



Wastewater Permitting Improvement Team

Final Report

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State of Oregon
Department of
Environmental
Quality



Wastewater Permitting Improvement Team (WPIT)

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Executive Summary

Overview

Objective As part of the Department of Environmental Quality's (DEQ) efforts to review and improve processes of all major programs, the water quality wastewater permitting program performed an internal review of the National Pollutant Discharge Elimination System (NPDES) and Water Pollution Control Facilities (WPCF) permitting processes.

The objective of this review was to identify process improvements that could increase program efficiency and effectiveness, while ensuring protection of the environment and public health.

Why Should the Water Quality Permitting Program be Evaluated?

- The wastewater permitting program has been under much scrutiny recently for its permit backlog and perceived inefficiency.
- Congress has placed considerable pressure on the Environmental Protection Agency (EPA) to address the NPDES permit backlog nationally.
- DEQ utilizes a decentralized approach to water quality permit management; therefore, the review was needed to systematically evaluate the consistency of current processes, activities, and tools used in permit writing.
- There are concerns that the current staffing level is not adequate to support actual and projected wastewater permitting program needs.

Following this comprehensive evaluation, recommendations were developed to improve the permit program through better understanding and consistent implementation of an improved process, and the use of standardized procedures and tools.

Staff and Management Participation

Based on recommendations of the water quality managers, several regional and headquarters water quality staff with diverse experiences and varied perspectives were asked to participate on the project team. The project was facilitated by DEQ's Organizational Improvement Team, who provided technical assistance on process improvement, facilitated meetings, and provided a non-program perspective.

Participation from other water quality managers and staff, who have some involvement with the water quality permitting program, occurred through interviews conducted during the problem analysis phase of the project. Water quality staff were encouraged throughout the process to contact anyone on the project team with thoughts or questions. The project team also provided updates through electronic mail and informal discussions.

Project Process The project began at the end of May 2000 and concluded in early February 2001 (see Appendix 1 for Charter). The project plan focused on two phases - Problem Analysis and Solution Development. The objective of problem analysis was to arrive at a common conceptual understanding of the nature of the problem, its root causes and the relationships between different issues. The objective of solution development was to explore the “ideal” situation, then work back to arrive at a viable list of recommendations and an implementation plan and schedule. Throughout the project, decisions were reached based on consensus.

Key Problems Identified

- Lack of consistent management direction or priorities causes inability to process permits.
 - Inability to manage complex and controversial issues may stop the process.
 - Lack of clarity between headquarters and regions as to responsibilities causes inadequate program implementation.
 - Lack of development of guidance and tools causes inability to process permits.
 - Lack of communication and training on existing guidance and tools causes inability to process permits.
 - Permit writer’s time competes with non-permit writing activities which causes inadequate permit program implementation.
 - Permit writers don’t implement rules and guidance consistently which affects permit quality and program credibility.
 - Lack of or outdated information for permit processing causes delays.
 - Permit writers spend excessive time justifying permit requirements to permittees, EPA, and other stakeholders which causes delays.
 - Multiple reviews by specialists causes delays.
-

Recommendations

Overview Recommendations were developed, categorized, prioritized, and incorporated into an implementation plan that addresses initial steps, timeframes, and assignments. The recommendations were also used in developing the final permitting process maps. The final recommendations fall into the following categories:

- Data Needs
- Policy, Guidance and Tool Development
- Training
- Coordination
- Monitoring and Tracking
- Prioritization
- Decision Making

The recommendations in these categories are expected to improve permit consistency and the time it takes to issue a permit from when the application is received. They should also increase the number of permits written.

Further discussion of recommendations can be found in the Recommendations Section and in Appendix 2.

Data Needs

- Develop a data request strategy for obtaining needed data to write a permit based on the watershed approach.
- Develop data systems to ensure that data are accessible to permit writers.

Policy, Guidance and Tool Development

- Create and maintain a Master List of existing policies, guidance, and tools for writing and processing a permit. The Master List should include supporting documentation explaining how to use the information and contacts for specific topic information.
- Create and prioritize a list of new and existing policies, guidance, tools and rules that need to be developed or updated for specific situations. Ensure that development and maintenance of the policies, guidance, tools and rules occurs.
- Create an internal permit writing checklist for permit writers to ensure completeness and consistency. The checklist could include, but not be limited to compliance history, ambient data available, DMR review, inspections, and site soils.
- Develop standardized language for similar situations and circulate to permit writers. Involve the specialists in drafting the language.
- Update the Permit Writer's Manual so that it is electronic, accessible,

easily maintained and updated and provides all the necessary information to write a permit.

Training

- Designate a training coordinator responsible for developing a training program.
 - Develop a mentoring program (lead worker efforts) to support on the job training and acknowledge contacts for specialists.
 - Modify permit writers' meetings to be participatory, interactive, useful and mandatory.
-

Coordination

- Support the integration or formation of internal watershed work groups to address planning and coordination issues between TMDL staff, permit writers and the laboratory, especially during the first three years of the watershed plan.
 - Update and communicate the Headquarters / Regions Agreement.
 - Managers should delegate more tasks and focus on management functions, such as: guidance, prioritization, oversight (administration / workplans), and coordination (headquarters/regions, consistency, staff inter-relationships).
 - Involve the permit writing staff (and/or region) in the process of rule / standard development to address the affects that any changes may have on the permit writing process and implementation.
 - Define the administrative and technical duties between permit coordinators and permit writers by updating the written permit processing procedures.
-

Monitoring and Tracking

- Review existing regional databases that track Schedule C and Mutual Agreement and Order (MAO) compliance dates. Develop an approach to integrate the information into a useable statewide database, possibly through the SIS improvement project or the EPA Permit Compliance Schedule.
 - Implement the existing workplans and the performance appraisal processes by updating workplans at least annually and providing intermittent performance evaluation opportunities with the purpose of defining expectations, performance issues, corrective actions, and training acknowledgments.
-

- Prioritization**
- Develop an annual Operational Plan for the water quality program that serves to define program priorities and outputs based on the Strategic Plan.
-

- Decision Making**
- Develop a formal decision making policy consistent with the priorities of the water quality program.
-

Next Steps

Implementation Plan The preceding recommendations were prioritized and developed into an implementation plan. The plan categorizes the recommendations as follows:

- Recommendations that can be accomplished with existing resources.
- Recommendations needing additional resources and/or structural changes.
- Recommendations requiring program and longer range cultural changes.

A proposed Recommended Implementation Schedule follows this section in Table 1. This schedule provides guidance to management on the priority hierarchy and anticipated timeline for completing implementation. Further discussion of the Recommended Implementation Plan can be found in the Implementation and Transition Planning Section.

Transition Plan The project team realized that to carry through with implementation of recommendations, a transition plan is necessary to move from the current situation to the proposed process. Steps to consider when developing the details of this plan are presented in the Implementation and Transition Planning Section. A critical next step is to assign resources to ensure that the initial phase can be developed.

Management Support The project team is offering this report to management for their review and approval. Management support and involvement is critical to the successful implementation of the plan. Teams, team leaders, and staff need to be assigned to specific recommendations to ensure that tasks are accomplished, and managers need to continually reinforce that these efforts are a priority for the program.

Table 1: Recommended Implementation Schedule

RECOMMENDATIONS	Jun-01	Jul-01	Aug-01	Sep-01	Oct-01	Nov-01	Dec-01	Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02	Jul-02	Aug-02	Sep-02	Oct-02	Nov-02	Dec-02	Jan-03	Feb-03	Mar-03	Apr-03	May-03	Jun-03	Jul-03	Aug-03	Sep-03
HIGH PRIORITIES - ACCOMPLISHED WITH EXISTING RESOURCES																												
Create and maintain Master List of existing policies, guidance, and tools for writing and processing a permit.	█	█	█																									
Create and prioritize list of new and existing policies, guidance, tools and rules that need to be developed.	█	█	█																									
Create internal permit writing checklist for permit writers.	█	█	█																									
Update and communicate the Headquarters/Region Agreements.	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█
Define administrative and technical duties of permit coordinators and writers by updating written permit processing procedures.	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█
Modify permit writers' meetings to be participatory, interactive, useful and mandatory.	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█
Support integration/formation of internal watershed work groups.	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█
NEED ADDITIONAL RESOURCES AND/OR STRUCTURAL CHANGES - PHASE 1																												
Develop data request strategy for obtaining needed data to write permits.				█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█
Develop data systems to ensure that data are accessible to permit writers.	<i>To be determined</i>																											
Update Permit Writers' manual so it's electronic, accessible, easily maintained.				█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█
Develop standardized language for similar situations and circulate to permit writers.				█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█
- Compile existing language				█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█
- Determine additional needs									█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█
- Draft new language and develop a maintenance plan																												
NEED ADDITIONAL RESOURCES AND/OR STRUCTURAL CHANGES - PHASE 2																												
Develop mentoring program to support on the job training.																												
- Develop the mentoring program																												
- Implement the mentoring program																												
Designate training coordinator responsible for developing a program.																												
- Develop the training program																												
- Implement the training program																												
REQUIRE PROGRAM AND LONGER RANGE CULTURAL CHANGES																												
Develop formal decision making policy consistent with priorities of WQ Program.																												
Develop annual Operation Plan for the WQ program.																												
Implement the existing workplan and performance appraisal processes.																												
Managers should delegate more tasks and focus on management functions.																												
Involve permit writing staff in the process of rule/standard development.																												
Review existing regional databases that track Schedule C and MAO compliance dates.	<i>To be determined</i>																											

1. Project Scope

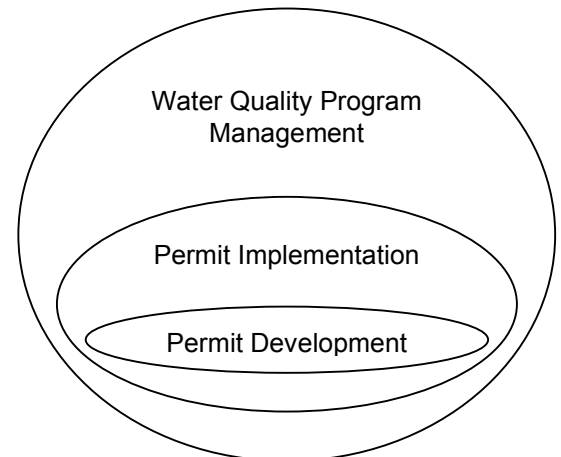
Overview

Initial discussions of what to review for process improvements led to the project team's understanding of their responsibility to objectively evaluate current activities associated with the wastewater permitting process. The project scope focuses on activities specific to *Permit Development* with the recognition that aspects of *Permit Implementation* and *Water Quality Program Management* can affect the permit issuance process. The project team addressed efficiency issues in operating the wastewater permitting program with the understanding that quality and consistency must be maintained. While the intention was not to lose sight of *Permit Development* as the focus, some recommendations fall under *Permit Implementation* and *Water Quality Program Management* for these do have an impact on the efficiency, quality, and consistency of the permitting process.

Identified Activities

The project team identified three main areas of the Water Quality Program and associated activities:

- **Water Quality Program Management**
 - Budget
 - Oregon Plan
- **Permit Implementation**
 - Compliance/Inspection
 - Rules Development/Guidance Policy
 - Data Management
 - Watershed Approach (TMDLs)
 - Enforcement
- **Permit Development**
 - Application
 - Permit Drafting
 - Applicant Review
 - Public Involvement
 - Permit Issuance



2. Process Mapping

Overview	<p>Permitting process maps were developed as a tool to portray all levels of the actual permit development and issuance process, with the understanding that slight regional differences may exist. By developing the maps, process flow problems were identified, such as bottlenecks, excessive feedback loops, and process problem areas called “hot spots.” The maps greatly assisted the project team in determining where to focus improvement efforts.</p>
Types of Maps Developed	<p>Four high level and five detailed process maps were originally developed to depict the steps involved in developing and issuing a NPDES or WPCF permit. The maps developed were:</p> <ul style="list-style-type: none">• Permit Application• Permit Writing<ul style="list-style-type: none">❖ NPDES Evaluation Report❖ WPCF Evaluation Report❖ MAO Process❖ Water Quality-Based Effluent Limit Derivation❖ Groundwater Assessment• Applicant/Public Review• Permit Issuance <p>The project team determined that only minimal differences exist in processing a new permit versus a permit renewal, therefore separate maps were not created. The project team also decided not to define the time associated for each activity that was mapped as this would be an overly time consuming task and that the time estimates would be highly variable.</p>
Out of Project Scope for Mapping	<p>The project team focused on the backlog for individual permits. The following areas were deemed outside the project scope for mapping and were not addressed in the project:</p> <ul style="list-style-type: none">• 404/401 certifications• General permits (for both NPDES and WPCF general permits)• Plan review• Permit modification
“Hot Spot” Identification	<p>After the process was mapped, “hot spots” were identified where process flow problems (bottlenecks) and inefficiencies occurred within the process that caused delays in issuing permits (see Appendix 3). The project team</p>

determined that excessive time was spent on these “hot spot” activities, and that by addressing these specific problems, process efficiency would improve. After identifying the “hot spots,” the project team then evaluated other issues affecting process efficiency, including those activities associated with Water Quality Program Management and Permit Implementation.

3. Problem Analysis

Overview

After developing the actual permitting process maps, the project team proceeded to gather additional information to clarify the process problems. Interviews with regional and headquarters water quality staff broadened the list of issues and provided suggestions for alternative solutions. A comprehensive list of problems was developed and the interrelationship between these problems was studied to guide the project team towards identifying “root” problems in the permitting process.

Internal Feedback

The project team determined that broader internal participation and opportunity for feedback were crucial, so an internal interview process was developed. The objectives for internal feedback were to:

- Check the accuracy of the actual permit process maps,
- Gather new and more detailed information on potential problems and solutions, and
- Communicate to the water quality permitting staff what the project team was doing.

Project team members interviewed regional and headquarters water quality staff involved in the permitting program. The information collected was extensive and provided critical input to the project. This information was the basis for framing an initial list of issues, which led to developing problem statements, and an initial list of solutions, which led to developing recommendations (see Appendix 4).

Based on the comments received during the interviews, it was apparent that other issues impacted the process and needed to be considered. Although these issues could not be identified on the process maps because they were “outside” the actual permit development process, they are reflected in the problem statements.

**External
Feedback**

The maps depicting the actual permit process were presented to the Wastewater Advisory Committee for review and comment in August 2000. Although no specific comments were received about the maps, the members offered the following suggestions for improving the permit process :

- Allow the permit writer to have more control over the process
- Improve the coordination between DEQ and permittees through workshops
- Conduct pre-application meetings to convey expectations

A summary providing background on the project was also published in the *Oregon Insider*, a semimonthly publication, in November 2000.

The project team decided to limit additional external feedback until after a final product was developed.

**Use of Problem
Analysis Tools**

During the problem analysis phase, the project team utilized several tools to determine interrelationships between problems and to define a problem hierarchy. Problems were evaluated in terms of the project scope.

From the comments and suggestions received during the internal interviews, a table was developed that groups similar and recurring themes (see Appendix 4). The project team developed a problem statement for each of the critical themes that emerged. This table also served the project team during the development of recommendations.

Using the problem statements, an Interrelationship Diagram (see Appendix 5) was developed to determine how problems influence each other. The major “drivers” identified that have influence on other problems are:

- Lack of consistent management direction or priorities
 - Inability to manage complex and controversial issues
 - Lack of clarity between headquarters and regions as to responsibilities
 - Lack of development of guidance and tools
 - Lack of communication and training on existing guidance and tools
-

4. Solution Development

Overview	After the project team identified root causes to problems and articulated those into concise problem statements, the team moved into the solution development phase.
Defining Solutions	Using the information received during the internal interviews, the project team brainstormed solutions for each key problem. These solutions were then organized into categories based on recurring themes. A table was developed that allowed the team to track the extensive list of solutions to the specific problem statements and to group the solutions according to emerging themes (see Appendix 6).
Shifting from Solutions to Recommendations	The project team analyzed the themes that emerged from the initial solutions list and discussed what it would take to create a “perfect world” for each area. By identifying the “ideal”, the project team could focus on what specific solutions could be developed into more comprehensive recommendations that would result in an improved permit issuance process.

5. Recommendations

Overview Recommendations were developed, categorized, and prioritized, and then used to revise the original permitting process maps. During the development of recommendations, it became apparent that some proposed changes would affect the current permitting process while other changes were more general in nature. Ongoing projects within the Water Quality Program that are related to wastewater permitting activities were not considered for purposes of developing recommendations. Recommendations developed that were outside the scope of the project are discussed later in this section.

Categories

Organization of Recommendations Project recommendations were organized based on recurring “themes” that evolved from the list of solutions. The categories were then prioritized according to the three main areas identified in the project scope:

Permit Development

- Data Needs
- Policy, Guidance and Tool Development
- Training

Permit Implementation

- Coordination
- Monitoring and Tracking

Water Quality Program Management

- Prioritization
- Decision Making

Further discussion of the recommendations can be found in the Executive Summary with details in Appendix 2.

Permitting Process Maps

How do the Process Maps Reflect the Recommendations?

The original permitting process maps were revised to depict the “ideal” process, integrate appropriate recommendations, and address the “hot spots,” with the intent of improving the issuance process. The final process maps depict how the permitting process should occur once the recommendations have been implemented.

Process Map Changes

Department requests for missing information and data were a major recurring reason for significant time lags and stalling of the permit issuance process. To address this concern, the project team recommended that the request for information or data be placed “up front”, which is a change from the actual process. The intent of the change is to define in a clear and concise manner what is needed from the applicant when an application is submitted. The project team felt that by addressing this issue “up front”, permit issuance could be processed in a more effective and efficient manner, resulting in a more timely written permit.

A second common recurring process issue was the need for policy, guidance, and tools. Information on existing tools has been added to the revised maps. A list of priority needs related to policies, guidance, and tools can be found in Appendix 2.

Lastly, DEQ’s public involvement rules were recently amended, thus affecting the permitting process. The revised maps also reflect these rule modifications.

Availability of Process Maps

The project team decided that to best utilize the permitting process maps, the maps should be available in both hard copy and electronic formats. A hard copy of the maps should be included in the Permit Writer’s Manual. An electronic format will eventually include hyperlinks from the “tools” list on the maps to information that will assist the permit writer through the process (e.g. checklists, worksheets, models and spreadsheets, guidance, etc.).

Description of Individual Permitting Process Maps

The process maps identify the sequencing of steps and activities throughout the permit issuance process. These maps depict the beginning and ending of distinct phases (ovals), the steps or activities in the process (rectangles), and the decision points (diamonds). The bolded arrow illustrates the most direct process path. Available “tools” are listed on the maps to assist the permit writer in developing a permit.

The final process maps, which begin on page 13, are:

- Permit Application
 - Permit Writing
 - ❖ Permit Development and Evaluation Report
 - ❖ MAO Process
 - ❖ Groundwater Assessment
 - Permit Public Review
 - Permit Issuance
-

Description of Permit Application Map 1

The type of permit application (new or renewal) determines the process route to follow. If a renewal application has not been submitted, follow-up is necessary. After an application and fees are received, the determination is made as to whether the application is administratively and technically complete. It also must be determined if the permit applied for will comply with the antidegradation policy. If additional information is requested, it must be received within 90 days and be complete to continue processing the application.

Description of Permit Writing Map 2

If the permit action is considered Category IV (see description for Public Review Map 3), an informational meeting must be conducted before drafting the permit. Background information on the application and the facility should be collected, and an inspection conducted if one has not been performed recently. Local soils may need to be evaluated if there are on-site, biosolids, or reclaimed water issues. The permit and the evaluation report are then drafted prior to the public review process. If the permittee will not be able to comply with the permit limits and conditions, a compliance strategy (which may include negotiating a MAO) needs to be developed at this time as well. Consultation with other state and federal agencies occurs to ensure that they do not have problems with the draft permit. After final manager review, the draft permit is sent out for formal applicant review. If comments are received from the applicant, the draft permit and evaluation report need to address these as necessary.

The project team determined that most of the activities of the original Water Quality-Based Effluent Limit Process Map could be integrated into the other maps. TMDL development is the responsibility of other water quality

program staff rather than the permit writer. Although TMDL information is an integral part of writing the permit, for purposes of permit processing, this is not a defined activity.

Description of Permit Development and Evaluation Report Map 2.A

The permit writer considers the significant factual, legal and policy issues when preparing a draft permit and evaluation report for a NPDES or WPCF permit. The evaluation report states the rationale for what is included in the permit. The major steps are to compile the information, analyze the information, and generate a permit based on the analysis. One critical step in this process is to perform a reasonable potential analysis. The permit writer must determine if the effluent has a reasonable potential to cause a water quality standard violation, and if so, then water quality based effluent limits must be calculated.

The original WPCF Evaluation Report Map activities were incorporated with the NPDES Evaluation Report Map, as the activities within both processes were very similar and should be addressed in the same manner.

Description of Groundwater Assessment Map 2.A.i

A permit writer first completes a Groundwater Prioritization Worksheet when considering groundwater issues. If a source has potential for groundwater impacts, a Preliminary Groundwater Assessment (PGA) is required. If a source submits a PGA which indicates potential for groundwater impacts, a Hydrogeological Characterization Report (HCR) is required. If enough groundwater monitoring data has been received after the HCR, the permit should contain concentration limits (variances can be considered). Since one or more of these steps may have been completed during previous permit cycles, the process map considers these issues in reverse order.

There was much discussion regarding the Groundwater Review Map as each region actually may be addressing this process differently, depending on involvement from the regional hydrogeologists. This map clarifies to the permit writer how the groundwater review should occur.

Description of MAO Process Map 2.B

A MAO template is available to incorporate a permittee's proposed plan and time schedule for addressing a permit compliance issue. DEQ establishes a timeframe schedule for negotiating the MAO, to ensure that permit issuance will occur in a timely manner. The draft MAO receives peer and manager review before being forwarded to the Enforcement Section for review and assignment of a case number. If the established timeframe schedule has not been met or modified, then DEQ withdraws the draft MAO and proceeds with permit issuance without the MAO. Any major changes to the draft MAO during the permittee's review are reviewed internally before the document is

finalized.

**Description of
Public Review
Map 3**

Based on the recently adopted revised Oregon Administrative Rules (OARs) addressing public involvement for water quality permits, the “category” of the permit must be determined. The category determines what level of action is needed to involve the public during the permitting process. Category I permit actions require no opportunity for public participation and thus this category is not identified in the process. Category II requires public notice but does not include the option for a public hearing. Category III requires a public notice with option for public hearing, while Category IV requires a public hearing. If an exception to the OARs is being considered (e.g. mass load increase or dilution waiver), EQC approval is required prior to issuing the final permit.

**Description of
Permit Issuance
Map 4**

When the proposed permit is ready for issuance, the process is straightforward. If a MAO will be issued in conjunction with the permit, there are additional steps that need to be completed for processing purposes. In the event the permittee is not satisfied with the conditions or limitations of the permit and contests the permit within 20 days, the permit may end up in a contested case hearing. The project team determined the contested case activity was out of the scope of this project and was not further considered in the permitting process.

Out of Project Scope

**Identifying
What was Out
of Project
Scope**

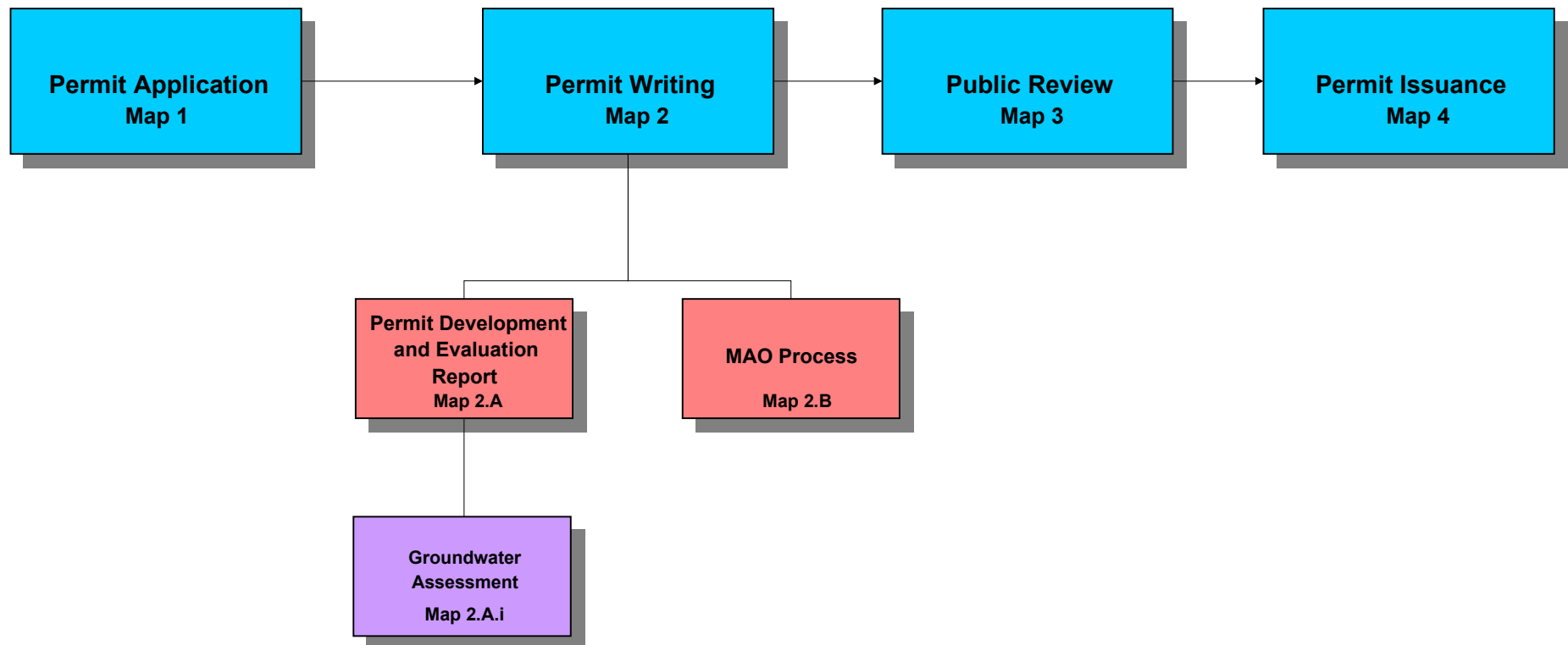
As recommendations were developed and aligned within the scope of the project, it became apparent that several recommendations were outside the scope of the project. Some policy and process issues surfaced during discussion about the proposed permitting process, but did not fall within the project scope. These recommendations and issues are identified in this report because they can impact the permitting process and should be considered as appropriate at a later date.

- Recommendations**
- Develop a mediation process for controversial issues and potential lawsuits.
 - Have dedicated cross-program complaint people.
 - Train receptionists to properly direct calls. Update information directory, make it more robust and keep it current.
 - Streamline the MAO process to standardize steps and improve coordination with the Enforcement Section.
 - Develop a statewide multi-agency water quality database.
-

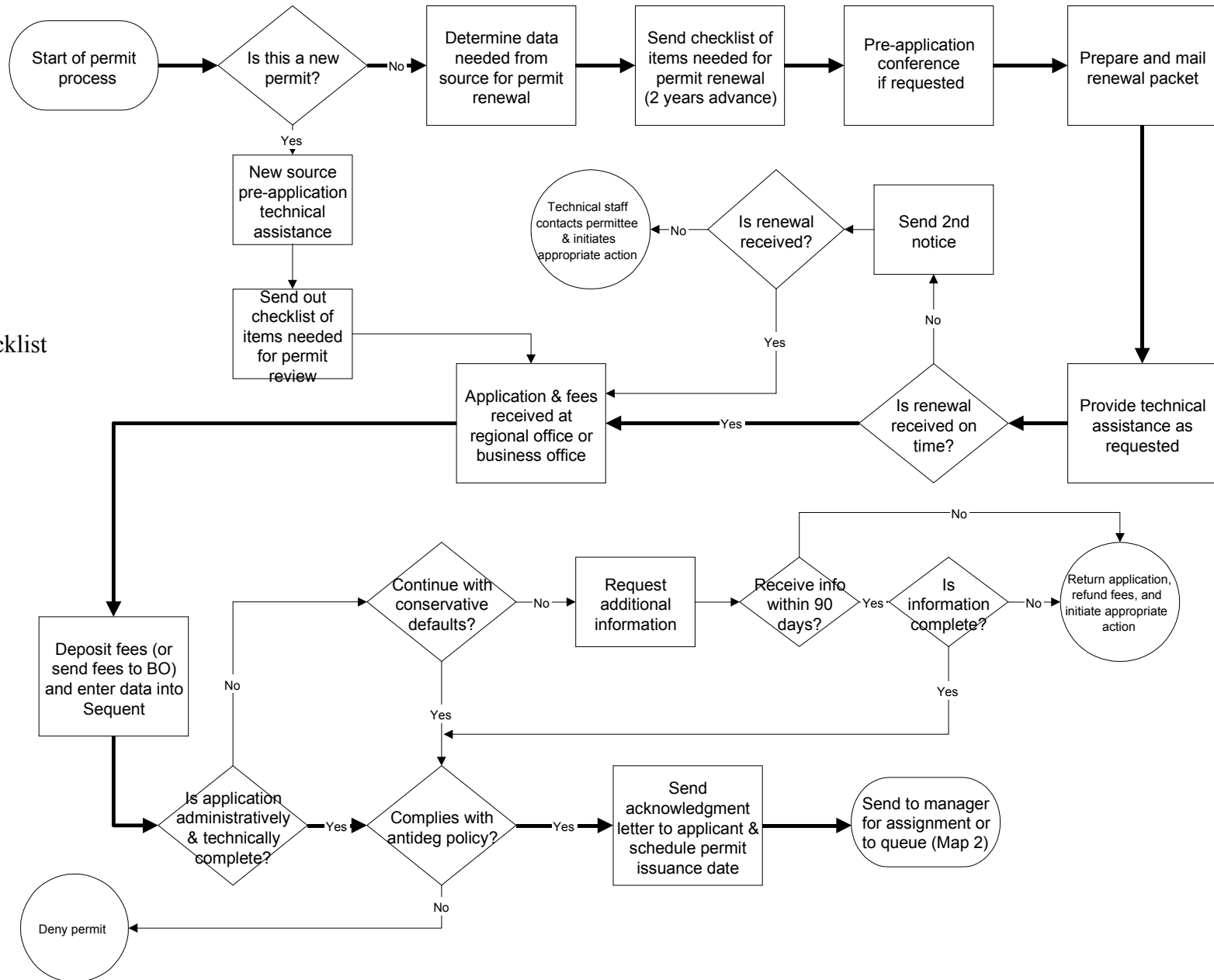
- Program Policy Issues**
- The following program policy issues were not discussed in great detail as the project team felt that management involvement was important to these discussions.
- Applicability of human health criteria
 - Inability of the applicant to produce needed data
 - Administrative rollover of permits
-

- Process Issues**
- Several process issues associated with the MAO process map were discussed. In consideration of possible pending changes to the Enforcement Section, the project team did not proceed with identifying possible revisions to the review and approval of MAOs.
-

Overview of Individual Permitting Process Maps



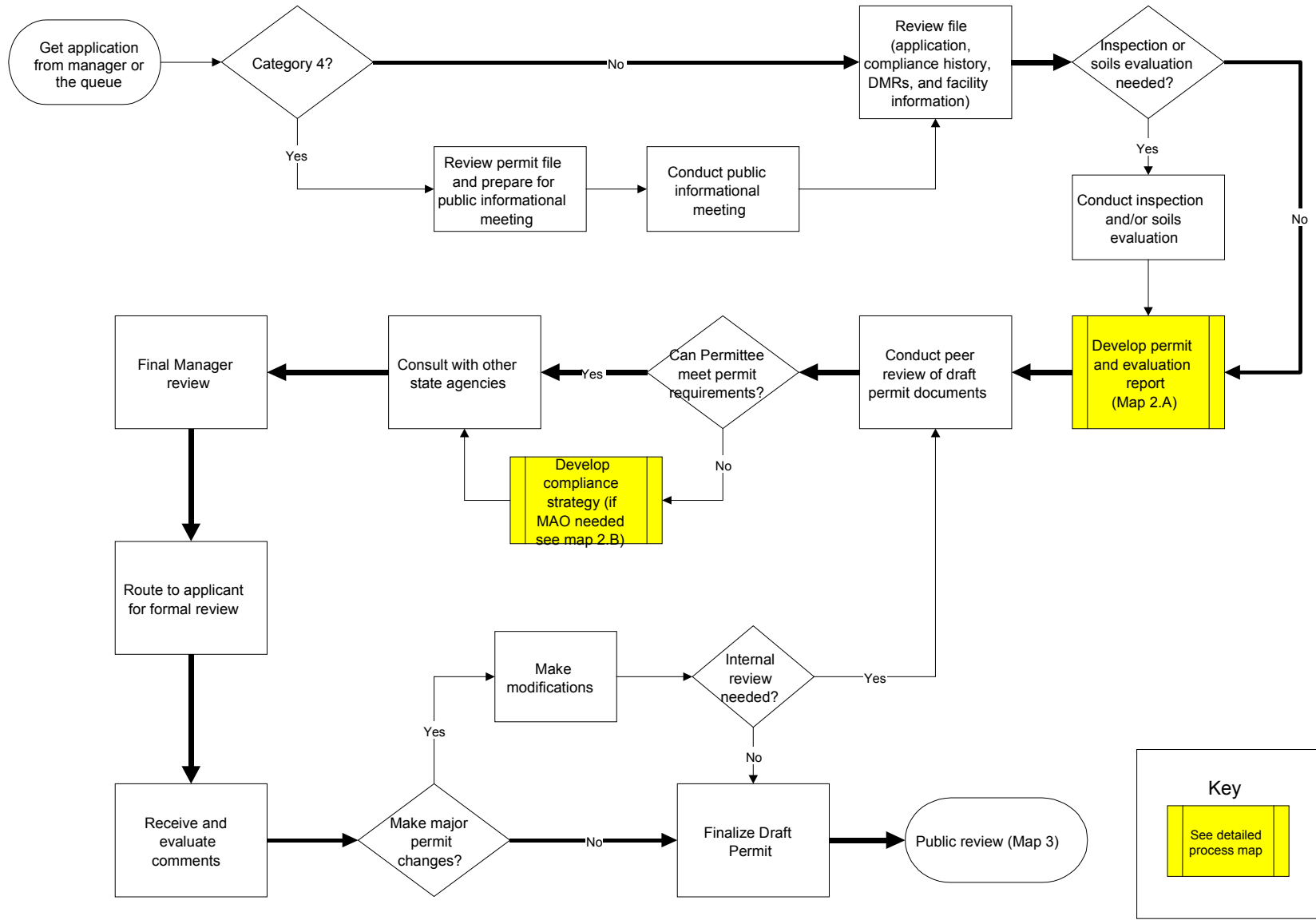
Process Map 1: Permit Application



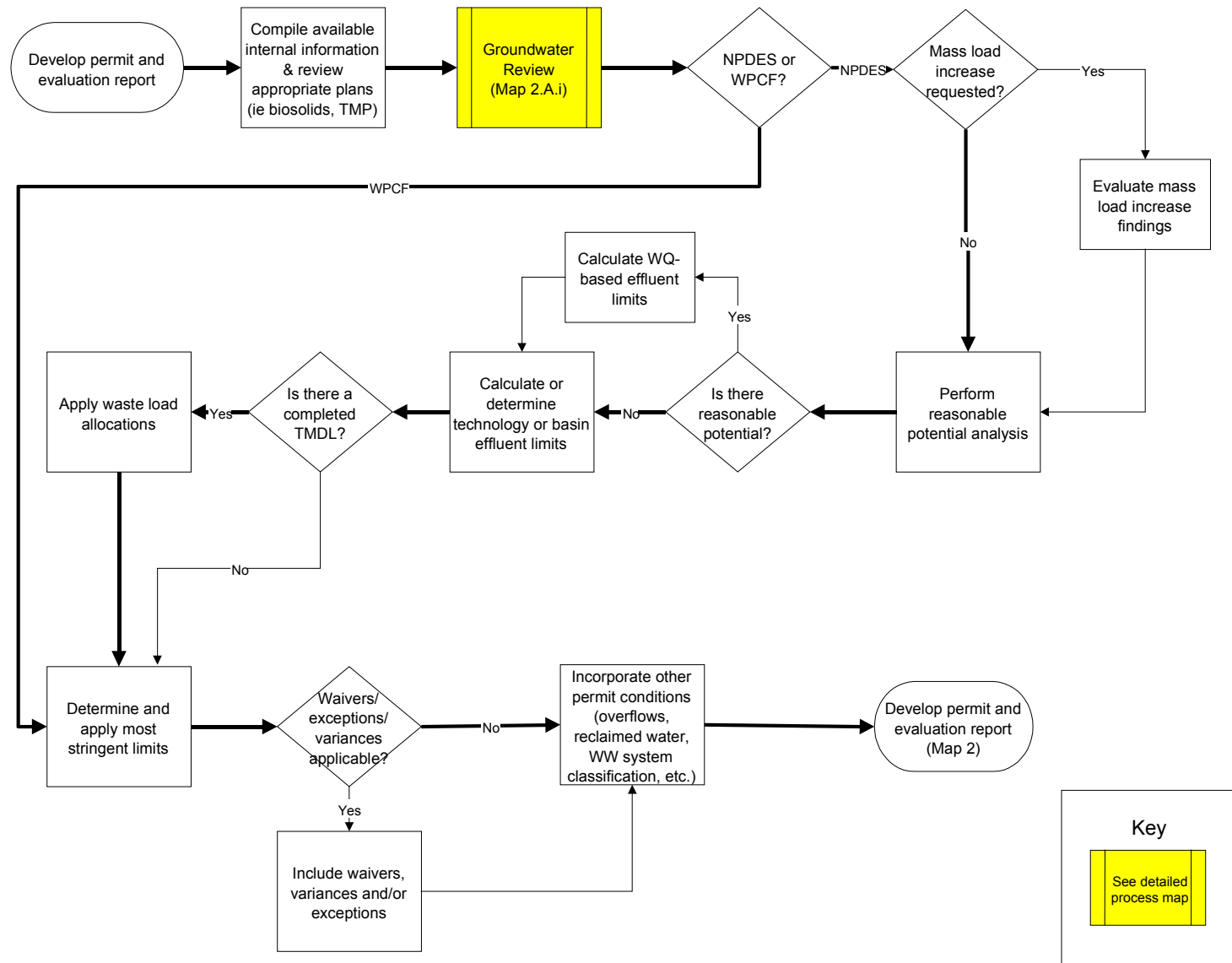
Available Tools:

1. Application checklist

Process Map 2: Permit Writing



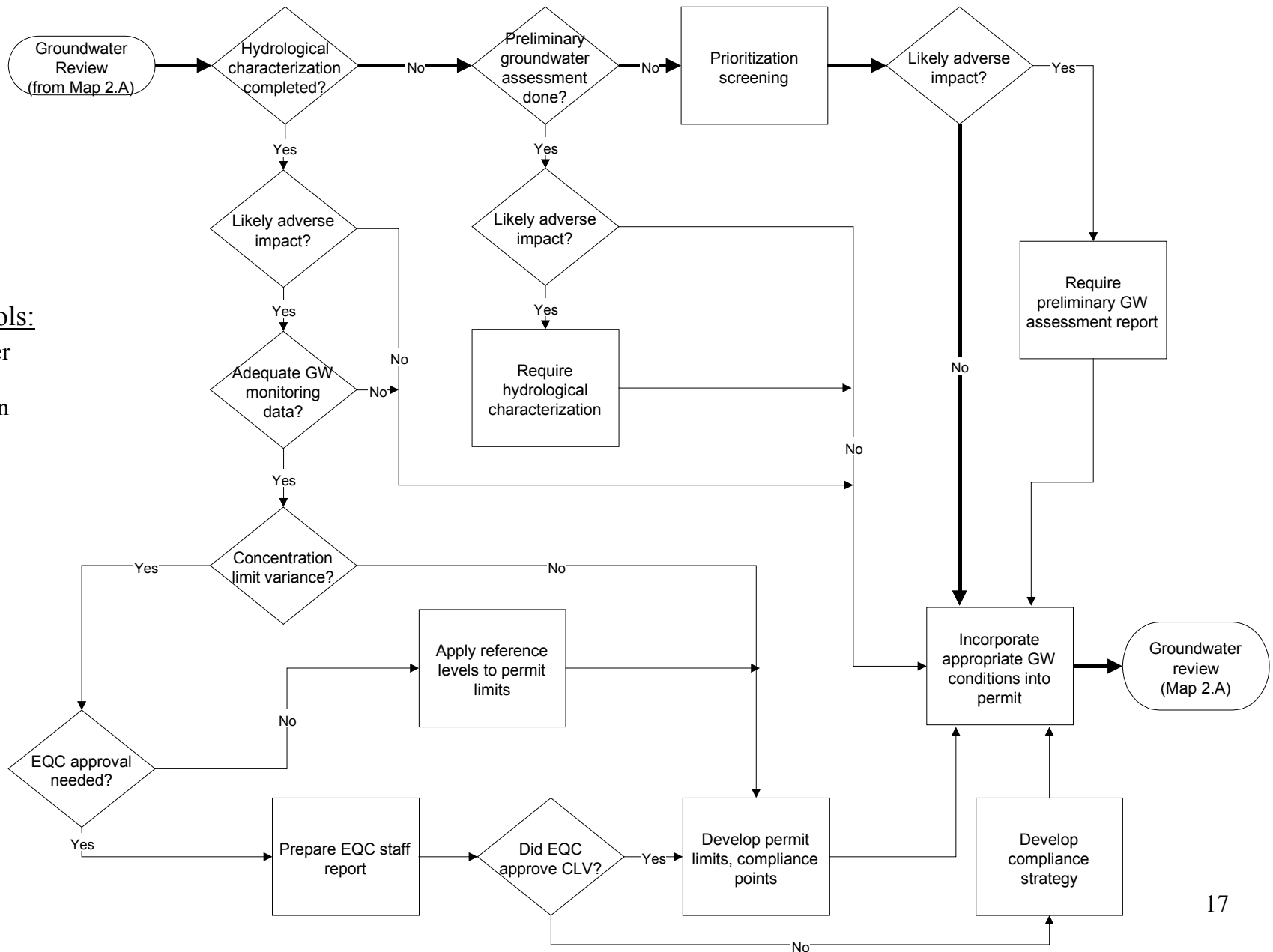
Process Map 2.A: Permit Development and Evaluation Report



Available Tools:

1. Internal data checklist
2. Reasonable Potential Analysis spreadsheet
3. TOXICS spreadsheet
4. DO model
5. pH mixing model
6. Other permit conditions

Process Map 2.A.i: Groundwater Review

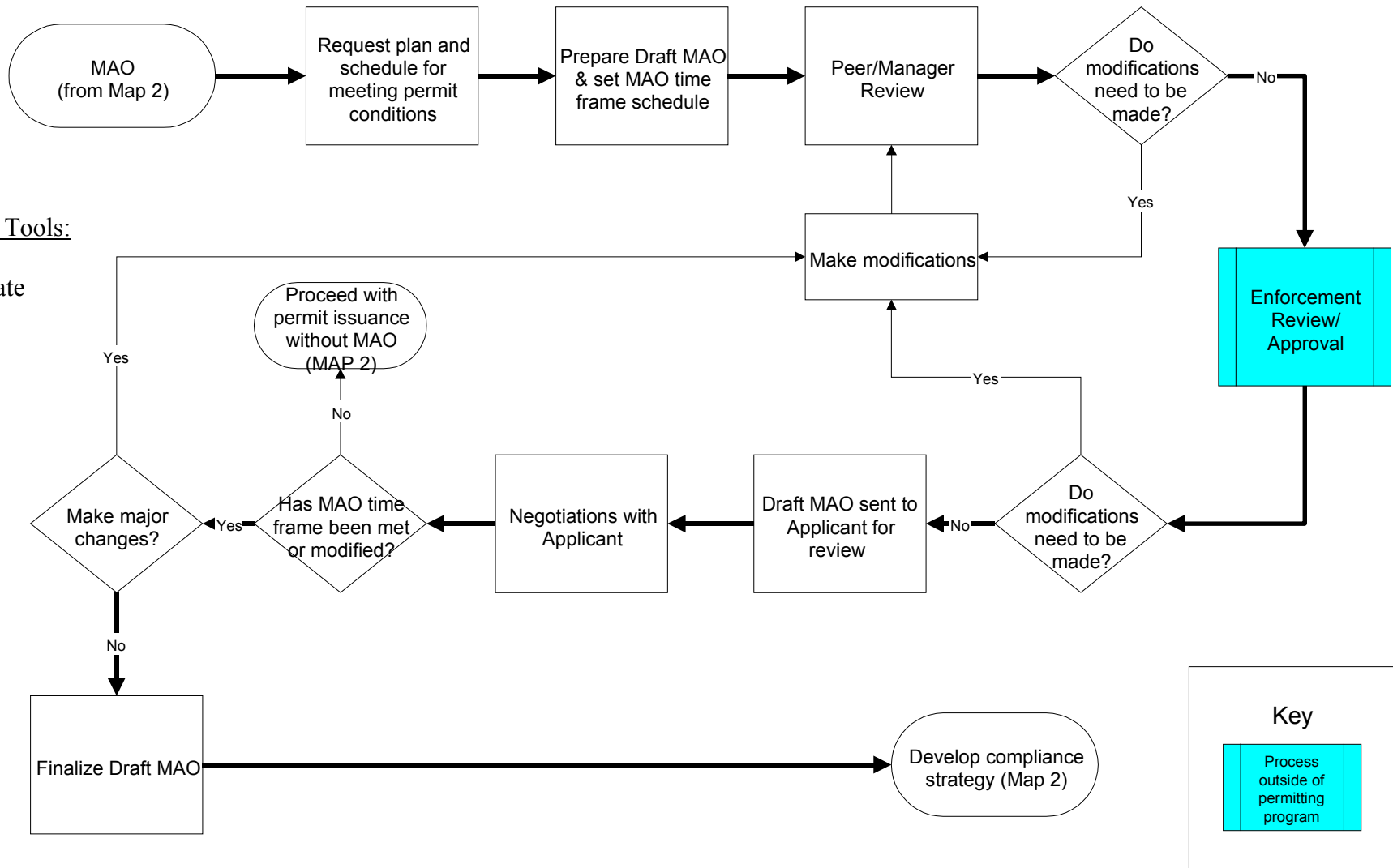


Available Tools:

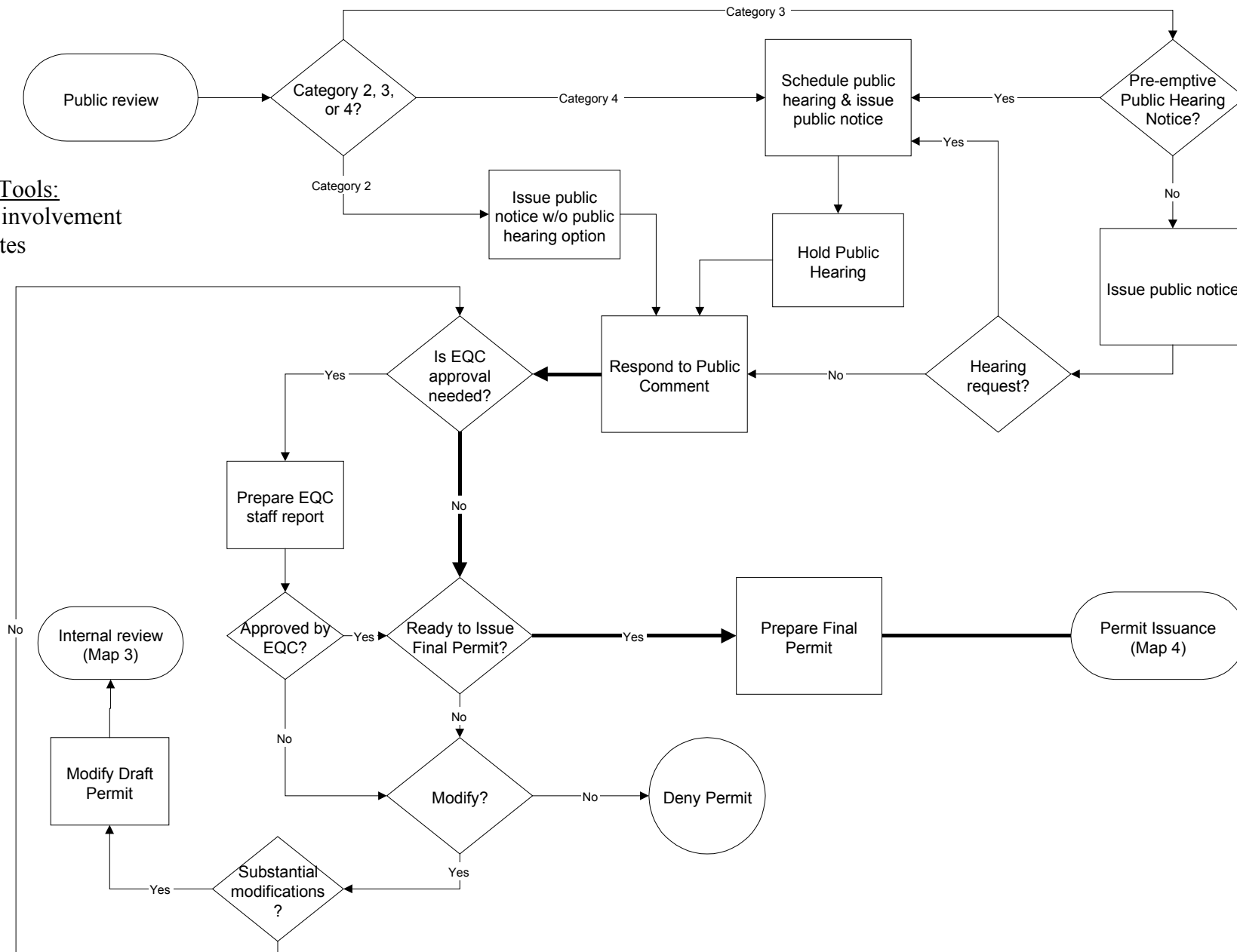
1. Groundwater checklist
prioritization
screening

Process Map 2.B: Mutual Agreement and Order (MAO)

Available Tools:
1. MAO template



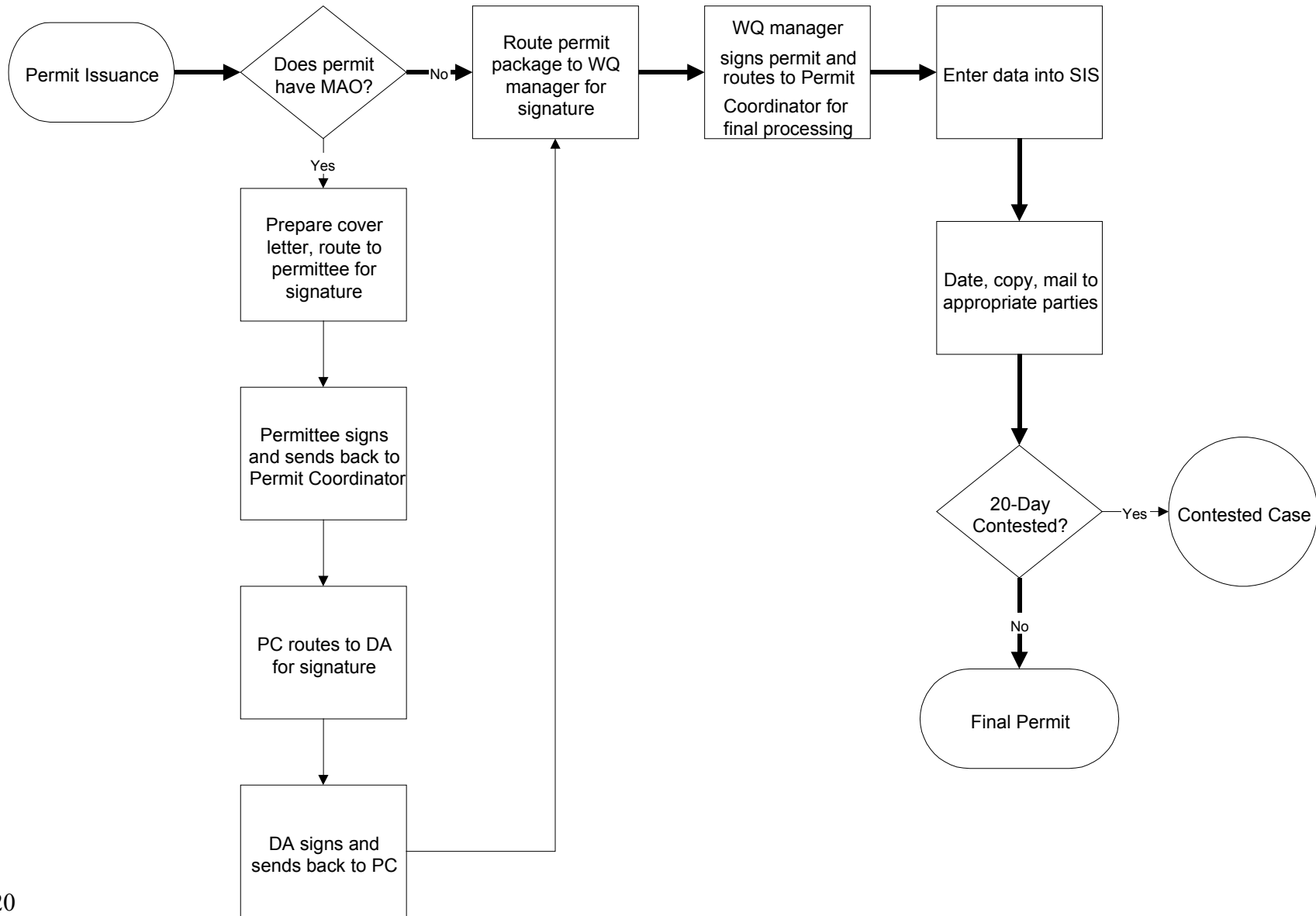
Process Map 3: Permit Public Review



Available Tools:

1. Public involvement templates

Process Map 4: Permit Issuance



6. Measures

Overview There were several challenges the project team faced when considering the measurement of permit process quality and efficiency, the most difficult being the lack of data. The project team reviewed the current available data and tools, then developed some measures that could be implemented. Next steps to consider are outlined at the end of this section that focus on developing the data needed and appropriate process efficiency indicators.

Available Data and Tools

EPA Workload Model The wastewater permitting program has adopted the EPA Workload Model as a legitimate estimate of ideal permit issuance processing time. The model uses three averages for issuance of the different types of water quality permits: 400 hours for a “major” permit, 200 hours for a “minor” permit, and 20 hours for a “general” permit. The project team considers these numbers to be reasonable estimates of an efficient permit issuance process, based on the process going smoothly. However, a subjective evaluation of actual permit issuance experience in the water quality program suggests that these averages are at the low end of a very wide range of permit issuance processing time. Key elements for achieving and demonstrating program efficiency are to track these ranges and study the specific variables that are influencing the processing time variation.

Permit Issuance Plan A tool that will affect process efficiency is the DEQ Water Quality Permit Issuance Plan, which was developed and implemented in February 2000. The plan shifts permit renewals to a watershed approach, which will lead to inherent efficiencies by performing the base work related to permit issuance all at once in a particular watershed. The plan also outlines the specific permits to be issued over a 5-year cycle, therefore this tool can be used to project the elimination of the backlog and evaluate program performance. The backlog is expected to be significantly reduced over a 5-year period through implementation of the plan, although the shift will result in a skewed evaluation of process efficiency during the transition cycle. 63% (45 of 71 total active permits) of the major permits and 28% (291 of 1043 total active permits) of the minor permits are currently backlogged.

Oregon Progress Board Benchmarks The time between when a permit application is received and when a permit is issued is a traditional method of determining permit program efficiency. Through the Oregon Progress Board benchmarks, the Water Quality Program has established a goal of issuing permits within 270 days of receipt of the application. For the first nine months of 2000, 33% of permit applications received met this goal, which is up from 26% in 1999.

Measures to Consider Implementing

Processing Efficiency The DEQ Time Accounting System (TAS) will provide actual data on permit processing time. The data can be used to develop processing ranges and averages, which then will validate the EPA Workload Model. By focusing on minimizing the range of time spent on each permit, averages will likely improve and process efficiency can be demonstrated.

Process Capacity Using the EPA Workload Model allows the wastewater permitting program to estimate process capacity. These estimates should be used as benchmarks for comparison with operating results. By using the model to estimate the level of effort needed to process all existing permits, the ideal wastewater permitting program operating level should be 68 Full Time Equivalents (FTE) with 31 FTE specifically dedicated to permit issuance work. With 31 FTE, permit issuance staff should be able to annually issue or renew 14 major permits, 155 minor permits, and 591 general permits. This represents issuance or renewal of all permits on a 5-year schedule (20% per year).

When the model is used to allocate existing resources, the existing permit program operating level of 53 FTE should have 24 FTE dedicated to permit issuance work. Based on model estimates, those permit staff should be able to annually issue or renew 10 major permits, 107 minor permits, and 591 general permits. As an initial measure of program results, in calendar year 2000 the permit program issued or renewed 6 major permits, 136 minor permits and 497 general permits, utilizing an estimated 21.5 FTE of effort.

Program Performance By comparing actual permit issuance against projected permit issuance (as defined by the Permit Issuance Plan), high-level program performance can be measured. During the first year of implementing the plan, permit issuance increased. However, it is important to balance this result with data reflecting compliance work. At this time, it is not possible to determine if the increase in permit issuance is a result of reduced compliance work, but the use of the TAS will allow for future tracking to determine if there is a trade-off.

Process Improvement Success There are several qualitative factors that are expected to improve permit issuance efficiency which should be tracked as a measure of success of this project. For example, consolidating information requests will eliminate time and labor intensive feedback loops. In addition, guidance development and training will reduce errors and the amount of time spent on complicated permits. As the specific details of implementing this project are determined, other suggestions for process improvement success measures should be developed.

Permit Quality The best measure for permit quality should actually be determined after permit issuance through evaluation of the quality of the state waters associated with the wastewater discharge permits. To use this evaluation for measuring permit quality would require a means by which compliance efforts, inspections in particular, could be separated out.

Another approach to measuring permit quality is to evaluate permit consistency. This is very difficult to quantify because no two situations are alike, although it is possible to subjectively identify apparent inconsistencies and track occurrences. This measure will need further review before a recommendation can be developed.

Next Steps

Development of Data and Process Efficiency Indicators

The project team outlined steps to consider that focus on developing the data needed and appropriate process efficiency indicators:

- Establish a team of permit staff to investigate and define the specific quantitative measures to be tracked for the wastewater permitting program. Once the measures have been determined, an individual should be assigned the tasks of tracking and reporting periodically on the measures.
 - Ensure that the TAS categories match the individual elements of the EPA Workload Model. There needs to be enough segmentation of time to track progression of activities relating to policy development, permit issuance, inspections, and enforcement.
 - Determine how dates tracked in the Source Information System (SIS) will support measuring permit issuance processing time. There needs to be assurance that the dates associated with the key phases of permit issuance are recorded, as well as the dates and nature of compliance activities (technical assistance, inspections, and enforcement).
 - Assign an individual to track progress on process improvement recommendations offered in this report (see Executive Summary and Appendix 2). Periodic progress reports should be distributed to DEQ management, staff, and permittees.
-

7. Implementation and Transition Planning

Overview The project team prepared an implementation plan that prioritized the specific recommendations. The plan, found in Table 2 at the end of this section, identifies initial steps, timeframes, and assignments. Some of the recommendations can be initiated immediately, while others will occur over the coming years as development and coordination needs allow. The project team intends to be active participants as recommendations are implemented.

A transition plan is essential to ensure that the water quality permitting program moves forward with implementing the recommendations. How and when the transition occurs will be affected by resources and will need to be in concurrence with the implementation and permit issuance plans.

Current Initiatives The project team recognized that implementation of some recommendations needs to be coordinated with projects already initiated within DEQ (e.g. Source Information System Improvement Project and the agency wide time accounting system). These projects were identified and will be considered as implementation moves forward (see Appendix 7).

Transition Steps to Consider The project team outlined some key steps to consider when developing a more comprehensive transition plan. The plan will need to address the current permit backlog situation with pending applications, and the permits that will be expiring within the next several years. Steps that should be considered are:

- Decide which permit renewals (pending and not yet expired) would shift to the revised permitting process and which will continue to be processed in the current manner. The decisions should be made on a regional basis and should tie into the permit issuance plan. Training should be considered and focus on review of applications.
- Send letters to permittees who will be the first to experience the process changes.
- Develop schedule of reasonable timelines for various potential permit actions and determine appropriate action to take if permittees do not comply.
- Review applications of currently expired permits. If necessary, send letters to applicants requesting data or needed additional information. The applicant should be informed of why the data or information is needed,

- how it will be used, and the date it should be submitted by.
- Schedule permits for development and issuance, considering the watershed approach.
-

Table 2: Recommended Implementation Plan

RECOMMENDATIONS	TIMEFRAME		ASSIGNMENT				
	Start	End	Head- quarters	Region	Team	Individual	Manager
HIGH PRIORITIES							
Recommendations that can be accomplished with existing resources							
Create and maintain a Master List of existing policies, guidance and tools for writing and processing a permit.	06/01	08/01	✓			✓	
Create and prioritize a list of new and existing policies, guidance, tools and rules that need to be developed or updated for specific situations. <ul style="list-style-type: none"> • Begin by scheduling the development of new and maintenance of existing and new policies, guidance, tools and rules. 	06/01	08/01	✓			✓	
Create an internal permit writing checklist for permit writers to ensure completeness and consistency.	06/01	08/01		✓	✓		
Update and communicate the Headquarters / Regions Agreements. <ul style="list-style-type: none"> • Start with old document. 	06/01	06/02	✓	✓			✓
Define the administrative and technical duties of permit coordinators and permit writers by updating the written permit processing procedures. <ul style="list-style-type: none"> • Document should follow new process. 	06/01	03/02		✓	✓		
Modify permit writers' meetings to be participatory, interactive, useful and mandatory. <ul style="list-style-type: none"> • Team needs to develop and propose meeting plans. 	06/01	12/01	✓	✓	✓		
Support the integration or formation of internal watershed work groups to address planning and coordination issues between TMDL staff, permit writers and the laboratory. <ul style="list-style-type: none"> • Start with priority watersheds and expand as needed. 	06/01	06/02	✓	✓	✓		

RECOMMENDATIONS	TIMEFRAME		ASSIGNMENT				
	Start	End	Head- quarters	Region	Team	Individual	Manager
Recommendations needing additional resources and/or structural changes							
PHASE 1 Recommendations							
Develop a data request strategy for obtaining needed data to write a permit based on the watershed approach. <ul style="list-style-type: none"> Start with the Transition Plan recommended by WPIT 	09/01	03/02		✓	✓		
Develop data systems to ensure that data are accessible to permit writers. <ul style="list-style-type: none"> Outcome is dependent on projects already in progress (e.g. WADERS, SIS, etc.) 	<i>To be determined</i>		✓				✓
Update the Permit Writer's Manual so that it is electronic, accessible, easily maintained and updated, and provides all the necessary information to write a permit. <ul style="list-style-type: none"> Update the existing Word document, circulate and post electronic version with hyperlinks. Computer technical support required to create electronic version. Continue to update Manual as additional guidance and tools are developed. 	09/01	09/03	✓	✓	✓		
Develop standardized language for similar situations and circulate to permit writers. <i>Break into stages:</i>							
1. Compile existing language	09/01	12/01	✓	✓	✓		
2. Determine additional needs		03/02	✓	✓	✓		
3. Draft new language		09/02	✓	✓	✓		
4. Establish a maintenance plan		09/02	✓	✓	✓		
PHASE 2 Recommendations							
Develop a mentoring program (lead worker) to support on the job training and acknowledge contacts for specialists. <i>Break into stages:</i>							
1. Development	04/02	09/02	✓			✓	
2. Implementation	10/02	03/03	✓	✓			
Designate a training coordinator responsible for developing a training program. <i>Break into stages:</i>							
1. Development	12/01	03/02	✓			✓	
2. Implementation	04/02	09/02	✓	✓			

RECOMMENDATIONS	TIMEFRAME		ASSIGNMENT				
	Start	End	Head- quarters	Region	Team	Individual	Manager
Recommendations requiring program and longer range cultural changes							
Develop a formal decision making policy consistent with the priorities of the water quality program. <ul style="list-style-type: none"> Review and revise existing policy. 	11/01	01/02					✓
Develop an annual Operation Plan for the water quality program that serves to define program priorities and outputs based on the Strategic Plan. <ul style="list-style-type: none"> Timeline may be affected by agency wide Strategic Planning process. 	02/02	05/02					✓
Implement the existing workplan and the performance appraisal processes. <ul style="list-style-type: none"> Encourage immediate use of the existing processes. Incorporate permit schedule into workplans. 	04/02	03/02					✓
Managers should delegate more tasks and focus on management functions.	04/02	03/02					✓
Involve permit writing staff in the process of rule/standard development to address the affects that any changes may have on the permit writing process and implementation. <ul style="list-style-type: none"> Staff time is not currently allocated for review activities. Recognize the urgency to include staff in these reviews. 	04/02	09/02			✓		✓
Review existing regional databases that track Schedule C and MAO compliance dates. <ul style="list-style-type: none"> Recommendation is slightly out of scope of the WPIT project, but implementation could improve program efficiency. 	<i>To be determined</i>			✓	✓		

Appendix 1

Wastewater Permitting Improvement Team Charter

Background

The Wastewater Permitting Improvement Team (WPIT) is responsible for objectively evaluating current activities involved with the wastewater permitting process in order to identify ways to operate the most effective and efficient program. The scope of WPIT is to focus on permit issuance as a process. Team members represent various groups involved with wastewater permitting, so a part of their responsibilities will be to solicit suggestions and comments from others involved with wastewater permitting as necessary to effectively participate in the review process. The team will make recommendations for improvements and be key participants in implementing any recommended changes.

Goal

- Prepare a report that:
- Describes the permit issuance process in the Water Quality Program,
 - Identifies improvement opportunities, and
 - Recommends solutions

Water Quality Program – Wastewater Permitting

Water Quality Program Management

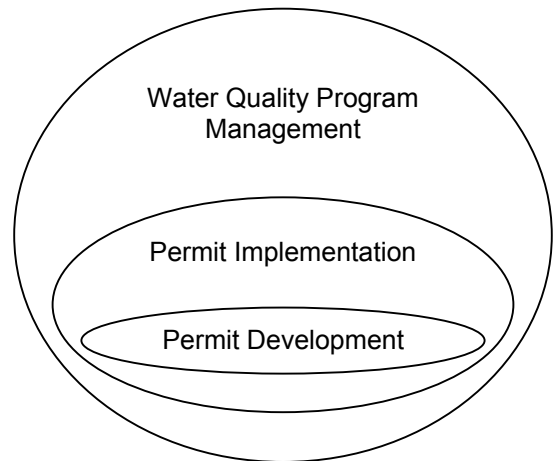
- Budget
- Oregon Plan

Permit Implementation

- Compliance / Inspection
- Rules Development / Guidance Policy
- Data Management
- Watershed Approach (TMDLs)
- Enforcement

Permit Development

- Application
- Permit Drafting
- Applicant Review
- Public Involvement
- Permit Issuance



Project Scope

The WPIT project scope will focus on the activities involved with Permit Development with the recognition that aspects of Water Quality Program Management and Permit Implementation impact the issuance process. The scope of the project may broaden to include some of these interactions, as necessary.

Tasks

1. Prepare and define a process map (flow diagram) reflecting the existing permit issuance process. From this process map:
 - Identify the sequence and timing of each step within the process
 - Estimate the amount of time each step takes in terms of length of time and level of effort
 - Identify the position (staff/management) responsible at each step of the process
 - Identify existing technical guidance for steps in the process and describes what is needed
 - Identify and describe bottlenecks, capacity restrictions, and constraints
 - Develop solutions or alternatives
 - Develop new and improved process map
2. Prepare a process map (new and improved) reflecting a permit issuance process necessary to achieve statewide consistency and compliance with regulations (federal CWA, ESA, state/federal regulations).
3. Describe resource requirements – how much work there is or relate it to the workload model
 - We will not model the workload but interface with the workload model.
4. Solicit internal and external feedback
5. Develop an Implementation Plan that will include:
 - Specific actions
 - Schedules
 - Resource estimates (FTE)
 - Success measures
 - Communication strategies

Recommendations

- Specific recommendations will be made for identified improvement opportunities
- If a recommendation for an improvement opportunity is outside the scope of this project, then the recommendation will include a specific implementation strategy.

Expectations

- The final Report will be presented to upper management
- The final Report will be distributed to permit writers, legislators, lobbyists, environmental groups, permittees and other interested person
- Implementation of the recommendations will result in:
 - ✓ Standardized procedures / tools
 - ✓ Streamlined process and improved efficiency
 - ✓ Compliance with state and federal requirements

Team Members

Bob Baumgartner	Jon Gasik	Mark Hamlin	Judy Johndohl
Mike Korten Hof	Sharon Morgan	Jackie Ray	Steve Schnurbusch

Facilitators: Dawn Farr and Jennifer Yocum

Meetings

Beginning May 24, 2000 and ending mid-October 2000

Appendix 2

Recommendations

Data Needs

Policy, Guidance and Tool Development

Training

Coordination

Monitoring and Tracking

Prioritization

Decision Making

Data Needs

Overview Data needs refers to what information the permit writer needs, and the organization and accessibility of that information in order to write a permit based on sound analysis. Recommendations focus on requesting data and managing data with the goal that all data is received at one time to be available and utilized for drafting the permit.

Develop Data Request Strategy **Develop a data request strategy for obtaining needed data to write a permit that is based on the watershed approach. Strategy options could include:**

- Developing a transition plan for the next 2-3 years that addresses how to obtain needed data and how to deal with an expired permit until that data is received.
 - Implementing a process for obtaining the information prior to drafting a permit. The process could include mailing a letter, along with the proposed Applicant Data Checklist, to the applicant listing the requested data, an explanation of how the data will be used, and the date the information is needed.
 - Including the proposed Applicant Data Checklist with the renewal notice for permit renewals that are not expired and do not require extensive time to gather data.
 - Incorporating proposed Applicant Data Checklist with the ongoing work to revise and update the permit application forms.
 - Including data request as a requirement in Schedule C if issuing the permit prior to completion of the TMDL or if no TMDL will be done.
 - Requiring submittal of needed data as part of a negotiated MAO.
 - Conducting a watershed pre-application meeting that identifies data expectations and permit requirements.
-

Develop Accessible Data Systems **Develop data systems to ensure that data are accessible to permit writers.**

- Expedite electronic DMRs (DMS, WADERS) program.
- Encourage permittees to obtain computers on loan from the State surplus for utilizing electronic DMRs.
- Coordinate with the Laboratory to include permittee data in LASAR and make LASAR more user friendly.
- Make the Sewage Treatment Plant (STP) data system more accessible and useful to permit writers. Treatment systems operation data should include, but not be limited to: effluent reuse, biosolids, treatment type, and plant capacity.

Policy, Guidance and Tool Development

Overview The permit writer needs to be aware of and have access to policies, guidance and tools that address existing and emerging permit issues. To be effective, as well as to achieve consistency within the permit program, these need to be realistic, specific, defensible, implementable, receive broad outside support and be utilized.

Create and Maintain a Master List

Create and maintain a Master List of existing policies, guidance, and tools for writing and processing a permit. The Master List should include supporting documentation explaining how to use the information and contacts for specific topic information. The Master List could include, but not be limited to:

- The Permit Issuance Schedule
 - Watershed approach to permitting (policy)
 - TMDL development (policy)
 - Antidegradation (policy)
 - Temperature Implementation Guidance
 - Mixing zone studies (guidance exists but is outdated)
 - Effluent trading (Watershed based trading) (guidance)
 - Effluent reuse (guidance)
 - Sanitary sewer overflows (guidance)
 - Reasonable potential analysis (tool)
-

Create and Prioritize List of Needs

Create and prioritize a list of new and existing policies, guidance, tools and rules that need to be developed or updated for specific situations. Schedule the development and maintenance of the policies, guidance, tools and rules. The new list should include, but not be limited to:

Policy

- Policy for issuing a permit when the TMDL is absent or not complete.
- Policy for a formal communication process by resurrecting the Headquarters / Regions Agreement.

Guidance

- Updated guidance for completing mixing zone studies / dilution studies for permittees that includes examples of studies, how to do a study and contacts for assistance.
- Guidance on where and how to obtain ambient data.
- Guidance for determining who needs to review draft permits and when concurrence with revisions is required.
- Legal review and policy decision on requiring submittal of needed water quality data as a condition in Schedule C in lieu of developing permit

limits with insufficient data.

- Guidance for requesting needed data and information from specific sources in order to write the permit.

Tools

- Developing pre-approved standardized MAO templates.
- Creating an electronic library database of all permits and fact sheets.
- Creating conservative data defaults and triggers or an analysis of conservative defaults when water quality data is not readily available.
- Developing additional tools for determining water quality based limits for all standards [temperature, pH, dissolved oxygen, turbidity, eutrophication (EPA), nutrients (future)].
- Developing a wizard to create a source specific data and information checklist (Applicant Data Checklist) for requesting needed information in order to write a permit.

Create Internal Permit Writing Checklist

Create an internal permit writing checklist for permit writers to ensure completeness and consistency. The checklist could include, but not be limited to compliance history, ambient data available, DMR review, inspections, and site soils.

Develop Standardized Language

Develop standardized language for similar situations and circulate to permit writers. Involve the specialists in drafting the language. Suggested areas for development include, but are not limited to:

- Standardized responses for common issues
- Common permit conditions
- Fact sheets

Update Permit Writer's Manual

Update the Permit Writer's Manual so that it is electronic, accessible, easily maintained and updated and provides all the necessary information to write a permit. The updated Manual should include, but not be limited to:

- WPIT process maps
- Hyper-links from WPIT process maps to checklists, guidance, tools and assistance
- The Master List (proposed recommendation) with hyper-links to existing policy, guidance and tools relative to writing and processing a permit

Training

Overview	<p>Training refers to formal workshops and classes designed to assist staff in meeting job related and career development goals. By elevating training as a program priority, the intent is that all permit writers will know what training is available, have access to the training, be adequately trained, and use the training in writing permits consistent with the priorities of the water quality program. A training program should be ongoing and allow for a process to assess future training needs.</p> <hr/>
Develop a Training Program	<p>Designate a training coordinator responsible for developing a training program. A training program could:</p> <ul style="list-style-type: none">• Identify who should attend training• Allow staff time to attend training• Incorporate training into workplans for all staff by identifying mandatory core and advanced training courses based on a defined set of job skill requirements that focus on permit processing and compliance• Utilize or develop in-house expertise (staff) and external expertise (e.g. EPA) to develop and deliver training on tools. Acknowledge training assignments in workplans and prioritize staff time to develop and conduct training.• Develop a process for dispensing the training (such as coordination with permit writers' meetings and section meetings)• Incorporate training into the permit writers' meetings• Train staff to communicate program decisions to the public, media and permittees <hr/>
Develop Mentoring Program	<p>Develop a mentoring program (lead worker efforts) to support on the job training and acknowledge contacts for specialists.</p> <hr/>
Modify Permit Writers' Meetings	<p>Modify permit writers' meetings to be participatory, interactive, useful and mandatory. Suggested items to focus on include:</p> <ul style="list-style-type: none">• Survey the permit writers for suggestions on how to improve the meeting format and content• Develop a monthly report for conveying information about time sensitive topics that must be implemented immediately• Discuss existing guidance, tools and rules• Discuss emerging issues and their implications• Discuss case studies and apply to current situations <hr/>

Coordination

Overview	Coordination refers to workload, delegation of work assignments, and staff working together. Through effective coordination, staff will understand their own and other staff's responsibilities. The goal of coordination should result in satisfying the priorities of the water quality program.
<hr/>	
Support Internal Watershed Work Groups	<p>Support the integration or formation of internal watershed work groups to address planning and coordination issues between TMDL staff, permit writers and the laboratory, especially during the first three years of the watershed plan.</p> <ul style="list-style-type: none"> • Continue coordination and prioritization of operating under a watershed approach for permit issuance
<hr/>	
Update and Communicate Headquarters/Regions Agreement	<p>Update and communicate the Headquarters / Regions Agreement. The purpose of the Agreement is to:</p> <ul style="list-style-type: none"> • Identify staff roles and responsibilities • Align and coordinate related and overlapping functions • Improve communication and coordination within the headquarters, within the regions and between the headquarters and regions • Ensure internal communication precedes external communication • Establish and use a formal communication process
<hr/>	
Focus Managers on Management Functions	Managers should delegate more tasks and focus on management functions, such as: guidance, prioritization, oversight (administration / workplans), and coordination (HQ/regions, consistency, staff inter-relationships).
<hr/>	
Involve Permit Writers in Rulemaking	Involve the permit writing staff (and/or region) in the process of rule / standard development to address the affects that any changes may have on the permit writing process and implementation.
<hr/>	
Define Administrative and Technical Duties	Define administrative and technical duties between permit coordinators and permit writers by updating the written permit processing procedures.
<hr/>	

Monitoring and Tracking

Overview Monitoring and tracking refer to checking or follow-up on specific actions or data. This will result in accountability ensuring that actions are appropriately carried out and data needs are met. Monitoring and tracking also refer to the coordination with existing projects, such as the SIS project and the agency wide time accounting system, to ensure that the permit writer's needs are addressed and satisfied.

Develop Statewide Database Review existing regional databases that track Schedule C and MAO compliance dates. Develop an approach to integrate the information into a useable statewide database, possibly through the SIS improvement project or the EPA Permit Compliance System (PCS).

Implement Work Plans and Performance Appraisals Implement workplans and the performance appraisal process by updating workplans at least annually and providing intermittent performance evaluation opportunities with the purpose of defining expectations, performance issues, corrective actions, and training acknowledgments.

Prioritization

Overview

Prioritization means arranging in order of importance one issue over another. The intent is that prioritized activities, and the associated work expectations, to be completed in the water quality program will be formally communicated to staff.

Develop Operational Plan

Develop an annual Operational Plan for the water quality program that serves to define program priorities and outputs based on the Strategic Plan. The Operational Plan could include:

- Integrating program priorities into staff workplans such that they are adequately supported by management
 - Evaluating progress at least quarterly (and monthly by the permit manager group) to determine whether adjustments need to be made to the plan
 - Communicating changes to staff that result from the regular evaluations of staff
 - Encouraging communication in a two-way (top-down/bottom-up) approach
 - Defining explicit expectations for actively eliminating low priority activities
-

Decision Making

Overview Decision making refers to the direction and focus of the water quality program based on the program's priorities. The intent is that making decisions should be based on a formally defined process that communicates, documents and memorializes decisions once they are made so permit issuance can proceed without uncertainty or controversy.

Develop Formal Decision Making Policy **Develop a formal decision making policy consistent with the priorities of the water quality program. The policy should include, but not be limited to:**

- Timeframes for making decisions
- Who makes decisions (at the lowest level possible)
- When folks (stakeholders / internal) should be involved
- Procedures for documenting how a decision is made and how to communicate that decision
- A process for managing internal opposition and appeals, and for distributing final decisions
- The use of the permit writers' meetings as a forum to create opportunities for staff to present issues that need decisions
- A method for channeling emerging issues into development of needed policies and tools
- A review of the existing decision making form for managers, revisions made where needed, and implementation by managers
- Consider the use of an appropriate dispute resolution process (internal/external) to achieve consensus-based decision making

Appendix 3

Identified “Hot Spots”

HIGH LEVEL PROCESS MAPS

HOT SPOT	SYMPTOMS/ISSUES	OTHER COMMENTS
Process Map 1 PERMIT APPLICATION		
Turn renewal over to technical staff if not received	Follow-up can be time consuming Compliance	
Application and fees received at business office	Time lag	
Application administratively complete? (feedback loop)	Inadequate information	WPCF more of a problem than NPDES
Process Map 2 PERMIT WRITING		
Application complete? (feedback loop)	Inadequate WQ monitoring data - effluent data and ambient data	
Internal review	Multiple reviews Uncertainty about content Inconsistency Timeliness	
Permit review with applicant	Discussions may cause further review of permit and evaluation report “Surprise”/confusion factor Lack of understanding of rules and standards Perceived inequity	
Process Map 3 APPLICANT/PUBLIC REVIEW		
Applicant requests major changes? (feedback loop)	Time delay Resource investment Communication/education Complexity	
Process Map 4 PERMIT ISSUANCE		
None identified		

DETAILED PROCESS MAPS

HOT SPOT	SYMPTOMS/ISSUES	OTHER COMMENTS
Process Map 2.A NPDES PERMIT EVALUATION REPORT		
Adequate information from source	Inadequate WQ monitoring data - effluent data and ambient data Time lag Unclear as to who should collect data	
Mixing zone	Inadequate information Lack of guidance for source Lack of internal technical guidance	
Adequate data for reasonable potential analysis	Lack of data	
Process Map 2.B WPCF PERMIT EVALUATION REPORT		
Adequate information from source	Lack of information Lack of knowledge about our requirements/process Time lag Technical assistance can be resource intensive	
Process Map 2.C MUTUAL AGREEMENT AND ORDER (MAO)		
Enforcement review/approval	Time lag Internal communication Lack of internal understanding of permitting process/issues and enforcement process	
Process Map 2.A.i WQ-BASED EFFLUENT LIMIT		
Define and develop modeling or analytical approach	Lack of information Inadequate WQ monitoring data - effluent data and ambient data Understanding of responsibilities Lack of guidance	
Process Maps 2.A.ii and 2.B.i GROUNDWATER ASSESSMENT		
None identified		

Appendix 4

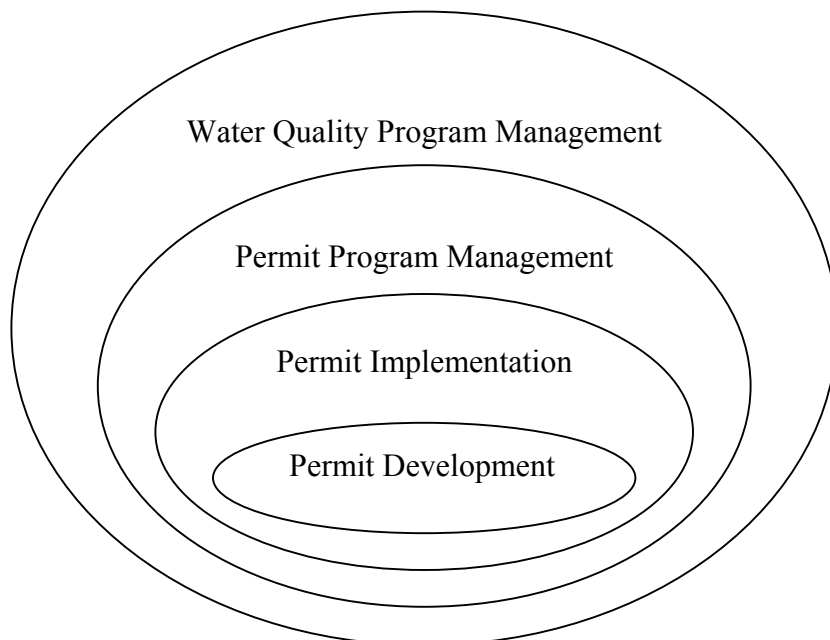
Problem Statements with Issues and Suggestions

Comments/Issues Offered During Internal Interviews	Improvement Suggestions Offered During Internal Interviews
WATER QUALITY PROGRAM MANAGEMENT	
<i>1. Lack of consistent management direction or priorities causes inability to process permits.</i>	
<ul style="list-style-type: none"> • Overwhelmed feelings lead to frustrations of permit writer. • Nothing ever comes off the plate, too many #1 priorities. • Roles/rifts between permit writer, permit coordinator, manager – talk, no support. • Backlog is due to resource constraints, not the process. 	<ul style="list-style-type: none"> • Do not write evaluation reports for each general permit application (Pendleton office only).
<i>2. Inability to manage complex and controversial issues may stop the process.</i>	
<ul style="list-style-type: none"> • Not knowing what to do when the TMDL is not done holds up permit issuance process. • Dealing with lawsuits – wants a clear process mapped out. • When situation becomes ‘controversial’, the permit is held up. • It is not efficient to have a non-specialized permit writer write WQBELs. • Most staff / managers have no experience establishing WQBELs. 	<ul style="list-style-type: none"> • Allow a permit writer to use best professional judgement to prevent a bottleneck from delaying the process. • Develop a clear process for dealing with lawsuits. • Centralize writing WQBEL at headquarters.
PERMIT PROGRAM MANAGEMENT	
<i>3. Lack of clarity between headquarters and regions as to responsibilities causes inadequate program implementation.</i>	
<ul style="list-style-type: none"> • Don’t address program issues (e.g. operator certification, biosolids) up front during renewal process and thus permit modifications need to be made after the permit is issued. • There is a disconnect between permit activities and program coordination (e.g. operator certification, biosolids) - who does what, paper flow, communication. • HQ program staff need current permit information. 	<ul style="list-style-type: none"> • Update the MAO template with standard, canned language. • Send copies of issued permits to HQ.

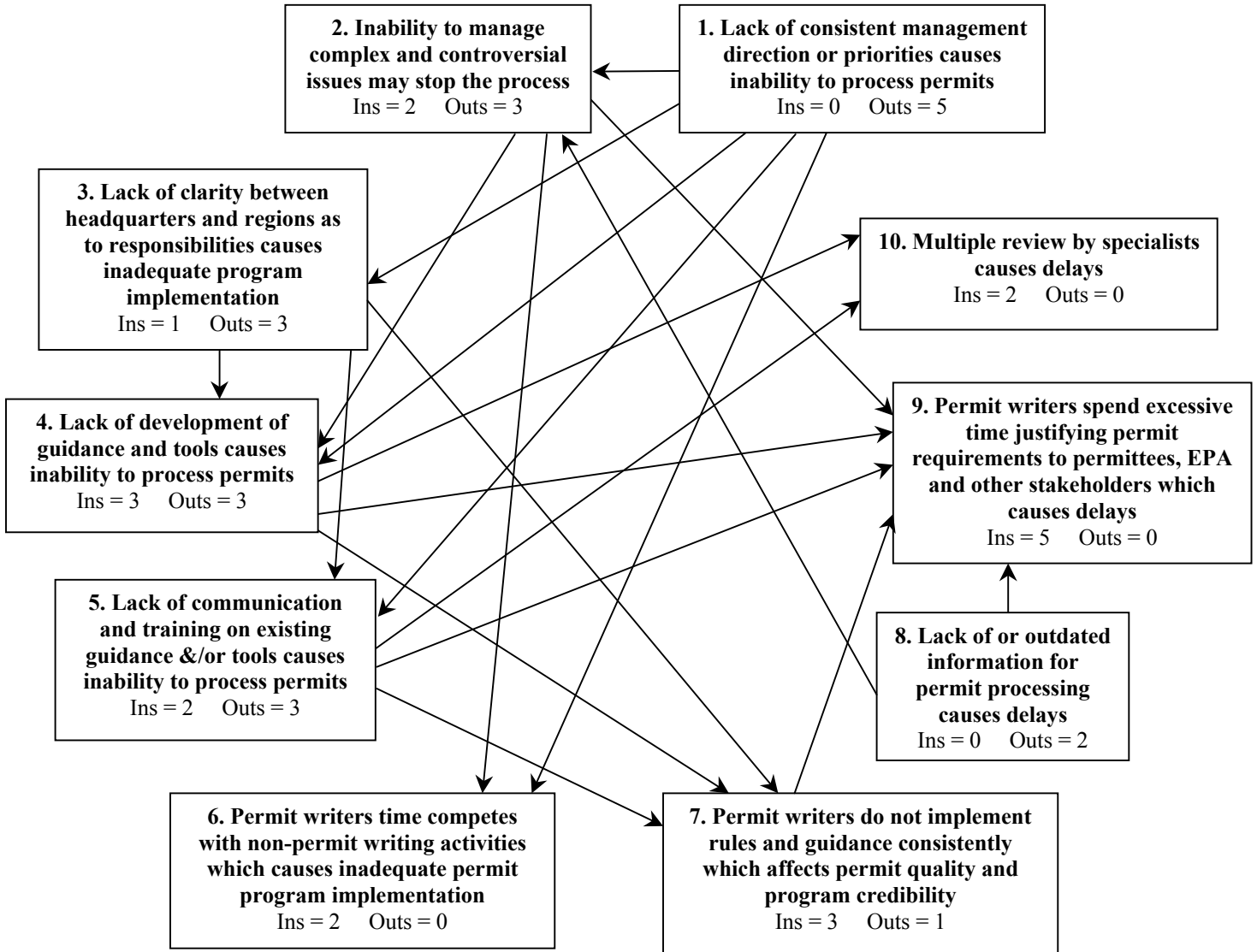
Comments/Issues Offered During Internal Interviews	Improvement Suggestions Offered During Internal Interviews
PERMIT IMPLEMENTATION	
<i>4. Lack of development of guidance and tools causes inability to process permits.</i>	
<ul style="list-style-type: none"> • Actual permit needs are not illustrated on the process maps. • There is a need for more permit writing tools: Permit Writer’s Manual, spreadsheets to calculate limits. • Managers need to decide how much goes into a permit fact sheet (evaluation report). Need template with standard language. 	<ul style="list-style-type: none"> • Use WDOE permit writing guidance document or other state/federal documents. • Develop permit and evaluation report wizard with standard (agreed upon) language. • Distribute process maps to permit writers. • List out the steps for writing a permit. • Develop an electronic checklist for permit writers. • Create a library database of other permits available for reference (create shared drive to store all permits and evaluation reports). • Use ACWA's temperature guidance document. • Develop a clear policy for denying a permit. • Update and distribute Permit Writer’s Manual.
<i>5. Lack of communication and training on existing guidance and tools causes inability to process permits.</i>	
<ul style="list-style-type: none"> • There is a consistency problem with how guidance and policy is updated and distributed (i.e. communicated). Management agreement may have occurred, but communication to staff is not carried through. • The 15-day rule requirement (WPCF only) for completeness of application is not adhered to. • Issue of modifying expired permits still exists and (symptom of the backlog). • Schedule F (general conditions) has definitions that do not apply to holding tank permits (WPCF) but not allowed to modify. 	<ul style="list-style-type: none"> • Require permit writers to take EPA permit writers course every 3-5 years. • Develop a list of guidance documents made available to permit writers. • Identify training opportunities. • Start an in-house permit newsletter.
<i>6. Permit writer’s time competes with non-permit writing activities which causes inadequate permit program implementation.</i>	
<ul style="list-style-type: none"> • Technical staff follow-up on invoices (lack of fee payments) is an ineffective use of time. • Disagreements exist between technical staff and non-technical staff as to who should do what. • Issuing an MAO with every permit is time consuming. There is confusion about MAO process. Enforcement blackhole. Lack of understanding between permit writer and enforcement staff. • Plan review staff duties include permit writing. 	<ul style="list-style-type: none"> • Designate a permanent duty officer (NWR). • Split up permit duties into separate positions (enforcement, permit writing, inspections) and have 1 inspector for NWR. • Increase planning period to 30 years for facilities plan (instead of 20 years). • Make fee collection a business office function. • Eliminate plan review.

Comments/Issues Offered During Internal Interviews	Improvement Suggestions Offered During Internal Interviews
PERMIT DEVELOPMENT	
<i>7. Permit writers don't implement rules and guidance consistently which affects permit quality and program credibility.</i>	
<ul style="list-style-type: none"> • Lack of standard process • Not all regions have a 'formal' process. They make local decisions and don't feel connected as a whole. 	<ul style="list-style-type: none"> • Designate one point of contact for explaining complex, repetitive issues (e.g. the temperature standard). • Train a few people (maybe at HQ?) to be hearings officers (mediators) for controversial issues.
<i>8. Lack of or outdated information for permit processing causes delays.</i>	
<ul style="list-style-type: none"> • There are several places (about 6-8) in the process where we ask for additional information. Causes loss of inertia with project. • Renewal application can sit in backlog for several months before discovering that there is incomplete information to renew the permit. • Getting information on backlogged permits can be difficult at times. • Comments support lots of places where we lack information. • Up front information vs. what information is gathered later if needed (how to describe information needs initially). • Who is responsible to collect necessary data? • Does the EPA NPDES application form address inadequate data problems? • The biosolids management plan is looked at way into the process and often requires additional information. • No good way to gather ambient data because it comes from lots of sources. • Lack of biological data, mixing zone information. • Completing an RPA is a problem due to lack of data. • Staff hired as 'modelers' work on other issues than permits, and thus modeling information is lacking. 	<ul style="list-style-type: none"> • Develop a common policy sticking to the 90-day information request. • Review the application for administrative and technical completeness at the same time. • Create a checklist for admin/tech completeness. • Determine our data needs from the applicant and clearly convey our expectations prior to final permit issuance (the "no surprises" approach). • Improve databases and use of databases (e.g., create database on Sequent for tracking permits, form letters, report showing missing DMRs for specific source). • Create a checklist for applicant of required information that goes out with the application renewal packet. • Proceed with permit issuance with available data and require additional data to be collected as a compliance condition in Schedule C. • Require source to summarize/tabulate DMR data each year or each permit cycle. • Hire intern to summarize/tabulate DMR data once received. • Create conservative defaults if adequate data is not available. • Determine early in the process what plans (e.g. Biosolids Management Plan, Temperature Management Plan) are needed. • Require an updated Biosolids Management Plan with renewal application. • Develop guidance for permittees on how to write O&M plans. • Rewrite Division 45 to require mixing zone analysis results at permit renewal. • Develop guidance for permittees on conducting mixing zone study.

Comments/Issues Offered During Internal Interviews	Improvement Suggestions Offered During Internal Interviews
9. Permit writers spend excessive time justifying permit requirements to permittees, EPA, and other stakeholders which causes delays.	
<ul style="list-style-type: none"> • Need to involve external stakeholders. • Informal reviews may or may not be “effective”, as permittees may still request major changes during formal applicant review. 	<ul style="list-style-type: none"> • Involve the applicant throughout the permitting process, not just at the points stated on the maps. • Standardize the permit process. • Develop guidance documents for information requests about mixing zones and groundwater. • Establish informal dialogue with stakeholders to explain permits. • Post public notice, draft permit, draft MAO on the DEQ website when going out on public notice. • Accept only written comments. • Keep lawyers out of informal review. • Send out draft documents (permit, fact sheet, public notice, MAO) once, only during formal applicant review period.
10. Multiple reviews by specialists causes delays.	
<ul style="list-style-type: none"> • Paper moves around too much, thus delaying permit issuance. • Management plans take time to review. • Enforcement actions take a lot of time. 	<ul style="list-style-type: none"> • Minimize the number of times that a paper changes hands or is shipped from office to office. • Require submittal of management plans in Schedule C, if needed. • Establish a bigger presence in the field and perform more inspections. • If there is an MAO, proceed with applicant review without an assigned case number. Enforcement’s review would be received prior to proceeding with public notice. • Require applicant to do public notice if needed after permit issuance, if biosolids management plan is not completed during permit renewal process.



Appendix 5 Interrelationship Diagram



Arrows Out indicate influence on (cause)
Arrows In indicate influenced by (effect)

Appendix 6

List of Suggested Solutions by Category

List of Suggested Solutions by Category

SUGGESTED SOLUTIONS		Problem Statement #									
		1	2	3	4	5	6	7	8	9	10
PRIORITIZATION (choosing one thing over another)											
1	Make workplans a priority and ensure they are being used and updated	X									
3	Stronger statement from managers on things that aren't priorities & support from managers when these aren't done	X									
4	Need consistency in priorities <i>(linked to #59)</i>	X									
5	Stronger recognition for completion of priority activities	X									
13	Need commitment from all managers that issuing permits is the priority	X									
59	Folks that do permit writing have blocks of time dedicated to permit writing (time management plan)						X				
61	Establish a permit writing day to focus time on permits						X				
DECISION MAKING (direction, focus)											
7	Recognize that consensus can't always be achieved & develop method for making decisions in those circumstances	X									
8	Focus on environmental affects (benefits) as a core to decision making	X									
10	Use permit writers meeting to develop issues that need to be elevated to managers	X									
11	Formalize decision process to keep the process moving and define players	X									
14	Delegate some decision making authority to a permit managers' group	X									
COMMUNICATION (talking to others, vehicles)											
2B	Increase coordination / communication to minimize inconsistencies (peer to peer)	X									
24	Internal communication: status, what's happening with managers, permit writers, the water quality program.			X							
32	Have process for proper development & distribution (communication) of e-mail decisions, guidance documents and tools					X					
51	More effectively use existing vehicles (interactions with permit holders) to foster better communications								X		
52	Develop and distribute an e-mail newsletter for all permit holders								X		
68	Use newsletter to inform permittees about new rules, policies, guidance, other general changes, sources of information and web links.									X	
74	Develop email contacts list and use to provide on going feedback and broad communication									X	
COORDINATION (workload, delegation, working together)											
2A	Managers need to clarify staff responsibilities (between HQ and regions and intra regions) <i>(linked to #21)</i>	X									
6	Develop a transition / change management plan to accompany the implementation of key changes	X									
9	Managers should do more managing / delegating and less technical work	X									
12	Coordination between program and functions get murky? due to organizational structure	X									
18	Develop communication & coordination between TMDL & permitting groups to improve the implementation of TMDLs		X								
20	Improve the communications and coordination between permit writers and the rules/standards writers		X								

SUGGESTED SOLUTIONS		Problem Statement #									
		1	2	3	4	5	6	7	8	9	10
21	Managers need to lead and support a re-establishment of the headquarters / region agreements			X							
62	Clarify technical and administrative duties					X					
83	Determine which permits need specialist reviews within a watershed (in advance of the permit schedule) and coordinate reviews with specialists										X
DATA NEEDS (what we want from them... what we need to write permit)											
41	Create conservative defaults if adequate data is not available								X		
45	Send a letter to permittees requiring effluent temperature data [and possibly other water quality data if parameter is listed on 303(d) list] regardless of permit requirements.								X		
47	Tabulate the DMR data, possibly by an intern								X		
53	Develop statewide, multi-agency water quality database								X		
TRAINING (formal workshops, classes)											
23	Improve permit writers meetings			X							
33	Make training mandatory					X					
34	Have a training program for new employees and training plans for old employees within the work plans.					X					
36	Identify (core) required levels of expertise and assess against actual level to determine permit program training needs.					X					
37	Use mentoring of new employees					X					
40	Permit writers take EPA permit writers course every X number of years					X					
MONITORING / TRACKING (follow-up, data tracking, accountability)											
39	Evaluate effectiveness of training to determine that outcomes are achieved					X					
48	Include better permit tracking, effluent reuse information, biosolids, treatment type, plant capacity, loadings, etc, in SIS								X		
57	Establish a system to identify policy lapses and formalize consequences for not following policies (within workplans)								X		
58	Develop and use an effective performance management system (workplans)								X		
65	Divide permit writing process into trackable segments (mini-goals)							X			
PROGRAM ITEMS											
15	Review rules / standards and prioritize those that need modifications		X								
16	Develop a mediation process for controversial issues and potential lawsuits		X								
17	Develop a list of controversial issues and develop a management plan		X								
44A	Expedite finalizing the electronic DMR submittal									X	
44B	Create a grant program for supplying computers to permittees and make mandatory that they submit DMR information electronically									X	
60	Have dedicated permit writers						X				
63	Have dedicated cross-program complaint people.						X				

SUGGESTED SOLUTIONS		Problem Statement #									
		1	2	3	4	5	6	7	8	9	10
64	Train receptionists to properly direct calls. Update the information directory—make more robust and keep current						X				
81	Streamline MAO process to standardize steps and improve coordination with Enforcement										X
PERMIT ISSUANCE PROCESS MODIFICATIONS (+ / - steps)											
25	Send all copies of draft permits to HQ for review & comment for consistency. Establish HQ reviewer & process.			X							
35	Have more formalized specialist involvement of permit writing activities so that permit writers become more like project managers					X					
42	Create a checklist for applicant of required information that goes out with the application renewal packet.								X		
43	DEQ conducts a data needs review in advance of sending out the renewal applications								X		
50	Conduct technical review upon application receipt. Require timely applicant response								X		
54	Enforce the 90-day information request after ensuring that we have requested all information								X		
66	Use and follow a standardized process. Use WPIT process maps to define this process									X	
69	Formalize pre-application conferences to explain what's up									X	
70	Hold applicant conference only during applicant review period									X	
71	Have one pre-application conference for all watershed stakeholders									X	
73	Schedule permit issuance upon application response/acknowledgement									X	
75	Develop guidelines for which changes require second internal review – perhaps by delegating authority to permit writers									X	
76	Eliminate informal applicant reviews									X	
77	Eliminate specialist reviews by having the permit writer responsible for the entire permit										X
82	Clarify deadlines for reviews from specialists										X
POLICY AND GUIDANCE DOCUMENTS											
19	Develop a policy and guidance for issuing a permit when the TMDL is absent (not completed)		X								
22	Establish method for standard document development and checks to ensure they are being used			X							
26	Develop master list of current guidance and policies (linked to #38)				X						
27	Develop a list of necessary / needed guidance and a method for new policy development				X						
28	Have a policy manual that we and others could use that is a complete list of all specific guidance				X						
30	Update permit writers manual				X						
31	Specific guidance and tools needed				X						
38	Develop policies' checklist for permit writers					X					
46	Develop guidance for mixing zone studies / dilution studies for permittees that includes examples of mixing zone / dilution studies.								X		
49	Prepare guidance on where to get ambient data								X		
56	Develop and use policy manual								X		

SUGGESTED SOLUTIONS		Problem Statement #										
		1	2	3	4	5	6	7	8	9	10	
78	Have realistic, specific defensible, implementable guidance											X
OTHER PERMITTING TOOLS												
29	Create a library database of all permits and fact sheets (evaluation reports) <i>(links with # 72 and 79)</i>				X							
67	Develop standardized language for similar situations (e.g. for permit evaluations)										X	
72	Develop standardized responses to common questions; FAQ's										X	
79	Have standard permit language for similar situations. Involve the specialists.											X
80	Develop a check list that defines the type and number of reviewers needed											X
55	Write permit process quality checks into work plans DELETED								X			

Appendix 7

Water Quality Program Current Initiatives

ACTIVITY	STATUS (as of Feb. 2001)	LEAD STAFF CONTACT
DATA MANAGEMENT		
Source Information System (SIS)	DEQ database upgrade and modernization in progress	Barbara Burton and Business Systems Development (BSD)
Permit Compliance System (PCS)	EPA database transitioning to DEQ	Mike Downs
DMS (Discharge Monitoring System)/WADERS (Wastewater Discharge Electronic Reporting System)	DMR electronic reporting project, system being developed	Gail Harradine (BSD) and Judy Johndohl
Laboratory Archive Storage and Retrieval (LASAR)	DEQ's laboratory WQ database under reconstruction	Jeff Jones (Lab)
WATERSHEDS AND TMDLs		
Watershed approach to permitting	Permit issuance plan drafted, implementation in progress	Mike Korten Hof and regional managers
TMDL development	In progress - completion targeted for 2007	Dick Pederson
303(d) report - (list of water quality limited streams)	Due 2002	Mark Charles
WATER QUALITY PROGRAMS		
Groundwater program	Rule revisions in progress	Mark Charles
Underground Injection Control (UIC) program	Program developed - rule development and implementation in progress	Ed Woods, Barbara Priest, and Karla Urbanowicz
Biosolids program	Negotiating program delegation from EPA	Ed Woods
Effluent Trading	Resource guidance manual developed, revisions pending	Sonja Biorn-Hansen
PERMIT TOOLS		
Permit Wizard	Electronic permit template for writing permits and evaluation reports being developed	Mark Hamlin and Mike Downs
Permit Writer's Manual	Revisions/updates on-going	Judy Johndohl, Ranei Nomura, James Cowan, and Sonja Biorn-Hansen
Permit application forms	Revising and updating	Ranei Nomura
RULES, POLICY & GUIDANCE		
Triennial review of water quality standards	Policy Advisory Committee is meeting. Target date for rule adoption is fall of 2002	Mark Charles and Debra Sturdevant
Public involvement rules	Rules drafted, amended, and adopted Sept. 2000. Implementation in progress	Susan Greco (NWR) and Judy Johndohl
Mixing zone policy	In progress	Steve Schnurbusch
Temperature policy	In progress	Mike Korten Hof
Effluent reuse policy	In progress	Ed Woods
Antidegradation policy	In progress	Martin Fitzpatrick
Sanitary sewer overflows policy	In progress	Judy Johndohl
Reasonable potential analysis policy	Needs updating	Not yet determined
Workload analysis	Verify initial work effort estimate in WQ permitting. In progress	Sonja Biorn-Hansen