed by NOAA Fisheries and WDFW. Because these screens are typically much larger and more complex, it would be difficult for staff to field-verify screen functionality. Instead, the work group relies on communication with the CSRIA, to verify that irrigators are operating with functional fish screens. According to email communication with CSRIA Board Representative, Darryll Olsen, and VSP Coordinator, Grace Cooper on January 25, 2025, all irrigators along the Lower Snake River (WRIA 33) must be in compliance with screen requirements per their lease with USACE. The Walla Walla County VSP Work Group focuses monitoring and outreach efforts towards less regulated irrigators, primarily located in the Walla Walla Basin of WRIA 32, including the Walla Walla River and its main tributaries.

(NOT REQUIRED) If your work plan notes accomplishments, click on 'Add Accomplishment' to add them to this benchmark. If you don't have any accomplishments for this benchmark, scroll past the next box to answer more benchmark questions.

Benchmark: No net increase in unscreened diversions

Critical Areas:

Fish and Wildlife Habitat,

WRIAs:

32-Walla Walla,

Strategy:

In 2001, the Walla Walla County Conservation District, landowners, and agency partners came together to develop a program to provide irrigators with fish screens for surface diversions to protect salmonids and other aquatic organisms in the region. To ensure that fish-safe irrigation equipment continues to function and identify any problems early, every 2 years WWCCD staff performs a fish screen effectiveness audit. The Fish Screen Effectiveness Audit is described in further detail in Attachment A.

Accomplishment:

From March 7th, 2021, to March 7th 2026, the Walla Walla County VSP technical lead (WWCCD) has completed two separate Fish Screen Effectiveness Audits. The first audit began in 2022 and was completed in the spring of 2023. WWCCD staff reached out to 50 landowners and received responses from 31, but only 28 were currently irrigating. In the 2024 audit they exceeded the sample size goal and received responses from 41 landowners. Further details can be found in Attachment A: Fish Screen Effectiveness Audit. In 2022, WWCCD calculated that 89% of the screens sampled were functioning, and in 2024 83% of screens were functioning. The metric below shows an average between these two audits. It is important to note that the below metrics were calculated prior to replacements being provided for non-functioning fish screens, see the implementation strategy accomplishment for more details.

Below, provide your targets and results for your benchmark. Targets are what you were aiming to achieve when you started. Results are what you actually achieved.

Target Metric Number

60

Target Metric Unit

percent

Target Metric Item

fish screens functioning

Result Metric Number

86

Result Metric Unit

percent

Result Metric Item

fish screens functioning

Choose applicable NRCS BMP

Aquatic Organism Passage (396);

If NRCS BMP not found, please enter your BMP in box:**Accomplishment Status**

Exceeded

Benchmark: No net increase in unscreened diversions

Critical Areas:

Fish and Wildlife Habitat,

WRIAs:

32-Walla Walla,

Strategy:

This goal and benchmark include an outreach strategy to reach out to 30 operators every two years to inquire about screen functionality and inform landowners of importance of fish screens. This is primarily done through the Fish Screen Effectiveness Audit performed every two years. More details about this audit can be found in Attachment A. WWCCD staff also speak on the importance of fish screens, when possible, at other outreach and education events, though those instances are not recorded. Producers also often contact WWCCD inquiring about replacing their fish screens. Depending on funding available, WWCCD provides funding or technical assistance for these replacements. Details about screen projects can be found in the implementation strategy accomplishment.

Accomplishment:

From March 7th, 2021, to March 7th, 2026, the Walla Walla County VSP technical lead (WWCCD) performed two Fish Screen Effectiveness audits, with the goal to reach 30 individuals per audit about the functionality of their fish screens. When inquiring about the status of their fish screen, staff emphasized and educated about the role and importance of fish screens for surface diversions in Walla Walla County. In 2022, staff reached 28 individuals and in 2024, staff reached 41 individuals. The below metrics represent the total between these two audits.

Below, provide your targets and results for your benchmark. Targets are what you were aiming to achieve when you started. Results are what you actually achieved.

Target Metric Number

60

Target Metric Unit

number

Target Metric Item

individuals reached about fish screens

Result Metric Number

69

Result Metric Unit

number

Result Metric Item

individuals reached about fish screens

Choose applicable NRCS BMP

If NRCS BMP not found, please enter your BMP in box:

Outreach

Accomplishment Status

Exceeded

Benchmark: No net increase in unscreened diversions

Critical Areas:

Fish and Wildlife Habitat,

WRIAs:

32-Walla Walla,

Strategy:

This goal and benchmark include an implementation strategy to provide funding and technical assistance to replace fish screens, when funding allows. Many of the fish screen projects result from contact made during the Fish Screen Effectiveness Audit. Other projects result from irrigators contacting WWCCD directly inquiring about financial or technical assistance for screen replacements.

Accomplishment:

Over this five-year period, VSP funding has provided technical and financial assistance to replace 8 fish screens. Most of these projects resulted from the Fish Screen Effectiveness Audits. The 2022 Fish Screen Effectiveness Audit resulted in replacing 1 non-functioning fish screen, while the 2024 Audit resulted in replacing 6 fish screens that were non-functioning or very close to failure.

Two more fish screens are being installed as part of a larger irrigation improvement project, and will replace a damaged, non-functioning screen (funding secured in 2025, but is not yet complete and is not included in the total metric below).

In total these screen replacements are estimated to provide protected or enhanced access to 4.94 miles of streams in WRIA 32.

Below, provide your targets and results for your benchmark. Targets are what you were aiming to achieve when you started. Results are what you actually achieved.

Target Metric Number

0

Target Metric Unit

number

Target Metric Item

fish screens

Result Metric Number

8

Result Metric Unit

number

Result Metric Item

fish screens

Choose applicable NRCS BMP

Aquatic Organism Passage (396);

**If NRCS BMP not found, please enter your BMP in box:
Accomplishment Status**

Exceeded

Provide a brief text explanation supporting whether the benchmark was or was not met:

The benchmark "No net increase in unscreened diversions" was met during this 5-year period. To monitor diversions that may have failed since 2011, and to reach out to known irrigators, the VSP technical lead conducted two Fish Screen Effectiveness Audits. During the audits, 69 individuals were surveyed, 7 screens were reported broken, and 4 were reported no longer pumping. In this period WWCCD also helped replace 8 fish screens (2 more in progress) that were damaged or near failure, most of which resulted from the audit. Of the screens surveyed in the Fish Screen Effectiveness Audit 86% were functioning, well above the Adaptive Management threshold of 40% non-functioning. Further, fish screen project implementation by WWCCD has resulted in a net decrease in unscreened diversions of those surveyed in WRIA 32.

How does the monitoring data support whether you have met or not met this benchmark?

Benchmark Status:

Met

What is the 2011 baseline for this entry?

WWCCD maintains an internal database of fish screen projects that tracks fish screen installations since 2001. At the time of the Work Plan finalization (November 2017), WWCCD staff determined there were 343 known fish screens installed prior to 2011 (refer to Table 3-1 in Work Plan for values through 2016). To monitor fish screen effectiveness, every two years VSP technical staff perform an accuracy audit on a random sample of the dataset. The random sample includes at least 30 landowners (~10% of known screen owners). The adaptive management threshold for this goal will be reached if more than 40% of the audited screens are non-functioning. While fish screen effectiveness is surveyed county wide, nearly all fish screens are located in WRIA 32.

Did you use monitoring data to evaluate this benchmark?

No

If yes, what monitoring tools or approaches did you use?

Please enter your new goal (not already in your work plan):

Enhance fish passage via barriers

Please enter your new benchmark (not already in your work plan):

No net increase in fish barriers

Indicate if this is a Protection or Enhancement Benchmark:

Enhancement

Clearly identify how the reported implementation efforts contribute to meeting this goal and benchmark:

This goal focuses on improving fish passage in Walla Walla County, by identifying known barriers within WRIA 32, to support the functions and values of the critical area Fish and Wildlife Habitat. According to the Walla Walla County Critical Areas Ordinance Best Available Science Review (2008), key instream habitat functions include maintaining flow, water temperature, channel confinement, sediment transport, large woody debris (LWD) supply, and pool formation. However, for many aquatic organisms such as ESA listed bull trout and Mid-Columbia Steelhead, the benefit of these habitat functions depends on whether the reach is accessible. Although removing barriers and obstructions is a high priority for Walla Walla County VSP and partner agencies, little can be done without first knowing the status and severity of barriers in the area.

To advance the understanding of fish passage and barriers in Walla Walla County, VSP aims to assess "unknown" barriers that have been prioritized by partner agencies. The SRSRB has prioritized a list of "unknown" barriers that need to be identified in order to provide better understanding of fish passage, specifically for steelhead, in the Snake River Recovery Region. In Walla Walla County there were 162 "unknown" barriers included on this SRSRB priority list, with barriers on Yellowhawk Creek given highest priority. Obstructions are also listed as imminent threats to Mid-Columbia steelhead and Columbia River bull trout major spawning area and priority reaches in areas of the Mill Creek and the Touchet River (WRIA 32) (SRSRB Lead Entity, 2025). The Walla Walla County VSP Work Plan seeks to enhance the value of instream habitat functions and priority species by assessing these "unknown" fish passage barriers to determine a baseline number of barriers existing in the county. In addition to the main focus of this goal, Walla Walla County VSP also aims to enhance fish habitat through educating community members about the importance of fish passage barriers and providing financial and technical assistance to remove barriers, when funding allows. Because the only fish passage barriers mapped in WRIA 33 are large dams along the Snake River, this goal focuses on habitat in WRIA 32.

(NOT REQUIRED) If your work plan notes accomplishments, click on 'Add Accomplishment' to add them to this benchmark. If you don't have any accomplishments for this benchmark, scroll past the next box to answer more benchmark questions.

Benchmark: No net increase in fish barriers

Critical Areas:

Fish and Wildlife Habitat,

WRIAs:

32-Walla Walla,

Strategy:

Currently, Walla Walla County VSP focuses primarily on the Monitoring Strategy component of this goal. The monitoring strategy uses the Fish Passage Barrier Assessment (see monitoring section), to assess at least 10 “unknown” fish passage barriers in Walla Walla County every two years, prioritizing Yellowhawk Creek. Typically, the features assessed by the technical lead (WWCCD) are culverts, though partner agencies perform additional assessments on dams, non-culvert crossings, fishways, diversions, and natural features. Data for barriers and features assessed can be accessed on the WDFW Fish Passage Barrier database. As part of the monitoring strategy Walla Walla County VSP also tracks applicable BMPs from NRCS, WWCCD, and other partners. See Attachment K for applicable BMPs.

Accomplishment:

Between March 7th, 2021, and April 3, 2025 (last date available at the time this report was written), 72 features were surveyed for barrier status determination. WWCCD completed 21 assessments, while WDFW completed 51. In total, 41 features were determined to be non-barriers, 15 features were determined to be barriers, and 16 remain unknown. Of the non-barriers most features surveyed were “Non Culvert Xings”. All types of features were included in the 15 determined to be barriers, but almost half (6) were culverts, and 16 “unknown” barriers were culvert features. Although the SRSRB priority “unknown” barriers list has not been updated since 2023, there remains 160 “unknown” barriers listed in Walla Walla County on the WDFW Fish Passage Barrier database, last updated April 3rd, 2025 (upon time of writing in December 2025).

Despite difficulty getting in touch with landowners, WWCCD completed 21 fish passage barrier assessments following WDFW’s Level A assessment protocol for barrier determination in 2024-2025. Of these, 5 were determined to be barriers, 2 non-barriers, and 14 require further assessment (Level B). If future funding and time allows, WWCCD will perform Level B assessments for barriers that remain “unknown”. The Level B Hydraulic Analysis, is a more advanced hydraulic evaluation that assesses the velocity and depth as it pertains to fish passage criteria. At this time the Level B analysis requires more training and resources than WWCCD has available.

While in this 5-year period total assessments far exceeded the target metric, it is important to the Walla Walla VSP Work Group that this goal be attainable even if WDFW is unable to assess potential barriers.

Below, provide your targets and results for your benchmark. Targets are what you were aiming to achieve when you started. Results are what you actually achieved.

Target Metric Number

10

Target Metric Unit

number

Target Metric Item

features assessed for barrier status

Result Metric Number

72

Result Metric Unit

number

Result Metric Item

features assessed for barrier status

Choose applicable NRCS BMP

Aquatic Organism Passage (396);

If NRCS BMP not found, please enter your BMP in box:**Accomplishment Status**

Exceeded

Benchmark: No net increase in fish barriers

Critical Areas:

Fish and Wildlife Habitat,

WRIAs:

32-Walla Walla, 33-Lower Snake,

Strategy:

This goal and benchmark include an outreach strategy to educate 30 people every 2 years on the importance of flow corridors as related to fish passage barriers. WWCCD keeps records of outreach and education events in internal documents to track the number of individuals being reached. When possible, WWCCD also reaches out to partner agencies to track relevant outreach participation. For more information refer to Attachment J: Outreach.

Accomplishment:

Community members in Walla Walla County learn about the importance of flow corridors and fish passage through a variety of outreach efforts. Large community events, including the annual Return to the River celebration, create opportunities for natural resource agencies and organizations to share information about water quality, fish habitat, and fish passage. Attendance at this event has varied in recent years, with approximately 1,500 participants in 2022, 1,000 in 2024, and 700 in 2025.

Smaller, topic-focused events hosted by the WWCCD and partners also help engage the public. In 2023, 14 people attended a Conservation Conversations speaker event on two prominent fish-bearing streams in the county. Another 30 participants attended a WWCCD–CTUIR Water and Wine speaker event focused on fish habitat.

The local fisheries enhancement group, Tri-State Steelheaders, has led the Salmon in Schools program since 2015. Each year, about 1,700 students learn about the life cycle of native fish species and discuss challenges they face due to barriers.

While conducting the Fish Screen Effectiveness Audit and the Fish Passage Barriers Assessment, WWCCD staff also provide one-on-one outreach to participating landowners. Staff engaged 28 landowners in 2022, 53 landowners in 2024, and 8 landowners in 2025.

Across the five-year period, outreach efforts reached at least 11,833 participants when including students, or approximately 3,333 participants when excluding Salmon in Schools. The metrics below represent totals combined across all five years.

Below, provide your targets and results for your benchmark. Targets are what you were aiming to achieve when you started. Results are what you actually achieved.

Target Metric Number

75

Target Metric Unit

number

Target Metric Item

people reached about flow corridors and fish passage

Result Metric Number

11833

Result Metric Unit

number

Result Metric Item

people reached about flow corridor and fish passage

Choose applicable NRCS BMP

If NRCS BMP not found, please enter your BMP in box:

Outreach

Accomplishment Status

Exceeded

Benchmark: No net increase in fish barriers

Critical Areas:

Fish and Wildlife Habitat,

WRIAs:

32-Walla Walla,

Strategy:

This goal and benchmark include an implementation strategy to provide funding and technical assistance to remove fish passage barriers, when funding allows. WWCCD also tracks partner projects, when possible.

Accomplishment:

In this 5-year time period, Tri-State Steelheaders (TSS) has led multiple efforts for barrier removal projects in Walla Walla County. In 2023, they completed the Mill Creek Fish Passage – Spokane to Park project that removed one large barrier. In 2024, they completed the Mill Creek Fish Passage- 6th Ave Extension, removing one large barrier. Roosevelt to Division and Roosevelt St Construction were two additional barrier removal projects completed in 2022 and 2023, respectively. Tri-State Steelheaders is also currently working on removing an additional barrier that resulted from extreme flooding in 2020. In addition to barrier removal projects, Tri-State Steelheaders has installed 198 fishway chutes/pools in this five-year period to aid passage in channelized and obstructed reaches (D. Talkington, personal communication, March 4, 2025; Salmon Recovery Portal).

The WWCCD also completed two large fish passage barrier removal projects. The Russell Creek Fish Barrier project removed one barrier, improving accessibility of 5 stream miles, and was completed in 2023. In 2024, the Coppei Bridge project removed one barrier located within the major spawning area for Mid-Columbia Summer Steelhead.

Below, provide your targets and results for your benchmark. Targets are what you were aiming to achieve when you started. Results are what you actually achieved.

Target Metric Number

0

Target Metric Unit

number

Target Metric Item

fish passage barriers removed

Result Metric Number

6

Result Metric Unit

number

Result Metric Item

fish passage barriers removed

Choose applicable NRCS BMP

Aquatic Organism Passage (396);

If NRCS BMP not found, please enter your BMP in box:

Accomplishment Status

Exceeded

Provide a brief text explanation supporting whether the benchmark was or was not met:

While the Walla Walla County VSP is currently assessing potential barriers by utilizing the WDFW Level A assessment protocol and assisting in barrier removal, when possible, more data is required to determine if this benchmark has been met.

How does the monitoring data support whether you have met or not met this benchmark?

More data is required to determine if this benchmark has been met. To acquire more data, the Walla Walla County VSP Work Plan utilizes the WDFW Level A assessment protocol to assess "unknown" fish passage barriers that have been identified and prioritized by partner agencies.

Benchmark Status:

More data required

What is the 2011 baseline for this entry?

Determining a 2011 baseline for fish passage barriers in Walla Walla County is difficult due to the numerous features that are classified with "unknown" barrier status. According to the WDFW Washington State Fish Passage map, only 16 barriers were identified prior to 2011. Since 2011, 20 barriers have been identified. However, even though a feature may be identified as a barrier after 2011, it was likely acting as a barrier on the landscape long before the identification. Using the WDFW Fish Passage Barrier database, the local lead entity the Snake River Salmon Recovery Board (SRSRB) processed the data in 2023 to prioritize "unknown" barriers that require barrier assessment and identification. To establish a baseline for this goal, Walla Walla County VSP is working with partners to identify the 162 "unknown" barriers on this list. Further detail about Fish Passage Barrier Assessments can be found in the monitoring section. Table 3-1 in the Work Plan also notes that prior to 2011, 7 known barriers were removed, and 188 miles of upstream habitat were opened. According to Table 3-1, between 2011-2016 12 more barriers were removed and 10.44 miles of habitat opened. This goal seeks to build on these metrics.

Did you use monitoring data to evaluate this benchmark?

Yes

If yes, what monitoring tools or approaches did you use?

Walla Walla County VSP work plan utilizes the WDFW Level A assessment protocol to assess potential fish passage barriers identified by WDFW and prioritized by SRSRB.

Please enter your new goal (not already in your work plan):

Enhance fish habitat

Please enter your new benchmark (not already in your work plan):

Increase in fish habitat or function

Indicate if this is a Protection or Enhancement Benchmark:

Enhancement

Clearly identify how the reported implementation efforts contribute to meeting this goal and benchmark:

Walla Walla County supports a range of aquatic species, including ESA-listed Columbia River bull trout and Mid-Columbia summer steelhead. Critical habitat for these species includes the Columbia and Snake Rivers, the mid-upper Walla Walla River mainstem, and most tributaries in the subbasin. Other ESA-listed fish such as

Snake River sockeye, Upper Columbia River spring Chinook, and Upper Columbia steelhead migrate through the Columbia and Snake Rivers (HDR, Inc. 2008).

This goal focuses on enhancing aquatic habitat and its associated functions within Walla Walla County. Because the Snake and Columbia Rivers are too large for the Walla Walla County Conservation District (WWCCD) to implement projects directly, efforts target the Walla Walla River and its tributaries. Many of these streams appear on Washington State's 303(d) list for water quality impairments, including turbidity, fecal coliform bacteria, high temperatures, low dissolved oxygen, pH, and pesticide contamination. These issues are documented in several TMDL Water Quality Improvement Reports for the Walla Walla watershed (2005-2007), which can be accessed via the Washington State Water Quality Assessment 303(d)/305(b) List online search tool. Since these waters ultimately flow into the Columbia River, local improvements contribute to regional water quality gains downstream.

According to the Walla Walla County Critical Areas Ordinance Best Available Science (BAS) Review (2008), key instream functions to protect include flow, temperature, sediment, large woody debris (LWD), and pool formation. Riparian processes further influence these conditions by affecting temperature regulation, sediment capture, and nutrient cycling (HDR, Inc. 2008). While large-scale restoration projects often integrate both riparian and instream treatments, this goal emphasizes instream structural enhancements that directly improve aquatic habitat. Most projects are located adjacent to agricultural areas, though some occur downstream and are included in this goal because their restoration work helps mitigate sediment, pesticide, and nutrient inputs from upstream agricultural activity.

Projects may include instream, floodplain, and bank stabilization measures that directly impact water quality and ecological function. Placement of large woody material or engineered log jams increase hydraulic complexity and redirect flows to reduce bank erosion, stabilize sediment dynamics, improve pollutant filtration, and increase habitat complexity. These structures are expected to accumulate additional woody material over time, enhancing sediment retention, decreasing fine sediment transport, and improving water quality by limiting turbidity. Augmentation of floodplain and off-channel roughness provides additional benefits by diversifying hydraulics, providing cover, and slowing high flows. By promoting sediment deposition in low-energy environments, these features improve water clarity and nutrient retention while reconnecting valuable off-channel habitats. Over time, increased roughness in floodplain and off-channel areas enhances nutrient cycling and improves the self-sustaining ability of the system to treat and filter pollutants during high flows. In addition, pilot channel cuts can be used to reconnect historical side channels. These features relieve pressure on vulnerable banks during high flows, distribute stream energy, and reduce sediment delivery to the mainstem. When constructed with redundancy, these channels evolve naturally over time, improving floodplain filtration capacity and supporting the removal of nutrients, sediment, and bacteria. Collectively, these restoration actions enhance habitat complexity, water quality, and resilience of the aquatic ecosystem in the Walla Walla subbasin (GeoEngineers, 2025).

(NOT REQUIRED) If your work plan notes accomplishments, click on 'Add Accomplishment' to add them to this benchmark. If you don't have any accomplishments for this benchmark, scroll past the next box to answer more benchmark questions.

Benchmark: Increase in fish habitat or function

Critical Areas:

Fish and Wildlife Habitat,

WRIAs:

32-Walla Walla, 33-Lower Snake,

Strategy:

As part of the monitoring strategy for this goal, the Walla Walla County VSP Work Group aims to work with the Walla Walla County on the Comprehensive Plan update to help develop fish mapping strategies for incorporation into Walla Walla County Comprehensive Plan.

Accomplishment:

Walla Walla County is currently undergoing the County Comprehensive Plan update, with an anticipated completion date in mid to late 2026. The Walla Walla County VSP Coordinator has attended several County Planning Commission meetings discussing the Comprehensive Plan Update, and has inquired about assisting in the update process, specifically for the Critical Area Ordinance. Walla Walla County and the consultants involved in the County Comprehensive Plan will meet with WWCCD and the Walla Walla County VSP coordinator for insight and feedback on changes to the Critical Area Ordinance and agricultural zoning. At this time no fish mapping strategies have been pursued in the CAO or County Comprehensive Plan update.

Below, provide your targets and results for your benchmark. Targets are what you were aiming to achieve when you started. Results are what you actually achieved.

Target Metric Number

0

Target Metric Unit

Target Metric Item

fish mapping strategy developed

Result Metric Number

0

Result Metric Unit

Result Metric Item

fish mapping strategy developed

Choose applicable NRCS BMP

If NRCS BMP not found, please enter your BMP in box:

Accomplishment Status

More data required

Benchmark: Increase in fish habitat or function

Critical Areas:

Fish and Wildlife Habitat,

WRIAs:

32-Walla Walla,

Strategy:

This goal includes an implementation strategy to design and install instream restoration projects, when funding allows. In addition, part of the monitoring strategy for this goal is to track stream restoration projects implemented by WWCCD and partners.

Accomplishment:

Between March 7th, 2021, to March 7th, 2026, WWCCD completed 6 large instream projects to enhance or restore aquatic habitat in WRIA 32. In total these projects restored 5.64 stream miles, connected/created 1.06 miles of off-channel stream, installed 156 woody structures, and created 63 pools.

In addition to several fish passage projects, the local fishery enhancement group Tri-State Steelheaders also completed 2 large restoration projects during this period. In total these projects treated 0.86 miles of instream habitat and included installing 45 woody structures, creating about 23 pools. One project included reconnecting 12 acres of floodplain habitat, while the other created/connected .07 miles of stream channel (D. Talkington, personal communication, March 4, 2025; Salmon Recovery Portal).

Through conservation easements and acquisitions, the Blue Mountain Land Trust has protected an additional 1.43 stream miles during this 5-year period.

The metrics below detail the total number of habitat enhancing structures installed by local agencies in Walla Walla County, all of which are located in WRIA 32. In total these projects enhanced 7.93 stream miles of aquatic habitat, installed 201 structures, and created 86 pools.

Below, provide your targets and results for your benchmark. Targets are what you were aiming to achieve when you started. Results are what you actually achieved.

Target Metric Number

0

Target Metric Unit

number

Target Metric Item

instream habitat structures

Result Metric Number

201

Result Metric Unit

number

Result Metric Item

instream habitat structures

Choose applicable NRCS BMP

Streambank and Shoreline Protection (580);

If NRCS BMP not found, please enter your BMP in box:
Accomplishment Status

Exceeded

Benchmark: Increase in fish habitat or function

Critical Areas:

Fish and Wildlife Habitat,

WRIAs:

32-Walla Walla, 33-Lower Snake,

Strategy:

This goal includes an outreach strategy to educate 30 people every 2 years on the importance of natural and engineered habitat structures in streams. WWCCD keeps records of outreach and education events in internal documents to track the number of individuals being reached. WWCCD also reaches out to partner agencies to track relevant outreach participation.

Accomplishment:

Community members in Walla Walla County learn about the importance of fish habitat through a variety of outreach efforts. Large community events, such as the annual Return to the River celebration, provide opportunities for natural resource agencies and partner organizations to educate the public on water quality, fish habitat, and fish passage. Attendance at this event included approximately 1,500 community members in 2022, 1,000 in 2024, and 700 in 2025.

Smaller, topic-focused events hosted by WWCCD and its partners offer more in-depth learning opportunities. In 2023, 14 people attended a Conservation Conversations speaker event on two prominent fish-bearing streams in the county, and 30 people attended a WWCCD–CTUIR Water and Wine speaker event on fish habitat.

For larger instream projects, WWCCD also conducts outreach to inform and engage participating or interested landowners about proposed structures. For the Upper Mill Creek instream project, WWCCD held six outreach events between 2021 and 2025, reaching a total of 60 participants.

The local fisheries enhancement group, Tri-State Steelheaders, has led the Salmon in Schools program since 2015. Each year, approximately 1,700 students learn about the life history and habitat needs of native fish species.

In total, at least 11,823 participants were reached over this five-year period when including students. Excluding the Salmon in Schools program, approximately 3,323 participants received outreach related to fish habitat and fish passage. The metrics below represent totals combined across all five years. Please note that many of these outreach metrics overlap with outreach discussed in prior goals. Please refer to Attachment J for total outreach counts.

Below, provide your targets and results for your benchmark. Targets are what you were aiming to achieve when you started. Results are what you actually achieved.

Target Metric Number

75

Target Metric Unit

number

Target Metric Item

people reached about aquatic habitat restoration

Result Metric Number

11823

Result Metric Unit

number

Result Metric Item

people reached about aquatic habitat restoration

Choose applicable NRCS BMP

If NRCS BMP not found, please enter your BMP in box:

Outreach

Accomplishment Status

Exceeded

Provide a brief text explanation supporting whether the benchmark was or was not met:

The benchmark "increase in fish habitat or function" was met during this 5-year period. In total WWCCD and partner agencies completed 8 instream habitat projects. Implementation of these projects has enhanced functions and values of 7.93 miles of instream aquatic habitat. While Walla Walla County VSP is not aware of any habitat projects completed by anyone outside of WWCCD and the identified partner agencies, it is possible there are additional projects in the county not listed here.

How does the monitoring data support whether you have met or not met this benchmark?

Benchmark Status:

Exceeded

What is the 2011 baseline for this entry?

This goal is to enhance the function and values of fish habitat, by implementing new habitat restoration projects, when funding allows. According to the Walla Walla County VSP Work Plan, prior to 2011 there were 26 instream structures installed which included 8 engineered log jam placements and 18 logs with rootwad placements. This goal seeks to build on these metrics to further enhance fish habitat.

Did you use monitoring data to evaluate this benchmark?

No

If yes, what monitoring tools or approaches did you use?

Please enter your new goal (not already in your work plan):

Enhance upland habitat in conservation areas

Please enter your new benchmark (not already in your work plan):

Increase conservation acres in mapped priority species' habitat

Indicate if this is a Protection or Enhancement Benchmark:

Enhancement

Clearly identify how the reported implementation efforts contribute to meeting this goal and benchmark:

While riparian habitat supports the highest amount of fish and wildlife biodiversity in the county, fallow grounds enrolled in the Conservation Reserve Program (CRP) are considered Habitats of Local Importance in Walla Walla County. Terrestrial habitat functions as described in the Walla Walla County Best Available Science Review (2008) include "the ability to provide food (foraging habitat), shelter from the weather and predators, and allowing for successional reproduction (breeding habitat) as well as migration" (Lemkuhl et al, 2001; McComb, 2001; O'Neil et al, 2001; as cited in HDR, Inc. 2008) , and while the value of wildlife habitat depends on several factors, one way to measure habitat quality is by species diversity (HDR, Inc. 2008). CRP acres in Walla Walla County provide areas of diverse grassland and shrubland, which are important for connecting habitat fragments (Hellesto, 2025) for migratory species and provides "foraging and nesting opportunities for a number of wildlife species" (HDR, Inc. 2008) in portions of the county that are otherwise surrounded by monoculture dryland cereal grain crops.

While mule deer habitat in Walla Walla County is largely located in the Blue Mountain foothills, the WDFW 2023 Game Status and Trend Report states "CRP acres across the zone have probably played the largest role in sustaining the mule deer population in this agriculture-dominated landscape" (WDFW, 2023). The 2024 report stated similar findings (WDFW, 2024). Furthermore, the 2024 study Seasonal resource selection and migration of mule deer in an agricultural landscape (Hellesto, 2024) found that in southeastern WA, CRP land was preferred by mule deer because it provides increased security, thermal cover, and plant diversity compared to other agricultural landscapes. They even found that CRP grassland and shrubland areas were ranked similarly to natural non-CRP grassland and shrublands for preferred habitat.

The Walla Walla County BAS document also calls out the importance of CRP for ferruginous hawks. Walla Walla County is an important part of the ferruginous hawk's western breeding range, but ferruginous hawks are sensitive to disturbance such as agricultural development (HDR, Inc. 2008) and require shrubsteppe or grassland dominated landscapes (Allen & Vandever, 2012; Hayes, 2021). Because of this, CRP is important for having the potential to provide "nesting and foraging habitat" for the species in areas that are dominated by agriculture.

To monitor and enhance the functions and values that CRP/conservation acres provide for wildlife habitat, Walla Walla County VSP aims to monitor CRP/conservation acres in mapped mule deer and ferruginous hawk habitat, educate community members about CRP, and provide funding and technical assistance to implement conservation acres, when funding allows. Although, as stated in Walla Walla County VSP Work Plan Section 1.5, VSP participants with conservation contracts (e.g., Conservation Reserve Enhancement Program [CREP], Conservation Reserve Program [CRP], Conservation Stewardship Program [CSP], etc.) are not required by VSP to continue their voluntary measures after contract expiration (RCW 36.70A.760).

(NOT REQUIRED) If your work plan notes accomplishments, click on 'Add Accomplishment' to add them to this benchmark. If you don't have any accomplishments for this benchmark, scroll past the next box to answer more benchmark questions.

Benchmark: Increase conservation acres in mapped priority species' habitat

Critical Areas:

Fish and Wildlife Habitat,

WRIAs:

32-Walla Walla,

Strategy:

This goal includes a monitoring strategy to determine the number of CRP/conservation acres in mapped mule deer using WSDA Ag Land Use data and WDFW PHS data, every 2 years. Because this goal was first adopted in 2024, only one analysis has been completed. Refer to Attachment B & C for more details on the approach and methods used.

Accomplishment:

The WSDA Agricultural Land Use Data and WDFW PHS Map were processed in ArcGIS pro to determine the number of conservation acres in 2011 and 2024 that fall within the mule deer habitat mapped in 2023. It is important to note that there is limited data on conservation acres in the foothills of the Blue Mountains, where most of the mule deer habitat in Walla Walla County is mapped by WDFW PHS maps (WDFW, 2023b). To address this issue the Walla Walla VSP Work Group added an additional goal to the Work Plan to better understand agricultural activity in mapped mule deer habitat in the foothills.

Of the area surveyed, there was about 560 acres of conservation acres in mapped mule deer habitat in WRIA 32 in 2011. In 2024 this increased by about 150 acres, for a total of 710 conservation acres in mapped Mule Deer habitat.

Below, provide your targets and results for your benchmark. Targets are what you were aiming to achieve when you started. Results are what you actually achieved.

Target Metric Number

560

Target Metric Unit

acres

Target Metric Item

ag land mapped as CRP/conservation in mapped mule deer habitat

Result Metric Number

710

Result Metric Unit

acres

Result Metric Item

ag land mapped as CRP/conservation in mapped mule deer habitat

Choose applicable NRCS BMP

Upland Wildlife Habitat Management (645);

If NRCS BMP not found, please enter your BMP in box:

Accomplishment Status

Exceeded

Benchmark: Increase conservation acres in mapped priority species' habitat

Critical Areas:

Fish and Wildlife Habitat,

WRIAs:

33-Lower Snake,

Strategy:

This goal includes a monitoring strategy to determine the number of CRP/conservation acres in mapped mule deer using WSDA Ag Land Use data and WDFW PHS data, every 2 years. Because this goal was first adopted in 2024, only one analysis has been completed. Refer to Attachment B & C for more details on the approach and methods use.

Accomplishment:

Of the area surveyed, there was about 700 acres of conservation acres in mapped mule deer habitat in WRIA 33 in 2011. In 2024 this increased by about 60 acres, for a total of 760 conservation acres in mapped mule deer habitat.

Below, provide your targets and results for your benchmark. Targets are what you were aiming to achieve when you started. Results are what you actually achieved.

Target Metric Number

700

Target Metric Unit

acres

Target Metric Item

ag land mapped as CRP/conservation in mapped mule deer habitat

Result Metric Number

760

Result Metric Unit

acres

Result Metric Item

ag land mapped as CRP/conservation in mapped mule deer habitat

Choose applicable NRCS BMP

Upland Wildlife Habitat Management (645);

If NRCS BMP not found, please enter your BMP in box:

Accomplishment Status

Exceeded

Benchmark: Increase conservation acres in mapped priority species' habitat

Critical Areas:

Fish and Wildlife Habitat,

WRIAs:

32-Walla Walla,

Strategy:

This goal includes a monitoring strategy to determine the number of CRP/conservation acres in mapped ferruginous hawk using WSDA Ag Land Use data and WDFW PHS data, every 2 years. Because this goal was first adopted in 2024, only one analysis has been completed. Refer to Attachment B & C for more details on the approach and methods used.

This analysis compares WSDA CRP data from 2011 and 2024 to the WDFW PHS data from 2024, to get a more accurate look at conservation acres in ferruginous hawk zones in the Walla Walla Watershed (WRIA 32) in Walla Walla County.

Accomplishment:

The 2024 ferruginous hawk breeding habitat is identified in four different zones associated with distance from hawk nests. Closest to nests and the areas where hawks are most vulnerable to disturbance, are the Core Habitat and the Core Habitat Disturbance Buffer. The Home Range is also an important zone as it provides many of the species' habitat needs such as prey for foraging. While still considered important ferruginous hawk habitat zones, the two outer layers are less of a priority for ferruginous hawk habitat management.

Using the ferruginous hawk habitat mapped by WDFW in 2024, WWCCD staff found that in 2011 in WRIA 32 there was about 54,018 acres of CRP in ferruginous hawk breeding zones and about 27,550 (51%) of those acres fall within the two inner zones – the Core Area and the Core Area Disturbance Buffer. In 2024, there was about a 5.7% (3,070 acres) decrease in CRP/conservation areas in ferruginous hawk habitat in WRIA 32, totaling 50,948 acres. There was only a loss of 929 conservation acres in the most important two inner zones, for a total of 26,621 acres. This is a 3.3% decrease from the inner zone habitat in 2011. Conservation acres in the Home Range increased by 857 acres, totaling 14,850 acres in 2024. The largest loss, 2,998 acres, was recorded in the Outer Priority Management Zone, which is considered the least important area of the breeding habitat. It is important to note that while these lost acres are not recorded as CRP/Conservation in the WSDA data set for 2024, it does not mean that these areas can no longer act as ferruginous hawk habitat. While there may be a decrease in quality, agricultural lands may still be viable habitat.

As stated above, landowners are not required to continue CRP contracts after expiration. WDFW is taking steps to protecting/enhancing ferruginous hawk territories, regardless of CRP contracts. The WDFW is working to improve ferruginous hawk habitat by installing Artificial Nest Structures. There are currently 25 new proposed locations. WDFW has also created a list of mitigation measures that can be taken to avoid or minimize disturbance in the most critical breeding zones. These can be found in the document, Management Recommendations for Washington's Priority Species: Ferruginous Hawk (Watson & Azerrad. 2024a).

Below, provide your targets and results for your benchmark. Targets are what you were aiming to achieve when you started. Results are what you actually achieved.

Target Metric Number

54018

Target Metric Unit

acres

Target Metric Item

ag land mapped as CRP/conservation in mapped ferruginous hawk territory

Result Metric Number

50948

Result Metric Unit

acres

Result Metric Item

ag land mapped as CRP/conservation in mapped ferruginous hawk territory

Choose applicable NRCS BMP

Upland Wildlife Habitat Management (645);

If NRCS BMP not found, please enter your BMP in box:**Accomplishment Status**

Not Met

Benchmark: Increase conservation acres in mapped priority species' habitat

Critical Areas:

Fish and Wildlife Habitat,

WRIAs:

33-Lower Snake,

Strategy:

This goal includes a monitoring strategy to determine the number of CRP/conservation acres in mapped ferruginous hawk using WSDA Ag Land Use data and WDFW PHS data, every 2 years. Because this goal was first adopted in 2024, only one analysis has been completed. Refer to Attachment B & C for more details on the approach and methods used.

This analysis compares WSDA CRP data from 2011 and 2024 to the WDFW PHS data from 2024, to get a more accurate look at conservation acres in ferruginous hawk zones in the Lower Snake Watershed (WRIA 33) in Walla Walla County.

Accomplishment:

Using the ferruginous hawk habitat mapped by WDFW in 2024, WWCCD staff found that in 2011 in WRIA 33 there was about 52,259 acres of CRP in ferruginous hawk breeding zones and about 4,445 (8.5%) of those acres fall within the two inner zones – the Core Area and the Core Area Disturbance Buffer. In 2024, there was about a 2% (1,070 acres) increase in CRP/conservation areas in ferruginous hawk habitat in WRIA 33, totaling 53,329 acres. In total the two outer zones increased by 1,252 acres, while the core habitat decreased slightly by 177 acres to total about 4,264 acres.

Below, provide your targets and results for your benchmark. Targets are what you were aiming to achieve when you started. Results are what you actually achieved.

Target Metric Number

52259

Target Metric Unit

acres

Target Metric Item

ag land mapped as CRP/conservation in mapped ferruginous hawk territory

Result Metric Number

53329

Result Metric Unit

acres

Result Metric Item

ag land mapped as CRP/conservation in mapped ferruginous hawk territory

Choose applicable NRCS BMP

If NRCS BMP not found, please enter your BMP in box:

Accomplishment Status

Exceeded

Benchmark: Increase conservation acres in mapped priority species' habitat

Critical Areas:

Fish and Wildlife Habitat,

WRIAs:

32-Walla Walla, 33-Lower Snake,

Strategy:

This goal includes an outreach strategy to educate 30 people on importance of conservation acres in habitat zones every 2 years.

Accomplishment:

Because this goal was only adopted into the work plan in early 2024, outreach events pertaining to conservation acres and wildlife habitat have been limited. Most of WWCCD's outreach to community members about the importance of conservation areas for wildlife habitat occurred during the Mule Deer Habitat Agriculture Activity Survey (2024). During this survey, WWCCD staff shared about the importance of mule deer habitat to 18 landowners. WDFW staff also presented ferruginous hawk information at the Washington Alfalfa Seed Growers meeting in May 2024, reaching approximately 40 attendees. Because the goal was adopted in 2024, metrics below will only be for 2024-2026.

Below, provide your targets and results for your benchmark. Targets are what you were aiming to achieve when you started. Results are what you actually achieved.

Target Metric Number

30

Target Metric Unit

number

Target Metric Item

people reached about the importance of conservation acres in habitat zones

Result Metric Number

58

Result Metric Unit

number

Result Metric Item

people reached about the importance of conservation acres in habitat zones

Choose applicable NRCS BMP

If NRCS BMP not found, please enter your BMP in box:

outreach

Accomplishment Status

Met

Benchmark: Increase conservation acres in mapped priority species' habitat

Critical Areas:

Fish and Wildlife Habitat,

WRIAs:

32-Walla Walla, 33-Lower Snake,

Strategy:

This goal includes an implementation strategy to provide financial and technical assistance to implement conservation acres, when funding allows. For this accomplishment, Walla Walla County VSP tracks acres enrolled in CRP and conservation easements through the Blue Mountain Land Trust.

Accomplishment:

In coordination with Walla Walla County FSA, total cropland enrolled in CRP from 2021-2025 was tallied, but data from 2011 was not available to local offices. While acreage amounts were collected in January of each year, it is possible the total enrollment changed throughout the year. The Walla Walla County VSP Work plan does not include total CRP acres for 2011, but states that 137,742 acres

were enrolled in all CRP programs as of 2015. Cropland enrolled in CRP ranged from 73,182.6 acres (2021) to 107,630.3 acres (2022). CRP acres per year are identified in Attachment K. These metrics are not delineated by critical area or watershed, as those specifics are not available per landowner privacy regulations.

As stated in the Walla Walla County VSP Work Plan Section 1.5, VSP participants with conservation contracts (e.g., Conservation Reserve Enhancement Program [CREP], Conservation Reserve Program [CRP], Conservation Stewardship Program [CSP], etc.) are not required by VSP to continue their voluntary measures after contract expiration (RCW 36.70A.760).

The Blue Mountain Land Trust (BMLT) has worked to protect lands and waters in the Blue Mountain region for people, agriculture, and wildlife for over 25 years (Blue Mountain Land Trust, Our Story). BMLT contributes to agricultural viability in Walla Walla County through conservation easements and property acquisitions, while also protecting wildlife habitat by preserving migratory corridors and habitats of native plants and animals. Prior to 2011, BMLT had protected 67 acres of upland habitat in conservation easements. At the time of data collection, BMLT had data available for 2021-2025. In this period, they have conserved an additional 134 acres of upland habitat. In total BMLT has protected 333 acres of upland habitat in Walla Walla County through conservation easements and acquisitions (A. Addressi, personal communication, March 28, 2025).

In the Walla Walla County VSP Work Plan, no baseline conditions for upland habitat protected by easements were provided for 2011, but it does state that 228 acres in Walla Walla County were protected between 2011-2016. It does not specify who was responsible for these easements and acquisitions, but work done by BMLT alone exceeds this baseline. BMLT data was not separated by WRIA to stay consistent with the baseline calculated in the Work Plan.

The metrics below include all acres in Walla Walla County that have been permanently protected by conservation easements between 2021-2025.

Below, provide your targets and results for your benchmark. Targets are what you were aiming to achieve when you started. Results are what you actually achieved.

Target Metric Number

0

Target Metric Unit

acres

Target Metric Item

land in conservation easements

Result Metric Number

134

Result Metric Unit

acres

Result Metric Item

land in conservation easements

Choose applicable NRCS BMP

Upland Wildlife Habitat Management (645);

If NRCS BMP not found, please enter your BMP in box:
Accomplishment Status

Exceeded

Provide a brief text explanation supporting whether the benchmark was or was not met:

More data is required to determine if this benchmark was met. Conservation acres in mapped mule deer habitat increased in both WRIA's between 2011-2024. While conservation acres in mapped ferruginous hawk habitat increased in WRIA 33 between 2011-2024, there was a 5.7% decrease in conservation acres in WRIA 32. This decrease only resulted in a 3% decrease in the two most critical breeding habitat zones. It is also important to note that although these areas are no longer considered CRP/Conservation in the WSDA Ag Land Use data set, it is possible these lands are still acting as viable habitat.

To offset this slight decrease in conservation acres within mapped ferruginous hawk habitat, Walla Walla County VSP tracks NRCS standard BMPs that enhance Fish and Wildlife Habitat. See Attachment K for applicable BMPs. Walla Walla County VSP also monitors improvements to the quality of ferruginous hawk zones by the implementation of raptor perches. This is tracked in the "enhance ferruginous hawk nest occupancy" goal. More data is required to determine if these implementation efforts offset the slight decrease in conservation acres.

How does the monitoring data support whether you have met or not met this benchmark?

Benchmark Status:

More data required

What is the 2011 baseline for this entry?

For this goal, the Walla Walla County VSP Work Group aims to enhance habitat for two upland species listed on the WDFW Priority Habitat and Species (PHS), mule deer and ferruginous hawk (also endangered in Washington). Walla Walla County does not have geospatial data for ferruginous hawk and mule deer habitat, so to track habitat extent WWCCD uses the best available data from WDFW. To track CRP/Conservation acres in mule deer and ferruginous hawk habitat, WWCCD uses WSDA Ag Land Use data and WDFW PHS data. For more information on determining the 2011 baselines, refer to Attachment B: Known Conservation Acres in Mapped Mule Deer Habitat and Attachment C: Known Conservation Acres in Mapped Ferruginous Hawk Habitat (Condensed to one attachment: Attachment B & C: Conservation Acres in PHS Habitat). The 2011 baseline for conservation acres in mule deer habitat is 560 acres for WRIA 32 and 699 acres for WRIA 33. The 2011 baseline for conservation acres in ferruginous hawk habitat is 40,077 acres for WRIA 32 and 716 acres for WRIA 33.

Did you use monitoring data to evaluate this benchmark?

No

If yes, what monitoring tools or approaches did you use?

Please enter your new goal (not already in your work plan):

Enhance ferruginous hawk nest occupancy

Please enter your new benchmark (not already in your work plan):

maintain or increase ferruginous hawk nest occupancy

Indicate if this is a Protection or Enhancement Benchmark:

Enhancement

Clearly identify how the reported implementation efforts contribute to meeting this goal and benchmark:

The fulfillment of requirements needed for successful reproduction (breeding habitat) and migration, are two important functions of upland wildlife habitat. This goal seeks to enhance the capacity of these functions in ferruginous hawk habitat in Walla Walla County. Walla Walla County VSP has chosen ferruginous hawk as a focal species because it is listed by Washington State as “endangered” and identified as a Species of Greatest Conservation Need (SGCN) and a Priority Species. Walla Walla County is an important part of ferruginous hawks’ breeding habitat in Washington State. In 2021, 32 breeding pairs were observed in WA state (Flatt, 2021) and at least 35% (11) were surveyed in Walla Walla County (M. Vekasy, personal communication, February 24, 2025). However, ferruginous hawks only spend 1/3 of the year in their breeding habitat, before continuing their seasonal migration.

Where agriculture and ferruginous hawk habitat intersect, there are two management strategies that Walla Walla VSP find the most impactful for enhancing the quality and function of ferruginous hawk habitat. The first is enrollment of agricultural acres in CRP or some other conservation program. CRP creates diverse grassland and shrubland communities capable of hosting ferruginous hawk’s prey and often involves less human activity than maintained cropland (see goal “enhance upland habitat in conservation areas”). The second way land managers may help support the quality and functions of ferruginous hawk habitat, is by supplementing suitable nesting locations with man-made raptor perches or platforms. The distribution and abundance of ferruginous hawk breeding habitat is largely influenced by available nest substrates and elevated perches (Watson & Azerrad, 2024). Biologists with WDFW are actively proposing the installation of raptor platforms in open habitats that meet the right requirements. In recent years, the platforms have successfully “increased the resilience of hawk pairs in less-than-ideal territories and increased the population by providing nest sites in an area where suitable nest sites were absent” (WDFW, 2024b).

Walla Walla County VSP aims to enhance the functions and values of ferruginous hawk habitat by proposing and installing raptor nesting sites when funding allows, educating community members, and tracking nest occupancy rates to carefully monitor when population changes may occur.

(NOT REQUIRED) If your work plan notes accomplishments, click on 'Add Accomplishment' to add them to this benchmark. If you don't have any accomplishments for this benchmark, scroll past the next box to answer more benchmark questions.

Benchmark: maintain or increase ferruginous hawk nest occupancy

Critical Areas:

Fish and Wildlife Habitat,

WRIsAs:

32-Walla Walla, 33-Lower Snake,

Strategy:

WDFW does regular surveys to monitor ferruginous hawk nest occupancy in known nesting sites in Walla Walla County. In 2024 and 2025, WWCCD reached out to WDFW and requested updates on ferruginous hawk occupancy. Staff then calculated the occupancy rate based on occupied nests from the total number of nests surveyed that year.

Accomplishment:

Ferruginous hawk nest occupancy rate in Walla Walla County in years 2021-2024 was calculated to be 42.31%, 44.44%, 51.85%, and 53.85%, respectively. Data was not yet available for 2025 at the time

this report was written (December 2025). It is important to note that in 2020, 5 new nesting platforms were installed and 3 remained vacant at the time of the survey and may have affected nest occupancy rate. However, by 2024 all 5 new nesting sites were occupied and occupancy rates were over 51%. The below metrics show the average nest occupancy rate between 2021-2024. See Attachment D: Ferruginous Hawk Nest Occupancy for a summary table.

Below, provide your targets and results for your benchmark. Targets are what you were aiming to achieve when you started. Results are what you actually achieved.

Target Metric Number

40

Target Metric Unit

percent

Target Metric Item

ferruginous hawk nest occupancy rate

Result Metric Number

48.11

Result Metric Unit

percent

Result Metric Item

ferruginous hawk nest occupancy rate

Choose applicable NRCS BMP

If NRCS BMP not found, please enter your BMP in box:

Accomplishment Status

Exceeded

Benchmark: maintain or increase ferruginous hawk nest occupancy

Critical Areas:

Fish and Wildlife Habitat,

WRIAs:

32-Walla Walla, 33-Lower Snake,

Strategy:

In recent years, WDFW has been proposing and installing raptor nesting platforms specifically for ferruginous hawks. Walla Walla County VSP uses information provided by WDFW to track how many of these platforms are installed. If funding and opportunity arises, the VSP technical lead, WWCCD, may also work with WDFW to fund and install platforms.

Accomplishment:

WDFW has recently installed 17 new nesting platforms that were not included in the most recent nest occupancy survey in 2024. Many of these platforms have been installed in rangeland or CRP, but it is expected that ferruginous hawk territories will overlap with agricultural activity even if they occupy a nest that was not directly installed in an agricultural area.

Below, provide your targets and results for your benchmark. Targets are what you were aiming to achieve when you started. Results are what you actually achieved.

Target Metric Number

0

Target Metric Unit

number

Target Metric Item

new nesting platforms installed

Result Metric Number

17

Result Metric Unit

number

Result Metric Item

new nesting platforms installed

Choose applicable NRCS BMP

If NRCS BMP not found, please enter your BMP in box:

Accomplishment Status

Exceeded

Benchmark: maintain or increase ferruginous hawk nest occupancy

Critical Areas:

Fish and Wildlife Habitat,

WRIs:

32-Walla Walla, 33-Lower Snake,

Strategy:

This goal includes an outreach strategy to educate 30 people on ferruginous hawks every 2 years. Walla Walla VSP relies heavily on outreach conducted by WWCCD and WDFW for this goal.

Accomplishment:

Because this goal was only adopted into the work plan in early 2024, outreach events pertaining to ferruginous hawks have been limited. WDFW staff presented ferruginous hawk information at the

Washington Alfalfa Seed Growers meeting in May 2024, reaching approximately 40 attendees. Because the goal was adopted in 2024, metrics below will only be for 2024-2026. However, in 2021 WDFW staff also presented to about 60 people with the Blue Mountain Audubon Society on ferruginous hawks in southeastern Washington.

Below, provide your targets and results for your benchmark. Targets are what you were aiming to achieve when you started. Results are what you actually achieved.

Target Metric Number

30

Target Metric Unit

number

Target Metric Item

people reached about ferruginous hawks

Result Metric Number

40

Result Metric Unit

number

Result Metric Item

people reached about ferruginous hawks

Choose applicable NRCS BMP

If NRCS BMP not found, please enter your BMP in box:

Outreach

Accomplishment Status

Exceeded

Provide a brief text explanation supporting whether the benchmark was or was not met:

The benchmark for this goal "maintain or increase ferruginous hawk nest occupancy" was exceeded during this five-year period. The average nest occupancy rate for 2021-2024 was 48.11%, which exceeds the 40% baseline. Also, during this period, nest occupancy rate never reached the baseline and only dropped as low as 42.31%. This drop may be associated with the influx of new nest platforms installed in 2019 and first surveyed in 2020. Between 2021-2024 there was a steady increase in nest occupancy rate, peaking at 53.85% in 2025. In 2025, WDFW finished installing 17 additional nesting platforms which have not yet been surveyed, but are anticipated to provide more nesting sites for ferruginous hawks within Walla Walla County. Walla Walla County VSP and partners will continue to monitor nest occupancy rate, provide ferruginous hawk education and outreach, and assist in the installation of nesting platforms when funding allows to maintain and increase ferruginous hawk nest occupancy.

How does the monitoring data support whether you have met or not met this benchmark?

Benchmark Status:

Exceeded

What is the 2011 baseline for this entry?

Walla Walla County VSP has received ferruginous hawk nesting data for as far back as 2016, but there is no available data for years prior to that. Between 2016 and when the goal was first introduced in 2023 (adopted in 2024), nest occupancy in Walla Walla County ranged from 38.46%-57.14%. Because ferruginous hawks are a migratory species that spend 2/3 of the year outside of Walla Walla County, it is important to note that nest occupancy rate may decline due to factors outside of the county limits. Based on discussions with WDFW and the Walla Walla County Work Group, the most realistic baseline for nest occupancy was determined to be 40%. To protect breeding pairs and their nests, locations of known nests are kept confidential. This goal pertains to all of Walla Walla County since nest occupancy rate cannot be calculated per WRIA.

Did you use monitoring data to evaluate this benchmark?

No

If yes, what monitoring tools or approaches did you use?

Please enter your new goal (not already in your work plan):

Enhance knowledge of mule deer habitat

Please enter your new benchmark (not already in your work plan):

increase knowledge of agricultural activity in mapped foothills mule deer habitat

Indicate if this is a Protection or Enhancement Benchmark:

Enhancement

Clearly identify how the reported implementation efforts contribute to meeting this goal and benchmark:

Walla Walla County and partner agencies lack information about agricultural activities in the foothills of the Blue Mountains. The foothills are mapped as critical habitat for mule deer according to the WDFW PHS 2023 maps, and Walla Walla County VSP has prioritized monitoring this area to better understand the impacts agriculture may have on habitat quality. Mule Deer are one of several ungulates that use the Blue Mountains for habitat and have become a WDFW focus for conservation in Walla Walla County in recent years. Other ungulates include elk and white tail deer. The foothills in Walla Walla County are entirely in the Walla Walla Watershed (WRIA 32). WWCCD staff collected some information on parcels in WRIA 33 with "unknown" agricultural activity, but there were so few parcels that reporting on that information may infringe on landowner privacy.

The foothills provide valuable habitat functions such as foraging habitat, shelter from weather and predators, breeding habitat, and migration corridors. This may also be the most valuable mule deer habitat in the area due to its size, structural complexity, and diverse vegetation (in comparison to mule deer habitat mapped in cropland). Walla Walla County VSP aims to enhance mule deer habitat by better understanding the impacts agricultural activity may be having on the functions and values of mule deer habitat in the foothills of the Blue Mountains. To do so, Walla Walla County VSP will continue to catalog agricultural activity in the area by right of way surveys and reaching out to landowners to inquire about land use and agricultural activity. This goal was adopted by the Work Group in 2024, and data has only been collected since then.

(NOT REQUIRED) If your work plan notes accomplishments, click on 'Add Accomplishment' to add them to this benchmark. If you don't have any accomplishments for this benchmark, scroll past the next box to answer more benchmark questions.

Benchmark: increase knowledge of agricultural activity in mapped foothills mule deer habitat

Critical Areas:

Fish and Wildlife Habitat,

WRIAs:

32-Walla Walla,

Strategy:

Walla Walla County VSP technical lead, WWCCD, reached out to landowners and partners to inquire about land use and agricultural activity in the mule deer habitat of the foothills of the Blue Mountains. When possible, staff performed right of way surveys to verify land use.

Accomplishment:

Between 2024 and 2025, staff cataloged land use and agriculture activity for 32 parcels covering approximately 6,119 acres in the foothills of Walla Walla County. Nearly half of the parcels surveyed were timber (2,961 acres) and another large portion was cataloged as pasture for grazing (2,007 acres). One parcel surveyed was cataloged as CRP/Conservation land use and was 165 acres.

Staff reached out to WSDA staff for newly documented areas included in the 2023 WSDA Land Use Data, and received information on 146.7 acres. In total, staff cataloged land use activity on 6,265.7 acres of the 35,291 "unknown" acres in the foothills of Walla Walla County identified in December 2023. Still, there remains 29,034.3 acres of unknown land use in the mapped PHS Mule Deer habitat. Cataloging land use in this area will continue to provide WWCCD and partner agencies valuable information for stewarding Mule Deer habitat in the county. See Attachment E: Ag Activity in Mule Deer Habitat more details on this survey.

Below, provide your targets and results for your benchmark. Targets are what you were aiming to achieve when you started. Results are what you actually achieved.

Target Metric Number

5000

Target Metric Unit

acres

Target Metric Item

land use activity cataloged

Result Metric Number

6265.7

Result Metric Unit

acres

Result Metric Item

land use activity cataloged

Choose applicable NRCS BMP

If NRCS BMP not found, please enter your BMP in box:

Accomplishment Status

Exceeded

Provide a brief text explanation supporting whether the benchmark was or was not met:

The benchmark "increase knowledge of agricultural activity in mapped foothills mule deer habitat" was exceeded during this five-year period. Walla Walla County VSP aimed to catalog 5,000 acres of "unknown" land use activity every two years beginning in 2024. From 2024-2025, the technical lead reached out to landowners and partners and conducted right of way surveys to catalog land use activity on 6,265.7 acres. This survey will enhance knowledge of mule deer habitat and support Walla Walla County VSP efforts to protect and enhance the functions and values of wildlife habitat that are impacted by agricultural activity.

How does the monitoring data support whether you have met or not met this benchmark?

Benchmark Status:

Exceeded

What is the 2011 baseline for this entry?

In Walla Walla County there are about 35,291 acres of land in the foothills of the Blue Mountains with no data for what kind of land use activities take place there. Possible activities include agriculture, timber, grazing, conservation/CRP, and no activity/other. According to WDFW PHS maps (2023), this is important mule deer habitat. While the Walla Walla County VSP technical lead, WWCCD, is aware of some agricultural activities taking place, there is no data associated with these areas and thus no 2011 baseline. Walla Walla County VSP aims to survey 5,000 acres in the foothills every 2 years to acquire more data on the quality of mule deer habitat in these areas and the possible effects of agriculture.

Did you use monitoring data to evaluate this benchmark?

No

If yes, what monitoring tools or approaches did you use?

Please enter your new goal (not already in your work plan):

Protect wetlands

Please enter your new benchmark (not already in your work plan):

no decrease in wetland acres since 2011

Indicate if this is a Protection or Enhancement Benchmark:

Protection

Clearly identify how the reported implementation efforts contribute to meeting this goal and benchmark:

Wetlands provide key ecological functions in Walla Walla County, including flood storage, water quality improvement, shoreline protection, fish and wildlife habitat, and maintaining groundwater levels (Null et al. 2000; Adamus et al. 1987; Hruby et al. 1999; as cited in HDR, Inc. 2008). Wetland quality is affected by many factors including size, location, vegetation diversity, and disturbances (Novitzski et al 1995, as cited in HDR, Inc. 2008). Wetland buffers are vegetated areas adjacent to wetlands that provide habitat and support wetland functions (Sheldon et al. 2005, as cited in HDR Inc. 2008).

Wetlands in Walla Walla County were designated using the National Wetlands Inventory (NWI) data for the creation of the county Critical Area Ordinance map (Walla Walla Community Development Department, 2019).

Most mapped wetlands are riverine wetlands, mapped in or adjacent to waterways in the county. The largest and highest quality wetlands are publicly managed, such as those in the McNary Wildlife Refuge, while others in the county tend to be quite small. Though many wetlands are mapped in Walla Walla County, WWCCD has found that often the mapped shapes are inaccurate. Many mapped wetlands follow contours of major waterways and are mapped in the middle of river channels, while other mapped areas are manmade structures including but not limited to irrigation and drainage ditches, canals, and farm ponds. The Walla Walla County VSP Work Group believes it is important to understand the true extent of the wetland areas in order to monitor and protect their functions and values. To do this, WWCCD staff perform a Wetland Accuracy Audit every 2 years to estimate how accurate the currently available wetland maps are. WWCCD also coordinates with partner agencies to track BMP implementation and wetland acres in conservation, to determine if the baseline is being protected.

The alteration of the hydrology of the Snake River due to dams, along with the lack of surface water, means there are very little mapped or verified wetlands in WRIA 33. The majority of identified wetlands and applicable BMP implementation is located in WRIA 32, which contains the foothills of the Blue Mountains and surface flows from major rivers.

(NOT REQUIRED) If your work plan notes accomplishments, click on 'Add Accomplishment' to add them to this benchmark. If you don't have any accomplishments for this benchmark, scroll past the next box to answer more benchmark questions.

Benchmark: No decrease in wetland acres since 2011

Critical Areas:

Wetlands,

WRIAs:

32-Walla Walla,

Strategy:

This goal includes a monitoring strategy to improve data accuracy by performing a Wetland Accuracy Audit to estimate how accurate available wetland maps are in Walla Walla County. For this strategy, WWCCD aims to audit 100 mapped wetland shapes in WRIA 32 every 2 years. This goal was first adopted in 2023 and has been completed twice.

For the wetland areas audited, photo points were taken at each mapped area to determine wetland status. Staff used an application to add photo coordinates, direction, and date/time details to each photo. Staff also tried to take pictures of surrounding mapped wetland areas, when possible, to get as much information about the surrounding area and other potential wetland shapes related to the ones being audited. After collection, Renee Hadley (the WWCCD Manager at the time, certified in wetland delineation) and district staff went over the photos and their location to determine likelihood of wetland presence based on hydrology, vegetation, and soils. Because a certified professional was unable to field verify audited wetlands, the audited shapes were categorized as "likely", "unlikely", or "unknown" wetlands. For more details on the methods of this analysis please refer to Attachment F: Wetland Maps Accuracy Audit, page 1.

Accomplishment:

The Walla Walla County VSP technical lead, WWCCD, has completed two Wetland Accuracy Audits (2023 and 2024). WWCCD first performed this audit in 2023. Upon realizing the low accuracy of the first audit, Walla Walla VSP formally adopted this monitoring effort as a goal in the work plan in 2024. While the structure of the work plan has changed in more recent adaptive management (2025), the methods and goals for this monitoring effort remain the same.

In 2023, staff randomly selected 100 mapped wetland shapes. WWCCD undertook extensive outreach and reached 59 landowners that in total owned property for 83 of the mapped wetland areas. However, WWCCD only received permission to visit 69 of these areas. Staff visited these areas from April 10th to June 21st to take photo points of the areas. Several factors, including landowner permission and staff time prevented some mapped wetland shapes selected for the audit from being photographed. Of the 69 areas audited, only 6 shapes were determined "likely" to be a wetland. Meanwhile 44 shapes were determined "unlikely" a wetland and 19 remain "unknown". Staff determined that for this audit, accuracy was about 8.69% $((\text{Likely Wetlands}/\text{Sample Size}) \times 100)$. For more details on results, refer to Attachment F, page 2.

In 2024, WWCCD staff took a more targeted approach to wetland sampling to reduce outreach time to landowners. Staff reached out to 27 different landowners. Of those, staff received permission from 16 landowners to survey 142 mapped wetland areas. Field visits and photo points were conducted between March 18th and April 16th when soil temperatures exceeded 50 degrees Fahrenheit. Of the 142 wetland shapes audited, only 43 were determined to be "likely" a wetland, while 87 were "unlikely", and 12 remained "unknown". For this audit, staff determined wetland map accuracy was about 30.3%. Even if one assumes the best-case scenario that all wetland shapes classified as "unknown" are wetland areas, that would still mean only about 38 percent of the sample set were wetlands.

There were several reasons some areas were determined to not be wetlands, including proximity to waterways, vegetation, and topography. Many of the mapped wetland areas that were determined unlikely wetlands were mapped adjacent or in the main channel of waterways. There are some small wetland areas along stretches of river in Walla Walla County, but many of the wetland shapes mapped in river corridors include side channels or the main channel itself as a wetland. The small size of wetlands in Walla Walla County is further supported by the acreage of mapped areas visited. Of the 142 wetland shapes visited, 65 were smaller than 1 acre and an additional 34 shapes were under 2 acres. These results support anecdotal evidence that Walla Walla County Wetlands are poorly mapped, small, and sparse. For more details on results refer to Attachment F, page 2.

Below, provide your targets and results for your benchmark. Targets are what you were aiming to achieve when you started. Results are what you actually achieved.

Target Metric Number

200

Target Metric Unit

number

Target Metric Item

mapped wetland shapes audited

Result Metric Number

211

Result Metric Unit

number

Result Metric Item

mapped wetland shapes audited

Choose applicable NRCS BMP
If NRCS BMP not found, please enter your BMP in box:
Accomplishment Status

Exceeded

Benchmark: no decrease in wetland acres since 2011

Critical Areas:

Wetlands,

WRIAs:

33-Lower Snake,

Strategy:

Part of the monitoring strategy for this goal includes completing a Wetland Accuracy Audit for WRIA 33 within 4 years of adoption. This goal was adopted in 2024, which means completion should be met in 2028. Monitoring wetland accuracy in the Lower Snake Watershed (WRIA 33) of Walla Walla County is especially difficult. In the past, landowners in this area have not been overly cooperative with WWCCD monitoring efforts. This is partially because many of the producers in the area are corporately owned. To avoid potential conflicts, Walla Walla County Conservation District (WWCCD) staff chose a different approach for monitoring wetland accuracy in this area (February 2025).

Wetland shapes mapped in WRIA 33 of Walla Walla County were audited via an aerial survey only. In total, WWCCD staff surveyed 41 wetland shapes using ArcGIS Pro and NAIP imagery. Again, Renee Hadley (WWCCD) reviewed the wetland shapes to determine the likelihood of wetland presence. In the case a shape seemed likely to be a wetland, it was categorized as an “unknown,” because field verification would be necessary to determine it was “likely.” Please refer to Attachment F, page 5, for more details on this analysis.

Accomplishment:

Of the 41 wetlands shapes surveyed by aerial imagery, only one appeared likely to have select wetland characteristics (considered “unknown” without field verification). There were 40 shapes considered unlikely to be a wetland. In the best case, about 2% of this sample set were likely to be accurate. Mapped wetlands in WRIA 33 were determined not to be wetlands because they do not exhibit wetland characteristics and exist as part of artificial structures created for agricultural production. This audit reveals that mapped wetland shapes in Walla Walla County rarely correspond to the likely presence of wetlands. WWCCD will continue to work with partner organizations and the county to address the current limitations of wetland mapping at large scales.

Below, provide your targets and results for your benchmark. Targets are what you were aiming to achieve when you started. Results are what you actually achieved.

Target Metric Number

41

Target Metric Unit

number

Target Metric Item

mapped wetland shapes audited

Result Metric Number

41

Result Metric Unit

number

Result Metric Item

mapped wetland shapes audited

Choose applicable NRCS BMP

If NRCS BMP not found, please enter your BMP in box:

Accomplishment Status

Met

Benchmark: no decrease in wetland acres since 2011

Critical Areas:

Wetlands,

WRIAs:

32-Walla Walla,

Strategy:

Because the baseline of 21.74 wetland acres has been difficult to verify for this report, WWCCD staff used the 2024 Wetland Accuracy Audit to predict how many acres of wetlands may have been surveyed during this audit. For the 2023 Wetland Accuracy Audit, information was stored in a way that makes it difficult to determine how many acres of "likely" wetlands were surveyed. The Wetland Accuracy Audit for WRIA 33 did not include any field visits or verification, so acreage was not calculated for the one shape that may be "likely" a wetland.

Staff used ArcGIS pro to calculate geometry of the wetland shapes audited in 2024 that were determined to be "likely" a wetland. Although there were 43 "likely" wetlands, acreage could only be calculated for 31 of the shapes.

Accomplishment:

During the 2024 Wetland Accuracy Audit, WWCCD staff calculated that 31 "likely" wetlands totaled 59.6 acres. Of the 142 wetland shapes visited, 65 were smaller than 1 acre and an additional 34 shapes were under 2 acres. For shapes determined to be "likely" wetlands, shape size on average was 1.92 acres, but the median for these shapes was only 0.88 acres. This audit supports the conclusion that wetlands in Walla Walla County are small, sparse, and poorly mapped. For more details on results of the audit refer to Attachment F, page 4.

If the 31 "likely" wetlands audited in 2024 can be confirmed as wetlands, WWCCD can estimate there are at least 59.6 acres of wetlands in WRIA 32. This exceeds the 21.74 known wetland acres in the county recorded between 2011-2016. This audit also does not include the 17 acres of known protected wetlands in BMLT easements. When including these 17 acres, WWCCD estimates there are at least 76.6 acres of wetland areas in WRIA 32 in Walla Walla County. It is important to note that it

is possible the size of the mapped wetland shapes could also be inaccurate, and this is simply a means for estimating wetland acres based on the data available. At this time, Walla Walla VSP does not have adequate data or resources available to perform field verifications to calculate actual acreage of wetlands in the county.

For the Tri-State Stealheaders' upcoming Roosevelt-Tausick low flow notching project, a report was developed to delineate wetlands as part of the project's permitting requirements. The study area covered the entire length (1.2 miles covering 39.11 acres) of Mill Creek between Roosevelt St and Tausick Way. In total, there were 14 riverine wetlands delineated within the study area for a total of 4.57 acres of wetland habitat. The wetlands have formed as a result of years without dredging from the county, and subsequent gravel bars have formed and created the perfect conditions for wetland plants and soils. At this time, the artificially created wetlands are positioned in areas of the levee-and-weir section that is an enormous fish passage barrier that Tri-State Stealheaders is aiming to resolve with the project. Because these wetland areas have formed artificially in an area intended to be routinely dredged for maintenance purposes, the acres have not been included in the total wetland acres in the county. Additionally, these wetland acres were not likely present in 2011 and will not affect the baseline. However, this is one of the only examples of wetland delineation occurring in the county, and the VSP Work Group found it an important topic of discussion to include in this report.

Walla Walla VSP aims to continue estimating wetland acres and wetland mapping accuracy to better understand the true extent of wetland areas in Walla Walla County. This is an important first step to understanding the functions and values of wetlands in the county, and how they may be impacted by agricultural activity.

Below, provide your targets and results for your benchmark. Targets are what you were aiming to achieve when you started. Results are what you actually achieved.

Target Metric Number

21.74

Target Metric Unit

acres

Target Metric Item

wetlands in Walla Walla County

Result Metric Number

76.6

Result Metric Unit

acres

Result Metric Item

wetlands in Walla Walla County

Choose applicable NRCS BMP

If NRCS BMP not found, please enter your BMP in box:

Accomplishment Status

More data required

Benchmark: no decrease in wetland acres since 2011

Critical Areas:

Wetlands,

WRIAs:

32-Walla Walla, 33-Lower Snake,

Strategy:

This goal includes an outreach strategy to reach out to 10% of landowners and partners with known wetlands every 2 years. This strategy is primarily accomplished through the Wetland Accuracy Audit that occurs every 2 years. The wetland maps used by Walla Walla County VSP contains 1,136 mapped wetland shapes. That does not mean the map contains 1136 mapped whole wetlands, as some wetlands are split by tax parcel, and create multiple mapped shapes for 1 wetland. For this outreach strategy, WWCCD aims to reach out to landowners of at least 100 shapes (nearly 10% of the shapes overall). There are about 305 unique landowners listed for the 1136 wetland shapes. To reach 10% of landowners that are mapped to have wetlands on their properties, WWCCD aims to reach about 31 landowners every two years, which is typically completed during the Wetland Accuracy Audit.

Accomplishment:

During the 2023 Wetland Accuracy Audit, WWCCD staff reached 59 different landowners about the potential wetlands on their property. During the 2024 Wetland Accuracy Audit, WWCCD staff reached 27 different landowners. Technically, this strategy is a new addition in the 2025 Adaptive Management, but the Wetland Accuracy Audit has been in place prior to the addition of this outreach strategy. Technically Walla Walla County VSP would have until 2027 (2 years since adoption) to reach 31 landowners with wetlands. However, to illustrate the outreach that has taken place during this period, the reported metrics will reflect the two previously completed Wetland Accuracy Audits. Two audits would take place over 4 years, meaning the target metric for 4 years would be 62 landowners reached. The result metrics reflect all outreach completed during the two audits.

While WWCCD and partner agencies have likely performed other outreach events for wetlands, that data has not been recorded for this report due to the recent addition of the goal.

Below, provide your targets and results for your benchmark. Targets are what you were aiming to achieve when you started. Results are what you actually achieved.

Target Metric Number

31

Target Metric Unit

number

Target Metric Item

landowners reached about wetlands

Result Metric Number

86

Result Metric Unit

number

Result Metric Item

landowners reached about wetlands

Choose applicable NRCS BMP

If NRCS BMP not found, please enter your BMP in box:

Outreach

Accomplishment Status

Exceeded

Benchmark: no decrease in wetland acres since 2011

Critical Areas:

Wetlands,

WRIAs:

32-Walla Walla, 33-Lower Snake,

Strategy:

In the Walla Walla County VSP Work Plan (2017), there are 14 specific NRCS practices called out that demonstrate protection and enhancement of the functions and values of Wetlands in Walla Walla County. The Work Plan does not provide an exhaustive list and acknowledges that some practices may no longer be implemented. WWCCD acquired two datasets of NRCS certified practice implementation. The SCC provided NRCS implementation at the HUC 12 watershed scale. While useful for reporting at the watershed scale, it is difficult to determine exact metrics within County boundaries. In several cases, HUC 12 watersheds in Walla Walla County overlap with other counties, but the data cannot be located at a finer scale. WWCCD worked with local NRCS staff to acquire County wide practice data, but to conserve privacy policies, location of the practices could not be shared. Please refer to Attachment L: BMP Methodology for more details on how both of these datasets were processed.

For several practices, metrics for implementation provided in the HUC 12 dataset were drastically higher than data provided from the local NRCS office. To ensure this report does not overestimate practices implemented, the accomplishments will be based off the County level dataset provided by local staff. To compare this to the practices implemented in each watershed refer to Attachment K for results from the HUC 12 dataset.

Accomplishment:

According to the work plan, in 2011 3,174 acres were in riparian buffers (most if not all documented acres were enrolled in CREP). This is the only practice with a 2011 baseline that applies to Wetlands, see Table 3-1 on Attachment N for details. For other practices, the work plan lists metrics recorded from 2011-2016, but there is no 2011 baseline. From 2011-2016, there were 18,175.84 acres enrolled in one of the other 14 qualifying NRCS practices, see Table 3-2 on Attachment N for details. In total 21,349.84 acres were under a qualifying practice. The Work Plan listed these practices as stewardship activities that would be tracked in the future, but acknowledged that some practices may no longer be implemented in the future. Stewardship activities should be viewed as a target but not a 2011 baseline. Thus, for this goal Walla Walla VSP aims to track and maintain acres under implementation

of a qualifying practice, but it is not necessary for each practice listed to be in implementation.

Between March 7th, 2021, to November 20th, 2025, 8 different NRCS practices were implemented in Walla Walla County. To avoid counting the same contracted acres multiple times between years, cumulative implementation numbers were only calculated per year. Federal fiscal years do not align with state fiscal years, and certainly do not align with Walla Walla County's reporting cycle. To simplify reporting, data were summarized by normal calendar years. The exceptions are that 2021 only consists of practices from March 7th 2021- December 31st 2021, and 2025 data goes through November 20th, 2025. To see specific practice implementation per year, refer to Attachment K.

For each year total acres in implementation of a qualifying practice:

2021: 81,083.30

2022: 96,870.60

2023: 94,971.1

2024: 123,961

2025: 6,888.6 (may be more that have not yet been certified).

Although only BMP 391 Riparian Forest Buffer included a 2011 baseline for BMPs related to Wetland protection/enhancement, the below target metrics include all NRCS stewardship activities recorded for 2011-2016. Using this dataset, staff calculated acres implemented in 2011 to compare to the baseline determined in the original work plan. It should be noted that this dataset determines that 24,989.4 acres were under implementation in 2011, which differs from the baseline in the VSP workplan. The result metric is an average for acres in implementation annually (2021-2025).

The Work Plan also lists BMP 106 Forest Management Plan and BMP 533 Pumping Plant, as applicable practices for Wetland protection/enhancement. These are not included in the summary because they are not recorded in acres. Refer to Attachment K for implementation details.

Below, provide your targets and results for your benchmark. Targets are what you were aiming to achieve when you started. Results are what you actually achieved.

Target Metric Number

21349.84

Target Metric Unit

acres

Target Metric Item

implementation of qualifying BMPs

Result Metric Number

80754.92

Result Metric Unit

acres

Result Metric Item

average annual certified practice implementation

Choose applicable NRCS BMP

Herbaceous Weed Treatment (315); Conservation Cover (327); Riparian Forest Buffer (391); Nutrient Management (590); Pest Management Conservation System (595); Upland Wildlife Habitat Management (645);

If NRCS BMP not found, please enter your BMP in box:

Accomplishment Status

Exceeded

Provide a brief text explanation supporting whether the benchmark was or was not met:

More data is required to determine if the benchmark "no decrease in wetland acres since 2011" was met. Due to several factors, it is unclear how the 2011 baseline for known wetlands (or wetland buffers) was determined to be 21.74 acres. WWCCD estimates that there is currently more than 21.74 acres of wetlands, but the total acreage remains unknown. The current wetland maps for Walla Walla County are often inaccurate, making it difficult to monitor extent, function, and value of wetlands. Walla Walla County VSP is prioritizing the Wetland Accuracy Audit to help determine wetland extent in the county. Through the Wetland Accuracy Audit, WWCCD also has an outreach opportunity to educate landowners about important wetland functions and values and WWCCD efforts to monitor and restore wetlands. Walla Walla County VSP also tracks NRCS BMPs implemented in the county that may contribute to the protection and enhancement of Wetlands. Of the 14 different practices identified in the Work Plan (2017), 8 different practices were implemented over an average of 80,754.92 acres annually, which far exceeds the total acres in stewardship practices from 2011-2016, or the 3,174 riparian buffer baseline for 2011.

How does the monitoring data support whether you have met or not met this benchmark?

Benchmark Status:

More data required

What is the 2011 baseline for this entry?

When the Walla Walla County VSP Work Plan was approved, the Work Group set the baseline for known wetland acres using data collected from 2011-2016, because data was not available prior to 2011. The 2011-2016 baseline was determined to be 21.74 acres of known wetlands, and the adaptive management threshold would be reached if 10% of those acres were lost. The work plan states that known wetlands acres were determined using data from the Blue Mountain Land Trust, Wetland Reserve Program (NRCS), and private landowners. In other areas of the 2017 work plan, the baseline is described as wetland buffer acres. Due to turnover and a lack of documentation, it is difficult to determine precisely how 21.74 acres of wetlands were identified. In 2009, BMLT restored and protected the Brewer Wetland, which may account for 17 acres documented in the baseline (WRIA 32). BMLT has protected more acres of Riparian/Wetland areas, but no other projects are described as wetlands specifically. NRCS staff have confirmed that there are no Walla Walla County acres in the Wetland Reserve Program, and they cannot find documentation of any acres enrolled in 2011-2016. Around 2016, 4 CREP contracts totaling 12.54 acres were enrolled in a Wetland specific practice, CP30. It is unclear if these contracts were included in the baseline, as that would total over 21.74 acres. WWCCD staff have no other record of known wetlands in the county, besides wetlands mapped by the National Wetlands Inventory (NWI) which are often inaccurate in Walla Walla County.

Did you use monitoring data to evaluate this benchmark?

No

If yes, what monitoring tools or approaches did you use?

Please enter your new goal (not already in your work plan):

Enhance wetlands

Please enter your new benchmark (not already in your work plan):

increase in wetland habitat or function

Indicate if this is a Protection or Enhancement Benchmark:

Enhancement

Clearly identify how the reported implementation efforts contribute to meeting this goal and benchmark:

As described in the goal "Protect Wetlands", wetlands provide key ecological functions for wildlife in Walla Walla County, including flood storage, water quality improvement, shoreline protection, fish and wildlife habitat, and maintaining groundwater levels (Null et al. 2000; Adamus et al. 1987; Hruby et al. 1999; as cited in HDR, Inc. 2008). Wetland quality is affected by many factors including size, location, vegetation diversity, and disturbances (Novitzski et al 1995, as cited in HDR, Inc. 2008). Wetland buffers are vegetated areas adjacent to wetlands that provide habitat and support wetland functions (Sheldon et al. 2005, as cited in HDR Inc. 2008).

Wetlands in Walla Walla County were designated using the National Wetlands Inventory (NWI) data for the creation of the county Critical Area Ordinance map (Walla Walla Community Development Department, 2019). Most mapped wetlands are riverine wetlands, mapped in or adjacent to waterways in the county. The largest and highest quality wetlands are publicly managed, such as those in the McNary Wildlife Refuge, while others in the county tend to be quite small.

The alteration of the hydrology of the Snake River due to dams, along with the lack of surface water, means there are very little mapped or verified wetlands in WRIA 33. The majority of identified wetlands and applicable BMP implementation is located in WRIA 32, which contains the foothills of the Blue Mountains and surface flows from major rivers.

Walla Walla County VSP tracks implementation of priority BMPs identified in the work plan, outreach to landowners (as described in the goal "Protect Wetlands"), and provides financial and TA assistance for designing and installing wetland restoration projects, when funding allows. Implementation of BMPs and restoration projects is intended to enhance known wetland areas and offset any potential wetland losses, for information on NRCS certified BMP implementation refer to the "Protect Wetlands" goal and Attachment K.

(NOT REQUIRED) If your work plan notes accomplishments, click on 'Add Accomplishment' to add them to this benchmark. If you don't have any accomplishments for this benchmark, scroll past the next box to answer more benchmark questions.

Benchmark: increase in wetland habitat or function

Critical Areas:

Wetlands,

WRIAs:

32-Walla Walla,

Strategy:

This goal includes an implementation strategy to design and install wetland restoration projects, when funding allows, to enhance functions and values of wetland areas.

Accomplishment:

In Walla Walla County, mapped wetlands are often also riparian areas. For information on riparian restoration projects, refer to the goal "Protect Riparian Habitat". Besides riparian areas, there have not been any completed wetland restoration projects between March 7th, 2025, and March 7th, 2026, in Walla Walla County that WWCCD is aware of. However, WWCCD is planning a large instream project on Lower Mill Creek which aims to include the creation of at least 0.6 acres of wetland, in an area surrounded by cropland and agricultural activity. WWCCD anticipates this project going to construction in the summer of 2027.

Below, provide your targets and results for your benchmark. Targets are what you were aiming to achieve when you started. Results are what you actually achieved.

Target Metric Number

0

Target Metric Unit

acres

Target Metric Item

wetland restoration projects designed or installed

Result Metric Number

0.6

Result Metric Unit

acres

Result Metric Item

wetland restoration projects designed/planned

Choose applicable NRCS BMP

If NRCS BMP not found, please enter your BMP in box:

Accomplishment Status

More data required

Provide a brief text explanation supporting whether the benchmark was or was not met:

More data is required to determine if the benchmark "increase in wetland habitat or function" was met during this period, because more data is required to determine if the "No decrease in wetland acres since 2011" benchmark has been met. At this time no wetland losses have been identified, but more data is required to increase wetland mapping accuracy and determine an adequate VSP baseline for wetlands. This information is necessary to determine if BMP and restoration implementation is enhancing wetland areas and/or offsetting losses. However, each strategy of this goal met or exceeded its target metrics. It is likely that this benchmark was in fact met, more data is required to confirm.

How does the monitoring data support whether you have met or not met this benchmark?

Benchmark Status:

More data required

What is the 2011 baseline for this entry?

When the Walla Walla County VSP Work Plan was approved, the Work Group set the baseline for known wetland acres using data collected from 2011-2016, because data was not available prior to 2011. The 2011-2016 baseline was determined to be 21.74 acres of known wetlands. The work plan states that known wetlands acres were determined using data from the Blue Mountain Land Trust, Wetland Reserve Program (NRCS), and private landowners. In other areas of the 2017 work plan, the baseline is described as wetland buffer acres. Due to turnover and a lack of documentation, it is difficult to determine precisely how 21.74 acres of wetlands were identified, for more information on this baseline refer to the goal "Protect Wetlands."

Did you use monitoring data to evaluate this benchmark?

No

If yes, what monitoring tools or approaches did you use?

Please enter your new goal (not already in your work plan):

Protect flood event resilience

Please enter your new benchmark (not already in your work plan):

no removal of installed floodplain restoration projects

Indicate if this is a Protection or Enhancement Benchmark:

Protection

Clearly identify how the reported implementation efforts contribute to meeting this goal and benchmark:

Due to its many waterways, Walla Walla County has large areas mapped as Frequently Flooded Areas. These areas are only located in WRIA 32, and not in WRIA 33. Flooding is restricted in WRIA 33 due to large dams along the Snake River, which is the only source of surface flow in WRIA 33 in Walla Walla County.

Floodplains in Walla Walla County provide several functions including flood and erosion control, water quality maintenance, fish and wildlife habitat protection, and groundwater recharge (FEMA, 2025). Frequently Flooded Areas frequently intersect with other critical areas like Fish and Wildlife, Wetlands, and Critical Aquifer Recharge Areas. Many streams in Walla Walla County are incised, meaning the bed of the stream has eroded vertically over time. Incised channels tend to be disconnected from the floodplain and flood relieving side channels. Reconnecting these sections with side-channels and wide floodplains relieve pressure from flooding during high flow events, while slowing flows and allowing sediment deposition.

The overlap between frequently flooded areas and agricultural activities is generally passive in Walla Walla County. However, when there are large flooding events, agricultural fields adjacent to streams may face the risk of flood damage. To mitigate the risk to agricultural producers and landowners, Walla Walla County VSP prioritizes protecting and installing instream restoration projects and floodplain reconnection projects. These restoration projects simultaneously protect landowners from flood damage while restoring and enhancing the functions of natural floodplains. Walla Walla County VSP also tracks applicable BMP implementation and outreach efforts that correlate to the protection of functions and values of frequently flooded areas.

The original Walla Walla County VSP Work Plan only included education and outreach goals for Frequently Flooded Areas, as well as a goal to increase use of flood planning tools regarding development. Following the first 5-year report, Walla Walla County VSP was given feedback that outreach and education did not meet protection requirements. Because floodplain restoration projects can be prohibitively expensive and permitting for such projects is often extensive, new project implementation cannot be guaranteed with current VSP resources. Instead, Walla Walla County added a goal to the workplan in November 2025 that there will be no removal of installed floodplain restoration projects. This does not include natural disturbance to restoration projects, as that is expected during flooding events. This goal aims to ensure that previously

restored floodplains continue to improve in function and value. Walla Walla County VSP also intends to design and install new floodplain restoration projects when funding allows.

Because this goal is a new addition to the workplan, more data is required for the monitoring strategy "measure floodplain and riparian acres by using a combination of contracted acres of CREP, aerial imagery, and field surveys". For information on riparian acres, which occur in floodplains, refer to the Fish and Wildlife Habitat "Protect riparian habitat".

(NOT REQUIRED) If your work plan notes accomplishments, click on 'Add Accomplishment' to add them to this benchmark. If you don't have any accomplishments for this benchmark, scroll past the next box to answer more benchmark questions.

Benchmark: no removal of installed floodplain restoration projects

Critical Areas:

Frequently Flooded,

WRIAs:

32-Walla Walla, 33-Lower Snake,

Strategy:

In the Walla Walla County VSP Work Plan (2017), there are 15 specific NRCS practices called out that demonstrate protection and enhancement of the functions and values of Frequently Flooded Areas in Walla Walla County. The Work Plan does not provide an exhaustive list and acknowledges that some practices may no longer be implemented. WWCCD acquired two datasets of NRCS certified practice implementation. The SCC provided NRCS implementation at the HUC 12 watershed scale. While useful for reporting at the watershed scale, it is difficult to determine exact metrics within County boundaries. In several cases, HUC 12 watersheds in Walla Walla County overlap with other counties, but the data cannot be located at a finer scale. WWCCD worked with local NRCS staff to acquire County wide practice data, but to conserve privacy policies, location of the practices could not be shared. Please refer to Attachment L for more details on how both of these datasets were processed.

For several practices, metrics for implementation provided in the HUC 12 dataset were drastically higher than data provided from the local NRCS office. To ensure this report does not overestimate practices implemented, the accomplishments will be based off the County level dataset provided by local staff. To compare this to the practices implemented in each watershed refer to Attachment K for results from the HUC 12 dataset.

Accomplishment:

According to the work plan, in 2011 3,174 acres were in riparian buffers (most if not all documented acres were enrolled in CREP), 1,780 linear ft of riparian streambank had been improved, and 2.9 acres of floodplain had been planted. These are the only practices recorded in acres with a 2011 baseline for Frequently Flooded Areas, see Table 3-1 on Attachment N for details. Other practices with a 2011 baseline include instream structures. However, these baselines were not recorded in the Work Plan with the same units that are recorded by NRCS and cannot be summarized by acreage. These practices specifically refer to engineered log jams and rootwads placed during instream projects, refer to the implementation strategy for more details.

For other practices, the work plan lists metrics recorded from 2011-2016, but there is no 2011 baseline. From 2011-2016, there were 4,550.34 acres enrolled in one of the other 12 qualifying NRCS practices, see Table 3-2 on Attachment N for details. In total 7,724.34 acres were under a qualifying practice. The Work Plan listed these practices as stewardship activities that would be tracked, but

acknowledged that some practices may no longer be implemented in the future. Stewardship activities should be viewed as a target but not a 2011 baseline. Thus, for this goal Walla Walla VSP aims to track and maintain acres under implementation of a qualifying practice, but it is not necessary for each practice listed to be in implementation.

Between March 7th, 2021, to November 20th, 2025, 6 different NRCS practices were implemented in Walla Walla County. To avoid counting the same contracted acres multiple times between years, cumulative implementation numbers were only calculated per year. To simplify reporting, data were summarized by normal calendar years. The exceptions are that 2021 only consists of practices from March 7th 2021- December 31st 2021, and 2025 data goes through November 20th, 2025. To see specific practice implementation per year, refer to Attachment K.

For each year total acres in implementation of a qualifying practice:

2021: 7.9

2022: 6.5

2023: 15.10

2024: 57

2025: 0 (may be more that have not yet been certified).

The below target metrics include all NRCS stewardship activities recorded for 2011-2016. The result metric is an average for acres in implementation annually. It is important to note that only acres in implementation with NRCS are included in these result metrics, but other floodplain focused projects have occurred in the county, please refer to the implementation strategy for more details. It is also important to note, that when calculating acres in implementation in 2011 with this dataset, the result was 3.5 acres. It is unlikely that the floodplain work recorded in the original work plan was only NRCS implementation. More data is required to determine a more accurate target metric for NRCS BMP implementation.

The Work Plan also lists BMP 106 Forest Management Plan and BMP 348 Barriers Removed, as applicable practices for Wetland protection/enhancement. These are not included in the summary because they are not recorded in acres. Refer to Attachment K for implementation details.

Below, provide your targets and results for your benchmark. Targets are what you were aiming to achieve when you started. Results are what you actually achieved.

Target Metric Number

7724.34

Target Metric Unit

acres

Target Metric Item

implementation of qualifying BMPs

Result Metric Number

17.3

Result Metric Unit

acres

Result Metric Item

average annual certified practice implementation

Choose applicable NRCS BMP

Herbaceous Weed Treatment (315); Conservation Cover (327); Riparian Forest Buffer (391); Stream Habitat Improvement and Management (395); Upland Wildlife Habitat Management (645);

If NRCS BMP not found, please enter your BMP in box:

Accomplishment Status

More data required

Benchmark: no removal of installed floodplain restoration projects

Critical Areas:

Frequently Flooded,

WRIAs:

32-Walla Walla, 33-Lower Snake,

Strategy:

This goal includes an outreach strategy to increase communication with landowners and partners to identify new floodplain restoration projects, educate 30 people annually about maintaining existing floodplains, and participate in water forums. WWCCD keeps records of outreach and education events in internal documents to track the number of individuals being reached. When possible, WWCCD also reaches out to partner agencies to track relevant outreach participation.

Accomplishment:

For details on WWCCD's involvement in Water Forums, refer to the outreach strategy of the goal "Enhance critical aquifer recharge sites".

The Walla Walla County VSP Technical lead, WWCCD is actively working with landowners to design and implement floodplain restoration projects. Currently WWCCD is working with 40 landowners to design and propose 4 large instream and floodplain restoration projects for future implementation. These projects all occur in areas directly adjacent to or within a near vicinity to agricultural areas. Because this goal was adopted by the VSP Work Group in late 2025, communication for future projects has not yet been tracked.

Community members in Walla Walla County learn about the importance of floodplains and restoration projects through a variety of outreach efforts. Large community events, including the annual Return to the River celebration, create opportunities for natural resource agencies and organizations to share information about floodplain functions, water quality, and fish habitat. Attendance at this event has varied in recent years, with approximately 1,500 participants in 2022, 1,000 in 2024, and 700 in 2025.

Smaller, topic-focused events hosted by the WWCCD and partners also help engage the public. Many riparian and fish habitat related topics also include floodplain functions. In 2023, 14 people

attended a Conservation Conversations speaker event on two prominent fish-bearing streams in the county. Another 30 participants attended a WWCCD–CTUIR Water and Wine speaker event focused on fish habitat. The local fisheries enhancement group, Tri-State Steelheaders, has led the Salmon in Schools program since 2015. Each year, about 1,700 students learn about the life cycle of native fish species and discuss challenges they face due to poor habitat and lacking floodplain connectivity.

The Confederated Tribes of the Umatilla Indian Reservation (CTUIR) and the U.S. Fish and Wildlife Service (USFWS) are working together on a large-scale habitat restoration and enhancement project spanning about 1,200 acres within the McNary National Wildlife Refuge – Wallula Unit. The Walla Walla River, being the last unconfined and relatively undeveloped river delta in the Middle Columbia River region, offers a unique and significant opportunity for conservation. Both the CTUIR and USFWS share a commitment to restoring and improving floodplain, wetland, and instream habitats to support fish and wildlife populations (Green & Kutch, 2023). Since July 2023, Project Leader Steve Kahl (USFWS) has delivered 29 presentations on the project, reaching about 290 people, discussing not only the details of this effort but also the functions our historical floodplains provide and why maintaining them is vital (S. Kahl, personal communication, March 19, 2025).

Across the five-year period, outreach efforts reached at least 9,756 participants when including students, and 1,256 participants when excluding Salmon in Schools. The metrics below represent totals combined across all five years. See Attachment J for more details.

Below, provide your targets and results for your benchmark. Targets are what you were aiming to achieve when you started. Results are what you actually achieved.

Target Metric Number

150

Target Metric Unit

number

Target Metric Item

people reached about frequently flooded areas

Result Metric Number

9756

Result Metric Unit

number

Result Metric Item

people reached about frequently flooded areas

Choose applicable NRCS BMP

If NRCS BMP not found, please enter your BMP in box:

outreach

Accomplishment Status

Exceeded

Benchmark: no removal of installed floodplain restoration projects

Critical Areas:

Frequently Flooded,

WRIAs:

32-Walla Walla,

Strategy:

This goal includes an implementation goal to design and install floodplain restoration or side channel connectivity projects, when funding allows. WWCCD is actively applying for funding to design and implement large instream projects that often include floodplain restoration for water quality and fish habitat benefits. WWCCD also reached out to partner agencies to track other floodplain restoration projects in the county.

Accomplishment:

Between March 7th, 2021, and March 7th, 2026, WWCCD completed 6 large instream projects that contributed to floodplain restoration in WRIA 32 and were also surrounded or influenced by agricultural activity. In total these projects connected/added 4.8 acres (1.06 miles) of channel/off-channel and 1.63 miles of stream were treated for channel reconfiguration and connectivity. WWCCD continues to work with local partners to identify priority reaches for restoration and is actively applying for funding to support restoration efforts. Reconnecting incised streams with side-channels and wide floodplains relieves pressure from flooding during high flow events, while slowing flows and allowing sediment deposition.

The local fisheries enhancement group, Tri-State Steelheaders implemented one instream restoration project in 2021 that contributed to floodplain restoration. This project included treating 0.34 stream miles for channel reconfiguration and creating/connecting 0.07 stream miles of channel/off-channel.

For this accomplishment, miles of stream treated for channel reconfiguration and connectivity is the reported metric. In total, 1.13 stream miles of channel/off-channel were connected/added.

Below, provide your targets and results for your benchmark. Targets are what you were aiming to achieve when you started. Results are what you actually achieved.

Target Metric Number

0

Target Metric Unit

miles

Target Metric Item

stream treated for reconfiguration and connectivity

Result Metric Number

1.97

Result Metric Unit

miles

Result Metric Item

stream treated for reconfiguration and connectivity

Choose applicable NRCS BMP

If NRCS BMP not found, please enter your BMP in box:

Accomplishment Status

Exceeded

Provide a brief text explanation supporting whether the benchmark was or was not met:

More data is required to determine if the benchmark "no removal of installed floodplain restoration projects" was met. Because this goal was added to the Work Plan in November 2025, data for floodplain acres and existing restoration projects have not yet been acquired. While NRCS BMP implementation seems low for Frequently Flooded Areas, it is unknown if BMP implementation is necessary to offset lost floodplain acres. Meanwhile, both the outreach and implementation strategy exceeded target metrics for this reporting period.

How does the monitoring data support whether you have met or not met this benchmark?

Benchmark Status:

More data required

What is the 2011 baseline for this entry?

This goal was adopted by the Walla Walla County VSP Work Group in November 2025, and more data is required to determine a 2011 baseline. The adaptive management threshold is "the removal of installed floodplain projects resulting in a net decrease of restored area relative to 2011. Threshold to be determined, more data is required".

Did you use monitoring data to evaluate this benchmark?

No

If yes, what monitoring tools or approaches did you use?

Please enter your new goal (not already in your work plan):

Protect critical aquifer recharge areas

Please enter your new benchmark (not already in your work plan):

no net decrease in functioning flow meters since 2011

Indicate if this is a Protection or Enhancement Benchmark:

Protection

Clearly identify how the reported implementation efforts contribute to meeting this goal and benchmark:

In Walla Walla County, Critical Aquifer Recharge Areas (CARA) are mapped along waterways of the Walla Walla Watershed, primarily within the boundaries of the shallow gravel aquifer that spans across the Oregon border. About one third of the 190 square miles of the shallow gravel aquifer is in Umatilla County, Oregon. The shallow aquifer in Walla Walla is a crucial source of drinking water and irrigation in the county. It is also

generally accepted that the aquifer helps provide surface water flows in the summer months when water levels get low, benefiting aquatic habitat. The hydrologic connection and groundwater maps are currently being studied by the United States Geological Survey.

In Walla Walla County two important functions provided by CARA include contributing to the drinking water supply and base flow to streams (HDR, Inc. 2008). Concerns of water quality and quantity may determine the value of these areas and the functions they provide. While there is little available data on current and historic water levels in either the shallow gravel aquifer or the deep basalt aquifer that encompasses the rest of the Walla Walla Watershed, local and state agencies have partnered together as the Walla Walla Basin Action Council to address and monitor water quantity in the basin.

The Walla Walla County Best Available Science Review (2008), calls out “overpumping from wells and springs” as one land-use activities that can reduce recharge and affect ground water quantity. Over 88,000 acres of Walla Walla County are irrigated, and many of these acres in WRIA 32 fall in CARA areas or within the shallow gravel aquifer boundary. Groundwater levels typically rise from January-March during months of high precipitation, but begin to decline from July-September when pumping and evapotranspiration levels are highest (HDR, Inc. 2008). According to the Walla Walla County Best Available Science Review, studies have indicated that shallow aquifers are responsible for about 70 percent of stream base flow, which support aquatic species and habitat especially in summer months when water levels get low (Barker & MacNish, 1976; Sinclair & Pitz, 1999; as cited in HDR, Inc. 2008). Irrigation for agriculture directly impacts water quantity during the most crucial months for stream flow, but “in principle, ground water withdrawals are regulated by the Department of Ecology through the allocation of water rights” which intends to protect CARA from long-term water level declines (HDR, Inc. 2008). Irrigators are required by Ecology to report their water use so that Ecology can monitor consumption and protect from long-term water level declines. The easiest and most accurate way for producers to comply to consumption and reporting requirements is by installing flow meters on their irrigation systems. Flow meters track water pumped and facilitate more efficient reporting. Unfortunately, flow meters in Walla Walla County are often damaged or broken due to flooding or other factors outside of the irrigators’ control. Walla Walla County VSP aims to protect CARA by monitoring flow meter functionality and providing financial and technical assistance to replace flow meters, when funding allows.

(NOT REQUIRED) If your work plan notes accomplishments, click on 'Add Accomplishment' to add them to this benchmark. If you don't have any accomplishments for this benchmark, scroll past the next box to answer more benchmark questions.

Benchmark: no net decrease in functioning flow meters since 2011

Critical Areas:

Critical Aquifer Recharge,

WRIAs:

32-Walla Walla,

Strategy:

In 2001, the Walla Walla County Conservation District, landowners, and agency partners came together to develop a program to provide irrigators with flow meters to monitor water consumption to protect water levels and aquatic organisms in the region. To ensure that irrigators can accurately measure how much water they are pulling from waterways and away from aquifer recharge, WWCCD staff perform a Flow Meter Effectiveness Audit, every 2 years. The Flow Meter Effectiveness Audit is described in further detail in Attachment G: Flow Meter Effectiveness Audit (condensed with Attachment H: Attachment G & H: Flow Meter Audit and Groundwater Memorandum).

Accomplishment:

From March 7th, 2021, to March 7th 2026, the Walla Walla County VSP technical lead (WWCCD) has completed one Flow Meter Effectiveness Audit, which began in 2023 and was completed in 2024. A Flow Meter Effectiveness Audit was completed in 2021 for the previous 5-year report, and at the time this report was written, the 2026 audit had not yet been conducted. Of the random sample (50), WWCCD staff received responses from landowners for 31 flow meters, but 4 flow meters were no longer in use or irrigating which changed the sample size to 27. During this audit, WWCCD calculated that 81% of the meters sampled were functioning, more details can be found in Attachment G & H. During this audit, the most common reason for flow meters not functioning was mechanical failure due to corrosive water and sediment. It is important to note that the reported % functioning is before any flow meters from the audit are replaced with assistance from WWCCD. From this audit, 4 of the 5 non-functioning flow meters were replaced.

Below, provide your targets and results for your benchmark. Targets are what you were aiming to achieve when you started. Results are what you actually achieved.

Target Metric Number

60

Target Metric Unit

percent

Target Metric Item

flow meters functioning

Result Metric Number

81

Result Metric Unit

percent

Result Metric Item

flow meters functioning

Choose applicable NRCS BMP

Pumping Plant (533);

If NRCS BMP not found, please enter your BMP in box:

Accomplishment Status

Exceeded

Benchmark: no net decrease in functioning flow meters since 2011

Critical Areas:

Critical Aquifer Recharge,

WRIAs:

32-Walla Walla,

Strategy:

This goal and benchmark include an outreach strategy to reach out to 30 operators every two years to inquire about flow meter functionality and inform landowners of importance of metering. This is primarily done through the Flow Meter Effectiveness Audit performed every two years. More details about this audit can be found in Attachment G & H. WWCCD staff also speak on the importance of flow meters, when possible, at other outreach and education events, though those instances are not recorded. Producers also often contact WWCCD inquiring about replacing their flow meters. Depending on funding available, WWCCD provides funding or technical assistance for these replacements. Details about flow meter projects can be found in the implementation strategy accomplishment.

Accomplishment:

From March 7th, 2021, to March 7th 2026, the Walla Walla County VSP technical lead (WWCCD) performed one Flow Meter Effectiveness Audit, with the goal to reach 30 individuals about the functionality of their flow meters. When inquiring about the status of their meter, staff emphasized and educated about the role and importance of flow meters for stream flow and aquifer recharge in Walla Walla County. In 2024 staff reached 31 individuals, although only 27 were still using a flow meter.

Below, provide your targets and results for your benchmark. Targets are what you were aiming to achieve when you started. Results are what you actually achieved.

Target Metric Number

30

Target Metric Unit

number

Target Metric Item

people reached about flow meter functionality

Result Metric Number

31

Result Metric Unit

number

Result Metric Item

people reached about flow meter functionality

Choose applicable NRCS BMP

Pumping Plant (533);

If NRCS BMP not found, please enter your BMP in box:

Accomplishment Status

Exceeded

Benchmark: no net decrease in functioning flow meters since 2011

Critical Areas:

Critical Aquifer Recharge,

WRIAs:

32-Walla Walla,

Strategy:

This goal and benchmark include an implementation strategy to provide funding and technical assistance to replace flow meters, when funding allows. Many of the flow meter projects result from contact made during the Flow Meter Effectiveness Audit. Other projects result from irrigators contacting WWCCD directly inquiring about financial or technical assistance for meter replacements.

Accomplishment:

Over this five-year period, VSP funding has provided technical and financial assistance to replace 19 flow meters. The 2024 Audit resulted in replacing 4 flow meters that were non-functioning. Of the meters funded, 3 are being installed as part of a larger irrigation improvement project that is anticipated to be completed later in 2026. These meter replacements are estimated to provide accurate water use monitoring for over 1,355 irrigated acres. These acres are all located either in proximity to CARA high vulnerability areas (58,007 acres) or the shallow gravel aquifer boundary (94,362 acres).

Below, provide your targets and results for your benchmark. Targets are what you were aiming to achieve when you started. Results are what you actually achieved.

Target Metric Number

0

Target Metric Unit

number

Target Metric Item

flow meters replaced/installed

Result Metric Number

16

Result Metric Unit

number

Result Metric Item

flow meters replaced/installed

Choose applicable NRCS BMP

Pumping Plant (533);

If NRCS BMP not found, please enter your BMP in box:
Accomplishment Status

Exceeded

Provide a brief text explanation supporting whether the benchmark was or was not met:

The benchmark "no net decrease in functioning flow meters since 2011" was met during this 5 year period. To monitor meters that may have failed since 2011, and to reach out to known irrigators, the VSP technical lead conducted the Flow Meter Effectiveness Audit, completed in 2024. During the audit, 31 individuals were surveyed, 5 meters were reported broken, and 4 were reported no longer pumping. In this period WWCCD also helped replace 16 flow meters that were damaged or near failure, many of which resulted from this audit or the 2020-2021 Flow Meter Effectiveness Audit. Of the meters surveyed in the Flow Meter Effectiveness Audit, 81% were functioning, well above the Adaptive Management Threshold of 40% non-functioning. Further, flow meter project implementation by WWCCD has resulted in a net increase in functioning flow meters of those surveyed in WRIA 32.

How does the monitoring data support whether you have met or not met this benchmark?

Benchmark Status:

Met

What is the 2011 baseline for this entry?

WWCCD maintains an internal database of flow meter projects that tracks flow meters installed with WWCCD assistance. Prior to 2011, there were 387 known flow meters installed. Between 2011-2021, an additional 157 flow meters had been installed. The Walla Walla County VSP technical lead, WWCCD, does not have the resources to survey each of these flow meters. Instead, Walla Walla County VSP survey a random sample of at least 30 landowners every two years to inquire about their meter. The Work Group acknowledges that there are many reasons a flow meter may stop functioning that is outside of the control of the producer. For this goal, the Walla Walla County VSP Work Plan states that to be above the adaptive management threshold, at least 60% of flow meters surveyed must be functioning. While flow meter effectiveness is surveyed county wide, nearly all flow meters are located in Critical Aquifer Recharge Areas (CARA) of WRIA 32.

Did you use monitoring data to evaluate this benchmark?

No

If yes, what monitoring tools or approaches did you use?

Please enter your new goal (not already in your work plan):

Enhance critical aquifer recharge sites

Please enter your new benchmark (not already in your work plan):

maintain existing aquifer recharge projects

Indicate if this is a Protection or Enhancement Benchmark:

Enhancement

Clearly identify how the reported implementation efforts contribute to meeting this goal and benchmark:

The Walla Walla Basin is a hydrologically, jurisdictionally, and biologically complex watershed. Because of this, a collaborative effort is needed for success. WWCCD has been actively involved in the efforts of the Walla

Walla Waters 2050, a collaborative effort to ensure adequate water for people, irrigated agriculture, and instream flows for fish and wildlife. The 2050 Plan evolved into the Walla Walla Basin Advisory Committee (WWBAC) overseen by the tri-sovereigns of the states of Washington and Oregon, along with the Confederated Tribes of the Umatilla Indian Reservation (CTUIR). The Walla Walla Basin Advisory Committee includes over 40 stakeholders from local, state, and federal groups. The Walla Walla Basin Advisory Committee meets monthly with different working groups convening as needed. Many of these entities have been working diligently, but separately, for over 30 years to address water issues within the Walla Walla Basin. The 2050 Plan "aims to identify and prioritize key strategies to balance and harmonize the basin's threatened ecosystem health with the continued growth and prosperity of its human inhabitants" (Walla Walla Watershed Management Partnership, 2021).

Efforts to enhance Critical Aquifer Recharge Areas in Walla Walla County are largely led by the Walla Walla Waters 2050 Plan and the WWBAC. Entities in the basin are now working together to better understand functions and values of the shallow gravel aquifer and CARA and how they can be protected and enhanced. In March 2025, the WWBAC group finalized the Tier 1 Strategy Implementation Plan and Funding Strategy. The Implementation Plan "provides an implementation roadmap for the next five years (2025-2029) for high priority strategies out of the [Walla Walla Water 2050] effort" (AMP Insights, & Walla Walla Basin Watershed Strategy, 2025). The Walla Walla River Bi-State Flow Study: 2025 Flow Study Update was also finalized early 2025 (Jacobs Engineering Group Inc., & Aspect Consulting, 2025). In conjunction with the ongoing U.S. Geological Survey (USGS) ground water study (Washington Water Science Center, 2020), this study will help guide future implementation efforts.

As a result of these efforts, the Department of Ecology Office of Columbia River has allocated 2025-2027 funding to maintain one aquifer recharge site that halted operations in 2017. Shallow Aquifer Recharge (SAR) sites enhance the functions provided by CARA by increasing aquifer water levels and ensuring infiltrated water does not introduce contaminants to the water supply. To protect the aquifer water supply from being contaminated with pesticides, nitrates, and other contaminants, water infiltrated at SAR sites must undergo extensive water quality testing. In fact, water quality testing for the SAR sites in Walla Walla County were initially so intense that the cost for testing became too expensive for the projects to continue operating. In 2021, Ecology determined that the water quality testing results were satisfactory and led to the testing requirements being reduced. As the before mentioned groundwater studies are finalized, WWCCD will reach out to landowners for prospective projects and provide financial and technical assistance for maintaining and implementing recharge sites to increase the quantity and quality of water being reserved in the aquifer.

(NOT REQUIRED) If your work plan notes accomplishments, click on 'Add Accomplishment' to add them to this benchmark. If you don't have any accomplishments for this benchmark, scroll past the next box to answer more benchmark questions.

Benchmark: maintain existing aquifer recharge projects

Critical Areas:

Critical Aquifer Recharge,

WRIAs:

32-Walla Walla,

Strategy:

This goal includes a monitoring strategy to coordinate with cooperators operating Shallow Aquifer Recharge (SAR) sites to record # acre feet per year that are recharged. The target metric is based on the average recharge the Locher Road SAR input yearly prior to 2011. The yearly average recharge prior to 2011 was 82.7 acre-feet from Locher Road SAR. Using this average, the target metric for cumulative acre-feet over 5 years is 413.5 acre feet.

Accomplishment:

Prior to 2011, only 1 aquifer recharge site was active in Walla Walla County. Between 2012-2017 an additional recharge site, Stiller Pond, began infiltration operations. Prior to 2017, two more sites were proposed, but never began infiltration. In 2017, the Locher Road site halted operations due to a combination of a) prohibitive water quality testing costs, and b) discovering there was limited surface to groundwater connection. Stiller Pond also ceased operations in 2017 due to the prohibitive cost of water testing for recharge as required by Washington State. In 2021, Ecology's requirements for testing aquifer recharge water for these sites were reduced and WWCCD staff began conversations to restart recharge operations.

The landowner of Stiller Pond resumed recharge operations of their own accord and funding in 2021. Recharge operations occur between December 1st-May 31st, for a maximum input of 991 acre-feet. Since 2021, each year Stiller Pond has exceeded recharge goals. Total acre feet recharged each year:

2021-2022: 289.47

2022-2023: 305.21

2023-2024: 335.09

2024-2025: 220.40

2025-2026: over 50 acre-feet in December. More recharge expected to occur between January-May.

In total, Stiller Pond has recharged at least 1,200.17 acre-feet from December 1st, 2021 to December 31st, 2025.

Recharge operations beginning in December 2025-June 2027 will be funded through the Ecology Office of Columbia River, and Walla Walla County VSP will reach out for more detailed reports. During previous operations (2012, 2014, 2015), recharge ranged from 32-300 acre feet and averaged 182 acre feet per year. It is important to note these recharge periods ranged from only .5-1 month from March-May.

Below, provide your targets and results for your benchmark. Targets are what you were aiming to achieve when you started. Results are what you actually achieved.

Target Metric Number

413.5

Target Metric Unit

acre-feet

Target Metric Item

cumulative amount recharged through SAR

Result Metric Number

1200.17

Result Metric Unit

acre-feet

Result Metric Item

cumulative amount recharged through SAR

Choose applicable NRCS BMP

If NRCS BMP not found, please enter your BMP in box:

Accomplishment Status

Exceeded

Benchmark: maintain existing aquifer recharge projects

Critical Areas:

Critical Aquifer Recharge,

WRIAs:

32-Walla Walla,

Strategy:

This goal includes an outreach strategy to participate in water forums, outreach to landowners about prospective projects, and educate about ongoing or past projects. Walla Walla County VSP intends to pursue prospective recharge projects after the USGS groundwater study is completed in late 2026, which will help identify suitable locations. In the meantime, the Walla Walla County VSP technical lead, WWCCD, participates in water forums and outreach events.

Accomplishment:

During this 5-year period WWCCD staff continued to participate in water forums including the Walla Walla Basin Advisory Committee (WWBAC) and the associated Bi-State Flow Study, and the Columbia River Policy Advisory Group.

The Bi-State Flow Study is focused on improving streamflow in the Walla Walla River mainstem, from the controlled diversion into the Little Walla Walla River near Cemetery Bridge in Milton-Freewater, Oregon, down to its confluence with the Columbia River near Wallula, Washington. Its primary goal is to maintain streamflow levels that support naturally sustaining, harvestable populations of native fish while also ensuring the long-term viability of agricultural, municipal, commercial, and residential water uses. Any water conserved through this effort will remain instream in accordance with conservation funding agreements and Oregon's conserved water statutes.

The Columbia River Policy Advisory Group provides guidance to the Office of Columbia River on policy matters related to developing new water supplies for Eastern Washington. Its members include representatives from state, local, federal, and tribal governments, as well as irrigators, businesses, and environmental organizations.

Community members in Walla Walla County may learn about the importance of Critical Aquifer Recharge Areas through several types of outreach. Large community events like the annual Return to the River event and the Walla Walla Waters 2050 Open House provide an opportunity for natural resource agencies and organizations to educate community members on current concerns and management practices pertaining to water quality and quantity for people and fish. In this 5-year period, three Return to the River events reached a total of 2,000 attendees. Between 2024-2025, there were 2 Walla Walla Waters 2050 Open House events with 170 total attendees.

Other smaller events put on by the WWCCD, and partners help educate participants in more detail on specific topics. In 2022, 3 members of the public attended a Conservation Conversations speaker

session on water rights. Water and Wine events, sponsored by the Walla Walla Basin Watershed Strategy, included speaker sessions on the Walla Walla Basin aquifer, hydrogeology in the watershed, and water saving practices used by local wineries. In 2025, 75 participants attended sessions pertinent to aquifer recharge. The Walla Walla Basin Watershed Strategy also sponsored Water PubTrivia events to engage and educate community members on water and aquifer facts specific to the area. In total 94 community members participated in these events. Another 9 community members with the Kiwanis group learned about the aquifer and what they can do to conserve water. In 2025, 8 WSU graduate students learned about water and aquifer management in the basin by visiting WWCCD. WWCCD is assisting in the development of a county Drought Preparedness Plan and had 17 landowners (primarily producers) fill out a drought survey.

WWCCD aims to educate 30 members of the public every 2 years, or 75 over 5 years. In total, aquifer related outreach events reached 4,441 participants in this 5-year period, see Attachment J, for details.

Below, provide your targets and results for your benchmark. Targets are what you were aiming to achieve when you started. Results are what you actually achieved.

Target Metric Number

75

Target Metric Unit

number

Target Metric Item

people reached about aquifer recharge

Result Metric Number

4441

Result Metric Unit

number

Result Metric Item

people reached about aquifer recharge

Choose applicable NRCS BMP

If NRCS BMP not found, please enter your BMP in box:

outreach

Accomplishment Status

Exceeded

Provide a brief text explanation supporting whether the benchmark was or was not met:

The benchmark "maintain existing aquifer recharge projects" was met during this 5-year period. While the aquifer recharge site that was operating prior to 2011 is no longer in use, a new recharge site has been put to use in this 5-year period. Although not the same site, this site acts as a replacement, or even an improvement due to it recharging more acre feet per year. WWCCD and partner organizations have reached 4,441 community members about the importance of the shallow gravel aquifer and recharge projects. WWCCD

anticipates pursuing new recharge projects following the completion of the USGS groundwater study to continue to enhance Critical Aquifer Recharge Areas.

How does the monitoring data support whether you have met or not met this benchmark?

Benchmark Status:

Met

What is the 2011 baseline for this entry?

At the time the Walla Walla County VSP Work Plan was adopted in 2017, only one aquifer recharge site was active (WRIA 32) and the goal to maintain the project required "additional funding beyond current efforts and existing Walla Walla County funding". At this time there were several aquifer recharge projects completed in the Walla Walla Basin in Oregon, but the cost of water quality testing requirements limited sites in Washington. The Locher Road recharge site started in 2007 and consisted of 2.5 acres of a previously excavated gravel pit with infiltration rates of 3.5 cubic feet per second (cfs), diverted from the Walla Walla River. From 2007-2011, the site recharged a cumulative 330.8 acre feet and averaged 82.7 acre feet per year. Data for SAR sites were derived from the Groundwater Memorandum using information presented in reports submitted by the Walla Walla Basin Watershed Council, refer to Attachment G & H: Flow Meter Audit and Groundwater Memorandum.

Did you use monitoring data to evaluate this benchmark?

No

If yes, what monitoring tools or approaches did you use?

Please enter your new goal (not already in your work plan):

Enhance water quality for critical aquifer recharge

Please enter your new benchmark (not already in your work plan):

reduce risk of agricultural pollutants

Indicate if this is a Protection or Enhancement Benchmark:

Enhancement

Clearly identify how the reported implementation efforts contribute to meeting this goal and benchmark:

Agricultural activities can have a direct effect on the composition of groundwater recharge in Critical Aquifer Recharge Areas, including the dissolution and transport of excess quantities of fertilizers and pesticides (Böhlke, 2002). In Walla Walla County, ground water quality impacts drinking water sources for residents as well as ecosystem functions in streams.

The shallow aquifer in Walla Walla is a crucial source of drinking water and irrigation in the county. It is also generally accepted that the aquifer helps provide surface water flows in the summer months when water levels get low, benefiting aquatic habitat. The hydrologic connection and groundwater maps are currently being studied by the United States Geological Survey. The value of these functions is affected by the quality of water being reintroduced to the shallow aquifer in WRIA 32.

Two regions in Walla Walla County have been identified by WSDA and ECY as having groundwater highly vulnerable to nitrate and pesticide contamination. These regions have been selected as study regions for WSDA's new Regional Pesticide and Nutrient Monitoring Program, funded in 2023. WSDA completed 38 well samples in the southern study region of Walla Walla County, which falls in the Critical Aquifer Recharge Area. Results from this program will help fill in gaps in pesticide data and inform residents on the quality of their

drinking water. The results will also help WWCCD track and monitor the impact of agricultural practices on Critical Aquifer Recharge Areas. The WSDA will resume sampling wells for pesticides, nutrients, common ions, and metals in 2026.

Walla Walla County VSP aims to reduce risk of agricultural pollutants in Critical Aquifer Recharge Areas to protect water quality and the functions and values provided by these areas. This goal includes strategies to track BMP implementation, educate 10 people annually and encourage the use of nutrient management and pesticide application BMPs, and provide financial and technical assistance to implement BMPs, when funding allows.

(NOT REQUIRED) If your work plan notes accomplishments, click on 'Add Accomplishment' to add them to this benchmark. If you don't have any accomplishments for this benchmark, scroll past the next box to answer more benchmark questions.

Benchmark: reduce risk of agricultural pollutants

Critical Areas:

Critical Aquifer Recharge,

WRIAs:

32-Walla Walla, 33-Lower Snake,

Strategy:

This goal includes a monitoring strategy to track BMPs implemented in Walla Walla County, specifically in WRIA 32. WWCCD acquired two datasets of NRCS certified practice implementation to track practice implementation in Walla Walla County. The SCC provided NRCS implementation at the HUC 12 watershed scale. While useful for reporting at the watershed scale, it is difficult to determine exact metrics within County boundaries. In several cases, HUC 12 watersheds in Walla Walla County overlap with other counties, but the data cannot be located at a finer scale. WWCCD worked with local NRCS staff to acquire County wide practice data, but to conserve privacy policies, location of the practices could not be shared. Please refer to Attachment L for more details on how both of these datasets were processed.

Accomplishment:

To avoid counting the same contracted acres multiple times, cumulative implementation numbers were only calculated per year. To simplify reporting, data were summarized by normal calendar years. The exceptions are that 2021 only consists of practices from March 7th 2021, through December 31st 2021, and 2025 data goes through November 20th, 2025. To see specific practice implementation per year, refer to Attachment K.

For each year total acres in implementation of NRCS BMP 590 and 595:

2021: 81,074.4

2022: 96,863.1

2023: 94,955

2024: 123,917.2

2025: 6,887.6 (may be more that have not yet been certified).

The result metric is an average for acres in implementation annually. It is important to note, that

when calculating acres in implementation in 2011 with this dataset, the result was 24,985.9 acres, which differs from the data reported in the Work Plan (2017).

Below, provide your targets and results for your benchmark. Targets are what you were aiming to achieve when you started. Results are what you actually achieved.

Target Metric Number

13600.8

Target Metric Unit

acres

Target Metric Item

implementation of qualifying BMPs

Result Metric Number

80739.46

Result Metric Unit

acres

Result Metric Item

average annual implementation of qualifying BMPs

Choose applicable NRCS BMP

Nutrient Management (590); Pest Management Conservation System (595);

If NRCS BMP not found, please enter your BMP in box:

Accomplishment Status

Exceeded

Benchmark: reduce risk of agricultural pollutants

Critical Areas:

Critical Aquifer Recharge,

WRIAs:

32-Walla Walla, 33-Lower Snake,

Strategy:

This goal includes an outreach strategy to educate 10 people annually and encourage the use of nutrient management and pesticide application BMPs.

Accomplishment:

Because this goal was added in November 2025, limited outreach pertaining to nutrient management and pesticide application have been tracked in prior years.

The WWCCD Annual Meeting is one way producers and landowners can learn about appropriate pesticide and nutrient management and applicable BMPs. By attending this meeting, producers have the opportunity to hear from guest speakers and local agencies while earning credits necessary for their pesticide recertification. There were 175 total attendees for the 2022-2025 WWCCD Annual Meetings.

In 2025, WWCCD, WSDA, and the WA Association of Wheat Growers partnered to put on the ESA/EPA Workshop for producers. This workshop walked producers through practices that help mitigate chemical application risks and granted another opportunity for them to gain pesticide credits. Tools and resources provided by WSDA, NRCS, and VSP were also shared with the 50 participants.

Two regions in Walla Walla County have been identified by WSDA and ECY as having groundwater highly vulnerable to nitrate and pesticide contamination. These regions have been selected as study regions for WSDA's new Regional Pesticide and Nutrient Monitoring Program, funded in 2023. All study participants receive free information about their well water results. In 2025, WSDA completed 38 well samples and data will be provided to each landowner.

The result metric listed below sums these outreach events. For more information on outreach events pertaining to CARA in general, refer to Attachment J.

Below, provide your targets and results for your benchmark. Targets are what you were aiming to achieve when you started. Results are what you actually achieved.

Target Metric Number

50

Target Metric Unit

number

Target Metric Item

people educated and reached about BMPs

Result Metric Number

263

Result Metric Unit

number

Result Metric Item

people educated and reached about BMPs

Choose applicable NRCS BMP

If NRCS BMP not found, please enter your BMP in box:

outreach

Accomplishment Status

Exceeded

Provide a brief text explanation supporting whether the benchmark was or was not met:

The benchmark "reduce risk of agricultural pollutants" was met during this 5-year period. According to NRCS implementation data provided by local NRCS staff, the average annual acres being implemented in NRCS BMP 590 and 595 far exceeded the Stewardship Activities identified in the Work Plan (2017). The outreach strategy was also successful as more than 10 people were educated about pesticide and nutrient management and BMPs annually. WWCCD does not have record of funding or technical assistance provided for these BMPs specifically, but implementation through NRCS alone satisfies this goal.

How does the monitoring data support whether you have met or not met this benchmark?

Benchmark Status:

Exceeded

What is the 2011 baseline for this entry?

The Walla Walla County VSP Work Plan lists 27 NRCS BMPs that could be tracked by Walla Walla County VSP to indicate critical aquifer recharge protection and enhancement. The Work Plan does not provide an exhaustive list and acknowledges that some practices may no longer be implemented. This goal specifically tracks BMPs related to nutrient management, waste storage facilities, and pesticide application. For several practices, metrics for implementation provided in the HUC 12 dataset did match data provided by local NRCS staff. To ensure this report does not overestimate practices implemented, the accomplishments will be based off the County level dataset provided by local staff. To compare this to the practices implemented in each watershed refer to Attachment K, for results from the HUC 12 dataset. For this goal, implementation of NRCS BMP 590 Nutrient Management and BMP 595 Pest Management Conservation System were tracked from March 7th, 2021, to November 20th, 2025. The original Work Plan does not list a 2011 baseline for these practices, but lists Stewardship Practices from 2011-2016. In total Stewardship Practices for BMP 590 and 595 totaled 13,600.8 acres between 2011-2016.

Did you use monitoring data to evaluate this benchmark?

No

If yes, what monitoring tools or approaches did you use?

Please enter your new goal (not already in your work plan):

Enhance critical aquifer recharge areas

Please enter your new benchmark (not already in your work plan):

increase irrigation efficiency annually

Indicate if this is a Protection or Enhancement Benchmark:

Enhancement

Clearly identify how the reported implementation efforts contribute to meeting this goal and benchmark:

As discussed in the previous goals, water quantity largely affects the value of functions provided by Critical Aquifer Recharge Areas. Over 88,000 acres are irrigated in Walla Walla County, and the majority of these acres fall in WRIA 32 and Critical Aquifer Recharge Areas. Agricultural irrigation can have a lasting impact on the shallow aquifer by reducing natural recharge through streams when diverting from surface water and

depleting the aquifer levels when irrigating from a well.

Walla Walla County VSP adopted this goal in November 2025, but WWCCD has been helping irrigators convert to more efficient irrigation methods for several years, primarily through the SCC Irrigation Efficiency Program. This goal tracks the number of acre feet saved by irrigation upgrades yearly by providing financial and technical assistance, when funding allows. WWCCD also tracks and encourages NRCS BMP implementation for BMPs pertinent to Critical Aquifer Recharge Areas that may impact irrigation efficiency, see Attachment K for more details.

(NOT REQUIRED) If your work plan notes accomplishments, click on 'Add Accomplishment' to add them to this benchmark. If you don't have any accomplishments for this benchmark, scroll past the next box to answer more benchmark questions.

Benchmark: increase irrigation efficiency annually

Critical Areas:

Critical Aquifer Recharge, Frequently Flooded,

WRIAs:

32-Walla Walla,

Strategy:

This goal includes an implementation strategy to provide financial and technical assistance to upgrade irrigation systems, when funding allows. Through the SCC Irrigation Efficiency Program, WWCCD has helped landowners fund several irrigation system upgrades that are estimated to result in acre feet of water saved.

Accomplishment:

From July 2023-March 7th, 2026, WWCCD has worked with landowners to implement 10 irrigation efficiency upgrades in WRIA 32 through the Irrigation Efficiencies Grant Program. These upgrades included 7 center pivots, 1 center pivot with corner catcher, 2 wipers, and 1 variable frequency drive, which in total irrigate 589 acres and resulted in 204.3 acre-feet per year water savings. These projects enhance functions provided by CARA by increasing water quantity available while providing agricultural viability benefits. Producers benefit long term from irrigation upgrades because they experience lower pumping costs and have better control over their cropping systems.

The result includes all irrigation upgrades implemented during this period.

Below, provide your targets and results for your benchmark. Targets are what you were aiming to achieve when you started. Results are what you actually achieved.

Target Metric Number

0

Target Metric Unit

acre-feet per year

Target Metric Item

water saved by irrigation upgrades

Result Metric Number

204.3

Result Metric Unit

acre-feet per year

Result Metric Item

water saved by irrigation upgrades

Choose applicable NRCS BMP

If NRCS BMP not found, please enter your BMP in box:

Accomplishment Status

Exceeded

Benchmark: increase irrigation efficiency annually

Critical Areas:

Critical Aquifer Recharge, Geologically Hazardous,

WRIAs:

32-Walla Walla,

Strategy:

While not specifically called out in the strategies of this goal, WWCCD also coordinates with the Washington Water Trust to track water conserved instream via purchased or leased water rights in Walla Walla County.

Accomplishment:

Washington Water Trust is a nonprofit organization dedicated to restoring and protecting river and stream flows throughout Washington State to support healthy ecosystems, communities, and agriculture. Using voluntary, market-based approaches, they work with landowners, tribes, farmers, and agencies to lease or purchase water rights, improve irrigation efficiency, and develop sustainable water solutions. Between 2023-2024, the Trust has protected 929.79 acre-feet/year in a combination of leases and acquisitions on the Touchet River. Prior to 2011, the Washington Water Trust protected up to 671 acre-feet per year in permanent acquisitions in WRIA 32. Since 2011, they now protect up to 1,100 acre-feet per year through permanent water right acquisitions in WRIA 32 (N. Lottsfeldt, personal communication, April 21, 2025).

Below, provide your targets and results for your benchmark. Targets are what you were aiming to achieve when you started. Results are what you actually achieved.

Target Metric Number

671

Target Metric Unit

acre-feet per year

Target Metric Item

water saved instream via permanent acquisitions

Result Metric Number

1100

Result Metric Unit

acre-feet per year

Result Metric Item

water saved instream via permanent acquisitions

Choose applicable NRCS BMP

If NRCS BMP not found, please enter your BMP in box:

Accomplishment Status

Exceeded

Provide a brief text explanation supporting whether the benchmark was or was not met:

The benchmark "increase irrigation efficiency annually" was met during this period. Even though the goal was only adopted in the Work Plan in November 2025, WWCCD has helped implement 10 irrigation upgrades since 2023, resulting in a cumulative 204.3 acre-feet per year water savings. An additional 1,100 acre-feet/year have been permanently acquired by the Washington Water Trust to protect instream flows in WRIA 32, this is about 429 acre-feet/year more than prior to 2011.

How does the monitoring data support whether you have met or not met this benchmark?

Benchmark Status:

Exceeded

What is the 2011 baseline for this entry?

This goal was adopted into the Walla Walla County Work Plan in late 2025, but reflects work WWCCD, the VSP technical lead, has already been doing for years. Rather than a 2011 baseline, which may be impossible to determine, Walla Walla County VSP aims to increase water use efficiency in irrigation systems every year.

Did you use monitoring data to evaluate this benchmark?

No

If yes, what monitoring tools or approaches did you use?

Please enter your new goal (not already in your work plan):

Protect critical areas from soil loss

Please enter your new benchmark (not already in your work plan):

no decrease in vegetative cover on ag land

Indicate if this is a Protection or Enhancement Benchmark:

Protection

Clearly identify how the reported implementation efforts contribute to meeting this goal and benchmark:

The county receives strong winds blowing out of the Columbia River Gorge, and annual rainfall ranges from 8 to 44 inches per year. These conditions contribute to extensive Geologically Hazardous Areas. In fact, Geologically Hazardous areas susceptible to water and wind erosion cover over 90% and 94% of the county, respectively. The risk of erosion from wind and water varies depending on several factors including physical soil properties, percent cover, and topography. Because over 90% of the county is zoned for agriculture, nearly all agricultural activity in the county is impacted by risks of wind and water erosion.

Geologically Hazardous areas may pose a threat to the health and safety of citizens, fish, and wildlife. While the Walla Walla County VSP program has little influence on development in the county, the Work Group has prioritized maintaining vegetative cover in these areas to mitigate risks of erosion and soil loss in agriculture and fish and wildlife habitat. Maintaining vegetative cover lessens the threat of erosion and soil loss by stabilizing the soil, reducing runoff, and enhancing soil structure through plant roots and organic matter. Retaining healthy soil is crucial for productive agricultural systems and maintaining healthy plant diversity for wildlife. Reducing erosion also improves air quality for county residents and improves aquatic ecosystems by reducing sediment transport.

(NOT REQUIRED) If your work plan notes accomplishments, click on 'Add Accomplishment' to add them to this benchmark. If you don't have any accomplishments for this benchmark, scroll past the next box to answer more benchmark questions.

Benchmark: no decrease in vegetative cover on ag land

Critical Areas:

Geologically Hazardous,

WRIAs:

32-Walla Walla, 33-Lower Snake,

Strategy:

This goal includes a monitoring strategy to monitor vegetative cover in agricultural land in WRIA 32 and WRIA 33. WWCCD first began working with Dr. Amanda Stahl from Washington State University in 2020 as she completed her PhD producing innovative techniques for mapping and analyzing spatial patterns. In 2021, Dr. Stahl assisted WWCCD in conducting a preliminary vegetation change analysis to determine if her work could aid Walla Walla County VSP efforts to monitor vegetative cover. The analysis was officially adopted into the Work Plan in 2023, and a full analysis was completed in 2025 by WWCCD staff with consultation with Dr. Stahl.

The analysis uses Google Earth Engine and Sentinel-2 Satellite imagery. Refer to the Vegetation Change Analysis in the monitoring section for more details on this analysis and protocol.

Accomplishment:

Vegetation cover in agricultural areas stayed relatively stable. Similar to the county-scale changes, fire was interpreted to contribute to the largest portion of change. These changes are much smaller than the model accuracy (~90%) but visible on annual classification maps, the small 0.8% loss of 'persistent' brown vegetation and a nearly equal 0.8% gain of "non-vegetated surfaces in at least one year & 'brown' or non-vegetated in other years" can be interpreted as intermittent disturbance like fire, tillage, or crop rotation. Similar to the county-wide results of this analysis, since the county-level changes were less than the measurement error (10%), no significant change in agricultural areas for the 2025 report is interpreted.

The results across watersheds (WRIA 32 – Walla Walla and WRIA 33 – Lower Snake) are consistent with the findings above, though it was interpreted that slightly more brown vegetation was disturbed for single years in WRIA 33 from larger fires and sandier soils. All change detected was still below sampling error (~10%) and therefore not significantly distinguishable from noise.

To review results of this analysis, refer to the monitoring section and attachments for the Vegetation Change Analysis.

Below, provide your targets and results for your benchmark. Targets are what you were aiming to achieve when you started. Results are what you actually achieved.

Target Metric Number

0

Target Metric Unit

Target Metric Item

Result Metric Number

0

Result Metric Unit

Result Metric Item

Choose applicable NRCS BMP

If NRCS BMP not found, please enter your BMP in box:

Accomplishment Status

Met

Benchmark: no decrease in vegetative cover on ag land

Critical Areas:

Geologically Hazardous,

WRIAs:

32-Walla Walla, 33-Lower Snake,

Strategy:

This goal includes an implementation goal to provide financial and technical assistance to implement BMPs, when funding allows. Most of the applicable practices implemented in Walla Walla County are facilitated through NRCS programs.

In the Walla Walla County VSP Work Plan (2017), there are 34 specific NRCS practices called out that demonstrate protection and enhancement of the functions and values of Geologically Hazardous Areas in Walla Walla County. The monitoring plan calls out 10 specific practices for areas susceptible to wind and water erosion. The Work Plan does not provide an exhaustive list and acknowledges that some practices may no longer be implemented. WWCCD acquired two datasets of NRCS certified practice implementation. The SCC provided NRCS implementation at the HUC 12 watershed scale. While useful for reporting at the watershed scale, it is difficult to determine exact metrics within County boundaries. In several cases, HUC 12 watersheds in Walla Walla County overlap with other counties, but the data cannot be located at a finer scale. WWCCD worked with local NRCS staff to acquire County wide practice data, but to conserve privacy policies, location of the practices could not be shared. Please refer to Attachment L for more details on how both of these datasets were

processed.

For several practices, metrics for implementation provided in the HUC 12 dataset were drastically different than data provided from the local NRCS office. To ensure this report does not overestimate practices implemented, the accomplishments will be based off the County level dataset provided by local staff. To compare this to the practices implemented in each watershed refer to Attachment K, for results from the HUC 12 dataset.

According to the work plan, in 2011 3,174 acres were in riparian buffers (most if not all documented acres were enrolled in CREP) and 2.9 acres of floodplain had been planted. Of the 10 practices identified for wind and water erosion areas, these are the only two with a 2011 baseline, see Table 3-1 on Attachment N for details.

For other practices, the work plan lists metrics recorded from 2011-2016, but there is no 2011 baseline. From 2011-2016, there were 8,706.4 acres enrolled in one of the other 8 qualifying NRCS practices referred to as Stewardship Activities, see Table 3-2 on Attachment N for details. In total 11,883.3 acres were under a qualifying practice. The Work Plan listed these practices as stewardship activities that would be tracked in the future, but acknowledged that some practices may no longer be implemented in the future. Thus, for this goal Walla Walla VSP aims to track and maintain acres under implementation of a qualifying practice, but it is not necessary for each practice listed to be in implementation.

Accomplishment:

Between March 7th, 2021, to November 20th, 2025, 7 different NRCS practices were Implemented in Walla Walla County. To avoid counting the same contracted acres multiple times between years, cumulative implementation numbers were only calculated per year. To simplify reporting, data were summarized by normal calendar years. The exceptions are that 2021 only consists of practices from March 7th 2021, through December 31st 2021, and 2025 data goes through November 20th, 2025. To see specific practice implementation per year, refer to Attachment K.

For each year total acres in implementation of a qualifying practice:

2021: 27,858.4

2022: 36,424.5

2023: 10,352

2024: 9,184.9

2025: 0 (may be more that have not yet been certified).

The below target metrics include all NRCS stewardship activities recorded for 2011-2016. The result metric is an average for acres in implementation annually. It is important to note that only acres in implementation with NRCS is included in these result metrics, but other producers may be implementing similar projects without NRCS assistance. It is also important to note, that when calculating acres in implementation for 2011 with this dataset, the result was 4,075.1 acres. Thus, it is unlikely the work recorded in the original work plan was only NRCS implementation in 2011. Stewardship Activities should be viewed as a target but not a baseline.

Refer to Attachment K for implementation details.

Below, provide your targets and results for your benchmark. Targets are what you were aiming to achieve when you started. Results are what you actually achieved.

Target Metric Number

11883.3

Target Metric Unit

acres

Target Metric Item

implementation of qualifying practices

Result Metric Number

16763.96

Result Metric Unit

acres

Result Metric Item

average annual implementation of qualifying practices

Choose applicable NRCS BMP

Conservation Cover (327); Conservation Crop Rotation (328); Residue and Tillage Management, No Till (329); Cover Crop (340); Residue and Tillage Management, Reduced Till (345); Riparian Forest Buffer (391); Upland Wildlife Habitat Management (645);

If NRCS BMP not found, please enter your BMP in box:

Accomplishment Status

Exceeded

Benchmark: no decrease in vegetative cover on ag land

Critical Areas:

Geologically Hazardous,

WRIAs:

32-Walla Walla, 33-Lower Snake,

Strategy:

This goal includes an outreach strategy to provide soil health awareness and encourage the use of pertinent BMPs.

Accomplishment:

Between March 7th, 2021, to March 7th, 2026, community members in Walla Walla County were reached about soil health and erosion concerns through multiple events and outreach efforts. In 2023, 13 participants attended two sessions of the Conservation Conversations series on Riparian and Soil Health. The 2024 county fair booth reached 50 community members about soil health. Also in 2024, WWCCD participated in a Soil pH Trial with OSU, WSU, WSU Ext, chemical companies, and private landowners, in total 14 participants attended.

For this goal, no set target for outreach was set. Result metrics are reported as the total participants reached in this period.

Below, provide your targets and results for your benchmark. Targets are what you were aiming to achieve when you started. Results are what you actually achieved.

Target Metric Number

0

Target Metric Unit

number

Target Metric Item

people reached about soil health and erosion concerns

Result Metric Number

77

Result Metric Unit

number

Result Metric Item

people reached about soil health and erosion concerns

Choose applicable NRCS BMP

If NRCS BMP not found, please enter your BMP in box:

outreach

Accomplishment Status

Exceeded

Provide a brief text explanation supporting whether the benchmark was or was not met:

The benchmark "no decrease in vegetative cover on ag land" was met during this 5-year period. This benchmark is primarily assessed through the Vegetation Change Analysis monitoring tool/strategy. From this analysis no significant change in vegetative cover was detected in either WRIA 32 or WRIA 33. Walla Walla County VSP also reached 77 community members about soil health and erosion concerns through various outreach efforts. Based on local NRCS implementation data, there were at least 16,763.96 acres on average in practices that help reduce the risk of wind and water erosion every year during this period.

How does the monitoring data support whether you have met or not met this benchmark?

This monitoring tool is the primary way this benchmark is assessed. Based on the results, there has been no significant change in vegetative cover on agricultural land in either WRIA 32 or WRIA 33 between 2020-2023 and 2016-2019. Refer to the monitoring section for more details.

Benchmark Status:

Met

What is the 2011 baseline for this entry?

This goal utilizes the Vegetation Change Analysis (as described in the monitoring section) to determine if there has been a decrease in vegetation on agricultural land. The earliest data available for this approach is from 2016, and serves as the best available science. At this time, there is no 2011 baseline for this goal. Refer to the monitoring section for more information on this monitoring approach. According to Walla Walla Critical Area maps used in creating the 2017 Walla Walla County Voluntary Stewardship Plan, total wind erosion acres (moderate to very high susceptibility) are 780,670, and total water erosion acres (moderate to very high susceptibility) are 753,553. However, Wind and water soil erosion areas were removed from Walla Walla County's Comprehensive Plan in 2018 because there is no regulatory backstop. These areas remain in the VSP Work Plan, as soil erosion impacts agricultural viability and critical area function. Because the Critical Area Geologically Hazardous Areas of Soil Erosion from Wind and Water does not have regulatory management in the Walla Walla County Critical Area Ordinance, there is no adaptive management threshold for this goal.

Did you use monitoring data to evaluate this benchmark?

Yes

If yes, what monitoring tools or approaches did you use?

The Vegetation Change Analysis

Please enter your new goal (not already in your work plan):

Enhance areas with landslide potential on rangeland

Please enter your new benchmark (not already in your work plan):

educate 3 landowners annually about pasture and rangeland management BMPs

Indicate if this is a Protection or Enhancement Benchmark:

Enhancement

Clearly identify how the reported implementation efforts contribute to meeting this goal and benchmark:

Walla Walla County has a vast expanse of mapped steep slope areas, especially in the dryland wheat to the central north and foothills to the east. Walla Walla County's VSP Steep Slope map includes areas with over a 15 percent slope. The original 2017 Walla Walla County VSP Work Plan has the baseline acreage for agriculture in steep slopes at 1176,996 acres. The total amount of steep slope acres in the county, based off of GIS analysis in 2024, is 179,119 acres. Walla Walla County's VSP Work Plan uses education and outreach metrics to track Steep Slope and Landslide area enhancement.

Many acres in Steep Slope areas in Walla Walla County are enrolled in CRP acres, but as mentioned in previous sections, CRP can be an inconsistent tool for monitoring and poses complications due to privacy policies. Steep slopes also encompass a large portion of the north central and foothills portions of the county, which makes on the ground monitoring difficult.

Geologically Hazardous areas may pose a threat to the health and safety of citizens, fish, and wildlife. While the Walla Walla County VSP program has little influence on development in the county, the Work Group has prioritized outreach and education to reach the limited landowners participating in agricultural activities in these areas. Between March 7th 2021, and March 7th 2024, WWCCD reached 77 people about soil health, pasture, and rangeland management. Refer to the outreach strategy of the goal "Protect critical areas from soil loss" and Attachment J, for more details.

Other efforts occurring:

Local NRCS implementation data shows that in 2023, 391 acres were enrolled in NRCS BMP 528 Grazing Management, no baseline is provided for this BMP in the work plan.

While the Blue Mountain Land Trust contributes to agricultural viability in Walla Walla County through conservation easements and property acquisitions, it also helps to protect critical areas. Easements purchased with funding from the NRCS ACEP-ALE Program require farming provisions to conserve soils that have been assessed as Highly Erodible Land (HEL). Large portions of Walla Walla County face concerns of erosion and fall into either the critical area Geologically Hazardous Areas (GHA): Wind/Water Erosion or GHA: Steep slopes/Landslides. Since 2021, nearly 576 acres of HEL-designate agricultural land have been protected by BMLT in conservation easements (A. Addressi, personal communication, March 28, 2025). These easements can also safeguard wildlife habitat by preserving migratory corridors and habitats of native plants and animals.

Due to the limited data for this benchmark, strategies were not broken down into accomplishments.

(NOT REQUIRED) If your work plan notes accomplishments, click on 'Add Accomplishment' to add them to this benchmark. If you don't have any accomplishments for this benchmark, scroll past the next box to answer more benchmark questions.

Provide a brief text explanation supporting whether the benchmark was or was not met:

The benchmark "educate 3 landowners annually about pasture and rangeland management BMPs" was exceeded during this period. At least 77 people were reached during this 5-year period about soil health, pasture, and rangeland management. While this data was only recorded between 2023-2024, this far exceeds the total 15 people needed to be reached over 5 years. It is also likely there have been other outreach efforts in the county not recorded by WWCCD. NRCS BMP implementation and conservation easements with HEL further enhance areas with landslide potential on rangelands.

How does the monitoring data support whether you have met or not met this benchmark?

Benchmark Status:

Exceeded

What is the 2011 baseline for this entry?

WWCCD does not have a baseline for number of people educated prior to 2011 for rangeland management. This outreach goal focuses on number of people reached per year regardless of outreach prior to 2011.

Did you use monitoring data to evaluate this benchmark?

No

If yes, what monitoring tools or approaches did you use?

Please enter your new goal (not already in your work plan):

Protect areas at risk of liquefaction

Please enter your new benchmark (not already in your work plan):

no net decrease in efficient irrigation practices in Liquefaction zones

Indicate if this is a Protection or Enhancement Benchmark:

Protection

Clearly identify how the reported implementation efforts contribute to meeting this goal and benchmark:

According to the U.S. Geological Survey (USGS), "Liquefaction occurs when loosely packed, water-saturated sediments at or near the ground surface lose strength in response to strong ground shaking. Liquefaction beneath buildings and other structures can cause significant damage during earthquakes." (USGS as cited in Walla Walla County, 2025). In Walla Walla County, areas with shallow groundwater and complex subsurface hydrology are particularly susceptible to liquefaction, especially where these conditions overlap with surface waters throughout the county.

In the event of an earthquake, liquefaction could result in widespread ecosystem disruption, most notably within the Walla Walla, Snake, and Columbia Rivers. Increased sedimentation would degrade overall stream health and adversely affect critical habitats for ESA-listed species. Private land holdings, including agricultural lands, are also vulnerable to earthquake-related impacts.

Geologically Hazardous Areas therefore pose potential risks to the health and safety of residents, fish, and wildlife. While the Walla Walla County VSP program has limited influence over land development decisions, the VSP Work Group has focused its efforts on strategies within its scope, particularly reducing the risk of oversaturated soils that can increase liquefaction potential.

Water allocation and irrigation efficiency are key considerations in addressing this risk. Located in eastern Washington, Walla Walla County receives relatively low precipitation and relies on surface water and a shallow gravel aquifer to support agriculture, domestic water use, and fish and wildlife habitat. Because some irrigation methods are more efficient than others at delivering water to the crop root zone, promoting efficient irrigation can help limit excess soil saturation and reduce liquefaction susceptibility.

The Walla Walla County VSP Work Plan (2017) included irrigation efficiency education and outreach as goals and benchmarks intended to mitigate liquefaction risk. During the 2021 5-Year Reporting process, technical panel members noted that education and outreach alone do not equate to direct protection. Although liquefaction-prone areas are challenging to monitor, the Walla Walla County Conservation District has worked with partners and used available data sources to improve monitoring and understanding of these geologically hazardous areas. This goal was officially adopted into the work plan in 2024.

(NOT REQUIRED) If your work plan notes accomplishments, click on 'Add Accomplishment' to add them to this benchmark. If you don't have any accomplishments for this benchmark, scroll past the next box to answer more benchmark questions.

Benchmark: no net decrease in efficient irrigation practices in Liquefaction zones

Critical Areas:

Geologically Hazardous,

WRIAs:

32-Walla Walla,

Strategy:

This goal includes a monitoring strategy to perform an Irrigation Efficiency Analysis using ArcGIS Pro and publicly available WSDA Agricultural Land Use Data. Practices identified as efficient include drip, drip/micro-sprinkler, drip/sprinkler, micro-sprinkler, center pivot, and center pivot/sprinkler. For information on application efficiency, refer to Attachment I: Irrigation Efficiency Analysis.

Accomplishment:

WWCCD staff first performed an Irrigation Efficiency Analysis in 2023, which was broken down into 3 prominent agricultural areas for outreach purposes, see Attachment I, page 20. After the adoption of this goal in 2025, one Irrigation Efficiency Analysis has been performed to specifically monitor

liquefaction zones in each WRIA of Walla Walla County, for more details on this approach and results, refer to Attachment I, page 2. Another analysis for years 2014-2024 and 2019-2024, was further explored for a presentation given to the Walla Walla Basin Action Council, for that report, refer to Attachment I, page 15.

In moderate- to high- risk liquefaction zones in WRIA 32 in Walla Walla County, there was a net increase of about 2,518 acres irrigated efficiently from 2011 to 2024. In this time span, there was a net decrease of about 2,646 acres using irrigation methods considered inefficient. Most notably, an additional 1,606 acres are being irrigated with Center Pivot, while Sprinkler use declined by 1,996 acres. See summary table in Attachment I, page 3.

With a large increase in efficiently irrigated acres in Liquefaction zones, this analysis satisfies the Walla Walla County VSP Work Plan goal for protecting GHA Liquefaction critical areas.

For information on irrigation upgrades facilitated through WWCCD TA and funding assistance, refer to the CARA goal "Enhance critical aquifer recharge areas", with benchmark "increase irrigation efficiency annually". For information on BMP implementation for practices that may be pertinent to this goal (NRCS BMPs 430 Irrigation Pipeline, 442 Sprinkler System, 449 Irrigation Water Management), refer to Attachment K.

Below, provide your targets and results for your benchmark. Targets are what you were aiming to achieve when you started. Results are what you actually achieved.

Target Metric Number

500

Target Metric Unit

acres

Target Metric Item

maximum net decrease in acres irrigated efficiently

Result Metric Number

2518

Result Metric Unit

acres

Result Metric Item

net increase in acres irrigated efficiently

Choose applicable NRCS BMP

If NRCS BMP not found, please enter your BMP in box:

Accomplishment Status

Exceeded

Benchmark: no net decrease in efficient irrigation practices in Liquefaction zones

Critical Areas:

Geologically Hazardous,

WRIAs:

33-Lower Snake,

Strategy:

This goal includes a monitoring strategy to perform an Irrigation Efficiency Analysis using ArcGIS Pro and publicly available WSDA Agricultural Land Use Data. Practices identified as efficient include drip, drip/micro-sprinkler, drip/sprinkler, micro-sprinkler, center pivot, and center pivot/sprinkler. For information on application efficiency, refer to Attachment I, page 2.

Accomplishment:

Mapped zones of moderate- to high- risk liquefaction zones are minimal in WRIA 33. Thus, changes in irrigation methods in these zones are negligible. There is less than one acre of irrigated land in these zones, with virtually no change between 2011 and 2024. In 2011 and 2024 there was about 600 acres of non-irrigated land in these zones.

Below, provide your targets and results for your benchmark. Targets are what you were aiming to achieve when you started. Results are what you actually achieved.

Target Metric Number

0

Target Metric Unit

Target Metric Item

Result Metric Number

0

Result Metric Unit

Result Metric Item

Choose applicable NRCS BMP

If NRCS BMP not found, please enter your BMP in box:

Accomplishment Status

Met

Benchmark: no net decrease in efficient irrigation practices in Liquefaction zones

Critical Areas:

Geologically Hazardous,

WRIAs:

32-Walla Walla, 33-Lower Snake,

Strategy:

This goal includes an outreach strategy to encourage adoption of BMPs for irrigation water management to 20 people annually.

Accomplishment:

This goal was first adopted by the work plan in 2024, outreach pertaining to irrigation efficiency was not recorded prior to this. Since 2024, community members have been educated about irrigation water management and efficient BMPs through various means.

The Walla Walla Basin Action Council (WWBAC) is a leading group focused on water use in the Walla Walla Basin. Every year they host an open house in Walla Walla, to share about water resources, allocation, consumption, and more. In 2024, 150 people attended this event and in 2025, 140 people attended. WWCCD staff also presented on the Irrigation Efficiency Analysis to the WWBAC Implementation Working Group (open to the public), not including WWCCD staff, 33 participants attended this meeting.

In 2024, WWCCD shared about various projects and practices including irrigation BMPs to 50 people at the County Fair.

In 2025, WWCCD staff shared about the intersection of agriculture and natural resources, including irrigation and water use, to 11 students in the Political Ecology of Ag and Natural Resources course at the Walla Walla Community College.

The target metric below is for 2 years, because this goal was adopted in 2024. The result metric is the total between all of these outreach events from 2024-2025. See Attachment J for details on outreach.

Below, provide your targets and results for your benchmark. Targets are what you were aiming to achieve when you started. Results are what you actually achieved.

Target Metric Number

40

Target Metric Unit

number

Target Metric Item

people educated about irrigation and BMPs

Result Metric Number

384

Result Metric Unit

number

Result Metric Item

people educated about irrigation and BMPs

Choose applicable NRCS BMP

If NRCS BMP not found, please enter your BMP in box:

outreach

Accomplishment Status

Exceeded

Provide a brief text explanation supporting whether the benchmark was or was not met:

The benchmark “no net decrease in efficient irrigation practices in liquefaction zones” was exceeded during this 5-year period. WWCCD assessed irrigation efficiency at the watershed scale as well as in areas of moderate- to high- risk Liquefaction zones, and found that producers overall are transitioning to more efficient irrigation methods. In liquefaction zones (WRIA 32), there was a net increase of about 2,518 acres irrigated efficiently from 2011-2024. For details on this approach and methods, refer to Attachment I. WWCCD also reached 264 landowners and community members about irrigation efficiency and BMPs from 2024-2025. This analysis satisfies the Walla Walla County VSP Work Plan goal for protecting GHA Liquefaction critical areas.

How does the monitoring data support whether you have met or not met this benchmark?

Benchmark Status:

Exceeded

What is the 2011 baseline for this entry?

The original Walla Walla County VSP Work Plan (2017) stated that 190,644 acres were mapped in liquefaction zones. However, this included liquefaction zones mapped for “low to moderate” risk. There are only about 77,208 acres of mapped liquefaction areas of “medium to high” risk in the county. Of these acres, the WSDA Ag Land Use Data survey from 2011 had 55,844 acres in common with later surveys (acres that could be compared to a baseline for irrigation changes). These are the acres WWCCD uses to analyze changes in irrigation efficiency. The adaptive management threshold for this goal will be met if efficient irrigation practices drop by more than 500 acres in relevant zones. For more information on this analysis and baseline, refer to the Attachment I: Irrigation Efficiency Analysis.

Did you use monitoring data to evaluate this benchmark?

No

If yes, what monitoring tools or approaches did you use?

General Documents

Provide a description for all your attachments:

Attachments (max 12 files, 20MB per file):

- AttachmentA_FishScreenEffectivenessAudit.pdf
- AttachmentB_C_Conservation_Acres_PHS_Habitat.pdf
- AttachmentD_FerruginousHawkNestOccupancy.pdf
- AttachmentE_AgActivityinMuleDeerHabitat.pdf
- AttachmentF_WetlandAccuracyAudit.pdf
- AttachmentG_H_FlowMeterAudit_Groundwater_Memo.pdf
- AttachmentI_IrrigationEfficiencyAnalysis.pdf
- AttachmentJ_Outreach.xlsx
- AttachmentK_BMP_Implementation.xlsx
- AttachmentL_NRCSBMPMethods.pdf
- AttachmentN_WorkPlanBaselines.pdf
- References.pdf