



August 2023
Lincoln County Voluntary Stewardship Program

Biennial Report: 2021–2023

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Prepared for
Lincoln County and the Washington State
Conservation Commission

Prepared by
Lincoln County Conservation District and
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TABLE OF CONTENTS

1	Introduction	1
1.1	Requirements.....	1
2	Summary of Actions and Accomplishments	4
2.1	Outreach	4
2.1.1	Completed Outreach Activities	4
2.1.2	Ongoing and Future Outreach Efforts.....	6
2.2	Conservation Practices	10
2.2.1	Individual Stewardship Plans	12
2.3	Monitoring and Adaptive Management	14
2.4	Adaptive Management	15
2.5	Producer Participation.....	16
2.6	Reporting.....	17
2.7	Agricultural Viability.....	17
2.7.1	Agricultural Viability Successes and Opportunities.....	17
2.7.2	Agricultural Viability Concerns.....	18
2.8	Spirit of Cooperation	19
3	Voluntary Stewardship Program Successes	20
4	References	23

TABLES

Table 1	Summary of Progress Toward Meeting VSP Intent	2
Table 2	Public Outreach Meetings Since July 1, 2021	5
Table 3	Status of Public Communication and Outreach Activities	9
Table 4	Projects Implemented Since July 1, 2021	13
Table 5	Data Collection Locations.....	14
Table 6	Producer Participation Monitoring.....	16

FIGURES

Figure 1	Phased VSP Outreach and ISP Development Flow Chart.....	ii
Figure 2	Data Collection Locations.....	15

APPENDICES

Appendix A Recently Implemented Stewardship Strategies and Practices (facilitated by the LCCD)

Abbreviations

BLM	United States Bureau of Land Management
County	Lincoln County
CPPE	Conservation Practice Physical Effect
Ecology	Washington State Department of Ecology
FY	fiscal year
ISP	Individual Stewardship Plan
LCCD	Lincoln County Conservation District
NRCS	Natural Resources Conservation Service
RCPP	Regional Conservation Partnership Program
RCW	Revised Code of Washington
USFWS	United States Fish and Wildlife Service
VSP	Voluntary Stewardship Program
Work Group	Lincoln County Voluntary Stewardship Program Work Group
Work Plan	<i>Lincoln County Voluntary Stewardship Program Work Plan</i>
WSCC	Washington State Conservation Commission



1 Introduction

This Biennial Report (report) for fiscal years (FYs) 2021–2023 is intended to document the status and accomplishments of the *Lincoln County Voluntary Stewardship Program Approved Work Plan* (Work Plan; Anchor QEA 2018), which was approved by the Washington State Conservation Commission (WSCC) in May 2018¹. This report only documents implementation efforts that have occurred since July 1, 2021, through June 30, 2023 (end of FYs 2021–2023). This report also documents ongoing and planned implementation efforts which will be further reported in future reports to the WSCC.

The Lincoln County Conservation District (LCCD), under direction of the Lincoln County Voluntary Stewardship Program Work Group (Work Group), developed this report to provide a periodic review of the effectiveness and accomplishments of Lincoln County's (County's) Work Plan in meeting the purpose and intent of the Voluntary Stewardship Program (VSP; Revised Code of Washington [RCW] 36.70A.700[2]).

This report includes the following:

- A summary of actions and accomplishments made by the Work Group in meeting the VSP goals **from July 1, 2021, through June 30, 2023** (the 2021 to 2023 period, as described above)
- A report on the progress toward meeting the goals identified in the Work Plan as measured in accordance with the Work Plan
- A description of how adaptive management needs are being identified and implementation refinements addressed
- A report of the status of Work Plan implementation including progress toward meeting the protection and enhancement benchmarks

1.1 Requirements

This report fulfills the state requirements outlined under RCW 36.70A.720 (1)(j), which states that as a part of Work Plan implementation, the Work Group must “conduct periodic evaluations, institute adaptive management, and provide a written report of the status of plans and accomplishments to the county and to the commission within sixty days after the end of each biennium.” The first two biennial reports were submitted in August 2019 and 2021 (Lincoln County VSP Work Group).

¹ The *Lincoln County VSP Work Plan* was approved by the Washington State Conservation Commission on April 30, 2018. The approved version of the Work Plan was issued in May 2018.

Per the VSP Policy Advisory No. 05-18 issued by the WSCC, this report includes a summary of how Work Plan implementation is making progress toward meeting the purpose and intent of the VSP (RCW 36.70A.700[2]).

Table 1 provides the location in this report where information on the status and progress toward meeting the intent of the VSP can be found. The numbers in the left column correspond with the elements found in VSP Policy Advisory No. 05-18.

Table 1
Summary of Progress Toward Meeting VSP Intent

No.	VSP Intent	Lincoln County VSP Biennial Report (FYs 2021–2023)
1	The protection and enhancement of critical areas within the area where agricultural activities are conducted	<ul style="list-style-type: none"> • Section 2.1 describes outreach to landowners by the LCCD that has encouraged participation in stewardship strategies and practices to protect critical areas and promote agricultural viability. • Section 2.2 describes conservation strategies and practices that have been implemented since July 2021. • Table 4 summarizes conservation strategies and practices implemented since July 2021.
2	The maintenance and improvement of the long-term viability of agriculture	<ul style="list-style-type: none"> • Table 4 summarizes the agricultural viability benefits from conservation strategies and practices that have been implemented since July 2021. • Section 2.7 describes how implementation efforts have improved agricultural viability.
3	Reducing the conversion of farmland to other uses	<ul style="list-style-type: none"> • Table 4 describes conservation strategies and practices that have been implemented since July 2021 that have a beneficial effect on agricultural viability. • Table 6 summarizes outreach efforts from the LCCD and participation by landowners to implement conservation strategies and practices that benefit agricultural viability.
4	The maximization of the use of voluntary incentive programs to encourage good riparian and ecosystem stewardship as an alternative to historical approaches used to protect critical areas	<ul style="list-style-type: none"> • Section 2.2 summarizes projects implemented by landowners since July 2021, which include funding from seven different voluntary incentive programs benefiting ecosystem stewardship. Additional conservation practices are also documented within the LCCD GIS database supporting VSP implementation.

No.	VSP Intent	Lincoln County VSP Biennial Report (FYs 2021–2023)
5	The leveraging of existing resources by relying upon existing work and plans in counties and local watersheds, as well as existing state and federal programs to the maximum extent practicable to achieve program goals	<ul style="list-style-type: none"> • Section 2.2 summarizes voluntary incentive programs that provide funding to benefit ecosystem stewardship. • VSP Work Plan Appendix D: Existing and Related Plans, Programs, and Regulations describes available resources, plans, and programs being utilized or available to support VSP implementation (Anchor QEA 2018). No additional resources beyond those previously described have been added since submittal of the 2021 biennial report.
6	Ongoing efforts to encourage and foster a spirit of cooperation and partnership among county, tribal, environmental, and agricultural interests to better assure the program success	<ul style="list-style-type: none"> • Section 2.1 summarizes the methods the LCCD is using to reach out to interested parties and landowners, including public meetings and regular website updates to encourage partnerships in the community.
7	Ongoing efforts to improve compliance with other laws designed to protect water quality and fish habitat	<ul style="list-style-type: none"> • Section 2.3 describes monitoring efforts from the LCCD that include the use of data that is also used to determine compliance with existing water quality and fish habitat laws and regulations. New, publicly available information being collected by the LCCD during monitoring will be made available to the appropriate agencies as applicable to assist with their monitoring programs. Additional discussion on these efforts is provided in this section. • Section 2.2 summarizes projects implemented by landowners since July 2021. Direct seed cost-share projects with Ecology help comply with water quality programs by helping reduce agricultural runoff.
8	A description of efforts showing how relying upon voluntary stewardship practices as the primary method of protecting critical areas does not require the cessation of agricultural activities	<ul style="list-style-type: none"> • Table 4 demonstrates that based on implementation efforts, Lincoln County is on track to meet goals and benchmarks, indicating successful implementation of the VSP. This will be further supported and verified through continued monitoring and implementation efforts that will also be captured in the next 5-year report. • Section 2.7 describes how participating in the VSP allows landowners to protect and enhance critical area functions while also increasing agricultural viability.

2 Summary of Actions and Accomplishments

This section includes a summary of activities the County, LCCD, and others have implemented or completed that support Work Plan implementation and monitoring since July 2021.

2.1 Outreach

2.1.1 Completed Outreach Activities

Lincoln County has delegated responsibility to the LCCD for managing and facilitating the VSP process. Continued public outreach and education is integral to implementing the Work Plan. Each year, the LCCD has committed to reaching out to 10% of the producers who operate the approximately 900 farms in the County. The Conservation District performed 12 site visits, providing technical assistance and assessing project success during the reporting period.

Since July 1, 2021, the LCCD has conducted VSP outreach through presentation or distribution of VSP outreach materials. These efforts include taking advantage of reduced travel restrictions in the later half of 2021, allowing LCCD to attend more in-person events and meetings where District employees answered questions and provided handouts with cost share and VSP project information to interested landowners and community partners. The following events included booth setups, poster and/or media presentations:

- Lincoln County Fair, 8/25-8/29/2021
- The virtual Northeast Area Conservation District Meeting, 10/20/2021
- The Pacific Northwest Direct Seed Association (PNDSA) expo in Kennewick, 1/11-1/12/2022
- The Highline Grain Grower meeting in Davenport, 1/26/2022
- The Conservation Commission Tour hosted by LCCD on 5/17/2022, providing partners and stakeholders with an opportunity to visit County project sites
- Lincoln County Fair, 8/25-8/28/2022
- The Northeast Area Conservation District Meeting, 10/20/2022
- The PNDSA expo in Kennewick, 1/10-1/11/2023
- The PNW Canola Association annual meeting, 1/24-1/25/2023

These in-person meetings were an opportunity to introduce the Voluntary Stewardship Program and new requirements for NRCS cost share to producers in Lincoln County. A presentation showing completed projects was shared with producers and interested participants were encouraged to reach out to LCCD with questions or to submit an application.

- The map that was previously shared by email to over 500 subscribers to the VSP email updates has remained available on the LCCD website and at:

<http://wacds.maps.arcgis.com/apps/webappviewer/index.html?id=2930001d16314992ab4d6aa1c387e589>

- Producer and landowner-focused outreach efforts have continued to emphasize meeting with individual producers. The LCCD has reached out to multiple producers to discuss potential involvement and projects and worked to develop more ISP's. These efforts continued through the end of the biennium.
- The LCCD continues to maintain a waitlist for potential funding as interest in cost share programs remains popular with landowners in the county.

Table 2
Public Outreach Meetings Since July 1, 2021

No.	Date	Meeting	Location	Participants	Notes
1	August 25-29, 2021	Lincoln County Fair	Davenport, WA	150	VSP flyers were distributed and VSP Overview, completed project photographs and descriptions shown at a poster and booth setup.
2	October 20, 2021	Northeast Area Conservation District Meeting	Virtual	50	LCCD staff gave a virtual presentation providing project updates and totals, including before and after photos.
3	January 11-12, 2022	Pacific Northwest Direct Seed Association (PNDSA) Expo	Kennewick, WA	450	VSP flyers were distributed and VSP Overview, completed project photographs and descriptions shown at a poster and booth setup.
4	January 26, 2022	Highline Grain Grower meeting	Davenport, WA	60	LCCD staff gave a virtual presentation providing project updates and totals, including before and after photos. A brief Q&A allowed landowners to ask questions and take information to submit applications for future VSP projects.
5	May 17, 2022	Conservation Commission Tour	Lincoln County, WA (multiple sites)	45	Traveling conservation tour where partners and stakeholders had an opportunity to visit project sites throughout Lincoln County and receive handouts with project information.

No.	Date	Meeting	Location	Participants	Notes
6	August 25-28, 2022	Lincoln County Fair	Davenport, WA	200	VSP flyers were distributed and VSP Overview, completed project photographs and descriptions shown at a poster and booth setup.
7	October 20, 2022	Northeast Area Conservation District Meeting	Davenport, WA	40	LCCD staff gave a virtual presentation providing project updates and totals, including before and after photos.
8	January 10-11, 2023	Pacific Northwest Direct Seed Association (PNDSA) Expo	Kennewick, WA	400	VSP flyers were distributed and VSP Overview, completed project photographs and descriptions shown at a poster and booth setup.
9	January 24-25, 2023	PNW Canola Association annual meeting	Moscow, ID	280	VSP flyers were distributed and VSP Overview, completed project photographs and descriptions shown at a poster and booth setup.

2.1.2 Ongoing and Future Outreach Efforts

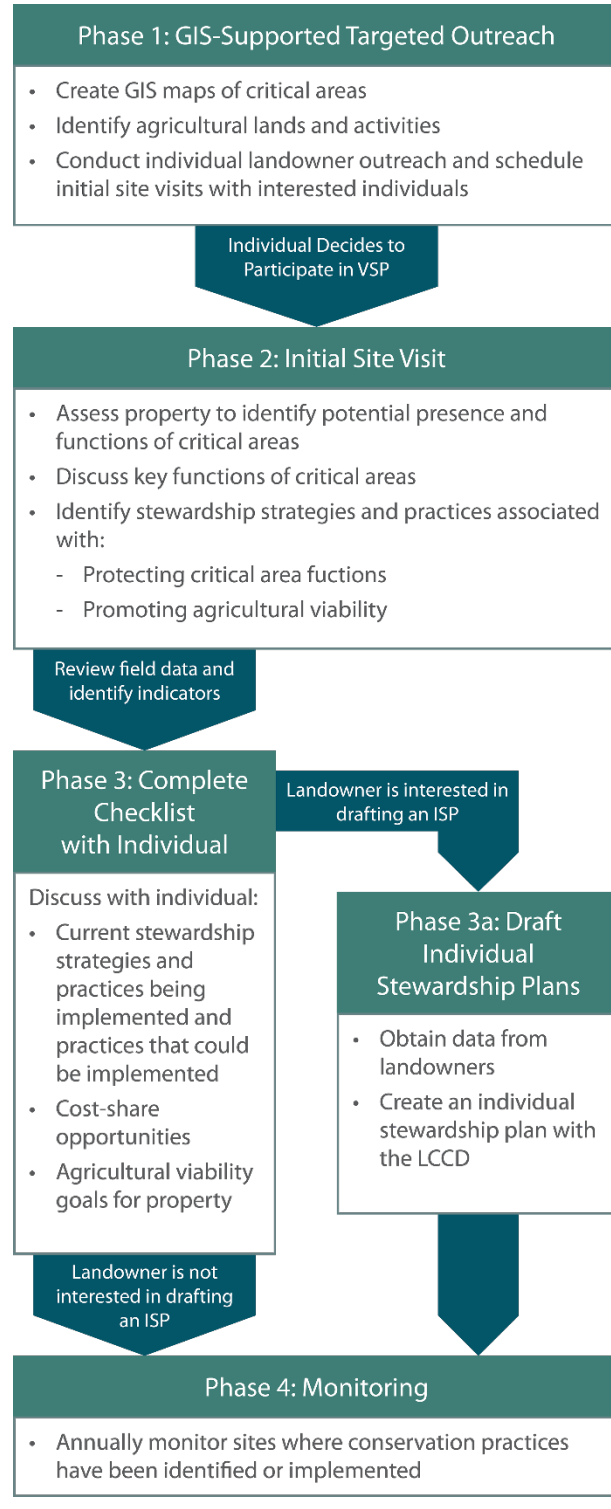
VSP success relies on producer participation to implement conservation actions. The implementation budget for each biennium provided to the County includes funding for Education, Outreach, and Technical Assistance with activities that include stewardship plan development, reporting, and educational materials (see Table 6-1 in the Work Plan). Ongoing and future outreach and implementation efforts include maintaining regular Work Group meetings, conducting outreach, providing technical assistance, continuing to develop the monitoring and reporting framework, and identifying adaptive management needs. Ongoing and future outreach efforts are summarized as follows:

- **Work Group Meetings:** The VSP Work Group met seven times between July 1, 2021, and June 30, 2023, to focus on monitoring actions and results, implementation strategies, cost-share projects review and approval, and ongoing outreach activities. Focus topics, such as regenerative agriculture, have also been featured at these meetings. Meeting agendas and minutes are available on the LCCD VSP website.²
- **Email Updates:** The VSP Coordinator has provided periodic email updates to Work Group members and these emails will continue, with information updates sent at least quarterly.

² <https://www.lincolncd.com/voluntary-stewardship-program>

- Ongoing Individual Stewardship Plan Development:** In the 2021–2023 biennium the VSP Coordinator has continued working with each of the Work Group members and others to develop Individual Stewardship Plans (ISPs), which can also act as models for other potentially interested landowners.
- GIS Based Outreach:** To support ongoing outreach, implementation, monitoring and reporting requirements, the LCCD hired a GIS Specialist/Natural Resource Planner along with Anchor QEA and White Bluffs Consulting (consulting firms). The consultant team developed an integrated GIS tool that helps the VSP Coordinator identify opportunity areas around critical areas and existing or potential stewardship plans, and landowners that can be contacted to see if they are interested in participating in VSP. The VSP Coordinator is implementing this targeted outreach plan, leading to numerous site visits and the development of ISPs. See Figure 1 for the Phased VSP Outreach and ISP Development Flow Chart. Each of these steps have been completed multiple times for specific geographic focus areas in the County, and monitoring efforts, as discussed below, will help support ongoing implementation and adaptive management activities.

Figure 1
Phased VSP Outreach and ISP Development Flow Chart



- **Direct Mail Outreach:**

Since July 2021, a newsletter outlining completed and ongoing projects was sent via email to producers with follow-up outreach at grower’s meetings and events throughout the county as an ongoing effort.

- **GIS Based Tracking and Monitoring:**

The LCCD is now using GIS to map implemented practices and host data collected as a part of tracking and monitoring efforts. LCCD has implemented an expanded monitoring program, establishing additional gauging stations on Crab Creek and other water bodies to collect additional data that can be evaluated over time to potentially determine trends, and identify potential effects from conservation practices on critical areas.



Table 3 provides an update on the planned public communication and outreach activities that were described in Table 4 of the *Lincoln County Voluntary Stewardship Program Outreach Plan* (Appendix E of the Work Plan – Anchor QEA 2018).

Table 3
Status of Public Communication and Outreach Activities

Type	Completed and Ongoing Activities
Maintain and Update Email List	LCCD maintains an email list containing all interested subscribers from the LCCD website. Anyone may subscribe to the email list from the LCCD website: https://www.lincolncd.com/voluntary-stewardship-program .
Update Website and Media	LCCD created a webpage specifically for the VSP and has continually updated the site. All meeting notices and materials as well as documents will continue to be provided on the LCCD VSP webpage. LCCD also posts announcements and updates on social media, including Facebook and Instagram. The website, with links to social media, can be found at: https://www.lincolncd.com/voluntary-stewardship-program .
News and Success Stories Publications	LCCD publishes news and success stories on their website. Information about the VSP continues to be included.
VSP Checklist	The VSP Overview and Checklist was included as Appendix E of the Work Plan (Anchor QEA 2018). This checklist helps facilitate participation in the VSP and track ongoing conservation strategies and practices. The VSP Checklist may potentially be converted to an online, fillable document in the future.
Notifications, Handouts, and Landowner Maps	With GIS support, LCCD continues to conduct outreach to agricultural landowners who may have acreage that intersects with critical areas. LCCD shares educational handouts outlining common best management practices that protect and/or enhance critical areas. Landowners who request additional information from the LCCD receive these handouts along with site-specific maps outlining critical areas on their lands based on County maps. An informational flyer encouraging participation is available for landowners to introduce technical assistance opportunities.
Individual Stewardship Plans	LCCD works with producers to help them prepare stewardship plans for their farms and support them in implementing these plans. See Figure 1 for the Phased VSP Outreach and ISP Development Flow Chart.
Reporting on Stewardship Strategies and Practices	LCCD works with NRCS and the Farm Service Agency annually to collect information related to ongoing and new practices implemented on individual farms. A complete data set was used in updating the VSP GIS tool developed by Anchor QEA, showing NRCS conservation practices implemented since 2011 by sub-drainage areas in the County. Additionally, LCCD works with individual producers to annually collect information on self-funded practices implemented, with associated metrics, to use in developing biennial and 5-year reports and performance reviews. Information is also collected during GIS-supported landowner outreach.
Educational Opportunities	Educational materials focused on particular critical area issues and agricultural practices are available to producers at their convenience. These can be used at booths at fairs, conventions, public meetings, or farmers' markets. LCCD's additional educational offerings are described on the LCCD website: https://www.lincolncd.com/
Tours	LCCD-led annual tours are opportunities to share information with producers, partners, and the public. Tours may include on-farm testing, demonstrations, and field trials.

2.2 Conservation Practices

The report documents implementation of stewardship strategies and practices that have been facilitated or led by the LCCD since July 2021. Section 4.2 of the Work Plan (Anchor QEA 2018) documents conservation practices that were implemented since the establishment of the VSP on July 22, 2011, to 2016 and the VSP GIS tool documents these practices through 2021, organized at the hydrologic unit code or HUC 12 level.

Several assessments and evaluations of practices have been performed during the past biennium. In summary, the Voluntary Stewardship program has funded several enhancement projects that address major erosion events and the visible results have been immediate. The improved management of flow have decreased the amount of erosion seen on a daily basis after runoff events while also improving the “farm-ability” of the land under best management practices. The District has several other programs that support the VSP work plan, addressing erosion concerns and long-term soil and water quality, including a direct seed reimbursement program, developing designated livestock areas, and fencing projects through the VSP in geologically hazardous areas. These programs will also require monitoring over a period of time to see positive results. The observation of planting projects does not have such an immediate visible response. Yearly monitoring will show the results of the mortality rate over wintering periods in critical wildlife habitat areas.

Since July 2021, the LCCD has supported producers with 3 completed stewardship projects in partnership with existing state and local programs. Funding sources for implementation of these stewardship projects has been provided through cost shares from nine different programs:

- **Voluntary Stewardship Program:** VSP funding is allocated to each participating county for implementation to meet the goals and objectives of their work plan.
- **Lincoln County Conservation District:** LCCD allocates resources with the goal of meeting the needs of local landowners to conserve soil, water, and other natural resources.
- **Washington State Department of Ecology:** The Washington State Department of Ecology (Ecology) provides funding for water-quality improvement and protection projects through various grant programs and partnerships with local conservation districts.
- **Washington State Conservation Commission:** The WSCC supports conservation districts through financial and technical assistance and has grant programs for landowners to complete natural resources enhancement projects.
- **Palouse Watershed Regional Conservation Partnership Program:** The Regional Conservation Partnership Program (RCPP) is dedicated to improving water quality, soil health, and habitat through voluntary incentive funding, and covers a portion of the southeast part of the County.
- **U.S. Fish and Wildlife Service:** The Channeled Scablands Cooperative Weed Management funded through the U.S. Fish and Wildlife Service (USFWS) provides funding for technical and

financial assistance to landowners to control invasive species and restore rangelands for the benefit of the greater sage grouse habitat.

- **U.S. Bureau of Land Management:** The Bureau of Land Management (BLM) provides funding to protect the sage grouse habitat area by creating roadside fuel breaks to prevent the spread of wildfires in these areas.
- **U.S. Bureau of Reclamation:** The U.S. Bureau of Reclamation (USBR) has partnered with Washington State University and other Eastern Washington Conservation Districts to measure and report trends in groundwater level to ensure water availability and quality in the region.
- **Washington State Department of Natural Resources:** The Department of Natural Resources (DNR) provides funding and technical assistance to LCCD for forest health management on public and private land, with a focus on reducing wildfire risk and improve fire resilience in Lincoln County.

Table 4 summarizes the types of strategies and practices implemented since July 2021 and identifies associated key conservation strategies and practices, consistent with Work Plan Tables 5-6 and 5-7 (Anchor QEA 2018). See Appendix A for full descriptions of each project. Projects implemented in this biennium had agricultural viability benefits that included producing habitat for beneficial species, protecting against erosion, promoting land fertility, and protecting herd health. The projects included protections for all five critical areas (wetlands, habitat conservation areas, critical aquifer recharge areas, geologically hazardous areas, and frequently flooded areas).

Based on the number and type of projects that have already been completed, it appears Lincoln County is on track to meet protection and enhancement benchmarks described in the Work Plan and as reported in the 2021 5-year monitoring report. Additional data is being collected by LCCD to better document environmental conditions, as a supplement to other information sources relied upon, and the data findings will be included in the 2026 5-year monitoring report, along with any adaptive management recommendations.

The LCCD is working to field verify 10% of implemented conservation practices through annual monitoring and visual recognition. The GIS mapping, ISPs, and other outreach practices are incorporating the 10% verification process. Figure 1 shows the phasing the LCCD is using to approach field verification and ISP development with interested landowners, which would include outreach, site visits, and monitoring. The LCCD currently conducts field verification following installment of all practices and projects that are facilitated by the LCCD. The purpose of field verification is to confirm that practices have been installed consistent with best management standards and specifications. LCCD has found that projects are being installed consistent with the project specifications. Again, details on these monitoring efforts will be provided in the 2026 5-year monitoring report.

2.2.1 Individual Stewardship Plans

The LCCD will continue with outreach efforts and work with agricultural producers to provide technical assistance and develop ISPs highlighting a variety of stewardship strategies and practices. Covid 19 limitations have hampered past outreach efforts, but LCCD is ramping up outreach activities, particularly to individual producers, guided by the GIS analysis tool prepared by the consultant team.

Table 4
Projects Implemented Since July 1, 2021

Key Stewardship Strategies			Projects			2023 Protection Performance Objectives ¹
Type	Key Conservation Practice	NRCS No.	Number of Projects	Funding Source	Approximate Units	
Residue and Tillage Management	Direct Seed Tillage	329	22	Ecology	6,411 acres	7,107 acres
	Forage and Biomass Planting	512	4	WSCC	20 tons of sediment loss reduction/acre/year	
Nutrient Management			0			459 feet
Water Management	Sprinkler System	442	1	WSCC	916 feet	384 acres
	Grassed Waterway	412	1	VSP	2,500 feet	
	Livestock Watering Facility	614	5	LCCD	5 watering facilities	
Soil Management			0			
Habitat Management	Tree Planting	612	1	RCPP	32 acres	
	Power Fence Installation	382	8	WSCC	8,176 acres	
	Riparian and Upland Planting	342	1	LCCD	26 acres	
	Brush Management	314	1	WSCC	3ac	
	Woody Residue Treatment	384	1	WSCC	5ac	
	Tree/Shrub Pruning	660	1	WSCC	5ac	
	Forest Stand Improvement	666	1	WSCC	5ac	
	Windbreak	380	1	LCCD	390 feet	
Other	Off-Site Mitigation Work ²	Other	0			N/A

Notes:

1. Units for performance objectives are based on the examples of key conservation practices identified in the Work Plan. Practices such as fencing or field borders are captured in feet while practices such as prescribed grazing or direct seed are captured in acres. See Work Plan Table 5-6 for the list of key strategy and practice examples.
2. This project is related to mitigation for a road project; which included riparian plantings occurring on private agricultural lands.

2.3 Monitoring and Adaptive Management

The LCCD is committed to monitoring performance, reporting progress, and implementing adaptive management measures as discussed in Section 6.3 of the Work Plan. Monitoring focuses on measurable benchmarks and indicators described in Section 5 of the Work Plan that are to be informally evaluated every 2 years to support the 5-year performance review. In preparation for data monitoring and indicator analysis for the 2021 5-year report, LCCD hired a GIS specialist and has implemented a VSP mapping system to help support an outreach, monitoring, and reporting program. Comments from the Washington State Conservation Commission VSP Technical Panel on the 2021 5-year report were considered in developing the recently updated monitoring strategy and the GIS tool described above (May 2021). Technical Panel feedback included developing more specific benchmarks correlated to critical area types, providing a clearer description of the VSP monitoring strategy and capturing additional monitoring indicators, and creating more specific connections between BMP categories and critical area functions. Additional data collection locations were added in 2022, as described below.

Data Collection Locations

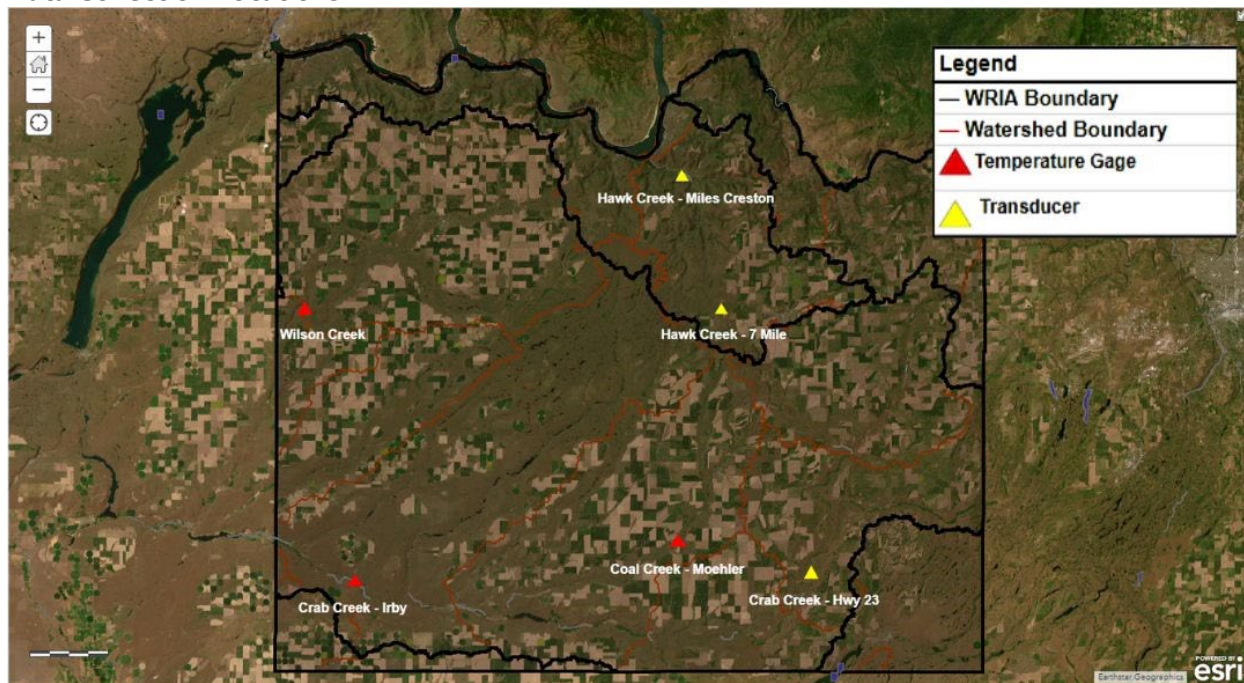
Six out of eight potential monitoring locations have had equipment installed. A map of the locations are shown in Figure 2. Table 5 summarizes the data collection locations.

Table 5
Data Collection Locations

Site	Location	Station Status	Monitoring Parameters
1	Crab Creek at Irby	Current USGS Gage	<ul style="list-style-type: none">• Flow• Temperature
2	Crab Creek at Hwy 23	Former Ecology Water Quality Station	<ul style="list-style-type: none">• Water level• Flow• Temperature
3	Coal Creek at Mohler	Current USGS Gage	<ul style="list-style-type: none">• Flow• Temperature
4	Wilson Creek below Corbett Draw near Almira	Current USGS Gage	<ul style="list-style-type: none">• Flow• Temperature
5	Hawk Creek at Miles-Creston Road	Former Ecology Water Quality Station	<ul style="list-style-type: none">• Water level• Flow• temperature
6	Hawk Creek at Seven Mile Road	New Station	<ul style="list-style-type: none">• Water level• Flow• Temperature

A list of monitoring indicators included for each critical area function in Table 5-8 of the Work Plan was used to inform whether protection of baseline conditions was being achieved during the 5-year report prepared in 2021. Indicators are also being used to identify trends and focus efforts on high-priority areas. Some indicators being used to support conservation practice monitoring, such as surface and groundwater tracking through Ecology and Washington Department of Fish and Wildlife habitat assessments, support other environmental compliance laws and regulations including water quality standards and fish habitat protection.

Figure 2
Data Collection Locations



2.4 Adaptive Management

No adaptive management needs are recommended at this time, but adjustments may be identified and made ahead of the 2026 5-year report. Still, Lincoln County appears to be on track at this time to meet protection and enhancement benchmarks identified for the 5-year reporting period. See Section 5.4 of the Work Plan and the 2021 5-year performance review for discussion on the adaptive management process and thresholds that are to be met.

Adaptive management will be evaluated through periodic data review and through a comprehensive program review every five years. The 2026 report will also include a comprehensive program review to verify the VSP is protective of critical area functions that existed in 2011. Adaptive management will be applied on an ongoing basis as needed and is not restricted to actions included in biennial or 5-year reports. Comments from the Washington State Conservation Commission VSP Technical Panel

on the 2021 5-year report, as described above, will also be considered in the adaptive management review process (May 2021).

2.5 Producer Participation

The VSP Coordinator monitors public participation in stewardship strategies and practices and summarizes results and findings every 2 and 5 years. Results by LCCD to monitor producer participation are summarized in Table 6, consistent with Table 5-9 in the Work Plan.

Table 6
Producer Participation Monitoring

Participation Goal: Promote producer participation in voluntary stewardship of agricultural lands and critical areas to meet the protection and/or enhancement benchmarks and protect critical area functions and values at a County-wide watershed level.		
Objectives/Benchmarks	Performance Metric/ Monitoring Method	Biennial Status
Sufficient active participation by commercial and non-commercial agricultural operators (farmers and ranchers) over 10 years that achieves the protection of critical area functions and values at a County-wide watershed level ¹	<ul style="list-style-type: none"> • Number of acres reported in key stewardship practices • Number of VSP self-assessment checklists submitted • Sufficient producer participation necessary to meet protection and enhancement benchmarks 	The LCCD has been tracking and reporting key stewardship strategies and practices for the biennial reporting period, as summarized in Table 4. Producer participation remains on track to meet protection and enhancement benchmarks at the 5-year reporting period.
Passive participation by commercial and non-commercial agricultural operators in VSP stewardship practices is maintained or increased over 10 years on agricultural land ²	<ul style="list-style-type: none"> • Mapping and aerial photo evaluation and/or rapid watershed assessment of practices in place • Random sampling of farmers and ranchers in the field by technical assistance providers with willing landowners 	The LCCD has hired GIS support to develop methodology for GIS tracking of critical areas and to assist in targeted landowner outreach. Figure 1 demonstrates the process for site visits and technical assistance conducted since July 2021.
Technical assistance and outreach are provided to agricultural producers to encourage stewardship practices and VSP participation	<ul style="list-style-type: none"> • Number of outreach and education events • Number of event attendees 	The LCCD has participated in 9 public meetings reaching over 1,500 attendees since July 2021. VSP outreach materials were presented at these events.

Notes:

1. Active participation includes stewardship activities reported either through publicly funded programs or self-reported through the VSP self-assessment checklist in coordination with the VSP Coordinator or technical assistance provider.
2. Passive participation includes un-reported stewardship activities.

2.6 Reporting

This report summarizes accomplishments and plans of commitments in the Work Plan from July 1, 2021 – June 30, 2023. The 2021 5-year performance review provided a more robust report that specifically documents how the County has met protection and enhancement goals and benchmarks from the Work Plan (Lincoln VSP Work Group March 2021). The 5-year report also included an analysis of monitoring indicators and showed that the established benchmarks are being met. Comments from the Washington State Conservation Commission VSP Technical Panel on the 2021 5-year report have been considered in developing the expanded monitoring strategy and will also be considered as part of the next 5-year performance review process (May 2021).

2.7 Agricultural Viability

Conservation activities being implemented also sustain agricultural viability, as summarized in Table 6. Many of the cost-share projects planned or completed in this biennium allowed producers to provide ecosystem services while protecting herd health, promoting yield, and protecting against the risk of erosion. Continued participation in the VSP by landowners and upcoming site visits are expected to result in even more conservation strategies and practices implemented with benefits to agricultural viability through cost-sharing and technical assistance from LCCD. Participation by the County in the VSP allows producers to protect critical areas without discontinuing agricultural activities or converting agricultural land to other uses.

2.7.1 *Agricultural Viability Successes and Opportunities*

Through multiple years of participation through the direct seed program, producers are starting to see relationships between root growth and residue left on the surface of last year's crop creating a positive relationship often not generated by plowing or tilling the fields. By adopting this new form of farming the Department of Ecology estimates that an estimated 7 tons per acre of soil loss is saved versus a conventional tillage system. The Conservation Reserve Program (CRP) with NRCS also falls hand in hand with the goals of the VSP by protecting sometimes deemed critical areas of land by allowing them to fall back into their historic native grassed form.

Producers in Lincoln County are also considering how regenerative agriculture principles can be applied in the County and would like to explore partnerships with other agencies and non-government agencies in land management. Workgroup members Rex Harder and Craig Madsen shared regenerative agriculture principles with the workgroup at a recent meeting (October 2022). Rex and Craig highlighted regenerative agriculture as an important way producers are both managing their lands and resources and sharing this information with consumers as part of their marketing efforts.

In regenerative agriculture, farming operations are considered as part of systems, where individual practices are in the context of ecosystem processes and also financial and social systems – leading to effective water and mineral cycles, efficient energy flow and healthy community dynamics. Soil health principles support high functioning soils that maximize living roots, biodiversity and soil cover, and minimize soil disturbance. Livestock integration can help support high functioning soils. The benefits of regenerative agriculture include increased soil resilience, reduced inputs, improved profitability, carbon sequestration, landscape diversity and improved offsite water quality and less erosion (see Lincoln VSP workgroup presentation Oct 21, 2022, for additional information).

The projects supported and partially funded by the VSP workgroup for the reporting period also help to support agriculture viability in the County, as it allows for more stewardship projects to be implemented than might otherwise occur.

2.7.2 Agricultural Viability Concerns

Recent agricultural viability concerns identified by the Work Group include the following:

- Drought impacts in 2021 occurred for dry land wheat and other crop yields where water supply was more limited. Higher wheat prices partially offset losses. Some farms had to defer land lease payments or extend loan payment periods and are at risk of going out of business or may need to sell multigeneration family farms, to maintain economic position.
- Labor shortages - Producers are finding it increasingly difficult to find labor to support seeding, planting and harvest operations. It would be helpful to establish mentorship or internship programs with high schools and/or community colleges to help develop workforce skills and potentially provide more labor to support agricultural operations.
- Wildfire risk remains an ongoing concern, with potential to impact soils, vegetation, and crops.
- Input costs have increased significantly in recent years, and supply chain issues make it increasingly challenging to receive the parts when needed. Farmers are stockpiling parts in anticipation of future needs/wear parts. Some suppliers are also not willing to service older equipment (e.g., more than 10 years old).
- Increased foreign ownership of productive farmlands could result in reduced income in the local economy or the conversion of agricultural lands to other uses (NPR 2019)
- Increased consolidation of ownership could result in reduced income to the local economy.
- Toxicity studies indicate that glyphosate (one of the most widely used agricultural pesticides worldwide, also known as Roundup) may result in transgenerational inheritance of pathologies (Sorensen 2019). If this chemical, which is used for fallowing and weed control, were restricted in usage or banned all together, it would result in producers needing to rely on other, more expensive methods of treatment to achieve the desired effects for their

operations. These actions could further reduce margins on dryland crops that are already experiencing thinner margins in recent years.


- Inaccurate, conflicting, or inconsistent messaging coming to consumers from various information sources about farming practices and their impact on the environment is affecting the economic viability of agriculture. Agricultural producers continue to improve land stewardship practices and apply sustainable farming practices. Producers and those they work with to move products to market need to improve messaging and provide more consistent messaging about how farmers are good stewards of the land and use sustainable practices. A good example of the stewardship activities is the work that workgroup members Rex Harder and Craig Madsen shared with the workgroup. Rex and Craig highlighted regenerative agriculture as an important way producers are both managing their lands and resources and marketing their stewardship actions.

2.8 Spirit of Cooperation

Since July 2021, eight different agencies have partnered with landowners in Lincoln County to implement projects that benefit critical areas and agricultural viability. Additionally, the LCCD has collaborated, partnered, and contracted with Grant and Pend Oreille counties on VSP efforts, such as GIS monitoring platforms, outreach, presentations and supplemental monitoring strategies. The LCCD has been updating the website and social media accounts to keep community members informed on different programs and activities that are part of the VSP. Additional information updates will be provided. Implemented projects have included critical area plantings that benefit wildlife habitat on privately owned land without direct intersects with agricultural activities, bridging agricultural and environmental interests.

3 Voluntary Stewardship Program Successes

Since July 1, 2021, the LCCD has worked with landowners to coordinate implementation of stewardship strategies and practices that not only protect and enhance critical areas functions and values, but also support the viability of agriculture for individual agricultural producers. Highlights of some of these successes are shown below.

	<p>Direct Seed Projects</p> <p>Example benefits:</p> <ul style="list-style-type: none">• Reduces erosion• Improves water storage and filtration• Limits soil compaction• Promotes natural groundwater filtration functions• Protects soil health• Promotes yield and fertility• Reduces invasive and nuisance species
	<p>Grassed Waterway Project</p> <p>Example benefits:</p> <ul style="list-style-type: none">• Reduces erosion• Improves water storage and filtration• Reduces inputs from runoff• Protects soil health• Reduces invasive and nuisance species• Enhances habitat for native plant and animal species



Stock Watering Projects

Example benefits:

- Reduces erosion
- Improves water storage and filtration
- Limits trampling of habitat
- Prevents unintentional conversion of shrub-steppe habitat
- Limits shoreline degradation
- Limits soil compaction
- Protects soil health
- Reduces invasive and nuisance species



Wetland Reserve Plantings

Example benefits:

- Protects wetlands and buffers
- Reduces inputs from runoff
- Restores/creates habitat structures
- Reduces erosion
- Reduces invasive and nuisance species



Exclusion Fencing of Waterway

Example benefits:

- Limits shoreline degradation
- Limits trampling of habitat
- Protect against erosion risk
- Reduces invasive and nuisance species
- Improves water quality

Specific VSP cost share projects and other examples of VSP successes in Lincoln County include,

- 11,000+ trees and shrubs were planted along Crab Creek. This is an ongoing Conservation Easement, Wetland Reserve Program partnering with NRCS. Since 2018 there have been approximately 32,000 trees and shrubs planted. This program will conclude in 2024.

Below: drone image of trees staged to be planted and an on-the-ground image of planting crew.



- Grassed waterway project implemented on a site where a culvert was completely blocked, and the natural channel had become nearly level with surrounding hay land. LCCD provided cost share to the landowner in restoring the waterway to its natural shape.
- Exclusion fencing projects to keep livestock from entering waterways and prevent streambank erosion.
- Five total watering facilities have been installed, two of which with VSP funding. These facilities allow farmers to utilize new pastureland to rotate grazing and prevent livestock interaction with nearby waterways.

See Appendix A for additional information on these conservation projects.

4 References

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Appendix A

Recently Implemented Stewardship Strategies and Practices (facilitated by LCCD)

Descriptions of Implemented Stewardship Strategies and Practices (facilitated by LCCD)

VSP-Funded Cost Share Project

1. **Livestock Watering Facilities:** \$20,000 max. Cost share 50% with landowner.

This project upgraded an existing spring development and livestock watering trough and developed a second adjacent spring and watering trough about 380 feet away from the first one. Livestock have been getting water out of the partially developed source located within the saturated overflow area of the spring. Vertical 4-foot-diameter, 4-foot-tall, galvanized steel culverts with a surrounding shell of gravel were installed just downhill of each spring to collect and filter the groundwater. Groundwater will be piped downhill to an adjacent 6-foot-diameter metal water trough that is located on drier ground. Overflow water will be piped downhill and returned to an adjacent stream channel that is lined by trees and shrubs. The immediate saturated soil area around each spring was fenced in for livestock exclusion.

Below: Before & photos of a livestock watering facility installed in 2022.



Additional Conservation Projects:

2. **DOE-funded direct seed tillage cost share projects (locations vary):** Cost share at \$28/acre with landowner for implementing practice on up to 250 acres. Currently thirteen Lincoln County landowners and two Adams County landowners are funded for \$21,000 maximum for 3 seedings.
3. **USBR-funded groundwater monitoring project:** WSU and USBR have partnered to research groundwater levels across Central and Eastern Washington. LCCD personnel have been regularly taking domestic, municipal and irrigation well measurements and recording the data to track trends in groundwater levels. The goal for this project is to identify regions of highest concern for low groundwater levels, identify trends that impact the levels, and find solutions to low water availability for private and public land use.
4. **WSCC-funded projects:**
 - a. **Hazard Mitigation:** LCCD employees provide landowners with free site inspection to rate their home's wildfire resilience based on external and environmental factors. LCCD staff also give suggestions to improve the likelihood of structure and landscape survival in the case of a wildland fire.
 - b. **Fire Recovery:** Cost share 50% with landowner up to \$50,000. Fence replacement due to extensive fire damage has been highly requested and emergency funding was provided in 2021 and 2022, and landowners in Lincoln County were able to install 8,176 acres of new fence. Several landowners have also implemented forage and biomass plantings, re-seeding native grasses that were lost to fire on their land to prevent erosion and invasive weed pressure. An estimated 20 tons/acre/year of sediment loss will be prevented on this land because of these planting projects.
 - c. **Soil Health Testing:** In partnership with the Washington State Department of Agriculture and Washington State University, WSCC provided several Washington Conservation Districts, including LCCD, training and materials to collect numerous soil samples from crop land, Conservation Reserve Program (CRP) land, and range land throughout the county. These samples will be stored and analyzed to build a soil health database and network to provide landowners with practices they can use to improve their soil health.

Below: LCCD staff collecting soil samples for the Washington Soil Health Initiative grant.



5. LCCD-funded projects:

- a. **Riparian and upland planting:** Partnering with NRCS, LCCD staff planted 6,000 upland and riparian trees along a creek to prevent erosion and create a wildlife habitat.
- b. **Living snow fence project:** The establishment and maintenance of Austrian pine trees along 1,600 feet of a highway road to block seasonal snowdrifts.
- c. **Windbreak planting:** The establishment of approximately 400-foot dual rows of Austrian pine and caragana around the perimeter of the Wilke WSU Extension farm in Davenport, WA. This is meant to protect the building, equipment and surrounding land from high winds and prevent erosion.
- d. **Livestock watering facility project:** Cost share 50% with landowner up to \$20,000 to install a trough for livestock.

Below: Before and after image of a livestock watering facility completed in 2022.

