



# **Statewide Fish Passage Program Quality Plan**

**Project Delivery QA/QC Program  
Oregon Department of Transportation**

**January 2022**

### **Statewide Fish Passage Program Quality Plan**

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#### **Oregon Department of Transportation**

Statewide Project Delivery Branch – Engineering & Technical Services Branch

Project Delivery QA/QC Program

4040 Fairview Industrial Dr. SE

Salem, Oregon 97302-1142

503-986-7130

[ODOTQualityProgram@odot.oregon.gov](mailto:ODOTQualityProgram@odot.oregon.gov)

[Environmental Section Website](#)

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# **1. Fish Passage Program Quality Program**

## **1.1. General**

The Oregon Department of Transportation recognizes that its success will be determined, in part, by the quality of services and products that it provides for its customers. Assuring quality requires not only a commitment but also a consistent systematic approach. The ODOT environmental quality control program endeavors to go beyond the review of work products to result in a continuous improvement of the processes and products associated with environmental services.

The ultimate goal of quality control is to achieve an overall quality of work in all endeavors that meets or exceeds the goals of the agency. Within that context, the intent of implementing this quality control program includes the following:

- To emphasize the importance of quality in achieving the goals of the Agency. In particular, to emphasis communication, collaboration, and care in completing environmental work. This is consistent with the values enunciated in ODOT's Strategic Business Plan, "EXCELLENCE: We use our skills and expertise to continuously strive to be more efficient, effective and innovative."
- To assist in leveraging the highest levels of experience and technical expertise available, with respect to all projects, not just those that are large or complicated.
- To assure and document compliance of fish passage approach with legal requirements and organizational policy.
- To allow for an analysis of the strengths and weaknesses of completed projects in order to develop a process of continual improvement.
- To provide support to individual project designers. Collaborating with other experienced individuals helps the Professional of Record be more confident in their work and results.
- To provide mentoring for workers trying to develop experience and expand their abilities. Often, the best training comes from working on a project with a reviewer who has more experience. Similarly, experienced staff often learns from recent graduates and young staff that have been exposed to recent advances in the profession through their educational experience and offer a fresh perspective uncolored by institutional inertia.
- To identify and address mistakes, oversights, and logic errors and to compensate for inexperience. All people can and do make mistakes despite their knowledge, experience, or level of effort. A collaborative approach to work and the involvement of independent reviewers will nearly always result in the elimination of mistakes or errors of logic that would not be identified by a single dedicated individual.

- To ensure that projects resulting in a fish passage trigger under Oregon Administrative Rules address fish passage using appropriate methods and are acceptable to state and federal regulatory agencies.

The QC process is not intended to relieve Professionals of Record (POR) from responsibility for their work products. Ultimately, the POR is responsible for self-checking their work and maintaining compliance with applicable manuals, standards of practice, errors, omissions, and state and federal fish passage criteria.

## 1.2. Outsourced Work Products

For Fish Passage, the most common consultant produced documents produced include:

- Fish Passage Scoping Memos
- Fish Presence Determinations
- Basis of Design Reports
- Fish Passage Approval Application Packages
- Fish Passage Waiver Application Packages
- Fish Passage Exemptions Application Packages
- As-built and post-construction Monitoring Reports

In addition, ODOT Environmental staff and or consultants also prepare the following documents that may be subject to QC peer to peer review:

- Culvert Repair Programmatic Agreement Initiation and Tracking Forms
- Culvert Repair Programmatic Agreement Annual Reports
- Culvert Repair Programmatic Agreement Final Reports

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 Fish Passage Program documents that require peer review and a peer signature on the review checklist, are the Fish Passage Approval Application packages, Fish Passage Waiver Application packages, and Fish Passage Exemption Application packages. Informal peer review is recommended for all other documents.

## 2. Quality Standards

When work products or deliverables are developed by Consultants for ODOT projects, those documents will be completed under the requirements of a Consultant-specific quality control

plan, reviewed and approved by ODOT. The responsibility for Quality Control and Quality Assurance rests with the Consultant. ODOT responsibilities with respect to Consultant work consist of limited QA and verification of the Consultant's QC and QA processes. ODOT quality review is not intended to replace or supplant the QC or QA responsibilities of the Consultant. Work products that contain demonstrable errors at the time of submission to ODOT will not only need correction but are indicative of a failure in the Consultant's QC and QA processes and may require deeper, programmatic review and action.

For Fish Passage deliverables, QC ensures that project meet or exceed state and federal fish passage criteria as defined in Oregon Administrative Rules 635-412- 0005 through 0035, and as directed by National Marine Fisheries Service.

## 3. Glossary

**Quality** - Quality in project delivery is the degree to which a product, service, or deliverable meets or exceeds a customer's requirements and expectations.

**Quality Assurance (QA)** - Quality Assurance includes the following distinguishing characteristics:

- QA is focused on a process in quality management.
- Individuals conducting a QA review will assess how well QC procedures are being executed, and where the overall processes and tools can be improved.

**Quality Control (QC)** - Quality Control includes the following distinguishing characteristics:

- QC activities are focused on a deliverable and take place as the deliverable is being developed.
- Individuals performing QC reviews have proven qualifications for the role and have equal or greater competency than the person who prepared the deliverable.

**Quality Management** - The establishment and implementation of policies, processes, and responsibilities to ensure the overall quality of tasks and deliverables in project delivery. Two main components of quality management are quality control (QC) and quality assurance (QA).

**Professional of Record** - Professional of Record, professional in responsible charge of the technical work product: supervising and establishing the nature of, directing and guiding the preparations of, approving and accepting professional responsibility for the work product.

**ODOT Environmental Staff** – ODOT personal representing the Environmental Unit. For Fish Passage, these positions include agency Biologists and Region Environmental Coordinators, located in Region and Headquarter offices.

**ODOT Fish Passage Liaisons** - State (Oregon Department of Fish and Wildlife) and Federal (National Marine Fisheries Service) personnel who work closely with ODOT Environmental staff, and consultants, to ensure projects meet respective criteria.

## 4. Quality Control Responsibilities

The roles and responsibilities for implementing quality in Fish Passage deliverables are described in this section.

Individuals, both ODOT and consultant, who prepare fish passage program documents, are required to have a college degree with a major in Biology, Fish and Wildlife Science, Natural Resources or related field. Experience with native migratory fish and presence determinations, fish passage barrier assessment and remediation analysis, and post project monitoring techniques is required. Experience in federal and state fish passage permitting processes, including evaluating fish passage conditions, fish presence, and habitat quality and use by fish species and life stage is required.

A variety of engineers and biologists as well as technicians and office staff will be involved in the development of fish passage documents. However, the responsibility for those documents rests, by law, with professionals certified in the field of Engineering. The Professionals of Record (Engineers) are responsible for acting within their own level of competence and knowledge. A professional agreeing to work outside of their competence and training is potentially endangering the public and is violating State law.

Final plan sheets depicting Fish Passage Design, temporary water management, and waters impact areas, 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.

For each project, the QC team shall consist of individuals representing the ODOT Environmental unit and applicable regulatory agencies. This includes a qualified biologist as well as state and federal liaisons. Additional persons of responsibility include Region Management, and Headquarters Staff. The nature and responsibility of each is described below.

**Qualified Biologist** - The Qualified Biologist on ODOT projects shall be the person in responsible charge for fish passage approach and interpretations and decisions made on the project. They provide design guidance to ensure projects meet established criteria, and preform



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QC review on permit application packages prior to submittal. They are required to have a college degree with a major in Biology, Fish and Wildlife Science, Natural Resources or related field. Experience with native migratory fish and presence determinations, fish passage barrier assessment and remediation analysis, and post project monitoring techniques is required. Experience in federal and state fish passage permitting processes, including evaluating fish passage conditions, fish presence, and habitat quality and use by fish species and life stage is required.

**ODOT Fish Passage Liaisons** – State (Oregon Department of Fish and Wildlife) and Federal (National Marine Fisheries Service) personnel who work closely with ODOT Environmental staff, and consultants, to ensure projects meet respective criteria. They provide design guidance to ensure projects meet established criteria, and preform QC review on permit application packages prior to submittal. They also represent regulatory engineers, and provide application approvals, requested changes, or denials on behalf of regulatory agencies.

**Hydraulic Engineering Reviewer** - The Hydraulic Engineering Reviewer will provide primary technical review for hydraulic aspects of the project. Hydraulic Engineering Reviewers will be licensed as Certified Engineers with the State of Oregon.

**Region Management** - The management team of each region is ultimately responsible for the management of staff and resources within the region.

**Headquarters Staff** - Senior Biologists and Engineers are located in the Technical Services Center in Salem. Those professionals are responsible for standards and policies, including the development of this manual, for environmental work throughout ODOT as well as for agency wide Quality Assurance reviews.

## 5. Quality Control Review Guidelines

For clarity, the ODOT project delivery process has been broken down into a series of milestones or phases. The following table documents the project elements that require QC review and the phases review is warranted.

Table 1: Project Elements Requiring QC Review

Phase	Project Document	QC Requirement
Scoping Phase	Fish Passage Scoping Memo	Internal Peer Review
Project Initiation		
DAP Phase	Basis of Design Reports	Internal Peer Review
Preliminary Phase	Basis of Design Reports	Internal Peer Review
Advance Phase	Basis of Design Reports Draft Fish Passage Approval Application Packages Draft Fish Passage Waiver Application Packages Draft Fish Passage Exemptions Application Packages	Formal QC review including signed QC checklists
Final Phase	Fish Passage Approval Application Packages Fish Passage Waiver Application Packages Fish Passage Exemptions Application Packages	Formal QC review including signed QC checklists
Construction Phase	As-built drawings	Internal Peer Review
Post Project Monitoring Phase	Post-construction Monitoring Reports	Internal Peer Review

The following sections detail the nature of each deliverable as well as the assumed process associated with production.

## 5.1. Fish Passage Scoping Memo

The Fish Passage Scoping Memo is produced early in project scoping. This document is produced by the project biologist, and informs the project on approach to addressing fish passage, if required. The document includes;

- Native Migratory Fish Determination produced by Oregon Department of Fish and Wildlife staff
- Brief project description that informs a fish passage trigger determination
- Site specific and watershed information including potential fish habitat and barrier assessments

- Recommended approach to addressing fish passage rules

The Fish Passage Scoping memo should result in guidance to addressing state and federal fish passage rules, when applicable. The species and habitat information in the memo should be submitted to state and federal agencies through ODOT Fish Passage Liaisons for concurrence. The approach to meeting fish passage criteria should also be reviewed by ODOT Fish Passage Liaisons for concurrence. The Fish Passage scoping memo does not go through a formal QC process, but should have a review completed by agency biologist before finalizing.

## 5.2. Basis of Design Reports

Basis of Design Reports are developed by the project engineer. These reports summarize hydraulic and geotechnical conditions of the project, and inform regulatory reviewers of fish passage conditions expected post project. Basis of Design Reports are reviewed by project biologists and engineers before submittal to agencies through ODOT Fish Passage Liaisons. These reports are submitted to regulatory agencies at design phase gates for review and concurrence. Basis of design reports do not go through a formal QC process, but should have a review completed by the project team before finalizing.

## 5.3. Draft Fish Passage Application Packages

There are three main fish passage application packages. Each is required to have formal agency QC prior to submittal to regulatory agencies. The Fish Passage Scoping Memo will be used to determine which application is appropriate for each site. In the event of a regulatory trigger for fish passage rules, the project must address fish passage using one of the following:

- Fish Passage Approval Application Packages
- Fish Passage Waiver Application Packages
- Fish Passage Exemptions Application Packages.

Each of these application packages include:

- A completed Microsoft Word application document available from the Oregon Department of Fish And Wildlife,
- Associated design drawings,
- Applicable hydraulic calculations,
- Basis of design report or additional supporting documents as appropriate.

The application is filled out by the project biologist and engineer. The plan sheets and hydraulic models should be produced by the project engineer. The basis of design reports and any additional narrative should be produced by the project biologist or engineer. Guidance for development of the application is available from the ODOT Fish Passage Program and the ODOT Hydraulic Engineering program.

The draft application packages shall be reviewed by agency biologists and engineers prior to

submittal to regulatory agencies. Once internal review has been completed, the draft application packages shall be submitted to state and federal agencies through ODOT fish passage liaisons. Following review and preliminary approval by regulatory agencies, final application packages can be developed.

## 5.4. Final Fish Passage Application Packages

Final application packages shall be developed by project biologists and engineering staff, and incorporate reviewer feedback from the draft submittal process. These application packages require formal QC review. The final fish passage application packages shall consist of:

- A completed Microsoft Word application document available from the Oregon Department of Fish And Wildlife,
- Associated design drawings,
- Applicable hydraulic calculations,
- Basis of design report or additional supporting documents as appropriate

The steps below summarize the submittal and QC review process:

- Once developed, final application packages shall be submitted to a qualified biologist for QC review.
- The qualified biologist will complete a review using the appropriate QC checklist.
- Recommended edits or additional information requests are made on the QC checklist, and the reviewer signs the checklist.
- The application package and signed QC checklist are returned to the developer for edits. The ODOT Fish Passage Program Coordinator should be included.
- Once the requested edits are made, the application package is resubmitted to ODOT biologists.
- When found complete, the ODOT biologist will send the application package to regulatory agencies for formal project approval. The Biologist sends the application package to ODOT Fish Passage Liaisons, and includes the ODOT Fish Passage Program Coordinator.
- The ODOT Fish Passage Program Coordinator and Fish Passage Liaisons will deliver regulatory approval back to the project team.

## 5.5. As-built Drawings

As built drawings shall be completed during and after project construction, and developed by the project engineer. As built drawings do not require formal QC review. When complete, As Built drawings and any associated narrative of the project shall be submitted to the ODOT Fish Passage program and ODOT Fish Passage Liaisons.

## **5.6. Post-construction Monitoring Reports**

Post construction monitoring reports are required on every project that receives an approval from the Oregon Department of Fish and Wildlife. These reports show regulatory agencies various fish passage conditions following the completion of the project, and include narrative and photos. Post project monitoring reports can be filled out by the project biologist or engineer. Post project monitoring reports do not require formal QC review. Post project monitoring reports should be reviewed by the project biologist before submittal. A template for fish passage monitoring reports can be found at the ODOT Fish Passage Program home webpage. Completed post project monitoring reports shall be submitted to the ODOT Fish Passage Program and ODOT Fish Passage Liaisons.

## **6. Quality Control Process**

The process described by this section defines the minimum level of communication and collaboration necessary to meet the requirements of the ODOT Environmental plan. Members of the project team are encouraged to freely communicate throughout the life of the project in order to assure a high level of service and quality and reduce significant amounts of rework, errors, or omissions. All of the deliverables listed in section 5 above should have, at a minimum, informal peer to peer review. Fish Passage Application Packages that are submitted to agencies for approval are required to have formal QC review.

### **6.1. Quality Control Reviews**

Quality control reviews are undertaken to assist the POR in developing documents that are free of errors and mistaken assumptions. The reviews are also intended to assure consistency of the documents with applicable state and federal fish passage criteria. Lastly, quality reviews should verify that previous QC review comments have been understood and addressed.

For expediency and consistency, the review of Fish Passage Application Packages is assisted by a variety standard templates and checklists. The development and implementation of these templates and checklists is intended to assist designers and reviewers in completing their mission and to provide reminders of applicable guidance and standards. It is important to note that the use of these tools is not intended to replace sound professional judgement nor to relieve the POR from their personal responsibilities. The following are helpful resources for development of fish passage application packages;

- Oregon Administrative Rules 635-412-0005 through 635 – 412 – 0035
- ODFW Clarification of Bridge Triggers for Fish Passage Statues (2008)
- National Marine Fisheries Service Guidelines for Salmonid Passage at Stream Crossings (2001)
- ODOT Hydraulics Manual, Aquatic Passage Chapter (under development)

- USFS Stream Simulation Design Manual (2008)
- ODOT Biology Manual
- ODOT Design Checklist for Fish Passage Applications
- Standard scope of work (SOW) for consultant deliverables
- QC checklists for Fish Passage Application Packages (Approval, Waiver and Exemption)

## 6.2. Authority of the reviewer

Most often, the Reviewer and POR will address recommendations and changes in a collaborative manner and create a work product that satisfies both parties. However, situations will arise where that is not tenable. For those cases, guidance is needed to address the authority of Reviewers to require changes in the work products or tasks. The relationship between a reviewer and the licensed professional in responsible charge is also a part of that discussion.

- ODOT has the right, responsibility, and authority to establish the procedures, policies, codes, standards of practice and level of quality under which work products and tasks will be conducted. The only limitation is that practice standards should be no less than the standard of care in the industry.
- All workers, especially licensed professionals, have a duty to complete assigned work in a manner that meets the policies and procedures of their employer. Licensed professionals also have a duty to always protect the safety of the public and to practice within their level of competence and according to the standard of care in the industry. There is no conflict between these duties unless an employer tries to require a licensed professional to do something that exceeds their professional competence and/or endangers the public.
- Recommended changes to the work will generally fall into four categories, those that represent different ways to analyze or view the work that are suggested or advisory, those that are required to meet or exceed state and federal fish passage criteria, those that represent serious differences of opinion but do not violate the Standard of Care or impact the safety of the public, and those that do violate the Standard of Care or impact the safety of the public.
- Compromise and open-minded communication is crucial. Further, it is the POR's first duty to try and solve the matter with the reviewer. The reviewer should make every possible effort to explain their position to the POR and listen to feedback. Failing resolution between the parties, the resolution will vary depending on the nature of the dispute.
- For changes requested by the Reviewer that would fall into the first category and would be considered suggestions of feedback, the POR should respond to the reviewer but does not need to document their choice to not incorporate the suggested changes.

- For the second category, recommended changes may be required to satisfy state and federal regulation pertaining to fish passage law. If the changes requested cannot be made, then the project risks denial for permit applications.
- For the third category, serious differences, not violating the Standard of Care or impacting the safety of the public, the POR should respond to each item individually and document why they are not implementing the recommendation. It may be necessary for the reviewer to permanently document their dissent from the decision made.
- For differences that either party (POR or Reviewer) considers to violate the Standard of Care or impact safety of the public and that cannot be resolved, the professional shall next work with the Unit Manager and then the Technical Center Manager prior to seeking other ways of resolving the problem.
- Reviewers cannot require licensed professionals to change work in a way that would endanger the public or violate the Standard of Care.
- Licensed professionals will still be expected to seal work products and accept technical responsibility for projects to which mandatory changes have been made by reviewers. Only if the changes jeopardize the safety of the public or violate the Standard of Care would the licensed professional have an argument for not being responsible for sealing the work.

### 6.3. Dispute resolution process

Differences in engineering opinion exist and it is likely that Reviewers and PORs will find areas of disagreement. On first identifying areas of disagreement, it is incumbent upon the parties to discuss the issue and attempt to come to a solution that is satisfactory to both parties. When an impasse has been reached, the issue will be reviewed by Headquarters Environmental staff that will be made available to both parties. This review process will include representatives from state and federal regulatory agencies. Ultimately, it may be necessary for one of the parties to recuse themselves from the project.

## 7. Quality Control Documentation

Documentation of the quality control process is necessary to allow for assurance that the QC process was completed per the requirements, and to allow for the subsequent completion of Quality Assurance.

Feedback with respect to the ability of this plan to meet the needs of the Agency can only be received if the process is documented. For fish passage documents requiring formal QC, signed copies of checklists are necessary for the project files.



## **7.1. Timing Requirements**

Documentation needs to occur as the QC work is being completed and must not be postponed to the end of the project. By documenting QC at each phase of the project, and saving that documentation in an appropriate manner, subsequent reviewers and QA reviewers can be assured that the QC process was implemented throughout the life of the project.

## **7.2. Documentation Process**

The reviewer signing the work product will be one who conducted the review to catch and correct mistakes, oversights or logic errors. The reviewer would typically not stamp the work unless he or she was in responsible charge of some discrete portion of the project. A reviewer in responsible charge of the work would sign as a co-author and not as a reviewer.

All other reviewed work products or tasks will be documented in the project file. A separate sheet attached to the file will list the items for review and provide for recording an initial and a date from the reviewer indicating that the review has been accomplished.

Review comments and notes should be in writing to the greatest extent possible to promote good communication and minimize misunderstandings. However, to the maximum extent possible, all reviews should be presented verbally to the reviewed. This establishes a personal relationship that helps to blunt possible conflicts of ego. The reviewer's comments should be retained in ProjectWise.



Table 2: Project Elements Requiring QC Review

<b>Phase</b>	<b>Project Element Requiring QC Review</b>	<b>Guidance</b>	<b>QC Documentation Type w/Date</b>
Scoping	Fish Passage Scoping Memo	- Oregon Administrative Rules 635-412-0005 through 635 – 412 – 0035	Informal Peer review
Initiation			
DAP Phase	Basis of Design Reports	- ODFW Clarification of Bridge Triggers for Fish Passage Statues (2008)	Informal Peer review
Preliminary	Basis of Design Reports	- National Marine Fisheries Service Guidelines for Salmonid Passage at Stream Crossings (2001)	Informal Peer review
Advance	<ul style="list-style-type: none"> <li>- Basis of Design Reports</li> <li>- Draft Fish Passage Approval Application Packages</li> <li>- Draft Fish Passage Waiver Application Packages</li> <li>- Draft Fish Passage Exemptions Application Packages</li> </ul>	<ul style="list-style-type: none"> <li>- ODOT Hydraulics Manual, Aquatic Passage Chapter (under Development)</li> <li>- USFS Stream Simulation Design Manual (2008)</li> <li>- ODOT Biology Manual</li> <li>- ODOT Design Checklist for Fish Passage Applications</li> </ul>	Signed QC Checklist
Final	<ul style="list-style-type: none"> <li>- Fish Passage Approval Application Packages</li> <li>- Fish Passage Waiver Application Packages</li> <li>- Fish Passage Exemptions Application Packages</li> </ul>	<ul style="list-style-type: none"> <li>- Standard scope of work (SOW) for consultant deliverables</li> <li>- QC checklists for Fish Passage Application Packages (Approval, Waiver and Exemption)</li> </ul>	Signed QC checklist
Construction	As-built drawings		Informal Peer review
Post Project Monitoring Phase	Post-construction Monitoring Reports	Fish Passage Monitoring Report Template	Informal Peer review

## 7.3. Document Storage

Each deliverable will be stored in ProjectWise with electronically signed documentation confirming that a thorough QC review has been completed at the time of production. Each electronic signature or initial should be considered a valid secure signature with no errors. The electronic signatures will include at least the name and date the document was signed. A hard copy with wet signature may be used to provide additional information, but at least an electronic document with electronic signature should be included in the project file in order to track time lines.

In the event of a minor or moderate technical disagreement between reviewer and designer, the parties may select to write a short justification and include with the electronic documentation. If there is a major technical disagreement, the issue should be elevated to appropriate staff consistent with the previously stated policies. Stylistic differences do not need to be officially documented.

To the extent reasonable, unsealed drafts of professional deliverables should be retained within the project file. Electronic version control should be in accordance with file naming convention detailed elsewhere in this manual. Drafts should be retained for significant projects with multiple iterations.

## 8. Quality Assurance (QA)

Quality Assurance (QA) is a system undertaken to maximize the effectiveness of the Quality Control program. The QA process will assist in measuring the effectiveness of the QC efforts in order to provide input into continuous improvement of the work and assist in identifying technical development needs. The goals of an effective QA process are:

- **Verification** - A primary purpose of the ODOT Quality Assurance program is to ensure that all of the elements of the QC process took place at the right time and that the applicable standards were applied effectively. By collecting and processing information relative to the connection between quality processes and outcomes. It should be noted that it is the intent that the QA process will not impact the delivery of individual projects.
- **Competency Building** - The QA process will assist in developing an agency-wide vision of the current needs with respect to technical knowledge and competence. The evaluation of where projects succeed or fail, and the role of the QC program in assuring success will provide data to be used in identifying gaps or weaknesses within the current knowledge base.
- **Continuous Improvement** - Beyond the above described project specific compliance, the QA process is intended to enable continuous improvement within both the QC program

as well as within the practice community providing fish passage design services for ODOT projects.

## 8.1. Quality Assurance Process

In order to achieve the goals stated above, the QA process will need to be objective, transparent, and effectively communicated.

### 8.1.1 Quality Assurance Personnel

The QA team will consist of the project biologist, the State Hydraulic Engineer, the Fish Passage Program Coordinator, along with ODOT state and federal Fish Passage Liaisons. In the event more assistance is needed for QA review, the Culvert Fix It program manager and Regional representatives can be assigned to the QA team.

### 8.1.2 Quality Assurance Review Process

**Completeness Review** - Initial information on completed projects will be gathered from ProjectWise. The QA team will complete an initial review and evaluation, focused on the completeness and timeliness of the QC documentation and will write up their findings and recommendations in a draft version of a short, project-specific report or email. The draft report or email documentation will be provided to Region biologists, Environmental Coordinators, hydraulic engineers, and their direct supervisor.

**Project Review** - An in-depth review of the project documentation will address how well the project met standards and the extent to which the QC process contributed to the success of the project. The results of the in-depth reviews will be collected and evaluated for inclusion in an annual summary report.

### 8.1.3 Quality Assurance Documentation

Annual reports generated from completeness and project reviews will be distributed to Region environmental and engineering staff. These reports shall also be kept on file within the Fish Passage Program, and available for distribution upon request.



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