



DEPARTMENT OF
ECOLOGY
State of Washington

**Addendum to
2015 Quality Management Plan:
Washington State Department of Ecology**

**Puget Sound National Estuary Program
Quality Assurance for State Lead Organizations
and Strategic Initiative Leads**

August 2019
Publication No. 19-03-015

Publication Information

Ecology's 2015 Quality Management Plan (QMP) is available at:

<https://fortress.wa.gov/ecy/publications/SummaryPages/1503030.html>

This addendum to the 2015 QMP is available on the Department of Ecology's website:

<https://fortress.wa.gov/ecy/publications/SummaryPages/1903015.html>

Relevant Websites

Ecology's Quality Assurance website:

<https://ecology.wa.gov/About-us/How-we-operate/Scientific-services/Quality-assurance>

QA website for State-led NEP-funded projects:

<https://ecology.wa.gov/About-us/How-we-operate/Scientific-services/Quality-assurance/Quality-assurance-for-NEP-grantees>

Contact Information

Arati Kaza

Quality Assurance Officer

Washington State Department of Ecology

Email: arati.kaza@ecy.wa.gov

Phone: 360-407-6964

Sara Sekerak

NEP Quality Coordinator

Washington State Department of Ecology

Email: sara.sekerak@ecy.wa.gov

Phone: 360-407-6997

Publications Coordinator

Environmental Assessment Program

P.O. Box 47600, Olympia, WA 98504-7600

Phone: 360-407-6764

Washington State Department of Ecology - www.ecology.wa.gov

- Headquarters, Olympia (360) 407-6000
- Northwest Regional Office, Bellevue (425) 649-7000
- Southwest Regional Office, Olympia (360) 407-6300
- Central Regional Office, Union Gap (509) 575-2490
- Eastern Regional Office, Spokane (509) 329-3400

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Thomas H. Gries
NEP Quality Coordinator (retired)
Acting Quality Assurance Officer

Washington State Department of Ecology
Environmental Assessment Program
300 Desmond Drive, P.O. Box 47710
Olympia, Washington 98504-7710

Table of Contents

Approval Signatures.....	iii
List of Acronyms	iv
Purpose of This Document.....	1
National Estuary Program.....	2
Award and Grant Processes, and Quality Assurance Program Background	2
Organization.....	4
Quality Assurance Program	6
National Estuary Program Quality Assurance Coordinator Roles and Responsibilities	6
Other Ecology Personnel	7
Non-Ecology LO and SIL Quality Management	8
Job — Working Title National Estuary Program Quality Coordinator	9
References	11

Approval Signatures

(Alphabetical order)

Approved:

Jessica Archer, Manager Date
Statewide Coordination Section, Environmental Assessment Program,
Washington State Department of Ecology

Approved:

Gina Bonifacino, NEP Project Officer Date
US Environmental Protection Agency, Region 10

Approved:

Donald Brown, Quality Assurance Manager Date
US Environmental Protection Agency

Approved:

Nicole Czarnomski, Acting Manager Date
Major Projects and Restoration Division
Washington State Department of Fish and Wildlife

Approved:

Arati Kaza, Quality Assurance Officer Date
Washington State Department of Ecology

Approved:

Scott Redman, Director Date
Science and Evaluation Program
Puget Sound Partnership

Approved:

Emily Sanford, National Estuary Program Supervisor Date
Office of Environmental Health and Safety
Washington State Department of Health

Signatures are not available on the Internet version.

List of Acronyms

Commerce	-	Washington State Department of Commerce
Ecology	-	Washington State Department of Ecology
EPA	-	U.S. Environmental Protection Agency
LO	-	Lead Organization
NEP	-	National Estuary Program (EPA)
NEP QC	-	NEP Quality (Assurance) Coordinator
PSP	-	Puget Sound Partnership
QA	-	Quality Assurance
QAO	-	Quality Assurance Officer
QAPP	-	Quality Assurance Project Plan
QC	-	Quality Control
QMP	-	Quality Management Plan
RCO	-	Recreation and Conservation Office (Washington State)
SIL	-	Strategic Initiative Lead (organization)
WDFW	-	Washington State Department of Fish and Wildlife
WDNR	-	Washington State Department of Natural Resources
WDOH	-	Washington State Department of Health
WSDA	-	Washington State Department of Agriculture

Purpose of This Document

The Washington State Department of Ecology (Ecology) has a Quality Management Plan (QMP) approved by the U.S. Environmental Protection Agency (EPA). It is revised and reapproved approximately every five years, with each edition serving as the blueprint for applying a quality system to its environmental programs. The quality system itself is a structured and documented management system that provides a framework for:

- Planning, implementing, documenting, and assessing activities that generate or use environmental data.
- Carrying out required quality assurance and quality control activities.
- Governing managerial and technical activities.

The quality system requires the active participation of *all* employees.

An addendum to Ecology's 2010 QMP describes the quality system applied to projects receiving funds from EPA's National Estuary Program (NEP) via agreements with state agencies that act as lead organizations for protection and recovery of Puget Sound. This quality system is designed to ensure that projects produce environmental data of known and acceptable quality, and that overall results address project objectives (Ecology, 2011).

This document updates Ecology's 2011 NEP Addendum, describing the system currently being implemented to ensure state-led NEP projects comply with EPA's quality assurance (QA) requirements. It summarizes current quality assurance roles and responsibilities, funding processes, quality system procedures, and other activities.

National Estuary Program

Award and Grant Processes, and Quality Assurance Program Background

In 2010, EPA entered into cooperative agreements that identified various Washington State agencies as Lead Organizations (LOs, Table 1) responsible for and overseeing a large number of National Estuary Program (NEP) funded projects designed to protect and recover Puget Sound. In 2016, the LO funding model was modified to recognize three State agencies that would act as Strategic Initiative Leads (SILs, Table 2).

The LOs and SILs use the Puget Sound Partnership (PSP) Action Agenda and Near-Term Actions to identify activities and projects thought to most benefit from NEP-funding. Funds are then awarded, via grants and other agreements, to subrecipients who propose projects supporting high-priority Near-Term Actions. Subrecipients responsible for projects that generate new environmental data, use existing environmental data, or test environmental technology must prepare a Quality Assurance Project Plan (QAPP). NEP-funded projects that do not involve these activities (e.g., land purchases or set-asides, public awareness campaigns, management plan or regulatory updates) do not require a QAPP.

Table 1. Lead Organization focus areas and key contacts, 2011–2018.

Focus Areas	Lead Organization	Project Officer or Grant Specialist
Puget Sound Action Agenda	Puget Sound Partnership	Ken Currens, Keven Anderson, Ken Dzinbal
Marine and nearshore protection and restoration	WDFW, assisted by WDNR and RCO	Margen Carlson, Patricia Jatczak (WDFW); Maggie McKeown * (WDFW, WDNR); Mike Ramsey (RCO) *
Toxics and nutrients prevention, reduction, and control	Ecology	Andrew Kolosseus, Blake Nelson, Diane Dent, Ron McBride *
Pathogens prevention, reduction, and control	WDOH, assisted by Ecology	Mary Knackstedt; Blake Nelson; Emily Sanford*, Megan Schell*, Nichole Simmons* and Kirsten Weinmeister (WDOH)
Watershed protection and restoration	Ecology, assisted by Commerce	Kim Harper, Lauren Driscoll, Colin Hume, Carrie Byron * (Ecology); Doug Peters (Commerce) *

* = current

Commerce – Washington State Department of Commerce
 RCO – Washington State Recreation and Conservation Office
 WDFW – Washington State Department of Fish and Wildlife
 WDNR – Washington State Department of Natural Resources
 WDOH – Washington State Department of Health

Table 2. Strategic Initiative Lead focus areas, and key contacts, 2016 – 2020+.

Focus Areas	Lead Organization	Project Officer or Grant Specialist
Puget Sound Action Agenda and Near-Term Actions Near-Term Actions	Puget Sound Partnership	Karin Berkholtz, Scott Redman
Habitat	WDFW	Julie Watson, Jennifer Griffiths
Shellfish	WDOH, assisted by Ecology and WSDA	Clara Hard, Emily Sanford, Megan Schell (WDOH)
Stormwater	Ecology, assisted by Commerce and WSU Stormwater Center	Derek Day, Lola Flores, Ron McBride Gary Myers, (Ecology)

Commerce – Washington State Department of Commerce
WDFW – Washington State Department of Fish and Wildlife
WDOH – Washington State Department of Health
WSDA – Washington State Department of Agriculture
WSU – Washington State University

EPA’s normal quality system requires recipients and subrecipients of federal funding to submit quality assurance documentation directly to EPA. This is reflected in SIL Cooperative Agreements, Terms, and Conditions for QA:

7. Quality Assurance Requirements (2 CFR 1500.11) (if applicable)

Acceptable Quality Assurance documentation must be submitted to the EPA Project Officer within 30 days of the acceptance of this agreement or another date as negotiated with the EPA Project Officer. No work involving direct measurements or data generation, environmental modeling, compilation of data from literature or electronic media, and data supporting the design, construction, and operation of environmental technology shall be initiated under this project until the EPA Project Officer, in concert with the EPA Quality Assurance Manager, has approved the quality assurance document. Additional information on these requirements can be found at the EPA Office of Grants and Debarment website: <http://www.epa.gov/ogd/grants/assurance.htm>.

Instructions to Submit Quality Assurance Documents for Review

Grantees must submit the quality assurance project plan (QAPP) to his/her EPA Project Officer and the EPA Project Officer forwards the new/revised QAPP to “R10 QA Support” via internal email group.

Region 10 Quality Assurance Team Contact: Donald Brown at (206) 553-2599 or email: Brown.DonaldM@epamail.epa.gov.

However, government resources to oversee quality assurance for a large number of subrecipient projects are limited. For this reason, EPA’s quality system needed modification to ensure LO- and SIL-funded projects complied with EPA requirements. The preferred alternative was for Ecology to provide quality assurance oversight and technical assistance, and to have subrecipients submit quality assurance documentation to an Ecology-based NEP Quality Coordinator (NEP QC) instead of EPA’s Project Officer.

Implementation of the modified quality system has several important benefits: improved government efficiency, consistent quality assurance implementation, and more cross-mission collaboration. Having a single entity (Ecology) provide a centralized quality assurance (QA) program for all State-led NEP projects offers greater efficiency. It also means quality assurance implementation (e.g., determining requirements, interpreting guidance, and formatting documents) is likely to be more consistent than if multiple entities were involved. Finally, the system affords increased opportunities for cross-mission collaboration through:

1. Prioritization of projects based partly on near-term actions in the Puget Sound Partnership's Action Agenda.
2. Interagency team meetings.
3. Jointly-led major initiatives (Table 1).
4. Involvement of local integrating organizations.

Collaboratively choosing to fund specific projects optimizes project outcomes that can address multiple missions (e.g., habitat restoration, flood control, and stormwater management).

This document updates the original NEP addendum to Ecology's Quality Management Plan (QMP) because the latter has since been revised and re-approved by EPA (Ecology, 2015), and because the funding model has changed. This new addendum more accurately describes the current quality assurance oversight program (e.g., responsibilities, funding processes, and other activities). It also describes the NEP QC position jointly funded by the state SILs and PSP via contracts with Ecology.

Organization

The general organizational structure of the new SIL funding model and original LO model, as well as their relation to Ecology's quality assurance program, is shown in Figure 1. The NEP QC reports to Ecology's Statewide Coordination Section Manager in the Environmental Assessment Program, but works closely with the agency's Quality Assurance Officer. The NEP QC may be authorized to act as QA Officer when the QA Officer is absent or unavailable.

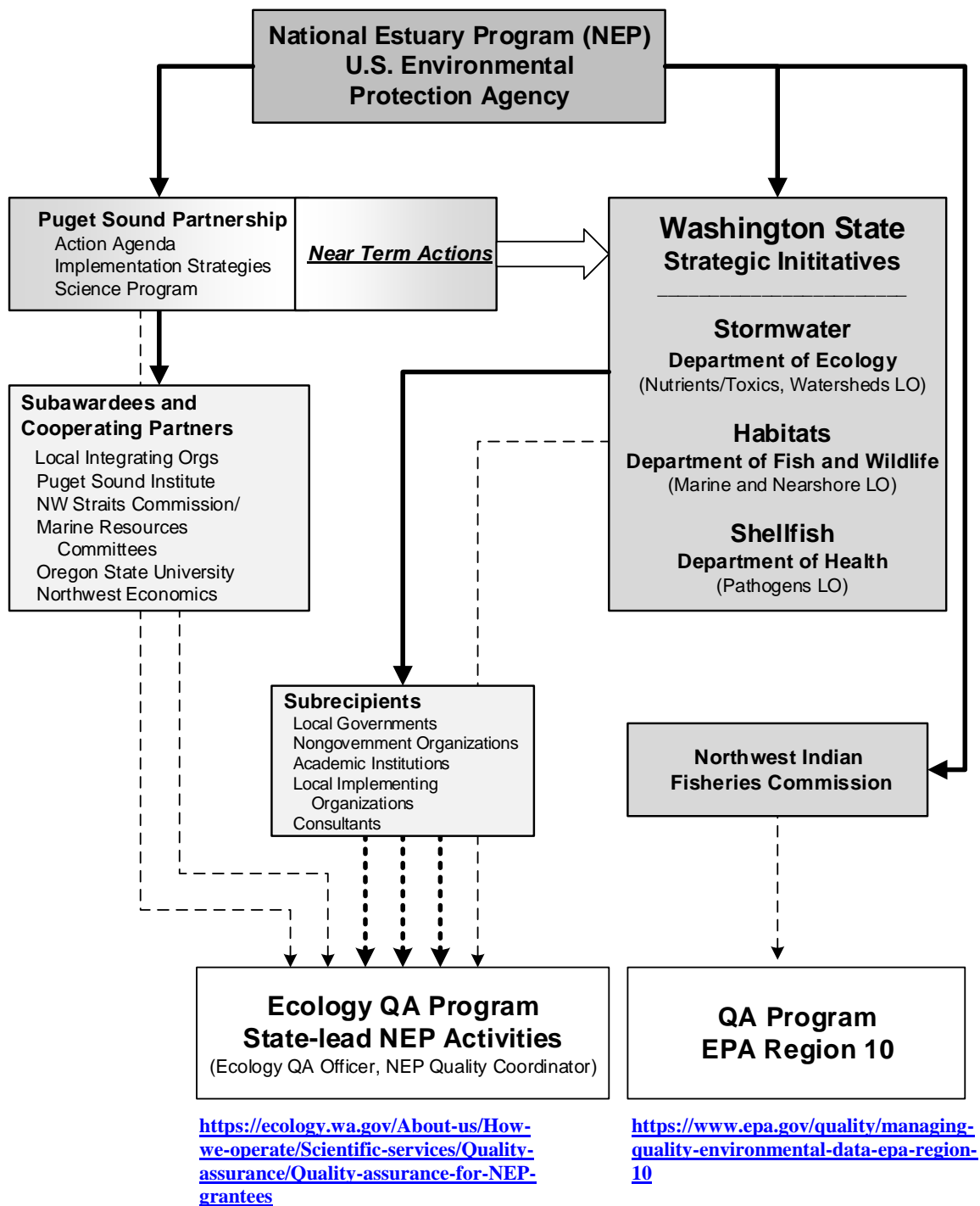


Figure 1. Organizational Structure for Funding and Implementing a Quality Assurance Program for State-lead NEP Activities.

Bold lines - major funding pathways. Dashed lines - QA document flow.

Note: This diagram does not attempt to show relationships and communications between different entities, or the process for identifying and prioritizing Near-Term Actions.

Quality Assurance Program

National Estuary Program Quality Assurance Coordinator Roles and Responsibilities

The main responsibility of Ecology's NEP QC, first created in 2010 through agreements between the State Agencies and Ecology, is to ensure that projects receiving NEP pass-through funding comply with EPA and Ecology quality assurance requirements and guidance. This is accomplished in part by implementing a quality assurance program that provides training and technical assistance to LOs, SILs, and grant subrecipients. Training focuses on quality assurance in general, while technical assistance focuses on preparation of quality assurance documents such as QAPPs. Training is conducted on an "as needed" basis and may be comprised of informal presentations and occasional formal workshops. The NEP QC also provides much needed technical assistance by maintaining a quality assurance web site and disseminating printed QA materials by email, telephone communications, and other means. Finally, the NEP QC prepares a biannual report describing activities for the prior six-month period. These reports are typically disseminated to EPA and all the LOs and SILs in mid-May and mid-October each year.

Quality Assurance-related activities associated with NEP-funded projects

The general sequence of quality assurance-related activities is depicted in flow diagrams available on Ecology's NEP QA website (<https://ecology.wa.gov/About-us/How-we-operate/Scientific-services/Quality-assurance/Quality-assurance-for-NEP-grantees>) and is summarized below.

For all subrecipient projects:

- LO, SIL, and PSP staff will require all subrecipients to submit appropriate quality assurance documentation to Ecology's NEP QC within a specified time frame.
- At a minimum, all recipients will use the agreement and statement of work to draft a QAPP Waiver form ("waiver") to list specific project objectives and identify quantitative measures of success for each. The waiver form can be found at: <https://fortress.wa.gov/ecy/publications/SummaryPages/ECY070432.html>.
- The NEP QC will review the draft waiver and other information to:
 - Evaluate the likelihood of meeting the overall project objectives.
 - Determine if additional quality assurance information or a full QAPP is required.
 - Document this decision.
- The NEP QC will work with each subrecipient to finalize the waiver, have it approved, and send the final approved version to the recipient and appropriate LO, SIL, or PSP, to communicate the decision about quality assurance documentation.

An approved waiver may be all that is needed to describe activities that, by themselves, seldom require a QAPP. Examples of these include: acquiring property and establishing conservation easements; updating local critical area ordinances or shoreline management plans; inspecting properties for compliance purposes (e.g., condition of on-site septic systems); conducting environmental education and outreach campaigns; compiling, reviewing, and summarizing

published literature or data; building or demolishing structures; conducting straightforward geospatial (GIS) analysis using environmental data layers).

However, a QAPP will be required for projects that involve the following activities:

- Measuring environmental parameters (e.g., water temperature or dissolved oxygen) in the field.
- Collecting environmental samples and having them analyzed by an accredited laboratory.
- Conducting complex new analyses using environmental data that already exists.
- Modeling the environment or conducting complex computer simulations to predict future environmental conditions.
- Evaluating new or existing environmental technology.

For projects that require a QAPP:

- The NEP QC will help the recipient prepare and submit a draft QAPP that follows Ecology's current QAPP template format, instructions, and guidelines.¹
- The NEP QC will review the draft QAPP, provide appropriate comments, and facilitate its timely approval before data collection, analysis, or modelling begins.
- The NEP QC may elect to conduct desk, field, and/or phone audits of projects underway.
- The NEP QC may elect to work with SILs to identify projects that would benefit from having the subawardee's final contract and approved QAPP require preparation of a detailed project report. In such cases (perhaps 5–10% of all projects), the NEP QC will collaborate with SIL staff to develop appropriate requirement language for both the contract and the QAPP. Detailed project reports will be submitted to all parties identified in the QAPP for review and comment prior to finalization. The NEP QC will review the report and provide comments on its consistency with activities described in the QAPP; the report should clearly describe deviations from the approved plan and results of data quality assessment.

Duties specific to the NEP QC are also listed in the abbreviated position description attached to this Addendum.

Other Ecology Personnel

A single Ecology NEP project lead for the Stormwater SIL now replaces the two previous NEP project leads who managed Ecology's awards and grants for Toxics and Nutrients projects and Watershed projects). Ecology also maintains one position—a Puget Sound Grant Coordinator—that is responsible for coordinating grants, preparing contracts, etc.

The NEP QC will help NEP project leads identify applicable QA requirements that need to be reflected in final project scopes of work deliverables and budgets. Appropriate items are posted on a Single Application Point ("box") website hosted by the Puget Sound Partnership for use by all LOs and SILs.

¹ QAPPs that follow Ecology's QAPP template format are more easily reviewed and so more likely to receive timely approval. If a recipient has prior experience drafting QAPPs following EPA's format and guidelines, the NEP QC may find this to be an acceptable alternative.

NEP project leads and Puget Sound Grant Coordinators will consult with the NEP QC regarding acceptability of QA documentation and final reports. The NEP QC will oversee the QA program, providing technical assistance to subaward recipients and tracking receipt and approval of appropriate QA documentation for each subaward.

Non-Ecology LO and SIL Quality Management

LOs, SILs, and the PSP are responsible for individual agency QA systems, including development and maintenance of a QMP, as required by EPA (2001):

These (QMP) requirements apply to all organizations conducting environmental programs funded by EPA that acquire, generate, compile, or use environmental data and technology" and "to all work performed through contracts, cooperative agreements, interagency agreements, State-EPA agreements, State, local, and Tribal Financial Assistants/Grants (including Performance Partnership Grants and Agreements), Research Grants, and in response to statutory or regulatory requirements and consent agreements.

Consequently, an important element of each approved QMP should be acknowledging EPA grant requirements are passed on to subrecipients. "These requirements shall be negotiated into interagency agreements, including sub-agreements, and, in some cases, included in enforcement consent agreements and orders." (EPA, 2001)

Currently, all State LOs and SILs have EPA-approved QMPs in place except for the WDFW; the draft QMP for WDFW is in the process of being approved. Each of these QMPs designates a QA manager to implement the QMP and to act as the single point of contact with the NEP QC on quality-related issues, as the interface with Ecology's quality management system. In addition, each QMP largely defers to the NEP QC to a) implement the quality system modified for NEP subrecipients, including approval of QAPPs, and b) provide quality assurance support and training as necessary.

Ultimately, each State award recipient is responsible for ensuring subrecipients and their projects meet EPA quality assurance requirements. However, EPA, Ecology, and non-Ecology LOs and SILs, all operate under the modified quality system described earlier as an efficient and effective means to meet EPA QA requirements. The system features Ecology approving QAPP Waivers and QAPPs, but the PSP, LOs, and SILs may elect to assume that responsibility once they develop an internal quality system or use a different mechanism that meets EPA quality assurance requirements. Evidence of a successful quality system includes:

- EPA-approved QMP.
- Functioning, as-built quality system.
- Designated agency quality manager with appropriate experience in quality assurance.
- Approval of the EPA Region 10 Quality Manager.



**Department of Ecology
Washington General Service (WGS)**

Job — Working Title National Estuary Program Quality Coordinator

(Excerpted)

Position Objective

Describe in a few sentences what the position is required to accomplish. Summarize the scope of impact, responsibilities, and how the position supports/contributes to the mission of the organization. Include an organizational chart.

The agency mission is to protect, preserve, and enhance Washington's environment, and promote the wise management of air, land, and water. The program mission is to measure and assess environmental conditions in Washington State.

This position contributes to the program and agency missions by providing quality assurance coordination and support to Lead Organizations (LOs), Strategic Initiative Leads (SILs), and the Puget Sound Partnership (PSP) on U.S. Environmental Protection Agency (EPA) National Estuary Program (NEP) grants and awards for protection and restoration of Puget Sound.

On behalf of the LOs and SILs, the incumbent is the senior scientist to oversee and coordinate quality assurance (QA) requirements associated with NEP grants and awards for the protection and restoration of Puget Sound. This position will:

1. Work with NEP LOs, SILs, the Puget Sound Partnership (PSP), and sub award recipients (henceforth subcontractors) to ensure that QA requirements for the EPA NEP grant are met.
2. Review, comment on, and ensure approval of all Quality Assurance Project Plans (QAPPs), QAPP Waivers, and technical reports submitted to Ecology by LOs, SILs, PSP, and NEP subcontractors for compliance with EPA quality system requirements.
3. Provide technical assistance to LOs, SILs, PSP, and NEP subcontractors.

The incumbent will work in Department of Ecology's (Ecology) EAP Statewide Coordination Section and report to the Section Manager. The incumbent will work closely with the agency's QA Officer to serve the needs of LOs, SILs, PSP, and subcontractors in a variety of topic areas, including (but not limited to) the following Puget Sound recovery topic areas:

- Marine and nearshore protection and restoration [(LOs Departments of Fish & Wildlife (WDFW) and Natural Resources (WDNR)];
- Pathogen prevention, reduction, and control [Departments of Health (WDOH) and Ecology]
- Shoreline protection
- Salmon recovery, management, and restoration
- Toxics and nutrients pollution prevention, reduction and control (Department of Ecology)
- Watershed protection and restoration including aquatic and upland habitat, water quality, and water quantity (LOs Departments of Ecology and Commerce)
- Habitat SIL (WDFW Lead)
- Shellfish SIL (WDOH Lead)
- Stormwater SIL (Ecology Lead)

Summarize the following information in narrative format.

- How is work assigned?
Work will be assigned to this position by the Ecology QA Officer (lead worker) and the Statewide Coordination Section manager (supervisor).
- With whom does the position interact to accomplish work?
NEP project managers from the four LOs, three SILs, PSP, subcontractors, Ecology's Puget Sound grant coordinator; QA managers at EPA and other organizations, as well as NEP grantee/subcontractor QA staff.

Key and Other Work Activities

List percentage of time assigned to key work activities of the position and identify tasks performed in support of key activities.

95% Oversees and coordinates compliance with QA requirements associated with EPA's NEP grants for the protection and restoration of Puget Sound. Works with NEP LOs, SILs, PSP, and NEP subcontractors to ensure EPA QA requirements for NEP grants are met. Reviews QAPPs and technical reports submitted to Ecology by LOs, SILs, PSP, and subcontractors for compliance with EPA quality system requirements. Provides technical assistance to LOs, SILs, PSP, and NEP subcontractors. Duties include:

- Maintain a waiver process and alternative documentation for projects that do not warrant traditional QAPPs.
- Maintain Ecology's QAPP Waiver form, QAPP template, QAPP checklist, and other materials that facilitate QA documentation.
- Develop and maintain an Ecology-based NEP QA web site that provides information on the NEP QA process and other useful QA materials, e.g., QAPP Waiver form, QAPP template, QAPP checklist, and example QAPPs.
- Assess all project QAPP Waivers submitted for clear project objectives and means for assessing achievement of those objectives at project's end.
- Review and comment on QAPPs prepared by NEP subcontractors.
- Approve or recommend approval of QAPPs.
- Periodically assess compliance with QAPP objectives. Develop and maintain audit forms for use in conducting periodic field, email, and/or telephone audits that assess project compliance with QAPP objectives and procedures.
- Develop and maintain a corrective action notice procedure and form for use when projects diverge unacceptably from the approved QAPP.
- If required by the QAPP, review final project reports for consistency with approved QAPPs, commenting as appropriate.
- Coordinate with LOs, SILs, and PSP when specialized program expertise is needed to review QAPPs and reports.
- Provide training for LOs, SILs, PSP, and subcontractors in quality assurance principles and practices.
- Review, verify, and validate project data as necessary and appropriate.

List and note percentage of time assigned to other work activities.

5% Other duties as required.

References

- Ecology. 2015. Quality Management Plan, Washington State Department of Ecology. Publication No. 15-03-030. Washington State Department of Ecology, Olympia. <https://fortress.wa.gov/ecy/publications/SummaryPages/1503030.html>.
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