**QA-QC Plan for ODOT Wetlands Program Documents**

**Quality Assurance** – a system for ensuring a desired level of quality in the development, production, or delivery of products and services.

**Quality Control** – a system for verifying and maintaining a desired level of quality in an existing product or service by careful planning, use of proper equipment, continued inspection, and corrective action as required.

*Quality Assurance* (QA) is focused on process. The ODOT Environmental and Hydraulic Engineering Section (EHES), develops Agency policies, templates, guidance and training to effectively meet state and federal environmental permit and clearance requirements. Statewide QA for the Wetlands Program is handled by the Environmental Resources Unit (ERU) within EHES. Wetlands Program QA is also performed project by project in Regions.

Templates for the three key Wetlands Program documents (Wetlands and Waters Delineation Reports, Joint Permit Application’s and Compensatory Mitigation Plans) are developed and updated as necessary at DSL and the US Army Corps of Engineers. Once templates for documents and reporting forms are vetted through the stakeholder groups and approved, their use is required.

EHES Wetlands staff regularly coordinates training events. Guidance for core competencies have been developed as well. Professional development training is recommended regularly.

*Quality Control* (QC) is focused on the product. ODOT QC is an outcome driven process and each Region operates under its own Tech Center QC Plan of which environmental is only one component. QC plans may vary somewhat among Regions as a consequence of differences in geography, workload and political realities, however, delivery of the three key documents should follow a standard QC process statewide across Regions.

For Wetlands, the most common documents produced include:

* Technical Reports
* Wetlands Determinations
* Baseline Reports
* Wetlands and Waters Delineation Reports
* Joint Permit Applications
* Stream (SFAM) and Wetland (ORWAP) Functional Assessments
* Compensatory Mitigation Plans
* As-built and post-construction Monitoring Reports

In addition, ODOT Wetlands Program staff prepare the following documents that may be subject to QC peer to peer review:

* Deed Restrictions
* MOAs
* Mitigation Bank Instruments
* Management Plans

Documents generated by ODOT specialists or ODOT-qualified consultants use standard templates and checklists. The quality of a document begins with the expertise of the individual writing the document and the accuracy of the information contained within it. The three key Wetlands Program documents that require peer review and a peer signature on the review checklist, are the Wetland and Waters Delineation Report, Joint Permit Application, and Compensatory Mitigation Plans. Informal peer review is recommended for all other documents.

The following are standard QC practices to ensure that only qualified individuals prepare documents, that only the best available information is used, and that QC is adaptively managed.

**Personnel**

Individuals, both ODOT and consultant, who prepare wetlands program documents, are required to have a college degree with a major in Biology, Botany, Soil Science, Wetland Science or related field. Experience with wetlands and waters delineations, wetlands and waters functional analysis and vegetative monitoring techniques is required. Experience in federal and state wetland permitting processes including compensatory mitigation site development and ESA conservation planning principles is needed.

Wetland delineation maps shall be surveyed by a registered Professional Land Surveyor, or otherwise captured by a professional capable of operating a resource-grade GPS with sub-meter accuracy. Final plan sheets depicting wetlands and waters impact areas, as well as compensatory mitigation plan sheets, shall be stamped and approved by a registered Professional Engineer.

* **REGISTERED PROFESSIONAL LAND SURVEYOR**

When wetland delineation boundaries are surveyed, surveyors shall place their official Oregon Registered PLS certified seal and signature on all final reports, maps, design drawings, and specifications.

* **REGISTERED PROFESSIONAL ENGINEER**

Final plan sheets depicting wetlands and waters impact areas, as well as compensatory mitigation plan sheets, shall be stamped and approved by a registered Professional Engineer as defined in ORS 672.002(2). The Professional Engineer must be currently registered in active status with the Oregon State Board of Examiners for Engineering and Land Surveying, and must supervise and direct the work proposed. Engineers shall place their official Oregon Registered Professional Engineer certified seal and signature on all final reports, maps, design drawings, and specifications.

**Quality Standards**

*During Design:*

1. Refer to Removal-Fill Guide, CM siting Bulletin, and standard scope of work (SOW) for consultant deliverables
2. WORD should be used for reports
3. Wetlands and Waters shall be mapped by a PLS or captured with resource-grade GPS and incorporated into the project basemap.
4. Rely on project related information from roadway designer, engineers, biologists and others regarding alternatives analysis, avoidance-minimization-mitigation options and for quantifying impacts to wetlands and waters.

*During Internal Review:*

1. Template- was the correct one used?
2. Does the SUBJECT Line contain all necessary details (Key #, Project Name, County)
3. Do signature lines make sense?
4. Is the project description clear?
5. Are maps and figures, plan sheets legible? Is scale correct?
6. Are photographs clearly and appropriately labeled?
7. Does the CC list have the appropriate REC listed?

*During Review of Consultant Documents:*

1) Template- was the correct one used?

2) Does the SUBJECT Line information contain all necessary details (Key #, Project Names, County)

3) Are titles and headers correct?

4) Is the project description clear?

5) Is the API and Study Area clearly defined?

6) Is the methods description complete and accurate?

7) Are the recommendations appropriate?

8) Are maps and figures, as well as plan sheets legible? Is scale correct?

9) Are photographs clearly and appropriately labeled?

*Reviewers:* Regions perform reviews on internally and externally produced documents. Reviewers ensure that documents are sound, logical, well written, and complete. Reviewers include ODOT staff.

**Corrective Action**

1. Wetlands Program staff are encouraged to address template concerns and suggest improvements to EHES. Changes to templates are discussed at Wetlands and Biology Program Team meetings.
2. At any step in the document review process, reviewers may provide constructive comments to the originator of the document and require document revisions if necessary for completeness, clarity and accurateness.

**Document Storage & Retention**

*ProjectWise:* Wetlands Program staff must store electronic versions of final wetlands and waters resources documents in ProjectWise, ODOT’s data management system for projects.

*Region Files:* Supporting information are stored in Region & EHES environmental files following Region and EHES storage processes.

*NRUtrans:* Submit documents to NRU trans email inbox to be filed for long-term records keeping.