



Washington State  
Conservation Commission

# Gap Analysis and Sustainable Farms Budget Proviso

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## *Final Report*

*As specified by 2019-21 Operating Budget Proviso*

**Washington State Conservation Commission**

Carol Smith, Executive Director

**Washington State Department of Agriculture**

Derek Sandison, Director

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Report prepared by Alison Halpern, Adam Peterson, Evan Sheffels, Ron Shultz, and Brian Cochrane. Please contact [ahalpern@scc.wa.gov](mailto:ahalpern@scc.wa.gov) for more information.

## Summary

Budget provisos were incorporated into the FY20 operating budget for the State Conservation Commission (SCC) (Appendix A) and Washington Department of Agriculture (WSDA) (Appendix B) to support efforts by these two agencies to:

1. Perform gap analyses to estimate need for technical assistance and cost-share assistance for existing conservation grant programs; and
2. Develop recommendations that incorporate input from stakeholders for the creation of a grant program aimed at mitigating carbon emissions by improving fossil fuel efficiencies on farms and implementing carbon farming practices.

The SCC, in collaboration with WSDA, has implemented the two directives of the proviso, the results of which we detail in this report.

The SCC based the technical assistance gap analysis on numbers derived in its FY19-21 budget request for conservation technical assistance. We estimate that the unmet need for technical assistance (TA) for one biennium could be addressed with an additional \$17M in funding, which would allow all 45 CDs to increase landowner assistance and on-the-ground project implementation. We contracted the conservation grant gap analysis assignment to the Thurston Conservation District, which combined a geospatial analysis with an inventory of cost-share projects funded by the SCC in the FY19-21 biennium to estimate that approximately 1.42% of agricultural operations statewide participated in cost-share projects funded through the SCC. Based on median Best management Practice (BMP) costs, we estimate that to increase that percentage of agricultural operations from 1.42% to 5% could cost between \$5.3-\$39.4M. Increasing participation to 10% could cost between \$10.7-\$78.7M.

The SCC and WSDA held two stakeholder meetings on 27 September 2019 and 12 November 2019 to gather input about the development of a sustainable farm and fields (SFF) program that would reduce agricultural greenhouse emissions and increase carbon sequestration practices, while complementing existing conservation programs. Due to interest in this proposed new grant program, we developed an online survey, which SFF stakeholders distributed to agricultural and environmental communities. In just nine days, 127 individuals from 26 counties participated in the survey and provided information about their existing implementation of emissions-reducing measures and carbon-farming practices as well as suggestions for a new SFF grant program.

From the information collected at the stakeholder meetings and through the online survey, the agencies make the following recommendations:

1. A voluntary sustainable farm and fields (SFF) grant program to fund carbon reduction/sequestration practices should be created at and administered through the SCC.
2. SFF funding of carbon practices should not take funding away from existing conservation grant programs addressing water quality and other natural resource concerns.
3. Increased funding should be provided for conservation districts to provide technical assistance to farmers to help them better understand opportunities in carbon reduction/sequestration practices.

4. The SFF program should be statewide and designed to help the farmers who need the financial assistance. Marginalized farmer groups and farmers in low-income counties should receive consideration, as should small and medium sized farms, and new and beginning farmers.
5. Outreach efforts to inform farmers of the SFF program should be multilingual for farmers around the state.
6. Grant funds should support NRCS carbon-farming/sequestration practices.
7. Grant funds should be made available to other public entities through the SCC for distribution to landowners.
8. When allocating funds to landowners for practices, a scoring system should be used that provides additional points to practices addressing carbon reduction/sequestration functions in addition to other natural resource values.
9. Eligible practices should be prioritized as to those most effective at reducing greenhouse gas emissions and increasing carbon sequestration. This prioritization should be based on the most up-to-date science behind the practice.
10. An economic assessment should be developed, such assessment showing how carbon reduction/sequestration practices and emissions-reducing measures will financially benefit farmers.
11. The SCC and WSDA should continue to work with stakeholders in the implementation of the SFF grant program to develop output measures, identify how to monetize sequestered carbon, identify which practices will be most effective, and determine which practices would be most likely be implemented by farmers.

# Gap Analyses

## Technical Assistance Gap Analysis

Technical assistance consists of one-on-one interactions with farmers and technical experts to review the resource conditions of the farmer's property and identify opportunities to implement (Conservation practices and management systems) that will address identified resource concerns. Technical assistance is currently provided largely by local conservation districts who have on-the-ground relationships with farmers. Stakeholders consulted in the SFF proviso process identified the critical importance of a strong technical assistance program for farmer outreach as key to a successful SFF program.

Current funding for technical assistance has been insufficient to meet the need. Recently the SCC, working with conservation districts across the state evaluated this unmet need and potential for landowner assistance and identified the financial resource gap.

Based on this SCC review, the unmet financial need for technical assistance (TA) for a single biennium is \$17M (\$8.5M per FY). This funding would enable all 45 conservation districts to:

- increase conservation technical assistance and increase on-the-ground project implementation by an estimated 30%,
- secure an additional 25% of federal and state funds through grant-writing and fund-matching by CDs, and
- increase financial stability of all 45 CDs so that they have a solid foundation that would allow them to offer that increased technical assistance.

Please See [Appendix C](#) for details on how this amount was calculated.

## Cost-Share Assistance Gap Analysis

By Adam Peterson, Thurston Conservation District Natural Resource Specialist

Initially, work plans and the most recent reports from all 27 participating counties in the Voluntary Stewardship Program (VSP) were reviewed, with the goal of gathering data to estimate cost. However, counties often took unique and tailored approaches to their individual stewardship plans and often asked different questions, posing significant issues in summarizing data on a statewide level. Compiled data on conservation practices in reports, where available, was almost entirely retrospective, looking at practices already or currently being implemented by landowners. In almost all cases these figures did not include conservation practices recommended for future implementation. Due to these issues in data equivalency and availability, data from the WSCC was chosen as the focus for this work instead.

The goal of this analysis is to understand the percent of agricultural operations statewide that have been served by cost-share projects through the SCC. Data from WSCC's Conservation Practice Data system regarding cost-share projects funded during the 2017-2019 biennium was compared to figures for the number of agricultural operations from the 2017 USDA Agricultural census.

Each agricultural operation imported into ArcGIS Pro for geospatial analysis. Latitude and longitude information associated with each property and Best Management Practice was used to determine location. Where invalid data was present, address information was used to provide latitude and longitude information. Agricultural operations were summarized both by county and on a statewide basis.

Data from the most recent agricultural census from USDA's NASS provided estimates of total agricultural operations statewide and countywide. These operations include both cropland and pastureland and represent a similar pool of agricultural operations to that served through cost-share projects.

On a statewide basis, it is estimated that 1.42% of statewide agricultural operations were served by a cost-share project in the 2017-2019 biennium. There was significant variation between counties in percentage of agricultural operations with cost-share. This ranged from 0% for Skamania to as high as 8.4% for Pacific county.

To very conservatively estimate the cost of additional conservation, assume a statewide increase from 1.42% participation of agricultural operations to 5 or 10 percent, and that each operation implements a single BMP. This estimate generates a range of expected state cost share based on the distribution of BMP costs as follows:

Percent of Operations	Number of Operations	Low Estimate	High Estimate
<b>5</b>	1790	\$5,370,000	\$39,380,000
<b>10</b>	3579	\$10,737,000	\$78,738,000

Please see [Appendix D](#) for more information and full methodology.

## Stakeholder Input for a Sustainable Farm and Fields Program

### Stakeholder Meetings

The proviso also directed the SCC, in collaboration with the WSDA, to gather input from agricultural and environmental stakeholders for a Sustainable Farm and Fields program that would reduce agricultural greenhouse emissions and increase carbon sequestration practices, while complementing existing conservation programs. These efforts will focus on how project funding can best be keyed to serve the greatest needs. The objective is to help the state make the right kinds of natural resource investments to provide multiple benefits in the right places – to reduce greenhouse gas emissions and increase the quantity of carbon stored on working lands while also supporting agricultural viability and addressing pressing water quality, habitat and soil health concerns.

The SCC staff team leading the proviso implementation conducted an initial meeting with a small group of stakeholders, legislators and agency partners on June 5, 2019, to gain a better understanding of the intent and expectations of the parties with respect to implementation of the proviso. We then held two larger stakeholder meetings on 27 September 2019 and on 12 November 2019. Both meetings were held in Olympia but allowed interested stakeholders to participate remotely via GoToMeeting. A total of 19 stakeholders attended the first meeting in person, with an additional 14 attending remotely. The second meeting had 9 stakeholders attending in person and approximately 20 attending remotely. SCC staff facilitated both meetings, and the discussions were productive and engaging.

We also reported on the proviso gap analysis, challenges of estimating ISP costs, and proposed methodology at the August 7 VSP joint Technical Panel & Statewide Advisory Committee. There was consensus that developing a cost to implement existing and anticipated ISPs would be challenging, and there was interest in learning more about the process to quantify that number via spatial and economic analyses. VSP watershed monitoring reports are just now arriving, consistent with statutory requirements and timelines. We will have more clarity on VSP implementation costs once those reports are assessed to determine whether goals and benchmarks for critical area protection and enhancement are being met.

## Online Survey

Because the proposed sustainable farm and fields grant program had garnered such interest, we felt it important to allow members of the agricultural and environmental communities who were unable to attend the meetings to have an opportunity to provide input. With assistance from Carbon WA and WSDA, we developed an online survey, and stakeholders helped to distribute it. The response exceeded expectations, with 127 individual participants from 26 counties in just nine days. We learned that the majority of farmers surveyed (82%) indicated that they already implement greenhouse gas emissions-reducing measures and/or carbon-farming/sequestration practices. A stakeholder representing Tilth Seattle shared at a meeting that among small- to mid-size farms, there is a high demand for organic/sustainable farm grants and strong interest in workshops on soil health and hedgerow plantings. Of the 119 who responded to this survey question, 90% indicated that they would be likely or very likely to start adopting or implementing additional practices if there was a grant program that provided financial or technical assistance.

Results from the survey received through 13 November 2019 are included in this final report in Appendix E. Although we had planned to close the survey on November 13, we decided to keep it open through the end of the year, as several stakeholders requested, so that farmers attending their annual winter conferences can learn about the SFF program and weigh in if they are interested.

## Summary of stakeholder input

Our hope has been that open dialogue with all partners will allow us to make recommendations that could result in a proposed grant program that garners durable support from the environmental and agricultural community. Based on the productive meetings and survey feedback, we feel we achieved that goal and appreciate everyone who participated.

The following are key points raised by stakeholders at the meetings and from the survey results.

- Several stakeholders expressed concern that a new sustainable farm and fields program would take funding away from existing conservation grant programs that address water quality and other natural resource concerns. They felt it would be important to find a way to expand SFF to fund carbon practices while still ensuring funding for other resource concerns.
- The consensus is that the SCC is well suited to implement the sustainable farm and fields grant program. The SCC would prefer that grant funding would pass through to public technical assistance entities such as conservation districts, WSU Extension, etc. who would, in turn, work directly with farmers. This ensures better accountability/transparency and makes less work for farmers, who would benefit from the technical assistance and would not have to be the primary grant-writers.
- There was also a robust discussion about the multifaceted benefits of many conservation practices. For example, many practices intended to enhance riparian habitat, improve soil health, improve water quality, etc. also sequester carbon. A scoring system based on carbon reduction/sequestration could rank and prioritize existing conservation practices, such that one practice that addresses two or more environmental services would be ranked higher.
- Several survey respondents suggested that the program be statewide and designed to help those who need it the most – including marginalized groups and low-income counties. There were also suggestions to target small- to medium-sized farms and young and/or new farmers. Outreach efforts to engage farmers in a SFF program should be bi- or multilingual, in at least English and Spanish.
- Technical assistance by conservation districts is a valuable and cost-effective way to maximize the number of farms served. It would allow CDs to advise farm operators about best practices to sequester/farm carbon and reduce CO<sub>2</sub> emissions, as well as develop site-specific plans for each participating farm. It is also scalable for small, medium, and large farming operations.

- Based on the survey, the top NRCS carbon-farming/sequestering practices that should be supporting by the SFF program were cover crops (84%), soil nutrient management (soil health) (75.6%) and no-till/low-till/direct seeding (70%). This dovetailed with the top two common practices respondents listed when we asked them to describe which practices they currently implemented (no-till/low-till/direct seeding, cover crops). Additionally, soil health was a topic of discussion at one of the stakeholder meetings. There was agreement that soil health was an important component of carbon farming/sequestering as well as a crucial measure to help farmers become more resilient in the context of drought and climate change. At that meeting representatives from CDs indicated that at least a few staff are already providing technical assistance and cost sharing to landowners for soil health practices, and that CD staff with expertise in this subject could provide regional trainings to other CD staff. Technical assistance and cost-sharing could be as simple as helping farmers plant cover crops and develop road maps to healthier soil.
- Farmers indicated that there is risk associated with changing practices, especially with a tight profit margin. It would be helpful for farmers to see an economic assessment showing how carbon-farming/sequestering practices and emissions-reducing measures will help their bottom line.
- It will also be important to show the science behind the practices. For example, we know that cover crops, soil health practices, and no-till/low-till/direct seeding are popular among the surveyed farmers; however, they also need to be demonstrably effective at storing carbon to be promoted in the SFF. In other words, the SFF will need to prioritize practices that are most effective at reducing greenhouse gas emissions and increasing carbon farming/sequestration that farmers are willing to implement. Using NRCS's free Comet modeling tool can help quantify the beneficial impacts of adopting these practices. <http://comet-planner.com/>
- It should also be noted that greenhouse gas emissions are not always carbon-based, and there are other practices that might be even more effective that farmers are less aware of. For example, nitrous oxide (N<sub>2</sub>O), along with methane, is one of the worst greenhouse gases and can be a by-product on dairy farms. Nitrogen is also a limiting factor in the soil. Implementing practices that help retain nitrogen in the soil not only enhances soil health and reduces the need for additional fertilizers but also reduces emissions of this gas. Promoting practices to achieve these goals would be highly desirable.
- There are still some challenges to consider in the creation of a sustainable farm and fields program. One will be developing output measures, such as calculating tons of carbon reduction and verifying carbon reduction/storage and environmental impacts. Another is determining how to monetize sequestered carbon. The stakeholders discussed these issues and suggested that a voluntary grant pilot program might be the best first step in the creation of a sustainable farm and fields program. The pilot program could allow time to determine which practices will be most effective and most likely to be implemented by farmers. It could be geared towards small- and medium-sized farms and promote a few practices such as cover cropping, soil health improvement, no-till/low-till/direct seed, and rotational grazing that we know farmers are already interested in.
- Additional suggestions are available in the full survey results ([Appendix E](#)).

## Agency Recommendations for a Sustainable Farm and Fields Program

The provisos also directed the agencies to develop and report recommendations for a Sustainable Farm and Fields Program. From the information collected at the stakeholder meetings and through the online survey, the agencies make the following recommendations:

1. A voluntary sustainable farm and fields (SFF) grant program to fund carbon reduction/sequestration practices should be created at and administered through the SCC.
2. SFF funding of carbon practices should not take funding away from existing conservation grant programs addressing water quality and other natural resource concerns.
3. Increased funding should be provided for conservation districts to provide technical assistance to farmers to help them better understand opportunities in carbon reduction/sequestration practices.
4. The SFF program should be statewide and designed to help the farmers who need the financial assistance. Marginalized farmer groups and farmers in low-income counties should receive consideration, as should small and medium sized farms, and new and beginning farmers.
5. Outreach efforts to inform farmers of the SFF program should be multilingual for farmers around the state.
6. Grant funds should support NRCS carbon-farming/sequestration practices.
7. Grant funds should be made available to other public entities through the SCC for distribution to landowners.
8. When allocating funds to landowners for practices, a scoring system should be used that provides additional points to practices addressing carbon reduction/sequestration functions in addition to other natural resource values.
9. Eligible practices should be prioritized as to those most effective at reducing greenhouse gas emissions and increasing carbon sequestration. This prioritization should be based on the most up-to-date science behind the practice.
10. An economic assessment should be developed, such assessment showing how carbon reduction/sequestration practices and emissions-reducing measures will financially benefit farmers.
11. The SCC and WSDA should continue to work with stakeholders in the implementation of the SFF grant program to develop output measures, identify how to monetize sequestered carbon, identify which practices will be most effective, and determine which practices would be most likely be implemented by farmers.

## Acknowledgements

The SCC and WSDA appreciated the stakeholders who were able to attend our meetings – whether in person or via GoToMeeting to share their expertise and visions of what a Sustainable Farm and Fields program could look like. Attendees included:

Alicia McClendon	SCC		Leslie Michel	Okanogan CD
Bill Eller	SCC		Marisa Vertrees	Audubon
Bob Gannon	OLW		Mark Streuli	WA Cattlemen Association
Brynn Brady	WACD, Audubon		Matt Doumit	WA Assn Wheat Growers
Cindy Alia	Cattle Producers of WA		Melinda McBride	McBride and Associates
Dan Coyne	NW Ag Co-op Council		Melissa Spear	Tilth Alliance
Daniel Himebaugh	Senate Rep Caucus		Michael Penuelas	Leg. Assistant to Rep. Shewmake
Daryl Williams	Tulalip Tribe		Mike Schwisow	WA Winegrowers Association
David Perk	Tyler Tech		Mo McBroom	The Nature Conservancy
Evan Sheffels	WSDA		Nate Lewis	Organic Trade Assn
Ezra Eickmeyer	Edible Forest Coalition		Noa Kay	Carbon WA
Greg Rock	Carbon WA		Rebecca Robinson	PCC Markets
Hannah Clark	American Farmland Trust		Renee Hadley	Walla Walla CD
Harold Crose	Grant County CD		Rep. Jim Walsh	LD 19
Hilary Aten	PCC Farmland Trust		Rep. Sharon Shewmake	LD 42
Jay Gordon	WA State Dairy Federation		Rob Hatfield	House RDAgNR Committee
Jay Krienitz	WDFW		Rod Gleysteen	Pacifica
Jim Jesernig	WA Potato and Onion Assn		Ron Shultz	SCC
Joanna Grist	Grist Public Affairs		Sarah Moorehead	Thurston CD
Joel Baxter	House Rep Caucus		Saundra Richartz	Senate Republican Caucus
John Mankowski	Mankowski Environmental		Stephanie Williams	The Nature Conservancy
Leslie Connelly	OFM		Tom Davis	WA Farm Bureau

## Appendix A: SCC BMP Gap Analysis and Sustainable Farms Grants Budget Proviso

2019-21 Operating Budget (Section 306(5), p. 227 in ESHB 1109.SL)

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(5) \$20,000 of the general fund—state appropriation for fiscal year 2020 is provided solely for the following activities:

- (a) The commission and the department of agriculture must produce a gap analysis reviewing existing conservation grant programs and completed voluntary stewardship program plans to identify what technical assistance and cost-share resources are needed to meet the requirements placed on those activities by the legislature.
- (b)
  - (i) The commission, in collaboration with the department of agriculture, must develop recommendations for legislation or additional work that may be needed to implement a sustainable farms and fields grant program that prioritizes funding based on net reduction of greenhouse gas emissions on farm, aquatic, or ranch lands, including carbon sequestration.
  - (ii) The recommendations must incorporate the gap analysis required by this section. The recommendations must include information about how the grant program can complement and avoid competing with existing conservation programs, and provide cost share benefits to existing and new programs designed to improve water quality, critical habitats, and soil health and soil-health research on farm, aquatic or timber lands.
  - (iii) The recommendations must be developed with input from stakeholder meetings with representatives from the environmental and agricultural communities.
- (c) The commission and the department of agriculture must provide an update to the appropriate committees of the legislature by August 1, 2019, and final recommendations by November 1, 2019.

## Appendix B: WSDA BMP Gap Analysis and Sustainable Farms Grants Budget Proviso

2019-21 Operating Budget (Section 309(14), p. 242 in ESHB 1109.SL)

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(14) \$10,000 of the general fund—state appropriation for fiscal year 2020 is provided solely for the following activities:

- (a) The department and the conservation commission must produce a gap analysis reviewing existing conservation grant programs and completed voluntary stewardship program plans to identify what technical assistance and cost-share resources are needed to meet the requirements placed on those activities by the legislature.
- (b)
  - (i) The department, in collaboration with the conservation commission, must develop recommendations for legislation or additional work that may be needed to implement a sustainable farms and fields grant program that prioritizes funding based on net reduction of greenhouse gas emissions on farm, aquatic, or ranch lands, including carbon sequestration.
  - (ii) The recommendations must incorporate the gap analysis required by this section. The recommendations must include information about how the program can complement and avoid competing with existing conservation programs, and provide cost share benefits to existing and new programs designed to improve water quality, critical habitats, and soil health and soil-health research on farm, aquatic, or timber lands.
  - (iii) The recommendations must be developed with input from stakeholder meetings with representatives from the environmental and agricultural communities.
- (c) The department and the conservation commission must provide an update to the appropriate committees of the legislature by August 1, 2019, and final recommendations by November 1, 2019.

# Appendix C - Technical Assistance Gap Analysis

BASS - BDS017

State of Washington

## Decision Package

**Data Only**

**Agency:** **471 State Conservation Commission**

**Decision Package Code/Title:** **C1 Conservation Technical Assistance**

**Budget Period:** **2017-19**

**Budget Level:** **PL - Performance Level**

### Recommendation Summary Text:

Natural resources can be impacted by landowner activities. Incentive-based programs address these concerns by engaging with willing landowners to take action to correct impacts. While effective in building landowner engagement and commitment to the practices, incentive programs have been criticized because natural resource concerns, like water quality or lack of fish habitat, persist. Three things account for this lack of progress: (a) incentive-based programs have not been funded commensurate with the scale of the problem with thousands of landowners who need help not receive it; (b) there has not been adequate coordination among the agencies providing assistance to focus available resources to address the impacts or enhance habitat in discreet watersheds; (c) landowners participation at high levels requires trusting relationships which take time to develop and the current program-based funding model doesn't support well.

This proposal will address these deficiencies by supporting conservation districts in a new approach to implement incentive-based programs. Natural resource issues would be targeted for coordinated and proactive outreach to engage landowners with existing programs for measured resource results. In this new approach, natural resource conditions of a geographic area are identified, and a targeted outreach strategy is developed. With this funding, conservation district staff will proactively provide outreach to landowners to build relationships in the area and offer incentive programs where needed. Conservation districts will track where practices are implemented by landowners in the target area. The Conservation Commission will coordinate conservation district activities with other agency partners to enhance effectiveness of existing programs to address resource concerns.

Operating Expenditures	FY 2018	FY 2019	FY 2020	FY 2021
Fund 001-1	2,400,00	2,400,000	2,400,000	2,400,000
<b>Total Cost</b>	<b>2,400,000</b>	<b>2,400,000</b>	<b>2,400,000</b>	<b>2,400,000</b>
Staffing	FY 2018	FY 2019	FY 2020	FY 2021
FTEs	1.0	1.0	1.0	1.0
<b>Revenue</b>	<b>FY 2018</b>	<b>FY 2019</b>	<b>FY 2020</b>	<b>FY 2021</b>

Fund 001-1	0	0	0	0
Object of Expenditure	FY 2018	FY 2019	FY 2020	FY 2021
Obj. A	92,300	92,300	92,300	92,300
Obj. B	27,700	27,700	27,700	27,700
Obj. E	6,500	10,000	10,000	10,000
Obj. G	20,000	20,000	20,000	20,000
Obj. J	3,500	0	0	0
Obj. N	2,250,000	2,250,000	2,250,000	2,250,000

**Package Description:**

**Background**

Incentive-based programs are currently implemented with willing landowners across the landscape. Although this approach is most effective in building landowner engagement and commitment to the practices, it may not address the natural resource concerns on a larger geographic scale. There is increasing concern that natural resource issues, such as water quality and habitat protection and restoration are not being addressed through incentive-based programs. Furthermore, research indicates that successful conservation outcomes depend on a long-term, trusting relationship between a landowner and a conservation specialist. These relationships take time to develop that the current program-based funding model doesn't support well. The current approach to implementing incentive programs by engaging willing landowners is not intended to change the entire watershed, but to address inputs on one specific parcel.

This decision package requests additional resources for conservation districts to implement incentive-based programs in an approach where natural resource conditions of a geographic area are identified, and a targeted outreach strategy is developed. With this funding, conservation district staff will proactively provide outreach to landowners to build relationships in the area and offer incentive programs where needed. Conservation districts will track where practices are implemented by landowners in the target area.

**Current Situation**

Current funding for conservation districts supports operational activities and needs. These include basic administrative items such as costs for ADA-compliant office facilities, accountability audits, conducting open public meetings, and administrative staff work. Basic funding provided in the carry-forward levels supports these functions.

Conservation districts currently don't have capacity to proactively engage with landowners. Limited resources are used to respond to landowner-initiated assistance requests, or respond to referrals from other state and local agencies. Referrals are situations where a property has been inspected by a regulatory agency and found to be in need of improvement to address a resource issue.

This capacity limitation also inhibits the ability of a conservation district to proactively address a specific natural resource concern. When an issue arises conservation districts often are not able to respond because existing resources are already committed. Emergent issues could include new emphasis and focus on a natural resource concern brought by the Governor or other prioritization process such as the Puget Sound Partnership.

In addition to these capacity needs at conservation districts, natural resource stakeholders are increasingly concerned that natural resource impacts from landowner activities are not being adequately addressed. Washington's treaty tribes have pressed a treaty right obligation on the state to provide adequate salmon habitat. Pollution loads have contributed to the closure of shellfish beds. The pace of recovery actions in Puget Sound have led to concerns about whether the recovery goals can be met. And contamination of groundwater has led to concerns about agricultural operations.

Natural resources continue to decline in many areas including critical habitats, water quality (both surface and groundwater), water quantity, and air quality. Pressures to address these declines are increasing through various legal challenges. These approaches don't take into consideration the economic viability of the agriculture operation when mandatory buffers or other similar mandates are imposed. Furthermore, critics of incentive programs contend these programs are not achieving watershed-scale natural resource improvements.

Incentive programs have historically not been implemented with the intent and purpose of changing the resource condition of an entire watershed, but have been implemented to assist a specific landowner in addressing resource concerns on one individual parcel. The exception to this historic approach is where incentive programs have been intentionally implemented to target priority resource concerns in a watershed or sub-basin to show measurable improvement. In these cases, measured change to the natural resource condition can be shown when multiple landowners in a defined geographic area are implementing best management practices.

### **Proposed solution**

Increasing concerns regarding the pace of progress on improving natural resource condition has led the Conservation Commission and conservation districts to consider ways we can contribute to change. Our prior experiences suggest an approach where a specific natural resource concern and geographic area is targeted for focused conservation outreach can lead to measurable improvements in the natural resource condition. Recent efforts in the Samish River watershed to address water quality concerns impacting shellfish beds demonstrate that where additional resources are committed to support conservation district outreach and technical assistance, measurable improvements in the resource condition are possible. In the Tucannon River located near Dayton, focused implementation of multiple BMPs, riparian, irrigation and salmon habitat management practices has led to a measured reduction in stream temperature and improved stream flows during historic low flow cycles.

There is an opportunity to expand this proven approach to targeting conservation district services and programs to address specific natural resource issues for measurable improvements. Funding requested in this decision package would implement and support this targeted approach. This decision package will provide funding to conservation districts with the specific purpose of proactively targeting a natural resource concern and geographic area for focused delivery of conservation technical assistance and implementation of practices, resulting in a measurable improvement in natural resources.

Requested funding would be used to implement a targeted conservation technical assistance at the district level which would work as follows:

1. A conservation district would review and evaluate available data on natural resource conditions in the district geographic area. This evaluation would include species, habitat, water quality and quantity, and other documented concerns.
  - In this evaluation national, state, regional, and local priorities would be considered.
  - Examples include the Governor's Shellfish Initiative, climate change response and adaptation, Puget Sound Partnership Local Integrating Organization (LIO) priorities, etc.
2. Once the district identifies the resource concern(s), the district will identify the specific geographic areas as the focus of the work.
  - This would likely be at the sub-basin or reach scale within a watershed.
  - Individual parcels within the target area are identified.
3. The conservation district develops an outreach strategy to proactively engage landowners in the target geographic area.
  - Landowners are given information on the natural resource concerns, their property is evaluated using a voluntary assessment tool.
  - The assessment tool has already been developed by Ecology with the collaboration of a stakeholder group that included the Conservation Commission.
  - Based on the results of the tool the parcel would be rated as a high, medium, or low level of concern.
  - This information would be confidential to the landowner.
4. Landowners will develop a plan with conservation district technical assistance to implement best management practices (BMPs) to address impacts to natural resources.

- The conservation district will track where and what type of BMPs are installed in the target area.
5. The conservation district will continue to participate in monitoring in the target area to measure progress against the baseline condition from the start of the project.
    - Monitoring parameters would include percentage of parcels in geographic area assessed, number of high priority parcels identified due to resource concerns, number and type of BMPs installed on priority parcels, and (through partnerships with other monitoring efforts where possible) change in the natural resource condition.
  6. The conservation district will work with the Conservation Commission and other federal, state, local, and tribal partners in the implementation of the program at the local level.

The Conservation Commission will collect program information from all conservation districts implementing this targeted approach to determine natural resource improvement and overall implementation and report progress to the Governor and legislature.

**Base Budget: If the proposal is an expansion or alteration of a current program or service, provide information on the resources now devoted to the program or service.** Please include annual expenditures and FTEs by fund and activity (or provide working models or backup materials containing this information).

The proposal is not an expansion or alteration of current programs or services. Its additive to existing programs.

**Decision Package expenditure, FTE and revenue assumptions, calculations and details:** Agencies must clearly articulate the workload or policy assumptions used in calculating expenditure and revenue changes proposed.

Additional funding of \$2,250,000 is needed at the Conservation District level to allow acquiring resources sufficient to implement geographic-based programs.

Additional funding and staffing of \$150,000 and 1.0 FTE is needed by the SCC to provide leadership, liaison, and program administration associated with state funding. Classification level for expertise required assumes WMS 2.

**What specific performance outcomes does the agency expect?**

Describe and quantify the specific performance outcomes the agency expects as a result of this funding change.

The agency expects the following Agency Activity Inventory Performance Measures to be supported by the activities funded in this decision package:

Activity: A001 Technical Expertise and Program Delivery

Outcome Measures	Incremental Changes			
	FY 2018	FY 2019	FY 2020	FY 2021
002357 Conservation districts utilize SCC funding as match.	8%	10%	12%	14%
001425 Number of acres protected, improved, enhanced through BMPs.	50,000	75,000	100,000	125,000
002368 Conservation districts required to utilize CPDS	75	85	100	100
001409 Miles of stream protected, improved, enhanced	100	120	140	160
001426 Number of authorized best management practices installed	350	450	550	650
001424 Number of land owners/managers assisted	3750	3900	4125	4250

Activity: A002 Conservation District Operations and Accountability

Outcome Measures	Incremental Changes			
	FY 2018	FY 2019	FY 2020	FY 2021
002357 Conservation districts utilize SCC funding as match.	8%	10%	12%	14%
	Min 24	Min 26	Min 30	Min 32
002360 Number of administrative efficiencies at CDs	Max 30	Max 30	Max 36	Max 40
002368 Conservation districts required to utilize CPDS	75	85	100	100

Activity: A003 State Conservation Commission Operations and Administration

Outcome Measures	Incremental Changes			
	FY 2018	FY 2019	FY 2020	FY 2021
002357 Conservation districts utilize SCC funding as match.	8%	10%	12%	14%
001400 Conservation Commission financial staff will act on all payments within 72 hours of receipt	97%	98%	100%	100%
001904 Conservation Commission staff will audit the on-the-ground implementation of projects	Min 25	Min 30	Min 33	Min 36
	Max 32	Max 35	Max 38	Max 40
001416 Positive constituency feedback	100	100	100	100

The outcomes expected include at least 30 conservation districts statewide will implement a targeted conservation technical assistance program addressing an identified natural resource concern in a focused geographic area. The local programs implemented will identify a specific number of landowner parcels targeted for outreach and report on progress on accomplishing the target number of landowners visited. This number is indeterminate at this time until conservation district proposals are submitted.

Results WA goal areas affected include Goal 3 goal topics of: Healthy Fish and Wildlife; Clean and Restored Environment; and Working and Natural Lands. Other Results WA goals addressed include: Goal 2 – Prosperous Economy and goal topic Thriving Washingtonians. By working with landowners to address natural resource impacts in a manner that allows the landowner to remain economically viable will support the Goal 2 indicator of increasing employment in the agriculture sector (Goal 2: 2.1.a).

The undesired results of continued negative impacts to our state’s natural resources from landowner activities will be reduced and mitigated. This will be accomplished through the targeted approach in this decision package where programs will be focused in areas of high impact. These changes will be measurable against previously identified benchmarks and goals.

The efficiency in the implementation of government programs will increase through the focused implementation approach in the proposed Conservation Technical Assistance program. In this approach, various current state and federal programs will be brought together with the landowner and conservation district staff identifying the program most effective at that particular parcel. The landowner and conservation district may also identify opportunities to combine existing programs in a manner that proves more efficient and effective for achieving the resource and landowner objectives.

Outputs produced by conservation districts will increase. The additional resources will allow increased landowner visits to be conducted and increase the implementation of best management practices.

### **How does the package relate to the agency's strategic plan?**

This proposal relates to the following WSCC strategic areas:

Resource Conditions – Demonstrate voluntary conservation programs and services lead to natural resource improvements.

Resource Issue Facilitation – Coordinate local, state, federal, and tribal entities to identify and resolve natural resource issues.

District Operations – Enhance conservation districts' ability to deliver quality technical services that meet local and natural resource needs.

Statewide Program Delivery – Our programs meet local and state resource priorities, and maximize community-based models to deliver effective solutions.

Policy Leadership – Lead in the development and implementation of policies related to natural resource conservation and viable land use.

Partnering – We are a partner that unites natural resources and agricultural stakeholders and implements collaborative, effective conservation solutions.

Technical capacity – Conservation districts have premiere technical capability and capacity to create and implement conservation systems and programs.

### **Governor's Results WA – Relationship to Specific Goals and Measures:**

The question of which Results WA outcome measure and indicator will be addressed will be answered at the conservation district level when they identify the natural resource area of concern to be addressed. Potential Results WA leading indicators that could be addressed include:

- 2.1.b. Increase number of implemented agricultural BMPs to improve water quality in shellfish growing areas in Puget Sound, Grays Harbor and Pacific counties from 345 in 2008 to 750.
- 2.2.b. Increase miles of stream habitat opened from 350 to 450.
- 2.2.c. Increase number of fish passage barriers corrected per year from 375 to 500.

2.3.b. Increase the 5-year running average of statewide sage-grouse population from 1,000 to 1,100.

4.1.a. Maintain current level of statewide acreage dedicated to working farms (cropland) with no net loss.

Leading Indicator: Increase the average annual statewide treatment of forested lands for forest health and fire reduction from 145,000 to 200,000 acres.

4.4.d. Increase the acreage of Puget Sound estuaries restored in the 16 major rivers from 2,260 acres to 5,028 acres.

### **Puget Sound Activities – Near Term Actions (NTAs) Addressed:**

NTA #2016-0073      Conservation Reserve Enhancement Program (CREP) Expansion. Through this proposal, a conservation district may select CREP as the best tool to assist landowners in the protection of the riparian areas, leading to expansion of the program in targeted areas.

NTA #2016-0370      Puget Sound Clean Waters Livestock Stewardship Program. This NTA calls for enhanced landowner engagement to prevent and correct fecal coliform pollution. Funding proposed in this Conservation Technical Assistance decision package will directly address this NTA and do so in a targeted manner to ensure the high priority areas are corrected.

NTA #2016-0246      Better Ground. Targeted communication will be an important component of this Conservation Technical Assistance proposal. Better Ground is a new approach to communication of technical assistance information to landowners.

NTA #2016-0268      Expand Conservation District Shoreline Technical Assistance in Puget Sound. For some conservation districts, the current status of shorelines may warrant their designation as a focus area in the Conservation Technical Assistance program funded in this decision package. If so, it will be implemented consistent with this NTA.

NTA #2016-0270      Riparian Restoration Throughout the Greater Puget Sound. This decision package will directly support this NTA through the targeted and focused approach of addressing riparian conditions.

NTA #2016-0292      Puget Sound Conservation District Stormwater Action Team. Stormwater has a significant negative impact on the condition of Puget Sound. The Conservation Technical Assistance decision package will implement BMPs to address these impacts if identified as a priority by a conservation district, and support this NTA.

NTA #2016-0332      Forest Health Management for Reduced Stormwater Runoff and Land Conservation. Recent reports suggest loss of forest cover continues in the Puget Sound basin, negatively impacting water quality and riparian habitat. This decision package will support addressing this resource concern by funding forest health management efforts when these are identified as a priority by a conservation district.

**What are other important connections or impacts related to this proposal?** Please complete the following table and provide detailed explanations or information below:

Impact(s) To:		Identify / Explanation
Regional/County impacts?	Y	<b>Identify:</b> The targeted approach identified in this proposal will support regional efforts such as salmon recovery groups and shellfish recovery activities. It will also support county goals for natural resources restoration.
Other local gov't impacts?	Y	<b>Identify:</b> A minimum of 30 conservation districts will implement local conservation TA programs.
Tribal gov't impacts?	Y	<b>Identify:</b> This program will benefit local tribes by providing funding and creating opportunities for conservation districts to partner with a local tribe to address natural resource concerns.
Other state agency impacts?	Y	<b>Identify:</b> State agencies will be involved in local targeted conservation efforts, improving implementation of state programs for the protection and enhancement of natural resources. State agencies will coordinate the monitoring of local actions at the state level through the Conservation Commission.
Responds to specific task force, report, mandate or exec order?	N	<b>Identify:</b>
Does request contain a compensation change?	N	<b>Identify:</b>
Does request require a change to a collective bargaining agreement?	N	<b>Identify:</b>
Facility/workplace needs or impacts?	Y	<b>Identify:</b> Additional staff will be accommodated within existing facility. Additional costs for administrative support include IT equipment and office supplies.
Capital Budget Impacts?	N	<b>Identify:</b>
Is change required to existing statutes, rules or contracts?	N	<b>Identify:</b>

Is the request related to or a result of litigation?	N	Identify lawsuit (please consult with Attorney General's Office):
Is the request related to Puget Sound recovery?	Y	If yes, see budget instructions Section 14.4 for additional instructions

**Please provide a detailed discussion of connections/impacts identified above.**

The targeted approach identified in this proposal will support regional efforts such as salmon recovery groups and shellfish recovery activities. It will also support county goals for natural resources restoration. Under this Conservation TA program, conservation districts will collaborate with county governments, special purpose districts, and tribes to identify resource concerns and develop program activities to address those concerns. This local coordination will include state and federal agencies and their local and regional offices to coordinate existing programs and resources to focus on resource concerns.

Implementation of the Conservation TA program will benefit landowners who take advantage of the program by helping them address natural resource impacts while maintaining viable agricultural activity. The Conservation TA program will also benefit residents of the state by improving our state's natural resources and maintaining viable agriculture.

The estimate of the number of clients to be served will vary by conservation district and is indeterminate at this time. However, as the program is established in the first year of the biennium, the target areas will be identified and the number of focus parcels will become known. In the second year of the first biennium we will have the target number of parcels for all conservation district participating. In the second biennium we will have data on the number of parcels identified as high, medium, and low priority. We will also have measureable targets for each year as to the number of parcels identified and addressed each year.

**Connections with other entities who will support, or are supporting, this decision package.**

Conservation districts support this decision package since it will provide additional capacity to conduct landowner outreach. Natural resource agencies at the county, state, and federal levels should support this approach since it supports other efforts currently underway. For example, natural resource agencies are working together on an approach called "coordinated investments", the purpose of which is to identify a resource concern in a geographic area and bring together various agencies and resources to address concerns. This Conservation TA proposal will support the coordinated investments approach by providing additional resources. This proposal will also support implementation of the Voluntary Stewardship Program (VSP) by providing additional funds for implementation of local VSP work plans.

Generally those interested in improving our state's natural resources should support the Conservation TA proposal because resource concerns will be identified and efforts to improve them will be monitored and tracked. Currently few state programs combine efforts to address impacts to resource concerns with actual measures of the natural resource addressed to determine

whether resource improvements have been achieved. The Conservation TA program will do this. So we will, over time, be able to show measurable improvements.

The agricultural community will be supportive of a program that works with the landowner to implement protections and best management practices in a manner that works for the landowner. Currently, many programs simply require the landowner to implement protections or improvements without regard to whether the landowner can stay in business. The Conservation TA program will be implemented taking into consideration the landowner needs while meeting our state resource protection needs.

**Discuss any impacts to existing programs and activities among all entities, positive or negative.**

The Conservation TA program will enhance the ability of conservation districts to proactively assist landowners and address natural resource concerns. Current efforts are hampered by limited resources and the need to use those resources for basic conservation district administrative needs. The Conservation TA program will also improve the way on-the-ground conservation practices are designed and installed by ensuring the projects are linked to overall sub-basin or watershed scale natural resource concerns. In this way, projects currently funded from a variety of existing sources, including state capital dollars, will be more efficiently and effectively spent.

By focusing on a target geographic area and a target natural resource concern it will be easier for conservation districts to reach out to other entities to seek their engagement in the program. Currently nearly all natural resource programs are implemented as spread out across the landscape, each program with their own goals and objectives. By targeting a geographic area with concerns it will be more compelling for other agencies to join in by focusing their programs in the same area.

Conservation districts were surveyed as to the specific natural resource concerns in which they will be interested in addressing through this conservation technical assistance proposal. Responses from 34 of the 45 conservation districts identified interest in one or more of the following:

- ▶ Forest Management & Rangeland Health - 31 districts
- ▶ Critical areas outreach and assistance - 9 districts
- ▶ Soil Health and Erosion - 32 districts
- ▶ Air Quality - 10 districts
- ▶ Riparian Habitat - 33 districts
- ▶ Marine Shorelines - 11 districts
- ▶ Invasive species/noxious weeds - 28 districts
- ▶ Endangered Species - 22 districts
- ▶ Stormwater - 22 districts
- ▶ Water Quality / Water Quantity - 34 districts

Activities potentially addressed by conservation districts in the conservation technical assistance program include:

Forest Management and Rangeland Planning – CDs would conduct targeted outreach to address land management concerns in forest and rangeland environments. This work would be done to result in measurable improvement in natural resource condition at a sub-basin or watershed scale.

Soil Health and Soil Erosion – A CD may choose to support local efforts to help farmers utilize soil health and water quality improving practices to mitigate long term risk, drought effects, and climate change impacts on farms throughout Washington. This will be done through adaptation of proven soil health improving practices, focusing on cover crops.

Air Quality - Air emissions from agricultural operations are a significant concern around facilities with a large number of animals, and around operations in Washington. A CD may identify a local need as additional capacity to provide technical assistance to landowners to implement BMPs to reduce and control air emissions and dust.

Riparian Habitat – Riparian habitat protection and restoration is a key resource concern in many watersheds throughout the state. A CD may identify this resource concern as a priority at their local level. Funding could be used to assist landowners in the design and implementation of protection practices to prevent impacts to riparian areas. CDs may also identify opportunities for riparian habitat restoration. By implementing these practices in a targeted approach, measurable natural resource improvements will be seen when an increasing number of adjacent parcels implement BMPs.

Marine Shorelines - Many coastal and marine conservation districts currently provide landowner technical assistance on issues relating to bank stabilization, marine shoreline restoration, and bulkhead removal. The restoration of marine shorelines through these practices is a critical priority for Puget Sound restoration and salmon recovery. A CD may identify a capacity need to provide these technical services and for selected projects through cost share.

Invasive Species / Noxious Weeds - Important habitats and farmable lands are increasingly threatened by invasive species and noxious weeds. A CD may develop a local strategic approach to target invasive species and use additional resources to work with landowners and implement eradication practices. Measurable targets for acres treated and landowners implementing practices will be required.

Endangered Species Endangered species listings can negatively impact farming operations by restricting access to land and limiting farming activities. There are opportunities to work with landowners to anticipate these listings and get the landowner to implement BMPs early to avoid negative impacts. However this is new work for a CD and there are currently no resources for this work. Under this decision package, a district could choose to use additional capacity to provide technical assistance and outreach to landowners to address endangered species concerns.

Stormwater - Stormwater runoff is a significant natural resource concern because it is the primary conveyance system for pollutants impacting Puget Sound and other state waters. The use of “Green Stormwater Infrastructure” (GSI) strategies at the parcel scale to address runoff is now

understood as one of the most efficient, effective and multi-benefit approaches to dealing with stormwater. Funding requested will support a CD request to implement stormwater and low impact development (LID) related projects if that's the locally identified priority.

Water Quality and Quantity – Conservation districts assist landowners with water conservation measures that anticipate and address impacts before the next drought. These measures will prepare landowners for water restrictions, which are likely to be more frequent given climate change models. This decision package will provide resources to conservation districts who identify water quantity issues as a priority and wish to provide technical assistance to landowners to develop improved farm plans to anticipate these water resource issues.

### **What alternatives were explored by the agency and why was this option chosen?**

The Conservation Commission has explored other state and federal fund sources to implement the Conservation TA approach. Unfortunately most other programs come with requirements and “strings” that make it difficult to use other funding in this targeted approach. For example, the Commission obtained funding in the U.S. Department of Agriculture (USDA) program Regional Conservation Partnership Program (RCPP). This program funding in Puget Sound is for a similar targeted approach. However, during RCPP implementation barriers have been encountered in the use of existing USDA programs because of individual program requirements at the federal agency.

State funds can be more flexible in use and therefore are ideal for developing and implementing the Conservation TA program. The ability to craft a program with state funds will allow the Conservation Commission to demonstrate to other agency partners the viability of the approach.

### **What are the consequences of not funding this request?**

If funding is not provided the Conservation Commission will attempt to use existing funds to pilot a much smaller approach. However, with conservation districts experiencing ongoing fiscal constraints for existing programs, it would be unwise to move funding from basic operations to try something new. The Conservation Commission will want to maintain existing levels of conservation district operations.

### **How has or can the agency address the issue or need in its current appropriation level?**

The Conservation Commission has previously funded additional capacity for landowner outreach in specific areas such as conservation district with large numbers of dairy producers. But these funds are taken from project funding pools so we cannot expand the effort without harming funding for on-the-ground projects.

**Other supporting materials:** Please attach or reference any other supporting materials or information that will help analysts and policymakers understand and prioritize your request.

**Information technology:** Does this Decision Package include funding for any IT-related costs, including hardware, software, services (including cloud-based services), contracts or IT staff?

No



Yes Continue to IT Addendum below and follow the directions on the bottom of the addendum to meet requirements for OCIO review.)

# 2017-19IT Addendum

## Part 1: Itemized IT Costs

Please itemize any IT-related costs, including hardware, software, services (including cloud-based services), contracts (including professional services, quality assurance, and independent verification and validation), or IT staff. Be as specific as you can. (See chapter 12.1 of the operating budget instructions for guidance on what counts as “IT-related costs”)

Information Technology Items in this DP <i>(insert rows as required)</i>	FY 2018	FY 2019	FY 2020	FY 2021
Personal computer/laptop	3,500	0	0	0
<b>Total Cost</b>	<b>3,500</b>	<b>Enter Sum</b>	<b>Enter Sum</b>	<b>Enter Sum</b>

## Part 2: Identifying IT Projects

If the investment proposed in the decision package is the development or acquisition of an IT project/system, or is an enhancement to or modification of an existing IT project/system, it will also be reviewed and ranked by the OCIO as required by RCW 43.88.092. The answers to the three questions below will help OFM and the OCIO determine whether this decision package is, or enhances/modifies, an IT project:

1. Does this decision package fund the development or acquisition of a new or enhanced software or hardware system or service?  Yes  No
2. Does this decision package fund the acquisition or enhancements of any agency data centers? (See [OCIO Policy 184](#) for definition.)  Yes  No
3. Does this decision package fund the continuation of a project that is, or will be, under OCIO oversight? (See [OCIO Policy 121](#).)  Yes  No

If you answered “yes” to any of these questions, you must complete a concept review with the OCIO before submitting your budget request. Refer to chapter 12.2 of the operating budget instructions for more information.

# Appendix D: Cost-share assistance gap analysis

Adam Peterson, Natural Resource Specialist, Thurston Conservation District

## Abstract

The goal of this analysis is to understand the percent of agricultural operations statewide that are served by cost share projects by the Washington State Conservation Commission. In order to analyze this, data from WSCC's Conservation Practice Data system regarding cost share projects completed during the 2017-2019 biennium was compared to figures for the number of agricultural operations from the 2017 USDA Agricultural census.

On a statewide basis, it is estimated that 1.42% of statewide agricultural operations were served by a cost share project in the 2017-2019 biennium. There was significant variation among counties in this percentage. This ranged from as low as 0% for Skamania, which saw no cost share projects in the biennium, to as high as 8.4% for Pacific county. Counties varied in the number of cost share projects completed per participant, ranging from 1 to 3.29 per participant. Approximately 2.11 cost share projects were completed statewide for every 100 agricultural operations, going off figures for total agricultural operations by the 2017 agricultural census. Average state program contributions to the proposed cost of cost-share projects was \$16,903, with a far lower median contribution of \$7,293. When broken down on a basis of individual BMP type, this value ranged from \$55,250 to \$560 per cost-share practice.

## Methodology

### Definitions

Cost share project	A project of a single BMP type, conducted with a participant
BMP Type	"Best Management Project" type. Examples include a Waste Storage Structure or Fence
Participant	The landowner receiving a cost share project

### Cost Share Project Data

Data for this analysis was obtained from the Washington State Conservation Commission's Conservation Practice Data System (CPDS), which houses data relating to cost share projects.

For this analysis, cost share projects completed in the 2017 to 2019 biennium were exported from CPDS. This data included latitude and longitude information for both participants – the landowners on whose property the cost share projects are being implemented - and for their completed cost share projects. This location data, supplemented by participant address information, allowed a geospatial analysis approach for this study.

### Quality checks

Location information for property owners and for cost share projects was reviewed for outliers and missing values, and a small number of appropriate corrections were made drawing on address information associated with the participant. A small number of test entries with no location information were found in the system and were removed from the total pool of participants.

In a limited number of cases, cost share projects lacked longitude and latitude information, but it was present for the participant. In these cases, cost share project location was defaulted to the participant location.

### Cost share projects

Due to limitations in data regarding practice extent in CPDS for all cost share projects, the number of cost share projects was determined based on the number of unique BMP types per participant and could not be standardized by their extent. One unique BMP type for each participant constituted a single cost share

project, and is termed as such in this analysis. Thus, share projects will involve projects of varying size. For cost share practices measured on a unit basis, such as a Waste Storage Facility, this may involve multiple instances of that particular cost share practice with the same participant.

Contributions from WSCC and from state programs towards the proposed cost were averaged for each cost-share project. For this portion of the analysis, any cost-share projects with differing duplicate values for contributions from programs were excluded, along with any lacking values from state programs. An overall statewide average and median was also calculated for all BMP types.

### Operation estimates

To relate this data to the total number of agricultural operations, statewide and countywide figures for total agricultural operations were obtained from the USDA's National Agricultural Statistics Service (NASS). Figures from the 2017 agricultural census provided figures which fell within the 2017-2019 biennium. The scope of agricultural operations measured by NASS is similar to that served by CPDS, and provides the best available estimate of agricultural operations on a statewide and countywide basis for determining the percentage of operations served through cost share projects.

### Analysis

ArcGIS Pro 2.4.2 was used for initial review of the data and for data analysis. All data was stored in a central geodatabase and analysis was conducted in a model constructed in ArcGIS Pro's ModelBuilder.

The first portion of the model consisted of processing and quality control checks. Data from CPDS was checked for outliers or unusual values. Adjustments or corrections were built into the model.

The second portion analyzed the number of participant and the type of cost share projects that were completed. These were summarized on a statewide, county, and conservation district level. For states and counties, participants with completed cost share projects were compared to the total pool of agricultural producers as estimated by USDA statistics, in order to provide a look at overall engagement of agricultural producers by cost share projects. Since many participants had more than one cost share project, the average number of cost share projects per participant was determined to understand the concentration of cost share projects and how that varied across the state. The average proposed cost for each cost share BMP type was also calculated to provide a sense of the mean cost of these projects.

### Results

Overall engagement with agricultural operations with cost share projects was fairly low at 1.42%, but this varied significantly across the state. Engagement ranked from 8.38% in Pacific County to 0% in Skamania County, which had no cost share projects (Table 1, Figure 1). As some counties contain multiple conservation districts, participants were tallied separately by conservation districts to provide a view of the variation among conservation districts (Table 2, Figure 4).

The level of cost share projects per participant also varied. Overall statewide, there was an average of 1.49 cost share projects per participant, although this also varied significant by county, ranging from 1 cost share project per participant in multiple counties to as high as 3.29 projects per participant in San Juan County (Table 3, Figure 3). This seems to reflect different trends across counties for either clustering projects with the same participant or engaging new participants for separate projects.

Given the variation in cost share projects per participant, the number of cost share projects was also related to agricultural census estimates for state and county totals of agricultural operations. Statewide, 2.11 cost share operations were implemented for every 100 agricultural operations, while by county, this figure varied from 0 for Skamania County to 11.36 for Whitman County (Table 1, Figure 5).

The average state program contribution of the proposed cost for cost-share projects ranged widely by BMP type, from as high as \$55,250 for Obstruction Removal to as low as \$560 per practice of Riparian

Herbaceous Cover. When averaged across all cost-share projects of all BMP types across the state, this value was \$16,903. The median was lower, however, at \$7,293, indicating that a few high-cost cost-share projects were pushing the mean value up considerably. In fact, 70.1% of cost-share projects analyzed here were below the mean state contribution of \$16,903.

Table 1. Agricultural operations and cost share projects by county

County	Percent ag. operations with cost share (2017-2019 Biennium)	Cost share projects per 100 agricultural operations	Cost share projects	Agricultural operations (2017 Ag. Census)
<b>Statewide</b>	1.42	2.11	757	35,793
<b>Adams</b>	0.68	0.85	5	586
<b>Asotin</b>	6.83	10.73	22	205
<b>Benton</b>	0.59	0.59	9	1,520
<b>Chelan</b>	0.60	0.72	6	835
<b>Clallam</b>	1.89	1.89	10	528
<b>Clark</b>	0.15	0.20	4	1,978
<b>Columbia</b>	1.95	3.11	8	257
<b>Cowlitz</b>	0.99	1.99	8	403
<b>Douglas</b>	1.23	1.23	9	729
<b>Ferry</b>	0.79	2.38	6	252
<b>Franklin</b>	1.04	1.30	10	772
<b>Garfield</b>	6.19	6.19	14	226
<b>Grant</b>	0.43	0.43	6	1,384
<b>Grays Harbor</b>	2.56	3.20	15	469
<b>Island</b>	1.54	2.56	10	390
<b>Jefferson</b>	2.26	5.88	13	221
<b>King</b>	1.28	1.50	27	1,796
<b>Kitsap</b>	5.16	10.32	72	698
<b>Kittitas</b>	2.58	6.45	65	1,008

<b>Klickitat</b>	0.93	1.47	11	750
<b>Lewis</b>	0.81	0.87	15	1,723
<b>Lincoln</b>	1.15	1.28	10	783
<b>Mason</b>	2.47	5.86	19	324
<b>Okanogan</b>	0.50	1.09	13	1,192
<b>Pacific</b>	8.38	10.40	36	346
<b>Pend Oreille</b>	1.92	4.98	13	261
<b>Pierce</b>	0.62	1.06	17	1,607
<b>San Juan</b>	2.22	7.28	23	316
<b>Skagit</b>	1.73	2.59	27	1,041
<b>Skamania</b>	0.00	0.00	0	145
<b>Snohomish</b>	2.18	2.89	45	1,558
<b>Spokane</b>	0.58	0.70	17	2,425
<b>Stevens</b>	0.27	0.45	5	1,114
<b>Thurston</b>	0.75	0.75	9	1,200
<b>Wahkiakum</b>	2.07	2.07	3	145
<b>Walla Walla</b>	0.66	0.78	7	903
<b>Whatcom</b>	1.64	2.10	36	1,712
<b>Whitman</b>	8.28	11.36	118	1,039
<b>Yakima</b>	0.34	0.47	14	2,952

Table 2. Participants with cost share by conservation district.

Conservation District	Number of participants served by cost share projects, 2017-2019 Biennium
<b>Adams CD</b>	2
<b>Asotin County CD</b>	14
<b>Benton CD</b>	9
<b>Cascadia CD</b>	5
<b>Central Klickitat CD</b>	0
<b>Clallam CD</b>	10
<b>Clark CD</b>	3
<b>Columbia CD</b>	5
<b>Cowlitz CD</b>	4
<b>Eastern Klickitat CD</b>	1
<b>Ferry CD</b>	2
<b>Foster Creek CD</b>	1
<b>Franklin CD</b>	8
<b>Grant County CD</b>	8
<b>Grays Harbor CD</b>	11
<b>Jefferson County CD</b>	5
<b>King CD</b>	23
<b>Kitsap CD</b>	36
<b>Kittitas County CD</b>	26
<b>Lewis CD</b>	14
<b>Lincoln County CD</b>	9
<b>Mason CD</b>	8
<b>North Yakima CD</b>	3
<b>Okanogan CD</b>	6
<b>Pacific CD</b>	30
<b>Palouse-Rock Lake CD</b>	33

<b>Palouse CD</b>	27
<b>Pend Oreille CD</b>	5
<b>Pierce CD</b>	10
<b>Pine Creek CD</b>	7
<b>Pomeroy CD</b>	14
<b>San Juan Islands CD</b>	7
<b>Skagit CD</b>	18
<b>Snohomish CD</b>	34
<b>South Douglas CD</b>	8
<b>South Yakima CD</b>	7
<b>Spokane CD</b>	14
<b>Stevens County CD</b>	3
<b>Thurston CD</b>	9
<b>Underwood CD</b>	6
<b>Wahkiakum CD</b>	3
<b>Walla Walla County CD</b>	6
<b>Whatcom CD</b>	28
<b>Whidbey Island CD</b>	6
<b>Whitman CD</b>	19

Table 3. Participants and cost share projects by county.

NAME	Number of participants	Cost share projects	Cost share projects per participant
<b>Statewide</b>	507	757	1.49
<b>Adams</b>	4	5	1.25
<b>Asotin</b>	14	22	1.57
<b>Benton</b>	9	9	1.00
<b>Chelan</b>	5	6	1.20
<b>Clallam</b>	10	10	1.00
<b>Clark</b>	3	4	1.33
<b>Columbia</b>	5	8	1.60
<b>Cowlitz</b>	4	8	2.00
<b>Douglas</b>	9	9	1.00
<b>Ferry</b>	2	6	3.00
<b>Franklin</b>	8	10	1.25
<b>Garfield</b>	14	14	1.00
<b>Grant</b>	6	6	1.00
<b>Grays Harbor</b>	12	15	1.25
<b>Island</b>	6	10	1.67
<b>Jefferson</b>	5	13	2.60
<b>King</b>	23	27	1.17
<b>Kitsap</b>	36	72	2.00
<b>Kittitas</b>	26	65	2.50
<b>Klickitat</b>	7	11	1.57
<b>Lewis</b>	14	15	1.07
<b>Lincoln</b>	9	10	1.11
<b>Mason</b>	8	19	2.38
<b>Okanogan</b>	6	13	2.17

<b>Pacific</b>	29	36	1.24
<b>Pend Oreille</b>	5	13	2.60
<b>Pierce</b>	10	17	1.70
<b>San Juan</b>	7	23	3.29
<b>Skagit</b>	18	27	1.50
<b>Skamania</b>	0	0	0.00
<b>Snohomish</b>	34	45	1.32
<b>Spokane</b>	14	17	1.21
<b>Stevens</b>	3	5	1.67
<b>Thurston</b>	9	9	1.00
<b>Wahkiakum</b>	3	3	1.00
<b>Walla Walla</b>	6	7	1.17
<b>Whatcom</b>	28	36	1.29
<b>Whitman</b>	86	118	1.37
<b>Yakima</b>	10	14	1.40

Table 4. Average State Contribution of Proposed Cost per Cost-Share Project by BMP Type

<b>BMP_Name</b>	<b>Average State Contribution per Cost-share Project</b>
Overall Average (across BMP types)	\$ 16,903
Obstruction Removal	\$ 55,250
Trails and Walkways	\$ 55,000
Alley Cropping	\$ 50,000
Bivalve Aquaculture Gear and Biofouling Control	\$ 50,000
Bulkhead Removal	\$ 50,000
Critter Pad	\$ 50,000
Dam	\$ 50,000
Pond Sealing or Lining, Flexible Membrane	\$ 50,000
Vegetative Barrier	\$ 50,000
Waste Facility Cover	\$ 45,000
LWD Structure	\$ 43,143
Fence	\$ 40,022
Aquatic Organism Passage	\$ 37,512
Waste Separation Facility	\$ 36,667
Anionic Polyacrylamide (PAM) Erosion Control	\$ 35,000
Stream Habitat Improvement and Management	\$ 35,000
Waste Transfer	\$ 33,950
Structure for Water Control	\$ 33,500
Stream Crossing	\$ 30,775
Sprinkler System	\$ 28,488
Waste Recycling	\$ 27,000
Waste Storage Facility	\$ 26,729
Waste Treatment	\$ 26,199
Agrichemical Handling Facility	\$ 26,000
Heavy Use Area Protection	\$ 25,839
Streambank and Shoreline Protection	\$ 25,332
Beaver Dam Analogue	\$ 25,000
Depave Or Other Removal Of Impervious Surfaces	\$ 25,000
Mole Drain	\$ 25,000
Sediment Basin	\$ 25,000
Composting Facility	\$ 24,129
Irrigation Pipeline	\$ 23,803
Roofs and Covers	\$ 22,422
Filter Strip	\$ 20,900
Dead Stake Revetments	\$ 19,000
Forest Stand Improvement	\$ 16,844
Beaver Dam Removal	\$ 15,000
Riparian Forest Buffer	\$ 14,373
Livestock Pipeline	\$ 13,769

Irrigation System, Microirrigation	\$ 13,677
Cover Crop	\$ 13,187
Drainage Water Management Plan - Written	\$ 12,890
Constructed Wetland	\$ 12,150
Amending Soil Properties with Gypsum Products	\$ 12,000
Subsurface Drain	\$ 11,423
Pumping Plant	\$ 11,184
Animal Trails and Walkways	\$ 11,000
Range Planting	\$ 10,652
Spring Development	\$ 10,000
Water Well	\$ 9,820
Forage and Biomass Planting	\$ 9,701
Open Channel	\$ 9,229
Irrigation System, Surface & Subsurface	\$ 9,048
Drainage Ditch Covering	\$ 8,600
Drainage Water Management	\$ 8,600
Vertical Drain	\$ 8,593
Nutrient Management	\$ 8,530
Watering Facility	\$ 7,927
Tree/Shrub Pruning	\$ 7,427
Access Road	\$ 7,276
Critical Area Planting	\$ 7,040
Irrigation Water Management	\$ 7,033
Land Clearing	\$ 6,309
Recreation Land Grading and Shaping	\$ 6,000
Access Control	\$ 5,823
Mulching	\$ 5,131
Conservation Cover	\$ 5,063
Diversion	\$ 5,038
Bioretention Rain Garden	\$ 5,000
Residue and Tillage Management, No Till	\$ 4,920
Hedgerow Planting	\$ 4,463
GPS Precision Guidance System	\$ 4,450
Surface Drainage, Field Ditch	\$ 4,425
Water Harvesting Catchment	\$ 4,400
Silvopasture Establishment	\$ 4,055
Controlled Traffic Farming	\$ 4,000
Field Operations Emissions Reduction	\$ 4,000
Tree/Shrub Establishment	\$ 3,531
Grade Stabilization Structure	\$ 3,234
Roof Runoff Structure	\$ 3,076
Lined Waterway or Outlet	\$ 3,000
Woody Residue Treatment	\$ 2,647
Forage Harvest Management	\$ 2,500

High Tunnel System	\$ 2,500
Herbaceous Weed Control	\$ 2,445
Live Stake Revetments	\$ 2,106
Underground Outlet	\$ 2,012
Wetland Enhancement	\$ 1,643
Windbreak/Shelterbelt Establishment	\$ 1,614
Tree/Shrub Site Preparation	\$ 1,594
Brush Management	\$ 1,119
Grassed Waterway	\$ 1,050
Incentive Payments	\$ 1,022
Land Smoothing	\$ 1,000
Water and Sediment Control Basin	\$ 1,000
Irrigation System, Tailwater Recovery	\$ 970
Riparian Herbaceous Cover	\$ 560

Figure 1.

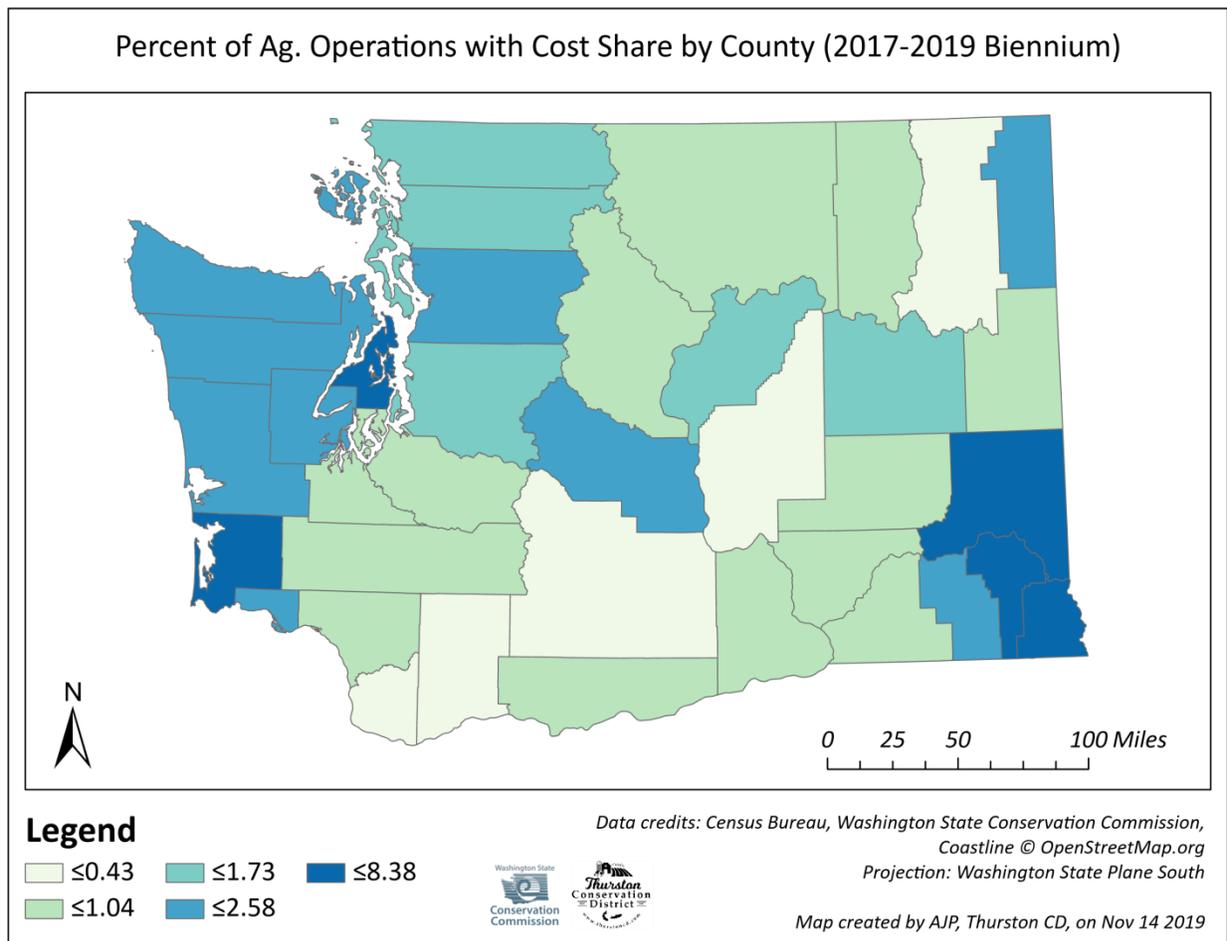


Figure 2.

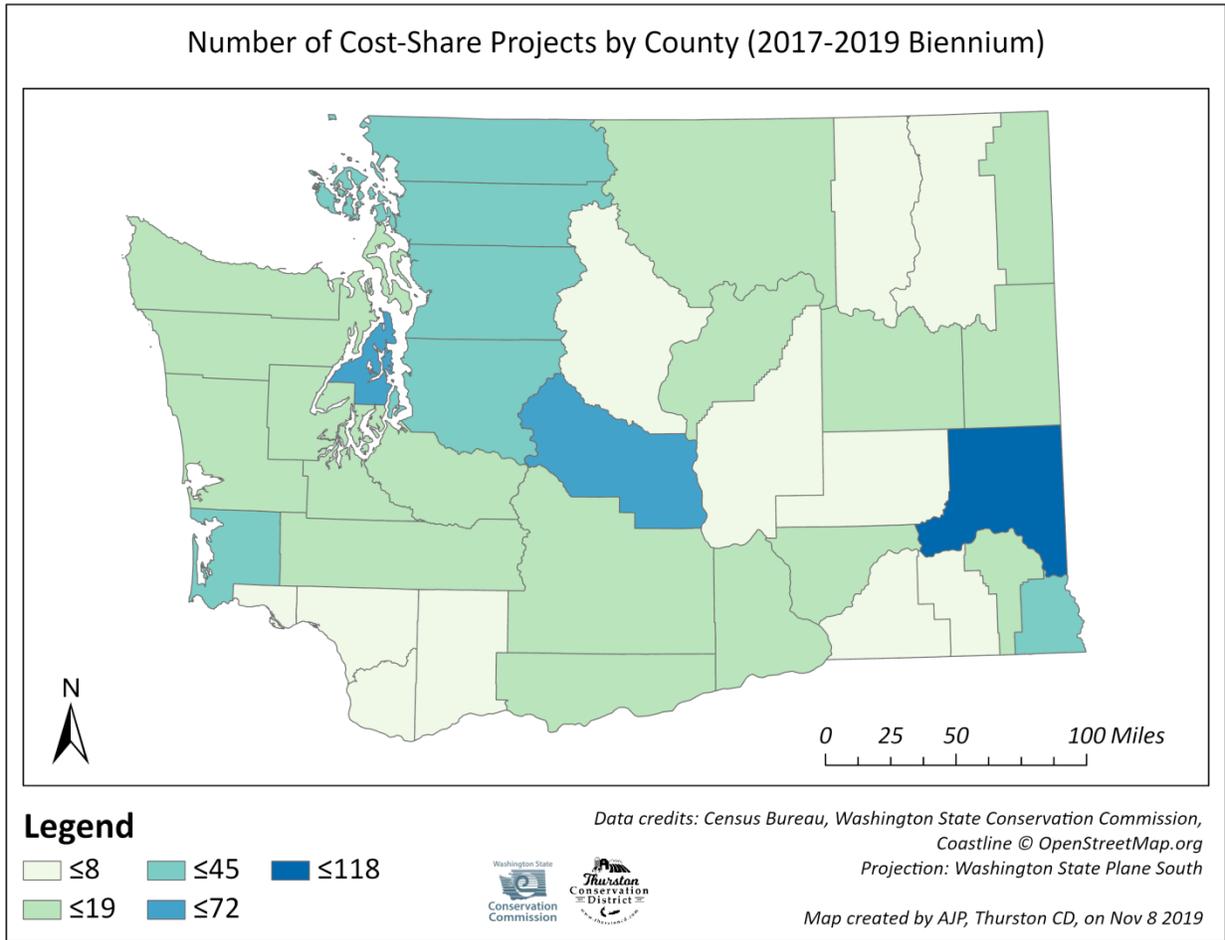


Figure 3.

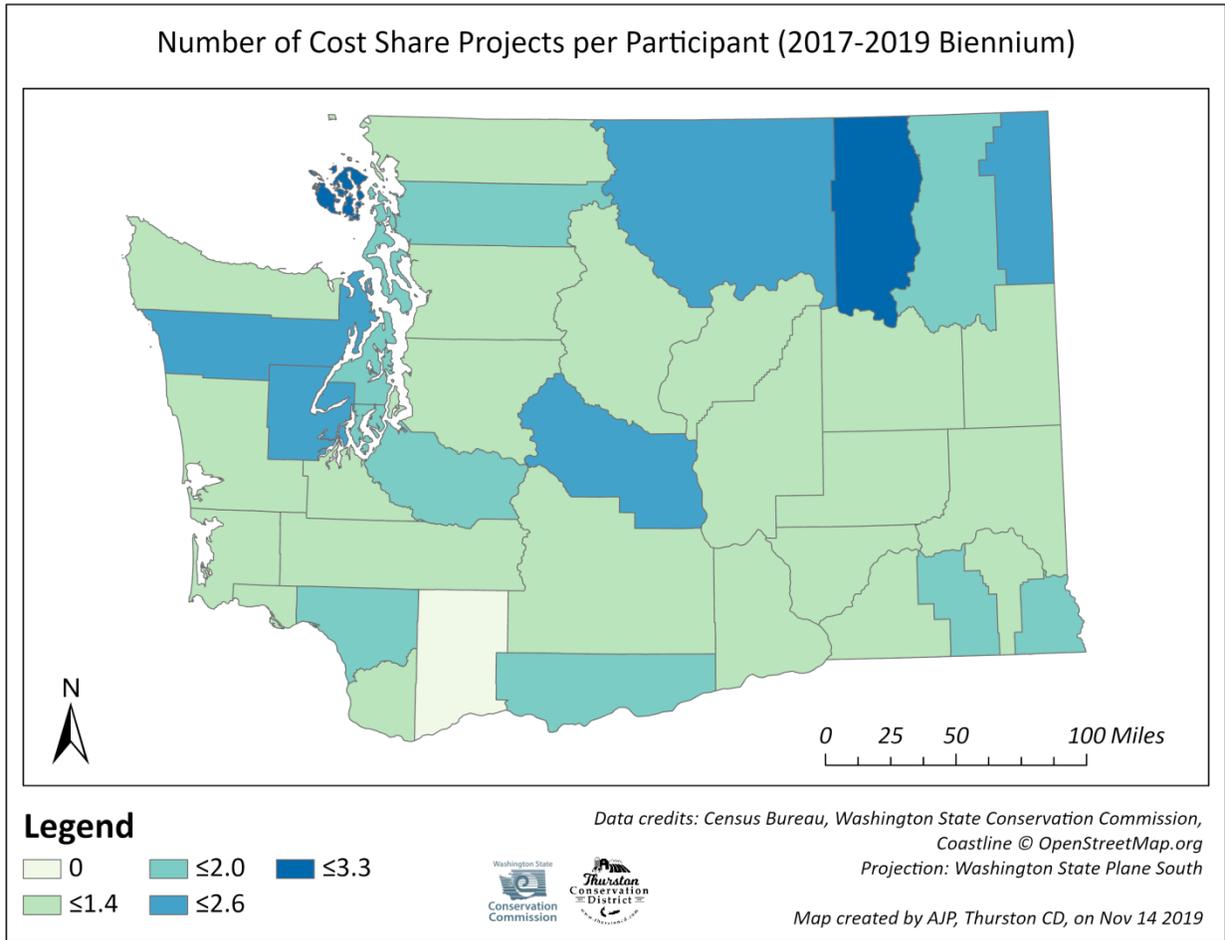


Figure 4.

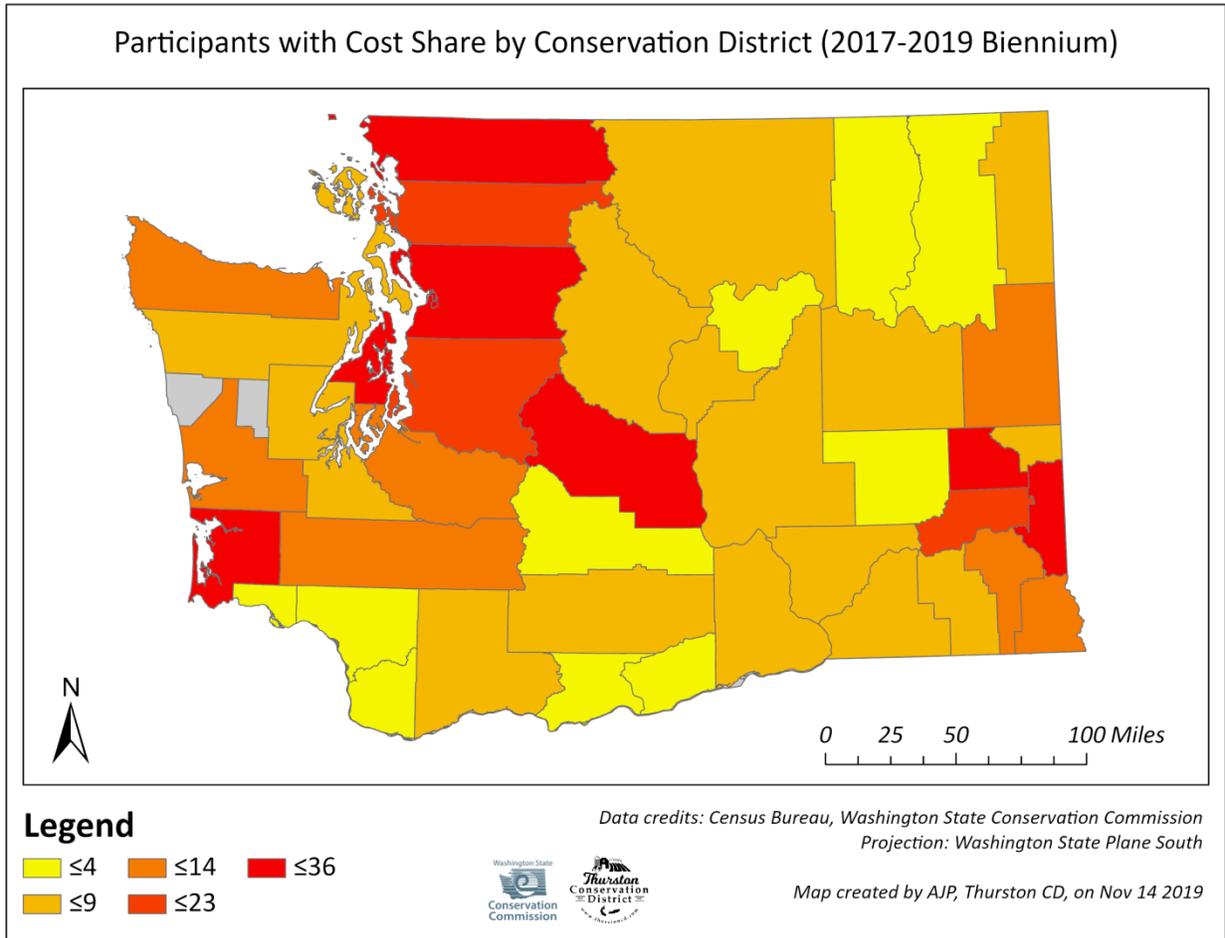
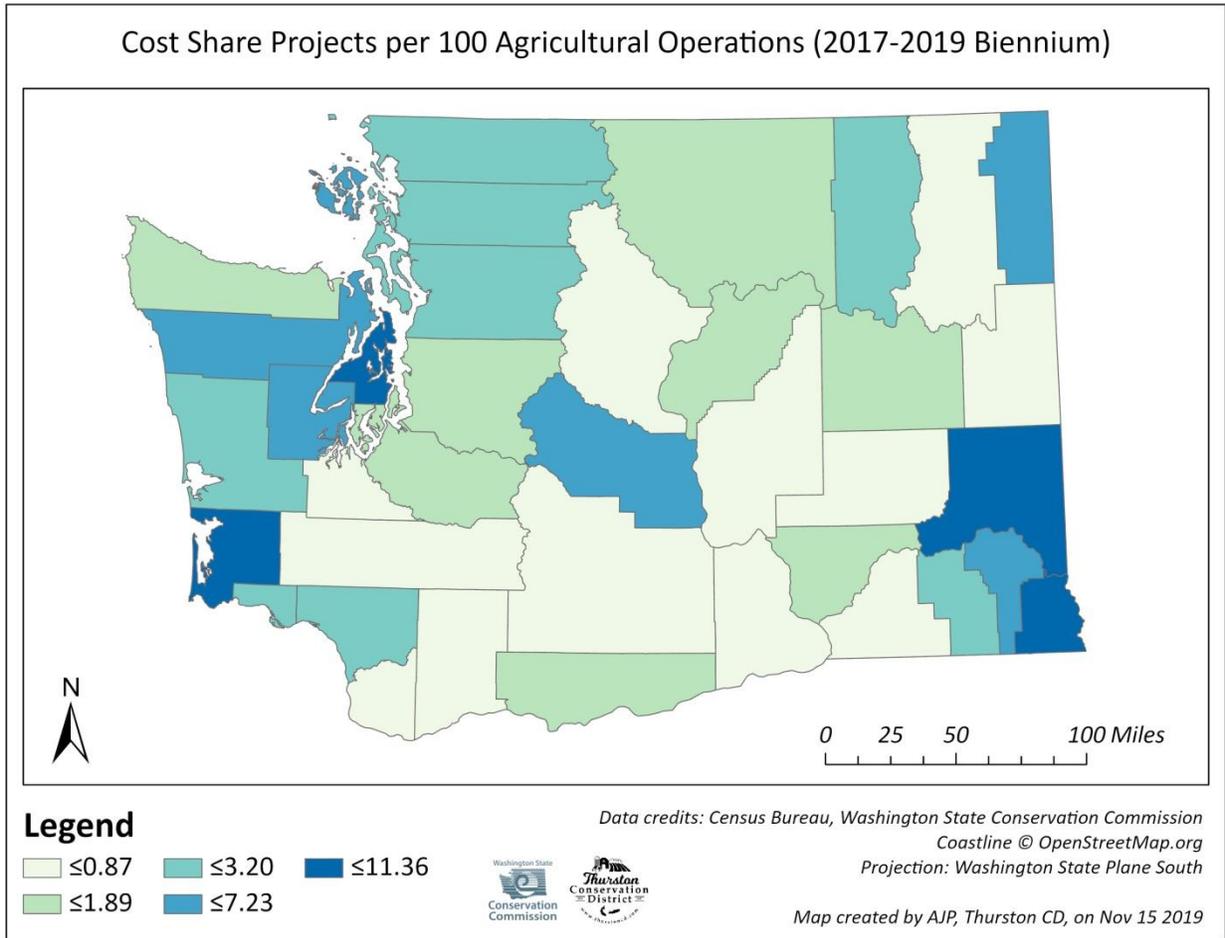
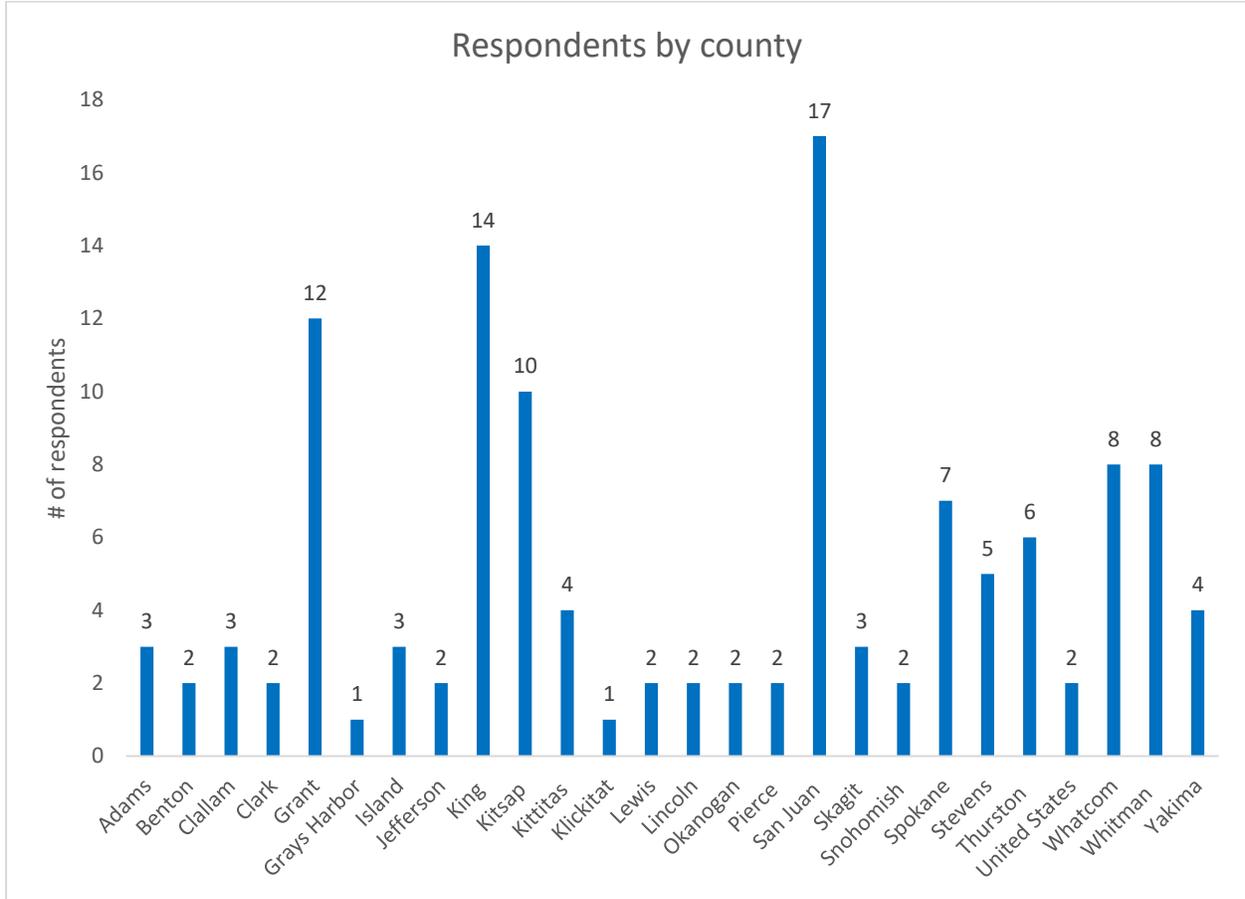


Figure 5.



## Appendix E - Sustainable farm and fields online survey results.

### Question 2. Which county do you live or farm in?



### 3. Are you providing feedback as an individual or on behalf of an association or organization?

Association/Organization	31 (25%)
Individual	93 (75%)
Skipped question	3

***If you are representing an association or organization, please indicate in the text box.***

21 Acres	Pacifica
Alluvial Farms, Whatcom CD	Palouse Rock Lake CD
Avery Conner	Paradisos del Sol Winery and Organic Vineyard
Certified Crop Advisor	Part-owner of land being leased out to a farmer with stipulation that no-till/direct seeding be used
Creative AG Products, Inc.	ProGene Plant Research
ECOLibrium	Radicle Roots Farm
Edible Forest Gardens	Revolution Farms
Farmstand Local Foods	Rokalu Farms
Grant County CD	San Juan Islands CD
Grant County CD	SDS Lumber Company
Grant County CD	Sound Vegetables, Inc.
Green Bow Farm	Spoon Full Farm
iGrow, LLC	Stevens County
Individual employee of USDA-NRCS	Tieton Farm & Creamery
Mitchell Bay Farm	Tilth Alliance
Orcas Community Participatory Agriculture	Whatcom County
Ovenell Farms, Inc.	WSU Snohomish County Extension
Pacific Northwest Direct Seed Association	Zakarison Partnership

4. If you are currently engaged in agricultural practices, do you currently implement greenhouse gas emissions-reducing measures and/or carbon-farming/sequestering practices?

Yes, I do	89 (83%)
No, I do not	9 (8%)
Not sure	10 (9%)
I am not engaged in agricultural practices but am interested in the proposed Sustainable Farm and Fields grant program	18
Skipped	1

**4. If you are currently engaged in agricultural practices, do you currently implement greenhouse gas emissions-reducing measures and/or carbon-farming/sequestering practices? If so, please list or briefly describe them. This will help us understand what options are already popular with farmers.**

Biochar, compost, no till, mulch, pasture and soil management, drop irrigation, cover crop
cover cropping, minimal tillage, much mulching
Incorporate crop residue back into the soil to increase soil health.
Planting trees, low till practices, planting hedge rows, cover crops
No-till/ conservation till practices, heavy usage of cover crop, minimizing soil disturbance, compost production and incorporation, certified organic production. areas of active restoration, LEED platinum building,
Tree planting
Reduced tillage, direct seed when possible, growing hay
No till drill, cover crops, reduced tillage, precision ag, compost, variable pump irrigation, tree and hedge row plantings, soil health.
make and use biochar
Direct seed and reduced tillage
We are a large-scale composting operation
Direct seeding
reduced tillage, maximizing loads in vehicles when making deliveries, rotational grazing, compost, biochar
Composting
Rotational / Management-Intensive / Regenerative Grazing.
I'm planting crops, this is a carbon sequestration in its own right, I am also in a direct seed rotation which saves us about 2/3s the fuel.
cover crops, tree planting, pasture management, less trips over fields, residue management, feed management, composting, nutrient management.
I am a conservationist that provides technical assistance to producers in my area. Typically we advise our producers to practice cover cropping, integrated pest management, nutrient management as well as creating an irrigation water management plan. These are some foundation practices we include in our voluntary stewardship plans.
Low till, greenhouse, cover crops, crop rotation, mixed product farm, composting, drip irrigation
Composting, organic practices, cover cropping
I do not attempt any formal carbon budgeting but I believe that the practices I employ for promoting soil health are probably also good for carbon sequestration: using medium term (1-3 years) cover crops to build soil fertility, using buffer strips planted with perennials, maintaining hedgerows on the farm.
No/low till, compost, biochar, cover crop, mulch
BioChar, Tree planting, Soil nutrient, No-till, Woody Residue Treatment
No till, crop diversity and rotation, compost application
No Till, cover crop, drip irrigation compost as top dressing, photosynthesize as much as possible
Biochar applications, tillage reduction, cover crops, compost, mulch
Hugelculture, composting
I am experimenting with reduced tillage. Some biochar use.
Carbon Sequestering
Minimal tilling, ground covers/keeping soil covered, walk behind tractor (less fuel), feeding local community

Rotation grazing
Low till vegetable production, rainwater harvesting, rotational grazing, minimal fossil fuel input, food waste recovery.
We are sequestering carbon in our Woodlands surrounding our farm. We are purposely not logging to sequester carbon long term. We also make bio char.
Direct seed, cover crops, riparian buffers, commodity buffers
rotational grazing, making compost, reduced tillage
Cover crop, microbe inoculants, no till, mulching, solar power
Ultra-low disturbance Direct seeding, planting some acreage to cover crops, doing some inter-seeding of crops.
Biostimulant Farming techniques
Biochar production and use, leaf composting and use, coffee ground composting and use, coffee bag collection and use, hugelkultur beds.
All plant and animal wastes are composted on my farm. Kitchen waste is also composted. Grey water from animals and cleaning of veggies is used to water trees.
Solar energy, wind energy, energy efficiency, irrigation efficiency, aerated compost, minimal till, cover cropping
Direct Seed, No-till, cover crops, some grazing
Reduced tillage, mixed cover cropping, holistic grazing and livestock management
compost, cover cropping, no use of petroleum based pesticides herbicides
Use biodiesel, recycle ag plastics, use organic fertilizers, build soil health in pastures
SJICD supports agricultural practices that sequester carbon
No till garden; holistically managed grazing of cattle and sheep
Cover crops, minimal tillage, solar energy
no till, rotationally grazed livestock, aggressive use of compost, cover cropping
We produced nearly all our electricity for well pumping and other electrical use from a 10 KW PV system. All vegetable products produced on the farm are recycled through either composting and applying to the fields or by another farmer to feed his pigs. Every March we plant 80-120 conifers to revegetate our thinned forest. We accept tons of horse manure from a neighboring stable that would otherwise go to a landfill. We compost this manure and use it to upgrade the tilth of the fields.
Cover cropping, no till/ minimal till, perineal planting, making our own inputs with KNF and other natural farming methods, seed saving and distribution, certified organic production, livestock integration, etc.
Rotational Grazing of livestock, compost/manure management
VR Fertilizer application, university cover crop studies, no till, long rotations
Rotational grazing, compost application
Direct seeding
Direct seeding of all our crops.
Direct seeding
Direct seed/minimum till.
Direct-seed all of our crops. Experimenting with cover crops
Our renter is using "direct seed"/ no till methods as well as crop rotation. He has a computer connection on his machinery so that he can fine tune the planting, fertilizer, pesticide control. My dad established a "shelter belt" of trees around the farm/house yard area back in the 1940's. It has been maintained.
maintain long-term crop of blueberries since 1944
Low till and minimally mechanized production, cover cropping, on farm composting
Reduced tillage , strip till, and no till

Minimum use of tractors, no-till practices, cover cropping
No tillage, human scale/powered so reduced tractor and machine usage, hedgerow and borderlands wildness (allowing for more tree and bush growth).
Additions of biochar to the soil, increasing production with Greenhouses
I use biochar in my composting operation
No-till; no pesticides or herbicides; companion planting
Growing grass, composting
Compost, cover crop
Soil testing, in field and out of field composting, cover cropping, reduced tilling, always improving irrigation management.
We spray wheat ground so we do not have work the soil less
organic fertilizers bagged, tractor, hard to do no til as a salad grower
Solar panels for all electrical needs, pastured animals for carbon sequestering
Regenerative mulching with agricultural waste
Solar power. Full cover crop in vineyard. Reduced tractor size and reduced usage. Increasing organic content of soil.
No-till, rotational grazing
carbon sequestration, electric vehicles, solar array, geothermal greenhouses
No-till methods, selling within a small radius of the farm, minimal gas powered equipment, large compost applications. Plans to add native plant buffer around property.
Tree planting, habitat planting, minimal soil disturbance, cover crops, season extension, organic
Holistic planned grazing
Long-term cover-cropping, Tree and other perennial crops, hedgerows, use of an electric cultivating tractor
buying feed locally, pasture rotation, building soil capacity, composting, pasture management, planting trees
low/no till; heavy mulch
Cover cropping , perennial crops, mulching, nutrient management ,attention to diverse soil biology, reducing food waste
rotational grazing moving toward more intensive grazing
I do Regenerative Biological Farming following the advice of John Kempf of Advancing Eco Agriculture. We grow fruit and nut trees and berry bushes with some vegetables. We do foliar sprays weekly with EM (a microbial inoculant, Pacific Gro liquid fish and Mycogrow mycorrhizae Fungi. We add Sea-crop every three weeks. We use the same weekly as fertigation but add liquid kelp. We use Azomite fall and spring. Our system is Regenerative Agroforestry with a natural watering system of swales on contour. We remineralize as needed.
Cover cropping, reduced tillage, reduced fossil fuel use
cover cropping, addition of manure and organic matter
forest planting, cover cropping, composting, soil building
Grazing, hand work/reduced tillage in annual spaces, hedgerow and native planting, cover cropping, use no manufactured fert, mulching...
Using biodiesel to power BCS walk behind tractor
Cover cropping, grazing on permanent pasture, sustainable management of forestland, no-till annual crop production, certified organic production, efficient irrigation systems, do not use any synthetic nitrogen fertilizer, only apply organic fertilizers when needed based on soil tests.

**5. If you are engaged in agricultural practices, do you currently face barriers to start adopting or implementing additional carbon-farming or emissions-reducing practices? Check all that apply:**

Cost prohibitive to upgrade heavy machinery/equipment	54
Cost prohibitive or too risky to try new farming practices	36
Not sure which options will work best for my farming operation	56
Unfamiliar with latest carbon-farming practices and/or emissions-reducing technology	44
Happy with farming practices I already use	18

**If you are engaged in agricultural practices, do you currently face barriers to start adopting or implementing additional carbon-farming or emissions-reducing practices? Optional comments, below:**

determining regional specific and appropriate practices, research in true cost of production (incorporating social capital and environmental impact)
I would love to buy a No till drill and a turbo till. I cannot afford them.
Current Use Taxation Program does not allow integration of forestry and agriculture.
Many of our producers seek cost share because of the economic impact conservation practices present to them.
Answering from the perspective of a technical service provider working through the conservation planning process presenting conservation system alternatives that would address soil health - emission reducing and carbon farming.
Cost prohibitive to scale up existing practices, and to incorporate animals into our system
We are pleased with the changes we have made in the last five years, but more must be done. We are currently receiving grant funding through CSP. It helps a lot! Farmers (and foresters) need to be compensated for doing the right thing.
Need for more research on plant-fertility interaction relating to processes of soil biota
Small minded folks that still believe cannabis is not a plant like the rest of the agricultural plants we as humans grow.
electric vehicles and farm machinery are not available to reduce transportation emissions
What options exist that makes sense for farmers that are leasing and do not own their land?
technical assistance on how to optimize impact of practices I am already using
New to farming and committed to using climate family practices. Need help getting started.
Unsure about how cover crops will work in our area, have to get in the cattle or hay business.
Would like to add a lower disturbance no-till drill tpo seed some of our crops
There are relevant and correct aspects to each of these questions - both from a personal perspective on my farm and generally for the members of the Dairy Association I work with.
In a sense, some of these practices are externalities to a farms core-business which is production and the mental energy required to do that. To ask farmers to allocate time, resources and thought to these practices, there needs to be economic incentives. Ideally grants, not reimbursements. So much of farming is capital outlay. If we are going to save the environment, and as farmers we should and can, we should be compensated for the work.
need to have positive education based on science rather than politics

Culturally relevant support and understanding of social economic barriers, recognition of the complexity of a holistic farming practice, ideas shot down or the expression of disbelief on the part of technical advisors, scientist, leaders/experts in their one silo'ed field of ag while I am actively engaging in all departments of ag everyday.
We do not know how to replace the tractor completely, nor how to not deliver product in electric vans yet.
Regulatory restrictions on small scale compost production.
Cost and time to install native planting areas. Cost to install solar panels.
How to measure/quantify ecosystem services
Time and commitment

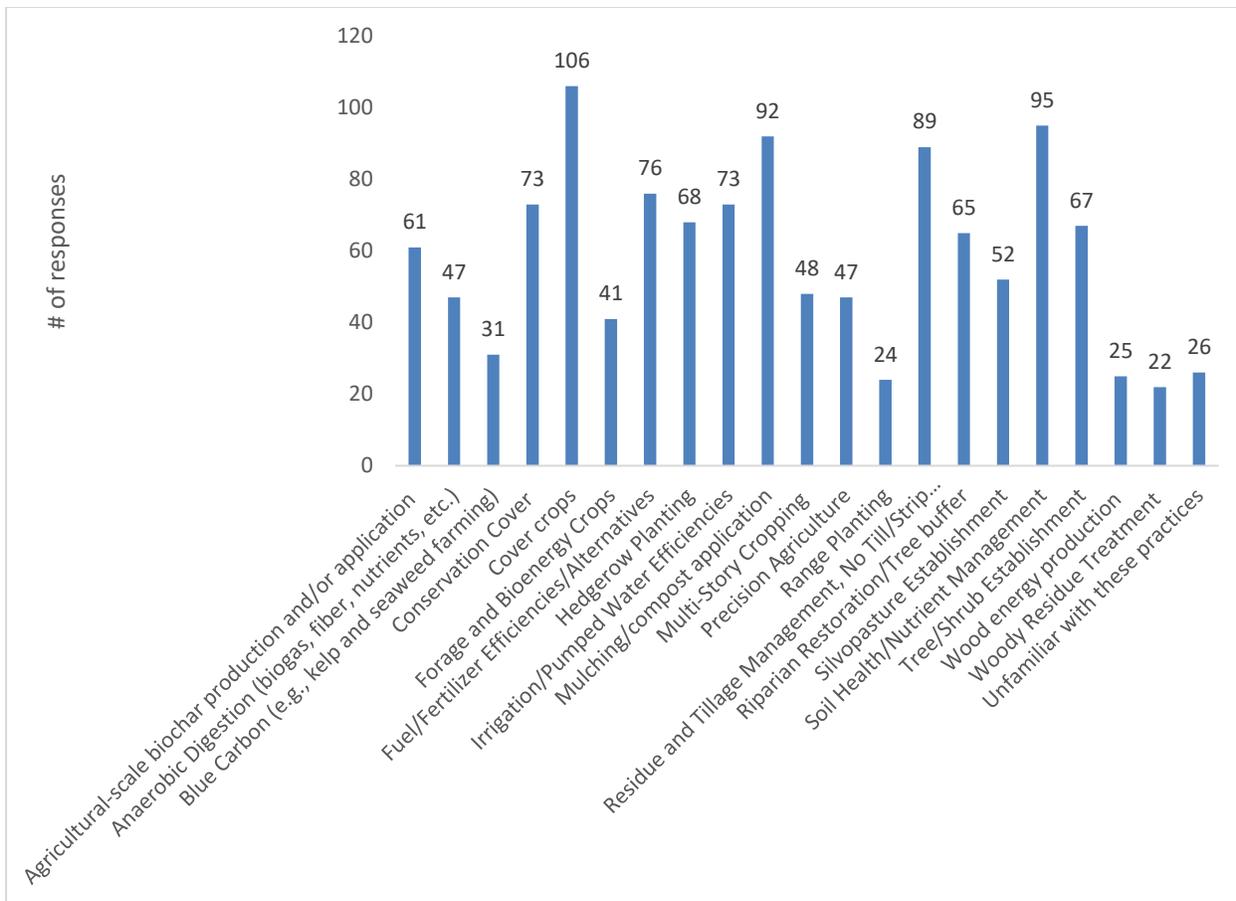
**6. How likely would you be to start adopting or implementing additional carbon-farming practices or emissions-reducing measures if there was a grant program to provide financial or technical assistance? Why or why not? (additional comments optional but greatly appreciated)**

Very unlikely	4 (3%)
Unlikely	2 (2%)
Neither likely nor unlikely	6 (5%)
Likely	32 (27%)
Very Likely	75 (63%)
Skipped question	8
Additional Comments:	
We started farming to help our Earth, we strive to do our part.	
Depends on if the "carbon farming" methods are sustainable and make sense from a production point of view. Fixing carbon Salinas warm and fuzzy, but is not always beneficial to crop production.	
Depending on the cost associated with newer practices.	
Incentivize research and ease transition to adopting new practices. Absorbs risk.	
Not many participate in cost share programs, most voluntarily adopt practices because it is good for our farming operation. Most of the practices help with reducing costs and help the land by having better soils.	
Money is tight, and knowledge hard to come by.	
I kinda like the idea of breathing healthy air	
Our producers are very receptive to new technologies and practices that help reduce their impact on critical areas and conserve their natural resources	
Production agriculture - term used for farmers that derive their primary source of income from farming - are typically risk averse - there are the early adopters that will accept risk but typically farmers are interested in investing in conservation if they see a return on their investment, bottom line. Offsetting risk through cost share and solid and trusted technical assistance does make a difference. I don't know how many times a producer has told me that if we were willing to cover the cost of loss of production they would be more willing implement things like direct seed and cover cropping.	
We plan to implement more over time but would upgrade faster if it were more financially accessible	
I am very interested in carbon-farming as one of a package of measures to reduce my farm's environmental footprint, but I would like to see clear scientific evidence of the long-term effect on carbon of any prospective measures before investing. Proper soil testing is critical for monitoring soil stored in carbon; my own soil tests that I do are probably not rigorous enough. So I think the provision of professional testing services should perhaps be part of any new grant program.	
"Big Farma" conventional agriculture receives government funding, which incentivizes practices that significantly contribute to the climate crisis. It is time for regenerative agricultural practices to be incentivized, both to be able to compete with conventional ag farms, and more importantly to enact known solutions to the climate crisis	

I would love to include hedgerows in my operation but don't yet have the capital or permanent location to invest in this strategy.
We are a small farm and a few thousand dollars is a nice boost
Changing farming practices require time and money and assuming certain risks. Having some financial underpinning will allow farmers and foresters to explore the possibilities that are becoming available.
Don't have time to write grant app.
More local research would help me understand which practices are most practical
Global warming is something I want to fight and or adapt to in the best ways
Money is often the limiting factor for trying new things especially if they are capital intensive.
Doing a project to scale with additional support would allow implementation as we budget our time with other farm duties.
Depends on program side boards.
I would increase my ability to produce biochar efficiently and provide my production to other micro-farmers.
I work with over 75 farmers at a farmers market, so the answer varies depending on the operation scale and what they are already doing.
Making the transition to direct seed and no-till can cost upwards of \$300,000 for a seed drill and a tractor, if needed, would cost another \$400,000. Programs must be robust enough to help reduce the risk of adoption or the cost of entry. Research must be funded to help look at actual carbon in our soils and how much we sequester each year.
This is a very important priority for our farm.
Anything that would enhance the practices we already have taken on would be an additional positive outcome.
Because it's the future. We need to change what we are doing to support the planet, health and safety of our food supply, and create a future for small farmers so our food is not monopolized by a handful of large corporations.
We're very likely to add more carbon farming practices and sustainability measures as it is the key to a healthier earth and better living.
Start up costs are too high, so help with that would be wonderful.
I have always sought government assistance when adopting new practices. It helps to reduce the risk!
Grants that can offer farmers the freedom to try practices that come with a large price tag.
At current low grain prices I can not budget the additional cash outlay for a low disturbance drill
Likely because margins are too tight to experiment without grant money
We are strong proponents of carbon capture, but we are relatively new farmers. We would love to have the opportunity to learn and to benefit from financial assistance with our otherwise very tight farm budget.
please take notice of the Voluntary Stewardship Program which is already providing incentives to protect the environment
As a newer and younger farmer, my access to capital is limited. Higher up-front cost approaches, like biochar application, riparian restoration, or even many perennial plantings, have thus far been beyond what my farm alone can shoulder. That said, being a tenant farmer means I wouldn't be able to implement improvements that require over 2-3 years of maintenance, at least for the near future.
While farming to reduce carbon is not a new area of agricultural conservation work, there is not in my mind a good understanding of what it entails. This question is really a calculus question - there are a number of both known and unknown variables that need answers. Just off the top of mind, questions like: -How does the Carbon reduction activity translate and get certified into a certified carbon reduction? What if you don't meet the mark as promised? - How does the grant process envision this verification of the various aspects of carbon reduction (in other words what are the performance requirements, reporting, monitoring that come as a condition of the grant?) - How long are the terms and conditions applicable (NRCS for example uses a project life span with a condition that the farmer maintain the practice for XYZ years and allows NRCS to do spot (status review) checks to see how practice is doing during the life span.) What practices are eligible? Can a certified carbon reduction be marketed as part of grant for annual revenue? How is the carbon market doing? -Are there going to be varying levels of participation? (i.e. does the carbon farming have to be part of a comprehensive program or reduction plan on the farm? or can/will individual conservation practices be cost shared? Again how do you measure this ? Is the whole farmed scored or the individual practice scored? (In other words does the whole farming operation need to show a net reduction in Carbon or does the conservation activity/practice alone only need to show C reductions?)

Assistance in identifying top priorities and feasible projects. Assistance in the technical and regulatory side. Another way to create a community around the farms activities and practices. Interfacing with other constituents in solutions for a healthier planet.
grant funding would speed up my adoption of practices
I would like to do some real life composting with the use of biochar. Need \$ for testing.
Interested in alternative heat and power source for a new greenhouse such as solar.
I am young and want to farm for a long time and want others to be able to farm for a long time
Most grants & certifications I usually already meet the standards and is just me writing narratives of my everyday in the preferred word choices for the reviewers (white men & buzz words). It's usually pretty easy unless I feel like being 'radical' and convey my activities and practices in practical no nonsense ways, then I am dismissed , waved off, told I don't meet the reviewers goals even when I do. This cultural and white science supremacy is extremely frustrating. It can take a day out of farming to type up these narratives, who's paying me for my time, who's acknowledging the work I already do, no one when I am denied access to grants and support because of a culture that values white science over traditional ecological knowledge.
must be labor efficient, i.e. not add more hours to payroll, minimum wage and taxes are already too high
Any help for small farmers goes to help the local community that farmers supports and not global corporations.
Unless we start looking at the carbon economy, there is not much incentive in dollars.
Climate change is the biggest problem facing humans.
Sometimes the timeline for grants take longer than our farm can wait for the desired improvement.
The more support the merrier, though we are enthusiastically doing what we are financially able to on this front
Currently on the fence regarding what practices are most effective at reducing atmospheric carbon. Lots of hype and hooopla, very little in the way of substantive, impartial research data. E.g. biochar
I believe that it is imperative that we develop a food system that is part of the solution to climate change, not part of the problem and action needs to happen now
Time and commitment and reporting activities to others
When we increase photosynthesis we get healthy plants that lead to healthy soil. We make more money, have no diseases, pests or weeds and the produce is nutrient dense. Doing it for carbon we get the other benefits too. It's win, win, win. And it improves the first year and only gets better. I put biochar in my planting holes.
I love to push the envelope and employ innovation on my farm, but often profit margins are too slim to justify the risk and expense.
Would need a little more information on what specific practices are being referred to, but the concept is supportive of other County policies and goals and certainly financial and technical assistance would be crucial to implementation.
Ecological sustainability of human life is my highest level goal, it is why we exist as a farm.
It is extremely important to me as a farmer to reduce my carbon emissions.
Grant programs to support the goal of reducing carbon emissions and greenhouse gas footprint of my operation are very attractive to me and my farm.

**7. Which of the following examples of carbon farming/sequestration practices do you think should be supported by the Sustainable Farm and Fields program, i.e., through technical assistance and/or cost-sharing? Please check all that apply and feel free to suggest additional practices.**



**Suggested additional practices.**

Mandatory urban mass transportation programs.
Soil health/Nutrient management is the most valuable
Rotational grazing!
Pest management - water management
Solar
Practices like biochar and compost application are great but involve moving a lot of bulk around, which is energy-intensive and may therefore defeat the purpose?... Not sure how that calculation works out. I think silvopasture and agroforestry have tremendous untapped potential to store carbon and help mitigate risks for farmers dealing with increasingly volatile weather. Support for cover crops would also be extremely helpful because these are an important part of the rotation but it can be difficult to make them pay for themselves.
Let's support any farmer, no matter their end product or practice, as long as she's contributing to the carbon reduction effort.
It is important to point out that the vast majority of the items I have checked would be greatly enhanced by the application of biochar to farm and forest soils.
High use areas
Rotation grazing and mixed species grazing.
community food waste recovery for compost creation

Infrastructure for rotational grazing- water, cross fencing, electric fencing equipment
Microbial inoculants
practices to increase mycorrhizal fungi networking in cropping soil.
Indigenous microorganism culturing by region open to all farmer's including cannabis
Funding research for cover crops is integral to seeing wide scale adoption in our region. Without summer rains like the Midwest gets, our region will continue to struggle with adoption if we don't have outside the box thinkers doing the research. We should also be looking closely at our use of fertilizers and the efficiency of the inputs being used on our farms. Soil health will be the key to making carbon programs work on our farms.
Conservation crop rotation, integrated pest management (with aim at reducing fuel usage/mass-produced chemicals), ENERGY EFFICIENCY UPGRADES: equipment, farm buildings, and farming practices (e.g. switching from tractor to horse-drawn plow).
Developing and Implementing a comprehensive "Soil Health Management Plan"
We just purchased an old dairy and are looking to completely re-factor the farm using a regenerative ag approach. We are trying to assess what "crops" we are going to produce and how to manage our land in the most sustainable way. Looking for knowledge and funding is always helpful to mitigate risk in adopting new methods. We are all in and hungry for assistance.
Electrification of farm equipment, and renewal energy supplies with battery backup.
Install of renewable energy technologies on the farm; modest-conferences for conveying research results of most effective methods, equipment and construction techniques.
Weed-it sprayers and electric weed killers
increased utilization of electrically powered equipment vs carbon-fueled
"Precision agriculture" weirds me out! It often seems like a "greenwashing" kind of practice, relying on very energy and resource intensive supply chains for digital monitoring equipment. (but I'm definitely not the most informed on that subject)
There are some Livestock methane reduction practices in addition to digesters. need to reach out to WSU scientists to get a list more accurate than mine, but examples might include, lagoon covers and a flare, lagoon treatments to reduce methane production during storage; there is some interesting potential synergy between blue water farming and methane reduction- so research lately shows a huge drop in enteric methane production in cows when they are fed around 1% sea weed/kelp.
Greenhouses produce far higher tons per acre at very low cost if utilizing GAHT systems
Ensure these are cultural appropriate and not cultural appropriation. Give credit to original stewards of this land that managed these lands and interacted with the ecosystems in many of the ways folks are just now 'discovering' and beginning to recognize as valid and effective methods of land management. Ensure a diverse reviewer panel, discuss and confront the true history of Washington.
Biodiesel
Biodiverse mulch puts nutrients in place without disrupting mycelium as compost application does.
Check the research on biochar in northern latitudes, I believe it is not beneficial out of tropical zones.
Planned grazing/ adaptive multi paddock grazing
Crop rotation and especially prescribed grazing
Electric tractors
Assistance with transition to organic production and certification

**8. What resources would you like to see made available to implement emission-reducing measures and carbon-farming/sequestering practices? Check all that apply**

Cost-sharing to make energy-efficient improvements to reduce on-farm fossil fuel consumption and reduce CO2 emissions.	95
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Cost-sharing to purchase machinery/equipment to implement carbon-farming/sequestering practices	103
Free technical assistance and workshops through my local conservation district, WSU Extension, etc. to learn how to implement carbon-farming/sequestering practices on my land.	105
Skipped question	2

**What other resources would you like to see? (Optional)**

Assistance in developing an organic system plan, so farmers can transition to the more profitable organic market and simultaneously reduce carbon emissions.
economic impact assessments, how do practices impact productivity and crop quality
fact sheets or resource info easily accessible
Practices specific to the unique needs/conditions on the wet and dry sides of the state. What works in Adams County may not work in Snohomish and visa versa.
support to start regenerative ag practices: cover crop planting, fencing for rotational grazing, organic soil amendments and fertilizer
on site visits from experienced people or consultants. a consultant / farmer with experience who can "prescribe" best practices based on the land and crops produced. A matchmaker for funds available.
Support animal powered Agriculture, teaching, training, and support in learning to work with our animal kin.
grants to install very high COP heating systems in greenhouses
Assessments so that one could learn that ecological farming is creating these outcomes and get paid for the ecosystem benefit. Crop
-I do not recall seeing NRCS engaged much, they are an obvious partner in conservation. - WSU or other land grants should be asked to engage in evaluating the economics of these and other carbon conservation practices. If it makes economic sense for the farmer- adoption will come much, much faster. -The current efforts at riparian restoration and salmonid habitat restoration seem a most logical place to marry up the practices for example; VSP and Carbon farming activities have obvious synergistic benefits . -Any list of carbon conservation activities should get put through a straight face test for cost (both operating and capital cost) per ton of carbon emission reduction...we simply should not be funding and cost sharing "shiny objects" that cost hundreds of dollars per ton of reduction. I am serious- It may be best to cost share simple things like cost share to replace fuel and air filters for less fuel consumption. or an incentive to increase soil organic matter (submit soil tests proving increases - I think this has already been done and vetted among the no-till guys - ask Evan Sheffels) - how about incentives to come learn and implement practices on how to reduce nitrous oxide emissions from soil and fertilizer application? This study seems to state that soil released Nitrous oxide is the largest Ag Carbon release impact. See: <a href="http://extension.agron.iastate.edu/soilmgmt/Publications/EconSeqCarbon.pdf">http://extension.agron.iastate.edu/soilmgmt/Publications/EconSeqCarbon.pdf</a>
The bottom line is the bottom line.....whatever is recommended has to create a financially sustainable farm. This means the approach must demonstrate it will generate stable and good income for the farmer, includes a plan that addresses problems with labor (creativity and plans that decrease the need for labor), and provides for diversification of revenue to reduce risk. Also assistance with marketing farm products. Having each farm market their own products (web site, time at farmer's markets, etc.) is challenging. Co-ops are a good option, but I believe there is another evolution that can take place to help the small farmer even more and provide high quality, higher nutrition food to the cities.
Free technical assistance for farmers is ALREADY AVAILABLE through County Conservation Districts, WSU Extension, and USDA--NRCS on a variety of topics. I recommend partnering w/ these agencies to deliver TA/outreach, rather than create a new (redundant?) mechanism for free TA for farmers.
Our state should be actively engaged in agriculture. All discussions related to carbon issues in our state should engage agriculture at the beginning. I would like to see a program like this help advance programs such as the Farmed Smart Certification that is integrating carbon into the program so more producers will engage in whole farm conservation adoption.
Organizational discounts at suppliers of agricultural machinery and supplies including solar panel purchase and installation.

Community brew stations for compost tea, liquid IMO, GCM/bacillus velezensis
Money for on-farm research on farming practices that will sequester carbon and improve crops with reduced synthetic inputs.
Low cost or zero budget farming courses. Natural farming methods available for others to come and see.
carbon sequestration credits
cost-sharing for on farm research.
Even low-cost or at-cost technical assistance is fine. The cost can be written into the grant application.
Cost-sharing for non-equipment strategies like seeds (for cover cropping), amendments (like compost), and trees/shrubs for agroforestry and hedgerows.
A soil-testing service managed by professional scientists, so that we can monitor progress in a rigorous way.
Web based resources, e-news on best practices and emerging research, webinars
Workshops were be very beneficial
I am unclear what the first option means. What practices?
Resource center or clearing house for info directly related to small farms. Most info use large, industrial, but our area has lots of small, 5 acre plots.

**9. What suggestions do you have to make sure that funding for a Sustainable Farm and Fields program can best be allocated to serve the greatest needs statewide?**

Projects that reduce the use of energy, water and fertilizers should be funded in priority in the short term as these are the low hanging fruit. The funding priority can shift in favor of soil conservation and soil carbon storage practices in the longer run.
Pair with the KCAA and WSU extension
Have the funding for these programs managed by the local conservation districts. That way the funds can be allocated to serve the greatest needs in their local areas!
offer RFP in multiple languages and outreach is equitable.
Simple process. Reward commensurate with effort required.
Most efficient use of the money. Biggest bang for the buck.
Not sure funding would be the answer. Better education and field days would be the best answer to get more producers to participate. The Columbia Basin growers do a damn good job in implementing new practices.
Don't cost share on everything but on items with best cost benefit ration. Put a time limit on each cost share item so they don't make their operation dependent on cost sharing forever.
Educating farmers about various options and potential funding to offset costs. Door to door interactions.
Promote it with various types of language. Carbon-farming is good for soil carbon. It's also good for soil fertility, water-efficiency, and bottom lines. Some farmers are much more focused on those attributes than on soil carbon. Another suggestion is to help fund more studies about Carbon farming, regionally. We are currently running a soil-carbon-grazing study on our farm, and running into issues with our Central Washington University partner running low on funding.
Get the state out of the farm, stop taxing all industry into the ground, the state government here in Washington is making it very hard for people to do business on a small scale.
Don't target small hobby farms and "ag" production on the west side of the State. You'll surely get more participants over all but not as much potential sequestration.
Educate the producer so they understand both the benefit to their land management practices and the environment. Make it affordable and also practical.
After sitting through the conference call yesterday I was concerned with using VSP as a tool for determining the extent of conservation implementation across the state. We are in year two for most counties - Way to early in the program to use for this purpose - VSP is not a conservation program - its primary objective is to demonstrate that voluntary stewardship works - vs a regulatory approach - ten years to prove or disprove. Anonymity is also a key factor in VSP - producer do not want their farming practices made available to the general public or agencies. so site specific information is not always available. This is worth further discussion.

More programs that support smaller scale, multi produce, young farms
Leverage existing power of local CDs
It would be good to see trees and hedgerows being established in areas with very little vegetation in the landscape, e.g. parts of eastern Washington. This would help the erosion too. I think the farmers there would be open to a financial incentive for tree and hedge establishment; their input could be sought to craft the incentive structure.
Start with a vision of what an ideal ag landscape would look like in e.g. 20 years, create a set of guidelines/criteria from this vision, clearly communicate this set of criteria to grant applicants, communicate with local ag organizations to get a sense of the ag scene in each county
Allocated through conservation commission/conservation districts to keep process simple
I think it's important that the application and reporting process are streamline. It is also important to have technical assistance available and for the implementing agency to do outreach so that farmers know that this grant is available and how to apply. I want to make sure we prioritize equity and consider a farmer's current and historical access to resources as part of the decision making process. We should especially prioritize racial and ethnic groups that have experienced systematic oppression.
To help maintain momentum, make it a requirement that a farmer teaches others. And when presenting to others, to cite the grant program and legislative bill that allocated funds for the program. I think this would be a nice thank you for those legislators and state officials who do right by farmers and the planet
I have come to the belief that the path to balancing our carbon budget will not come from government or the urban areas of our country but from rural America. It is farmers and foresters who have the ability, and the gift, to sequester vast amounts of carbon in our soils. This will be low cost sequestration that will benefit the planet and the farmers and foresters themselves who will see direct benefits to their crops and their income
Pro rata on County level
Make smaller cost shares available for smaller items like electronic fencing for example.
I recommend that the Sustainable Farm and Fields program ensure that it is up do date with current diversity, equity and inclusion training, I also suggest that as we move forward in the sustainable farming field, we ensure we are working towards climate justice, not just sustainable agriculture practices. Without environmental justice, we can never truly solve the problem of the climate crisis. If you would like more information about the intersection of climate justice and sustainable agriculture, please reach out to me or check out <a href="http://www.sisterlandfarms.com">www.sisterlandfarms.com</a> to see how our farm is combining both of these focuses to grow, radically
I imagine a grant program would be a good step.
Make room for lots of small farms 5 acres or less with single employee businesses
Administered through the Washington State Conservation Commission.
Only stakeholders can decide how the money is spent. Check out the cannabis marketing order language and how that governmental system was set up.
Competitive grant application process, review by a committee with oversight of such a committee/process.
Prioritize areas/populations that are most vulnerable to climate change. Prioritize under-served populations. Prioritize low-income farmers and ranchers.
I think it is important to make sure the budget for technical assistance includes dollars for translation and interpretation so that this program is accessible to non-English speaking farmers. I also think it would be helpful to either include outreach to farmland owners with leasees or look for ways that this program is applicable to farmers who lease their land, not just owners.
I suggest you identify a couple main practices you want to focus on an try to drive change in those areas. If the scope is too broad, funding will be spread so thin that it's hard to see success in any one area.
Funding priority given to applicants belonging to an historically underserved population: American Indian, Asian, Black, Mexican/Latinex, Native Alaskan/Hawaiian, Pacific Islander, and Beginning farmer
Build the program with appropriate incentives that will allow early adopters to show the results to their neighbors and others within the ag community as the results are demonstrated and shown to be economically viable, socially responsible and environmentally sustainable.
It depends on what your goals are but certainly start with the people who are passionate and willing to make changes AND you reasonably believe they will follow through with the program. At the end of the day, you must have credible data to demonstrate that the farmer can make a good or better living by using these practices. You, the farmer, can "join the club" of people who are enjoying an increasing share of the market as people demand a change in all products from climate damaging to climate friendly. Or you can be left out in the cold. You have to show people a way forward and make them believe in it.

Education is the key!! Everyone needs to learn that even the smallest steps make a difference. There's a long road ahead of us in un-learning the agricultural practices that helped create this climate crisis
Please make sure this program benefits sustainable, small-scale producers and does not simply reward large conventional operations that may or may not continue the environmentally beneficial practices beyond initial grant funding.
Make available for us who are in intensive row crops so we can add or store carbon with fallow crops, cover crops, incorporating straw residue and so on.
to make it not based on online voting.
In evaluating grant applications, consider the money value of the services that Nature provides and how working with those natural systems makes the grant money go even further. In other words, applications working with Nature are funded and those asking for support of mono-cropping and other Nature-harming practices do not get funding.
Not much I can think of off the top of my head! Sounds like it's a win win. Thank you!
Keep the state government out of it. Have it administered by the local conservation districts.
I think an impact analysis would be necessary, both in terms of which current farms have the most potential improvement to make - looking for the largest farm operations that currently do nothing to mitigate carbon - but also looking to farms that can best tell your story to improve awareness and outreach. Those might be smaller farms like our that are in the public eye.
the non-natural resources community needs a better understanding of the benefits that the natural resource community provides
To serve the community best, I think the process begins with reaching the public, providing education, then providing technical assistance through cost sharing.
Needs to be bid out to spread the dollars rather than just a blanket per/acre ect
Start with based on dollars per ton, then add in if the carbon reduction come as part of a package of other practices with benefits (part of a riparian restoration package? or does soil fertilization practices reduce NOx AND reduce potential H2O quality risk and have a net cost reduction for farmer?) - Is reduction long term or short term? -There are some smart folks that have looked at what is best, easiest, and/or harder but worthy..., go ask those folks/scientists. Please do not go to down the road of what is sexy, shiny and/or fashionable...for example, I don't know enough to know if the latest buzz about bio-char makes any sense at all, and while I like the use of Digesters, they are so capital intensive and currently marginal or negative on the economic return that I just don't see that they are going to get much more adoption. That could change, but digesters are a sexy, lead balloon at the moment. -AND PLEASE !!!! get/use good information, NOT some BS from someone that thinks they know how a farm and farming SHOULD be done but has never farmed or taken the time to understand a darn thing about farming, let alone tried or watched us try to stay in the farming business for years or generations. To quote President Eisenhower: Farming looks mighty easy when your plow is a pencil and you're a thousand miles from the corn field. Lastly, this is always a good principle to start with: Please do not tell us farmers as much HOW to do something; tell us what RESULT you want, and let us innovate/adapt/improvise to achieve the desired (and verified) results.
% allocation to size of farms. Small farms can get overlooked as big is better is a latent belief. With the role of interfacing and education that small farms provide, making sure they can play in this game is valuable.
focus on low income counties first. They need the most help.
demonstration farms
Educating new farmers in the college ag programs
Prioritize marginalized groups in receiving grants
Support small farmers and know that small, medium, young, just beginning farmers often lease land and as such large, permanent infrastructure and land based improvements are a hard sell and have little return to the current tenant of the land. Ensuring the collaboration and working on land/farm succession and land access will be almost more important in this work than implementing behavior and programme actions with the farm business, most folks want and default towards these Agriculture practices but few will implement due to high cost and the permanents of the project compared to their dismal access to the land.
see above (number 8) comment. Consultation/prescription. Over phone interview/consultation could work. / Make a good email list and even call farmers so we don't have to work hard finding the funding. Make the application simple, not intricate like Specialty Crop Grant. / Don't make us pay ahead and then get a refund, like the hitunnel conservation grant, many of us are too in debt or low-income for that b.s.
Make sure they go to small farms and not huge corporate interests

Publicize success stories. You need to succeed in the attention economy first.
Work with local conservation districts to designate funding.
Prioritizing native buffer grants and renewable energy grants as something every farm type can adopt.
Focus on farmers with 3-10 years experience (beginning) to change the next generation of the industry.
Focus on adoption of better farming practices to reduce use of toxic inputs. Require conservation districts and WSU-Extension to become expert in these new practices (independent consultants know how to do this, govt and academics are behind the knowledge curve)
Make sure the practices encouraged via grants really have good science behind them.
Equal representation from all parts of the state. Having farmed on both the west and east side of the state, it seems that there is much better infrastructure support and advocacy on the west side for organic/regenerative farmers. Yet there are many more acres of farmland in eastern Washington.
Make sure small scale operations have an opportunity to participate
Go through the Conservation Districts. Farmers seem to trust them and they already work on soil health programs.
bilingual English/Spanish publication of materials
Focus resources on transitioning land to organic production and purchasing more efficient equipment.