DEPARTMENT OF
ECOLOGY
State of Washington

Funding Guidelines
State Fiscal Year 2016

Water Quality Financial Assistance

Centennial Clean Water Program

Clean Water Act Section 319 Program

Stormwater Financial Assistance Program

Washington State Water Pollution Control Revolving Fund Program

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Water Quality Financial Assistance

by

Financial Management Section

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Washington State Department of Ecology
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Chapter 1: Program Overview

The Washington State Department of Ecology's (Ecology) Water Quality Program administers four main funding programs under an integrated annual funding cycle. Ecology awards grants and loans on a competitive basis to eligible public bodies for high priority water quality projects throughout Washington State. Proposed projects may address point and/or nonpoint source water pollution control issues. This document describes how to apply for funding, meet program requirements, and manage funded projects.

The four main funding programs are:

- The Centennial Clean Water Program (Centennial).
- The Clean Water Act Section 319 Nonpoint Source Grant Program (Section 319).
- The Washington State Water Pollution Control Revolving Fund Program (Revolving Fund).
- Stormwater Financial Assistance Program (SFAP).

Eligible public bodies include:

- Counties, cities, and towns.
- Water districts, sewer districts, and other special purpose districts.
- Conservation districts.
- Irrigation Districts.
- Municipal or quasi-municipal corporations.
- Federally recognized tribes.
- Washington State institutions of higher education (if the project is not included in the institution's statutory responsibilities).
- Not-for-profit organizations that are recognized as tax exempt by the Internal Revenue Service (eligible for Section 319 funding only).

Eligible project types include:

- Wastewater facility
  - Planning, environmental review, design, and construction.
  - Facilities for wastewater conveyance and treatment.
  - Combined sewer overflow (CSO) abatement.
  - Infiltration and inflow (I/I) correction.
  - Water reclamation and reuse, including reclaimed water distribution.
- Onsite sewage system
  - Large onsite sewage systems/community systems (planning, design, and construction).
  - Planning, outreach, surveys.
  - Local grant/loan repair/replacement program.

- Stormwater facility
  - Planning and design.
  - Construction of facilities for stormwater treatment and flow control.
  - Low impact development projects.
- Stormwater activity
  - Stormwater management program plans.
  - Education and outreach.
  - Inspection programs.
- Nonpoint source activity
  - Agricultural best management practices design and implementation.
  - Irrigation efficiency projects.
  - Demonstration projects (as approved by Ecology).
  - Groundwater/aquifer/source water/wellhead planning and/or protection.
  - Lake restoration planning and implementation.
  - Riparian/wetland restoration planning and implementation.
  - Public outreach and education.
  - Total maximum daily load (TMDL) support.
  - Water quality monitoring.
  - Watershed planning and implementation.

Statutory requirements, administrative rule uses and limitations, and program and agency policy provide the framework for the Funding Guidelines. Listed below are the key statutes, rules, and policies, along with web links to the documents.

- Chapter 173-98 WAC, *Uses and Limitations of the Water Pollution Control Revolving Fund*; see: http://app.leg.wa.gov/WAC/default.aspx?cite=173-98.
- Chapter 173-95A WAC, *Uses and Limitations of the Centennial Clean Water Program*; see: http://app.leg.wa.gov/WAC/default.aspx?cite=173-95A.
- Chapter 70.146 RCW, *Water Pollution Control Facilities Financing*; see: http://app.leg.wa.gov/RCW/default.aspx?cite=70.146.
- Chapter 90.50A RCW - *Water Pollution Control Facilities – Federal Capitalization Grants*; see: http://app.leg.wa.gov/RCW/default.aspx?cite=90.50A.
- Federal Clean Water Act of 1987, Section 319; see: http://water.epa.gov/polwaste/nps/cwact.cfm.
- *Administrative Requirements for Recipients of Ecology Grants and Loans Managed in EAGL*; see: https://fortress.wa.gov/ecy/publications/publications/1401002.pdf.
- Chapter 173-240 WAC, *Submission of Plans and Reports for Construction of Wastewater Facilities*; see: http://app.leg.wa.gov/WAC/default.aspx?cite=173-240.
- Chapter 90.46 RCW, *Reclaimed Water Use*; see: http://app.leg.wa.gov/RCW/default.aspx?cite=90.46.

Chapter 2: Funding Programs

This chapter provides a basic overview of each of the four funding programs, including applicant and project eligibility and funding provisions. More specific information about project eligibility may be found in Chapter 3 and Appendices D, E, F, G, and J.

Ecology manages the four primary sources of funding under an integrated annual funding cycle. Each of the programs has different eligibility requirements and limitations and may have specific set-asides or funding priorities. Applicants use one integrated financial assistance application to apply for funds from the four funding sources simultaneously. Ecology reviews, rates, and ranks applications and then distributes funds to the highest priority projects in a combination of grants and loans depending on the project type and funding source.

Total funds available for the Water Quality Financial Assistance Program have varied. The amount of funding available on a competitive basis for each State Fiscal Year (SFY) is based on program policies, legislative directives, previous commitments, and funding levels. Ecology does not know the exact amount of funding available at the time a particular funding cycle begins. The amount of funding will not be known until state and federal appropriations are made. Table 1 shows the estimated SFY16 funding availability.

Table 1: Estimated State Fiscal Year 2016 Funding Availability

Source	Funding Available
Revolving Fund Loans	**$90,000,000**
Preconstruction Set-aside	*$4,500,000*
Facilities Set-aside	*$67,500,000*
Nonpoint Activities Set-aside	*$18,000,000*
Green Project Reserve Set-aside	*$2,500,000*
SFAP Grants	**$66,000,000**
Centennial Grants	**$25,000,000**
Hardship Wastewater Facility Construction Set-aside	*$8,333,333*
Nonpoint Activities Set-aside	*$8,333,333*
Section 319 Grants	**$1,500,000**

Revolving Fund

The United States Congress established the Revolving Fund as part of the Clean Water Act (CWA) Amendments of 1987. The Environmental Protection Agency (EPA) offers states capitalization grants each year according to a formula established in the CWA. The state must provide a 20 percent match of the Capitalization Grant. Each year Ecology estimates the funds from the Capitalization Grant, state match, known and expected repaid principal and interest from previous loans, interest earned through investments by the Washington State Treasurer's Office, early repayments of previous loans, declined offers, and differences between offers and agreements; the combined total is offered in new loans to eligible public bodies.

Due to repayment of previous loans and interest plus infusions from the Capitalization Grant, state match, and investments, the Revolving Fund continues to revolve and grow, and more

money becomes available to fund water quality projects. The majority of the fund now consists of repaid principal and interest. The Revolving Fund has funded approximately $1.4 billion in projects since its inception.

Interest rates and loan terms

Ecology may issue loans for a term of up to 20 years. The loan term may not exceed the useful life of the project being financed.

Ecology bases interest rates for non-hardship projects on the average market interest rate for tax-exempt municipal bonds. Ecology uses the average 11-Bond GO Index rate for the period 30-60 days prior to the beginning of a new funding cycle and sets the interest rate, depending on the loan term, at either 60 percent or 30 percent of that average. Table 2 shows the term and interest rates for standard Revolving Fund loans for SFY16.

Table 2: SFY16 Interest Rates for Standard Revolving Fund Loans

Term	Interest Rate
1 to 5 Years	1.2%
6 to 20 Years	2.4%

Eligible funding categories

- Preconstruction for wastewater and stormwater facilities (forgivable principal available for hardship).
- Facilities.
  - Wastewater (subsidized loans and Centennial grants available for hardship).
  - Stormwater.
  - Large onsite sewage system (subsidized loans and Centennial grants available for hardship).
- Activities
  - Nonpoint source planning and implementation.
  - Low impact development techniques planning and implementation.
  - Local loan fund for onsite sewage repair and replacement.

Set-asides

Ecology splits the Revolving Fund funds as follows:

- Five percent dedicated for preconstruction.
- 75 percent dedicated for facilities.
- 20 percent dedicated for activities.

Of the Revolving Fund loan set-aside for preconstruction projects, Ecology will award no more than 20 percent for a single applicant. In both the facility and activity funding categories, Ecology will award no single applicant more than 50 percent of the available Revolving Fund loan dollars. For more information about project eligibility refer to Chapter 3 of these Guidelines.

Funding provisions

Preconstruction

Eligible preconstruction projects include facility planning, facility design, rate studies, sewer use ordinance, and value engineering. Applicants with a population of 25,000 or less and a Median Household Income (MHI) below the state MHI are eligible for funding under the preconstruction category. Applicants who do not meet either the population or MHI criteria for this category can still receive funding for preconstruction projects under the facilities category.

Hardship

Ecology may offer qualified hardship applicants a combination of, forgivable principal loans, subsidized loans, and Centennial grants for wastewater facility preconstruction projects, wastewater facility construction projects, onsite sewage repair and replacement local loan fund projects, and stormwater facility preconstruction projects.

If Ecology offers only partial funding to a hardship eligible project because insufficient funds are available, Ecology may place the project at the top of the priority funding list for the next funding cycle. The applicant must be able to demonstrate that the project can be completed within the allowable funding timeframe in ordered to be placed on the priority funding list for the next funding cycle.

Hardship for wastewater facility preconstruction projects

Wastewater facility preconstruction projects funded through the Revolving Fund are eligible for hardship consideration if the project meets the following criteria:

- The existing residential population of the service area for the proposed project is 25,000 or less at the time of application.
- The MHI for the proposed service area is less than 80 percent of the state MHI.

Ecology may award applicants who meet these criteria a forgivable principal loan for 50 percent of the eligible project costs.

Hardship for wastewater facility construction projects

Wastewater facility construction projects funded through the Revolving Fund are eligible for financial hardship consideration if the project meets the following criteria:

- The existing residential population of the service area for the proposed project is 25,000 or less at the time of application.
- Financing the project without subsidy would cause existing residential sewer fees to be two percent or more of the MHI for the service area.

If Ecology determines that financial hardship exists, it may structure an offer that includes a combination of subsidized loan terms and Centennial grant. Table 3 shows the SFY16 hardship interest rates and grant continuum.

Table 3: SFY16 Hardship Interest Rates and Grant Continuum

Sewer Fee divided by MHI:	Below 2%	2% and above but below 3%	3% and above but below 5%	5% and above
Hardship Designation:	Non-hardship	Moderate hardship	Elevated hardship	Severe hardship
20-Year Loan Rates:	2.4%	1.6%	0.8%	0%
Grant Eligibility:	Not eligible	50% (up to $5 million)	75% (up to $5 million)	100% (up to $5 million)

Hardship for onsite sewage system projects

Hardship funding is available for onsite sewage system (OSS) projects in the form of subsidized loans and Centennial grants. Ecology determines the final blended subsidized interest rate for the subsidized Revolving Fund loan based on the loans provided to homeowners and small commercial enterprises during the project. Ecology will award no more than $500,000 in Centennial grant to cover all eligible costs, including hardship, for an OSS project.

The following are requirements in order for project activities to qualify for a subsidized loan interest rate based on hardship:

- Household income not to exceed 80 percent of county MHI.
- Small commercial enterprise annual gross revenue not to exceed $100,000.

Ecology may adjust interest rates to below the standard rate based on evaluation of the recipient's total portfolio of local on-site sewage system loans issued to homeowners and small commercial enterprises.

Table 4 provides the Revolving Fund interest rate schedule for loans targeted to homeowners at three levels of county median household income. Table 5 provides the Revolving Fund interest rate schedule for loans targeted to small commercial enterprises at three levels of annual gross revenue.

Table 4: Revolving Fund Adjustable Interest Rate Schedule for Homeowners

County Median Household Income	20-Year Term	5-Year Term
Above 80% (non-hardship)	2.4 %	1.2%
50 – 80% (moderate hardship)	1.2%	Up to 0.6%
Below 50% (severe hardship)	Up to 0.6 %	0%

Table 5: Revolving Fund Adjustable Interest Rate Schedule for Small Commercial Enterprises

Small Commercial Enterprise Annual Gross Revenue	20-Year Term	5-Year Term
Above $100,000	2.4 %	1.2%
$50,000 - $100,000	1.2%	Up to 0.6%
Below $50,000	Up to 0.6 %	0%

In order for a small commercial enterprise to be considered for extreme hardship, the business must provide documentation to substantiate that annual gross revenue is less than $100,000.

Hardship for stormwater facility preconstruction projects

Stormwater facility preconstruction projects funded through the Revolving Fund are eligible for hardship consideration if the project meets the following criteria:

- The existing residential population of the service area for the proposed project is 25,000 or less at the time of application.
- The MHI for the proposed service area is less than 80 percent of the state MHI.

Ecology may award applicants who meet these criteria a forgivable principal loan for 50 percent of the eligible project costs. The same project may not receive hardship incentives from both the SFAP, which provides a reduced match requirement (see below), and the Revolving Fund. In other words, a project that has a reduced match requirement in accordance with a hardship determination under the SFAP will not receive forgivable principal subsidy under the Revolving Fund.

Green Project Reserve

Green Project Reserve (GPR) is a category of projects or project components that focus on green infrastructure, water efficiencies, energy efficiencies, or "environmentally innovative" activities. Although GPR projects can be stand-alone projects, GPR is typically a component of a larger project type. To qualify for GPR consideration, projects or project components must meet the GPR criteria defined by EPA guidelines. EPA guidelines can be found in Appendix J.

To encourage GPR applications, Ecology can offer up to 25 percent of the GPR funding in the form of forgivable principal loans and the remaining 75 percent as standard loans. Any one project that is categorized for GPR may receive up to 50 percent of the amount available for forgivable principal. Ecology calculates the amount of forgivable principal in this category based only on the portion of the project that meets the GPR criteria. Ecology does not consider components that do not fall under GPR when calculating forgivable principal.

Stormwater projects that meet the requirements for GPR and have a reduced match requirement in accordance with a hardship determination under the SFAP are not eligible for GPR forgivable principal subsidy.

Requests for Additional Funding

Subject to available funding, Ecology may provide additional funds to a facility project to cover additional costs or address unforeseen circumstances. Requests for additional funding for construction bid overruns and change orders are subject to the following limitations.

Construction Bid Overruns

Ecology may adjust a recipient's facility construction loan or grant agreement by amendment to be consistent with the low, responsive, responsible bid. If the low, responsive, responsible bid exceeds the engineer's estimate of construction costs, Ecology may approve a funding increase for up to 10 percent of the engineer's cost estimate as supplied with the bid documents. If funding is available for bid overruns, hardship communities will be given first priority based on

the severity of financial need of the community. Ecology will fund bid overruns for non-hardship recipients on a first-come, first-served basis.

If the low, responsive, responsible bid falls below the existing loan or grant agreement amount, Ecology will amend the agreement to match the actual eligible bid amount based on the percentage of Ecology's participation in the overall funding of the project. Ecology will begin the amendment process as soon as possible after the completion of the bid process in order to make any surplus funds available to other public bodies.

Construction Change Orders

A change order is a formal document that modifies some condition(s) of the original construction contract. Ecology reviews all construction change orders for funding eligibility and approves or disapproves them. Significant changes that reflect a deviation from the approved planning document require pre-approval. Variations typically include changes in scope of work, contract price, construction methods, times to complete the work, and major design or process changes (such as changes in location, size, or capacity). Ecology may require a final quantity adjustment at the end of each contract to reconcile the originally contracted quantities with the quantities actually used.

Ecology may provide a five percent contingency for change orders subject to available funding. The five percent contingency will be based on the actual low, responsive, responsible bid. The five percent contingency can be included in the grant or loan agreement. Change orders are not eligible for design-build or design-build-operate projects. If funding is available for change orders, hardship communities will be given first priority based on the severity of financial need of the community. Ecology will provide a contingency for change orders to non-hardship recipients on a first-come, first-served basis.

Refinancing Existing Debt

Revolving Fund loans are available for refinancing of existing debt. Refinancing can take the form of interim refinance and standard refinance.

Interim refinance

Interim refinancing is available for projects that are in progress and using non-Ecology funds. Any project that is eligible for a Revolving Fund loan is eligible for interim refinance.

Applicants for interim refinancing apply for funding in the same manner as any new project. Ecology rates and ranks applications for interim refinance along with all other applications for new projects. Ecology awards funding on a competitive basis for all applications (including interim refinance application) based on project ranking, project category, funding program eligibility, and funding availability.

Applicants need to clearly state in the project description that the project is underway. Applicants should also note that the loan request is to retire an existing debt and to fund all or part of the rest of the project. As with any other project, an applicant must meet all applicable requirements for that project type.

Standard refinance

Standard refinance is for projects that have been successfully completed using non-Ecology funding sources where the recipient wants to refinance at a lower interest rate. Standard refinance is limited to water pollution control facilities where project construction began after March 7, 1985. Applicants must meet all applicable requirements for the project and must meet all Ecology prerequisites at the time the project was undertaken. Hardship assistance is not available for standard refinance projects.

Standard refinance projects are a low priority, and Ecology does not rate and rank them as competitive projects. Ecology makes funding offers for standard refinance projects only if Revolving Fund money is left after funding of competitively ranked projects. Ecology ranks multiple standard refinance projects competing for funding according to financial burden on the ratepayers.

Applicants must explain the original source of project funding (e.g., internal funds, other agencies, bond issuance). Applicants must also explain the specific provisions for repayment. The debt for the project must still be outstanding. Ecology will not advance refund a prior debt.

Stormwater Financial Assistance Program

The SFAP is designed to fund stormwater projects and activities that have been proven effective at reducing environmental degradation from stormwater. The SFY16 funding cycle is the initial year for the integration of stormwater-specific funding into the Integrated Water Quality Financial Assistance Program.

Eligible funding categories

Applicants eligible for the SFY16 funding cycle include all cities and counties. Eligible projects include those projects that complement a city's or county's stormwater program by treating stormwater from existing development. Cities and counties may receive funding for design/construct or construction-only stormwater facility projects as well as a limited suite of stormwater activities. Eligible activities include: inspections of privately-owned stormwater treatment facilities installed prior to being required by a Municipal National Pollutant Discharge Elimination System (NPDES) permit, purchase and operation of high efficiency/regenerative air sweepers, and legacy pollutant source identification, tracing and removal. As part of their application, applicants requesting funding for activity projects must provide sufficient documentation to demonstrate water quality benefits above and beyond what would be achieved through compliance with NPDES municipal stormwater permit requirements.

Phase I and II NPDES municipal stormwater permittees are eligible to receive project-specific planning and design SFAP funds to prepare low impact development retrofit projects for construction. For the purposes of the SFY16 funding program, "Low Impact Development Retrofit" is defined as a stormwater and land use management strategy that strives to modify an existing stormwater facility to mimic pre-disturbance hydrologic processes of infiltration, filtration, storage, evaporation, and transpiration by emphasizing conservation, use of on-site

natural features, site planning, and distributed stormwater management practices integrated into a project design.

Projects or project components that are ineligible to receive SFAP funding include:

- Projects required by a municipal NPDES stormwater permit, court or administrative order, or for mitigation purposes.
- Projects previously funded by Ecology (multiple phases of the same project are eligible).
- Construction of BMPs for new development or re-development (grant funds may be used to pay for the portion of a new/re-development BMP that treats existing stormwater).
- Runoff from commercial, industrial, or private property where the local community has not taken on ownership or maintenance responsibilities by acquiring land or an easement.
- Land acquisition beyond the footprint of a stormwater facility or the footprint of a facility that has been re-located to install a stormwater facility.
- Structural BMPs that have not received a TAPE GULD rating (see: www.ecy.wa.gov/programs/wq/stormwater/newtech/index.html).

For more information about project eligibility please refer to Chapter 3 of these guidelines.

Funding provisions

Maximum grant award

The maximum SFAP grant award to any one city or county is $5 million dollars per funding cycle. The maximum design-only grant award is $250,000. Planning and design funds awarded through SFAP will count towards the $5 million dollar per jurisdiction maximum.

Hardship

Stormwater projects funded through SFAP are eligible for financial hardship consideration if the project meets the following criteria:

- The existing residential population of the service area for the proposed project is 25,000 or less at the time of application.
- The MHI for the proposed service area is less than 80 percent of the state MHI.

In the case of stormwater projects, the proposed service area is the city or county population. Hardship eligible SFAP-funded stormwater projects will have a reduced match requirement of 15 percent of the total grant award.

Requests for additional funding

Subject to available funding, Ecology may provide funds to a facility project to cover additional costs or address unforeseen circumstances. Requests for additional funding for construction bid overruns and change orders are subject to the following limitations.

Construction bid overruns

Ecology may adjust a recipient's facility construction loan or grant agreement by amendment to be consistent with the low, responsive, responsible bid. If the low responsive, responsible bid exceeds the engineer's estimate of construction costs, as provided with the bid documents, Ecology may approve a funding increase for up to 10 percent of the engineer's cost estimate.

If funding is available for bid overruns, hardship communities will be given first priority based on the severity of financial need of the community. Ecology will fund bid overruns for non-hardship recipients on a first-come, first-served basis.

If the low, responsive, responsible bid falls below the existing loan or grant agreement amount, Ecology may amend the agreement to match the actual eligible bid amount based on the percentage of Ecology's participation in the overall funding of the project. Ecology will begin the amendment process as soon as possible after the completion of the bid process in order to make any surplus funds available to other public bodies.

Construction change orders

A change order is a formal document that modifies some condition(s) of the original construction contract. Ecology reviews all construction change orders for funding eligibility and approves or disapproves them. Significant changes that reflect a deviation from the approved planning document require pre-approval. Variations typically include changes in scope of work, contract price, construction methods, times to complete the work, and major design or process changes (such as changes in location, size, or capacity). Ecology may require a final quantity adjustment at the end of each contract to reconcile the originally contracted quantities with the quantities actually used.

Ecology may provide a five percent contingency for change orders subject to available funding. The five percent contingency will be based on the actual low, responsive, responsible bid. The five percent contingency can be included in the grant agreement. If funding is available for change orders, hardship communities will be given first priority based on the severity of financial need of the community. Ecology will provide a contingency for change orders to non-hardship recipients on a first-come, first-served basis.

Centennial

Centennial is a state funded program created by the Washington State Legislature in the middle 1980's. Centennial may be funded from various state sources, including the State General Fund, the State Building Construction Account, and the State and Local Toxics Account.

Ecology must manage Centennial in accordance with state laws and rules, including Chapter 70.146 RCW and Chapter 173-95A WAC.

Eligible funding categories

Centennial provides grants to eligible public bodies for wastewater infrastructure and nonpoint source pollution control projects. Examples of fundable nonpoint source pollution control projects include stream restoration and buffers, agricultural best management practices (BMPs), OSS repair and replacement, stormwater activities, and protection of drinking water sources. Infrastructure projects are limited to wastewater facility construction projects in qualified hardship communities. Although it is rarely done, Ecology may also make loans using funds from Centennial.

Set-asides

Ecology has established the following set-asides and limits on the Centennial funds.

- One-third is set aside for wastewater facility construction projects in hardship communities.
  - The total amount may not exceed $5 million for any single project.
- One-third is set aside for nonpoint source pollution control activities projects.
- The remaining one-third is awarded based on priority ranking.

Section 319

Congress established Section 319 as part of the CWA amendments of 1987 to address nonpoint sources of water pollution. EPA offers an annual grant to Washington to implement its plan to control nonpoint sources of pollution, *Washington's Water Quality Management Plan to Control Nonpoint Sources of Pollution*. The grant from EPA requires a 40 percent state match, and Ecology provides this match through Centennial grants for nonpoint source pollution control projects.

There are no specific state laws or rules for Section 319, but Ecology uses federal laws, rules, and guidelines and Centennial laws and rules to steer the program.

Eligible funding categories

Section 319 provides grants for a variety of activity projects that address nonpoint sources of pollution, including watershed planning, implementation of BMPs, water quality monitoring, and outreach and education. Ecology requires applicants with projects that implement BMPs to collect and report data to estimate load reductions of nitrogen, phosphorus, and sediments; Ecology must report these reductions to EPA annually. Eligible applicants include public bodies and tax-exempt not-for-profit groups.

Grant Match Requirements

All nonpoint source activity grants and stormwater grants have matching requirements. The following bullets describe the match requirements for the various sources of funds.

- Match for nonpoint source activity projects funded through Centennial, Section 319, and non-hardship SFAP is 25 percent of the total eligible costs.

- Match for hardship projects awarded SFAP funds is 15 percent.
- Match for Onsite Septic System (OSS) repair and replacement projects funded through Centennial is 50 percent.
- There is no match required for wastewater facility construction projects awarded hardship Centennial grants.

Match is often in the form of cash, but a recipient may match some grants with interlocal contributions or other in-kind contributions. The type of match depends on the type of grant or the amount of the grant. The following describes the form of match requirements that apply.

- Projects awarded a Centennial or Section 319 grant of $250,000 or less may have any combination of cash, interlocal, or other in-kind match.
- Projects awarded a Centennial or Section 319 grant of more than $250,000 up to the maximum amount of $500,000 must supply a cash-only match.
- Projects funded through SFAP must supply a cash-only match.

Cash match

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 Revolving Fund may be considered cash match.

Grants used to match grants

If a recipient wants to use a grant from another funding agency as match, the recipient should check with the funding agency issuing the grant to ensure that it can be used as match for an Ecology grant. The following applies when using other grants to match an Ecology grant.

- The scope of work on the matching grant must directly satisfy the portion of the scope of work on the Ecology grant where the work is contributed.
- The date that the costs for the matching grant are incurred must fall within the effective and expiration dates of the Ecology grant.
- The costs incurred under the matching grant must be eligible according to all criteria for the Ecology grant.
- Generally, the matching grant cannot originate from the same funding source as the Ecology grant.
- Water Quality Program grants cannot be used to match each other.
- Grants provided by the Washington State Conservation Commission cannot be used to match Water Quality Program grants.
- Funds, goods, or services cannot be used as match more than once.

Ecology uses nonpoint source activities projects funded by Centennial to meet EPA's Section 319 match requirements. The grant agreement will state if Ecology is using the project as Section 319 match. Projects designated for Section 319 match cannot be used to meet match requirements for other funding programs.

Loans used to match grants

A recipient may use Revolving Fund loans to provide the match for Centennial, Section 319, and SFAP grants.

Interlocal contributions

Interlocal contributions are those made by another governmental agency through an interlocal agreement and not reimbursed by the grant or other outside funding source. The interlocal agreement should detail the work to be accomplished, the goods and services to be provided, and its value. Interlocal contributions can satisfy a cash match requirement. Interlocal contributions differ from other in-kind contributions because the following are eligible costs:

- An indirect rate of up to 25 percent of salaries and benefits.
- Cost of transportation through mileage (at the current state rate) or an indirect rate.
- Per Diem, travel, and subsistence expenses at state travel rates.
- Prevailing wages of the public body.

Other in-kind

Examples of other in-kind match contributions are property, goods, or services contributed to the recipient (or any contractor under the agreement) without direct monetary compensation. Other in-kind match includes donated or loaned real or personal property, volunteer services, and employee services donated to a project. Other in-kind match does not include eligible project costs paid directly by the recipient (see Cash Match above). Other in-kind contributions must be fully documented and reported separately when requesting reimbursement.

The current in-kind rate for volunteer services includes the value of travel expenses contributed by volunteers. For adults, the rate is $15.00 per hour. For persons under the age of 18, the rate is the Washington State minimum wage at the time the service is provided.

The following are examples of **ineligible** other in-kind contributions:

- Contributions of overhead costs, per-diem, travel, and subsistence expenses.
- Contributed time from individuals receiving compensation through the grant, except when those individuals are off duty and contributing on their own time.
- Time spent at advisory groups or meetings that do not directly contribute to project activities.
- Studies conducted by other state or federal agencies.

Third-party in-kind contribution

When a third-party employer (not the recipient, state agency, or a contractor under the agreement) contributes the services of an employee, in the employee's normal line of work, to the project at no charge to the recipient, the services may be valued at the employee's regular rate of pay.

Chapter 3: Eligible Project Types

Some projects are eligible for both loans and grants, while other projects are eligible for only loans. Eligible projects fall into five main categories: wastewater facilities, onsite sewage systems, stormwater facilities, stormwater activities, and nonpoint source activities.

Wastewater facility projects

Water pollution control facilities projects can include planning, design, and construction of wastewater infrastructure, including treatment, collection, combined sewer overflow (CSO) abatement, and infiltration and inflow (I/I) correction. The technical prerequisites and approval process for facilities projects can be extensive. Ecology encourages applicants to work closely with the Ecology project engineers to ensure that all technical prerequisites are in place when planning facilities projects.

Planning

Costs of preparing planning documents, including General Sewer Plans, Engineering Reports, environmental review, value engineering studies, and rate studies are eligible for Water Quality Financial Assistance Program funding. Applicants must comply with planning requirements in order to be eligible for financial assistance from Ecology.

Subsequent project steps often require Ecology approval of a planning document. If a planning document was approved by Ecology more than two years prior to the close of a loan and grant application period, an applicant must have Ecology complete a more recent review to ensure that the document reflects current conditions.

Water reclamation facilities

Water reclamation facilities are eligible for loans. Water reclamation facilities must meet the same eligibility standards as other water pollution control facilities, including demonstrating that the project is the cost effective solution to a water quality problem. Cost effectiveness can include the environmental benefits of advanced wastewater treatment as well as the provision of additional water supplies.

Generally, project components with water quality benefits are eligible. Components with strictly water supply benefits are not eligible. Eligible project components may include, but are not limited to:

- Wastewater treatment plant facilities.
- Rapid infiltration basins.
- Dedicated irrigation systems necessary to support the use of the water, such as poplar plantations.
- Purchase of land when that purchase is necessary for water storage or is the cost effective option, such as a dedicated land application site.

- Distribution piping and appurtenances needed to transport reclaimed water to the reuse site.

The purchase of land and distribution systems for recreation facilities (e.g., golf courses, ball fields, and parks) and similar community development features not directly related to water and wastewater infrastructure needs are not eligible for financial assistance.

Design

Facility design is eligible for funding. Design plans and specifications must be consistent with:

- Chapter 173-240 WAC, *Submission of Plans and Reports for Construction of Wastewater Facilities*; see http://app.leg.wa.gov/wac/default.aspx?cite=173-240.
- An approved planning document.
- Conditions resulting from the State Environmental Review Planning (SERP) process or federal cross cutter consultation.
- Ecology's *Criteria for Sewage Works Design* (the "Orange Book"); see: https://fortress.wa.gov/ecy/publications/publications/9837.pdf.
- Other applicable requirements.

Applicants must base the plans and specifications on the preferred cost-effective alternative identified in the cost effectiveness analysis.

Construction

Recipients of grants and loans for facility construction must ensure that the project complies with the approved Plans and Specifications. To this end, the applicant must provide adequate and competent construction management and inspection. This may involve procuring professional engineering services.

Design and construction

Applicants can also apply for a combined facility design and construction project. The total project cost for both phases of a "Design and Construct" project must be less than $5 million to be eligible to apply under one application. All the applicable requirements for both design and construction projects apply, including the possibility of hardship assistance for the construction components and preconstruction funding for the design portion of the project.

Table 6 provides a summary of the funding eligibility of some wastewater facility projects and components.

Table 6: Wastewater Facility Projects and Components Eligibility

Description	Centennial Grant	Revolving Fund Loan
Annual permit fees	No	No
Bond costs for debt issuance	No	No
Bonus or acceleration payments to contractors to meet contractual completion dates for construction	No	No
Combined sewer overflow abatement facilities	No[1]	Yes
Construction administration and inspection services	No[1]	Yes
Environmental review	No	Yes
Equipment and/or tools pre approved for a funded project	No[1]	Yes
Facilities for the control, storage, treatment, disposal, or recycling of domestic wastewater	No[1]	Yes
Facilities located on private property	No	No
Facilities with reserve capacities to accommodate flows associated with 20-year projected growth	No	Yes
Indirect rate (up to 25% of salaries and benefits)	No[1]	Yes
Land acquisition as an integral part of the treatment process (e.g., land application) or for prevention of water pollution	No[1]	Yes
Land acquisition to site wastewater treatment plants, sewer rights-of-way and easements, and associated costs	No	No
Landscaping for erosion control directly related to a project	No[1]	Yes
Legal expenses associated with use of a bond counsel in developing a loan agreement	No	Yes
Light refreshments for meetings if pre-approved	No[1]	Yes
Mitigation to comply with requirements in SEPA/NEPA or other environmental review directly related to a project	No[1]	Yes
Permits required for project implementation	No[1]	Yes
Planning, including feasibility studies, value engineering, rate studies, and general sewer plans and engineering reports that include environmental review	No	Yes[2]
Plans and specifications (facility design)	No	Yes[2]
Reclaimed water distribution infrastructure for transportation to reuse site.	No[1]	Yes
Refinancing: *Interim* for any project eligible for an Revolving Fund loan or *Standard* for water pollution control facilities begun after March 7, 1985	No	Yes
Sewers and side-sewer laterals on public property for infiltration and inflow correction projects	No[1]	Yes
Side-sewer laterals, individual pump stations, other appurtenances on private residential property, where the facilities are not owned and maintained by a public body and the project does not address a nonpoint pollution source	No	No
Side-sewer laterals, individual pump stations, other appurtenances on private residential property, where the facilities are owned and maintained by a public body	No[1]	Yes
Side-sewer laterals, individual pump stations, other appurtenances on private residential property, where the project addresses a nonpoint pollution source	No[1]	Yes

[1] Qualified hardship applicants may be eligible.
[2] Up to 50 percent forgivable principal for qualified hardship applicants.

Onsite sewage system (OSS) projects

OSS projects are eligible for both grants and loans. Eligible projects include planning, design, and construction of community large onsite sewage systems (LOSS), surveys of existing OSS throughout watersheds, local government loan programs provided to homeowners and small commercial enterprises for the repair and replacement of failing OSS, and homeowner education and outreach on the topic of OSS operation and maintenance.

Grants for up to $500,000 may be awarded with a 50 percent cash match. Match may be either a Revolving Fund loan or the recipient's own source of funds.

Large onsite sewage systems (LOSS)

The Department of Health permits LOSS designed to treat less than 100,000 gallons per day through Chapter 246-272B WAC, *Large On-site Sewage System Regulations*; see: http://app.leg.wa.gov/WAC/default.aspx?cite=246-272B&full=true. With the exception that planning and design documents are approved through the Department of Health, these systems are considered facilities, and all the rules and requirements for facility projects apply. For example, LOSS projects are eligible for hardship subsidy, and must complete State Environmental Review Process (SERP) environmental review.

Planning and survey

OSS pollution identification and survey projects may be conducted throughout a watershed. Funded projects have included identification of sewage systems along the marine water shoreline and fresh water drainage shoreline. In addition to identification of fecal coliform hotspots within the water body, recipients may use grant or loan dollars to conduct door-to-door surveys for sewer infrastructure evaluation. Other project components eligible for funding include: Homeowner Septic Self-Inspection Trainings or Septics 101 classes.

Local loan program

Ecology may provide loans and grants to local governments to establish and manage OSS repair or replacement local loan programs. OSS funding programs through local governments provide low-interest loan options to homeowners and small commercial enterprises for OSS repair or replacement. Local governments that have OSS funding programs in place have ensured improvement to water quality, protection of public health, and assisted in the protection and restoration of critical commercial and recreational shellfish habitat through the reduction of fecal coliform bacteria and nutrient levels in surface waters.

Recipients may use Centennial grants and Revolving Fund loans for the following:

- Subsidized loans to property owners with financial hardship.
- Project administration and management.

- A loan loss reserve account in accordance with the following:
  - The grant recipient can establish and accumulate a reserve account using Centennial funds and local sources to secure the potential loss from default on individual homeowner OSS repair or replacement local loans.
  - Up to 10 percent of the total eligible cost for an individual OSS repair and replacement project may be deposited from the Centennial grant into the reserve account.
  - Recipients must apply the amount of Centennial funds on deposit in the reserve account to either:
    - Cover, in part or in full, losses realized by the grant recipient on homeowner default.
    - Additional OSS repair or replacement local loans at the timing discretion of the grant recipient.

Ecology may adjust Revolving Fund loan interest rates to a lower rate at the end of the project based on the recipient's assistance to financially challenged homeowners. Ecology adjusts the interest rate on the local loan program based on the income of loan recipients in comparison to the county MHI.

A local government can tailor the OSS financial assistance program to fit into its existing water quality management strategies and efforts. Local governments may use an outside administrator for complete program management or provide some or all aspects of the loan program using internal resources. Local governments with successful local loan programs use a variety of internal and external resources for marketing and implementing the OSS loan program, application review, loan authorization and processing, and establishment and collection of homeowner installment payments.

Aspects of a successful program include one or more of the following:

- Establishment of a program framework that addresses the identification and/or assessment of the failing OSS, homeowner loan application processing and management, and an on-going operation and maintenance program for repaired septic systems.
- Establishment of environmental and credit worthiness criteria.
- Staffing for program oversight.
- Marketing and promotion of the program through the local health jurisdiction, Septics 101 workshops, and local septic designers, installers, and pumpers.
- Septic surveys to identify OSS failures.

Before signing a loan agreement, the Water Quality Program must review and approve:

- The priority system used by a local government to identify and fund projects with the most critical water quality and public health problems.
- The local government's dedicated source of revenue to repay the loan to Ecology.
- Procedures to ensure that the citizens repay their loans to the local governments.
- Procedures to ensure adequate inspection of the project by the local government during implementation.

- Assurances that citizens receiving local loan funds will properly operate and maintain the systems that are constructed.

The following guidelines must be used when local governments consider providing loans from local loan funds to small commercial enterprises for OSS rehabilitation or replacement:

- No more than one-third of the local loan fund may be used by small commercial enterprises for onsite wastewater treatment corrections.
- No more one-sixth of the local fund may be loaned to any single individual or business, up to a maximum of $50,000.
- The average daily flows for any small commercial enterprise cannot exceed 3,500 gallons per day.

Small commercial enterprises may include public lodging (including motels, hotels, and bed and breakfast establishments), rentals (apartments, duplexes, or houses), small restaurants, stores, or taverns.

Table 7 provides a summary of the funding eligibility of some OSS projects and components.

Table 7: Onsite Sewage System Projects and Components Eligibility

Description	Centennial Grant	Section 319 Grant	Revolving Fund Loan
Equipment and/or tools pre approved for a funded project	Yes	Yes	Yes
Indirect rate (up to 25% of salaries and benefits)	Yes	Yes	Yes
Landscaping for erosion control directly related to a project	Yes	Yes	Yes
Light refreshments for meetings if pre-approved	Yes	Yes	Yes
LOSS/community wastewater systems construction	No[1]	No	Yes
LOSS/community wastewater systems planning and design	No	No	Yes
LOSS/community wastewater systems through a local loan fund	Yes	No	Yes
Mitigation to comply with requirements in SEPA/NEPA or other environmental review directly related to a project	Yes	Yes	Yes
Onsite sewage system education, information, and technical assistance programs	Yes	Yes	Yes
Onsite sewage system repair and replacement programs through a local loan/grant fund	Yes	No	Yes
Onsite sewage system surveys	Yes	Yes	Yes
Permits required for project implementation	Yes	Yes	Yes
Side-sewer laterals for OSS abandonment and connection projects.	No[1]	No	Yes

[1] Qualified hardship applicants may be eligible.

Stormwater facility projects

Stormwater facility projects provide water quality benefits by treating and/or providing flow control for water generated from impervious surfaces prior to discharge to receiving waters. Grant and loan funding is available for planning, design, and construction of stormwater facilities projects. Projects may be submitted as planning and design only; plan, design, construct; or construction only. Applicant eligibility and project type will determine the type (grant or loan) of funding available for a specific project.

In order to receive funding, stormwater BMPs must be proven to be effective at reducing pollution from existing development. Eligible BMPs include those structural BMPs which have been designed in accordance with the Stormwater Management Manuals for Eastern or Western Washington www.ecy.wa.gov/programs/wq/stormwater/tech.html, equivalent Ecology-approved manual as listed in Appendix 10 of the Phase I Municipal NPDES Stormwater Permit, or have received a General Use Level Designation (GULD) through the Technology Assessment Protocol – Ecology (TAPE) program. www.ecy.wa.gov/programs/wq/stormwater/newtech/index.html.

Stormwater facility projects may include:

- Treatment or flow control best management practices.
- Low impact development techniques that treat stormwater and/or provide infiltration.
- Decant facilities that separate liquid waste from solid waste generated by stormwater maintenance activities such as street sweeping and the cleaning of catch basins.

Applicants for projects involving purchase of land must get pre-approval from Ecology. The land purchase must be limited to the footprint necessary for installation of a BMP or the relocation of a facility displaced by construction of a BMP. Installation of a BMP to treat run-off generated by private property requires the local jurisdiction to take responsibility for all operation and maintenance for the BMP and to obtain a permanent easement to allow for access to the BMP or purchase of the land itself.

Planning and design

Costs of preparing planning documents, cultural resource determinations, geotechnical work, engineering design reports, environmental review, value engineering studies, and rate studies are eligible for funding.

Subsequent project steps require an Ecology review of a planning document. If a planning document was approved by Ecology more than two years prior to the close of a loan and grant application period, an applicant must have Ecology complete a more recent review to ensure that the document reflects current conditions.

Phase I and II NPDES municipal stormwater permittees are eligible to receive project-specific planning and design SFAP funds to prepare low impact development retrofit projects for construction. For the purposes of the 2016 funding program, a low impact development retrofit project is defined as a stormwater and land use management project that strives to mimic pre-disturbance hydrologic processes of infiltration, filtration, storage, evaporation, and transpiration by emphasizing conservation, use of on-site natural features, site planning, and distributed stormwater management practices that are integrated into a project design.

Construction

Ecology may provide loans or grants to eligible applicants for construction of stormwater facility projects. Eligible cities and counties may apply for financial hardship consideration for a stormwater-related project. Applicants must comply with Ecology-approved design standards as

listed in Western and Eastern Washington Stormwater Management Manuals; see: www.ecy.wa.gov/programs/wq/stormwater/tech.html or an equivalent Ecology-approved manual as listed in Appendix 10 of the Phase I Municipal NPDES Stormwater Permit in order to be eligible for financial assistance from Ecology.

Table 8 provides a summary of the funding eligibility of some stormwater facility projects and components.

Table 8: Stormwater Facility Projects and Components Eligibility

Description	SFAP Grant	Revolving Fund Loan
Acquisition/installation of native plant material	Yes	Yes
Acquisition/installation of plant material stabilizer	Yes	Yes
Annual permit fees	No	No
BMPs that have not received a GULD rating	No	Yes
Bond costs for debt issuance	No	No
Bonus or acceleration payments to contractors to meet contractual completion dates for construction	No	No
Detention facilities (ponds, tanks, vaults, etc.)	Yes	Yes
Environmental review	Yes	Yes[1]
Equipment and/or tools pre approved for a funded project	Yes	Yes
Indirect rate (up to 25% of salaries and benefits)	Yes	Yes
Individual residential stormwater infiltration treatment and collection systems, such as rain gardens or bioretention swales on private property	Yes[2]	No
Infiltration systems (dry wells, swales, trench, pond)	Yes	Yes
Installation of rip rap, boulders, and retaining walls to prevent sediment discharge into stormwater BMPs	Yes	Yes
Landscaping for erosion control directly related to a project	Yes	Yes
Light refreshments for meetings if pre-approved	Yes	Yes
Low impact development BMP implementation	Yes	Yes
Low impact development site-specific planning	Yes[3]	Yes
Mitigation to comply with requirements in SEPA/NEPA or other environmental review directly related to a project	No	Yes
Outreach to property owners/residents potentially affected by installation of a facility project	Yes	Yes
Permits required for project implementation	Yes	Yes
Site preparation work (e.g., weed removal)	Yes	Yes
Stormwater facility projects required by court or administrative order	No	Yes
Stormwater facility, retrofit, or low impact development projects not required by stormwater permits	Yes	Yes
Stormwater infiltration facilities	Yes	Yes
Stormwater treatment facilities (constructed wetlands, bioretention, etc.)	Yes	Yes
Use of sediment settlers (e.g., Polyacrylamide)	Yes	Yes

[1] Up to 50 percent forgivable principal for qualified hardship applicants.
[2] Approval on a case by case basis with appropriate easements/landowner agreements.
[3] In permitted communities.

Stormwater activity projects

A project will be eligible for grants or loans depending on the activity type and the jurisdiction where the activity takes place. Activities projects which are required by a NPDES Municipal Stormwater Permit are eligible for loans only. These same projects when proposed for implementation in an un-permitted community may be eligible for both loans and grants. Examples of these types of projects include:

- Land use/stormwater management planning.
- Review of existing local stormwater regulations.
- New BMP development and assessment through the Ecology TAPE program (loan only).
- Conducting inventories and mapping of stormwater sources and infrastructure.
- Education and outreach.

A limited suite of activity projects are eligible for SFAP grants in both permitted and un-permitted communities. These projects include:

- Inspections of privately-owned stormwater treatment facilities installed prior to being required by a Municipal NPDES permit.
- Purchase and operation of high efficiency/regenerative air sweepers.
- Legacy pollutant source identification, tracing and removal.

Table 9 provides a summary of the funding eligibility of some stormwater activity projects and components.

Table 9: Stormwater Activity Projects and Components Eligibility

Description	Centennial Grant or Section 319 Grant	SFAP Grant	Revolving Fund Loan
Activities required by a NPDES municipal stormwater permit	No	No	Yes
Basin modeling for BMP prioritization not required by a permit	Yes	No	Yes
Cultural resources review for BMP implementation	No	Yes	Yes
Equipment and/or tools pre approved for a funded project	Yes	Yes	Yes
Establishment of stormwater utilities not required by permit	Yes	No	Yes
Establishment of stormwater utilities required by permit	No	No	Yes
Implementation of educational activities not required by permit	Yes	No	Yes
Indirect rate (up to 25% of salaries and benefits)	Yes	Yes	Yes
Inspection programs for private parcel stormwater BMPs not required by permit	No	Yes	Yes
Land acquisition for prevention of water pollution	No	No	Yes
Land acquisition for wetlands protection, restoration, and construction	No	No	Yes
Landscaping for erosion control directly related to a project	No	Yes	Yes
Light refreshments for meetings if pre-approved	Yes	Yes	Yes
Outreach and education projects not required by stormwater permits	Yes	No	Yes
Outreach and education projects required by stormwater permits	No	No	Yes
Permits required for project implementation	No	Yes	Yes
Pet waste signs	Yes	Yes	Yes
Purchase of high-efficiency vacuum sweepers	No	Yes	Yes
Stormwater infrastructure inventories not required by a permit	Yes	No	Yes
Stormwater infrastructure inventories required by a permit	No	No	Yes
Stormwater related land use planning not required by permit	Yes	No	Yes
Stormwater related land use planning required by permit	No	No	Yes
Water quality monitoring not required by stormwater permits	Yes	No	Yes
Water quality monitoring required by stormwater permits	No	No	Yes

Nonpoint source activity projects

Nonpoint source water pollution control activities include a wide variety of projects that do not involve constructing or preparing to construct a traditional water pollution control facility. These types of projects involve activities such as installing best management practices (BMPs) and using outreach and education to help improve water quality by addressing nonpoint source pollution. Ecology may require specific review and approval for certain BMPs in the individual loan or grant agreements.

All proposed nonpoint source activity projects must implement an element of a state or local plan directed at addressing water quality issues (e.g., watershed management plan, nonpoint source pollution control plan, TMDL). The plan being implemented must meet the criteria of the nine Key Elements for nonpoint source projects as outlined in EPA's *Handbook for Developing*

Watershed Plans to Restore and Protect Our Waters (chapter 2, page 2-15); see: www.epa.gov/nps/watershed_handbook/.

All Ecology funded nonpoint source activity projects must also meet the objectives of *Washington's Water Quality Management Plan to Control Nonpoint Sources of Pollution (Vol. 3)*; see: https://fortress.wa.gov/ecy/publications/publications/0510027.pdf.

Following is an overview of project types that qualify as nonpoint source activity projects.

Best management practices (BMPs) implementation projects

Water quality best management practices (BMPs) are defined as structural or non-structural method(s), recommended through a planning process that have a demonstrated success for addressing or preventing water quality degradation. Implementation of BMPs refers to the use of established approaches or practices to address water quality problems. BMPs are physical, structural, and managerial practices that prevent or reduce nonpoint source pollution.

Ecology may fund BMPs that address or correct water quality degradation through facility- or activity-focused projects. However, BMP eligibility is not the same for loans and grants.

BMP funding eligibility

BMPs for water quality improvements on private property, public property, public easements, or public rights-of-way through private property are eligible for grant and loan funding. Nonpoint source BMPs eligible for grants are limited to livestock exclusion fencing, riparian buffer establishment and planting, riparian restoration activities, direct seeding, and certain livestock feeding practices.

Implementation of agricultural BMPs on property owned by Washington State and federal governments are largely ineligible, regardless of the eligibility of the applicant. However, Ecology may provide financial assistance to an eligible public body to participate with other state and federal agencies in comprehensive watershed planning and large scale monitoring programs that extend substantially beyond federal and state lands.

The costs associated with project-specific planning and technical assistance for planning, design, and implementation of grant and loan eligible water quality BMPs are reimbursable. General planning for resource and land management is an eligible activity if the resulting plan includes eligible water quality BMPs consistent with the criteria required under these guidelines. Any general plan for riparian buffer protections must include recommendations that meet or exceed the buffer width guidance found in Appendix G.

As an incentive to implement the riparian buffer requirements, Ecology will provide 100 percent grant funding for the buffer implementation project task in applications that rate and rank highest in the evaluation process. This 100 percent funding will include site-specific planning, design, and implementation of riparian buffer planting projects and associated livestock exclusion fencing only. All other BMPs will be reimbursed at the 75 percent grant share with a 25 percent match required on the project level.

All BMPs must meet the conditions of these funding guidelines and be reviewed by Ecology prior to installation. Ecology will require recipients to submit a form that describes the implementation plan for all BMPs to the regional Project Manager or an Ecology pre-design report. Ecology's Project Manager or Project Engineer will review the proposed project and provide written notice to proceed with implementation. If the recipient installs un-reviewed BMPs, the recipient assumes the risk that Ecology may delay or deny part or all of the reimbursement for that activity.

Eligible BMPs

Eligible BMPs include, but are not limited to, those that:

- Are recommended through a multi-agency watershed management planning process and approved by Ecology as an effective technique to reduce nonpoint source pollution.
- Provide public benefits through improved water quality.
- Are based on water quality improvements and not on production needs.
- Target the most critical areas and structural and non-structural practices that, if properly managed, will provide the greatest protection or improvement in water quality.

Ecology limits its financial assistance to public bodies. However, the public body that receives a grant or a loan can provide financial assistance to a private landowner.

BMPs on private property limitations

BMPs on private property are limited to those that involve the following:

- A landowner agreement or conservation easement is granted and signed by the landowner.
- Site specific project plans that have been reviewed and approved by Ecology in writing prior to implementation.
- Implementation of BMPs in the riparian zone consisting of revegetation or fence construction that meets the riparian restoration criteria in Appendix G.
- Implementation of no-till BMPs in areas where sedimentation and erosion affect water quality in streams and rivers.
- Implementation of livestock feeding BMPs where:
  - Activity from livestock is contributing to fecal coliform or sedimentation problems and/or other degradation to the riparian area, stream, and water quality.
  - The installation meets all of Ecology's prerequisites for eligibility.
- Implementation of new, innovative, or alternative technology BMPs not yet demonstrated in the Ecology region in which they are proposed. Demonstration projects are approved by Ecology on a case-by-case basis for grant eligibility.

Agricultural BMPs must comply with the Natural Resource Conservation Service (NRCS) Field Office Technical Guide (FOTG) construction specifications or equivalent construction standards. If NRCS specifications are not available, the structural design of the proposed BMP must be designed by a licensed engineer. For further information, see Section IV of the FOTG at http://efotg.nrcs.usda.gov/treemenuFS.aspx?Fips=53077&MenuName=menuWA.zip.

Stream restoration and stabilization projects must meet the standards established in Appendix G of this document and the Washington State Aquatic Guideline Program's *Stream Habitat Restoration Guidelines*. The current version of this guidance can be found at http://wdfw.wa.gov/publications/01374/.

More specific BMP provisions are discussed in Appendices D, E, and F.

Agricultural best management practices

Direct seed systems

Direct seed systems are eligible for Water Quality Program financial assistance. Direct seed systems plant and fertilize row crops into undisturbed soil and eliminate full width tillage for seedbed preparation. Equipment used for direct seeding disturbs only a narrow strip of soil and retains a majority of residue from the previous crop. Direct seed systems significantly reduce erosion, improve soil quality, reduce fuel consumption, and are a viable alternative to traditional, full tillage systems. Direct seeding practices are eligible for three types of funding:

- Equipment rental cost reimbursement.
- Cost of custom application fee reimbursement.
- Direct seed equipment purchase.

Appendix D contains the eligibility conditions for direct seed systems.

Livestock exclusion fencing

Livestock exclusion fencing is eligible for Water Quality Program financial assistance when installed at a minimum setback from the ordinary high watermark consistent with the riparian restoration guidance found in Appendix G. Exclusion fencing protects riparian areas from impacts due to livestock activities in and around streams. Recipients are required to plant the buffer established by the fencing setback with native trees and shrubs to provide a higher level of water quality improvement. This minimum setback and vegetation helps protect surface waters from pollutants such as pathogens, sediment, and nutrients, and provides physical protection so riparian areas may be restored. Grass filter strips are not sufficient to meet this requirement.

Livestock off-stream watering facilities

If an applicant proposes to install livestock exclusion fencing as part of a riparian protection/restoration project and the fencing meets the minimum standards for that BMP, Ecology may award grant dollars to install an off-stream watering facility. A livestock owner uses off-stream watering to provide an alternative source of watering where fencing or other method(s) exclude livestock from streams in order to protect water quality. Off-stream watering facilities (including well construction) are conditionally eligible for Water Quality Program financial assistance for projects that include privately owned livestock operations.

Appendix E contains the eligibility conditions for off-stream watering facilities.

Livestock feeding BMPs

Livestock feeding BMPs are intended to support the relocation of livestock activities that threaten water quality, or to enhance existing feeding areas distanced from surface waters. Recipients may install a combination of these BMPs when appropriate. Funding for livestock feeding BMPs only applies to projects that will improve existing water quality problems, and may not be used to rebuild feeding facilities where the primary purpose is to repair existing structures. Ecology's Project Management Team must approve all projects before installation. Livestock exclusion fencing is a required pre-requisite for these practices and must meet the minimum setback requirement. Eligible livestock BMPs include heavy use area protection, waste storage facilities, and windbreaks.

Appendix F contains the eligibility conditions for livestock feeding BMPs.

Demonstration nonpoint BMP projects

Ecology will consider demonstration BMP activity projects for funding if they meet the following two conditions.

- The practice has a proven record to improve the water quality problem of concern.
- The practice has not previously been demonstrated in the Ecology region where the project is proposed.

Demonstration projects should be relatively small in scope, yet large enough to clearly evaluate BMP effectiveness. Demonstration projects also need to incorporate education and outreach, including direct involvement from the local county cooperative extension office or local conservation district. The applicant should plan outreach efforts that include news articles, focus sheets, or other written materials to maximize public exposure and increase the public awareness of the project. The applicant should describe approaches for planned outreach in the application.

Ecology expects recipients with demonstration projects to include a thorough analysis of the effectiveness and outcomes of the project in the final report and provide recommendations for the potential of the BMP to become a grant-eligible activity.

Groundwater/aquifer/wellhead planning and implementation

Planning for and implementation of wellhead protection projects, groundwater protection projects, source water (including groundwater and surface water) protection, and critical aquifer recharge area projects are eligible for loan or grant funding. Applicants undertake these projects to protect the quality of water used as a public drinking water supply. Decommissioning of abandoned wells and land acquisition for groundwater protection are not eligible for funding.

Drinking water system data are available at www.doh.wa.gov/DataandStatisticalReports/EnvironmentalHealth/DrinkingWaterSystemData.aspx.

Lake restoration planning and implementation

Lake restoration planning and implementation projects on lakes with public access are eligible for loans or grants. Lake restoration implementation projects where there is no public access are not eligible for funding. The "Step Process" is required for all lake restoration projects (see Application Requirements below for a description of the Step Process). Step 1 is planning; it involves the identification of problems and evaluation of cost-effective alternatives. Step 2 is the implementation of the planning document. If the project includes construction, a design component may be included before the implementation step.

In-lake treatments, such as alum, are only eligible for Revolving Fund loans.

Public outreach and education projects

Projects with public outreach and education components are eligible for loan or grant funding. Public outreach and education use effective methods and programs, guided by a detailed outreach strategy, to engage the public's interest in improving water quality. Applicants should consider that the public has different levels of background knowledge of both water quality management and its role in reducing water pollution. Therefore, applicants should consider a multi-pronged approach to outreach. Public outreach efforts should include:

- Generating basic awareness of water pollution.
- Educating at a more sophisticated level using more comprehensive content.
- Building on existing recognition of the issue to prompt behavior changes that reduce pollution or opportunities for pollution.

The strategy should also specifically address combining public outreach with the implementation of other water quality management measures. This aspect of outreach could involve more in-depth education, short training courses, live presentations and slideshows, handbooks, posters with educational content and captioned illustrations, and web-based training modules, or websites with photos of good and bad practices.

Applicants should target their outreach and education efforts to landowners with properties adjacent to surface waters. Ecology acknowledges it is important to educate the general public about behaviors and impacts to water quality. However, for grant project purposes, the most benefit is gained by targeting landowners with properties adjacent to surface waters.

Appendix H provides guidance on how to develop outreach and education project proposals. Ecology provides this information as a resource or checklist and does not require the applicant to follow it. The goal of the checklist is to help design effective projects that change behaviors and achieves environmental results.

Riparian/wetland restoration planning and implementation

Planning and implementing riparian and wetland habitat restoration projects are eligible for loans or grants. Land acquisition for prevention of water pollution or wetland habitat preservation is eligible for loans only. Applicants can include installation of livestock exclusion fencing as part

of a riparian protection/restoration project. The Step Process is not required for riparian and wetland projects, but Ecology strongly encourages it.

Ecology's *Restoring Wetlands in Washington: A Guidebook for Wetland Restoration, Planning & Implementation* provides guidance in developing a project proposal; see: https://fortress.wa.gov/ecy/publications/publications/93017.pdf.

Appendix G contains requirements for riparian restoration and planting projects.

Total Maximum Daily Loads (TMDL) support projects

Projects that support the planning and implementation of TMDL programs are eligible for grants and loans. The BMPs recommended for TMDL implementation are subject to the same eligibility criteria as projects that are not part of a TMDL implementation plan.

Applicants should work directly with Ecology's TMDL coordinators in their region on planning for and managing these projects; see: www.ecy.wa.gov/programs/wq/tmdl/contacts.html.

Water quality monitoring

Water quality monitoring before and during implementation, and after project completion is critical for tracking environmental and project results. Ecology may provide loans or grants for water quality monitoring projects. Typically, a recipient undertakes monitoring to characterize the existing conditions of ground waters and surface waters, to identify or quantify pollutant sources or loads, or to establish the effectiveness of BMPs. Monitoring may be the entire project or a component of a larger project.

Water quality sampling for Deoxyribonucleic Acid (DNA)-typing is not an eligible activity.

Watershed planning and implementation

Watershed planning projects are eligible for loans or grants. If the project is located in the 12 counties that border Puget Sound, it must comply with planning criteria contained in Title 400 WAC, *Puget Sound Partnership*; see: http://app.leg.wa.gov/WAC/default.aspx?cite=400. Ecology provides guidance for other jurisdictions.

All watershed plans must comply with the State Environmental Policy Act (SEPA) and must be submitted to Ecology for review and approval. Watershed-wide planning projects funded by Section 319 must also meet the nine Key Elements for Watershed Plans in EPA's *Handbook for Developing Watershed Plans to Restore and Protect Our Waters*; see: www.epa.gov/nps/watershed_handbook/.

Table 10 provides a summary of the funding eligibility of some nonpoint source activity projects and components.

Table 10: Nonpoint Source Activity Projects and Components Eligibility

Description	Centennial Grant or Section 319 Grant	Revolving Fund Loan
Acquisition/installation of fencing along stream [1, 2, 6]	Yes	Yes
Acquisition/installation of native plant material [2, 6]	Yes	Yes
Acquisition/installation of plant material stabilizer [2, 6]	Yes	Yes
Acquisition/installation of side/cross fencing	No	No
Activities required by NPDES municipal stormwater permits	No	Yes
Agricultural BMP implementation on private property at concentrated animal feeding operations (CAFOs) (only CAFOs in areas covered by federally designated National Estuaries are eligible for Revolving Fund loans)	No	Yes
Agricultural BMP implementation on private property for the following: riparian re-vegetation or fence construction; livestock feeding BMPs including heavy use area protection, waste storage facilities, and windbreaks; certain activities that contribute to converting conventional tillage practices to direct seed practices; new innovative/alternative technology if they have not yet been demonstrated in the Ecology Region in which they are proposed; new BMPs approved by Ecology that are environmentally sound, effective, and consistent with the funding program goals and objectives	Yes	Yes
Agricultural BMP implementation on public property other than state or federal property (e.g., city, county property)	Yes	Yes
Aquatic plant control for aesthetic reasons, navigational improvements, or other purposes unrelated to water quality	No	No
Aquatic plant control when it has been established that water quality degradation is due to the presence of aquatic plants, and sources of pollution have been addressed sufficiently	Yes	Yes
Armoring of the toe [2, 6]	Yes	Yes
BMP implementation on public property other than state or federal property (e.g., city, county property)	Yes	Yes
BMPs on most federal and state owned property	No	No
BMPs that affect upland areas	No	No
BMPs that are production oriented	No	No
Bridges (livestock only) – up to 6 ft wide [2, 5, 6]	Yes	Yes
Channel re-establishment or naturalization/meander reconstruction/ re-sloping [1, 2]	Yes	Yes
Comprehensive planning for basin, watershed, and area-wide water quality	Yes	Yes
Computer equipment specific to a funded project	Yes	Yes
Conservation plans (site-specific) and targeted BMP plans [1]	Yes	Yes
Cultural resources review for BMP implementation	Yes	Yes
Culvert installation, repair, or replacement for any reason	No	No
Culvert removal for improved water quality and riparian restoration [2, 6]	Yes	Yes
Diagnostic studies to assess current water quality	Yes	Yes
Direct seed custom application fee reimbursement [1, 2, 6]	Yes	Yes
Direct seed equipment purchase by public body for rental purposes [1]	Yes	Yes
Direct seed equipment purchase for private landowner use	No	Yes
Education and stewardship programs related to water quality	Yes	Yes
Educational signage	Yes	Yes
Equipment and/or tools pre approved for a funded project	Yes	Yes
Farm planning when it results in water quality BMP recommendations consistent with these guidelines	Yes	Yes

Description	Centennial Grant or Section 319 Grant	Revolving Fund Loan
Grass filter strips [1, 2, 6]	Yes	Yes
Groundwater and source water protection	Yes	Yes
Hardened stream crossings for livestock [1, 2, 3, 5, 6]	Yes	Yes
Indirect rate (up to 25% of salaries and benefits)	Yes	Yes
Installation of log structures [1, 2, 6]	Yes	Yes
Installation of rip rap, boulders, and retaining walls/bulkheads	No	No
Installation of root wads [2, 6]	Yes	Yes
Installation of siphons	No	Yes
Installation of tide or flood gates	No	Yes
Irrigation canal efficiency measures (such as lining or piping existing canals)	No	Yes
Irrigation efficiency implementation (such as drip, mist, or low delivery systems)	No	Yes
Lake restoration implementation that has gone through the Step process	Yes	Yes
Lake water quality planning	Yes	Yes
Lakeshore riparian installation [1, 2, 6]	Yes	Yes
Land acquisition for wetlands protection, restoration, and construction [f]	No	Yes
Legal expenses associated with development of local ordinances for water quality protection	Yes	Yes
Light refreshments for meetings if pre-approved	Yes	Yes
Livestock exclusion fencing on private property [1, 2, 6]	Yes	Yes
Livestock exclusion fencing on public property [1, 3, 6]	Yes	Yes
Livestock feeding BMPs including heavy use area protection, waste storage facilities, and windbreaks [1, 2, 5, 6]	Yes	Yes
Mitigation to comply with requirements in SEPA/NEPA or other environmental review directly related to a project	Yes	Yes
Model ordinances to prevent or reduce pollution from nonpoint sources (development and dissemination)	Yes	Yes
Monitoring equipment used for water quality assessment	Yes	Yes
Off-stream watering provisions [1, 2, 2, 5, 6]	Yes	Yes
Permits required for project implementation	Yes	Yes
Planting trees for future harvesting	No	Yes
Pledge programs	Yes	Yes
Reimbursement for direct seed equipment rental by private landowner [1, 6]	Yes	Yes
Residue management via no till, direct seeding [1, 2, 6]	Yes	Yes
Riparian and wetlands habitat restoration and enhancement	Yes	Yes
Riparian forest buffers (not for future harvest) [1, 2, 6]	Yes	Yes
School programs (water quality related)[1, 4]	Yes	Yes
Sediment control basins [2, 6]	No	Yes
Site monitoring and follow-up maintenance [1]	Yes	Yes
Site preparation work (e.g., weed removal) [2]	Yes	Yes
Spring development [1, 2, 3, 5, 6]	Yes	Yes
Stream bank revegetation [1, 2, 6]	Yes	Yes
Stream restoration projects for water quality purposes	Yes	Yes
Technical assistance for irrigation water management such as planning and soil testing	Yes	Yes
TMDL plan development and implementation	Yes	Yes
Use of sediment settlers (e.g., Polyacrylamide) [1, 2]	No	Yes
Water quality monitoring	Yes	Yes
Watering riparian plantings [2, 3]	Yes	Yes

Description	Centennial Grant or Section 319 Grant	Revolving Fund Loan
Weed control associated with riparian revegetation [2]	Yes	Yes
Well decommissioning	No	Yes
Wellhead protection	Yes	Yes
Wetland creation [1, 2, 6]	No	Yes
Wetlands restoration [1, 2, 6]	Yes	Yes

[1] Specific criteria or guidelines apply.
[2] Work on private property requires landowner agreement.
[3] May have Ecology's Water Resources or Shorelands and Environmental Assistance Program issues. Applicants, recipients, and Ecology staff may need to inquire as to specific project limitations.
[4] School Districts are not eligible for funding.
[5] Requires exclusion fencing with a minimum setback from the ordinary high water mark consistent with the riparian restoration guidance found in Appendix G.
[6] Requires prior review and approval from Ecology's Project Manager before implementation.

Ineligible projects and components

In general, projects or project components that do not have a direct water quality benefit are not eligible for funding. Projects or project components prohibited by statute, federal appropriation, or administrative rules are also ineligible.

Chapter 4: Applying for Funding

Ecology manages the four major funding programs for water quality projects as one program. We have one combined funding cycle, one application process, and one Final Offer List and Intended Use Plan.

The funding cycle

The SFY16 application cycle begins on September 2, 2014. Before the application period opens, Ecology posts information explaining the application process and sends out a notice about the application period and corresponding applicant workshops.

During the annual funding cycle, Ecology:

- Accepts applications for approximately two months.
- Holds applicant training workshops at four locations around the state – one in each Ecology region.
- Rates and ranks the eligible applications based on the evaluation criteria.
- Solicits advice on project scope of work from other state agencies, if applicable.
- Conducts evaluators' meetings to: discuss the project proposals water quality priorities, finalize evaluations, and develop a Draft Offer List and Intended Use Plan (Draft List).
- Sends the Draft List to the Governor's Office of Financial Management and the State Legislature for consideration during the funding appropriation process and makes adjustments based on legislative provisions.
- Holds a 30-day public review and comment period.
- Conducts a public meeting during the 30-day public review process to present the Draft List.
- Publishes the Final Offer List and Intended Use Plan (Final List) that includes a responsiveness summary to comments received on the Draft List.
- Develops project agreements by the end of January of the year following the publication date of the Final List.
- Closes-out projects within five years of the publication date of the Final List.

Figure 1 illustrates the estimated timeline for the funding cycle steps for SFY16.

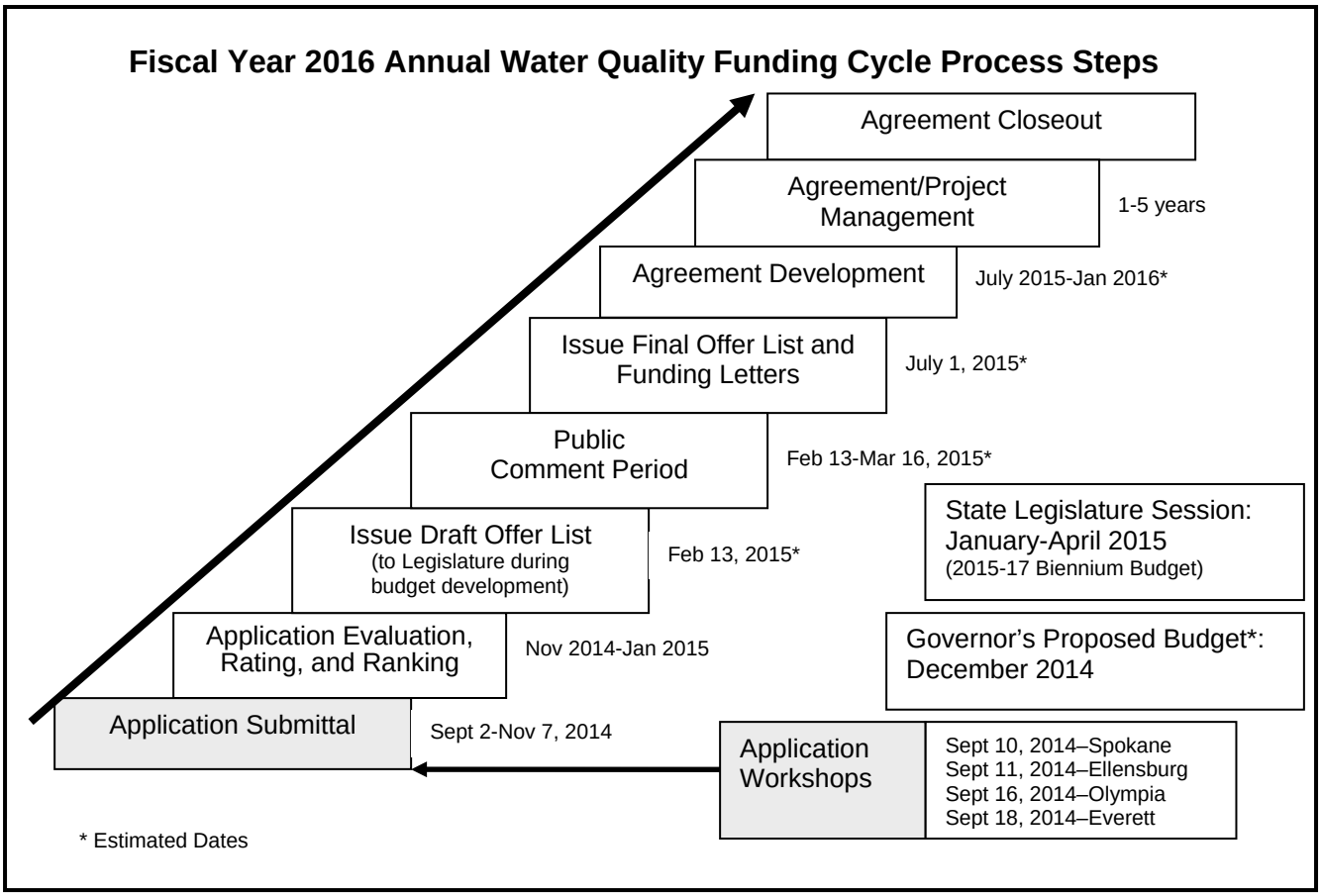


Figure 1: The Funding Cycle

How to apply

The application

Applicants submit applications for funding through the Ecology Administration of Grants and Loans (EAGL) system. The funding application is available by going to www.ecy.wa.gov/funding/EAGL.html and following the instructions. Once in the EAGL system, applicants can access the funding application and an EAGL Users Manual that provides instructions on accessing and using the system.

Applicants can submit applications beginning September 2, 2014. All applications must be submitted by 11:59 pm on November 7, 2014.

Evaluation process

Ecology evaluates project proposals based on responses provided on eight forms of the application. A total of 1,000 points are available. In order to obtain funding a project must receive a score of at least 600 total points, and it must receive at least 125 of the 250 possible

points on the Water Quality and Public Health Improvements Form. Table 11 shows the scoring breakdown by form and the scoring criteria. Additional guidance on scoring is in Appendix M.

Table 11: Application Rating and Ranking Criteria

Form and Scoring	Points
Scope of Work Form (up to 250 points) • The scope of work represents a complete and concise description of the project tasks and outcomes, including deliverables and timelines.	0-100
• The project directly and measurably addresses a water quality problem.	0-150
Task Costs General Form (up to 150 points) • The cost estimate process is reasonable.	0-50
• The project task costs represents a good value for the work and water quality benefits achieved. The applicant has identified adequate matching funds.	0-100
Water Quality and Public Health Improvement Form (up to 250 points) • How severe is the water quality problem and how well is it defined?	0-50
• The project will achieve substantial water quality and public health benefits.	0-100
• Project success can be measured, and the proposed methods to measure success are reasonable.	0-50
• The project will provide long-term water quality benefits. Systems are in place to sustain the benefits after funding support has ended.	0-50
Coordination with State and Federal Priorities Form (up to 100 points) • How well does the project address a current permit requirement or TMDL implementation? **OR** How well does the project address other state or federal water quality requirements? **OR** How well does the project address the Puget Sound Partnership Action Agenda or current approved plan or program, other than a TMDL, specifically designed to address water quality problems? **AND** How well does the applicant and the project address greenhouse gas emission reductions in accordance with RCW 70.235.070?	0-100
Project Team Form (up to 50 points) • Team members' roles and responsibilities are well defined and adequate for the Scope of Work.	0-20
• Team members' past experience is relevant.	0-20
• Staffing commitment is well documented.	0-10
Project Development, Local Support, and Past Performance Form (up to 75 points) • A comprehensive decision making process was used to arrive at the proposed project.	0-20
• Plans for long-term project success and sustainability were considered during project development.	0-20
• A high level of local support and commitment for the project is documented.	0-20
• The applicant documents successful performance on other funded water quality projects, including Ecology funded projects.	0-15
Readiness to Proceed Form (up to 75 points) • Project components are in place for the project to proceed and documentation is provided.	0-75
Financial Hardship Form (0 or 50 points) • Does the applicant meet the criteria for financial hardship?	0 or 50

Two Ecology staff review each project proposal; each reviewer gives the proposal a numeric score. One reviewer is from the Ecology region where the project is located, and the second reviewer is from one of the other regions. Ecology staff compares the two scores to ensure evaluation consistency for the application. If needed, a third Ecology reviewer performs an evaluation to ensure accurate, consistent scoring. Ecology develops a ranked list of projects based on the project scores.

Ecology may request input from other state agencies about certain types of projects. This outside review may not generate a numerical score, but it can influence the score. Outside reviewers could include staff from the State Conservation Commission, Puget Sound Partnership, or the Washington State Department of Health.

The information provided in the application is the basis for the scope of work used in a funding agreement. If the applicant makes significant changes to the scope of work after the application deadline, Ecology may withdraw a funding offer.

The successful project proposal

Demand for Water Quality Financial Assistance Program funding has routinely outstripped available funding. With such a competitive funding environment, applicants must develop a strong project application to display the project in the best light. While there is no guarantee that a project proposal will be funded, applicants can do several things to improve their chances of success.

In general, a successful project proposal will:

Show how the project solves or addresses a water quality problem.

- Identify a documented water quality issue.
- Demonstrate a clear connection between the proposed project and how it will help resolve the identified water quality issue.
- Explain how the applicant will document the water quality benefit.

Explain why the applicant chose the project.

- Describe the process the applicant used to select the project over other solutions.
- Provide documentation of plan(s) that supports the project.
- Explain why the project is the applicant’s highest priority.

Demonstrate that the project is well thought out.

- Include a well-defined scope of work that has goals, objectives, timelines, and measurable outcomes. A sample scope of work for stormwater facility projects can be found in Appendix O.
- Show how the project enjoys broad support by the community and agency partners.

Show that funds will be well spent.

- Provide an accurate and reasonable budget.

- Show that the funding request is reasonable compared to the proposed water quality benefit.

Illustrate that the project is ready to go.

- Confirm that the applicant has completed all required environmental review.
- Document that the applicant has obtained or applied for all permits.
- Verify that the applicant has completed all necessary easements, property owner agreements, or land acquisition.

Be easy to read and understand.

- Make sure that your application addresses all of the items identified in the evaluation criteria and scoring guide.
- Give clear, concise answers to all questions.
- Write in complete sentences.

Helpful hints:

- Include maps, diagrams, and pictures of the project and project area and display past projects (if any exist).
- Provide documentation to support answers.
- Include citations.

Application requirements

Applicants with facilities projects need to complete certain prerequisites in order to be eligible for funding assistance. Ecology evaluates all applicants on how they are implementing the State's requirements for Greenhouse Gas Emissions reductions. Applicants in the Puget Sound basin must be consistent with the Puget Sound Partnership's Action Agenda.

The Step Process

Applicants that propose facilities projects must proceed according to a systematic method known as the Step Process. Funding for one Step does not guarantee funding for subsequent Steps. The Step Process consists of three steps.

- Step 1 (planning) involves preparing a site-specific facilities plan that identifies the cost-effective alternatives for addressing a water pollution control problem.
- Step 2 (design) involves preparing plans and specifications for use in construction.
- Step 3 (construction) is the actual building of the facilities based on the approved design.

There are no prerequisites to apply for a Step 1 (planning) project.

Prerequisites for a Step 2 (design) project include:

- Ecology approval of the appropriate planning document (Engineering report, General Sewer Plan, etc.)

- Ecology's concurrence that the project complies with the SERP (State Environmental Review Process) requirements.
- Documentation that the project is the cost effective approach to achieving the water quality benefit.

Prerequisites for a Step 3 (construction) project include:

- Ecology approval of the appropriate planning document (Engineering report, General Sewer Plan, etc.)
- Ecology approval of the plans and specifications for the project.
- Ecology's concurrence that the project complies with SERP requirements.
- Documentation that the project is the cost effective approach to achieving the water quality benefit.

Stormwater projects, irrigation efficiency projects, and other types of projects that are not required to prepare a General Sewer Plan or Engineering Report may substitute a pre-design report for Step 1 of the process.

Design and construction (Steps 2 and 3) can be combined into one application in certain cases; these projects are called Step 4 projects. To qualify for Step 4, the project must be $5 million or less, and the applicant must be able to demonstrate that they can complete the design and have it approved by Ecology within one year of the funding agreement.

In some circumstances, approved plans and specifications are not required to apply for certain types of wastewater collection construction projects. As described in WAC 173-240-030 (5), if an applicant has received Ecology approval of a general sewer plan and standard design criteria, plans and specifications for sewer line extensions, including pump stations, are not required to be submitted for approval.

Ecology encourages applicants to follow the Step Process for activities projects; however, it is generally not required and may not be applicable in every case. The Step Process is required for nonpoint source activity lake restoration projects.

Project Analysis Form for stormwater projects

Ecology requires applicants for stormwater projects to complete a Project Analysis Form in order to be eligible for funding for stormwater facility construction projects. The form gives Ecology an opportunity to review and comment on the technical merits and cost effectiveness of the project, ensuring that funds are offered to high quality projects.

GMA compliance

Any public body required or choosing to plan under the Growth Management Act (GMA) must be in compliance with the applicable GMA requirements at the time a loan or grant agreement is signed, unless exceptional situations exist. Ecology may make exceptions in situations involving a public health need or a significant environmental degradation.

GMA compliance impacts the program in several ways:

1) GMA compliance status may have an impact on the priority evaluation of proposed facilities projects, because facilities projects in areas out of compliance with the GMA may not be ready to proceed.
2) Ecology coordinates with the Washington State Department of Commerce to help ensure the applicants are in compliance when the financial assistance agreement is signed. If an applicant achieves GMA compliance during the fiscal year, Ecology may sign the agreement.
3) Under certain circumstances Ecology may make temporary exceptions to the GMA compliance requirement if the proposed project is required to address a "serious public health need" or a "significant environmental degradation." Ecology looks at such designations very carefully and makes determinations on a case-by-case basis. However, Ecology exceptions do not relieve applicants of their responsibilities to comply with the GMA requirements.

GMA compliance does not affect activity project applications, such as watershed planning, water quality monitoring, public information and education, etc. GMA compliance also does not affect facilities projects proposed by public bodies not planning under the GMA.

Environmental review

Environmental review applies to wastewater and stormwater facility projects. However, all watershed plans must comply with the State Environmental Policy Act (SEPA) and must be submitted to Ecology for review and approval.

State environmental review process for Revolving Fund projects

Any applicant with a facility design (Step 2), construction (Step 3), or combined design and construction (Step 4) project must complete the State Environmental Review Process (SERP) prior to applying for Revolving Fund financing. This requirement applies to wastewater, stormwater (construction projects only), reclaimed water, combined sewer, and LOSS projects.

Any facility planning (Step 1) project using Revolving Fund financing must include SERP review as part of the scope of work in the loan agreement.

Ecology will work with applicants who have on-site septic repair and replacement projects to ensure that SERP requirements are met prior to the start of the project.

The review completed under SEPA is Washington State's environmental review process. A basic overview of SEPA is available at www.ecy.wa.gov/programs/sea/sepa/e-review.html. SEPA applies to decisions made by every state and local agency, including state agencies, counties, cities, ports, and special districts. The SEPA lead agency is responsible for identifying and evaluating the potential adverse environmental impacts of a proposal. This evaluation is documented and sent to other agencies and the public for review and comment. Every facility construction project is subject to SEPA review regardless of how the project is financed.

SEPA provides a framework for considering the environmental consequences of a project and provides a familiar, well-understood method for citizens to provide their input. However, SEPA

alone does not meet all the federal requirements that projects using Revolving Fund financing must meet. The following elements must be added:

1) Documentation of the SEPA review process.
2) Cost effectiveness analysis.
3) Public participation including a public meeting, the name of the publication where the public comment and public meeting information was published, date of the publication, all comments (oral and written), and how the comments were addressed.
4) Review and concurrence by Ecology.

If a federal agency (e.g., Rural Development or EPA) has completed a National Environmental Policy Act (NEPA) review of the project, that review can be used to satisfy SERP requirements. Applicants who have completed the NEPA process should also adopt the federal environmental review documents according to Part 6 of SEPA rules.

Federal environmental cross cutter requirements

Applicants for wastewater construction (Step 3) projects must complete federal cross cutter review and concurrence before the Water Quality Program Manager signs the Revolving Fund loan agreement. Combined design and construction (Step 4) projects must meet these requirements before starting construction activities. Any construction activities that occur prior to Ecology's cross cutter concurrence will not be eligible for reimbursement. Federal cross cutter review is a requirement for wastewater treatment, wastewater collection, reclaimed water, infiltration and inflow correction, and combined sewer projects.

Many cross cutters affect how a project is implemented, bid, or managed. These requirements are detailed in the loan agreement and are implemented in the construction contract by including the Ecology specification inserts into the bid package.

Loan applicants/recipients will prepare a cross cutter report that documents their actions in regard to each federal cross cutter. When complete, the applicant/recipient will submit the report to Ecology's Project Manager for review.

The following is a list and brief description of the federal cross cutters required for Revolving Fund facility construction projects.

- The Clean Air Act establishes air quality standards. This cross cutter applies to projects located in nonattainment areas (areas out of compliance with the standards) or maintenance areas (areas that have come back into compliance). Compliance may require estimating the air pollution emissions associated with the project.
- The Coastal Zone Management Act (CZMA) protects the nation's coastal areas. This cross cutter applies to any project located in a county adjacent to Puget Sound, the Pacific Ocean, or the Lower Columbia River Estuary. Compliance requires receiving CZMA concurrence from Ecology.
- The Endangered Species Act identifies and protects species at risk of extinction. This cross cutter may apply if the project is located near any endangered species or their critical habitat. Because so many of Washington's rivers are habitat for endangered salmonid species, this

cross cutter applies to many water quality projects. Compliance may require receiving formal concurrence after consultation with the US Fish and Wildlife Service and the National Marine Fisheries Service.

- The Farmland Protection Policy Act protects the nation's productive farmland. This cross cutter may apply if the project converts farmland to another purpose. Compliance may require consultation with the US Soil Conservation Service.
- Floodplain Management Executive Orders are a series of presidential executive orders that protect floodplain function and protect federally funded projects from flood damage. This cross cutter may apply if the project is located in the 100-year floodplain. Compliance may require consultation with the Federal Emergency Management Agency.
- Environmental Justice seeks to protect minority, low-income and tribal communities that may experience disproportionate environmental or human health impacts caused by project activity.
- The National Historic Preservation Act protects archeological and cultural resources and historic structures. This cross cutter may apply if the project modifies a building older than 50 years old, or if the project involves any amount of excavation.
- The Safe Drinking Water Act protects sole source drinking water aquifers. This cross cutter may apply if the project is located on a sole source aquifer. Compliance may require consultation with the US Environmental Protection Agency.
- The Sustainable Fisheries Act protects habitat for commercially valuable fish species. This cross cutter may apply if the project is located near essential fish habitat. Compliance may require consultation with the National Marine Fisheries Service.
- Wetland Protection Executive Orders protect the nation's wetlands. This cross cutter may apply if the project is located near any wetlands. Compliance may require consultation with the US Fish and Wildlife Service.
- The Wild and Scenic Rivers Act protects the free flowing character of designated rivers. This cross cutter may apply if the project is located in the river basin of a wild and scenic river. Compliance may require consultation with the US Forest Service.

More detailed environmental review guidance is available online at www.ecy.wa.gov/programs/wq/funding/GrantLoanMgmtDocs/Eng/DraftSERPandCrossCutGuidance.pdf.

Historic and cultural resources requirements

Many proposed projects have the potential to significantly impact culturally or historically significant locations or artifacts. Ecology staff coordinates with the Washington State Department of Archaeology and Historic Preservation (DAHP) to meet all state or federal requirements regarding cultural and historic preservation.

All projects that disturb soils from its natural state or impact buildings 50 years or older must comply with the applicable state or federal laws. Activities such as potholing, performing geotechnical borings, and grading are considered soil disturbance. Staff from Ecology's Water Quality Program work with grant and loan recipients to follow the appropriate steps to work with

DAHP and the tribe(s) to determine if a site has the potential of disturbing or significantly impacting cultural or historic resources. All activities associated with site assessments for cultural and historic resources are grant and loan eligible.

Appendix I provides more information regarding cultural resources review requirements and the process.

Puget Sound Action Agenda

The Puget Sound Partnership is a Washington State agency created by the State Legislature and charged to create an Action Agenda that leads to a healthy Puget Sound. The Puget Sound Partnership Action Agenda prioritizes cleanup and improvement projects; coordinates federal, state, local, tribal, and private resources; and makes sure that they are all working cooperatively.

Water quality projects located in the Puget Sound basin must not be in conflict with the Puget Sound Partnership Action Agenda. The Puget Sound basin is defined as WRIAs 1 through 19 (see Appendix C for a map of WRIAs in Washington State).

Projects in the Puget Sound basin that address specific actions outlined in the Puget Sound Partnership Action Agenda will receive preference over projects in the Puget Sound basin that do not; see: www.psp.wa.gov/action_agenda_2012-13.php.

Greenhouse gas emission reductions

In 2009, the State Legislature passed ESSB 5560 adding new policies related to green house gas (GHG) emissions to state funding for infrastructure. These policies are codified in RCW 70.235.070 (*Distribution of funds for infrastructure and capital development projects – Prerequisites*); see: http://app.leg.wa.gov/rcw/default.aspx?cite=70.235.070.

Requirements of RCW 70.235.070 must be included in the Revolving Fund and Centennial programs as a factor for consideration as part of the competitive selection process. The integration of GHG consideration should be a factor that influences project selection, but should not overwhelm the underlying goals of the funding programs. Ecology's funding application includes questions related to applicant and project consistency with GHG emissions reduction goals, including asking the applicant to describe how it is meeting requirements of RCW 70.235.070.

Measures *the applicant* can take to reduce GHG emissions include:

- Enacting goals and policies committing to GHG emissions reduction targets.
- Adopting energy efficiency policies to reduce consumption in buildings and infrastructure.
- Adopting policies that promote and support the generation and use of alternative energy.
- Adopting waste reduction and diversion policies such as methane recovery or waste-to-energy programs.
- Adopting policies to replace or repower existing vehicles with cleaner, more efficient vehicles.
- Adopting equipment procurement policies that result in reduced consumption of fossil fuels.

- Implementing commute trip reduction plans and policies that establish reduction goals and strategies to reduce annual per capita vehicle miles travelled by the entity's community or workforce.
- Adopting policies that preserve forest, agricultural, and open space lands.
- Adopting comprehensive land use plans or planning policies that promote and support development patterns that encourage compact and transit-friendly communities and protect natural resources lands from conversion.

Examples of how *the project* can be designed or built to reduce GHG emissions include:

- The project site reduces GHG emissions by being located in:
  - Existing developed areas (e.g., high-density areas, urban growth areas, or designated urban centers) where services exist or are planned.
  - Areas where transportation options can be efficiently provided.
  - Areas where conversion of natural resources and rural land is prevented.
  - Areas that promote transportation choices such as transit, bicycle, and pedestrian accessibility.
  - Brownfield redevelopment areas.
  - Other areas that encourage the use of non-single occupancy vehicles and minimize the amount of land to be devoted to the project.
- Methods used to develop, construct, and operate the project reduce the use of fossil fuels (GHG emissions) by:
  - Using high performance sustainable building design, such as the use of green building standards.
  - Using green materials and high-energy efficiency measures.
  - Promoting the use of recycled content materials for building construction.
  - Supporting environmental/ecological footprint improvements (e.g., energy efficiency, water conservation, habitat preservation, green alternatives, waste-to-energy, and lowering surface disturbance).
  - Implementing new technologies, practices, and equipment to lower energy use for operation.
  - Using renewable energy (wind, geothermal, solar, etc.), distributed energy (solar photovoltaic panels), or purchased green power.

Rate studies and fee ordinances

Ecology requires all applicants that receive Revolving Fund loan offers for facility construction have a rate study and an adopted fee ordinance. The rate study must include the cost of the proposed facility. The fee ordinance must be based on the rate study and be adequate to fund all annual financial obligations for the entity, including operation and maintenance costs, repair and replacement costs, and annual debt service including required reserve accounts.

Public review and request for reconsideration

Applicants and the public receive notices from Ecology about the 30-day public comment period on the Draft List. During the 30-day public comment period, applicants may provide comment on the process or request reconsideration of a project proposal.

Official comments on the list and process or requests for reconsideration must be submitted to Ecology in writing within the 30-day comment period. Any request for reconsideration must be well-defined and supported.

Ecology will provide a response to written comments in the Final List. Ecology publishes these documents following the final approval of the State's budget that provides appropriation authority for funding.

Chapter 5: Agreement Development, Management, and Conditions

Agreement development

Project Management Team

Ecology makes formal funding offers at the time of the publication of the Final Offer List and Intended Use Plan (Final List).Ecology assigns a Project Management Team to each project receiving a funding offer. The Project Management Team consists of a Financial Manager from the headquarters office and a Project Manager from the regional office where the project is located. Ecology's Project Management Team contacts the applicant within four weeks of the loan or grant offer to schedule a time to discuss the funding offer and begin the process of developing a funding agreement. The Project Management Team works to develop and negotiate funding agreements and monitor recipient performance after an agreement is signed.

The Project Management Team uses information found in the funding proposal as the basis for developing the funding agreement. Funding agreements for clearly defined project proposals that include a detailed scope of work, measurable objectives, and accurate budgets take less time to develop. If the applicant makes significant changes to the scope of work after the award, Ecology may withdraw or modify a funding offer.

To speed development and processing, Ecology standardizes much of the funding agreement language and includes general terms and conditions and other conditions that are required by state or federal law.

The Financial Manager reviews and approves payment requests and assists the Project Manager in the negotiation of agreements. The Financial Manager also administers the project, determines eligibility, and maintains project files.

The Project Manager is the primary contact for technical assistance and day-to-day questions. The Project Manager also works with the Financial Manager to resolve payment or eligibility issues if they arise. When in doubt, call any member of the Project Management Team for information.

Ecology assigns a regional Project Engineer for most facilities projects to provide engineering technical assistance and conduct engineering review and approvals. The Project Engineer may also serve as the Project Manager.

After developing the agreement, the Project Management Team requests a funding program review. When the agreement is finalized, the applicant signs the agreement. The applicant will send the funding agreement back to the Financial Manager for the final signature by the Water Quality Program Manager or the authorized designee.

Once the agreement is signed by Ecology, a fully executed original will be returned to the recipient. The *applicant* becomes the *recipient* once the agreement is signed.

Agreement management

Incurring eligible costs

The *effective date* is the earliest date on which eligible costs may be incurred. The effective date is negotiated between the applicant and Project Management Team during agreement development.

Unless explicitly stated by the State Legislature in a budget appropriation, the effective date for grants cannot be before beginning of the state fiscal year, which occurs July 1.

The effective date for Revolving Fund loans can go back to the beginning of the project if appropriate (see the Interim Refinance subsection in Chapter 2).

The applicant may incur project costs on and after the effective date and before Ecology's signature of the final agreement, but expenditures cannot be reimbursed until the agreement has been signed by Ecology's Water Quality Program Manager. While applicants can incur eligible costs before the agreement is signed, they do so at their own risk.

Important dates

The time limits for starting and ending projects are based on the publication date of the Final List that identifies the project for funding.

The funding agreement for the project must be signed by both parties no later than seven months after the publication date of the Final List. Generally this means January 31 of the year following the publication of the Final List.

Actual work on the project should begin no later than 10 months after the publication date of the Final List. Generally this means April 30 of the year following the publication of the Final List.

The *expiration date* (of an agreement or amendment) is the last date on which costs may be incurred and be considered eligible. The *project completion date* is the date specified in the agreement as that on which the Scope of Work will be fully completed. Both dates are negotiated between the applicant and the Project Management Team.

The *initiation of operation date* applies to facilities construction projects. It is the actual date that a facility starts operation or can be used for its intended purpose. This date may occur prior to final inspection. Ecology will determine the initiation of operation date after consultation with the recipient. This date may be the same as the project completion date, or it may be earlier. The initiation of operation date triggers the start of the one-year loan repayment grace period. If the project completion date occurs before the initiation of operation date, the start of the one-year loan repayment grace period starts with the project completion date.

Project completion dates and extensions

Facility and activity projects funded through the Revolving Fund and stormwater facility projects funded through SFAP must be completed within five years of the publication date of the Final List. After the five-year limit is reached, a time extension of no more than 12 months may be made with valid reasons supporting the time extension. In no event can the project be extended beyond six years of the publication date of the Final List identifying the project.

Activities projects funded with Section 319 grants, Centennial grants used for the Section 319 match, and SFAP grants must be completed within three years of the publication date of the Final List. After the three-year limit is reached, a time extension of no more than 12 months may be made with valid reasons supporting the time extension. In no event can the project be extended beyond four years of the publication date of the Final List identifying the project. Section 319 grants have a limit on contract extensions based on when the grant is awarded to the State; this limit may be less than the three-year limit described above.

Ecology can authorize time extensions for valid and substantiated reasons if they occur during the specified timeframe. Ecology can grant an extension of up to 12 months beyond the designated date under certain conditions, including but not limited to:

- Schedules included in water quality permits, consent decrees, or enforcement orders.
- Work that falls within an environmental window in a specific season of the year.

To ensure timely processing, the recipient must request extensions no less than three months before the funding agreement is due to expire.

Agreement conditions

Investment grade efficiency audit

Recipients of funding from the Revolving Fund and Centennial with facilities projects may be required to conduct an investment grade efficiency audit (IGEA). Ecology's appropriation in the 2013-15 Biennial Budget states in part,

> *"For projects involving repair, replacement, or improvement of a wastewater treatment plant or other public works facility for which an investment grade efficiency audit is obtainable, the department of ecology must require as a contract condition that the project sponsor undertake an investment grade efficiency audit."*

The requirement may be included in the 2015-2017 Biennial Budget as well. If required, the IGEA may be paid for with Centennial grant or Revolving Fund loan funds.

Pre-award Compliance Review Report, Initial Data Reporting Sheet, and Federal Funding Accountability and Transparency Act

Recipients of funding from the Revolving Fund, Section 319, or Centennial projects used for the state match for Section 319 must complete and submit to Ecology a Preaward Compliance

Review Report; the report can be accessed at www.epa.gov/ogd/forms/forms.htm. Such recipients also must complete and submit an Initial Data Reporting sheet and the Federal Funding Accountability and Transparency Act (FFATA) form to Ecology; the sheet and form can be accessed at www.ecy.wa.gov/programs/wq/funding/GrantLoanMgmtDocs/NewAgreeMat/index.html.

Specification inserts

Agreements for projects funded through Centennial or the Revolving Fund will contain several special conditions. See the *Specification Inserts* section at www.ecy.wa.gov/programs/wq/funding/GrantLoanMgmtDocs/Eng/GrantLoanMgmtEngRes.html for the most current versions of the special conditions.

Special conditions for Revolving Fund loans

The following items are required conditions of recipients of a Revolving Fund loan.

Authorizing ordinance or resolution

Recipients must provide an authorizing ordinance or resolution that states that the recipient accepts its responsibility to repay the loan and abide by the provisions of the agreement. The resolution must be signed by the governing board or council and is included in the loan agreement as an attachment.

Federal requirements for construction

Recipients of Revolving Fund loans for construction projects must comply with the federal requirements, including Equal Employment Opportunity, Davis-Bacon wages, Disadvantaged Business Enterprise requirements, Fiscal Sustainability Plans, and American Iron and Steel (AIS) requirements.

Financial capability assessment

Ecology must conduct a financial capability assessment (FCA) of recipients. Among other items, conducting a FCA requires Ecology staff to review current financial statements to determine the ability of applicants to repay the Revolving Fund loan. Ecology cannot sign loan agreements without a FCA. Applicants must complete a FCA checklist and provide supporting documents to Ecology. The FCA checklist can be accessed at www.ecy.wa.gov/programs/wq/funding/GrantLoanMgmtDocs/NewAgreeMat/index.html.

Insurance

Where applicable, recipients must maintain comprehensive insurance coverage on projects in amounts equal to the funds disbursed.

Interest accrual

Ecology disburses loan funds on a cost-reimbursable basis. An incurred cost is defined as a cost that has occurred and is eligible for payment. Interest begins to accrue on each disbursement at the time it is paid to the recipient. Interest is compounded monthly.

Operation and maintenance of utility

The recipients must keep the utility in good working order and operate the utility efficiently. Recipients of funding for stormwater facilities must agree to maintain stormwater facilities for the design life of the facility, typically 20 years.

Opinion of recipient's legal counsel

Recipients must provide a statement from their legal counsel regarding the final draft of the loan agreement. The statement will be included in the loan agreement. A template can be found at www.ecy.wa.gov/programs/wq/funding/GrantLoanMgmtDocs/NewAgreeMat/index.html.

Pledge of net revenue or utility local improvement district assessments

If revenue from a utility local improvement district (ULID) is used to secure a loan, the recipient must irrevocably pledge to pay the net revenue of the ULID to cover the principal and interest.

Repayments

Semi-annual loan repayment begins one year after the project completion date or initiation of operation date, whichever comes first. There is no restriction or penalty for early loan repayment.

Reserve requirement

For a loan that is a revenue-secured debt with a term greater than five years, Ecology requires the recipient to accumulate a reserve equivalent to at least the average annual debt service on the loan. The recipient must establish this reserve during the first five years of the repayment period of the loan.

2014 amendments to the Clean Water Act (CWA) and new conditions for Revolving Fund loans

In May 2014 Congress passed the Water Resources Reform and Development Act of 2014 (WRRDA), and the President signed it on June 10, 2014. WRRDA included several amendments to the CWA. Ecology will have to revise the Revolving Fund rule in order to implement some of the provisions of the amended CWA (e.g., to allow up to 30-year loan terms). Other provisions of the amended CWA will go into effect on October 1, 2014, with or without Revolving Fund rule revisions. Other provisions of the amended CWA will go into effect on October 1, 2015, with or without Revolving Fund rule provisions.

EPA is currently working on Interim Guidance that will specify what the new provisions mean and how they must be implemented. The final Interim Guidance is not expected to be published

until mid-September 2014. When the final Interim Guidance is published, Ecology will amend this document by describing the new conditions for Revolving Fund loans in Appendix P.

Special conditions for onsite sewage system local loan fund projects

Administration

Recipients must use the funds received from Ecology to establish and administer a local loan fund. Recipients are responsible for local loan servicing, collecting payments, and payment tracking, but may contract for such services through a lending institution. Recipients must officially approve or deny local loan requests and establish the local loan interest rate and the repayment period.

Reporting

A schedule for project completion, including milestone dates for loan marketing activities, numbers of loan applications and closures, disbursements, application deadlines, etc., must be submitted by the recipient with each quarterly progress report.

Recipients of funding must also submit a final list of the local loans provided to homeowners and small commercial enterprises throughout the duration of the project. The list must include information regarding the number and final dollar amounts of loans funded in the following respective homeowner income and small commercial enterprise revenue levels:

- County Median Household Income
  - Above 80 percent.
  - 50 to 80 percent.
  - Below 50 percent.
- Small Commercial Enterprise Annual Gross Revenue
  - Above $100,000.
  - $50,000 to $100,000.
  - Below $50,000.

Special conditions for nonpoint source pollution control activity projects

Landowner agreements

The recipient must obtain a conservation easement or a landowner agreement signed by the landowner prior to planning and installing a BMP on private property. The recipient must submit a copy of the agreement or easement to the Ecology Project Manager. The landowner agreement will include, but not be limited to:

- A 10-year maintenance agreement that is transferred with the ownership of the land. Agreements shall not contain provisions for termination of the agreement at any time.
- Allowance of inspection of the project area by the recipient and by Ecology staff as determined by the agreement.

- A written and signed maintenance plan that covers establishment and maintenance of the BMP(s) for the first three years. This plan will detail responsibilities for both the landowner and the recipient and must include details concerning, but not limited to, watering plants, maintaining a reasonable level of plant survivability, replacing dead plants, controlling noxious weeds, and repairing and maintaining exclusion fencing, off-stream watering provisions, or other eligible BMPs. This three-year maintenance plan is generally the responsibility of the recipient unless otherwise written in the landowner agreement.
- Commitment from the landowner and producer to implement a full three-year crop rotation for agreements related to direct seed practices.
- When projects include off-stream watering installation, agreements must include provisions to ensure that water supplied is for livestock use only.
    - Per Ecology Water Resources Program Policy 1025, watering facilities provided must serve no greater number of livestock than historically range that parcel of property. The quantity of water consumed by livestock as a result of the funded off-site watering facility should not exceed the quantity consumed if the stock were to drink directly from the stream.
    - If land use is changed from livestock management to residential, commercial, or industrial development during the 10-year landowner/recipient agreement period, all financial assistance issued for the off-stream watering facilities must be immediately repaid by the loan or grant recipient to Ecology.

Quality Assurance Project Plan (QAPP)

Prior to initiating water quality monitoring activities, the recipient must prepare a Quality Assurance Project Plan (QAPP). The QAPP must follow Ecology's *Guidelines and Specifications for Preparing Quality Assurance Project Plans for Environmental Studies*; see: https://fortress.wa.gov/ecy/publications/publications/0403030.pdf. A QAPP template is available at www.ecy.wa.gov/programs/eap/qa/docs/QAPPtool/index.html.

Standard Operating Procedures (SOPs) for field sampling and testing activities associated with monitoring QAPP development can be found at www.ecy.wa.gov/programs/eap/quality.html.

Recipients may also reference Ecology's *Technical Guidance for Assessing the Quality of Aquatic Environments* in developing the QAPP; see: https://fortress.wa.gov/ecy/publications/publications/9178.pdf.

The QAPP must:

- Describe in detail the monitoring and data quality objectives, procedures, and methodologies that will be used to ensure that all environmental data generated will meet the QAPP requirements.
- Describe in detail the water quality monitoring approach and laboratory protocols, including types of data and samples to be collected, sample location, sampling frequency, sampling procedures, analytical methods, quality control procedures, and data handling protocols.
- Describe data assessment procedures.

- Explain how the project will yield sufficient information to achieve the purpose and intent of monitoring.
- Discuss data accuracy and statistical requirements.

The recipient must submit the QAPP to Ecology's Project Manager for review, comment, and approval before starting the environmental monitoring activities. Any monitoring activity conducted before the QAPP receives final approval is not eligible for reimbursement.

Use of an Ecology accredited laboratory

The recipient must use an environmental laboratory accredited by Ecology to analyze water samples for all parameters that require bench testing. Information on currently accredited laboratories and the accreditation process is provided on the Ecology's Environmental Assessment Program's website at https://fortress.wa.gov/ecy/laboratorysearch/.

The recipient should manage all monitoring data collected or acquired under the agreement to be available to secondary users and meet the "10-year rule." The 10-year rule means that data documentation is sufficient to allow an individual not directly familiar with the specific monitoring effort to understand the purpose of the data set, methods used, results obtained, and quality assurance measures taken 10 years after data are collected.

Monitoring data management and submittal

Recipients that collect environmental monitoring data must submit all data to Ecology using the Environmental Information Management System (EIM). Data must be loaded into EIM following instructions on the EIM website at www.ecy.wa.gov/eim and be approved by Ecology's Project Manager. Final payment requests will be withheld until data has been approved in EIM.

The data submittal portion of the EIM website provides information and help on formats and requirements for submitting tabular data. Specific questions about data submittal may be directed to the EIM Data Coordinator.

Recipients must follow Ecology data standards when Geographic Information System (GIS) data are collected and processed as documented at www.ecy.wa.gov/services/gis/data/standards/standards.htm. Recipients must submit copies of all final GIS data layers, imagery, related tables, raw data collection files, map products, metadata, and project documentation to Ecology.

Standard agreement terms and conditions

The following are important terms and conditions that play a role in the day-to-day decisions made on loan or grant projects. A complete listing of the administrative requirements for all grants and loans administered by Ecology is contained in the *Administrative Requirements for Recipients of Ecology Grants and Loans Managed in EAGL*; see: https://fortress.wa.gov/ecy/publications/publications/1401002.pdf.

Accounting standards

Recipients must maintain accounting records in accordance with RCW 43.09.200, *Local government accounting–Uniform system of accounting*; see: http://app.leg.wa.gov/rcw/default.aspx?cite=43.09.200.

Advisory committee time

Time spent by advisory councils to carry out projects is an eligible cost, including costs incurred by advisory councils or committees established according to federal or state requirements.

Amendment process

Modifications and changes to the funding agreement may become necessary. The recipient must negotiate changes and document the changes as an amendment to the funding agreement. All proposed project changes are subject to approval by Ecology.

Either the recipient or Ecology may initiate the amendment process. If the recipient initiates the process, they must request the change through the EAGL system. If the Project Manager concurs with the request, the Financial Manager prepares the amendment.

The recipient prints, signs, and returns two copies of the amendment to Ecology. Ecology's Water Quality Program Manager or designee signs the amendment. Ecology sends one of the original copies of the signed amendment to the recipient contact.

Reasons for amendments could include:

- Budget increases or decreases.
- Scope of work changes.
- Changes to required performance.
- Time extensions.

Appeals process

Loan or grant recipients may formally appeal a written decision by Ecology. A recipient cannot bring a lawsuit to Superior Court unless the aggrieved party follows the procedures listed below. The procedures are intended to encourage the informal resolution of disputes.

1) The recipient may seek review of the financial assistance program's initial decision within 30 days of the decision. The recipient makes the request for review in writing to the Water Quality Program Manager.
2) The Program Manager will consider the appeal information and will issue a written decision within 30 days from the time the appeal is received.
3) If the recipient is not satisfied with the Program Manager's decision, the recipient has 30 days to submit a written request to Ecology's Deputy Director of Ecology for a review of the decision.

4) The Deputy Director will consider the appeal information and will issue a written decision within 30 days from the time the request is received. The Deputy Director's decision will be the final decision of Ecology.
5) If the recipient is not satisfied with the Deputy Director's final decision, the recipient may appeal to the Thurston County Superior Court, pursuant to RCW 34.05.570(4), *Judicial Review*; see: http://app.leg.wa.gov/rcw/default.aspx?cite=34.05.570.
6) Unless all parties to such appeal agree that a different time frame is appropriate, the parties shall attempt to bring the matter for a superior court determination within four months of the date in which the administrative record is filed with the court. This time frame is to ensure minimal disruptions to the program.

Budgets

All recipients must track the project budget by task. An object-based budget is not permitted. Object budget information provided in the application is used to evaluate if all costs were considered by the applicant at the time of application and to track requested purchases during project implementation.

The budget amount for Administration cannot exceed 15 percent of the total eligible cost of the project.

Definitions

See Appendix K for a complete list of the standard definitions found in loan and grant funding agreements.

Disbursements of loan and grant funds

Ecology disburses loan and grant funds to recipients on a cost-reimbursable basis. The recipient must incur eligible costs within the effective date and expiration date of the funding agreement.

Education and outreach

Recipients of grant funding for education and outreach activities projects must do a regional search for existing materials before producing any new educational flyers or pamphlets and request the use of existing materials before time and resources are invested to duplicate materials that are already available. Recipients must also check the Washington Waters website at www.ecy.wa.gov/washington_waters/index.html for useful educational materials. These materials are available for public use and can be downloaded directly from the website.

Recipients must provide Ecology with a copy of any tangible educational products developed under the grant, such as brochures, manuals, pamphlets, videos, audio tapes, CDs, curriculum, posters, media announcements or gadgets, such as a refrigerator magnet with a message. If this is not practical, recipients must provide Ecology a complete description including photographs or printouts of the products.

Recipients must also provide Ecology with contact information for local project leads.

If there are a significant number of people in the community that speak languages other than English, recipients must produce all educational and public outreach materials in English and in the other most prevalent language.

Equipment purchase and equipment fees

Equipment purchases are eligible if Ecology's Project Management Team approved them in advance or they are specified in the agreement. The recipient may charge an appropriate use fee for equipment it owns.

A use fee for equipment owned by the recipient or utilized through a valid interlocal agreement:

- Must be justifiable, fair, and reasonably attributed to the project.
- Must directly satisfy the project scope of work.
- Must be shown to be cost effective.
- Cannot exceed the acquisition cost of the equipment or facilities.
- Cannot exceed the rental rate or purchase price for comparable equipment or facilities in the recipient's market.

Force accounts and staffing plans

Force account refers to a local government that uses its own staff to complete a facilities project. For activities projects, it may be considered a staffing plan. Force accounts and staffing plans may be eligible for funding under the Revolving Fund if:

- The recipient complies with laws on discrimination, such as wages, job safety, insurance, licenses, and certifications; see: Chapter 39.04 RCW, RCW 35.22.620, and RCW 35.23.352.
- The recipient demonstrates that they have the legal authority and the technical capability to perform the work.
- The recipient demonstrates that other essential functions will not be affected by performing the work.
- The work is accomplished more economically than if procured competitively.
- The recipient submits a written request to fund the force account work that includes a dollar amount and a general description of the force account work. The request must be approved by the Ecology Regional Section Manager.
- The work to be performed using recipient forces is included as a separate budget line item in the financial assistance agreement.

The recipient must maintain separate and identifiable records for a force account or staffing plan to ensure eligible costs are charged to the project. Overtime differential is not allowed.

Indirect rate

The recipient can charge an indirect rate of up to 25 percent of salaries and benefits to cover overhead costs that benefit more than one activity of the recipient and that are not directly assignable to a particular objective of the project. Recipients may be required to submit documentation at any time listing what is included in the indirect rate.

Interlocal agreements

Interlocal agreements must be consistent with the terms of the loan or grant agreement and Chapter 39.34 RCW, *Interlocal Cooperation Act*; see: http://app.leg.wa.gov/rcw/default.aspx?cite=39.34&full=true.

Light refreshments

Light refreshment costs for meetings or conferences are eligible as permitted by Ecology's travel policy. They must be approved by the Ecology Project Manager.

Coffee and any other non-alcoholic beverage, such as tea, soft drinks, juice, or milk, and snacks served at meetings or conferences are considered light refreshments.

Payment holds or termination

If a recipient does not satisfy conditions in the funding agreement, Ecology may terminate the agreement and request that the recipient repay all of the funds disbursed, withhold a payment, or decrease the payment by the amount proportionate to the costs associated to the incomplete work.

Payment requests processing

Payment requests are initiated and processed through the EAGL system. Backup documentation is required for all goods and services listed in a payment request.

Permits

Recipients must secure any required permits and provide documentation upon request. Work on the permit preparation is an eligible cost. Permit fees associated with completing a funded project are also eligible. Ecology considers annual permit fees a normal operating expense, so annual permit fees are not eligible for funding.

Procuring goods and services

The recipient is responsible for procuring professional, personal, and other services using sound business judgment and good administrative procedures consistent with applicable federal, state, and local laws, orders, regulations, and permits. This includes issuance of invitation of bids, requests for proposals, selection of contractors, award of sub-agreements, and other related procurement matters.

The Office of Minority and Women Owned Business Enterprises (OMWBE) has established voluntary goals for the participation of minority- and women-owned businesses in procurements made with Ecology funds. Each loan and grant agreement will contain a condition regarding OMWBE. While participation is voluntary, Ecology requires reporting the level of participation.

Progress reports

Recipients must submit progress reports at least quarterly and with every payment request. Progress reports are submitted through the EAGL system.

Progress reports should include a description of all progress made in the reporting period to meet goals as well as any successes, problems, and delays that affect the project. If a problem exists, recipients must discuss the corrective actions taken or proposed and identify any Ecology assistance that may be needed.

Ecology will withhold payments if the recipient has not submitted progress reports.

Project site visits and post project assessments

Ecology's Project Management Team may conduct site visits to provide technical assistance and verify progress or payment information for projects.

Recipients of grant funding for activities projects must agree to participate in a brief survey regarding the key project results or water quality project outcomes and the status of long-term environmental results or goals from the project approximately three years after project completion.

Public awareness

Recipients must inform the public about the project and about Ecology and EPA participation for the following:

- Any site-specific project that is accessible to the public must have signs acknowledging state and federal participation. Logos are available from Ecology's Financial Managers for use on signs.
- All publications must include acknowledgment of state and federal participation.

Transportation costs

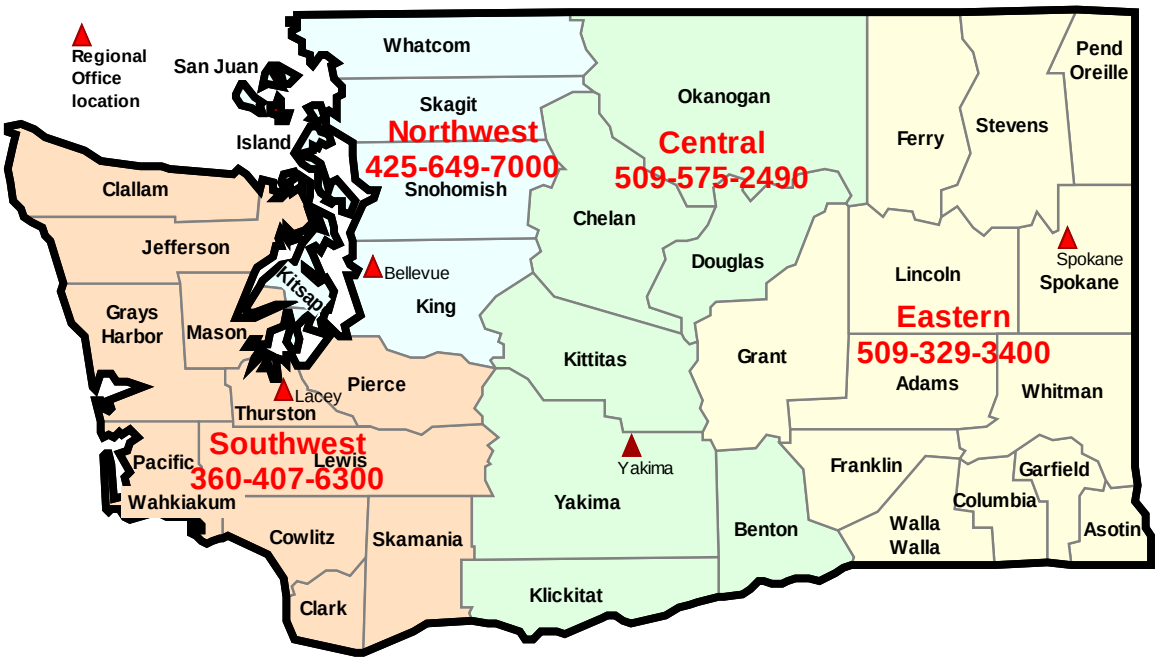
The recipient can recover the cost of transportation through the state mileage rate, a use fee, or an indirect rate. The recipient may charge mileage to the project at the current state mileage rate. The mileage charge includes all vehicle-related needs, such as gas, tires, insurance, and maintenance.

Appendix A: Acronyms and Abbreviations

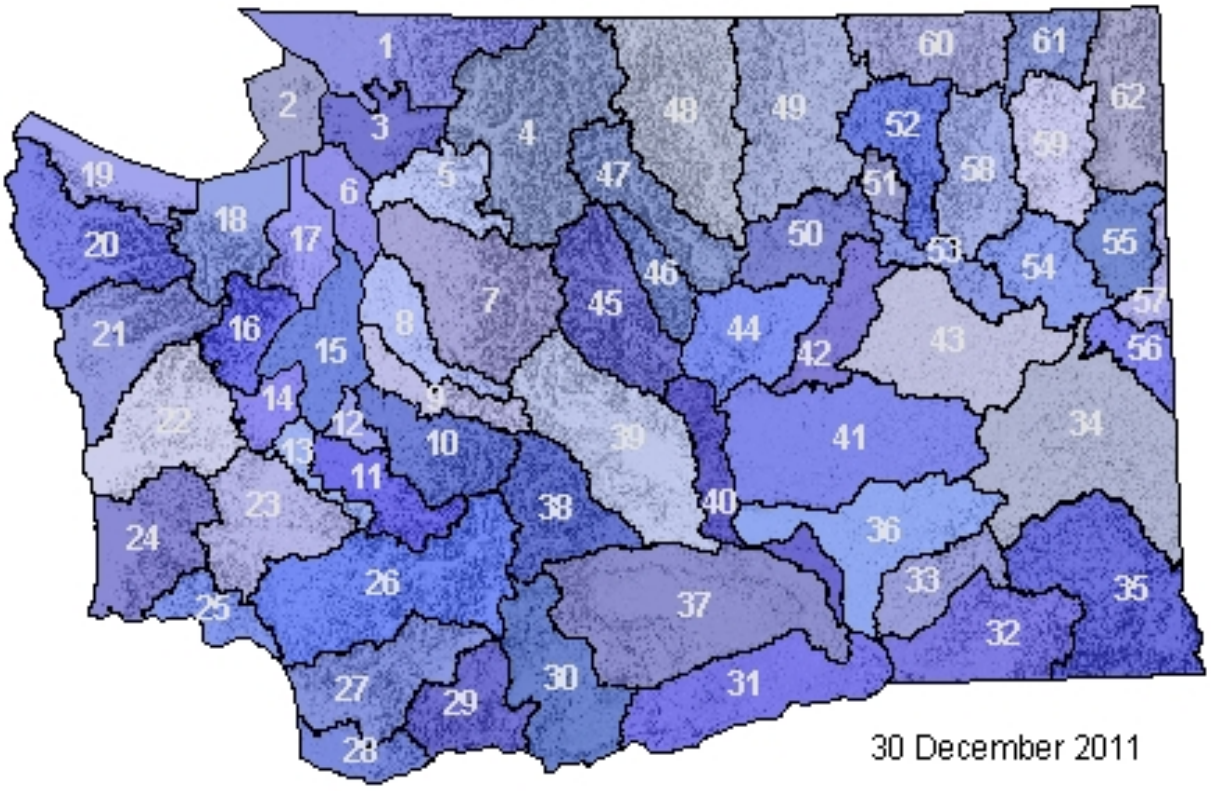
Acronyms and Abbreviations	Program Name
ACS	American Community Survey
BMP	Best Management Practice
CDP	Census Designated Place
Centennial	Centennial Clean Water Fund
CSO	Combined Sewer Overflow
CWA	Clean Water Act
DAHP	Department of Archaeology and Historic Preservation
EAGL	Ecology Administration of Grants and Loans
Ecology	Washington State Department of Ecology
EIM	Ecology Information Management System
EPA	Environmental Protection Agency
ESA	Endangered Species Act
FFATA	Federal Financial Accountability and Transparency Act
FFY	Federal Fiscal Year
FOTG	Field Office Technical Guide
GMA	Washington State's Growth Management Act
GPR	Green Project Reserve
I/I	Infiltration and Inflow
IACC	Infrastructure Assistance Coordinating Council
IGEA	Investment Grade Efficiency Audit
LID	Low Impact Development
LOSS	Large Onsite Sewage System
N/A	Not applicable
NPDES	National Pollution Discharge Elimination System
NRCS	Natural Resource Conservation Service
OMWBE	Office of Minority and Women Owned Business Enterprises
OSS	Onsite Sewage System
QAPP	Quality Assurance Project Plan
RCW	Revised Code of Washington
Revolving Fund	Washington State Water Pollution Control Revolving Fund
Section 319	The Clean Water Act Section 319 Nonpoint Source Grant Program
SEPA	State Environmental Policy Act
SERP	State Environmental Review Process
SFAP	Washington State Stormwater Financial Assistance Program
SFY	State Fiscal Year
STEP	Small Town Environmental Process
TMDL	Total Maximum Daily Loads
ULID	Utility Local Improvement District
WAC	Washington State Administrative Code

Appendix B: Department of Ecology Regional Offices

Headquarters (Lacey) 360-407-6000
TTY (for the speech and hearing impaired) statewide is 711 or 1-800-833-6388



Appendix C: Map of Water Resource Inventory Areas (WRIAS) in Washington



Appendix D: Direct Seed Systems

Direct seed systems are eligible for Water Quality Program financial assistance. Direct seed systems plant and fertilize into undisturbed soil and eliminate full width tillage for seedbed preparation. Implements used for direct seed disturb only a narrow strip of soil and retain a majority of residue from the previous crop. Direct seed systems significantly reduce erosion, improve soil quality, reduce fuel consumption, and are a viable alternative to traditional, full tillage systems.

Required eligibility conditions for all activities

- Cropland acres currently planted with a single pass, low disturbance direct seed are not eligible.
- Rental and custom application cost reimbursement will be provided to only those producers or landowners that have not previously implemented a single pass, direct seeding system.
- A landowner or producer that owns a single pass, low disturbance direct seed drill is not eligible for rental or custom application cost reimbursement.
- The landowner and producer must use a direct seed system or plan for three full years.
- A single pass, low-disturbance direct seed drill must be used for all planting.
- Crop residue cannot be burned.
- Grant recipients must offer educational opportunities in conjunction with direct seed programs. Examples of such opportunities include a mentoring program, workshops, or referrals to direct seed organizations. Grant recipients may coordinate with other Conservation Districts, organizations or associations to fill this need.
- Cropland acres with any post-harvest or pre-planting tillage are not eligible. This includes the use of inversion tillage equipment such as moldboard plows, chisel plow, rod weeders and disks. Conventional summer fallow is not eligible.
- To be eligible for reimbursement, the public entity recipient and the landowner and producer must sign a landowner agreement prior to renting direct seed equipment or contracting with a custom applicator to plant with a single pass, low disturbance direct seed drill.
- The grant recipient must report on the following information (additional requirements may be added as part of any grant contract):
    - Number of acres enrolled in program.
    - Number of landowners/producers enrolled.
    - Location of acres enrolled including information such as county, farm number, tract number, and field number. GIS layers and other relevant spatial reference information may also be required.

Eligible direct seed activities

Equipment rental cost reimbursement

- Producers may be reimbursed for a portion of the cost of renting a single pass, low-disturbance direct seed drill.
  - Producers may be reimbursed from the grant for a portion of the cost to rent a single pass, low disturbance drill.
  - Producers must agree to try the practice for a full three year direct seed rotation.
  - Cost share is available for only a first-time, full three year direct seed rotation. Reimbursement payments will be made for eligible expenses during the initial three year rotation only.
  - If a three year direct seed rotation is not completed, the producer is not eligible for any future direct seed reimbursements.
  - Cost share must not exceed $25 dollar per acre, up to 200 acres, per producer. Total eligible cost shall not exceed $5,000 per producer, per year for up to three years.
  - The grant recipient must verify the number of acres planted with a single pass, low disturbance direct seed drill before reimbursement is provided.

Cost of custom application fee reimbursement

- Producers may be reimbursed for a portion of the cost of hiring a custom applicator to plant with a single pass, low disturbance direct seed drill.
  - Producers may be reimbursed from the grant for a portion of the cost to have a custom applicator seed a section of the producer's land with a single pass, low disturbance drill.
  - Producers must agree to try the practice for a full three year direct seed rotation.
  - Cost share is available for only a first-time, full three year direct seed rotation. Reimbursement payments will be made for eligible expenses during the initial three year rotation only.
  - If a three year direct seed rotation is not completed, the producer is not eligible for any future direct seed reimbursements.
  - Cost share most not exceed $25 dollar per acre, up to 200 acres, per producer. Total cost shall not exceed 5,000 per producer, per year for up to three years.
  - The grant recipient must verify the number of acres planted with a single pass, low disturbance direct seed drill before reimbursement of is provided.

Direct seed equipment purchase

- Public entities are eligible to receive a one-time grant to purchase a single pass, low disturbance direct seed drill for the purpose of providing regional access to direct seed equipment and facilitating education, outreach, and technical assistance to promote the benefits of direct seeding systems.
  - Grant recipients must sign a 10-year maintenance agreement to keep the drill in best condition.

- The drill must be a low disturbance, one pass drill.
- The cost share for equipment shall not exceed $150,000 per grantee.
- Producers may not receive rental reimbursement or custom application reimbursement payments from an Ecology funded program when using a seed drill purchased with an Ecology grant.
- Grant recipients may charge a fee for the use of the Ecology funded drill to cover the cost of maintenance and storage. However, the fees should be set to encourage broad participation and must not be set to gain a profit.
- Grant recipients must provide staff with knowledge of direct seed systems or equivalent experience.

Appendix E: Livestock Off-stream Watering Facilities

Off-stream watering is used to provide an alternative source of watering where fencing or other method(s) are used to exclude livestock from streams in order to protect water quality. If livestock exclusion fencing is installed as part of a riparian protection/restoration project and meets the minimum standards for that BMP, grant dollars may be used to install an off-stream watering facility. Off-stream watering facilities (including well construction) are conditionally eligible for Water Quality Program financial assistance for projects that include privately owned livestock operations.

The following conditions must be met for off-stream watering facilities to be considered for a Water Quality program grant:

1) Land use must currently be dedicated to livestock or milk production.
2) A landowner agreement must be signed between the property owner and the recipient before the off-stream watering facility is installed.
3) Off-stream watering systems may include water gaps in fencing for emergency watering purposes only. If the recipient wishes to design water gaps, a plan must be submitted to Ecology's Project Manager which details the design and a description of how potential impacts to water quality resulting from water gaps will be minimized.
4) Livestock exclusion fencing must provide a minimum setback from the ordinary high water mark in the riparian area consistent with the riparian restoration guidance found in Appendix G.
5) Installation of native trees and shrubs is required within the buffer created by the exclusion fencing to provide controlled overland flow filtering of pollutants (in accordance with Appendix G and all applicable NRCS FOTG Practices).
6) Off-stream watering facilities (not including well construction) may be provided for less than 20 Animal Units (see Animal Units Table E-2 of this section).
7) For wells to be eligible, operations must have (on or before the beginning of the funding cycle) at least 20 Animal Units (see Animal Units Table E-2 of this section). The cost for well drilling is included in the funding caps associated with off-stream watering facilities. A cost-effective analysis for wells must be completed in accordance with the following criteria:
    a) Gravity feeding or pumping from existing surface and groundwater sources and water hauling are to be considered as first choices. If these alternatives are not feasible, dug or drilled wells may be considered.
    b) Wells must be either less costly or demonstrably more cost-effective (may include analysis of such issues as hydraulic flow, sediment clogging, freezing).
    c) The practice chosen must be in accordance with the conservation plan (or more focused plan involving livestock exclusion and off-stream water provisions).

d) Plan(s) must be completed and approved by at least the respective conservation district before off-stream watering is installed.

8) Financial Assistance Limits and Other Provisions.
   a) Off-stream livestock water provisions are eligible only where permanent and continuous exclusion from waters of the state is provided.
   b) Off-stream livestock water provisions are eligible for financial assistance based on the continuous linear length of riparian exclusion fence per land owner. Financial assistance is limited to 75% of the total eligible costs. See Table E-1 below for limits. Maximum of $30,000 per landowner.
   c) Off-stream water developments must be located a distance away from surface waters that will prevent water quality impacts.
   d) Loans may be issued to cover up to 100 percent of eligible project cost.
   e) Pumps, pipes, water troughs, and wells, as needed, are eligible.
   f) All components of solar powered pumps are project eligible. Electrical or mechanical power provisions are only eligible if existing infrastructure is available that can be utilized at a minimal cost.
   g) Heavy use area protection at watering facilities is eligible as needed. The cost of heavy use area protection is included in the final cost of the off-stream watering facility and is included in the funding limitations.
   h) The loan or grant will not reimburse recipients for costs associated with unsuccessful well drilling.
   i) Cross fencing is ineligible.
   j) Third party contributions above the eligible financial costs are eligible to be counted toward match.

Table E-1: Miles of Livestock Riparian Exclusion and Financial Assistance Limits

Miles of Livestock Riparian Exclusion	Financial Assistance Limit (per project)
Less than ½ mile	75% of total eligible cost or $6,000 (whichever is less)
Greater than or equal to ½ mile and less than 1 mile	75% of total eligible cost or $9,000 (whichever is less)
Greater than or equal to 1 mile and less than 1.5 miles	75% of total eligible cost or $12,000 (whichever is less)
Greater than or equal to 1.5 miles and less than 2 miles	75% of total eligible cost or $18,000 (whichever is less)
Greater than or equal to 2 miles and less than 2.5 miles	75% of total eligible cost or $24,000 (whichever is less)
Greater than or equal to 2.5 miles	75% of total eligible cost or $30,000 (whichever is less)

Animal Units as defined in WAC 173-224-030 are shown in Table E-2.

Table E-2: Animal Units

Animal Type	Number of Animal Units per Animal
Dairy Cows	
Jersey Breed	
Milking Cow	0.900
Dry Cow	0.900
Heifer	0.220
Calf	0.220
Other Breeds	
Milking Cow	1.400
Dry Cow	1.000
Heifer	0.800
Calf	0.500
Feedlot Beef	0.877
Horses	0.500
Sheep	0.100
Swine for breeding	0.375
Swine for slaughter	0.110
Laying hens & pullets > 3 months	0.004
Broilers & pullets < 3 months	0.002

Example Calculation: 23 Feedlot Beef x 0.877 = 20 Animal Units.

Appendix F: Livestock Feeding BMPs

Introduction

The following BMPs are intended to support the relocation of livestock feeding areas that threaten water quality, or enhance existing feeding areas distanced from surface waters. A combination of these BMPs may be installed when appropriate. Funding for the following BMPs only applies to projects that will improve existing water quality problems and may not be used to rebuild feeding facilities where the primary purpose is to repair existing structures. All projects must be approved by Ecology's Project Management Team before installation.

Conditions for all livestock feeding BMPs

- Operations meeting the definition of the Concentrated Animal Feeding Operation Permit are not eligible for funding.
- When BMPs are installed, new feeding areas must be located, or pre-existing areas must be relocated so that the presence of livestock will no longer threaten to impact surface water quality. Grant recipients must provide assurances to the Ecology Project Manager that the location or relocation of the new or existing feeding area optimizes water quality protection. Ecology will not fund projects that are located too close to waters of the state. BMPs are eligible only when livestock presence currently occurs within or adjacent to riparian areas and can be an assumed threat to the integrity of the riparian area and water quality.
- All BMPs must be built and located according to NRCS specifications.
- The producer must exclude livestock from all waters of the state, with a minimum setback from the ordinary high water mark consistent with the riparian restoration guidance found in Appendix G.
- The owner or operator must have a plan in place to manage manure.
- The landowner must sign a landowner agreement.
- Roof runoff structures on existing structures may be conditionally eligible for reimbursement where direct water quality improvements can be achieved and must be approved by Ecology's Project Management Team prior to installation.

Eligible livestock feeding BMPs

Heavy use area protection

- Heavy use area protection is eligible only to protect critical areas directly surrounding feeding and watering locations.
- Building permanent feed lots where livestock will be confined continuously throughout the year is not eligible for Heavy Use Area Protection funding.
- Heavy use area protection is eligible for 75 percent of the total eligible cost, up to a maximum of $7,500 per landowner.

- Concrete and other cement based materials, rock aggregate, and other appropriate materials are eligible for funding.
- Heavy use area protection must prevent erosion and polluted runoff at feeding and watering facilities.
- Heavy use area protection areas must be designed and constructed according to NRCS standards.
- The producer must use a waste storage facility meeting the criteria below to be eligible for heavy use area protection.

Waste storage facilities

- Waste storage facilities, waste storage covers, and roof runoff structures are eligible if constructed to NRCS standards.
- The total package of waste storage BMPs is eligible for 75 percent of the total eligible cost, up to a maximum of $12,500 per land owner.
- Waste storage facilities must include a permanent roof, curbed concrete floor, and roof runoff structures.
- Waste storage facilities must be designed and stamped by a professional engineer.
- Building permits must be obtained where required.
- Waste storage facilities must be part of a manure management plan.

Windbreaks

- Windbreaks are planted tree rows used to shelter livestock from summer sun and winter wind, and therefore encourage the congregation of livestock and utilization of pasture or rangeland away from the riparian area.
- Windbreaks are eligible to support the relocation of winter feeding operations upland, away for riparian areas, and to prevent water quality impacts.
- Windbreaks are eligible for 75 percent of the total eligible cost, up to a maximum of $1,000 per landowner.

Appendix G: Riparian Restoration and Planting

The following are requirements when implementing a riparian restoration or riparian planting project.

Environmental Protection Agency and National Marine Fisheries Service buffer requirements

Ecology has increased the minimum requirements for riparian buffers to protect and restore salmon fisheries and achieve water quality standards. These requirements apply to funding for projects that address nonpoint pollution problems, including Section 319 grants, Centennial Clean Water Fund grants or loans, and the Water Pollution Control State Revolving Fund loans.

In response to tribal concerns, the U.S. Environmental Protection Agency (EPA) and the National Oceanographic and Atmospheric Administration (NOAA) notified the Department of Ecology that it must take additional actions to protect salmon and salmon habitat. The EPA is requiring Washington State to include conditions on federal pass-through grants to be consistent with National Marine Fisheries Service (NMFS) buffer guidance to help protect and recover Washington's salmon runs.

Ecology is attaching the special conditions to grant funds to increase levels of riparian protection to both protect and restore salmon fisheries and help achieve water quality standards.

Conditions of the funding agreement

All restoration activities must also be consistent with the Stream Habitat Restoration Guidelines, available at http://wdfw.wa.gov/publications/01374/wdfw01374.pdf and the requirements below.

EPA and NMFS riparian buffers

The minimum buffer size for surface waters (on each side) will be consistent with Table G-1 and additional guidance provided below. Table G-1 was developed from information provided by NMFS. Buffer widths must be measured starting from the ordinary high water mark.

Table G-1: Minimum Buffer Requirements for Surface Waters

Category	Functions	Minimum Buffer Width West of Cascades	Minimum Buffer Width East of Cascades
A. Constructed Ditches, Intermittent Streams and Ephemeral Streams that are not identified as being accessed and were historically not accessed by anadromous or Endangered Species Act (ESA) listed fish species	Water quality, shade, source control and delivery reduction.	35' minimum	35' minimum
B. Perennial waters that are not identified as being accessed and were historically not accessed by anadromous or ESA listed fish species	Water quality, shade, source control and delivery reduction.	50' minimum	50' minimum
C. Perennial, intermittent and ephemeral waters that are identified as being accessed or were historically accessed by anadromous or ESA listed fish species	Water quality, large wood debris (LWD) for cover, complexity and shade and microclimate cooling, source control and delivery reduction.	100' minimum	75' minimum
D. Intertidal and estuarine streams and channels that are identified as being accessed or were historically accessed by anadromous or ESA listed fish species	Water quality, habitat complexity	35'-75' minimum, or more as necessary to meet water quality standards	N/A

Additional guidance

- To determine which buffer category applies to a water body, EPA and Ecology developed a mapping tool available at http://waecy.maps.arcgis.com/explorer/?open=d5478a4aaf704d81bac63ffc934e1549&extent=-13922905.3138354,5784350.44593158,-13140190.1441951,6268043.96092021.
  - If surface water is present on a property but not shown on the map, a 35 foot minimum buffer width will apply.
  - If a water body is identified as "Category B" in the above table, the grant recipient must contact the regional Washington Department of Fish and Wildlife (WDFW) or tribal fish biologist to confirm that the water body is not currently or historically used by anadromous or listed fish. If the fish biologist informs the recipient of fish presence, then the buffer width must meet "Category C" requirements.
  - If a water body is impeded by a man-made structure (e.g. culvert, dam, etc.) which prevents anadromous or ESA listed fish access, then the buffer width must meet "Category C" requirements.

  - WDFW Fish Biologist Contact Information: http://wdfw.wa.gov/conservation/fisheries/fish_district_bios.pdf
  - WA State Tribes and Tribal Reservations Map (with links): www.ecy.wa.gov/services/gis/maps/state/tribal_res.pdf
- The buffer table above establishes minimum requirements for funding eligibility purposes. Projects that include buffers that are larger than the minimums are preferred, especially when stated in a TMDL or other watershed improvement plan. To maintain fully functional riparian ecosystems and provide sufficient habitat to meet the needs of fish and wildlife, it is recommended that the recipient use Washington Department of Fish and Wildlife buffer widths table whenever those recommendations are larger.
- As stated in the *Stream Habitat Restoration Guidelines*, if the 100-year floodplain exceeds these widths, the riparian buffer width should extend to the outer edge of the 100-year floodplain.
- Recipients are required to plant the buffer established by the fencing setback with native trees and shrubs to provide a higher level of water quality improvement. Grass filters strips are not sufficient to satisfy this requirement.
- When buffers are established in forested areas, the buffer width must also be consistent with Forest Practices Rules.
- Buffers established as part of a Water Quality Program grant may not violate county Critical Area Ordinances, county Shoreline Rules, or other state and local regulations.
- Ecology may allow a conditional exemption from the minimum buffer width requirements where the presence of a structure impedes the ability to meet the conditions. The recipient must submit an adequate justification as to why these cannot be met and an alternate written plan to Ecology's Project Manager for review and written approval.

Riparian plantings

- The recipient must develop site-specific plans for all riparian buffers prior to implementation which include plant locations and species. The plan must be based on an assessment of native plant associations and community types.
- The recipient must only plant species that are riparian in nature and indigenous to the primary watershed where the buffer is being established.
- The recipient must use, to the greatest extent possible, genetically appropriate plant materials collected from the primary or secondary watershed where the buffer is to be established.
- The recipient must utilize, to the greatest extent possible, plant species that are early successional within the primary watershed. Early successional species are those whose characteristics are such that they are first to colonize after a disturbance.

Streambank protection

- Streambank protection projects must not stand alone, but be part of a larger riparian buffer project. The project must include the buffer and planting requirements listed above.
- Rock should not be used to armor a bank against the erosive forces of a stream or river unless a bridge, road, or other manmade structure cannot be protected by any other means. In any

situation where rock is to be used, the recipient must submit the design to Ecology's Project Manager for an evaluation.

- Streambank protection designs must be consistent with the Aquatic Habitat Guidelines: Integrated Streambank Protection Guidelines document which can be found at http://wdfw.wa.gov/publications/00046/.

Relevant definitions

Anadromous fish

Fish that live their adult lives in the ocean but move into freshwater streams to reproduce or spawn (e.g., salmon); see: www.nmfs.noaa.gov/pr/glossary.htm#anadromous.

Constructed ditch

A regularly maintained man-made trench or furrow dug in the ground for the primary purpose of conveying or draining surface water, storm water or irrigation water, that may or may not, contain water at all times of the year.

Ephemeral stream

A stream or portion of a stream which flows briefly in direct response to precipitation in the immediate vicinity, and whose channel is at all times above the groundwater reservoir.

ESA listed fish species

The Endangered Species Act of 1973 (ESA) was signed on December 28, 1973, and provides for the conservation of species that are endangered or threatened throughout all or a significant portion of their range, and the conservation of the ecosystems on which they depend. The ESA replaced the Endangered Species Conservation Act of 1969; it has been amended several times. A "species" is considered: 1) endangered if it is in danger of extinction throughout all or a significant portion of its range, and 2) threatened if it is likely to become an endangered species within the foreseeable future. There are approximately 2,100 total species listed under the ESA. Of these species, approximately 1,480 are found in part or entirely in the U.S. and its waters; the remainder are foreign species. NOAA's National Marine Fisheries Service (NMFS) and the U.S. Fish and Wildlife Service (USFWS) share responsibility for implementing the ESA. Generally, USFWS manages land and freshwater species, while NMFS manages marine and "anadromous" species. NMFS has jurisdiction over 94 listed species. http://www.nmfs.noaa.gov/pr/laws/esa/

Exclusion fencing

A constructed barrier to livestock, wildlife or people for 1) dividing pasture for rotational grazing; 2) fencing livestock out of a riparian area; and 3) facilitating the application of conservation practices that treat the soil, water, air, plant, animal, and human resource concerns.

Floodplain

Any lowland that borders a stream and is inundated periodically by the stream's waters.

Intermittent stream

A stream where portions flow continuously only at certain times of the year, for example when it receives water from a spring, ground-water source or from a surface source, such as melting snow (i.e. seasonal). At low flow there may be dry segments alternating with flowing segments. These streams are also defined as no measurable flow during thirty (30) consecutive days in a normal water year.

Ordinary high water mark (O)HWM

The point on the sides of streams or lakes which is historically or normally at water's edge, as identified by a visible change in vegetation and/or soil. It is also generally, the lowest point at which perennial vegetation grows on the streambank. The ordinary high water mark can usually be identified by physical scarring along the bank or shore, or by other distinctive signs.

Perennial stream

A stream or portion of a stream that flows year-round, is considered a permanent stream, and for which base flow is maintained by ground-water discharge to the streambed due to the ground-water elevation adjacent to the stream typically being higher than the elevation of the streambed.

Riparian buffers

Riparian buffers are generally recognized as a "separation zone" between a water body and a land use activity for the purposes of protecting ecological processes and water quality. The riparian buffer usually extends from the stream's ordinary high water line to the outer edge of the floodplain. Riparian buffers provide essential functions for river and stream ecosystems, including cover and shade, a source of fine or coarse woody material, nutrients, and organic and inorganic debris that maintain stream ecosystem function. As used here, riparian buffers are defined as separation zones that are relatively undisturbed by humans and contain native vegetation consistent with the potential of the site.

Figure G-1 provides a diagram depicting a typical stream showing the active floodplain, the ordinary high water mark (OHWM), the riparian zone, and the top of the bank.

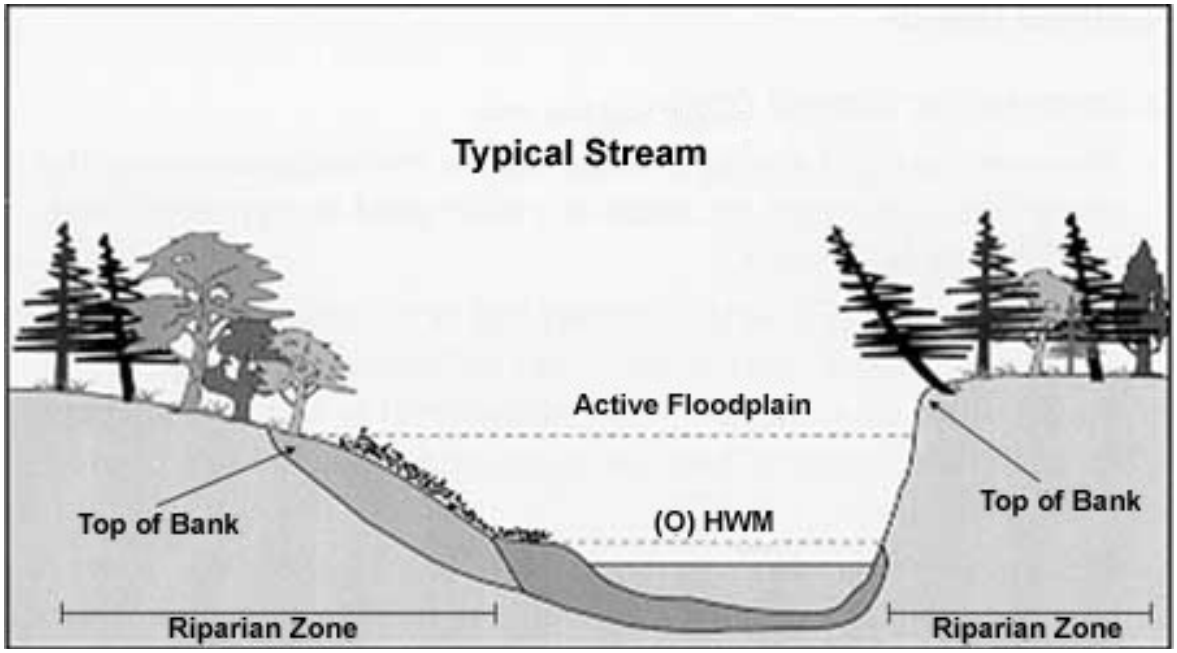


Figure G-1: Diagram of a Typical Stream.

Figure is a reproduction of a figure obtained from Fisheries and Oceans Canada at *http://www.pac.dfo-mpo.gc.ca/habitat/Glossary-glossaire-eng.htm*.

Appendix H: Developing Public Communication and Education Project Proposals

Following is a checklist that applicants can refer to in developing public communication and education project proposals. The goal of the checklist is to help in the design of projects that are effective at changing behaviors and achieving environmental results.

Project background

- Consider the water quality problem that is the focus of the project; target population; geographic area; socio-economic status of targeted population; predominant land uses; and the behavioral change you seek to achieve for each target identified (source of the water quality problem or issue - one target could be responsible for several problems).
- What knowledge, attitude, and skills do you desire in the targeted population?
- Be careful to use one or two primary objectives and be realistic about what you can accomplish during the grant period.
- If this is a continuing attitude or behavior change that you wish to affect, how do you propose to sustain it?

Project design

- Agree on the optimal way to identify and reach your audiences. Include local audiences that speak languages other than English.
- Identify common needs in participants and how the project can fulfill these needs.
- Identify conflicting needs (associated with barriers analysis).
- Identify the specific barriers, both internal to the person or organization as well as external, such as lack of knowledge or conditions, and practical barriers to desired change (no place local to change oil properly). Tell us how your project will remove these barriers.
- Identify the project team and their qualifications.
- Will you use volunteers and if so, how? How will you recruit and retain them?
- Identify community leaders, decision makers, and trusted peers and leaders within business, not-for-profit, and community groups that have similar interests in environmental change/ sustainability. These are the people and organizations that will help you advance your project and its objectives. Please explain how you will leverage their influence to amplify your results.
- Determine resources you will use, including training materials, facilities, media and corresponding distribution strategy. Conduct a regional search for existing materials before producing any new educational flyers or pamphlets.
- Also consider: (a) regular reminders of the desired behavior; (b) trusted and credible sources for communication; (c) communication that is direct, simple, personal and vivid; (d) leaders, described above, to model and promote the behavior you seek (what kind of changes do you

want people to make in the way they make decisions?); (e) personal commitments from groups and individuals.

- Plan to pilot and field test your materials or activities with a small segment of your intended audience before "going big" and final.
- Make sure that your plan can be adjusted during the project to accommodate lessons learned. (Can it be changed in mid-course?)
- Design your project with evaluation tools and methodologies in mind and don't make it an afterthought.

Education plan

- State measurable objectives and goals of the project.
- List the performance measures you will use to assess how effective your project was. Success is defined as progress towards meeting your goals and objectives.
- List your specific actions, implementing entities and both timetable and cost per action.
- List media and promotions to be utilized (including the use of music and art).
- For Public Participation, record the number of participants at events, number of one-on-one contacts, and number of groups interested.

Monitoring and post-project evaluation

- What kind of assessment and evaluation tools will you use to evaluate the effectiveness of your program? Examples include customer feedback surveys (telephone tends to work better), interviews, focus groups, observations, and, before and at least after six months, "records" that can infer change.
- How will you measure the participant's knowledge, skill, attitudes, and actions?
- How is the evaluation strategy linked to the stated goals and objectives?
- How will you evaluate presenter activities and materials?
- How will you monitor or evaluate the relationship between the educational activities and changes in behavior and water quality changes?

Suggested resources

- Visual Tools for Watershed Education; see: www.neefusa.org/pdf/watershedfinal.pdf.
- "Fostering Sustainable Behavior" by Doug McKenzie-Mohr and William Smith.
- "Targeting Outcomes of Programs" by Claude Bennett and Kay Rockwell.

Appendix I: Cultural and Historic Resources Review Guidance

This guidance provides information for projects funded by Ecology to meet Executive Order 05-05 and Section 106 of the National Historic Preservation Act requirements.

Please note that the cultural resources review process is for government-to-government communication. Requirements of this process will not be met until Ecology has provided information to the Tribes and the Washington State Department of Archaeology and Historic Preservation (DAHP) about project activity.

Recipients must comply with all cultural resources review requirements prior to implementing any project that involves ground disturbing activities.

Federal and state laws and rules require the funding agency (Ecology) to contact DAHP and affected tribes regarding the proposed project activities. Any prior communication between the recipient, the DAHP, and the tribes is not sufficient to meet requirements.

Another agency's cultural resources may be used to meet Ecology's requirements. To do this, recipients should submit the review documents to Ecology's Project Manager for review and approval.

Any ground disturbing activities that occur prior to the completion of the cultural resources review process will not be eligible for reimbursement. Activities associated with cultural resources review are grant and loan eligible and reimbursable. Any mitigation measures as an outcome of the process will be requirements of the agreement.

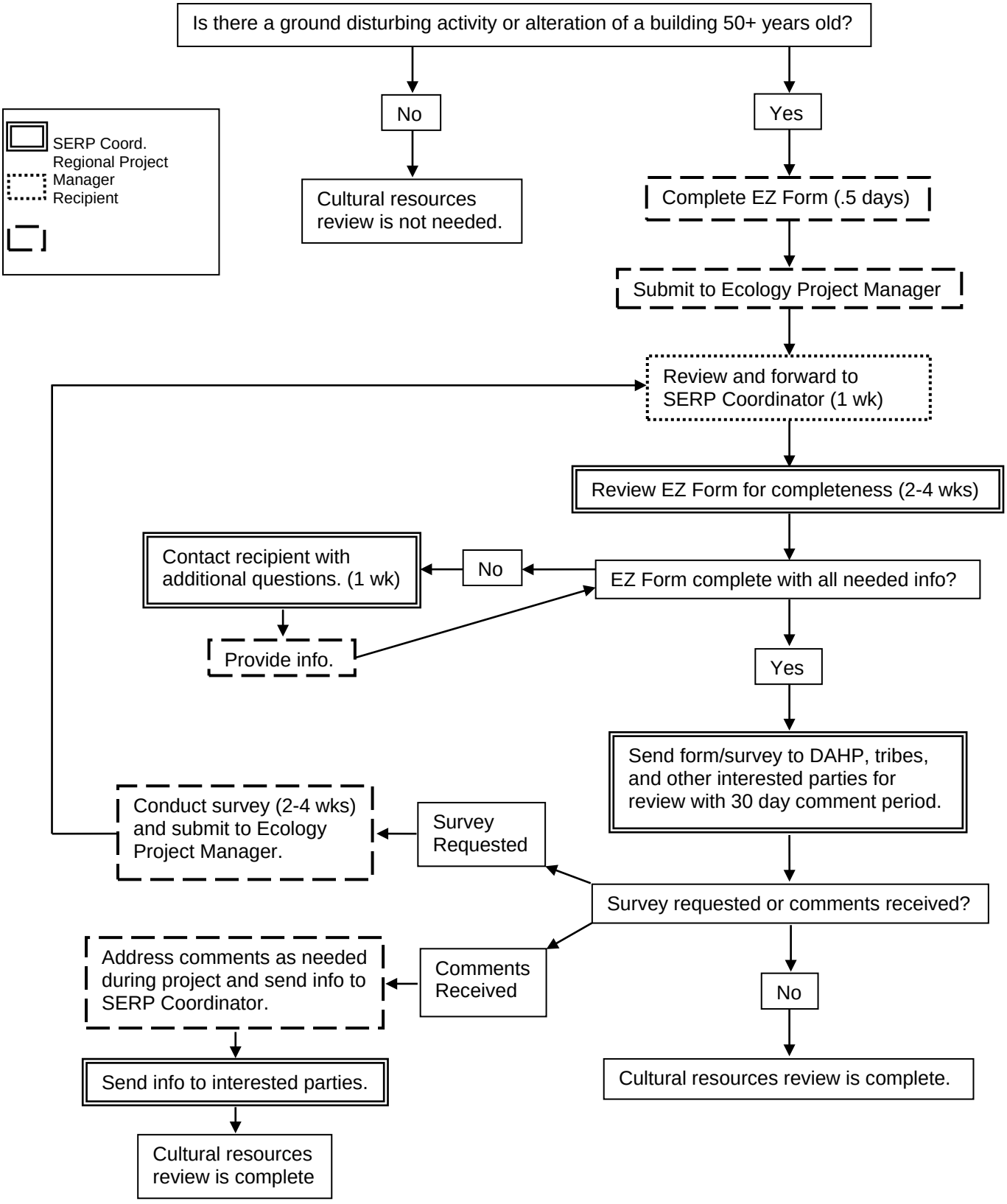
This process must be followed even if the recipient has been working with Tribes on the project.

1) The recipient must complete DAHP's EZ-1 form or conduct a site specific survey. A site specific survey is only required for areas where there is a high sensitivity and potential to discover cultural resources. If the project will alter a building that is 50 years or older, the recipient must complete an EZ-2 Form. The EZ forms and Survey Coversheet can be downloaded from DAHP's website at www.dahp.wa.gov/governors-executive-order-05-05.
2) The recipient must write an inadvertent (IDP). An IDP does not need to be site-specific, however it can be a general procedure for all projects implemented by the organization. IDP must be distributed and reviewed by all participating parties prior to any on-the-ground work so they are fully informed of the appropriate procedures.
3) The recipient will send an electronic .pdf version of the EZ Form, any tribal communication, and identify the potentially interested Tribes to Ecology's Project Manager. The Project Manager will forward the electronic copies of the paperwork to Ecology's SERP Coordinator.
4) Ecology will send out letters with the EZ Form or survey to Tribes and DAHP. The Tribes have a 30 day comment period to initiate a more in-depth discussion about the

project, submit any comments, or make an effect determination on the project. After the 30 day comment period, if there has not been a determination of impact by a Tribe, Department of Archaeology and Historic Preservation (DAHP), or other interested party, the project may proceed as planned.

The flowchart below outlines the review process and provides additional information for cultural resources review.

Cultural Resources Review Process



Section 106 versus Executive Order 05-05

- Section 106 of the National Historic Preservation Act is applied to actions funded by federal agencies. Section 106 applies to the Water Quality Program's State Revolving Fund Loan Program and Section 319 Grant Program.
  - If Section 106 has been conducted for a project by another federal agency, it may be adopted by Ecology for either state or federally funded projects. Please contact your Project Manager the make sure a review can be adopted.
- Governor's Executive Order 05-05 is required for all state funded capital projects. This includes projects funded by the Centennial Clean Water Program, Stormwater Retrofit and Low Impact Development Grant Program, Stormwater GROSS Grants, and others.
  - Executive Order 05-05 cannot be adopted to meet Section 106 requirements for federally funded projects.
  - Ecology can adopt another state agency's 05-05 process to meet cultural resources review requirements. Please contact your Project Manager the make sure a review can be adopted.

Correspondence: Ecology is responsible, as the funding agency, for contacting the Department of Archaeology and Historic Preservation (DAHP), tribes, and other interested parties to meet cultural resource review requirements. Previous approval from DAHP does not fulfill these requirements. Communication that may have occurred during a SEPA review is not sufficient to meet cultural resources review requirements.

EZ Forms: found at bottom of page www.dahp.wa.gov/governors-executive-order-05-05.

- EZ-1: This form is to provide information about ground disturbing activities.
- EZ-2: This form is to provide information about alterations to buildings 50 years or older.

Ground Disturbing Activities: This refers to any work that impacts the soil or ground from its current conditions. There is no threshold for this criterion. If the activity requires any work that goes below the surface of the ground, it requires a cultural resources review.

Changes to Project Design or Project Area: If there are any changes made to the project area or design after cultural resources review has been completed, review will have to be reinitiated in order to capture the changes. It is suggested that cultural resources review begin only after the final design is complete to expedite the process.

Timing: The time period it takes for cultural resources review occurs cannot change. Please plan ahead to ensure enough time is permitted prior to implementation.

Eligibility

- All activities associated with cultural resources review are grant and loan eligible.
- Construction or BMP implementation that occurs prior to cultural resources review will not be eligible for reimbursement.

Questions? Contact your Project Manager.

Appendix J: Green Project Reserve Guidance

Procedures for Implementing Certain Provisions of EPA's Fiscal Year 2010 Appropriation Affecting the Clean Water and Drinking Water State Revolving Fund Programs. 4/21/2010

PART A – CWSRF GPR SPECIFIC GUIDANCE

The following sections outline the technical aspects for the CWSRF Green Project Reserve. It is organized by the four categories of green projects: green infrastructure, water efficiency, energy efficiency, and environmentally innovative activities. Categorically green projects are listed, as well as projects that are ineligible. Design criteria for business cases and example projects that would require a business case are also provided.

1.0 GREEN INFRASTRUCTURE

1.1 Definition: Green stormwater infrastructure includes a wide array of practices at multiple scales that manage wet weather and that maintain and restore natural hydrology by infiltrating, evapotranspiring and harvesting and using stormwater. On a regional scale, green infrastructure is the preservation and restoration of natural landscape features, such as forests, floodplains and wetlands, coupled with policies such as infill and redevelopment that reduce overall imperviousness in a watershed. On the local scale, green infrastructure consists of site- and neighborhood-specific practices, such as bioretention, trees, green roofs, permeable pavements, and cisterns.

1.2 Categorical Projects

1.2-1 Implementation of green streets (combinations of green infrastructure practices in transportation rights-of-ways), for either new development, redevelopment or retrofits including: permeable pavement2, bioretention, trees, green roofs, and other practices such as constructed wetlands that can be designed to mimic natural hydrology and reduce effective imperviousness at one or more scales. Vactor trucks and other capital equipment necessary to maintain green infrastructure projects.

1.2-2 Wet weather management systems for parking areas including: permeable pavement[1], bioretention, trees, green roofs, and other practices such as constructed wetlands that can be designed to mimic natural hydrology and reduce effective imperviousness at one or more scales. Vactor trucks and other capital equipment necessary to maintain green infrastructure projects.

1.2-3 Implementation of comprehensive street tree or urban forestry programs, including expansion of tree boxes to manage additional stormwater and enhance tree health.

[1] The total capital cost of permeable pavement is eligible, not just the incremental additional cost when compared to impervious pavement.

1.2-4 Stormwater harvesting and reuse projects, such as cisterns and the systems that allow for utilization of harvested stormwater, including pipes to distribute stormwater for reuse.

1.2-5 Downspout disconnection to remove stormwater from sanitary, combined sewers and separate storm sewers and manage runoff onsite.

1.2-6 Comprehensive retrofit programs designed to keep wet weather discharges out of all types of sewer systems using green infrastructure technologies and approaches such as green roofs, green walls, trees and urban reforestation, permeable pavements and bioretention cells, and turf removal and replacement with native vegetation or trees that improve permeability.

1.2-7 Establishment or restoration of permanent riparian buffers, floodplains, wetlands and other natural features, including vegetated buffers or soft bioengineered stream banks. This includes stream day lighting that removes natural streams from artificial pipes and restores a natural stream morphology that is capable of accommodating a range of hydrologic conditions while also providing biological integrity. In highly urbanized watersheds, this may not be the original hydrology.

1.2-8 Projects that involve the management of wetlands to improve water quality and/or support green infrastructure efforts (e.g., flood attenuation).[2]

1.2-8a Includes constructed wetlands.

1.2-8b May include natural or restored wetlands if the wetland and its multiple functions are not degraded and all permit requirements are met.

1.2-9 The water quality portion of projects that employ development and redevelopment practices that preserve or restore site hydrologic processes through sustainable landscaping and site design.

1.2-10 Fee simple purchase of land or easements on land that has a direct benefit to water quality, such as riparian and wetland protection or restoration.

1.3 Projects That Do Not Meet the Definition of Green Infrastructure

1.3-1 Stormwater controls that have impervious or semi-impervious liners and provide no compensatory evapotranspirative or harvesting function for stormwater retention.

1.3-2 Stormwater ponds that serve an extended detention function and/or extended filtration. This includes dirt lined detention basins.

1.3-3 In-line and end-of-pipe treatment systems that only filter or detain stormwater.

1.3-4 Underground stormwater control and treatment devices such as swirl concentrators, hydrodynamic separators, baffle systems for grit, trash removal/floatables, oil and grease, inflatable booms and dams for in-line underground storage and diversion of flows.

1.3-5 Stormwater conveyance systems that are not soil/vegetation based (swales) such as pipes and concrete channels. Green infrastructure projects that include pipes to collect

[2] Wetlands are those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, vernal pools, and similar areas.

stormwater may be justified as innovative environmental projects pursuant to Section 4.4 of this guidance.

1.3-6 Hardening, channelizing, or straightening streams and/or stream banks.

1.3-7 Street sweepers, sewer cleaners, and vactor trucks unless they support green infrastructure projects.

1.4 Decision Criteria for Business Cases

1.4-1 Green infrastructure projects are designed to mimic the natural hydrologic conditions of the site or watershed.

1.4-2 Projects that capture, treat, infiltrate, or evapotranspire water on the parcels where it falls and does not result in interbasin transfers of water.

1.4-3 GPR project is in lieu of or to supplement municipal hard/gray infrastructure.

1.4-4 Projects considering both landscape and site scale will be most successful at protecting water quality.

1.4-5 Design criteria are available at http://cfpub.epa.gov/npdes/greeninfrastructure/munichandbook.cfm and http://cfpub.epa.gov/npdes/greeninfrastructure/technology.cfm and

1.5 Examples of Projects Requiring a Business Case

1.5-1 Fencing to keep livestock out of streams and stream buffers. Fencing must allow buffer vegetation to grow undisturbed and be placed a sufficient distance from the riparian edge for the buffer to function as a filter for sediment, nutrients, and other pollutants.

2.0 WATER EFFICIENCY

2.1 Definition: EPA's WaterSense program defines water efficiency as the use of improved technologies and practices to deliver equal or better services with less water. Water efficiency encompasses conservation and reuse efforts, as well as water loss reduction and prevention, to protect water resources for the future.

2.2 Categorical Projects

2.2-1 Installing or retrofitting water efficient devices, such as plumbing fixtures and appliances

2.2-1a For example -- shower heads, toilets, urinals and other plumbing devices

2.2-1b Where specifications exist, WaterSense labeled products should be the preferred choice (http://www.epa.gov/watersense/index.html).

2.2-1c Implementation of incentive programs to conserve water such as rebates.

2.2-2 Installing any type of water meter in previously unmetered areas

2.2-2a If rate structures are based on metered use

2.2-2b Can include backflow prevention devices if installed in conjunction with water meter

2.2-3 Replacing existing broken/malfunctioning water meters, or upgrading existing meters, with:

2.2-3a Automatic meter reading systems (AMR), for example:

2.2-3a(i) Advanced metering infrastructure (AMI)

2.2-3a(ii) Smart meters

2.2-3b Meters with built in leak detection

2.2-3c Can include backflow prevention devices if installed in conjunction with water meter replacement

2.2-4 Retrofitting/adding AMR capabilities or leak detection equipment to existing meters (not replacing the meter itself).

2.2-5 Water audit and water conservation plans, which are reasonably expected to result in a capital project.

2.2-6 Recycling and water reuse projects that replace potable sources with non-potable sources,

2.2-6a Gray water, condensate and wastewater effluent reuse systems (where local codes allow the practice)

2.2-6b Extra treatment costs and distribution pipes associated with water reuse.

2.2-7 Retrofit or replacement of existing landscape irrigation systems to more efficient landscape irrigation systems, including moisture and rain sensing controllers.

2.2-8 Retrofit or replacement of existing agricultural irrigation systems to more efficient agricultural irrigation systems.

2.3 Projects That Do Not Meet the Definition of Water Efficiency

2.3-1 Agricultural flood irrigation.

2.3-2 Lining of canals to reduce water loss.

2.3-3 Replacing drinking water distribution lines. This activity extends beyond CWSRF eligibility and is more appropriately funded by the DWSRF.

2.3-4 Leak detection equipment for drinking water distribution systems, unless used for reuse distribution pipes.

2.4 Decision Criteria for Business Cases

2.4-1 Water efficiency can be accomplished through water saving elements or reducing water consumption. This will reduce the amount of water taken out of rivers, lakes, streams, groundwater, or from other sources.

2.4-2 Water efficiency projects should deliver equal or better services with less net water use as compared to traditional or standard technologies and practices

2.4-3 Efficient water use often has the added benefit of reducing the amount of energy required by a POTW, since less water would need to be collected and treated; therefore, there are also energy and financial savings.

2.5 Examples of Projects Requiring a Business Case.

2.5-1 Water meter replacement with traditional water meters (see AWWA M6 Water Meters – Selection Installation, Testing, and Maintenance).

2.5-2 Projects that result from a water audit or water conservation plan

2.5-3 Storage tank replacement/rehabilitation to reduce loss of reclaimed water.

2.5-4 New water efficient landscape irrigation system.

2.5-5 New water efficient agricultural irrigation system.

3.0 ENERGY EFFICIENCY

3.1 Definition: Energy efficiency is the use of improved technologies and practices to reduce the energy consumption of water quality projects, use energy in a more efficient way, and/or produce/utilize renewable energy.

3.2 Categorical Projects

3.2-1 Renewable energy projects such as wind, solar, geothermal, micro-hydroelectric, and biogas combined heat and power systems (CHP) that provide power to a POTW. (http:///www.epa.gov/cleanenergy). Micro-hydroelectric projects involve capturing the energy from pipe flow.

3.2-1a POTW owned renewable energy projects can be located onsite or offsite.

3.2-1b Includes the portion of a publicly owned renewable energy project that serves POTWs energy needs.

3.2-1c Must feed into the grid that the utility draws from and/or there is a direct connection.

3.2-2 Projects that achieve a 20% reduction in energy consumption are categorically eligible for GPR[3]. Retrofit projects should compare energy used by the existing system or unit process[4] to the proposed project. The energy used by the existing system should be based on name plate data when the system was first installed, recognizing that the old system is currently operating at a lower overall efficiency than at the time of installation. New POTW projects or capacity expansion projects should be designed to maximize energy efficiency and should select high efficiency premium motors and equipment where cost effective. Estimation of the energy efficiency is necessary for the project to be counted toward GPR. If a project achieves less than a 20% reduction in energy efficiency, then it may be justified using a business case.

3.2-3 Collection system Infiltration/Inflow (I/I) detection equipment

3.2-4 POTW energy management planning, including energy assessments, energy audits, optimization studies, and sub-metering of individual processes to determine high energy use areas, which are reasonably expected to result in a capital project are eligible. Guidance to help POTWs develop energy management programs, including assessments and audits is available at www.epa.gov/waterinfrastructure/pdfs/guidebook_si_energymanagement.pdf .

3.3 Projects That Do Not Meet the Definition of Energy Efficiency

3.3-1 Renewable energy generation that is privately owned or the portion of a publicly owned renewable energy facility that does not provide power to a POTW, either through a connection to the grid that the utility draws from and/or a direct connection to the POTW.

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[3] The 20% threshold for categorically eligible CWSRF energy efficiency projects was derived from a 2002 Department of Energy study entitled *United States Industrial Electric Motor Systems Market Opportunities Assessment, December 2002* and adopted by the Consortium for Energy Efficiency. Further field studies conducted by Wisconsin Focus on Energy and other States programs support the threshold.

[4] A unit process is a portion of the wastewater system such as the collection system, pumping stations, aeration system, or solids handling, etc.

3.3-2 Simply replacing a pump, or other piece of equipment, because it is at the end of its useful life, with something of average efficiency.

3.3-3 Facultative lagoons, even if integral to an innovative treatment process.

3.3-4 Hydroelectric facilities, except micro-hydroelectric projects. Micro-hydroelectric projects involve capturing the energy from pipe flow.

3.4 Decision Criteria for Business Cases

3.4-1 Project must be cost effective. An evaluation must identify energy savings and payback on capital and operation and maintenance costs that does not exceed the useful life of the asset. www.epa.gov/waterinfrastructure/pdfs/guidebook_si_energymanagement.pdf

3.4-2 The business case must describe how the project maximizes energy saving opportunities for the POTW or unit process.

3.4-3 Using existing tools such as Energy Star's Portfolio Manager (www.energystar.gov/index.cfm?c=evaluate_performance.bus_portfoliomanage r) or Check Up Program for Small Systems (CUPSS) (www.epa/cupss) to document current energy usage and track anticipated savings.

3.5 Examples of Projects Requiring a Business Case

3.5-1 POTW projects or unit process projects that achieve less than a 20% energy efficiency improvement.

3.5-2 Projects implementing recommendations from an energy audit that are not otherwise designated as categorical.

3.5-3 Projects that cost effectively eliminate pumps or pumping stations.

3.5-4 Infiltration/Inflow (I/I) correction projects that save energy from pumping and reduced treatment costs and are cost effective.

3.5-4a Projects that count toward GPR cannot build new structural capacity. These projects may, however, recover existing capacity by reducing flow from I/I.

3.5-5 I/I correction projects where excessive groundwater infiltration is contaminating the influent requiring otherwise unnecessary treatment processes (e.g., arsenic laden groundwater) and I/I correction is cost effective.

3.5-6 Replacing pre-Energy Policy Act of 1992 motors with National Electric Manufacturers Association (NEMA) premium energy efficiency motors.

3.5-5a NEMA is a standards setting association for the electrical manufacturing industry (www.nema.org/gov/energy/efficiency/premium/).

3.5-7 Upgrade of POTW lighting to energy efficient sources such as metal halide pulse start technologies, compact fluorescent, light emitting diode (LED).

3.5-8 SCADA systems can be justified based upon substantial energy savings.

3.5-9 Variable Frequency Drive can be justified based upon substantial energy savings.

4.0 ENVIRONMENTALLY INNOVATIVE

4.1 Definition: Environmentally innovative projects include those that demonstrate new and/or innovative approaches to delivering services or managing water resources in a more sustainable way.

4.2 Categorical Projects

4.2-1 Total/integrated water resources management planning likely to result in a capital project.

4.2-2 Utility Sustainability Plan consistent with EPA's SRF sustainability policy.

4.2-3 Greenhouse gas (GHG) inventory or mitigation plan and submission of a GHG inventory to a registry (such as Climate Leaders or Climate Registry)

4.3-3a Note: GHG Inventory and mitigation plan is eligible for CWSRF funding.

4.2-3b EPA Climate Leaders: www.epa.gov/climateleaders/basic/index.html Climate Registry: www.theclimateregistry.org/

4.2-4 Planning activities by a POTW to prepare for adaptation to the long-term effects of climate change and/or extreme weather.

4.2-4a Office of Water – Climate Change and Water website: www.epa.gov/water/climatechange/

4.2.5 Construction of US Building Council LEED certified buildings or renovation of an existing building on POTW facilities.

4.2-5a Any level of certification (Platinum, Gold, Silver, Certified).

4.2-5b All building costs are eligible, not just stormwater, water efficiency and energy efficiency related costs. Costs are not limited to the incremental additional costs associated with LEED certified buildings.

4.2-5c U.S. Green Building Council website www.usgbc.org/displaypage.aspx?CategoryID=19

4.2-6 Decentralized wastewater treatment solutions to existing deficient or failing onsite wastewater systems.

4.2-6a Decentralized wastewater systems include individual onsite and/or cluster wastewater systems used to collect, treat and disperse relatively small volumes of wastewater. An individual onsite wastewater treatment system is a system relying on natural processes and/or mechanical components, that is used to collect, treat and disperse or reclaim wastewater from a single dwelling or building. A cluster system is a wastewater collection and treatment system under some form of common ownership that collects wastewater from two or more dwellings or buildings and conveys it to a treatment and dispersal system located on a suitable site near the dwellings or buildings. Decentralized projects may include a combination of these systems. EPA recommends that decentralized systems be managed under a central management entity with enforceable program requirements, as stated in the EPA Voluntary Management Guidelines. www.epa.gov/owm/septic/pubs/septic_guidelines.pdf

4.2-6b Treatment and Collection Options: A variety of treatment and collection options are available when implementing decentralized wastewater systems. They typically include a septic tank, although many configurations include additional treatment components following or in place of the septic tank, which provide for advanced treatment solutions. Most disperse treated effluent to the soil where further treatment occurs, utilizing either conventional soil absorption fields or alternative soil dispersal methods which provide advanced treatment. Those that discharge to

streams, lakes, tributaries, and other water bodies require federal or state discharge permits (see below). Some systems promote water reuse/recycling, evaporation or wastewater uptake by plants. Some decentralized systems, particularly cluster or community systems, often utilize alternative methods of collection with small diameter pipes which can flow via gravity, pump, or siphon, including pressure sewers, vacuum sewers and small diameter gravity sewers. Alternative collection systems generally utilize piping that is less than 8 inches in diameter, or the minimum diameter allowed by the state if greater than 8 inches, with shallow burial and do not require manholes or lift stations. Septic tanks are typically installed at each building served or another location upstream of the final treatment and dispersal site. Collection systems can transport raw sewage or septic tank effluent. Another popular dispersal option used today is subsurface drip infiltration. Package plants that discharge to the soil are generally considered decentralized, depending on the situation in which they are used. While not entirely inclusive, information on treatment and collection processes is described, in detail, in the "Onsite Wastewater Treatment Technology Fact Sheets" section of the EPA Onsite Manual www.epa.gov/owm/septic/pubs/septic_2002_osdm_all.pdf and on EPA's septic system website under Technology Fact Sheets. http://cfpub.epa.gov/owm/septic/septic.cfm?page_id=283

4.3 Projects That Do Not Meet the Definition of Environmentally Innovative

4.3-1 Air scrubbers to prevent nonpoint source deposition.

4.3-2 Facultative lagoons, even if integral to an innovative treatment processes.

4.3-3 Surface discharging decentralized wastewater systems where there are cost effective soil-based alternatives.

4.3-4 Higher sea walls to protect POTW from sea level rise.

4.3-5 Reflective roofs at POTW to combat heat island effect.

4.4 Decision Criteria for Business Cases

4.4-1 State programs are allowed flexibility in determining what projects qualify as innovative in their state based on unique geographical or climatological conditions.

4.4-1a Technology or approach whose performance is expected to address water quality but the actual performance has not been demonstrated in the state;

4.4-1b Technology or approach that is not widely used in the State, but does perform as well or better than conventional technology/approaches at lower cost; or

4.4-1c Conventional technology or approaches that are used in a new application in the State.

4.5 Examples of Projects Requiring a Business Case

4.5-1 Constructed wetlands projects used for municipal wastewater treatment, polishing, and/or effluent disposal.

4.5-1a Natural wetlands, as well as the restoration/enhancement of degraded wetlands, may not be used for wastewater treatment purposes and must comply with all regulatory/permitting requirements.

4.5-1b Projects may not (further) degrade natural wetlands.

4.5-2 Projects or components of projects that result from total/integrated water resource management planning consistent with the decision criteria for environmentally innovative projects and that are Clean Water SRF eligible.

4.5-3 Projects that facilitate adaptation of POTWs to climate change identified by a carbon footprint assessment or climate adaptation study.

4.5-4 POTW upgrades or retrofits that remove phosphorus for beneficial use, such as biofuel production with algae.

4.5-5 Application of innovative treatment technologies or systems that improve environmental conditions and are consistent with the Decision Criteria for environmentally innovative projects such as:

4.5-5a Projects that significantly reduce or eliminate the use of chemicals in wastewater treatment;

4.5-5b Treatment technologies or approaches that significantly reduce the volume of residuals, minimize the generation of residuals, or lower the amount of chemicals in the residuals. (National Biosolids Partnership, 2010; Advances in Solids Reduction Processes at Wastewater Treatment Facilities Webinar.

4.5-5b(i) Includes composting, class A and other sustainable biosolids management approaches.

4.5-6 Educational activities and demonstration projects for water or energy efficiency.

4.5-7 Projects that achieve the goals/objectives of utility asset management plans (www.epa.gov/safewater/smallsystems/pdfs/guide_smallsystems_assetmanagement_bestpractices.pdf; www.epa.gov/owm/assetmanage/index.htm).

4.5-8 Sub-surface land application of effluent and other means for groundwater recharge, such as spray irrigation and overland flow.

4.5-8a Spray irrigation and overland flow of effluent is not eligible for GPR where there is no other cost effective alternative.

Business Case Development

This guidance is intended to be comprehensive: however, EPA understands our examples projects requiring a business case may not be all inclusive. A business case is a due diligence document. For those projects, or portions of projects, which are not included in the categorical projects lists provided above, a business case will be required to demonstrate that an assistance recipient has thoroughly researched anticipated 'green' benefits of a project. Business cases will be approved by the State (see section III.A. in the *Procedures for Implementing Certain Provisions of EPA's Fiscal Year 2010 Appropriation Affecting the Clean Water and Drinking Water State Revolving Fund Programs*). An approved business case must be included in the State's project files and contain clear documentation that the project achieves identifiable and substantial benefits. The following sections provide guidelines for business case development.

5.0 Length of a Business Case

5.0-1 Business cases must address the decision criteria for the category of project

5.0-2 Business cases should be adequate, but not exhaustive.

5.0-2a There are many formats and approaches. EPA does not require any specific one.

5.0-2b Some projects will require detailed analysis and calculations, while others many not require more than one page.

5.0-2c Limit the information contained in the business case to only the pertinent 'green' information needed to justify the project.

5.0-3 A business case can simply summarize results from, and then cite, existing documentation – such as engineering reports, water or energy audits, results of water system tests, etc.

5.1 Content of a Business Case

5.1-1 Quantifiable water and/or energy savings or water loss reduction for water and energy efficiency projects should be included.

5.1-2 The cost and financial benefit of the project should be included, along with the payback time period where applicable. (NOTE: Clean Water SRF requires energy efficiency projects to be cost effective.)

5.2 Items Which Strengthen Business Case, but Are Not Required

5.2-1 Showing that the project was designed to enable equipment to operate most efficiently.

5.2-2 Demonstrating that equipment will meet or exceed standards set by professional associations.

5.2-3 Including operator training or committing to utilizing existing tools such as Energy Star's Portfolio Manager or CUPSS for energy efficiency projects.

5.3 Example Business Cases Are Available at www.srfbusinesscases.net/.

Appendix K: Loan and Grant Agreement Definitions

Administration Charge means a charge established in accordance with Chapter 90.50A RCW and Chapter 173-98 WAC, to be used to pay Ecology's cost to administer the Revolving Fund by placing a percentage of the interest earned in an Administrative Charge Account.

Administrative Requirements means the effective edition of Ecology's, *Administrative Requirements for Recipients of Ecology Grants and Loans* at the signing of this agreement.

Annual Debt Service for any calendar year means for any applicable bonds or loans including the loan, all interest plus all principal due on such bonds or loans in such year.

Average Annual Debt Service means, at the time of calculation, the sum of the Annual Debt Service for the remaining years of the loan to the last scheduled maturity of the loan divided by the number of those years.

Centennial Clean Water Program means the state program funded from various state sources.

Contract Documents means the contract between the recipient and the construction contractor for construction of the project.

Cost Effective Analysis means a comparison of the relative cost-efficiencies of two or more potential ways of solving a water quality problem as described in Chapter 173-98-730 WAC.

Defease or **Defeasance** means the setting aside in escrow or other special fund or account of sufficient investments and money dedicated to pay all principal of and interest on all or a portion of an obligation as it comes due.

Effective Date means the earliest date on which eligible costs may be incurred.

Effective Interest Rate means the total interest rate established by Ecology that includes the Administrative Charge.

Estimated Loan Amount means the initial amount of funds loaned to the recipient.

Estimated Loan Repayment Schedule means the schedule of loan repayments over the term of the loan based on the Estimated Loan Amount.

Final Accrued Interest means the interest accrued beginning with the first disbursement of funds to the recipient through such time as the loan is officially closed out and a final loan repayment schedule is issued.

Final Loan Amount means all principal of and interest on the loan from the Project Start Date through the Project Completion Date.

Final Loan Repayment Schedule means the schedule of loan repayments over the term of the loan based on the Final Loan Amount.

Forgivable Principal means the portion of a loan that is not required to be paid back by the borrower.

General Obligation Debt means an obligation of the recipient secured by annual ad valorem taxes levied by the recipient and by the full faith, credit, and resources of the recipient.

General Obligation Payable from Special Assessments Debt means an obligation of the recipient secured by a valid general obligation of the Recipient payable from special assessments to be imposed within the constitutional and statutory tax limitations provided by law without a vote of the electors of the recipient on all of the taxable property within the boundaries of the recipient.

Gross Revenue means all of the earnings and revenues received by the recipient from the maintenance and operation of the Utility and all earnings from the investment of money on deposit in the Loan Fund, except (i) Utility Local Improvement Districts (ULID) Assessments, (ii) government grants, (iii) recipient taxes, (iv) principal proceeds of bonds and other obligations, or (v) earnings or proceeds (A) from any investments in a trust, Defeasance, or escrow fund created to Defease or refund Utility obligations or (B) in an obligation redemption fund or account other than the Loan Fund until commingled with other earnings and revenues of the Utility or (C) held in a special account for the purpose of paying a rebate to the United States Government under the Internal Revenue Code.

Guidelines means the Ecology's Funding Guidelines that that correlate to the State Fiscal Year in which the project is funded.

Initiation of Operation Date means the actual date the Water Pollution Control Facility financed with proceeds of the loan begins to operate for its intended purpose.

Loan means the Washington State Water Pollution Control Revolving Fund Loan or Centennial Clean Water Fund (Centennial) Loan made pursuant to this loan agreement.

Loan Amount means either an Estimated Loan Amount or a Final Loan Amount, as applicable.

Loan Fund means the special fund of that name created by ordinance or resolution of the recipient for the repayment of the principal of and interest on the loan.

Loan Security means the mechanism by which the recipient pledges to repay the loan.

Loan Term means the repayment period of the loan.

Maintenance and Operation Expense means all reasonable expenses incurred by the recipient in causing the Utility to be operated and maintained in good repair, working order, and condition including payments to other parties, but will not include any depreciation or recipient levied taxes or payments to the recipient in lieu of taxes.

Net Revenue means the Gross Revenue less the Maintenance and Operation Expense.

Principal and Interest Account means, for a loan that constitutes Revenue-Secured Debt, the account of that name created in the loan fund to be first used to repay the principal of and interest on the loan.

Project means the project described in this agreement.

Project Completion Date means the date specified in the agreement on which the Scope of Work will be fully completed.

Project Schedule means that schedule for the project specified in the agreement.

Reserve Account means, for a loan that constitutes Revenue-Secured Debt, the account of that name created in the loan fund to secure the payment of the principal of and interest on the loan.

Revenue-Secured Debt means an obligation of the recipient secured by a pledge of the revenue of a utility and one not a general obligation of the recipient.

Risk-Based Determination means an approach to sub-recipient monitoring and oversight based on risk factors associated to a recipient or project.

Scope of Work means the tasks and activities constituting the project.

Section 319 means the section of the Clean Water Act that provides funding to address nonpoint sources of water pollution.

Senior Lien Obligations means all revenue bonds and other obligations of the recipient outstanding on the date of execution of this loan agreement (or subsequently issued on a parity therewith, including refunding obligations) or issued after the date of execution of this loan agreement having a claim or lien on the Gross Revenue of the Utility prior and superior to the claim or lien of the loan, subject only to Maintenance and Operation Expense.

State Water Pollution Control Revolving Fund (Revolving Fund) means the water pollution control revolving fund established by Chapter 90.50A.020 RCW.

Termination Date means the effective date of Ecology's termination of the agreement.

Termination Payment Date means the date on which the recipient is required to repay to Ecology any outstanding balance of the loan and all accrued interest.

Total Eligible Project Cost means the sum of all costs associated with a water quality project that have been determined to be eligible for Ecology grant or loan funding.

Total Project Cost means the sum of all costs associated with a water quality project, including costs that are not eligible for Ecology grant or loan funding.

ULID means any utility local improvement district of the recipient created for the acquisition or construction of additions to and extensions and betterments of the Utility.

ULID Assessments means all assessments levied and collected in any ULID. Such assessments are pledged to be paid into the Loan Fund (less any prepaid assessments permitted by law to be

paid into a construction fund or account). ULID Assessments will include principal installments and any interest or penalties which may be due.

Utility means the sewer system, stormwater system, or the combined water and sewer system of the recipient, the Net Revenue of which is pledged to pay and secure the loan.

Appendix L: Median Household Income

The U.S. Census Bureau provides median household income (MHI) data through the American Community Survey (ACS). State and community profiles, including MHI estimates, are released on an annual basis. MHI estimates for states, cities, towns, and census designated places (CDP) are included in the five-year data series produced by ACS. Searches of the ACS database can be conducted at http://factfinder2.census.gov/faces/nav/jsf/pages/searchresults.xhtml?refresh=t#.

MHI surveys

The MHI data in Table L-1 are from the ACS five-year estimates available in June 2014. Ecology uses the MHI data in Table L-1 when making hardship determinations. If a community is not listed in Table L-1, Ecology will use the MHI for the county where the community is located.

If an applicant disputes the MHI estimate used by Ecology, the applicant may conduct a scientific survey to determine the MHI for the project area. If an applicant chooses to conduct a MHI survey, they must adhere to the Infrastructure Assistance Coordinating Council (IACC) *Income Survey Guide*, and the results must be approved by Ecology. The IACC Income Survey Guide can be found at www.infrafunding.wa.gov/.

Table L-1: June 2014 American Community Survey 5-Year Estimates of Median Household Incomes for Washington State, Counties, and Communities

	ACS Estimated MHI	2% of MHI	2% of MHI ÷ 12
Washington State	**$59,374**	**n/a**	**n/a**
Adams County	$41,798	$836	$70
Asotin County	$42,305	$846	$71
Benton County	$60,300	$1,206	$101
Chelan County	$50,582	$1,012	$84
Clallam County	$46,431	$929	$77
Clark County	$58,764	$1,175	$98
Columbia County	$45,417	$908	$76
Cowlitz County	$46,568	$931	$78
Douglas County	$52,285	$1,046	$87
Ferry County	$35,742	$715	$60
Franklin County	$51,770	$1,035	$86
Garfield County	$51,325	$1,027	$86
Grant County	$45,531	$911	$76
Grays Harbor County	$42,440	$849	$71
Island County	$59,500	$1,190	$99
Jefferson County	$46,870	$937	$78
King County	$71,175	$1,424	$119
Kitsap County	$61,776	$1,236	$103

	ACS Estimated MHI	2% of MHI	2% of MHI ÷ 12
Kittitas County	**$41,739**	**$835**	**$70**
Klickitat County	**$40,171**	**$803**	**$67**
Lewis County	**$43,490**	**$870**	**$72**
Lincoln County	**$45,563**	**$911**	**$76**
Mason County	**$48,878**	**$978**	**$81**
Okanogan County	**$40,924**	**$818**	**$68**
Pacific County	**$40,873**	**$817**	**$68**
Pend Oreille County	**$37,582**	**$752**	**$63**
Pierce County	**$59,105**	**$1,182**	**$99**
San Juan County	**$52,712**	**$1,054**	**$88**
Skagit County	**$56,457**	**$1,129**	**$94**
Skamania County	**$55,319**	**$1,106**	**$92**
Snohomish County	**$68,338**	**$1,367**	**$114**
Spokane County	**$49,615**	**$992**	**$83**
Stevens County	**$42,746**	**$855**	**$71**
Thurston County	**$63,224**	**$1,264**	**$105**
Wahkiakum County	**$45,335**	**$907**	**$76**
Walla Walla County	**$47,166**	**$943**	**$79**
Whatcom County	**$51,639**	**$1,033**	**$86**
Whitman County	**$34,169**	**$683**	**$57**
Yakima County	**$44,256**	**$885**	**$74**
Aberdeen City	$39,872	$797	$66
Aberdeen Gardens CDP	$52,667	$1,053	$88
Acme CDP	$105,327	$2,107	$176
Addy CDP	$14,167	$283	$24
Ahtanum CDP	$45,791	$916	$76
Airway Heights City	$35,857	$717	$60
Albion Town	$50,227	$1,005	$84
Alder CDP	$41,471	$829	$69
Alderton CDP	$63,936	$1,279	$107
Alderwood Manor CDP	$73,801	$1,476	$123
Alger CDP	$29,271	$585	$49
Algona City	$63,600	$1,272	$106
Allyn CDP	$79,250	$1,585	$132
Almira Town	$38,750	$775	$65
Altoona CDP	$24,750	$495	$41
Amanda Park CDP	$38,750	$775	$65
Amboy CDP	$59,519	$1,190	$99
Ames Lake CDP	$112,917	$2,258	$188
Anacortes City	$59,857	$1,197	$100
Anderson Island CDP	$47,026	$941	$78
Arlington City	$61,817	$1,236	$103
Arlington Heights CDP	$69,219	$1,384	$115
Artondale CDP	$85,926	$1,719	$143
Ashford CDP	$33,191	$664	$55
Asotin City	$49,091	$982	$82

	ACS Estimated MHI	2% of MHI	2% of MHI ÷ 12
Auburn City	$54,329	$1,087	$91
Bainbridge Island City	$92,558	$1,851	$154
Bangor Base CDP	$42,568	$851	$71
Banks Lake South CDP	$33,929	$679	$57
Barberton CDP	$77,311	$1,546	$129
Baring CDP	$34,063	$681	$57
Barney's Junction CDP	$26,125	$523	$44
Barstow CDP	$102,500	$2,050	$171
Basin City CDP	$29,879	$598	$50
Battle Ground City	$57,520	$1,150	$96
Bay Center CDP	$28,365	$567	$47
Bay View CDP	$118,750	$2,375	$198
Beaux Arts Village Town	$148,750	$2,975	$248
Belfair CDP	$40,847	$817	$68
Bell Hill CDP	$66,688	$1,334	$111
Bellevue City	$88,073	$1,761	$147
Bellingham City	$40,844	$817	$68
Benton City City	$47,204	$944	$79
Bethel CDP	$74,441	$1,489	$124
Bickleton CDP	$55,000	$1,100	$92
Big Lake CDP	$74,813	$1,496	$125
Bingen City	$39,438	$789	$66
Birch Bay CDP	$51,181	$1,024	$85
Black Diamond City	$85,100	$1,702	$142
Blaine City	$51,463	$1,029	$86
Blyn CDP	$15,772	$315	$26
Bonney Lake City	$77,432	$1,549	$129
Bothell City	$72,157	$1,443	$120
Bothell East CDP	$87,222	$1,744	$145
Bothell West CDP	$87,252	$1,745	$145
Boulevard Park CDP	$41,852	$837	$70
Brady CDP	$65,000	$1,300	$108
Bremerton City	$40,644	$813	$68
Brewster City	$31,522	$630	$53
Bridgeport City	$33,393	$668	$56
Brier City	$99,243	$1,985	$165
Brinnon CDP	$42,679	$854	$71
Browns Point CDP	$84,833	$1,697	$141
Brush Prairie CDP	$58,221	$1,164	$97
Bryant CDP	$77,782	$1,556	$130
Bryn Mawr-Skyway CDP	$55,335	$1,107	$92
Buckley City	$60,078	$1,202	$100
Bucoda Town	$46,389	$928	$77
Buena CDP	$16,458	$329	$27
Bunk Foss CDP	$94,243	$1,885	$157
Burbank CDP	$75,652	$1,513	$126

	ACS Estimated MHI	2% of MHI	2% of MHI ÷ 12
Burien City	$50,595	$1,012	$84
Burley CDP	$62,973	$1,259	$105
Burlington City	$47,051	$941	$78
Camano CDP	$67,402	$1,348	$112
Camas City	$80,184	$1,604	$134
Canterwood CDP	$113,068	$2,261	$188
Canyon Creek CDP	$69,167	$1,383	$115
Carbonado Town	$66,250	$1,325	$110
Carlsborg CDP	$29,132	$583	$49
Carnation City	$64,427	$1,289	$107
Carson CDP	$50,583	$1,012	$84
Cascade Valley CDP	$51,797	$1,036	$86
Cashmere City	$42,500	$850	$71
Castle Rock City	$35,833	$717	$60
Cathcart CDP	$118,033	$2,361	$197
Cathlamet Town	$39,750	$795	$66
Cavalero CDP	$93,977	$1,880	$157
Centerville CDP	$38,472	$769	$64
Central Park CDP	$47,194	$944	$79
Centralia City	$34,777	$696	$58
Chain Lake CDP	$86,528	$1,731	$144
Chehalis City	$36,840	$737	$61
Chelan City	$44,307	$886	$74
Chelan Falls CDP	$32,500	$650	$54
Cheney City	$28,478	$570	$47
Cherry Grove CDP	$67,474	$1,349	$112
Chewelah City	$29,970	$599	$50
Chico CDP	$106,458	$2,129	$177
Chinook CDP	$15,602	$312	$26
Clallam Bay CDP	$18,917	$378	$32
Clarkston City	$29,637	$593	$49
Clarkston Heights-Vineland CDP	$61,702	$1,234	$103
Clayton CDP	$31,794	$636	$53
Cle Elum City	$38,681	$774	$64
Clear Lake CDP (Pierce County)	$57,781	$1,156	$96
Clear Lake CDP (Skagit County)	$68,191	$1,364	$114
Clearview CDP	$105,938	$2,119	$177
Cliffdell CDP	$157,625	$3,153	$263
Clinton CDP	$62,414	$1,248	$104
Clover Creek CDP	$54,092	$1,082	$90
Clyde Hill City	$210,500	$4,210	$351
Cohassett Beach CDP	$28,875	$578	$48
Colfax City	$39,276	$786	$65
College Place City	$42,260	$845	$70
Colton Town	$64,583	$1,292	$108
Colville City	$34,075	$682	$57

	ACS Estimated MHI	2% of MHI	2% of MHI ÷ 12
Conconully Town	$47,917	$958	$80
Concrete Town	$41,154	$823	$69
Connell City	$53,512	$1,070	$89
Conway CDP	$27,206	$544	$45
Copalis Beach CDP	$14,981	$300	$25
Cosmopolis City	$46,979	$940	$78
Cottage Lake CDP	$131,121	$2,622	$219
Coulee City Town	$42,885	$858	$71
Coulee Dam Town	$52,857	$1,057	$88
Country Homes CDP	$42,566	$851	$71
Coupeville Town	$45,000	$900	$75
Covington City	$92,023	$1,840	$153
Cowiche CDP	$57,574	$1,151	$96
Creston Town	$31,111	$622	$52
Crocker CDP	$69,662	$1,393	$116
Curlew CDP	$46,058	$921	$77
Curlew Lake CDP	$22,321	$446	$37
Cusick Town	$23,462	$469	$39
Custer CDP	$37,188	$744	$62
Dallesport CDP	$46,576	$932	$78
Danville CDP	$83,333	$1,667	$139
Darrington Town	$31,591	$632	$53
Dash Point CDP	$101,771	$2,035	$170
Davenport City	$40,855	$817	$68
Dayton City	$42,879	$858	$71
Deep River CDP	$41,111	$822	$69
Deer Park City	$28,238	$565	$47
Deming CDP	$44,519	$890	$74
Des Moines City	$60,989	$1,220	$102
Desert Aire CDP	$46,550	$931	$78
Dixie CDP	$48,125	$963	$80
Dollars Corner CDP	$55,822	$1,116	$93
Donald CDP	$16,531	$331	$28
Duluth CDP	$64,046	$1,281	$107
DuPont City	$83,438	$1,669	$139
Duvall City	$111,356	$2,227	$186
East Cathlamet CDP	$44,375	$888	$74
East Port Orchard CDP	$51,118	$1,022	$85
East Renton Highlands CDP	$91,853	$1,837	$153
East Wenatchee City	$51,841	$1,037	$86
Eastgate CDP	$94,763	$1,895	$158
Eastmont CDP	$87,917	$1,758	$147
Easton CDP	$55,250	$1,105	$92
Eatonville Town	$61,530	$1,231	$103
Edgewood City	$73,807	$1,476	$123
Edison CDP	$112,772	$2,255	$188

	ACS Estimated MHI	2% of MHI	2% of MHI ÷ 12
Edmonds City	$73,072	$1,461	$122
Electric City City	$53,125	$1,063	$89
Elk Plain CDP	$67,108	$1,342	$112
Ellensburg City	$28,114	$562	$47
Elma City	$37,849	$757	$63
Elmer City Town	$52,031	$1,041	$87
Endicott Town	$42,813	$856	$71
Enetai CDP	$56,042	$1,121	$93
Entiat City	$50,378	$1,008	$84
Enumclaw City	$58,440	$1,169	$97
Ephrata City	$37,560	$751	$63
Erlands Point-Kitsap Lake CDP	$53,523	$1,070	$89
Eschbach CDP	$24,063	$481	$40
Esperance CDP	$64,354	$1,287	$107
Everett City	$47,491	$950	$79
Everson City	$48,553	$971	$81
Fairchild AFB CDP	$42,852	$857	$71
Fairfield Town	$35,417	$708	$59
Fairwood CDP (King County)	$89,335	$1,787	$149
Fairwood CDP (Spokane County)	$53,651	$1,073	$89
Fall City CDP	$70,135	$1,403	$117
Farmington Town	$65,833	$1,317	$110
Federal Way City	$57,583	$1,152	$96
Felida CDP	$110,208	$2,204	$184
Fern Prairie CDP	$79,712	$1,594	$133
Ferndale City	$49,836	$997	$83
Fife City	$57,653	$1,153	$96
Fife Heights CDP	$80,306	$1,606	$134
Finley CDP	$54,531	$1,091	$91
Fircrest City	$63,750	$1,275	$106
Five Corners CDP	$63,718	$1,274	$106
Fobes Hill CDP	$70,655	$1,413	$118
Fords Prairie CDP	$41,315	$826	$69
Forks City	$36,453	$729	$61
Fort Lewis CDP	$43,063	$861	$72
Four Lakes CDP	$39,531	$791	$66
Fox Island CDP	$95,870	$1,917	$160
Frederickson CDP	$69,611	$1,392	$116
Freeland CDP	$57,663	$1,153	$96
Friday Harbor Town	$42,500	$850	$71
Garfield Town	$38,452	$769	$64
Garrett CDP	$36,250	$725	$60
Geneva CDP	$84,688	$1,694	$141
George City	$47,959	$959	$80
Gig Harbor City	$63,269	$1,265	$105
Glacier CDP	$41,250	$825	$69

	ACS Estimated MHI	2% of MHI	2% of MHI ÷ 12
Gleed CDP	$56,392	$1,128	$94
Gold Bar City	$54,097	$1,082	$90
Goldendale City	$30,799	$616	$51
Gorst CDP	$47,250	$945	$79
Graham CDP	$70,169	$1,403	$117
Grand Coulee City	$33,375	$668	$56
Grand Mound CDP	$49,079	$982	$82
Grandview City	$37,885	$758	$63
Granger City	$34,734	$695	$58
Granite Falls City	$65,389	$1,308	$109
Grapeview CDP	$58,902	$1,178	$98
Grayland CDP	$29,901	$598	$50
Grays River CDP	$33,938	$679	$57
Green Bluff CDP	$103,333	$2,067	$172
Greenwater CDP	$15,217	$304	$25
Hamilton Town	$42,188	$844	$70
Hansville CDP	$62,240	$1,245	$104
Harrah Town	$45,469	$909	$76
Harrington City	$45,147	$903	$75
Hartline Town	$42,500	$850	$71
Hatton Town	$4,450	$89	$7
Hazel Dell CDP	$47,468	$949	$79
Herron Island CDP	$67,621	$1,352	$113
High Bridge CDP	$111,193	$2,224	$185
Hobart CDP	$91,419	$1,828	$152
Hockinson CDP	$74,853	$1,497	$125
Hogans Corner CDP	$53,583	$1,072	$89
Home CDP	$42,222	$844	$70
Hoodsport CDP	$40,089	$802	$67
Hoquiam City	$31,329	$627	$52
Humptulips CDP	$36,205	$724	$60
Hunts Point Town	$215,000	$4,300	$358
Ilwaco City	$41,731	$835	$70
Inchelium CDP	$35,833	$717	$60
Index Town	$55,625	$1,113	$93
Indianola CDP	$63,411	$1,268	$106
Inglewood-Finn Hill CDP	$88,591	$1,772	$148
Ione Town	$55,313	$1,106	$92
Issaquah City	$87,074	$1,741	$145
JamesTown CDP	$62,148	$1,243	$104
Kahlotus City	$30,078	$602	$50
Kalama City	$42,000	$840	$70
Kapowsin CDP	$53,994	$1,080	$90
Kayak Point CDP	$112,606	$2,252	$188
Keller CDP	$24,583	$492	$41
Kelso City	$33,829	$677	$56

	ACS Estimated MHI	2% of MHI	2% of MHI ÷ 12
Kendall CDP	$38,839	$777	$65
Kenmore City	$83,906	$1,678	$140
Kennewick City	$51,581	$1,032	$86
Kent City	$58,477	$1,170	$97
Kettle Falls City	$34,087	$682	$57
Key Center CDP	$65,530	$1,311	$109
Keyport CDP	$71,176	$1,424	$119
Kingsgate CDP	$81,641	$1,633	$136
Kingston CDP	$44,375	$888	$74
Kirkland City	$86,656	$1,733	$144
Kittitas City	$40,500	$810	$68
Klahanie CDP	$112,063	$2,241	$187
Klickitat CDP	$28,906	$578	$48
Krupp Town	$26,250	$525	$44
La Center City	$68,167	$1,363	$114
La Conner Town	$36,827	$737	$61
La Grande CDP	$41,023	$820	$68
Lacey City	$58,963	$1,179	$98
LaCrosse Town	$28,750	$575	$48
Lake Bosworth CDP	$57,098	$1,142	$95
Lake Cassidy CDP	$95,408	$1,908	$159
Lake Cavanaugh CDP	$40,139	$803	$67
Lake Forest Park City	$100,156	$2,003	$167
Lake Goodwin CDP	$75,962	$1,519	$127
Lake Holm CDP	$86,167	$1,723	$144
Lake Ketchum CDP	$74,904	$1,498	$125
Lake Marcel-Stillwater CDP	$113,750	$2,275	$190
Lake McMurray CDP	$46,964	$939	$78
Lake Morton-Berrydale CDP	$86,601	$1,732	$144
Lake Roesiger CDP	$66,984	$1,340	$112
Lake Shore CDP	$64,290	$1,286	$107
Lake Stevens City	$71,224	$1,424	$119
Lake Stickney CDP	$56,774	$1,135	$95
Lake Tapps CDP	$101,051	$2,021	$168
Lakeland North CDP	$76,529	$1,531	$128
Lakeland South CDP	$76,783	$1,536	$128
Lakeview CDP	$42,936	$859	$72
Lakewood City	$42,241	$845	$70
Lamont Town	$43,750	$875	$73
Langley City	$39,079	$782	$65
Larch Way CDP	$94,844	$1,897	$158
Latah Town	$34,000	$680	$57
Leavenworth City	$37,961	$759	$63
Lebam CDP	$50,595	$1,012	$84
Lewisville CDP	$70,885	$1,418	$118
Liberty Lake City	$79,535	$1,591	$133

	ACS Estimated MHI	2% of MHI	2% of MHI ÷ 12
Lind Town	$42,656	$853	$71
Lochsloy CDP	$78,208	$1,564	$130
Lofall CDP	$68,092	$1,362	$113
Long Beach City	$30,500	$610	$51
Longbranch CDP	$46,776	$936	$78
Longview City	$40,660	$813	$68
Longview Heights CDP	$53,577	$1,072	$89
Loomis CDP	$39,922	$798	$67
Loon Lake CDP	$45,078	$902	$75
Lower Elochoman CDP	$51,875	$1,038	$86
Lyle CDP	$34,470	$689	$57
Lyman Town	$43,438	$869	$72
Lynden City	$54,129	$1,083	$90
Lynnwood City	$49,839	$997	$83
Mabton City	$39,722	$794	$66
Machias CDP	$90,943	$1,819	$152
Malden Town	$30,000	$600	$50
Malo CDP	$23,056	$461	$38
Malone CDP	$98,000	$1,960	$163
Malott CDP	$31,615	$632	$53
Maltby CDP	$107,620	$2,152	$179
Manchester CDP	$63,643	$1,273	$106
Mansfield Town	$26,667	$533	$44
Manson CDP	$37,679	$754	$63
Maple Falls CDP	$29,216	$584	$49
Maple Heights-Lake Desire CDP	$107,750	$2,155	$180
Maple Valley City	$98,604	$1,972	$164
Maplewood CDP	$86,357	$1,727	$144
Marblemount CDP	$90,057	$1,801	$150
Marcus Town	$36,250	$725	$60
Marietta-Alderwood CDP	$40,541	$811	$68
Markham CDP	$30,804	$616	$51
Marrowstone CDP	$48,533	$971	$81
Martha Lake CDP	$74,721	$1,494	$125
Marysville City	$65,627	$1,313	$109
Mattawa City	$32,007	$640	$53
May Creek CDP	$71,250	$1,425	$119
McChord AFB CDP	$44,069	$881	$73
McCleary City	$49,063	$981	$82
McKenna CDP	$45,875	$918	$76
McMillin CDP	$89,063	$1,781	$148
Mead CDP	$60,335	$1,207	$101
Meadow Glade CDP	$75,521	$1,510	$126
Meadowdale CDP	$84,150	$1,683	$140
Medical Lake City	$58,500	$1,170	$98
Medina City	$165,625	$3,313	$276

	ACS Estimated MHI	2% of MHI	2% of MHI ÷ 12
Mercer Island City	$127,360	$2,547	$212
Mesa City	$35,500	$710	$59
Metaline Falls Town	$33,125	$663	$55
Metaline Town	$53,333	$1,067	$89
Methow CDP	$91,250	$1,825	$152
Midland CDP	$43,822	$876	$73
Mill Creek City	$89,124	$1,782	$149
Mill Creek East CDP	$96,488	$1,930	$161
Millwood City	$48,382	$968	$81
Milton City	$62,730	$1,255	$105
Mineral CDP	$31,409	$628	$52
Minnehaha CDP	$53,203	$1,064	$89
Mirrormont CDP	$102,705	$2,054	$171
Moclips CDP	$39,148	$783	$65
Monroe City	$70,283	$1,406	$117
Monroe North CDP	$106,964	$2,139	$178
Montesano City	$51,042	$1,021	$85
Morton City	$43,125	$863	$72
Moses Lake City	$46,904	$938	$78
Moses Lake North CDP	$31,304	$626	$52
Mossyrock City	$35,870	$717	$60
Mount Vernon City	$48,029	$961	$80
Mount Vista CDP	$77,172	$1,543	$129
Mountlake Terrace City	$59,099	$1,182	$98
Moxee City	$59,750	$1,195	$100
Mukilteo City	$91,204	$1,824	$152
Naches Town	$36,875	$738	$61
Napavine City	$55,919	$1,118	$93
Naselle CDP	$46,250	$925	$77
Navy Yard City CDP	$48,241	$965	$80
Neah Bay CDP	$32,019	$640	$53
Neilton CDP	$58,409	$1,168	$97
Nespelem Community CDP	$55,625	$1,113	$93
Nespelem Town	$29,167	$583	$49
Newcastle City	$106,771	$2,135	$178
Newport City	$28,265	$565	$47
Nile CDP	$32,067	$641	$53
Nisqually Indian Community CDP	$63,125	$1,263	$105
Nooksack City	$57,386	$1,148	$96
Normandy Park City	$84,792	$1,696	$141
North Bend City	$81,471	$1,629	$136
North Bonneville City	$38,875	$778	$65
North Fort Lewis CDP	$46,538	$931	$78
North Lynnwood CDP	$61,464	$1,229	$102
North Marysville CDP	$62,250	$1,245	$104
North Omak CDP	$30,625	$613	$51

	ACS Estimated MHI	2% of MHI	2% of MHI ÷ 12
North Puyallup CDP	$45,787	$916	$76
North Sultan CDP	$77,813	$1,556	$130
North Yelm CDP	$54,901	$1,098	$92
Northport Town	$24,063	$481	$40
Northwest Stanwood CDP	$85,909	$1,718	$143
Oak Harbor City	$48,809	$976	$81
Oakesdale Town	$50,833	$1,017	$85
Oakville City	$40,000	$800	$67
Ocean City CDP	$23,182	$464	$39
Ocean Park CDP	$22,803	$456	$38
Ocean Shores City	$42,382	$848	$71
Odessa Town	$34,167	$683	$57
Okanogan City	$34,145	$683	$57
Olympia City	$53,147	$1,063	$89
Omak City	$31,597	$632	$53
Onalaska CDP	$59,115	$1,182	$99
Orchards CDP	$59,065	$1,181	$98
Orient CDP	$18,000	$360	$30
Oroville City	$27,337	$547	$46
Orting City	$71,553	$1,431	$119
Oso CDP	$32,917	$658	$55
Othello City	$41,064	$821	$68
Otis Orchards-East Farms CDP	$60,217	$1,204	$100
Outlook CDP	$22,317	$446	$37
Oyehut CDP	$15,000	$300	$25
Pacific Beach CDP	$86,316	$1,726	$144
Pacific City	$48,311	$966	$81
Packwood CDP	$58,566	$1,171	$98
Palouse City	$47,742	$955	$80
Parker CDP	$55,227	$1,105	$92
Parkland CDP	$46,982	$940	$78
Parkwood CDP	$54,201	$1,084	$90
Pasco City	$49,220	$984	$82
Pateros City	$41,875	$838	$70
Pe Ell Town	$39,500	$790	$66
Peaceful Valley CDP	$42,222	$844	$70
Picnic Point CDP	$90,693	$1,814	$151
Pine Grove CDP	$23,636	$473	$39
Point Roberts CDP	$49,191	$984	$82
Pomeroy City	$45,441	$909	$76
Port Angeles City	$41,157	$823	$69
Port Angeles East CDP	$50,560	$1,011	$84
Port Gamble Tribal Community CDP	$54,922	$1,098	$92
Port Hadlock-Irondale CDP	$30,775	$616	$51
Port Ludlow CDP	$74,375	$1,488	$124
Port Orchard City	$56,257	$1,125	$94

	ACS Estimated MHI	2% of MHI	2% of MHI ÷ 12
Port Townsend City	$41,719	$834	$70
Porter CDP	$33,750	$675	$56
Poulsbo City	$60,897	$1,218	$101
Prairie Heights CDP	$79,444	$1,589	$132
Prairie Ridge CDP	$69,514	$1,390	$116
Prescott City	$38,750	$775	$65
Prosser City	$48,009	$960	$80
Puget Island CDP	$60,400	$1,208	$101
Pullman City	$24,125	$483	$40
Purdy CDP	$60,335	$1,207	$101
Puyallup City	$61,232	$1,225	$102
Queets CDP	$14,844	$297	$25
Quilcene CDP	$50,917	$1,018	$85
Quincy City	$43,047	$861	$72
Raft Island CDP	$97,857	$1,957	$163
Rainier City	$64,223	$1,284	$107
Ravensdale CDP	$100,455	$2,009	$167
Raymond City	$34,922	$698	$58
Reardan Town	$39,357	$787	$66
Redmond City	$96,088	$1,922	$160
Renton City	$64,482	$1,290	$107
Republic City	$32,619	$652	$54
Richland City	$68,744	$1,375	$115
Ridgefield City	$86,429	$1,729	$144
Ritzville City	$38,850	$777	$65
River Road CDP	$42,557	$851	$71
Riverbend CDP	$93,792	$1,876	$156
Riverside Town	$33,235	$665	$55
Rochester CDP	$65,152	$1,303	$109
Rock Island City	$39,583	$792	$66
Rockford Town	$52,500	$1,050	$88
Rockport CDP	$32,446	$649	$54
Rocky Point CDP	$65,278	$1,306	$109
Ronald CDP	$29,917	$598	$50
Roosevelt CDP	$13,750	$275	$23
Rosalia Town	$30,577	$612	$51
Rosburg CDP	$38,333	$767	$64
Rosedale CDP	$85,116	$1,702	$142
Roslyn City	$54,750	$1,095	$91
Roy City	$71,979	$1,440	$120
Royal City City	$27,660	$553	$46
Ruston Town	$78,929	$1,579	$132
Ryderwood CDP	$29,375	$588	$49
Salmon Creek CDP	$65,301	$1,306	$109
Sammamish City	$143,861	$2,877	$240
Santiago CDP	$18,438	$369	$31

	ACS Estimated MHI	2% of MHI	2% of MHI ÷ 12
Satsop CDP	$55,313	$1,106	$92
Seabeck CDP	$69,750	$1,395	$116
SeaTac City	$49,414	$988	$82
Seattle City	$63,470	$1,269	$106
Sedro-Woolley City	$50,486	$1,010	$84
Selah City	$52,354	$1,047	$87
Sequim City	$39,093	$782	$65
Shadow Lake CDP	$100,625	$2,013	$168
Shelton City	$35,641	$713	$59
Shoreline City	$66,160	$1,323	$110
Silvana CDP	$106,349	$2,127	$177
Silver Firs CDP	$105,871	$2,117	$176
Silverdale CDP	$60,176	$1,204	$100
Sisco Heights CDP	$91,941	$1,839	$153
Skamokawa Valley CDP	$40,833	$817	$68
Skokomish CDP	$28,571	$571	$48
Skykomish Town	$29,125	$583	$49
Snohomish City	$53,897	$1,078	$90
Snoqualmie City	$121,791	$2,436	$203
Snoqualmie Pass CDP	$52,159	$1,043	$87
Soap Lake City	$26,471	$529	$44
South Bend City	$31,583	$632	$53
South Cle Elum Town	$49,063	$981	$82
South Creek CDP	$55,755	$1,115	$93
South Hill CDP	$73,567	$1,471	$123
South Prairie Town	$60,972	$1,219	$102
South Wenatchee CDP	$48,688	$974	$81
Southworth CDP	$93,490	$1,870	$156
Spanaway CDP	$63,330	$1,267	$106
Spangle City	$25,500	$510	$43
Spokane City	$42,274	$845	$70
Spokane Valley City	$48,690	$974	$81
Sprague City	$37,431	$749	$62
Springdale Town	$33,750	$675	$56
St. John Town	$32,188	$644	$54
Stansberry Lake CDP	$65,613	$1,312	$109
Stanwood City	$61,637	$1,233	$103
Starbuck Town	$33,125	$663	$55
Startup CDP	$53,400	$1,068	$89
Steilacoom Town	$69,423	$1,388	$116
Steptoe CDP	$39,167	$783	$65
Stevenson City	$48,942	$979	$82
Sudden Valley CDP	$67,128	$1,343	$112
Sultan City	$62,178	$1,244	$104
Sumas City	$60,063	$1,201	$100
Summit CDP	$65,370	$1,307	$109

	ACS Estimated MHI	2% of MHI	2% of MHI ÷ 12
Summit View CDP	$60,438	$1,209	$101
Summitview CDP	$91,026	$1,821	$152
Sumner City	$51,692	$1,034	$86
Sunday Lake CDP	$127,643	$2,553	$213
Sunnyside City	$32,961	$659	$55
Sunnyslope CDP	$78,690	$1,574	$131
Suquamish CDP	$56,557	$1,131	$94
Swede Heaven CDP	$51,106	$1,022	$85
Tacoma City	$50,439	$1,009	$84
Taholah CDP	$28,313	$566	$47
Tampico CDP	$36,719	$734	$61
Tanglewilde CDP	$63,805	$1,276	$106
Tanner CDP	$148,750	$2,975	$248
Tekoa City	$30,147	$603	$50
Tenino City	$50,489	$1,010	$84
Terrace Heights CDP	$57,644	$1,153	$96
Thorp CDP	$47,917	$958	$80
Three Lakes CDP	$94,018	$1,880	$157
Tieton City	$33,026	$661	$55
Tokeland CDP	$32,361	$647	$54
Toledo City	$38,295	$766	$64
Tonasket City	$22,736	$455	$38
Toppenish City	$29,595	$592	$49
Torboy CDP	$36,714	$734	$61
Touchet CDP	$44,250	$885	$74
Town and Country CDP	$50,089	$1,002	$83
Tracyton CDP	$59,896	$1,198	$100
Trout Lake CDP	$43,750	$875	$73
Tukwila City	$43,333	$867	$72
Tumwater City	$61,264	$1,225	$102
Twin Lakes CDP	$38,750	$775	$65
Twisp Town	$27,444	$549	$46
Union CDP	$49,813	$996	$83
Union Gap City	$38,825	$777	$65
Union Hill-Novelty Hill CDP	$126,667	$2,533	$211
UnionTown Town	$53,750	$1,075	$90
University Place City	$59,685	$1,194	$99
Upper Elochoman CDP	$44,773	$895	$75
Vader City	$46,250	$925	$77
Valley CDP	$13,750	$275	$23
Vancouver City	$49,271	$985	$82
Vashon CDP	$74,913	$1,498	$125
Vaughn CDP	$44,281	$886	$74
Venersborg CDP	$86,604	$1,732	$144
Verlot CDP	$54,861	$1,097	$91
Waitsburg City	$42,813	$856	$71

	ACS Estimated MHI	2% of MHI	2% of MHI ÷ 12
Walla Walla City	$42,032	$841	$70
Walla Walla East CDP	$71,823	$1,436	$120
Waller CDP	$59,832	$1,197	$100
Walnut Grove CDP	$54,760	$1,095	$91
Wapato City	$33,977	$680	$57
Warden City	$35,893	$718	$60
Warm Beach CDP	$80,594	$1,612	$134
Washougal City	$61,322	$1,226	$102
Washtucna Town	$28,194	$564	$47
Waterville Town	$43,438	$869	$72
Wauna CDP	$72,795	$1,456	$121
Waverly Town	$56,250	$1,125	$94
Wenatchee City	$46,908	$938	$78
West Clarkston-Highland CDP	$37,421	$748	$62
West Pasco CDP	$74,048	$1,481	$123
West Richland City	$82,969	$1,659	$138
West Side Highway CDP	$56,250	$1,125	$94
Westport City	$32,500	$650	$54
Whidbey Island Station CDP	$40,417	$808	$67
White Center CDP	$43,263	$865	$72
White Salmon City	$39,601	$792	$66
White Swan CDP	$44,038	$881	$73
Wilbur Town	$35,463	$709	$59
Wilderness Rim CDP	$86,364	$1,727	$144
Wilkeson Town	$65,893	$1,318	$110
Willapa CDP	$70,417	$1,408	$117
Wilson Creek Town	$31,125	$623	$52
Winlock City	$39,750	$795	$66
Winthrop Town	$42,621	$852	$71
Wishram CDP	$32,292	$646	$54
Wollochet CDP	$81,107	$1,622	$135
Woodinville City	$93,045	$1,861	$155
Woodland City	$58,542	$1,171	$98
Woods Creek CDP	$92,045	$1,841	$153
Woodway City	$137,292	$2,746	$229
Yacolt Town	$64,792	$1,296	$108
Yakima City	$40,569	$811	$68
Yarrow Point Town	$156,667	$3,133	$261
Yelm City	$52,337	$1,047	$87
Zillah City	$57,308	$1,146	$96

Appendix M: Scoring Guidance

Ecology evaluates project proposals based on responses provided on eight forms of the application. A total of 1,000 points are available. In order to obtain funding a project must receive a score of at least 600 total points, and it must receive at least 125 of the 250 possible points on the Water Quality and Public Health Improvements Form. Table M-1 provides a list of the forms that are scored, details on how points are awarded, and some guidance on scoring.

Table M-1: Application Scoring Guidance

Scope of Work Form
Scoring This form is worth up to **250 total points** as follows. • **0-100 points**: The Scope of Work represents a complete and concise description of the project tasks and outcomes, including deliverables and timelines. • **0-150 points**: The project directly and measurably addresses a water quality problem. **Guidance** • Evaluators award points for a clear, complete, and well thought-out scope that directly addresses a water quality problem. The scope must demonstrate an understanding of the work required to implement and complete the project. • To receive full points, deliverables must have clear numeric commitments (e.g., volumes or area treated, quantity installed, etc.). Facility projects must reference the manual used for the project design, and all applications must include specific project locations including a map. • For projects that implement BMPs on private property, evaluators will factor the status of landowner commitments to implement BMPs into the score. Applicants must provide detailed maps for each subject property showing BMP locations and a detailed list of BMPs to be implemented on each property including length of exclusion fencing, feet of stream buffers, acres of restoration, or other applicable numerical information about the BMPs.
Task Costs General Form
Scoring This form is worth up to **150 total points** as follows. • **Up to 50 points**: The cost estimate process is reasonable. • **Up to 100 points**: The project budget represents a good value for the work and water quality benefits achieved. For nonpoint source activity projects requesting grant funding, the applicant identifies adequate matching funds. **Guidance** • Evaluators award points for a complete, reasonable budget that is consistent with the tasks described in the Scope of Work. • Evaluators award points for projects with accurate cost estimates. Estimate accuracy may be judged based on experience with past or ongoing projects, through consultation with other

entities that have related experience, or through a planning process such as value analysis.

- Evaluators award points for cost-effective projects that represent a good investment of public funds to achieve water quality benefits.
- Applications that provide quantitative data such as dollars per volume of stormwater treated, cost per acre treated, cost per pound of sediment removed, etc. score higher than applications that only provide qualitative data.
- Nonpoint activity projects implementing BMPs must provide a detailed cost estimate for each BMP proposed for installation, as detailed in the Scope of Work.
- Construction projects must attach a detailed cost estimate for construction and engineering services.
- Applicants for all other projects should submit a cost estimate sufficient to justify the costs associated with each task.

Water Quality and Public Health Improvements Form

Scoring

This form is worth up to **250 total points** as follows.

- **Up to 50 points**: How severe is the water quality problem and how well is it defined?
- **Up to 100 points**: The project will achieve substantial water quality and public health benefits.
- **Up to 50 points**: Project success can be measured, and the proposed methods to measure success are reasonable.
- **Up to 50 points**: The project will provide long-term water quality benefits. Systems are in place to sustain the benefits after funding support has ended.

Guidance

- Evaluators award points for improvements and protection of water quality and public health. Projects that provide substantial environmental and public health improvements receive the most points. Projects that provide measurable improvements receive more points than those with unclear or vague benefits.
- Evaluators consider only the actual benefit, total impact (area impacted, number of people affected, resource affected), level of implementation, and the severity of the problem.
- Evaluators consider only changes that can be achieved by the proposed Scope of Work.
- Applicants should reference and provide documentation and data that support the severity of the water quality problem and the improvement that can be expected as a direct result of the project. Applicants should reference and provide links to the most complete watershed data for their region when describing the severity of the water quality problem. Communities that lack comprehensive watershed data should state this in their application and provide a narrative description of how they assessed the water quality problem for their community.
- A minimum score of 125 points on this form is required to obtain funding.
- In most cases Ecology uses the score on this form as the primary tie-breaker for overall points. If two projects have the same overall score, Ecology will place the project that scores higher on this form above the other on the priority list. In cases where both applicants receive the same score on this form, Ecology will use the score from the Readiness to Proceed Form as the

secondary tie-breaker. If two projects proposed for SFAP funding receive the same score, a Low Impact Development (LID) project will be placed above a non-LID project. If both projects are LID projects, the standard tie-breaking approach described above will apply.

Coordination With State and Federal Priorities Form

Scoring

This form is worth up to **100 total points** as follows.

- **Up to 100 points**: How well does the project address a current permit requirement or TMDL implementation? **OR** How well does the project address other state or federal water quality requirements? **OR** How well does the project address the Puget Sound Partnership Action Agenda or current approved plan or program specifically designed to address water quality problems? **AND** How well does the applicant and the project address greenhouse emission reductions in accordance with RCW 70.235.070?

Guidance

- Projects will be scored based on how closely the project is aligned with state and federal water quality planning efforts. Applicants should identify all water quality planning documents that apply to the watershed where the project will be located and state how the project helps to meet the goals, objectives or requirements outlined in each document. Examples of state and federal water quality planning documents that may apply to the proposed project include: NPDES permits, TMDLs, the Puget Sound Partnership Action Agenda, salmon recovery plans and watershed plans.
- Evaluators also consider greenhouse gas emission reduction measures by the applicant and the project.

Project Team Form

Scoring

This form is worth up to **50 total points** as follows.

- **Up to 20 points**: Team members' roles and responsibilities are well defined and adequate for the Scope of Work.
- **Up to 20 points**: Team members' past experience is relevant.
- **Up to 10 points**: Staffing commitment is well described.

Guidance

- Evaluators award points based on knowledge, skills, abilities, qualifications, and experience of the established or potential project team roles or members. Evaluators will consider the estimated number of hours each team member will devote towards the project.

Project Development, Local Support, and Past Performance Form

Scoring

This form is worth up to **75 total points** as follows.

- **Up to 20 points**: A comprehensive decision making process was used to arrive at the proposed project.
- **Up to 20 points**: Plans for long-term project success and sustainability were considered during

project development.

- **Up to 20 points**: The level of local support and commitment for the project.
- **Up to 15 points**: Past performance on other water quality projects, including Ecology funded projects.

Guidance

- Evaluators award points based on project development efforts and commitments from project partners. Evaluators will award more points to projects that have identified necessary partnerships and key stakeholders and obtained support from them for the proposed project.
- Evaluators will consider past project successes, including outcomes achieved and performance on project deliverables. Evaluators review Ecology files to determine if past or current projects have been satisfactorily completed on time and within budget. Evaluators may consider explanations for past performance or mitigating information provided by applicants.
- Points will not be deducted for communities that have not received Ecology funding in recent cycles. Applicants who have not received Water Quality Program funding may provide information about other projects they have managed in the past and their strategy for successfully managing future Ecology funding.

Readiness to Proceed Form

Scoring

This form is worth up to **75 total points** as follows.

- **Up to 75 points**: Project components are in place for the project to proceed and documentation is provided.

Guidance

- Evaluators award points based on how soon a project can begin.
- Projects that rely on landowner cooperation will receive points for documenting landowner commitment for the proposed project.
- Ecology uses the score on this form as the secondary tie-breaker. If two projects have the same overall score and the same score on the Water Quality and Public Health Improvements Form, Ecology will place the project that scores higher on this form above the other on the priority list.

Financial Hardship Form

Scoring

This form is worth **0 or 50 points** as follows.

- **0 points**: If the applicant does not meet the criteria for financial hardship.
- **50 points**: If the applicant meets the criteria for financial hardship.

Guidance

- Evaluators award 50 points to wastewater facility construction projects in communities with less than 25,000 residents where the project costs may result in sewer fees greater than 2% of the median household income of the community.

Appendix N: Optional Method for Quantifying Benefit for Western Washington Stormwater Projects

Introduction

Retrofit projects are not required to meet the new and redevelopment criteria established in the three Municipal General Stormwater Permits. As a result, Ecology has not established a standardized method to determine how much Runoff Treatment or Flow Control has been accomplished though retrofit projects funded through the Stormwater Financial Assistance Program (SFAP). The system discussed below is a first attempt to quantify the level of improvement realized through retrofit projects. This tool may also be used by applicants that have completed the design stage of a proposed project to show the water quality benefit that may be achieved should the project be funded and constructed.

Ecology has established Runoff Treatment and Flow Control design criteria for projects that exceed new and redevelopment thresholds as defined in Chapter 2 of Volume I of the Stormwater Management Manual for Western Washington. The design criteria are well defined and it is clear how to calculate the size of Runoff Treatment and Flow Control Best Management Practices (BMPs) for any given new/redevelopment project. By calculating the size of BMPs that you must install to meet new/redevelopment standards, a designer can calculate a baseline for comparison purposes.

For retrofit projects that are not required to meet the new/redevelopment standards, the size and environmental constraints within the project site controls the size and capacity of the proposed Runoff Treatment or Flow Control BMPs. By comparing the size of the proposed retrofit facility to the size of a facility designed to meet new/redevelopment criteria, the designer can demonstrate the level of water quality benefit obtained. Ecology is now requiring that the recipient's of SFAP funds calculate two ratios to demonstrate the retrofit water quality benefit:

1) Flow Control Ratio.
2) Runoff Treatment Ratio.

Once these ratios are calculated, the applicant can develop an *Equivalent New/Redevelopment Area* for the retrofit project. Projects in Flow Control Exempt basins do not have to calculate the Flow Control Ratio. Projects that provide both treatment and flow control would provide two separate equivalency values, one for flow control and one for treatment. Projects that provide enhanced treatment may provide a third value.

This information, while not difficult to obtain, does require more detailed information than is typically available at the grant application stage. The designer should include this information with the Design Report submitted to Ecology as part of the grant requirements. Ecology will require the designer to revise the comparison, as necessary, with submittal of the 90-percent plans and specifications and again following construction of the facility. Ecology will use this

information to quantify the water quality benefits realized by retrofit projects funded through SFAP.

The designer may do the comparison using the following method:

> The designer calculates the volume of the Flow Control BMP and the water quality design flow rate or volume needed to meet new/redevelopment criteria. The designer compares these two values to the actual volume of the Flow Control BMP and actual water quality design flow rate for the selected retrofit project. Using these ratios, the designer will calculate the percentage of water quality benefit that the retrofit facility provides compared to the full new/redevelopment facility for both flow control and water quality treatment. You then multiply the resulting ratio by the basin area to obtain the Equivalent New/ Redevelopment Area.

Procedure for Comparison

This discussion uses techniques for Western Washington. Once Ecology finalizes a process, we can develop guidance for Eastern Washington communities.

Flow Control Facilities

Procedure FC-1: Analysis for Size of Detention/Retention Flow Control Facility

- Run WWHM for full contributing area using forested for pre-developed conditions and existing conditions for mitigated conditions.
- Develop the Flow Control facility sized to meet new/redevelopment criteria for the existing land use. This will give you the volume of the Flow Control facility that would be required to meet new/redevelopment. Using the Auto Pond function is an acceptable method to obtain this information for detention/retention facilities.
- Calculate the volume of the proposed retrofit Flow Control facility at the overflow elevation.
- Calculate the ratio of the proposed retrofit facility volume to the volume of the facility required to meet new/redevelopment.

$$\frac{\text{Volume at overflow of proposed Flow Control Facility}}{\text{Volume at overflow of Flow Control Facility to meet new/redevelopment criteria}}$$

- Multiply the ratio developed times the area of the full basin to obtain the Equivalent New/Redevelopment Area.

Procedure FC-2: Analysis for Size of Bioretention/Permeable Pavement Flow Control Facility

- Run WWHM for full contributing area using forested for pre-developed conditions and existing conditions for mitigated conditions.
- Develop the Flow Control facility sized to meet new/redevelopment criteria for the existing land use. This will give you the surface area of the Flow Control facility that would be required to meet new/redevelopment.
- Identify the surface area of the proposed retrofit bioretention or permeable pavement facility.

- Calculate the ratio of the proposed retrofit facility surface area to the surface area of the facility required to meet new/redevelopment.
- Note: Bioretention by itself is not a very efficient flow control facility and needs to be quite large to meet the flow duration criteria.

$$\frac{\text{Surface Area of proposed Bioretention or Permeable Pavement}}{\text{Surface Area of Bioretention or Permeable Pavement to meet new/redevelopment}}$$

- Multiply the ratio developed times the area of the full basin to obtain the Equivalent New/Redevelopment Area.

Water Quality Treatment BMPs.

Procedure WT-1: Analysis of Size of traditional Flow Rate or volume based Runoff Treatment Facility

- Run WWHM for full basin using forested for pre-developed conditions and existing conditions for mitigated conditions.
- Run water quality analysis module within WWHM to determine the design flowrate and/or volume for full basin (6-month, 24-hr volume or Standard flow rate). Either use the in-line or off-line flow rate depending on the configuration of the selected retrofit BMP.
- Using the design flow rate or volume for the water quality BMP you are proposing; calculate the ratio between the design flow rate or volume for the retrofit facility and the design flow rate or volume for the full basin.

$$\frac{\text{Design flow rate or volume for proposed retrofit treatment BMP}}{\text{Design flow rate or volume to meet new/redevelopment criteria}}$$

- Multiply the ratio developed times the area of the full basin to obtain the Equivalent New/Redevelopment Area.

Procedure WT-2: Analysis of Size of Bioretention Runoff Treatment Facility

- Run WWHM for full basin using forested for pre-developed conditions and existing conditions for mitigated conditions.
- Run iterations of the bioretention module within WWHM to determine the size of the bioretention facility that results in a minimum of 91-percent flow through the bioretention media. Use the Underdrain Used button and do not include native infiltration. In addition, assume vertical walls on the bioretention facility.
- Using the surface area of the proposed facility, calculate the ratio between the surface area for the proposed facility and the surface area for the full basin.

$$\frac{\text{Surface Area for proposed retrofit bioretention BMP}}{\text{Surface Area to meet new/redevelopment criteria}}$$

- Multiply the ratio developed times the area of the full basin to obtain the Equivalent New/Redevelopment Area.

Example Calculations

We use the following sample case in these example calculations:

- Existing Basin: 7.0 acres Type C soil, landscaping, flat, 3.0 acres hard surface roads and buildings,1 in/hr native infiltration rate.
- Pre-Developed: 10.0 acres Type C soil, forested, flat, 1 in/hr native infiltration rate.
- Proposed Retrofits:
  - Detention facility: 1.569 ac-ft at overflow.
  - Traditional treatment facility: 0.035 cfs design treatment flow rate (on-line).
  - Wet Pond/Vault: 0.115 ac-ft (5,000 cu-ft) design treatment volume.
  - Bioretention facility 2,500 sq ft surface area, 18-inch media (3 in/hr), 6-inch sand, 18-inch gravel.
  - Permeable Pavement 2-acres (out of 3 acres of hard surface), 1 in/hr native infiltration rate.

Flow Control

Procedure FC-1: Detention/Retention Facility

- Existing Conditions WWHM pond volume at top of outlet (using AutoPond function, and vertical side slopes) = 2.302 ac-ft.
- Proposed Retrofit Pond Volume at top of outlet = 1.569ac-ft.
- Flow Control Ratio of Proposed Pond Volume to Required Pond Volume = 1.569/2.302 = 0.682.
- Equivalent New/Redevelopment Area = 0.682*10 acres = 6.82 acres.

Procedure FC-2: Permeable Pavement

- Existing Conditions Surface Area required to meet redevelopment criteria (LID Performance Standard/Flow duration curve) = < area provided in retrofit project sq ft.
- Proposed Retrofit design Bioretention surface area = 87,120 sq ft (2 acres).
- Treatment Ratio of Proposed Surface Area to required Surface Area = greater than 1.
- Equivalent New/Redevelopment Area = 10 acres.

Water Quality Treatment

Procedure WT-1: Swale/Manufactured Treatment Device (Uses Water Quality Flow rate)

- Existing Conditions WWHM design flow rate for water quality BMP (on-line)= 0.0800 cfs.
- Proposed Retrofit design flow rate for water quality BMP(on-line flow) = 0.035 cfs.
- Treatment Ratio of Proposed design flow rate to required design flow rate = 0.035/0.080 = 0.437.

- Equivalent New/Redevelopment Area = 0.437*10 acres = 4.37 acres.

Procedure WT-1: Wet Pond/Vault

- Existing Conditions Pond Volume required to meet redevelopment criteria (6-month Storm) 0.1614 ac- ft.
- Proposed Retrofit design Wet Pond/Vault Volume = 0.115 ac-ft.
- Treatment Ratio of Proposed design flow rate to required design flow rate = 0.115/0.1614 = 0.712.
- Equivalent New /Redevelopment Area = 0.712*10 acres = 7.12 acres.

Procedure WT-2: BioRetention Facility (underdrain)

- Existing Conditions Surface Area required to meet redevelopment criteria (91-percent treated) = 3,500 sq ft.
- Proposed Retrofit design Bioretention surface area = 2,500 sq ft.
- Treatment Ratio of Proposed design flow rate to required design flow rate = 2,500/3,500 = 0.714.
- Equivalent New/Redevelopment Area = 0.714*10 acres = 7.14 acres.

Appendix O: Sample Scope of Work for Stormwater Facility Projects

This appendix has been created to assist SFAP funding assistance applicants in developing a budget and scope of work that are in-line with Ecology's standard scope of work for stormwater facility grants and to streamline the agreement development process. Text from this appendix may be copied into EAGL directly. Proposed projects will not necessarily include all tasks listed below and may have additional tasks which have not been included in this sample.

Please note that the EAGL system will remove all special fonts and convert the text into plain text format. Task goals and outcomes are not required for stormwater facility projects; in order to fill out this required field, applicants may refer back to the project goals and outcomes.

Task 1: Grant Project Administration/Management This task is pre-determined by Ecology and is limited to the time/tasks related to administering the grant with Ecology. The task description is already completed in the EAGL system. The budget should not include time to apply for construction permits and should not exceed 15 percent of the total project cost.

Task Number: 1

Task Cost:

Task Title: Grant Project Administration/Management

Task Description:

A. The RECIPIENT will administer the grant project. Responsibilities will include, but not be limited to: maintenance of grant project records; submittal of requests for reimbursement and corresponding backup documentation, grant progress reports and recipient closeout report (including photos); compliance with applicable procurement, contracting, and interlocal agreement requirements.

B. The RECIPIENT must manage the project. Efforts will include: conducting, coordinating, and scheduling project activities and assuring quality control. Every effort will be made to maintain effective communication with the RECIPIENT's designees; ECOLOGY; all affected local, state, or federal jurisdictions; and any interested individuals or groups. The RECIPIENT must carry out this project in accordance with any completion dates outlined in this agreement.

Task Goal Statement: *Refer to Project Goal Statement*

Task Expected Outcome: *Refer to Project Outcomes*

Recipient Task Coordinator: *<<task_coordinator_name>>*

Deliverables

Number	Description	Due Date
1	*Progress reports*	
2	*Complete and accurate payment requests*	
3	*Project Outcomes Summary*	*grant expiration date*
5	*Copies of all executed contracts and inter-local agreements*	*Within 90 calendar days of contract execution*

Task: Design Plans and Specifications, Environmental Review and Permitting

This task will include all elements necessary to bring the project to construction.

Task Number:

Task Cost:

Task Title: *Design Plans and Specifications, Environmental Review and Permitting*

Task Description:

A. *The RECIPIENT will coordinate the preparation and submittal of State Environmental Review Act (SEPA) documentation.*

B. *The RECIPIENT will be responsible for application for, receipt of, and compliance with all required permits, licenses, easements, or property rights necessary for the project.*

C. *Prior to any ground disturbing activities (including geotechnical investigations); the RECIPIENT will submit a DAHP EZ-1 form to the DEPARTMENT's Project Manager to initiate review of project activities by DAHP and tribal governments.*

If Cultural Resources Review (Executive Order 05-05) has been completed by RECIPIENT, submit any supplemental cultural resources documentation with a DAHP EZ-1 form to the DEPARTMENT's Project Manager.

D. *The RECIPIENT will develop and submit two hard copies and one digital copy of a complete Ecology Design Report to ECOLOGY for review. The RECIPIENT must use one of the following ECOLOGY-approved manuals as the basis of project design:*

1. *Stormwater Management Manual for Western Washington (SWMMWW).*
2. *Equivalent ECOLOGY-approved Stormwater Management manual as listed in Appendix 10 of the Phase I Municipal NPDES permit.*
3. *Stormwater Management Manual for Eastern Washington (SWMMEW).*

Deviation in project design from ECOLOGY-approved manuals must be pre-approved by ECOLOGY and will require the RECIPIENT to submit site-specific rational and justification for the deviation.

E. *At its discretion, ECOLOGY may require the RECIPIENT to submit 60 % complete design plans for review.*

F. *Based on receipt of the Ecology Design report or the 60 % complete design plans, ECOLOGY will provide comments to the RECIPIENT within 45 calendar days of receipt of the plans. The RECIPIENT agrees to respond to the ECOLOGY's comments prior to project construction.*

G. *Prior to advertising for contractor bids, the RECIPIENT will submit two hard copies and one digital copy of 90 % of the plans and specifications to the ECOLOGY's Project Manager for review. The plans must which include ECOLOGY's Bid Specification Clauses inserts found at:*
http://www.ecy.wa.gov/programs/wq/funding/GrantLoanMgmtDocs/Eng/GrantLoanMgmtEngRes.html

ECOLOGY will provide comments to the RECIPIENT within 45 calendar days of receipt of the plans.

H. *The plans, specifications, construction contract documents, and addenda must be approved by the RECIPIENT prior to submittal to ECOLOGY.*

I. *The RECIPIENT will submit to ECOLOGY a current, updated construction cost estimate and project schedule, along with each plans and specifications submittal.*

J. *The RECIPIENT will submit all pre-design figures and construction plans to ECOLOGY, reduced to 11 x 17 in size. The RECIPIENT may bind them with the specifications or related construction contract documents or bound as a separate document. All reduced drawings must be legible.*

Task Goal Statement: *Refer to Project Goal Statement*

Task Expected Outcome: *Refer to Project Outcomes*

Recipient Task Coordinator: *<<task_coordinator_name>>*

Deliverables

Number	Description	Due Date
1	*Copy of SEPA determination documentation*	*Prior to Construction*
2	*Complete DAHP EZ 1 Form; submit supplemental cultural resources documentation if available.*	*Prior to ground-disturbing activity*
3	*Complete Ecology Design Report*	
4	*Response to ECOLOGY Design Comments*	*Prior to Construction 90 % plan submittal*
5	*90 % Design plans and bid specifications*	
6	*List of permits acquired, and environmental review documents completed*	

Task: Construction Management

This task will include all elements performed by the recipient (or consultant) during the construction process which are unrelated to grant management.

Task Number:

Task Cost:

Task Title: *Construction Management*

Task Description:

A. *The RECIPIENT will provide construction oversight and management of the project.*

B. *The RECIPIENT will submit a detailed construction quality assurance plan to ECOLOGY before the start of construction. This plan must describe how adequate and competent construction oversight will be performed.*

C. *The RECIPIENT will submit a construction schedule to ECOLOGY within 30 days of the start of construction. The construction schedule will be revised and/or updated whenever major changes occur and at a minimum of every three months. The RECIPIENT will submit the construction schedule to ECOLOGY with the quarterly report. When changes in the construction schedule affect previous cash flow estimates, revised cash flow projections must also be submitted to ECOLOGY.*

D. *The RECIPIENT will operate and maintain the constructed facility for the design life of the facility. Additionally, the RECIPIENT will develop and submit an operations and maintenance plan for the stormwater treatment and low impact development (LID) features. The operation and maintenance plan will describe how the RECIPIENT will ensure project success consistent with the design manual used. The operation and maintenance plan must also address long term activities to assure ongoing pollutant*

removal and flow-control capability of the project at in accordance with the design manual.

E. Upon completion of construction, the RECIPIENT will provide to ECOLOGY:

1. *A Stormwater Construction Completion Form signed by a professional engineer indicating that the project was completed in accordance with the plans and specifications and major change orders approved by ECOLOGY's Project Engineer and shown on the Record Drawings. The Stormwater Construction Completion form can be found at: http://www.ecy.wa.gov/programs/wq/funding/GrantLoanMgmtDocs/Eng/GrantLoanMgmtEngRes.html,*
2. *A project area shapefile.*

Task Goal Statement: *Refer to Project Goal Statement*

Task Expected Outcome: *Refer to Project Outcomes*

Recipient Task Coordinator: *<<task_coordinator_name>>*

Deliverables

Number	Description	Due Date
1	*Construction Quality Assurance Plan*	*Prior to construction start date*
2	*Construction schedule*	
3	*Cash flow estimates*	
4	*Copy of facility operation and maintenance plan*	
5	*Completed Stormwater Construction Completion Form*	
6	*Project Area shape file or ECOLOGY-approved equivalent*	

Task: Construction

This task will include purchase of supplies, payment of construction contractors etc. Applicants should modify this task to include the type and location of BMPs that will be constructed

Task Number:

Task Cost:

Task Title: Construction

Task Description:

A. *The RECIPIENT will, in accordance with ECOLOGY reviewed plans and specifications complete construction of the project. The construction project will include installation of {treatment or flow control BMPS} sized to mitigate runoff from X acres of impervious surface.*

Task Goal Statement: *Refer to Project Goal Statement*

Task Expected Outcome: *Refer to Project Outcomes*

Recipient Task Coordinator: *<<task_coordinator_name>>*

Deliverables

Number	Description	Due Date
1	*Submit a copy of the bid documents (e.g. bid announcement, bid award, bid tabulations)*	
2	*Construct type, number of BMPs/facilities*	*Grant expiration date*

Task: Change Orders

This task is used to track change orders and should be included as a place holder in grants that include a construction task. Task cost should be zero.

Task Number:

Task Cost: $0

Task Title: *Change Orders*

Task Description: *Refer to Project Goal Statement*

A. *If funding is available, ECOLOGY may approve, through formal amendment to this agreement, funding for change orders for up to five % of the eligible portion of the low responsive responsible construction bid(s). The RECIPIENT will negotiate all change orders to the construction contract necessary for successful completion of the PROJECT.*

B. *Prior to execution, the RECIPIENT will submit eligible change orders that are a significant deviation from ECOLOGY reviewed plans and specifications in writing for ECOLOGY review and approval for payment. All other change orders must be approved by ECOLOGY for technical merit and should be submitted within 30 days after execution. Change orders are to be signed by the contractor, the engineer (if appropriate), and the RECIPIENT prior to submittal to ECOLOGY for approval.*

Task Goal Statement: *Refer to Project Outcomes*

Task Expected Outcome: *Refer to Project Outcomes*

Recipient Task Coordinator: *<<task_coordinator_name>>*

Deliverables

Number	Description	Due Date
1	*Submit change orders.*	

Task: Equipment and Tool Purchase

Some equipment or tools purchased as part of stormwater facility or activity project may be eligible for funding if it is more cost-effective to purchase the equipment when compared to renting the item.

Task Number:

Task Cost:

Task Title: Equipment and Tool Purchase

Task Description:

A. The RECIPIENT will submit product details and cost for all equipment or tool purchases for approval by ECOLOGY prior to purchasing the equipment or tool. No reimbursement will be made for equipment or tools that are not approved by ECOLOGY prior to purchase.

B. Following ECOLOGY approval, the RECIPIENT will purchase the following equipment and tools:

Task Goal Statement: *Refer to Project Outcomes*

Task Expected Outcome: *Refer to Project Outcomes*

Recipient Task Coordinator: *<<task_coordinator_name>>*

Deliverables

Number	Description	Due Date
1	*Submit requests for equipment purchase*	

Task: Property Acquisition

Property acquisition for stormwater grants is generally limited to the footprint of the proposed facility.

Task Number:

Task Cost:

Task Title: *Property Acquisition*

Task Description:

A. *The RECIPIENT will submit to ECOLOGY a professional real estate appraisal or a comparable of the property to be purchased to ensure that the property is purchased at, or close to, fair market value.*

B. *The RECIPIENT will purchase the property in accordance with state and federal procedures and transfer purchase price to the current owner of the property.*

Task Goal Statement: *Refer to Project Outcomes*

Task Expected Outcome: *Refer to Project Outcomes*

Recipient Task Coordinator: *<<task_coordinator_name>>*

Deliverables (repeat a row for each deliverable)

Number	Description	Due Date
1	*Submit a copy of the completed appraisal or comparable to ECOLOGY.*	
2	*Purchase the property in accordance with state and federal procedures and transfer purchase price to the current owner of the property.*	

Appendix P: 2014 Amendments to the Clean Water Act and New Conditions for Revolving Fund Loans

After EPA issues its Interim Guidelines that state how the 2014 amendments to the CWA will be implemented, Ecology will issue an addendum to this document by updating this appendix.