General Information

Project Title

Poop Smart Clark Pollution Identification and Correction Program

Project Short Description

Poop Smart Clark is a Pollution Identification and Correction program that uses expertise from partnerships to reduce bacteria in the Lower and Middle East Fork Lewis River (LMEFLR) watershed. Through pollution source identification, targeted outreach, education, and implementation of BMPs, Poop Smart Clark connects residents to information and financial resources to correct pollution, drive social change, and increase adoption of best management practices in the LMEFLR watershed.

Project Long Description

The East Fork Lewis River (EFLR) watershed has bacteria impairments that do not meet Washington's water quality standards criteria. In a recently published draft Water Quality Cleanup Plan (WQCP) for the watershed, actions were included to improve the water quality in the area. A pollution identification and correction (PIC) program was one of the most prevalent in the document. The Poop Smart Clark PIC program will achieve clean water in the Lower/Middle EFLR (LMEFLR) watershed by proceeding in phases. This application is Phase 1, which will complete coordinated pollution source identification, launch a website and community outreach and education, and begin OSS and livestock BMP planning and implementation. Additional implementation and effectiveness monitoring will occur in Phase 2. The goal of this phased grant is to establish a long-term solution for partners to find and fix the source of bacteria into the future. This type of coordinated effort embodied in the Poop Smart Clark PIC program, will allow for a more efficient and data-driven process to identify and correct nonpoint pollution within the project area.

Clark Conservation District (Clark CD) is partnering with Clark County Clean Water (CCCW), Clark County Public Health (CCPH), Watershed Alliance, WSU Extension, the Natural Resources Conservation Service (NRCS), and the Department of Ecology (ECY) to identify pollution sources and address bacteria in four subwatersheds in the LMEFLR. The four target subwatersheds are Rock Creek North, and McCormick, Brezee, and Jenny Creeks. These subwatersheds were identified as priority streams for PIC efforts in the WQCP. To achieve clean water, the Poop Smart Clark PIC Program will address impacts originating from septic systems, livestock, and dogs. Partners will follow a PIC Plan (draft attached) and a Community Based Social Marketing Plan (CBSMP) to address bacteria.

CCCW and ECY monitored water samples for bacteria in the LMEFLR in 2019 and 2020. Both found fecal coliform and E. coli geometric mean exceedances in Brezee, Jenny, McCormick, and Rock Creek North. CCCW performed Microbial Source Tracking (MST) to identify potential sources of bacteria by DNA. The results from this monitoring helped guide the Poop Smart Clark target locations as well as the CBSMP. Project partners will continue collaborating in monitoring locations, protocols and results to

General Information

help refine and target the outreach, education, and resources for the residents in the program area. Outreach will provide landowners with technical assistance (TA), financial incentives, and, if necessary, enforcement. Poop Smart is a successful campaign in Skagit County. Clark CD will integrate material from that campaign into the project area creating Poop Smart Clark. This new campaign will have a website that will house resources, unified messaging, and educate residents. Clark CD will send an informational mailer to all landowners with property within 200 feet of a stream in the 4-subwatershed target area. Then, supplied with the pollution source identification data, they and Watershed Alliance will do targeted door to door outreach to homes with identified OSS compliance issues and/or with livestock. These areas can be further refined by the sampling locations and results of further MST testing. Clark CD will provide TA to livestock owners and develop BMP plans to meet land-use objectives, while protecting water quality and other natural resources on the property. This project addresses pollution from livestock sources through TA, BMP plans, and livestock BMPs. Agricultural parcels and target areas have already been identified by GIS land use analysis, which will be further refined during the grant as additional data and ground truthing surveys are conducted. Poop Smart Clark will connect OSS owners, livestock and pet owners, and outdoor recreationalists with the resources they need to implement water quality improving measures on their land and in their lives.

Total Cost $740,405.07

Total Eligible Cost $662,636.19

Effective Date 7/1/2021

Expiration Date 6/30/2024

Project Category

- ✔ Nonpoint Source Activity
- Onsite Sewage System
- Stormwater Activity
- Stormwater Facility
- Wastewater Facility

Will Environmental Monitoring Data be collected? Yes

Ecology Program Water Quality

Overall Goal The goal of Phase 1 of the Poop Smart Clark PIC Program is to improve water quality within the middle

and lower portions of the EFLR watershed by focusing on properties within 200 feet of a creek in the four subwatersheds: Jenny, Brezee, and McCormick Creeks and Rock Creek North. Using an innovative outreach campaign, technical assistance, and implementation of agricultural and septic BMPs, Clark CD and partners will reduce bacteria loads in the tributaries to the EFLR. These actions will increase landowner’s responsible stewardship of the private land that contributes to the water quality of streams within the project area. In outreaching and educating the residents of the project area, the project has a secondary goal of increasing public awareness of water quality issues faced by the residents and recreationists of the entire LMEFLR.

Project Characterization

Project Themes

Select a primary and secondary theme that best describes the work to be achieved during this project.

Primary Theme:	Nonpoint Source Pollution
Secondary Theme(s):	Agricultural Best Management Practices
	BMP
	Education & Outreach
	Other BMPs

Project Website

If your project has a website, please enter the web address below. After entering a website and saving, another blank row will appear. Up to three websites may be provided.

Website Title/Name	Web Address
Poop Smart	www.poopsmartclark.com

Recipient Contacts

Project Manager

Zorah Oppenheimer

Contact Information

Zorah Oppenheimer
District Manager
813 W. Main St., Suite 106
Battle Ground, Washington 98604
(360) 859-4784

zoppenheimer@clarkcd.org

Authorized Signatory

Zorah Oppenheimer

Contact Information

Zorah Oppenheimer
District Manager
813 W. Main St., Suite 106
Battle Ground, Washington 98604
(360) 859-4784

zoppenheimer@clarkcd.org

Billing Contact

Zorah Oppenheimer

Contact Information

Zorah Oppenheimer
District Manager
813 W. Main St., Suite 106
Battle Ground, Washington 98604
(360) 859-4784

zoppenheimer@clarkcd.org

Other recipient signatures on printed agreement

Name	Title

Total Eligible Cost: $662,636

Grant Request: $496,977

Match Required: $165,659

IMPORTANT NOTICE. Grants for nonpoint projects require a 25% match. Projects with cash-only match are eligible for up to $500,000 in grant. Projects with a mix of funds for match are eligible for up to $250,000 in grant. Cash match includes any eligible project costs paid for directly by the recipient that are not reimbursed by the Ecology grant or another third party. Donations that become the long-term property of the recipient are considered cash match. Loan money provided through the CWSRF is also considered cash match. In-kind contributions are considered non-cash match. More information on match requirements can be found in the Water Quality Combined Financial Assistance Guidelines which are available for download on the Application Menu.

Will your match be cash-only? ✔ Yes No

Are you requesting or will you accept loan funds for part or all of the eligible project costs or to meet your match requirement? Yes ✔ No

What is the loan amount you are requesting or willing to accept?

What loan term do you prefer? 5 years 20 years 30 years

IMPORTANT NOTICE. Ecology may provide special loan funding for nonpoint projects in the following case: (1) projects that meet the criteria for "green project reserve" may receive up to 25% forgivable loan. Ecology will determine eligibility for special funding when developing funding packages.

Do you want your project to be considered for GPR subsidy under the CWSRF program? Yes ✔ No

NOTE: Projects are only eligible if they meet EPA's GPR criteria, and applicants accept a CWSRF loan.

Do you have any secured funds committed to this project? ✔ Yes No

If Yes, complete the Secured Funds Table, and include any secured matching funds if known.

Source	Type	Amount Committed
State/Federal agency: Natural Resources Conservation Service	Cash	$72,930.00
State/Federal agency: Washington State Conservation Commission	Cash	$62,500.00
State/Federal agency:		
Interlocal contributions:		
Interlocal contributions:		
Interlocal contributions:		
Local agency: Clark County Clean Water	Cash	$25,140.00
Local agency: Clark County Public Health	Cash	$63,055.00
Local agency:		
In-kind contributions:		
In-kind contributions:		
In-kind contributions:		
Other		
Other		
Other		

Task Number 1

Task Title Grant and Loan Administration

Task Cost $92,002.50

IMPORTANT NOTICE. The cost of this task should not exceed 15% of the Total Eligible Costs you entered on the General Information form.

Task Description

A. The RECIPIENT shall carry out all work necessary to meet ECOLOGY grant or loan administration requirements. Responsibilities include, but are not limited to: Maintenance of project records; submittal of requests for reimbursement and corresponding backup documentation; progress reports; the EAGL (Ecology Administration of Grants and Loans) recipient closeout report; and a two-page outcome summary report (including photos, if applicable). In the event that the RECIPIENT elects to use a contractor to complete project elements, the RECIPIENT shall retain responsibility for the oversight and management of this funding agreement.
B. The RECIPIENT shall keep documentation that demonstrates the project is in compliance with applicable procurement, contracting, and interlocal agreement requirements; permitting requirements, including application for, receipt of, and compliance with all required permits, licenses, easements, or property rights necessary for the project; and submittal of required performance items. This documentation shall be available upon request.
C. The RECIPIENT shall maintain effective communication with ECOLOGY and maintain up-to-date staff contact information in the EAGL system. The RECIPIENT shall carry out this project in accordance with any completion dates outlined in this agreement.

Task Goal Statement

Properly managed and fully documented project that meets ECOLOGY's grant or loan administrative requirements.

Task Expected Outcomes

* Timely and complete submittal of requests for reimbursement, quarterly progress reports, Recipient Closeout Report, and two-page outcome summary report.
* Properly maintained project documentation.

Recipient Task Coordinator Zorah Oppenheimer

Deliverable #	Description	Due Date	Received? (ECY Use Only)	EIM Study ID	Latitude (expressed in decimals)	Longitude (expressed in decimals)	Location Address
1.1	Progress Reports that include descriptions of work accomplished, project challenges or changes in the project schedule. Submitted at least quarterly.	6/30/2024					813 W Main Street STE 106 Battle Ground, WA 98604
1.2	Recipient Closeout Report (EAGL Form)	6/30/2024					813 W Main Street STE 106 Battle Ground, WA 98604
1.3	Two-page Outcome Summary Report	6/30/2024					813 W Main Street STE 106 Battle Ground, WA 98604

How many tasks do you want to appear?

Task #: 2

Task Title: PIC Committee and Ongoing Data Assessment

Task Cost: $67,697.00

Expected Start Date: 3/4/2021

Expected Finish Date: 6/30/2024

Describe the work that will be billed to this task. (char 3,500)

2a. PIC Committee

While the partners have developed a draft PIC Plan and sampling plan (see attached), we recognize that there are more specific processes and protocols to detail. We have held monthly meetings and will continue to do so under this grant. In addition, we will add to and refine the PIC Plan and workflow from identification of pollutant to correction of that pollutant.

2b Periodic On-Site Septic System Records Assessment

CCPH will perform updated searches of our OSS database to provide current information to guide water sampling locations. Our database updates inspection reports from an online recording service, so OSS status, including compliance, is actively updated. Over the course of the grant period CCPH will work with partners to provide updated status of systems out of compliance and those OSS that have instituted repairs, etc. so that water sampling and outreach/education efforts can be focused in areas where compliance data indicates focused effort should occur. This assessment will summarize the following factors: State of OSS inspection compliance (6 months, 1, 3 or more than 3 years); Total elapsed time since last inspection; OSS proximity to impacted streams; OSS age; Absence of permit.

This information will also guide outreach prioritization for Task 4b and compliance action prioritization analysis in Task 5a. This data will also be used in the land-use assessment to identify parcels with septic within 200 feet of a stream in our 4 targeted subwatersheds.

2c - Ongoing Land Use Assessment and Map

A preliminary land use assessment was conducted to identify tax parcels with agriculture and out of compliant septic systems to further identify areas to target outreach and water quality sampling efforts (see Land Use Analysis in PIC Plan).

Clark CD created a new agricultural layer in fall 2020 (see PIC Plan for more details on how the map was created). The agricultural map will be uploaded to ArcGIS Online (AGOL) and updated regularly as data from Clark CD and other agencies is updated (see PIC Plan for map example). As part of this grant, Clark CD will ground truth the digitized agricultural map to confirm and map additional high-priority livestock properties

(COVID dependent). High priority properties are those with a combination of large livestock numbers, close proximity to surface water, denuded pastures, and visible runoff, as well as other water quality indicators.
Septic land-use analysis was conducted to identify parcels with septic systems in the 4-subwatershed area. This map will be uploaded to AGOL and regularly updated with septic data from CCPH. The septic land use analysis identifies out of compliance septic hotspots. These identified clusters of septic properties in the watersheds, combined with the MST will guide outreach and future target areas for more intensive WQ sampling (See PIC Plan for more details).
Clark CD will continue to update and refine the agricultural and septic map through finding additional agricultural data sources (e.g. Washington Tilth, USDA, WSDA, internal project mapping) and ground truthing the data. The result of this work is an online map of Clark County on AGOL with the relevant data.

Deliverables

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Deliverables Table (Deliverables are documents that can be uploaded into EAGL to show that work was completed; deliverables should align with the detailed budget provided on the Task Costs and Budget Form and the project schedule uploaded on the Project Planning and Schedule Form.)

Deliverables Description	Deliverable Date	Deliverable Budget
2a. Regular updates of progress on PIC documents and final copies of all.	6/30/2024	$46,628.00
2b. Property Prioritization list for CCPH compliance actions from OSS Records (CCPH)	3/31/2022	$10,730.00
2c. GIS data via online map and database - updated regularly.	6/30/2024	$10,339.00

Total Deliverable Budget: $67,697
Total Task Costs:

Task #: 3

Task Title: Water Quality Testing

Task Cost: $49,703.90

Expected Start Date: 7/1/2021

Expected Finish Date: 6/30/2024

Describe the work that will be billed to this task. (char 3,500)

3a QAPP - CCCW will develop and submit a quality assurance project plan (QAPP) for ECY approval prior to any water quality testing.

3b - Microbial Source Tracking (MST) and Water Quality Testing - From May to July 2020, MST fecal bacterial DNA water samples, Escherichia coli (E. coli), and Optical Brightener (OB) were collected at 10 sites located on 4 different tributaries to the EFLR (See attached Sampling Plan). These 10 sampling sites were selected based on high Fecal Coliform (FC) results from the WY2019 CCCW Assessment of Wadeable Streams monitoring effort. Four tributaries to the EFLR (Brezee, Jenny, McCormick, and Rock Creek North) had exceeding or elevated geometric mean results for FC , and were subsequently selected for this study. Three sampling events occurred at each of the ten pre-determined sites. The summary report for CCCW's findings will be available in late 2020. Please see the CCCW EFLR PIC Grant Sampling Plan for preliminary results. After CCCW's 2020 MST report is completed and the computer-based land use and septic system data analysis shown on maps provided by Clark CD is fully complete (January 2021), eight (8) focus areas upstream of the 2020 MST sampling locations will be selected for stream walks during the wet season based on potential livestock manure mismanagement and septic failures. These targeted stream walks will collect a minimum of 24 water samples for MST DNA Marker analysis,as well as E. coli and OB. DNA markers will be selected based on landuse and septic system analysis and previous 2020 MST sampling results. These data will provide further evidence to focus outreach and implementation of corrective actions. Please see the CCCW EFLR PIC Grant Sampling Plan for additional information on sampling design.

All monitoring will be conducted per the Ecology-approved QAPP. OB is measured onsite with a meter owned by CCCW and will not incur additional costs. CCCW will collect E. coli samples for analysis at ALS, an accredited lab in Kelso, WA. Water samples will be collected for quantitative polymerase chain reaction (qPCR) DNA analysis at Source Molecular Laboratories in Florida. qPCR DNA markers may include Human Dorei, Human EPA, Dog, Horse, and Ruminant at each site. Additional biomarkers including Poultry, and others may be added based on land use indicators or other evaluations above. Water quality data will be uploaded to Ecology's EIM database.

3c - Ongoing Water Quality Data Interpretation - Once water quality data collection has been completed, results will be interpreted and summarized by CCCW. These summarized results will indicate hotspots which will be shared with the CCD and CCPH to direct follow up with outreach and investigations. CCPH will perform follow-up investigations at properties where MST, E. coli, and OB interpreted results indicate that there may be septic deficiencies or failures. CCPH typically uses dye testing to confirm that septic system effluent has surfaced. CCPH will closely monitor inspection results reported in the project area.

3d - Effectiveness Monitoring - CCCW will conduct follow up monitoring by bracketing sites where sources are removed during the project.

Testing will include E. coli and optical brighteners. A minimum of 24 E. coli samples will be collected to demonstrate the effectiveness of the partnership's efforts where implementation by CCD and CCPH has occurred.

Deliverables

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Deliverables Description	Deliverable Date	Deliverable Budget
3a. Ecology-approved QAPP	10/31/2021	$6,356.00
3b. Water quality sampling and results - uploaded to EIM	5/31/2022	$34,320.00
3c. Water quality data assessment summary	6/30/2022	$3,177.83
3d. Follow up effectiveness monitoring and results	6/30/2024	$5,850.07
		Total Deliverable Budget: $49,703.90

Task #: 4

Task Title: Poop Smart Clark Outreach

Task Cost: $92,328.80

Expected Start Date: 7/1/2021

Expected Finish Date: 6/30/2024

Describe the work that will be billed to this task. (char 3,500)

Clark CD and Watershed Alliance (WA) will use data gathered previously and in Tasks 2 and 3 to provide residents within the focus areas (Brezee, Jenny, McCormick, Rock Creek North) with targeted messaging related to their property. We will focus on parcels with agricultural and out of compliance septic systems within 200 feet of a stream in each of the target subwatersheds.

Clark CD will develop Poop Smart Clark and an associated campaign including educational materials, door-to-door outreach, targeted mailers, and outreach events. This will increase the awareness of residents within the project area regarding steps they can take to improve water quality. See attached document “CBSM_Plan” for more detailed information.

Task 4a. Poop Smart Clark Development - Clark CD will adapt and localize existing materials to create Poop Smart Clark, a website with information for landowners with OSS, farm owners, pet owners, and outdoor recreationalists to learn the best ways to manage their poop (See CBSM_Plan). The Poop Smart Clark campaign will use a website, flyers, videos, social media posts, surveys, stickers, dog poop bag holders and pasture sticks to educate the public and direct landowners to resources to fix pollution on their property. All material will be translated into Spanish and Russian. Surveys to measure behaviour change will be given to residents in the 4-subwatershed areas prior to the launch of Poop Smart Clark and after the door-to-door outreach (see CBSM_Plan). We will develop agricultural specific brochures to hand out to residents during door-to-door outreach, tabling events and equipment rental (see CBSM_Plan).

Task 4b. Door-to-door outreach - Mailers will be sent to all (1,965) parcels with homes, commercial, or agricultural activities in the target areas within 200 feet of a stream - 64% of all parcels in the 4-subwatershed area. These mailers will make initial contact, let residents know about the project, and provide information about Poop Smart Clark. Door-to-door outreach will be targeted to 400 properties deemed high priority based on land use analysis, septic compliance, and water quality testing results. As of writing this grant, 165 properties have both agriculture and out of compliance OSS and are within 200 feet of a stream within the 4-subwatershed area. We will make visits to 100% of these properties, and will use MST and land use results to target door to door to the remaining highest priority properties . See door to door outreach in CBSM_Plan for more info.

CCPH will update OSS O&M outreach materials that will include updated OSS financial and technical assistance information with outreach teams.

Task 4c - Outreach Events - Clark CD and partners will hold two open house meetings within the project area to promote Poop Smart Clark and the resources available to address bacteria pollutants on private property. These meetings will give the public a forum to ask questions about the project, get more information, and will reach people that may not be targeted in the door-to-door outreach. Clark CD will also host in a minimum of 6 additional question/answer sessions over the grant term (see CBSM_Plan). Clark CD staff will also promote the program at any outreach events, COVID restrictions permitting. See CBSM_Plan for more details on alternative plans for COVID including virtual open houses and meetings.

Deliverables

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Deliverables Description	Deliverable Date	Deliverable Budget
4a. Copies of all Poop Smart Clark outreach materials	3/31/2022	$41,013.64
4a. Metrics on CBSM campaign (social media ads, survey responses, page views, etc.) for Poop Smart Clark	6/30/2024	$18,771.83
4b. Door-to-door outreach to 400 high-priority homes in the project area within 200' of stream. Results of door to door outreach (number of contacts, number of door hangers left, etc.)	7/31/2022	$25,633.60
4c. Summary of open houses including attendance numbers, metrics from question/answer sessions (number of attendees, subwatershed locations, post-attendee survey results, etc.)	6/30/2024	$6,909.73

Total Deliverable Budget: $92,328.80

Task #: 5

Task Title: Septic Prioritization and Compliance

Task Cost: $13,644.45

Expected Start Date: 7/1/2024

Expected Finish Date: 6/30/2024

Describe the work that will be billed to this task. (char 3,500)

5a Septic System Prioritization – CCPH will finalize prioritization criteria based on information gathered under Task 2b to determine OSS properties to focus outreach and compliance assurance efforts. CCPH's compliance assurance efforts include but are not limited to: direct notification of property owners; education regarding legal requirements and property value benefits; information about financial assistance programs; use of property Notice To Title, compliance actions and permitting implications. Factors that will be used to prioritize properties for compliance actions by CCPH are outlined in Task 2d.

CCPH will track inspection compliance, prior inspection results, and then develop lists of properties that are priorities for compliance follow-up. CCPH will directly contact OSS owners with systems that are in close proximity to sampling locations with high human fecal results. After initial inspections are completed by targeted OSS owners and OSS requiring repair or replacement are identified, CCPH will then update the property prioritization in areas with water quality concerns and reapply the same strategy to remaining non-compliant OSS. This process will be repeated over the course of the grant. Any residual non-compliant OSS will then be addressed through higher level enforcement actions by CCPH.

In 2015, only 49 percent of septic system owners had completed septic inspections countywide.

CCPH worked to proactively send out Past Due O&M Notification Letters to OSS owners. These efforts resulted in a 20 percent increase in OSS inspections between 2015 to 2018, achieving a 70 percent septic inspection rate countywide.

CCPH's OSS compliance program focuses on getting OSS that are in need of maintenance or repair remedied and we've had tremendous success getting compliance through those efforts. Tools that CCPH uses to complete compliance actions are fines, notices to titles and in some cases, posting properties as unsafe to occupy.

5b - Financial Assistance Evaluation - There will be OSS owners who cannot repair or replace OSS due to financial abilities. In order to develop financially-sensitive approaches to address such situations, Clark CD and CCPH will apply a financial evaluation process to determine financial need. Existing septic loan programs (Craft3, etc.) do not have a system for this as they are open to anyone regardless of financial need. We will base eligibility off the federal poverty guidelines, but will also incorporate a water quality ranking to maximize the impacts. This will weight applicants with systems closer to streams and in more dire need of repair higher than those that are upland. The financial evaluation will look at the total household income and number of household members. We will require supporting documentation to verify information submitted.

OSS owners that qualify as low income under that process will be directed to Task 6b for financial assistance. This will allow CCPH and partners to effectively guide OSS owners to resources such as Craft3, or whether they can receive assistance directly from Clark CD - Task 6b. The financial evaluation process will be applied to support this grant and available to all OSS owners in Clark County. Because this is an ongoing project, we anticipate seeking additional grant funding for OSS repair/replacement. This evaluation is not being created for only $50,000 in funding, it's for the PIC County-wide.

Deliverables

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Deliverables Description	Deliverable Date	Deliverable Budget
5a. Notices to Non-compliant OSS owners. Reports of OSS inspections completed and results documented. SS repairs and replacements completed - follow up on completion and ensure closure of remedial cases.	6/30/2024	$8,859.20
5b. Financial evaluation form and ranking completed	6/30/2024	$4,785.25

Total Deliverable Budget: $13,644.45

Task #: 6

Task Title: On-Site Septic System Implementation

Task Cost: $230,209.54

Expected Start Date: 7/1/2021

Expected Finish Date: 6/30/2024

Describe the work that will be billed to this task. (char 3,500)

6a Septic System Inspection and Pumping Fee Rebate Program

There are 6,161 OSS within the project area of the LMEFLR, 1,995 of which are out of compliance. There are 1,798 OSS within the 4-subwatershed target areas, 32% (n=581) of which are out of compliance with their inspections (see page 17, PIC Plan for complete list of numbers). Watershed Alliance will offer a septic inspection and pumping reimbursement program to landowners within the 4-subwatershed area. The program will offer 100 percent reimbursements for inspection fees up to $130 and/or pumping fees up to $500. The program goal is to increase the compliance rates for the area. We have budgeted for 490 reimbursements (350 inspections and 140 pumping). The primary reason property owners are not in compliance are: not knowing they are out of compliance and not able to afford the cost. Inspection is the first step to complying for many landowners. Watershed Alliance will design a handout covering the program that will be distributed in door-to-door outreach and will heavily promote WSU Extension's Well and Septic classes.

The process for inspection rebates: interested property owners will submit an application to Watershed Alliance to have geographic eligibility verified, homeowner notified of approval, homeowner submits receipt after paying and completing inspection within 60 days of eligibility, homeowner issued a check.

Process for pumping rebates: interested property owners will submit an application to Watershed Alliance to have geographic eligibility verified, homeowner notified of approval, homeowner submits receipt after paying and completing pumping within 60 days of eligibility, homeowner issued a check.

Based on these inspections, when landowners have an OSS in need of repair or replacement, they will be directed to existing loan programs including Craft3, Clark County HPP, and USDA Rural Development.

6b. Septic System Repair/Replacement- If an inspection results in the need for an OSS repair/replacement, the financial assistance evaluation process in task 5b will be used to target those most financially in need. Septic repair and replacement financial assistance will be prioritized to applicants that demonstrate a significant financial need and/or that cannot acquire assistance through other programs such as Craft3. In addition, our PIC program will also evaluate the potential water quality impacts of a repair/replacement project in order to maximize the benefits of the financial assistance. This approach gives our partnership the flexibility to apply funds where the combination of financial need and water quality improvement are optimized, particularly if there are many applicants who qualify for financial assistance.

If the OSS is in a priority area - within 200ft of a stream - the owner can be eligible for funds covering up to 100 percent of the costs of repair/replacement. Clark CD is using $50,000 in project funds to provide cost share for at least three repair/replacements. Research has shown repair/replacement costs are between $8,000-$15,000 on average (see table 11 in the EFLR Cleanup Plan). We expect to fund the repair/replacement of between three to eight OSS. All implementation will require a BMP approval form and a landowner maintenance agreement for the lifetime of the OSS. Funds are through Washington State Conservation Commission's NRI funds and are secured and available after July 2021.

Deliverables

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Deliverables Description	Deliverable Date	Deliverable Budget
6a. Report for septic system inspection and pumping fee rebate program	6/30/2024	$167,947.66
6b. Obtain signed Landowner Agreements requiring maintenance of OSS for the expected lifetime of the system (20-25 years).	3/31/2023	$10,261.88
6b. Complete and submit BMP Approval Forms with associated site plans for each project site to Ecology's Project Manager for review and approval prior to implementation.	6/30/2023	$1,000.00
6b. Complete and submit all cultural resources review requirements for all project sites to Ecology's Project Manager prior to implementation.	6/30/2023	$1,000.00
6b. Install $50,000 of septic repair and replacements - three at minimum. Between 3-6.	6/30/2024	$50,000.00

Total Deliverable Budget: $230,209.54

Task #: 7

Task Title: Livestock Technical Assistance and BMP Planning

Task Cost: $117,050.00

Expected Start Date: 7/1/2021

Expected Finish Date: 6/30/2024

Describe the work that will be billed to this task. (char 3,500)

Based on outreach in task 4, Clark CD will develop a list of livestock owners in need of technical assistance (TA). Clark CD will provide voluntary TA and site visits to at least 30 landowners and land managers with livestock within the 4-subwatersheds. TA is qualified, experienced, and trained staff providing landowners/land managers site visits and resources to help them meet desired goals and regulatory requirements. TA provides landowners and managers with sound advice based on land-grant university research, vetted BMP standards from Natural Resources Conservation Service (NRCS), or those of a professional engineer. When Clark CD staff provides this advice during a site visit, they reiterate it in a follow up letter. These site visits with management letters are for landowners who either don't need a BMP installed or aren't interested in District funding. Many owners want to complete a practice themselves or perhaps just simply need to cover a manure pile with a tarp. These landowners don't require the investment of a document with planned BMPs, but can still significantly improve water quality by making small changes. Clark CD staff will develop a minimum of 30 letters of TA with associated site visits. This is a number we know we can achieve from past grant deliverables and the number of agricultural properties identified in the focus area (855).

If the landowner is interested in proceeding with projects and the potential BMPs are eligible for funding, Clark CD and the landowner collaboratively develop a BMP plan with site specific NRCS-certified BMPs to improve water quality. Clark CD only completes BMP plans for motivated landowners most likely to implement and use the BMPs identified in those plans specifically with financial assistance from the District. Clark CD will complete 12 BMP plans in the grant term. We expect to write BMP Plans for water quality impacting BMPs including but not limited to off-stream watering, livestock exclusion fencing, heavy use protection, pasture management, manure storage, and riparian planting.

Livestock producers will require cost-share funding to implement recommended BMPs. Once completed, plans will be quickly shifted to the already secured funding from other sources including from the Washington State Conservation Commission and $980,000 in funding under the Poop Smart Clark Regional Conservation Partnership Program (RCPP) in cooperation with NRCS designated specifically for livestock BMPs. Clark CD will use a minimum of $400,000 of that funding for livestock producers in the 4-subwatershed area within 200 feet of a stream.

Though the specific BMPs to be installed will depend on the characteristics of the operations, all of them will follow NRCS and ECY specifications (design life, maintenance agreements, landowner agreements, BMP approval form, cultural resources review) and the BMPs eligible will be those determined by ECY and NRCS to contribute to water quality improvement per either the Voluntary Clean Water Guidance for Agriculture (ECY) or the Conservation Practices Physical Effects (CPPE) spreadsheet (NRCS). The CPPE is attached and only BMPs that address the resource concerns of water quality degradation water quality with a rank of 3, 4, or 5 will be used (moderate improvement to substantial improvement).

Deliverables

To Add a Row
Enter a deliverable
When done, click the **SAVE** button
After SAVE a new row will appear
Repeat these steps for each deliverable

To Delete a Row
In the row you want to delete, remove the information in all of the textboxes
When done, click the **SAVE** button
After SAVE the row will be deleted

Deliverables Table (Deliverables are documents that can be uploaded into EAGL to show that work was completed; deliverables should align with the detailed budget provided on the Task Costs and Budget Form and the project schedule uploaded on the Project Planning and Schedule Form.)

Deliverables Description	Deliverable Date	Deliverable Budget
Locations of site visits and technical assistance letters, any other desired metrics.	6/30/2024	$64,462.50
Locations of BMP Plans and any other desired metrics. Expected load reductions for each BMP planned for. Number of BMP Plans moving to implementation.	6/30/2024	$52,587.50

Total Deliverable Budget: $117,050.00

Task #: 8

Task Title:

Task Cost:

Expected Start Date:

Expected Finish Date:

Describe the work that will be billed to this task. (char 3,500)

Deliverables

To Add a Row
Enter a deliverable
When done, click the **SAVE** button
After SAVE a new row will appear
Repeat these steps for each deliverable

To Delete a Row
In the row you want to delete, remove the information in all of the textboxes
When done, click the **SAVE** button
After SAVE the row will be deleted

Deliverables Table (Deliverables are documents that can be uploaded into EAGL to show that work was completed; deliverables should align with the detailed budget provided on the Task Costs and Budget Form and the project schedule uploaded on the Project Planning and Schedule Form.)

Deliverables Description	Deliverable Date	Deliverable Budget

Total Deliverable Budget: $0

Task #: 9

Task Title:

Task Cost:

Expected Start Date:

Expected Finish Date:

Describe the work that will be billed to this task. (char 3,500)

Deliverables

To Add a Row
Enter a deliverable

To Delete a Row
In the row you want to delete, remove the information in all of the textboxes

When done, click the **SAVE** button
After SAVE a new row will appear
Repeat these steps for each deliverable

When done, click the **SAVE** button
After SAVE the row will be deleted

Deliverables Table (Deliverables are documents that can be uploaded into EAGL to show that work was completed; deliverables should align with the detailed budget provided on the Task Costs and Budget Form and the project schedule uploaded on the Project Planning and Schedule Form.)

Deliverables Description	Deliverable Date	Deliverable Budget

Total Deliverable Budget: $0

Total Task Costs: $662,636

Describe the process used to estimate the cost of the project. If your process included reviewing similar projects, describe how this review affected your estimate.

Please note that while Clark CD and partners have committed $243,427.77 in matching funds (plus an additional $1.4 million for livestock implementation) only $165,659.10 (25%) have been entered into EAGL due to automatic formula calculations.

Clark CD's staff costs were calculated based on composite (comp) wage rates and estimated time needed to complete each task based on past history of similar tasks (comp. rate x hours needed). Work to be completed by other agencies was estimated by them and reviewed by Clark CD staff. Also see budget notes for additional specifics.

Task 1- The Project Manager has years of experience working with and managing grants. As this is a complex grant with many partners and new processes, Clark CD has asked for close to the maximum amount, though it is under 15 percent of total project costs. Tasks 2/3- CCCW staff costs are calculated based on comp. wage rates and estimated time needed to complete each task. Laboratory costs reflect current rates from ongoing contracts with ALS and Source Molecular laboratories. Staff have completed numerous monitoring projects and have extensive experience developing budgets and project plans. Tasks 2/4/5- CCPH staff costs were calculated using level of effort in hours for specific staff that will be involved with this project over the project period, multiplied by each staff's hourly costs and indirect rate provided by our Financial Section. Task 4- Clark CD and Watershed Alliance are both experienced in public outreach. Salary and mileage related costs are based on past projects. All material costs are based on actual estimates received and are referenced in the notes of the budget, including extra costs including shipping, tax, and printing setup fees. Task 6- Watershed Alliance costs were calculated based on actual costs of reimbursement and past experience with running a reimbursement program. Salaries were based on a composite wage and indirect rate from estimated time needed based on past similar projects. Based on research done by Clark CD and ECY in the EFLR Water Cleanup Plan, 80-90 percent of septic systems cost $8,000-$15,000 to replace, including permits and engineering costs. The $50,000 in cost share funds in the budget covers 3-8 septic systems.

Task 7- Costs for technical assistance are based on past experience providing technical assistance to livestock owners. Clark CD estimated an average of 30 hours per landowner for the 30 site visits with letters of technical assistance. That includes scheduling, pre-site visit work including maps and data gathering, the site visit, and compiling recommendations into a letter of technical assistance. As BMP plans are more involved, Clark CD budgeted more time for those plans- 12 plans at an average of 85 hours each including follow up site visits and communication with the land manager. As with any estimate, some plans will take longer and some will take less time, but our experience tells us this is a reasonable estimate.

Has the proposed project been demonstrated to be the lowest cost solution to the problem?

If the proposed project is not the lowest cost, describe the other benefits or considerations such as feasibility, community acceptance, or coordination with other projects that influenced the decision making process.

This project is, over time, the lowest cost solution to the problem. The Poop Smart Clark PIC Program uses existing partnerships to leverage resources and staff from local agencies and nonprofits. Matching almost $250,000 in local, state, and federal dollars and leveraging an additional 1.4 million dollars in federal funding, this program is a highly effective and low-cost solution to the bacteria pollution problem in the EFLR

watershed.
While the ratio of outreach to implementation costs in this grant application are high, this is truly an investment and first step to access additional significant implementation funds (secured Poop Smart Clark RCPP - $1.4 million). Those secured funds are available for livestock BMPs and are not able to be used on water testing, outreach, or septic system work.
Other PIC programs in Western Washington have developed materials and handbooks we have used to write our PIC Plan , and we will continue to look to other established programs to inform our final PIC Plan and lessons learned.
The Poop Smart Clark website and associated community-based social marketing campaign represent a donation of over $100,000 of material already developed for use in Skagit County under a similar PIC program, Poop Smart. Skagit County has developed outreach videos, flyers, and a bank of over 60 social media posts and illustrated photos that are ready to deploy in targeted ads to the project area. They have also translated the website and flyers into Spanish. They deployed this campaign in 2018 and have been extremely helpful by not only donating all of the materials, but also guiding Clark CD through the lessons they have learned. Development of these materials and Skagit County's collaboration further brings down costs because Clark CD is not starting from scratch and is able to add to this program getting more done.
Clark CD, the partners involved, and ECY's own Water Cleanup Plan cite a PIC Program such as this as an effective solution to the problem of pollution in the EFLR. While the process can be more costly than simple BMP implementation, it is significantly more effective. This effectiveness is due to the overall goals of engaging the community in improving their watershed in conjunction with technical and financial assistance for BMP implementation.

Upload a detailed budget for the project and any supporting documentation, including engineers estimates, cost analysis, etc.

Upload Documents
Click the Browse button
Select your file
Click Save, your file will appear in the List of uploaded documents
Repeat for each file
To Delete a file, select the Delete checkbox next to the file and click SAVE

https://ecyeagl/IntelliGrants_BASE/_Upload/154136_925650-BudgetPoop SmartClarkPIC.pdf Budget

Fill out the following table to describe your Project Team, including staff, contractors, and partner agencies:

Team Member Name/and or Title	Agency/ Company Name	Key Responsibilities	Qualifications/ Experience	Estimated Total Hours Devoted to the Project	Who will take over the person's responsibilities if they are unable to work on the project?
Zorah Oppenheimer, District Manager	Clark Conservation District	Zorah is the project manager for the proposal. She manages all projects within the District and communicates all proceedings with the Board of Supervisors. Zorah will be responsible for managing and administering the grant including overseeing budgets and reporting. She will work with Clark CD staff and partners to ensure project deliverables are met on time and within budget. She is also the supervising technician for the OSS repair and replacement and livestock TA and BMP planning.	Zorah has a BS in Natural Resources and has been with Clark CD for over 6 years, first as a Resource Technician and now as District Manager. She is an NRCS Certified Conservation Planner with years of experience providing technical assistance to landowners and managing grants.	1612.00	Ashley Smithers, Clark CD Board of Supervisors
Ashley Smithers, Resource Specialist	Clark Conservation District	Ashley will complete the AGOL map and ongoing land use analysis for the project, perform door-to-door outreach and develop outreach materials	Ashley has a Masters in Environmental Management (MEM). She has years of experience in restoration, wetland ecology and wildlife	1151.00	Zorah Oppenheimer, AmeriCorps Member

Project Team

		and the Poop Smart Clark website. She will also lead the OSS repair/replacement for the District and assist as needed with livestock technical assistance and BMP plans and technical assistance letters.	biology, and working with landowners providing technical assistance and conducting outreach to the general public. She is a level 1 certified Farm Planner through Washington Center for Technical Development and has passed the NRCS planners course.		
AmeriCorps Member - Outreach Coordinator	Clark Conservation District	Development of outreach material in task 4, event planning.	Position will be hired in July, 2021. Clark CD has had past AmeriCorps Members for an outreach position and it has been a very successful partnership with Washington Service Corps.	788.00	Ashley Smithers, Zorah Oppenheimer
Livestock Conservation Planner	Clark Conservation District	This position will provide livestock technical assistance and will write BMP plans and management letters.	Clark CD is actively hiring for this position as of October 2020 and we expect them to be onboarded by January 2021. They will have extensive experience with livestock BMP planning, technical assistance, and NRCS standards and specifications.	2007.00	Ashley Smithers, Zorah Oppenheimer, Carly Lemon (Underwood Conservation District)
Gavin Glore, SW Area Engineer	Grays Harbor Conservation District	Gavin will be the Engineer-of-Record for any Clark Conservation District	Licensed Professional Engineer (Civil, Water Resources) serving six	50.00	Contract with a local engineer.

Project Team

		projects that are implemented through this grant. He will be responsible for initial site assessment, identifying appropriate treatment alternatives, developing cost estimates, creating engineered construction drawings, and overseeing construction implementation.	Districts in SW WA. He has 18 years of experience at CDs, starting as a resource technician in 2002 and eventually attaining licensure as a Professional Civil Engineer in 2017. Over his career he has coordinated the design and construction of numerous restoration and conservation projects including in-stream habitat enhancements, fish passage improvements, manure storage structures, and stormwater management strategies.		
Celina Stilphen, Program Coordinator	Watershed Alliance of SW Washington	Door-to-door outreach, develop outreach materials, data entry tracking, complete OSS inspection and pumping reimbursement program.	Has three years experience doing door-to-door outreach for Watershed Alliance.	1922.00	Sunrise O’Mahoney, Executive Director
Sunrise O’Mahoney, Executive Director	Watershed Alliance of SW Washington	Grant reporting, tracking and outreach management. Manage septic reimbursement program. Staff oversight for outreach and septic reimbursement program. Attend open houses.	10 years with Watershed Alliance. 8 years as Executive Director and 2 years as Administrative Assistant.	330.00	Tom Dwyer, Program Coordinator

Project Team

Jeff Schnabel, Interim Clean Water Division Manage	Clark County Clean Wate	Clark County Clean Water staff and program oversight. Project guidance and coordination. 0 billed hours, but will be working on the project.	22 years in Clark County Clean Water as a scientist and Program Manager.	0.00	Rod Swanson, Program Manager
Marlena Milosevich, Natural Resource Spec. III	Clark County Clean Wate	Marlee will be the monitoring project manager for Clark County Clean Water, planning and overseeing all water quality monitoring tasks. Marlee and her monitoring team will devote approximately 350 total hours to the project.	Marlee has over 8 years of experience working in the field of environmental science and currently serves as a Natural Resource Specialist III in the Assessment and Monitoring section of Clean Water. Marlee holds a BS degree in Environmental Science: Fresh Water Ecology from Western Washington University.	350.00	Chad Hoxeng, Natural Resource Specialist III
Chuck Harman, Program Manager	Clark County Public Healt	Clark County Public Health staff and program oversight. Project guidance, compliance implementation and training support.	Over 24 years in environmental and public health protection at state and local level. Seven of those years as a Manager.	61.00	Sean Hawes, EHS II
Sean Hawes, Environmental Health Specialist II	Clark County Public Healt	Water quality and drinking water protection work. OSS Technical assistance and compliance implementation.	Over 16 years in public health and environmental protection at state and local level.	63.00	Allison Johnson, EHS II
Barb Zozosky, Environmental Health Assistant	Clark County Public Healt	Program data management and tracking; communications and	Over 15 years in local governmental communications, database	484.00	Other CCPH EHA staff support.

Project Team

		training support; compliance implementation assistance.	management and public health assistance.	
Eric Lambert, Outreach Specialist	Clark County Clean Water	Providing Canines for Clean Water materials and promoting the program in the focus area. Supporting PIC outreach efforts through Clark County's social media platforms and at tabling events. 0 billed hours but will be working on the project.	Eric Lambert, Clark County's Clean Water outreach specialist, runs the Canines for Clean Water program and manages the contract that funds WSU Extension's Small Acreage Program. Eric brings 10 years of outreach experience working for WSU Extension and Clark County.	0.00	Andrea Logue, Clark County Public Works - Clean Water Program Coordinator

Describe similar projects that your project team or organization has completed. Note any deviations from the original proposal in scope, budget, or schedule and briefly describe project success and lessons learned. If the project was funded by Ecology, include the Ecology grant or loan number.

We have amassed a team of partners with wide skill sets and expertise who have all completed elements of a PIC program. By coordinating our efforts, we anticipate a highly successful project. Clark CD has been grant funded since its creation and has an outstanding record with granting agencies and the State Auditor. The partners in this grant have worked on past projects together.

All involved have run projects involving education and outreach. The ability to adaptively manage the program is crucial to success. Covid-19 affected a series of Clark CD's watershed health workshops. Staff quickly transitioned to webinars, including live amphibians on-camera and have seen increased participation by moving to an online format. One workshop had 87 people sign up to watch it live, with an additional 27 watching the online recording (not counting the additional 152 YouTube views).

In 2018, CCCW conducted a Microbial Identification and Source Tracking (MST) Project in Whipple Creek to identify the different types of fecal bacterial DNA present. Optical brightener (OB), Fecal Coliform, and E. Coli testing were also used as a starting point to trace bacterial sources. The presence of Human fecal DNA, Dog DNA, and OB were found at every site sampled (see attached Whipple Creek MST Report).

In fall 2020, CCPH initiated focused compliance letters to non-compliant OSS owners where high human fecal coliform levels were detected near Whipple Creek. This targeted compliance approach gave owners limited time to complete required inspections in order to determine OSS condition. Owners who do not complete inspections will be issued Notice and Orders.

Since 2018: Clark CD designed and funded a manure storage facility in Jenny Creek - holds over 10,000 cubic feet of manure and reduced

bacteria load in the creek by preventing thousands of pounds of cow manure from reaching the stream. We removed a fish barrier and replaced it with a bridge in the project area - opened up 1.8 miles of fish habitat. We worked with SalmonSafe to install 10 BMPs to certify farms as “salmon safe” including hedgerow plantings, riparian plantings, a manure composting facility, and more. These projects are all in use and functional and have increased shade cover, reduced bacteria loads, and increased fish habitat. From all of these projects, Clark CD learned that it's important to start as soon as possible, schedule in extra time to complete planned tasks, and budget for potential cost overruns.

Project Start Date 7/1/2021

The date the actual work will start, or if interim refinance, the date the work started.

List and describe the criteria you used to determine the value and feasibility of the project.

Examples: useful life, installation cost, site suitability, and environmental justice.

ECY and CCCW have identified EFLR as having severe bacteria impairments. Through partner's past work in the EFLR watershed, the value and feasibility of this project was determined using the following criteria: stakeholder and project support, project cost, data (being data driven), and PIC successes. Clark CD and the partners involved in Poop Smart Clark believe that now is the best time to implement a PIC program in the project area.

Collaboration with stakeholders and partners throughout the watershed has identified a region-wide approach to address non-point source bacteria on private properties as critical to improving the water quality of EFLR watershed. Public support of a regional project has been identified through town hall events, regional stakeholder meetings, and outreach to community members during site visits and discussions with local septic contractors. A town hall meeting in 2019 held by ECY and partners showed members of the community are interested in reducing bacteria in the watershed and making it a safe river to recreate. Recognizing the value and need of regional collaboration, a partnership developed in early 2019 between local agencies in order to collaborate, share resources, and develop Poop Smart Clark. Over this time partners have proven they can work well together by developing a Draft PIC Plan, holding regular update meetings, and collaborating on data collection and future monitoring efforts.

Working collaboratively helps agencies spread out resources and get more work done in the region with less effort. Maintaining lower project costs across all agencies is achievable giving the available financial resources. The regional collaboration as part of putting together this grant has already proven to be beneficial financially. Instead of partners operating independently and potentially replicating data collection, partners have shared data in meetings and started to collaborate on watersheds to focus work on next collectively. Past programs developed and run by the partners proves we can stay within budget and Poop Smart Clark is achievable given available financial resources. One example is the Don't Drip and Drive program which offers rebates for fixing car leaks. That program is a model for the proposed septic rebate program. Our partner's long history and success with that program was used to evaluate the feasibility of a similar program for septic systems.

Site selections and tasks set forth in this grant were driven by data and will continue to be refined and changed as new data is gathered. Data collected from the 2017 EFLR watershed monitoring by Ecology identified significant levels of fecal coliform in the tributaries of Rock Creek North, Mason, McCormick, Riley, Brezee, Lockwood, and Jenny Creek. Further bacterial and MST monitoring done by CCCW allowed partners to refine target areas and focus tasks.

Through land use analysis, we were able to see distribution and quantity of agricultural and septic properties in the target watersheds. This allowed partners to identify what numbers and areas are feasible for this first phase of the project. Poop Smart Clark goes beyond traditional bacterial testing by adding Microbial Source Tracking. This is valuable to the program because we can better target the types of land use practices for outreach and BMP implementation. Through 2020 MST results, we found out that dogs are a significant source of bacteria in the watershed. They were then added to the outreach strategy and swag items focusing on dogs were added. Creating a program that is adaptable

to the results and driven by data, shows the value of this work and that it will be able to be accomplished.

PIC programs use a proven method of water quality testing, education and outreach, and financial incentives to make measurable change in water quality parameters. Though typically done in shellfish beds, the concept is just as applicable to bacteria pollution in the EFLR watershed. While various approaches have been tried throughout Washington to address chronic pathogen pollution problems , the most effective remedies have been the development and implementation of PIC programs (Watson, 2019). Partners of Poop Smart have written a Draft PIC Plan to utilize in the targeted areas with plans to flesh out the specific protocols and incorporate it into other areas of Clark County in the future (see attached PIC Plan).

In an effort to create measurable change, we have focused on the four highest priority subwatersheds based on the latest data from ECY and Clark County Clean Water (Brezee, Jenny, and McCormick Creeks, and Rock Creek North - see attached ECY presentation with data from both sources). The geographic scope is narrow enough to affect meaningful change. However, as the included data shows, there is significant opportunity for septic, agricultural, and canine behavior change and best management practice implementation. Partners discussed scope and scale extensively. Based on feedback from ECY and our own experience, we decided to work in the 4-subwatersheds within the larger project area that encompasses them. By having the project area of the LMEFLR, while focusing all of our efforts on the 4-subwatershed area, we allow for the future possibility of expanding the program into the remaining subwatersheds (Mill Creek, Mason Creek, Dean Creek, and remaining LMEFLR river miles).

This proposal is valuable based upon its contents, but also because the PIC Plan and marketing campaign is transferable to any watershed in Clark County. The partners involved could easily expand the program to other watersheds with planned or existing TMDLs or to the entire County with adequate funding. And with the partnership award from NRCS through their Regional Conservation Partnership Program, we can do just that. That partnership award opens up receiving match funding directly from the State budget which will only multiply the investment by the Department of Ecology in this proposal.

Partners chose to have Clark CD be the lead on the project because of their history of non-regulatory voluntary work on conservation issues throughout the county. Voluntary, incentive-based conservation is the speciality of Conservation Districts. Using voluntary conservation engages landowners as partners in stewardship sparking participation, not conflict. Many landowners become spokespeople for conservation following good, voluntary experiences. Landowners work with technicians to design conservation projects, resulting in solutions that are based on scientific data and landowners' detailed knowledge of the local landscape. The voluntary stewardship and incentive-based programs run by Clark CD are successful, cost-effective, and achieve the desired results.

Briefly describe all project alternatives (including the preferred alternative) considered, and explain how each alternative met or failed to meet the criteria listed above.

Use one line for each alternative and click "save" to enter additional alternatives.

Description of Alternative	Criteria
Alternative 1: Do nothing.	This alternative does not meet the goals of any of the partners

	and will ultimately be more expensive due to long term water quality impacts.
Alternative 1: Have Clark County Public Health focus on an enforcement-based campaign to minimize bacteria.	Using enforcement first backfires. The public doesn't like it, it's more expensive, and doesn't have the long term stewardship benefits that voluntary and education-based conservation has.
Alternative 1: Complete a PIC without MST testing.	This is doable and would be effective, but not as effective as including MST work. By pinpointing the source of the pollutant we are able to target the outreach and implementation more effectively.
Alternative 1: Poop Smart Clark PIC Program	This alternative is the most fiscally responsible and will provide the most water quality benefits long term.

List project stakeholders and provide documentation showing key stakeholders have been identified and will support the project.

In the process to develop a Water Cleanup Plan for the watershed, Water Quality Implementation Specialist - TMDL Lead Devan Rostorfer headed the East Fork Lewis River Partnership with other ECY staff. This partnership was formed to work collaboratively with local, state, federal, and tribal governments, non-profits, watershed groups, and private landowners to develop and implement a Water Cleanup Plan. Since the Partnership was launched, over 50 different partners from 30 different organizations have engaged in East Fork Lewis River Partnership activities. The Poop Smart Clark PIC Plan developed directly as a result of the EFLR Partnership.

The Poop Smart Clark PIC Program has included many of the area stakeholders as active partners in this grant. Clark County Clean Water and Clark County Public Health are the two County-level departments most concerned with bacteria in surface water. The Watershed Alliance of SW Washington does education, outreach, and implementation with private landowners within Clark County. These organizations are included in the grant and have submitted letters of support.

Clark CD has also received letters of support from the following stakeholders in the area: the Natural Resources Conservation Service, City of La Center, City of Battle Ground, Washington State University Clark County Extension, the Lower Columbia Fish Recovery Board, Friends of the East Fork Lewis River, and L and S Contractors - a local septic system service. In addition to local stakeholders, the project has received letters of support from the Washington State Department of Health, Washington State Conservation Commission, the Natural Resources Conservation Service, Craft 3 Septic Loan Program, and Skagit County Public Works - the creators of the Poop Smart campaign.

Describe the steps you have taken to be ready to start the project by May 1, 2021. Provide detailed information and documentation on project elements such as status of designs, permits, interlocal agreements, landowner agreements, easements, other secured funding, staff, or agency approvals.

Clark CD and all of the involved partners have worked tirelessly on this project and partnership since we began in spring 2019. Through our hard work, we secured $1.4 million in funding from the United States Department of Agriculture's Natural Resources Conservation Service Regional

Conservation and Partnership Program (RCPP) in May 2020. Poop Smart Clark was the only project selected from Washington State to receive a new funding award. While $1.4 million is a great achievement, this funding can only be used for implementation of livestock BMPs and the staff time to directly plan those BMPs. A project such as Poop Smart Clark PIC requires an outlay of outreach funds in order to realize the number of landowners and BMPs the project area needs and the RCPP funding allows.

The partners have participated in regular PIC meetings since spring of 2019 to prepare for this project. MOUs will need to be written between Clark CD and the partner agencies. Clark CD has had past MOUs with all partner agencies, so updating existing MOUs will not take long and will be complete by July 2021. In spring/summer 2020, CCCW completed a round of MST water testing that has informed the initial outreach of this project (though further data revision is included in the project scope). Clark CD completed significant land use analysis of the project area to prepare for targeted outreach and additional water testing.

Clark CD identified parcels with agriculture and parcels with out of compliant septic systems to further identify areas to target outreach and water quality sampling efforts. Clark CD created a new agricultural layer combining agricultural and land use data from GIS layers from USDA and Clark County in the summer and fall of 2020. High resolution aerial photography was used to further identify visible agricultural features on parcels not already identified as agricultural through the other methods. These features included livestock trails, denuded vegetation in arc patterns surrounding buildings, and visible livestock. Septic land-use analysis was conducted in summer and fall of 2020 to identify parcels with septic systems in the 4-subwatershed target areas. When the MST data is finalized, we will overlay the MST results to identify spots of both out of compliance septic systems within 200 feet of a stream and high human bacteria loads.

Clark County Clean Water is prepared to initiate work on monitoring-related tasks immediately. A draft monitoring plan is complete and attached, and a QAPP for Ecology review will be completed in July 2021. CCCW anticipates this will allow ample time for Ecology review and QAPP finalization prior to initiating project monitoring in November 2021. Laboratory contracts with ALS and Source Molecular have been updated and are already in effect. Staff resources will be incorporated into formal county work plans for 2021 and will be available beginning in July 2021 to work on grant-reimbursable tasks.

Clark CD has already obtained the files needed to implement the Poop Smart Clark website. It will take little time to localize the website and printed materials, as well as translate the materials. Watershed Alliance has a data tracking program (Salesforce) set up to track door-to-door outreach.

CCPH has an active OSS Operation and Maintenance (O&M) Program that monitors OSS inspection results and initiates property owner contacts soon after deficient or failed OSS are identified. CCPH has the tools to continually monitor inspection non-compliance and use geographic analysis to focus on specific OSS as inspections are completed, so that efforts can concentrate towards non-compliant OSS owners. CCPH's O&M Program has the highest overall county-wide OSS inspection compliance rate in Washington.

Watershed Alliance will also use Salesforce to track reimbursements. They have an existing reimbursement program that would be mirrored for this program. Clark CD and partners will immediately refer landowners in need of septic repair or replacement to the existing loan programs Craft3 and USDA Rural Development Section 504. In the meantime, Clark CD and CCPH will work on a financial assistance form to determine financial need for septic repair/replacement funds. Clark CD, Watershed Alliance, and CCPH will also begin gathering landowners who qualify for the additional septic repair/replacement funding Clark CD has set aside for this grant.

Clark CD staff is ready and prepared to jump right in to providing livestock technical assistance and writing BMP plans for landowners . We will have a new Livestock Conservation Planner on staff in a few months and we will begin outreach to the focus area right away to line up interested livestock owners. Clark CD also has a list of 15 landowners in the project area who have utilized the farm equipment rental program run through Clark CD. Staff will contact these landowners to determine if they would benefit from technical assistance .

(1) For stormwater facility and wastewater facility projects: Do you own or have clear control over the entire project area?

Yes No ✔ Not Applicable

Please explain why you selected not applicable: Not a stormwater or wastewater facility project.

(2) For stormwater facility and wastewater facility projects requiring road cuts: When was the last time the road was resurfaced or reconstructed? This is for informational purposes; no points are associated with this question.

Date:

(3) Has initial cultural resources review been conducted for the area of potential effect (APE) (for example, review of the APE in the WISARRD database)? This is for informational purposes; no points are associated with this question.

Yes ✔ No Not Applicable

Upload a project schedule that includes all tasks necessary to complete the project, including tasks that are not part of the funding request.

Upload any other supporting documentation.

Upload Documents

https://ecyeagl/IntelliGrants_BASE/_Upload/154179_925655-PoopSmartClarkPICProjectSchedule.pdf	Project Schedule

To go to the Water Quality Atlas, follow this link: https://fortress.wa.gov/ecy/waterqualityatlas/StartPage.aspx.

Name the specific water body(ies) this project will improve or protect and the parameters it will address.

The specific water bodies this project will improve are those within the subwatersheds of Brezee, Jenny, and McCormick Creeks, and Rock Creek North. These tributaries to the EFLR are within the project area of the lower (HUC 12 Lockwood Creek - 170800020507) and middle (HUC 12 Rock Creek - 170800020506) watersheds of the EFLR in WRIA 27.

In both ECY's 2018 EFLR Watershed Bacteria and Temperature Source Assessment and CCCW's 2019 Assessment of Wadable Streams project, these tributaries were found to exceed state standards or show elevated fecal coliform bacteria geometric means. The primary parameter addressed is bacteria load. This project was developed to begin implementation of the removal of bacteria sources.

Is the project planning, implementation, or a combination?

Planning
Implementation
✔ Planning/Implementation

What type of plan or regulatory requirement does this project address?

✔ TMDL/TMDL Alternative (approved or in development)/Straight to Implementation
Wastewater Engineering Report/Sewer Plan
Permit
✔ Salmon Recovery Plan
✔ Watershed Plan
Shoreline Master Plan
Administrative Order or Other Legal Action
Capital Improvement Plan
Puget Sound Action Plan
Mitigation
Other
Not Applicable

If your project is addressing a TMDL, select at least one from the dropdown list.
To select multiple TMDLs, hold down the control key as you select

TMDL Name

East Fork Lewis River TMDL Alternative (In Development)

Enter the implementation action and plan reference in the Action Table. If this is a planning-only project, you may enter, "Not applicable, planning-only".

To add multiple implementation actions:
Enter the implementation action and plan reference.
When done, click the **SAVE** button.
After SAVE a new row will appear.
Repeat these steps for each implementation action.

Action Table

Action	Reference the document that describe the action, including page numbers and where a copy can be obtained.
OSS1.2 Develop and implement a rebate, discount, or coupon program for septic system inspection, tank pumping, and maintenance.	Draft East Fork Lewis River Water Cleanup Plan - Bacteria and Temperature Alternative Restoration Plan, August 2020, pg 36
OSS1.3 Develop and implement a pollution identification and correction program that supports long-term identification and correction of septic systems contributing to bacteria pollution in surface...	Draft East Fork Lewis River Water Cleanup Plan - Bacteria and Temperature Alternative Restoration Plan, August 2020, pg 36
OSS1.4 Complete a septic system records assessment to identify and map septic systems that are past due for inspection. Create an inventory of parcels that are serviced by septic systems in...	Draft East Fork Lewis River Water Cleanup Plan - Bacteria and Temperature Alternative Restoration Plan, August 2020, pg 36

OSS1.5 Implement a past due operation and maintenance lettering effort, with the goal to increase voluntary inspection rates.	Draft East Fork Lewis River Water Cleanup Plan - Bacteria and Temperature Alternative Restoration Plan, August 2020, pg 36
OSS2.1 Develop a rebate, discount, coupon, reimbursement, or cost-share based program for septic system repair and replacement.	Draft East Fork Lewis River Water Cleanup Plan - Bacteria and Temperature Alternative Restoration Plan, August 2020, pg 36
OSS4.1 Promote more septic system inspections, maintenance, and repair by encouraging participation in Washington State University Extension and CCPH Well and Septic workshops. Increase promotion...	Draft East Fork Lewis River Water Cleanup Plan - Bacteria and Temperature Alternative Restoration Plan, August 2020, pg 37
OSS4.4 Utilize Poop Smart Clark to educate on septic systems.	Draft East Fork Lewis River Water Cleanup Plan - Bacteria and Temperature Alternative Restoration Plan, August 2020, pg 37
OSS5.4 Track septic system implementation and complete effectiveness monitoring post implementation.	Draft East Fork Lewis River Water Cleanup Plan - Bacteria and Temperature Alternative Restoration Plan, August 2020, pg 37
AG1.1 Proactively investigate and identify properties with nonpoint source water quality concerns in the lower and middle East Fork Lewis River watershed, where known bacteria issues exist.	Draft East Fork Lewis River Water Cleanup Plan - Bacteria and Temperature Alternative Restoration Plan, August 2020, pg 52
AG1.3 Complete watershed evaluation, ground truthing surveys and desktop analysis to	Draft East Fork Lewis River Water Cleanup Plan - Bacteria and Temperature Alternative Restoration Plan, August 2020, pg 52

develop a list of properties with nonpoint source water quality issues that would benefit from a site visit...	
AG2.1 Complete site visits at all properties in the East Fork Lewis River watershed with nonpoint source water quality concerns to assess and document water quality issues, provide technical...	Draft East Fork Lewis River Water Cleanup Plan - Bacteria and Temperature Alternative Restoration Plan, August 2020, pg 52
AG3.1 Provide technical assistance for the planning, design, and implementation of eligible water quality BMPs and stream restoration activities to all property owners with nonpoint source water...	Draft East Fork Lewis River Water Cleanup Plan - Bacteria and Temperature Alternative Restoration Plan, August 2020, pg 52
AG3.2 Identify water quality improvement projects that are eligible for Ecology (Centennial & 319 Funding), NRCS, Clark CD, or other funding.	Draft East Fork Lewis River Water Cleanup Plan - Bacteria and Temperature Alternative Restoration Plan, August 2020, pg 52
AG4.1 Complete site-specific BMP plans targeted to water quality BMP implementation on all properties in the East Fork Lewis River with nonpoint source pollution concerns. Prioritize agricultural...	Draft East Fork Lewis River Water Cleanup Plan - Bacteria and Temperature Alternative Restoration Plan, August 2020, pg 53
AG4.2 Identify opportunities for off-stream watering, livestock feeding, waste management BMPs, livestock exclusion	Draft East Fork Lewis River Water Cleanup Plan - Bacteria and Temperature Alternative Restoration Plan, August 2020, pg 53

fencing, heavy use area protection, pasture management, and riparian restoration...	
AG5.1 Implement appropriate livestock BMPs on properties in the East Fork Lewis River with NPS water quality concerns. These include off-stream watering, livestock feeding, waste management BMPs...	Draft East Fork Lewis River Water Cleanup Plan - Bacteria and Temperature Alternative Restoration Plan, August 2020, pg 53
AG6.1 Implement agricultural education and outreach efforts in the East Fork Lewis River. Focus on subwatersheds with known bacteria issues.	Draft East Fork Lewis River Water Cleanup Plan - Bacteria and Temperature Alternative Restoration Plan, August 2020, pg 53
AG6.2 Connect NPS agricultural education to soil health, mud management, pasture health, erosion, flooding, protecting private property, restoring salmon habitat, and enhancing recreational...	Draft East Fork Lewis River Water Cleanup Plan - Bacteria and Temperature Alternative Restoration Plan, August 2020, pg 53
AG6.6 Update printed agricultural education materials. When appropriate, translate materials for other languages and make them accessible.	Draft East Fork Lewis River Water Cleanup Plan - Bacteria and Temperature Alternative Restoration Plan, August 2020, pg 53
AG7.1 To support PIC program administration, establish a PIC Program Interposal Agreement or Memorandum of Understanding, PIC Program Coordinator, Advisory Group, Charter, or	Draft East Fork Lewis River Water Cleanup Plan - Bacteria and Temperature Alternative Restoration Plan, August 2020, pg 54

Governance Structure.	
AG7.2 Establish a PIC Program Flowchart and Chain-of-Command, which describes an enforcement process and regulatory backstop.	Draft East Fork Lewis River Water Cleanup Plan - Bacteria and Temperature Alternative Restoration Plan, August 2020, pg 54
AG7.3 Complete land use analysis and mapping. Establish geographic prioritization and project scope. Complete watershed evaluation and ground truthing surveys to support prioritization.	Draft East Fork Lewis River Water Cleanup Plan - Bacteria and Temperature Alternative Restoration Plan, August 2020, pg 54
AG7.4 Develop protocols for site visits and property inspections and outline how technical and financial assistance will be provided. Establish clear criteria for how properties will be prioritized...	Draft East Fork Lewis River Water Cleanup Plan - Bacteria and Temperature Alternative Restoration Plan, August 2020, pg 54
AG7.5 Develop a QAPP which incorporates new E. coli standard. Select initial monitoring locations, and determine thresholds for confirming bacteria hotspots and a threshold for resampling...	Draft East Fork Lewis River Water Cleanup Plan - Bacteria and Temperature Alternative Restoration Plan, August 2020, pg 54
AG7.6 Develop protocols for site visits, nonpoint source surveys, illicit discharge detection and elimination, and property investigations.	Draft East Fork Lewis River Water Cleanup Plan - Bacteria and Temperature Alternative Restoration Plan, August 2020, pg 54
AG7.7 Conduct outreach to ag	Draft East Fork Lewis River Water Cleanup Plan - Bacteria and Temperature Alternative Restoration

landowners that have the potential to impact water quality. Provide TA to agricultural landowners to site, design and construct BMPs necessary for water quality...	Plan, August 2020, pg 54
AG7.8 Develop a communication, education, and outreach strategy to support agricultural PIC efforts.	Draft East Fork Lewis River Water Cleanup Plan - Bacteria and Temperature Alternative Restoration Plan, August 2020, pg 54
AG7.9 Develop an evaluation process to measure success. Develop implementation targets and criteria to measure progress, as well as a long-term effectiveness monitoring plan.	Draft East Fork Lewis River Water Cleanup Plan - Bacteria and Temperature Alternative Restoration Plan, August 2020, pg 54
AG8.2 Through the NRCS Local Working Group and RCPP, prioritize the EFLR for additional planning and implementation support. Work with the WA State Conservation Commission to prioritize resources...	Draft East Fork Lewis River Water Cleanup Plan - Bacteria and Temperature Alternative Restoration Plan, August 2020, pg 55
AG8.4 Calculate expected load reductions from implementation of livestock BMPs.	Draft East Fork Lewis River Water Cleanup Plan - Bacteria and Temperature Alternative Restoration Plan, August 2020, pg 55
AG8.5 Track implementation and complete effectiveness monitoring to assess water quality improvement post-implementation.	Draft East Fork Lewis River Water Cleanup Plan - Bacteria and Temperature Alternative Restoration Plan, August 2020, pg 55
AG8.6 Implement stormwater source control best management practices to reduce nonpoint source agricultural runoff.	Draft East Fork Lewis River Water Cleanup Plan - Bacteria and Temperature Alternative Restoration Plan, August 2020, pg 55

Pollution Source Identification	East Fork Lewis River Watershed Bacteria and Temperature, Source Assessment Report, May 2018, Publication No. 18-03-2019, pg 89
Canine education, outreach and technical assistance for landowners	Clark County Stream Health Report- Clark County Department of Environmental Services, 2010, page 34 Clark County Stormwater Management Plan, Clark County Public Works, March 2019, page 90
Provide education, outreach and technical and financial assistance to stream adjacent landowners on septic inspections, replacement, and bacteria impact. Help bring people into compliance.	2007 SNAP, Lockwood Creek, CC Public Works, June 2008, pg 37. 2008 SNAP, Brezee Creek/Jenny Creek, CC Public Works, April 2009, pg 17, 39. Washington's Water Quality Management Plan to Control Nonpoint Sources of Pollution, Ecology, June 2005 Pub No. 05-10-027, pg 20, 36.
Provide technical assistance, cost-share assistance, and project monitoring; assists agricultural landowners in the development of farm plans	Lower Columbia Subbasin Plan, WRIAS 27-28 Watershed Management Plan, Volume II - Subbasin Plan, Chapter G-NF and EF Lewis, Lower Columbia FRB, 2004, pg A-203 Statewide Strategy to Recover Salmon, Ag Strategy to Improve Fish Habitat, 1999, pg 3. Lower Columbia FRB EFLR Subbasin Plan, 2010 Pg 68
Districts are on-the-ground implementers of many nonpoint pollution control activities.	Draft EFLR Water Cleanup Plan - Bacteria and Temperature Alternative Restoration Plan, August 2020 Washington's Water Quality Management Plan to Control Nonpoint Sources of Pollution, Department of Ecology, 2005, page 38, 46
Districts provide technical assistance to agricultural producers.	Lower Columbia Fish Recovery Board Plans EFLR Subbasin Plan, 2010 Pg 68

Did you discuss this project with Ecology staff? If yes, provide the name of the staff and the last date of contact.

This project has been discussed extensively with Ecology staff, primarily with Devan Rostorfer, last date October 12, 2020. The project has also been discussed with Jennifer Riedmayer, Shawn Ultican, and Leanne Whitesell throughout 2020, in September 2020 most recently. Ecology staff has been extremely supportive of this project and facilitated some of the partnership this grant illustrates.

Describe how the project drainage area connects to the water body.

Examples: surface flow, ditch, pipe, groundwater, infiltration, and path/distance to outfall/discharge.

The project drainage area connects to the water body of the East Fork Lewis River primarily via direct surface runoff, public and private roadway ditches, and shallow groundwater flows, though pipes could also be a contributor to bacteria pollution. The surface flow from parcels surrounding the waters of Brezee, Jenny, and McCormick Creeks, and Rock Creek North all drain into those creeks or tributaries of those creeks, which then

flow into the East Fork Lewis River.

Bacteria pollution reaches the water bodies through a number of mechanisms, including direct deposition by animals with stream access, overland flow from streamside land uses, stormwater runoff transported via roadside ditch networks, and discharge of contaminated shallow groundwater that has been exposed to septage. These pathways may range from direct pollutant input to more than a mile of transport within stormwater ditches.

Ecology's Source Assessment Report demonstrates that there are increased bacteria loads in both wet and dry seasons on creeks through the project area indicating that bacteria is present due to both runoff (wet season) and discharge (dry season). Within the 4-subwatershed area, locations with high dry season loads were found in McCormick, Brezee, and Jenny Creeks, and Rock Creek North. Locations with high wet season loads were found in McCormick and Brezee Creeks and Rock Creek North. The Poop Smart Clark PIC project includes monitoring protocols and implementation mechanisms that can identify and address sources impacting water quality through each of the above pathways. Repair or replacement of failed septic systems focuses on reducing shallow groundwater contamination, and in some cases may remove near-stream overland inputs. Livestock BMPs often address direct inputs (exclusion fencing) or overland flow (riparian buffers). Poorly managed runoff from properties can also travel long distances through ditch networks, and this mechanism can be addressed through BMP plans or technical assistance to landowners for improved property management.

Describe the measure and method that will be used to determine the water quality benefit and overall success of the project.

If you need help determining a water quality metric, please refer to the Funding Guidelines for suggested metrics by project type.

The water quality benefits and overall success of the project can be measured by the rate of source removal, meeting outreach targets, percent decrease in non-compliant septic systems, and other basic measures of implementation. Regularly monitoring and capturing water quality data is at the heart of this project. It is driven by data with the flexibility to target our measured outcomes based on water quality, septic compliance and land use data. Project tracking and grant reporting will address many of these metrics and will provide a basic indicator of programmatic success.

The project partners recognize that quantifying reach-scale water quality improvements due to removal of individual non-point sources is often difficult due to large numbers of non-point impacts. While dramatic load reductions are unlikely to occur in the three-year timespan of this grant, we are committed to seeing the project through to the load reduction goals set by ECY in the Draft Water Cleanup Plan.

Water quality monitoring data identifying bacterial loads and locations are captured in past monitoring by ECY and CCCW, and CCCW DNA typing data from spring and summer 2020 can be used as a baseline for MST progress in the 4-subwatershed area.

The water quality benefit and success of OSS-related work (inspection, pumping, repair, and replacement) will rely on the number of reimbursements and their outcomes, both for the fee reimbursement program and the repair/replacement cost share program. Locations of all fee reimbursements and repaired/replaced OSS and the number of gallons of wastewater properly treated by their repair/replacement will also serve to determine the water quality benefit and success. Additionally, the number and overall percentage of OSS systems brought into compliance will measure success.

The water quality benefit and success of livestock technical assistance and BMP planning will be measured by the acres of land covered by

technical assistance and BMP plans, the number of landowners served, and the estimated calculated metrics for the planned BMPs. For example, using pollutant load estimation tools such as STEPL, BMP plans and reporting will include the estimated load reductions of planned BMPs if implemented. In addition, the number of BMP plans, letters of technical assistance, number of site visits, and the sources of contacts (how did they hear about our services) will be collected. And finally, often with technical assistance, landowners change their management behaviors without financial assistance. We will follow up with landowners to estimate any behavior changes that impact water quality.
The water quality benefit and success of the education and outreach portion of the project will be measured via pre- and post-project surveys, distribution of material, number of social media impressions, number of website views, and number of open house and question/answer session attendees.

Using the method described above, estimate the water quality and public health benefits that will be achieved by the project.
The water quality and public health benefits achieved by the project will reduce fecal bacteria load on the 4-subwatershed area, and therefore on the East Fork Lewis River itself. Each successful source removal directly benefits water quality and reduces public health risk in the East Fork Lewis River - a very popular fishing and swimming destination.
Increased compliance with OSS inspections will be achieved within the project drainage area, which will result in higher levels of sewage treatment. In addition, there will be an increase in the rate of service, repair and replacement actions performed on OSS with deficiencies. These improvements will reduce the negative water quality impacts contributed by deficient or failed OSS in this portion of the watershed.
Technical assistance is the first step to installation of on-the-ground projects. This project will improve water quality by educating landowners about the natural resource and financial importance of livestock BMPs including manure and pasture management, installing riparian buffers and livestock exclusion fencing. Clark CD will use those landowner connections and BMP Plans to implement BMPs, leading to load reductions. This grant will fund the technical assistance needed to kickstart the installation of many water quality related livestock BMPs - paid for by secured funding through NRCS and the Washington State Conservation Commission.
The water quality and public health benefit from the outreach effort will be a targeted group of property owners and residents that are more knowledgeable about water quality issues in the 4-subwatershed area. We anticipate many of these owners will want to work with Clark CD or the partners in some capacity to tackle the bacteria issues within the East Fork Lewis River watershed.
Assuming the removal of a significant number of existing sources through this project and associated matched funds, Clark CD and the partners ultimately expect to see obvious and quantitative progress toward meeting the water quality goals in the Water Cleanup Plan when the next effectiveness monitoring assessment is completed.

How long will the project provide benefits after the funding assistance ends? Who will be responsible for maintaining the benefits during its useful life?
Clark CD and all of the partners view this as a long term project with multiple phases. Funding received through this grant will help implement the first phase. The partners have committed to building Poop Smart Clark into a larger scale program including continued MST water quality work, providing continual education and technical support for livestock and septic owners, and seeking additional funding sources and support. The

partners will continue to offer this program in the project area until the bacteria levels reach the targets set by Ecology. In addition to seeing the project through to Ecology established bacteria levels in the LMEFLR, partners have committed to rolling this PIC program out to additional watersheds in subsequent years. Lacamas and Burnt Bridge watersheds are the next highest priority areas in Clark County.
Clark CD is committed to maintaining the Poop Smart Clark website and associated resources into the future for long-term results. In addition, Clark CD will offer additional needed resources in subsequent years including offering livestock workshops on mud and manure management, pasture management, and composting, and working to expand Washington State University Clark County Extension's well and septic workshops.
As Clark County residents get nearly 100% of their drinking water from groundwater, CCPH is committed to achieving a higher level of OSS inspection compliance by 2023, and continuing those efforts beyond the grant term. CCPH will use the results and tools developed through this grant to maintain a focus on areas where threats to surface and ground waters are highest. First, CCPH will use surface water data, community water system well zones of contribution; and high density concentrations of individual wells to focus more direct notification/outreach to non-compliant OSS owners. Second, CCPH will coordinate with Clark CD and the Watershed Alliance to increase direct contact with highest threat OSS owners that are not compliant with inspections to communicate impacts of OSS impacts on water quality and guide them to available financial tools. Finally, CCPH will apply higher levels of enforcement, when required, to accomplish OSS inspections in areas where threats to surface or ground waters are highest.
The livestock technical assistance portion of the PIC will have benefits and results that last into the future. Technical assistance is the first step to implementation of on-farm BMPs. Clark CD will use contacts with landowners and BMP plans developed under this grant to implement BMPs using secured federal funds through NRCS RCPP and the Washington State Conservation Commission. Though these funds are not listed in the budget as the project exceeded the 25% match requirement, Clark CD has secured over $1,000,000 in funds over the next 5 years for livestock BMPs in Clark County, the majority of which are designated to the project area.
All BMP installation projects funded through Clark CD have an operation and maintenance agreement based on the NRCS or engineer-determined life of the practice, generally 10-25 years. Landowners and land lessors (if applicable) sign a contract agreeing to be responsible for the operation and maintenance of the implemented BMP for the life of the practice. In this grant, landowners will be responsible for the general maintenance and upkeep of their septic systems. Clark CD follows NRCS standards for livestock BMPs and BMP Plans will be written to NRCS specifications. Clark CD follows up on projects through required annual reports from the landowner as well as periodic site visits to ensure the success of any practice Clark CD has funded.
CCCW is committed to participating in bacteria monitoring in the project watersheds after the grant term, including TMDL effectiveness studies and continuation of ongoing county wadeable streams monitoring.

How will greenhouse gas emissions be reduced or mitigated under this project? And what policies or measures has your organization put in place to reduce greenhouse gas emissions apart from this project?

Under this project, partners will carpool to reduce vehicle emissions (assuming that is allowable under COVID restrictions). In person meetings requiring travel will be kept to a minimum. Instead, participants will utilize webinars and email. When face-to-face site visits are called for, Clark CD's office is located just over one mile from the edge of the project watershed. This location minimizes vehicle travel, reducing potential

greenhouse gas emissions.

Clark CD uses power management features on all of their electronic equipment to power down or sleep when not in use. They also use a heating and cooling system that allows for scheduling to minimize energy use when the office is not occupied. Additionally, all office lights are turned off at the end of every day. Staff at Clark CD make efforts to minimize single use plastic and food waste, and recycle or reuse whenever possible.

Manure management is a large part of the technical assistance Clark CD provides to livestock landowners. Covering a manure pile with a tarp or straw can reduce greenhouse gas emissions by up to 70 percent (Chadwick, 2005). Active composting (mixing and aerating) vs. static composting (leaving a pile in the open air) can reduce greenhouse emissions by 30-40 percent (Amon et al, 2001; Singh, 2005). Planting riparian vegetation is part of the livestock BMP recommendations given by Clark CD at any site visit with a stream. Riparian planting increases the carbon sequestration in soil by more than 200 percent over baseline, unforested soil (Dybala et al, 2018).

Are you aware of any Category I or Category II wetlands on the site or downstream from the site? This is for informational purposes; no points are associated with this question.

✔ Yes No Not Applicable

If you selected "Yes", how do you propose to mitigate any impacts to the wetland?
All work done under this grant will have the net impact of improving water quality for any surrounding or downstream wetlands.
There are mapped wetlands near the stream channels throughout the project area, some of which are likely Category I or Category II. Projects completed under this grant are not expected to occur within wetlands or buffers; however, in that event all applicable wetland permits and mitigation requirements will be completed.

Upload a map that shows an aerial view of the project area, an estimated direction of flow for the project area, potential locations for the proposed facility or activity, and how the project connects to the water body named above.
The map does not need to be precise, but it should help reviewers with a general understanding of the area. If access to GIS software is not available, screen shots or snips from Google Maps with arrows and text added using a paint program may be used.

Upload Documents
Click the Browse button
Select your file
Click Save, your file will appear in the List of uploaded documents
Repeat for each file
To Delete a file, select the Delete checkbox next to the file and click SAVE

https://ecyeagl/IntelliGrants_BASE/_Upload/153483_925654-ProjectAreaMap.pdf Project Area Map

WATER QUALITY COMBINED FINANCIAL ASSISTANCE

Organization: Clark Conservation District WQC-2022-ClarCD-00025

Environmental and Cultural Resources Documentation

For all Water Quality Combined Funding Program projects, regardless of funding source or project category.

Cultural Review Final Determination
Date of Final Determination:
DAHP Letter of Concurrence
Completed activity/location specific Inadvertent Discovery Plan (IDP). An IDP is not associated with consultation and is required in the event of a discovery during ground disturbance.

If you are applying for or have received a loan from the CWSRF, when applicable upload the following documents.

NEPA Environmental Assessment or Impact Statement
SEPA Checklist
SEPA Threshold Determination
SEPA Environmental Impact Statement
Affidavit of Publication of SEPA Threshold Determination
Public Meeting documents
SERP Coversheet
SERP Checklist (Ecology Project Manager completes this document)
SERP Determination
Memo justifying use of an exemption under NEPA or SEPA
Other supporting environmental documentation as requested by Ecology

If you have a stormwater facility project, and you are applying for or have received state funding via SFAP and no federal funds under CWSRF,
when applicable upload the following documents.

SEPA Checklist
SEPA Threshold Determination
Affidavit of Publication of SEPA Threshold Determination

Upload Documents

Click the browse button
Select your file
Click Save, your file will appear in the list of uploaded documents
Repeat for each file
To Delete a file, select the Delete checkbox next to the file and click SAVE

Description **Attachments**

Uploads

Description	Attachments
Project Area Map	https://ecyeagl/IntelliGrants_BASE/_Upload/154187_884773-ProjectAreaMap.pdf
Septic systems in the focus area	https://ecyeagl/IntelliGrants_BASE/_Upload/154187_884825-SepticMap.pdf
Agriculture in the focus area	https://ecyeagl/IntelliGrants_BASE/_Upload/154187_884823-AgricultureMap.pdf
2020 ECY and CCCW monitoring data	https://ecyeagl/IntelliGrants_BASE/_Upload/154187_884823_2-WaterQualityMSTResults_9_15_20.pdf
CPPE NRCS spreadsheet referenced in Task 7	https://ecyeagl/IntelliGrants_BASE/_Upload/154187_884823_3-CPPENationalSheet.xls
Whipple Creek MST Report	https://ecyeagl/IntelliGrants_BASE/_Upload/154187_884823_4-2019WhippleCreekMSTReportFinal.pdf
Letters Of Support and Match	https://ecyeagl/IntelliGrants_BASE/_Upload/154187_884823_5-AllLettersOfSupport.pdf
CCCW EFLR PIC Grant Sampling Plan	https://ecyeagl/IntelliGrants_BASE/_Upload/154187_884823_6-CCWDEFLRPICGrantSamplingPlan.pdf
PIC Plan	https://ecyeagl/IntelliGrants_BASE/_Upload/154187_884823_7-PoopSmartClarkPICPlan.pdf