Implementation Plan Workbook

NPDES Permitting Program Review

Stakeholder Workshop

October 28, 2016

Registration: 9:45 a.m.
10:000a.m. to 2:30 p.m.

DEQ Headquarters
811 SW 6th Avenue
Portland, OR 97204

Prepared by

MWH Americas [now a part of Stantec]
in collaboration with
Larry Walker Associates

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Stakeholder Workshop 3— Implementation Plan
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DEQ Headquarters, 811 SW 6th Avenue, Portland, OR 97204

State of Oregon Department of Environmental Quality

During this workshop the Consultants will share the draft Implementation Plan Actions, the overall implementation timeline and the associated Change Management methods. The actions focus on the steps needed to reduce permit backlog. Stakeholder input from this workshop will be used to prioritize and refine the activities incorporated into final Implementation Plan.

Meeting Goals

- Recap and discuss the draft Implementation Plan actions and change management considerations
- Learn Stakeholder Perspectives and Priorities for Implementation
- Initiate discussion and timing and continued stakeholder involvement.

Discussion Items

Time	Item	Lead
9:45 A.M.	Registration • Name tags, handouts	Staff *MWH (now part of Stantec)*
10:00	Greetings, Opening Comments, and Agenda Review • Introductions • Overview of Agenda & Meeting Goals • Ground rules	Keith Anderson, *DEQ* Lisa Beutler, *MWH, Facilitator*
10:05	Project Overview (Pg. 1) • Recap of Work to Date • Role of the Implementation Plan and this Workshop • Next Steps for the Implementation Plant	Lisa Beutler, Tom Grovhoug, *Larry Walker Associates,*
10:15	Implementation Strategy (Pg. 2) • Critical Staging • Timing	Lisa Beutler, Tom Grovhoug All
10:30	Staffing and Workload (Pg. 5) & Quality and Efficiency (Pg. 11) • Actions & Change Strategies	All

Time	Item	Lead
11:20	Community Capacity (Pg. 18) & Alignment (Pg. 24) • Actions & Change Strategies	All
Noon	Working Lunch - On-site lunch available for $10	Please RSVP or bring your own lunch
12:15 PM	Funding (Pg. 28) • Actions & Change Strategies	All
12:50	Leadership (Pg. 32) & Progress Reporting (Pg. 35) • Actions & Change Strategies	All
1:30	Imperative to Act (Pg. 35) & Implementation Flow Charts (Pg.37) • *Full group discussion*	All
2:10	Additional Implementation Suggestions and Recommendations for Next Steps • *Full group discussion*	All
2:25	Closing Comments	*DEQ*, Lisa Beutler & Tom Grovhoug, All
2:30	Adjourn	

GROUND RULES

There will be many opportunities to engage group discussion. Participants are asked to subscribe to several key agreements to allow for productive outcomes

USE COMMON CONVERSATIONAL COURTESY - *Don't interrupt; use appropriate language, no third party discussions, etc.*

ALL IDEAS AND POINTS OF VIEW HAVE VALUE - *You may hear something you do not agree with or you think is "silly" or "wrong." Please remember that the purpose of the forum is to share ideas. All ideas have value in this setting. The goal is to achieve understanding. Simply listen, you do not have to agree, defend or advocate.*

HONOR TIME - *We have an ambitious agenda, in order to meet our goals, it will be important to follow the time guidelines given by the facilitator.*

HUMOR IS WELCOME - *BUT humor should never be at someone else's expense.*

BE COMFORTABLE - Please feel help yourself to refreshments or take personal breaks. If you have *other needs, please let a facilitator know.*

ELECTRONICS COURTESY - *Please turn cell phones, or any other communication item with an on/off switch to "silent." If you do not believe you will be able to participate fully, please discuss your situation with one of the facilitators.*

AVOID EDITORIALS - *It will be tempting to analyze the motives of others or offer editorial comments. Please talk about YOUR ideas and thoughts.*

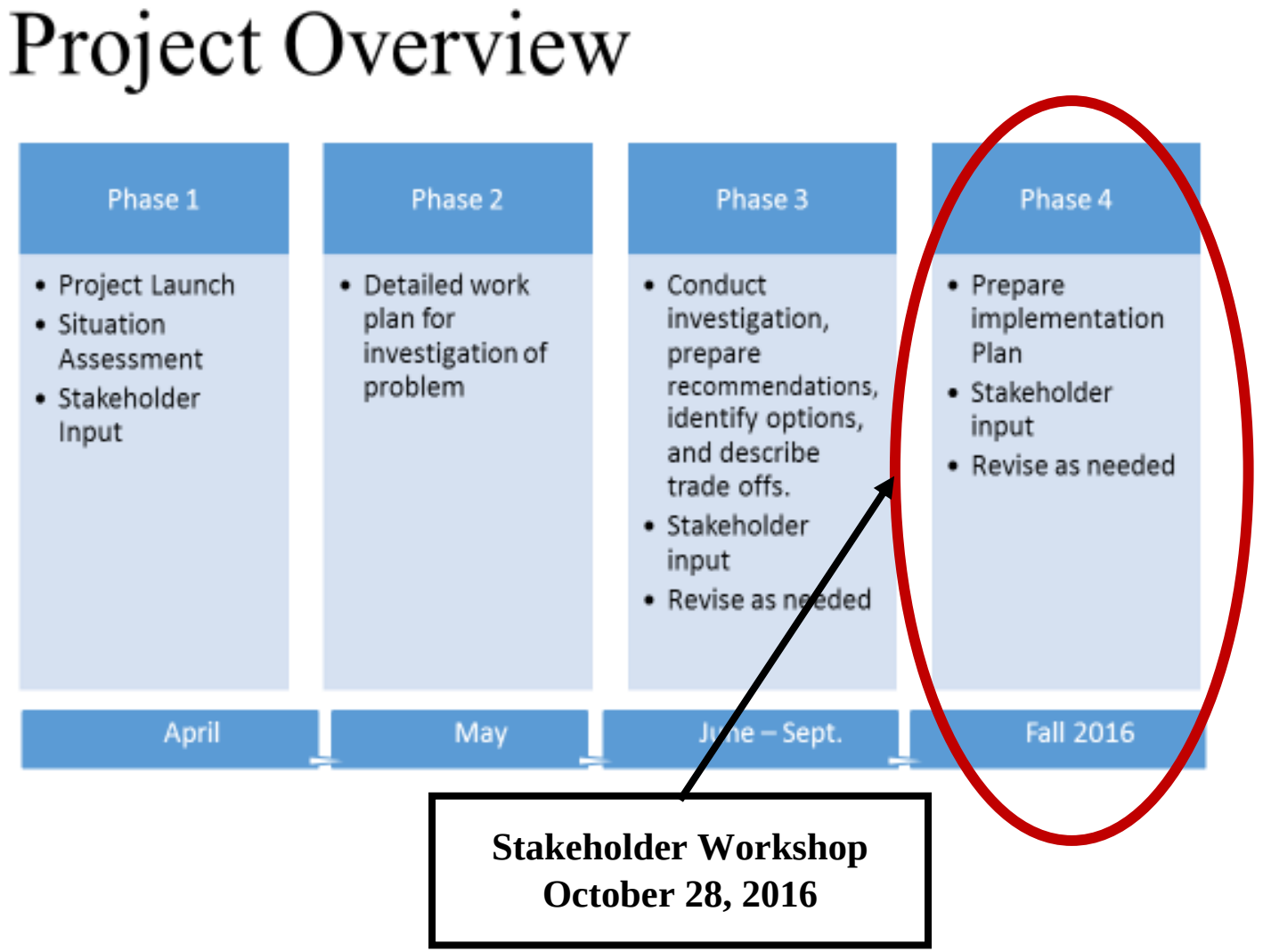
List of Acronyms and Terms

ACRONYM	TERM
BRC	Blue Ribbon Committee
Consultant	MWH *(now a part of Stantec)* and Sub consultant Larry Walker Associates
CWA	United States Clean Water Act
DEQ	Oregon Department of Environmental Quality
DMR	Discharge Monitoring Report
EDMS	Electronic Data Management System
EPA	United States Environmental Protection Agency
FTEs	Full time equivalent employees
KPM	Key Performance Measure
IMD	Internal Management Directive
NOI	Notice of Intent
NPDES	National Pollutant Discharge Elimination System
NPDES Permits	Oregon's 360 individual municipal and industrial NPDES wastewater permits.
OAWU	Oregon Association of Water Utilities
RACI Chart	Responsible, Accountable, Consulted, Informed Chart
RPA	Reasonable Potential Analysis
SRF	State Revolving Fund
TMDL	Total Maximum Daily Load
TBEL(s)	Technology-Based Effluent Limits
WQS	Water Quality Standard
WQBEL(s)	Water Quality Based Effluent Limits
MOA	Memorandum of Agreement
PWM	Permit Writers' Manual
UAA	Use Attainability Analysis

This National Pollutant Discharge Elimination System (NPDES) Permitting Program Review Workshop is being conducted in fulfilment of Contract DASPS 1589-16, Oregon Department of Environmental Quality (DEQ), Task 4. The purpose of this task is to evaluate and utilize research and stakeholder feedback initiated during Tasks 1-3, to review the program and develop improvements specific to **360 individual municipal and industrial NPDES wastewater permits**. This includes identifying factors that contribute to:

- Bottlenecks and roadblocks
- Permit compliance
- Permit issuance planning
- Permit quality assurance
- Resource and workload allocation
- Staff skills and training
- Achievement of metrics and goals for the program

Project Overview



Critical Staging & Timing

Photo Credit Isabella Conservation District, Mt. Pleasant, MI

A lumberjack was trying to cut down a tree and was progressively laboring in vain, swearing and cursing with each progressively difficult stroke.

After watching for a short while, a passing hiker suggested the lumberjack try sharpening the saw.

The irritated lumberjack promptly responded - there was too much to do to stop and take time for that.

From Stephen Covey, 7 Habits of Highly Effective People

The National Pollutant Discharge Elimination System (NPDES) Permitting Program Review Backlog Reduction Implementation Plan includes a series of activities. In addition to planning for implementation of individual recommendations, an overall planning approach is offered that establishes conjoined timeframes for the various activities. The overall plan perspective is holistic, and comprised of multiple elements that must be implemented in an integrated manner, over a five-year time period, to create an effective, sustainable NPDES permit renewal system. Past change efforts have failed, in part, because they have not addressed the full scope of the factors impacting the NPDES program. This implementation plan considers the timing and sequencing of necessary actions.

PLANNING OVERVIEW

CHANGE MANAGEMENT	ACTION PLANNING	ROLES & RESPONSIBILITIES
• What the change is • Impact on the individual/group • Method to accomplish • Benefit or Risks • Others involved • Options for Improvement	• Who • What • Where • When • Why • How • Measures of Success	• Responsible • Accountable • Consulted • Informed

Table 1. Implementation Planning Framework.

Change Strategy

Change is an alteration or disruption in the status quo. Disruption is the operative word. Change can be positive or negative. In organizations with multiple change efforts and/or experiencing

extensive disruption, it is normal for the organization to become change resistant. Government agencies can be particularly susceptible to this as they strive to stably manage multiple (sometimes conflicting) prescribed missions, even as upper leadership, through the electoral process, is designed to periodically change.

This resistance is even more understandable when multiple recent studies indicate that the majority of change management efforts fail.[1] The seemingly negative perception of the chance for successful change for the NPDES Permitting Program Review effort, described by stakeholders in previous project phases as being from 0-80% with an average of less than 50%, were in line with what is now a generally expected failure rate for all change efforts.

Given the poor outcomes, many have questioned the validity of change management tools. In *Change Management Needs to Change*, a Harvard Business Review article (April 16, 2013), Ron Ashkenas writes, "While it might be plausible to conclude that we should rethink the basics, let me suggest an alternative explanation: The content of change management methods is reasonably correct, but the managerial capacity to implement it has been woefully underdeveloped. In fact, instead of strengthening managers' ability to manage change, we've instead allowed managers to outsource change management to HR specialists and consultants instead of taking accountability themselves — an approach that often doesn't work."

Critical to this NPDES permit change effort at DEQ is the understanding that DEQ leadership is unable to authentically guarantee success beyond the initial milestones that will be fully under its control. Various long term efforts to achieve successful change remain at active risk in the face of new policies and priorities, changing stakeholder perceptions, or equally pressing goals of other DEQ programs.

As Donald P. Moynihan, a professor at the La Follette School of Public Affairs, University of Wisconsin-Madison writes in *Performance Principles for Regulators*,[2] "The potential for multiple and conflicting goals is furthered in public settings where regulators must respond to more than one political master, and these masters may have differing preferences on what constitutes the appropriate cost, nature, and quality of a service."

In the face of these significant barriers, clear communication is a key change management strategy. For each audience and each major change, messages must be developed that do the following:

1. Describe what the actual change is
2. Articulate how the change will directly impact the category of stakeholder involved
3. Outline the methods that will be used to implement the change
4. Define the costs and benefits of changing and not changing, and what future conditions will be if change does not occur
5. Consider unintended consequences and others that may also be impacted by the same change

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[1] Multiple sources. For more information, readers may search the term "change management failure statistics"
[2] Paper prepared for the Penn Program on Regulation's Best-in-Class Regulator Initiative, June 2015. Accessed September 26, 2016 at https://www.law.upenn.edu/live/files/4722-moynihan-ppr-bicregulatordiscussionpaper-06.

6. Offer opportunities for input and to improve the approach

Initial messages related to the launch of the NPDES permit backlog reduction effort and anticipated issues have been included in this plan. However, new messaging will be required as the implementation plan elements become more defined and the magnitude of change is better understood. It will be crucial for the DEQ project team to continually evaluate change management factors.

Planning Topics

This Plan revolves around seven basic recommendation (R) areas.

R1. Staffing - Workload
R2. Quality and Efficiency
R3. Community Capacity
R4. Alignment
R5. Funding
R6. Leadership
R7. Progress Reporting

The recommendation areas individually offer steps to reduce permit backlog but none alone are sufficient to sustainably address the issue. It is intended that the actions contained in the recommendations be implemented in an integrated fashion through a staged workplan.

The staffing and workload section discusses the appropriate NPDES workload and the number of personnel necessary to accomplish it. The quality and efficiency section outlines the current deficiencies in the permit writing ***process*** and offers actions and methods to overcome them. The sections on community capacity and alignment consider the best way to address the backlog in the context of implementing the CWA in Oregon. The funding section offers ideas on addressing known issues with resourcing permit preparation and compliance. The leadership topics consider organizational culture and the discussion on progress reporting emphasizes the importance of creating easily tracked markers of performance.

Implemented in total the Implementation Plan actions will reduce backlog and lead to higher quality permits.

Staged Implementation

As provided for in the Implementation Flowcharts (see page 37) it is anticipated that implementation activities will be integrated and accomplished at the end of a five-year cycle. While this may seem counter-intuitive to the goal of aggressively reducing backlog, the use of a five-year planning cycle coincides with the length of five-year permits and allows staff and

permittees to accurately project and plan for workload. By creating even, planned for workload, the likelihood of new backlog being added is reduced.

STAFFING – WORKLOAD (R1)

Recommendation Area 1 – Staffing and Workload (R1)

Background:

- By design, NPDES permit specialists at DEQ perform a wide range of duties related to the development, issuance and renewal of NPDES permits.
- With DEQ's current portfolio of 350-360 permits, on average, 70+ such NPDES permits must be renewed every year to avoid accumulation in backlog.
- Uneven permit writer skill sets were identified as a contributing factor to backlog.

Implementation planning related staffing and workload is comprised of three sections:

- R1.1. Surge Strategy
- R1.2 Workload Assessment & Planning
- R1.3 Staffing Proficiency

R1.1. Personnel Surge

Provide an immediate short-term surge of additional staff resources to the permit writing process. This includes a series of activities that will realign current personnel and utilize external resources to achieve a short-term gain on the problem.

ACTIONS	COMMENTS
Action 1.1 Realign work tasks so that more personnel hours are spent working directly on permit writing tasks. Some of the other functions now assigned to NPDES permit writers will be re-assigned to other staff, including compliance functions (e.g. preparation of inspection reports, enforcement proceedings), complaint response, writing non-NPDES permits, plan review and discharge monitoring report (DMR) review. The task of providing technical assistance to permittees will managed in a different manner. Process improvement, and training and development will be considered a permit writer task.	
Action 1.2: Add temporary additional full-time equivalent (FTE) personnel resources to permit writing to result in more than the approximately six FTE resources now assigned. Additional limited-term resources will be essential to address Oregon's backlog problem. Options include internal reassignment of personnel, contract services, Intergovernmental Personnel Act (IPA) assignments in coordination with USEPA, or a combination of the above.	Note: Discuss limitations Note: Discuss this staffing profile

Action 1.3: Add temporary external resources with enhanced skills to the permit writing pool. In the short term, institute a surge strategy that includes contracting with external resources to work with the DEQ NPDES permit writers group to reduce the immediate NPDES permit backlog. Consideration should be given to (1) the use of Intergovernmental Personnel Act (IPA) assignments to add experienced USEPA personnel to support the near term effort and (2) the use of expert outside contractors skilled in NPDES permit preparation and program development. Some supplemental support may be provided via realignment of existing DEQ resources; however, given the need for additional expertise in preparing NPDES permits, it is should not be relied upon to provide the needed immediate relief.	

R1.1 - CHANGE STRATEGY		**Comments**
What the change is	• Duties will be realigned for a subset of the current permit writing staff to exclusively focus on permit renewal duties • Additional personnel will be assigned to backfill activities realigned from those transitioning to full time permit writing or to supplement the full time permit writers.	
How the change will affect permit writers and stakeholders	• For those assigned to focused permit renewal duties - some tasks that they previously conducted, such as enforcement activities or complaint response will be reassigned to others. • For those staff not assigned to the exclusive permit renewal functions - there will be a handoff of some of the current permit workload and an acceptance of duties the focused permit writers are no longer doing. • Some work may be newly assigned or reassigned to level workload among full time permit writers. • New staff, supplemented by contractors may join the group • Permittees may work with different individuals than they have before.	
Methods used to implement the change	• Senior permit writers, in conjunction with management staff, will create a list of essential duties for realignment to prioritize permit renewals • Supervisors and management, in consultation with the permit writers, will evaluate the workforce to determine the most realistic	

R1.1 - CHANGE STRATEGY		Comments
	reassignment options and determine where augmentation may be needed • Assignments will be made with specific future dates at which the effort will be reevaluated • An agency wide assessment, in collaboration with all DEQ management and HR professionals will determine which personnel maybe suitable temporary assignment and initiate appropriate personnel processes to accommodate this. • Supervisors and management, in consultation with the permit writers, will evaluate the workforce to determine the most realistic reassignment options and determine where augmentation may be needed • Assignments will be made with specific future dates at which the effort will be reevaluated	
Benefit/ Costs of not Changing	Benefits: • Focused work efforts have been demonstrated to be more efficient. The process of the realignment will improve the efficiency of existing permit writers. • Focused effort will allow for a better assessment of workload necessary to reduce the current backlog. • This will also enable the full permit portfolio to be addressed. Due to inadequate resources, permit planning in recent years has not allowed for the totality of the backlog plus renewals, plus new permits to assessed and planned for in a current year. • Increased pool of trained personnel to assist with backlog reduction. This same personnel asset will also be helpful in managing known succession issues as many permit writing staff begin to retire. • Job enrichment Costs of Not Changing: • Increasing backlog • Failure to meet current commitments • Continuing inefficiencies	
Unintended Consequences	• This approach will sub optimize other areas of the organization as resources are redirected. It is necessary to add resources to offset those impacts.	

R1.1 - CHANGE STRATEGY		Comments
	• Permit writers have existing relationships with permittees that will be disrupted with a change in assignments • Permit writers may have preferences that do not match those anticipated by the realignment • Due to regional context, some effort to manage variation among the regions may be necessary • Potential downtime related hiring outside consultants is that DEQ staff would first have to train them on Oregon specific policies and rules.	
Offer opportunities for input and to improve the approach	• A plan-do-check-act cycle will be built into the implementation steps. • All permit writers and stakeholders will be encouraged to offer ideas to improve the implementation of this activity`	

R1.2 Workload Assessment & Planning

Quantify the amount of staff time that needs to be devoted solely to NPDES permit renewals in order to properly assign resources to the NPDES permit renewal effort. Gathering workload information will be essential to more accurate and appropriate allocation of resources and management of the NPDES program.

ACTIONS	COMMENTS
A1.4: Determine the number of NPDES FTEs needed to eliminate the NPDES permit backlog in Oregon over a 5-year time horizon. This should be achieved through use of workload assessments and the EPA workload model, combined with assumptions and estimates regarding the number of permits to be renewed per permit writer per year.	Note: This links to other actions that evaluate the time needed to write a permit.
A1.5. Analyze and develop plans to place the appropriate personnel to fill the required FTE positions (including those available through the Surge Strategy)	

R1.2 - CHANGE STRATEGY		Comments
What the change is	Staffing and permit issuance goals will be based on known projected workload over a 5-year timeframe.	
How the change will affect permit writers and stakeholders	Some workload will be realigned. Priorities will be based on a 5-year work plan.	
	Existing permit activities may be disrupted. Permittees may be required to gather new or additional information to facilitate permit issuance.	

R1.2 - CHANGE STRATEGY		Comments
Methods used to implement the change	This activity is primarily numerical. It is directly linked with the permit planning function and assigns resources based on staffing formulas.	
Benefit/ Costs of not Changing	Stabilizing workload will increase accountability and support better planning for both DEQ and permittees.	
Unintended Consequences	A process to reprioritize the workplan will be needed as events may drive new requirements or DEQ and stakeholders are required to respond to urgent, unexpected issues.	
Offer opportunities for input and to improve the approach	The workplan should be prepared with stakeholder input and updated annually.	

R1.3 Staffing Proficiency

The focus of this action area is to consider training and personnel requirements rather than the permit processing functions.

ACTIONS	COMMENTS
A1.6: Provide sufficient training and guidance to ensure proficiency and skills building. Use the experts assigned to the surge strategy to work with staff in development/refinement of permitting guidance and tools, training program, process improvements, and refinement of FTE estimates.	Note: This action item is paired with actions identified in the recommendation area R2.3.
A1.7: Institute post permit issuance reviews to check for deployment of knowledge and update procedures and/or provide remedial training to address gaps in expected versus delivered outcomes.	

R1.3 CHANGE STRATEGY		Comments
What the change is	DEQ permit writers will receive and utilize standardized training, tools and procedures.	
How the change will affect permit writers and stakeholders	Expectations and training requirements for permit writers will increase.	
	Some permit writers may need to begin using different procedures and tools than they have utilized in the past.	
	The permit issuance process will become more predictive and include a higher quality assurance component. That said, some permittees may perceive the move to standardization training as reducing the flexibility of a permit writer.	

R1.3 CHANGE STRATEGY		Comments
Methods used to implement the change	• Senior permit writers supported by EPA and contract experts will review existing materials and identify gaps, best practices and areas where a variation process will be required. • Relevant information will be compiled and added to create a foundational knowledge base. • Permit writing, and DEQ training and IT staff will determine the best platform for maintenance and updating of information as well as training deployment. • DEQ management and training personnel will plan for and ensure ongoing training, including setting classification standards for professional development.	
Benefit/ Costs of not Changing	A variety of stakeholders identified deficiencies in permit writer skills. Some permit writers also indicated they did not believe that had sufficient training to prepare some of the complex permits they were asked to work on. In these cases, permit quality is affected and may result in delays, rework and addition costs to the permit. A lack of standardized processes also makes it difficult to accurately predict work and create accountability for permit issuance. This change addresses the identified deficiencies.	
	Investing in this type of personnel development is known to improve job satisfaction and organizational commitment. Training also supports change management goals.	
	Given the large number of staff eligible for retirement, a training and development process will be essential to maintain a sufficiency skilled workforce to execute the 5-year workplan.	
Unintended Consequences	• An exemption process will be required for when variation from standard procedures is needed. • Training material, policy guidance and standardized processes and tools must have a continuous refresh cycle. This includes a process for testing for knowledge deployment. • Adds additional stressors on management structures.	
Offer opportunities for input and	Stakeholders and permit writers will be offered an opportunity to review and make improvement suggestions related to processes, tools	

R1.3 CHANGE STRATEGY		Comments
to improve the approach		

QUALITY AND EFFICIENCY (R2)

Recommendation Area 2 – Quality and Efficiency (R2)

Outdated Data Delivery Systems

DEQ's current delivery systems are outdated. Information from different systems, which should be integrated, is not. Permit writers do not have access to critical parts of the systems and must query organizational entities outside of their chain of command to gather the essential permit information.

NPDES Permitting Processes

Despite the other major problems that hamper DEQ's ability to renew NPDES's on time, process inefficiencies must also be remedied. Process improvement steps must address serious problems regarding:

- Delivery of essential data to NPDES permit writers
- The process to ensure consistent use, updated, user-friendly training materials and improvements to the permitting process itself
- The need for updated NPDES permitting training tools and guidance manuals

R2.1. Data Delivery Systems

The preparation of NPDES permit renewals in a timely matter is entirely dependent on the availability of the right data to the permit writer. In order to prepare a renewed NPDES permit on the EPA mandated five-year cycle, essential data are required. For example, essential data needs for a typical NPDES permit renewal include:

- Effluent – data representative of the current effluent collected over the last 3 to 4 years. The data includes effluent flows and water quality data for conventional constituents, toxics, hardness, pH, nutrients and other constituents covered by water quality standards and or 303(d) lists applicable to the receiving water for the discharge
- Ambient receiving water – data representative of the receiving water upstream of the discharge point collected over a period of years. Data includes streamflow and water quality data of relevance to the NPDES permitting process, including temperature, hardness, pH, and all constituents of concern as established by the previous NPDES permit, water quality standards, TMDL wasteload allocations (WLAs), or the 303(d) list for the water in question.

ACTIONS	COMMENTS
A2.1. Identify essential data needs and develop a plan to gather and deliver that data as part of the routine NPDES permitting process.	

ACTIONS	COMMENTS
Include the following: monitoring locations, data quality requirements, analytical methods, method detection and reporting limits, sampling and handling protocols, and other parameters to ensure delivery of high quality data. **Work with the regulated community to establish responsibilities and processes to provide essential effluent and receiving water data with permit renewal applications.**	
A2.2. Evaluate pool of administratively extended permits. Identify those that have adequate data, are not hindered by other issues and could otherwise proceed through the renewal process. Prioritize the permits on this list to be renewed in the next two years.	
A2.3. Immediately embark on development of near term "bridging" effort to establish a temporary system of data management and delivery to the NPDES permit renewal effort. Establish team comprised of DEQ IT staff, business analysts, and NPDES program experts (permit writers and managers) to develop the temporary bridging system. Where possible, incorporate work being done to deliver an electronic data reporting system that meets the requirements of the USEPA Electronic Data Reporting Rule. **Work closely with the regulated community in the roll out and testing of the electronic data reporting system.**	
A2.4. Ensure that NPDES permit data and electronic data reporting needs are effectively addressed in the new system. Utilize the team above to interface with the larger DEQ EDMS effort to ensure that NPDES permit data and electronic data reporting needs are effectively addressed in the new system. Ensure adequate participation of this team in the long-term EDMS process, which is anticipated to go on for at least five years.	
A2.5. As part on the long term DEQ-wide data management system development, establish goal that both program and environmental data will be publicly available for the purposes of transparency and to track progress toward attainment of program goals and water quality standards.	

R2.1 CHANGE STRATEGY		COMMENTS
What the change is	Development and implementation of two new NPDES data related systems (near-term and long-term).	
	Imposition of new monitoring requirements on the regulated community to provide essential data that is not currently available.	

R2.1 CHANGE STRATEGY		COMMENTS
How the change will affect permit writers	DEQ focus on data delivery will assist permit writers in their work on NPDES renewals. Electronic data reporting and bridging effort will create an improved system over the next five plus years. Long term solution will create stable system to support permit renewal function.	
How the change will affect Permittees	New processes and methods for providing data will be required.	
Methods used to implement the change	• Evaluate current relevant NPDES data set • Initiate a parallel short-term and long-term data management system • Work with permittees to identify data needs and optimum input approaches	
Benefit/ Costs of not Changing	Removal of a bottlenecks to permit renewals, and increased efficiency and consistency, will create greater predictability in a key portion of the permitting process. This will ultimately save costs for the regulated community by implementing a more dependable data collection and management system.	
	Continued data bottlenecks will impact DEQ's ability to renew NPDES permits on time, and increase the costs of new data acquisition by permittees necessitated by delays in receiving permits.	
Unintended Consequences	Properly developing system specifications will divert top NPDES experts away from permit renewals to support the design of short and long term data management and delivery systems. Time required to study data sufficiency for the current list of backlogged permits will also divert some resources from other time critical tasks.	
Opportunities for input and to improve the approach	Check points will be provided during the process development for NPDES permit writers and DEQ IT staff to evaluate and improve the approach.	

R2.2. Process Mapping

Upgraded process maps are needed to assess and document the NPDES permit renewal process and to better understand the time needed to renew permits. This information will assist future permit issuance planning and workload assessment efforts.

ACTIONS	COMMENTS
A2.6. Form a small team of several NPDES permit experts (permit writers and managers) who are charged with the task of reviewing and updating the currently available process maps. Prepare modified process maps and time estimates for steps in the permit renewal process. Request EPA collaboration with the effort.	
A2.7. Produce NPDES permit process maps that describe an efficient and sustainable NPDES permit renewal process and the time requirements for execution of the process.	
A2.8. Develop rollout for modified permit process maps to NPDES permit staff. Conduct meetings to describe process and to obtain feedback. Modify process maps as deemed appropriate by NPDES team and NPDES management. Formalize new process as a consistent approach to be utilized by DEQ.	
A2.9. Identify a process for process variation as may be dictated by local needs.	

R2.2 CHANGE STRATEGY		COMMENTS
What the change is	NPDES renewal process modifications/clarifications to create a more standardized statewide process.	
How the change will affect permit writers & permittees	Short term disruption in regional or individual approaches to permit renewal process as adjustments are made to modified process. Longer term, this will create a more consistent approach to and understanding of the process, within DEQ and externally.	
Methods used to implement the change	DEQ management and the identified permit writer project team will: • Review existing the process maps and identify necessary improvements • Prepare updated process maps • Construct a variation process • Provide training and change management for adoption of the new process maps	
Benefit/ Costs of not Changing	NPDES permitting consistency and efficiencies will promote more rapid training and development of new permit writers.	
	No change will continue current inefficiencies and inconsistencies in the NPDES permit program, resulting in greater difficulty in achieving renewal goals and metrics.	

R2.2 CHANGE STRATEGY		COMMENTS
Unintended Consequences	Diversion of resources will reduce the number of personnel hours available for permit writing. Some accommodations will be needed for variation as dictated by local conditions.	
Opportunities for input and to improve the approach	Staff and stakeholders will be invited to comment on and improve the process maps and variation process.	

R2.3. Permit Tools and Guidance

A series of problems associated with NPDES permitting tools have been identified.

ACTIONS	COMMENTS
A2.9. In the near term, assign a select group of Senior permit writers (from each region and headquarters) to edit the current permit template/permit evaluation report (fact sheet) and create a new master, with emphasis on creating a more simplified, user friendly document, with appropriate linkages to current tools and internal management directives (IMDs).	
A2.10. In the interim, the group of Senior permit writers will prioritize IMDs and spreadsheet tools to be modified. Priorities should be based on need for change in existing documents and importance to permits anticipated to be renewed in next two years. Edit/modify selected IMDs and tools and modify master template, as appropriate.	
A2.11. In the long term, solicit input from external NPDES resources in review of modified templates, tools and IMDs and in identification of new tools based on experience with USEPA and other states guidance documents. Utilize external resources as necessary and appropriate to modify documents.	
A2.12. Package documents into permit writer's guidance and training manual including refresh policies.	
A2.13. Establish pre and post training metrics.	
A2.14. Conduct post permit issuance reviews to determine deployment, utility and effectiveness of tools. Make adjustments as needed. Re-deploy updates and retrain as needed.	

R2.3 CHANGE STRATEGY		COMMENTS
What the change is	Modified permit templates, spreadsheet tools and guidance will be developed. Some NPDES permit processes will changed or clarified.	

R2.3 CHANGE STRATEGY		COMMENTS
How the change will affect permit writers & permittees	Short term disruption in regional or individual approaches to permit renewal process as adjustments are made to modified templates, tools and process. Long term utilization of a more consistent approach to and understanding of the process, within DEQ and externally.	
Methods used to implement the change	• Assign permit writer team • Prioritize items to be reviewed over 2-year timeframe. • Utilize guidance tools from other resources • Package documents into manuals • Test for knowledge and utilization	
Benefit/ Costs of not Changing	A more consistent NPDES permitting approach through use of improved templates, tools and guidance will create efficiencies and promote more rapid training and development of new permit writers.	
	Cost of not changing is continuation of current inefficiencies and inconsistencies in the NPDES permit program, resulting in greater difficulty in achieving renewal goals and metrics. Also includes continued difficulty in training replacements for experienced permit staff who are approaching retirement age.	
Unintended Consequences	Diversion of top NPDES experts away from permit renewals to support the development of the revised templates, tools, guidance and IMDs; Diversion of NPDES resources into review and assessment of revised documents. Internal and external disagreements regarding the identified approaches.	
Opportunities for input and to improve the approach	NPDES staff will provide input regarding the modified NPDES permit templates, tools, guidance and IMDs prior to implementation.	

R2.4. Five-Year Workplan

The NPDES permit process is based on a five-year cycle (See Appendix C: NPDES Basics for more information on NPDES requirements). The number of permits and their renewal dates are known but not collated or managed as it relates to workload. Thus workload that is predictable is not managed as predictable. The backlog situation has only exacerbated this situation as the age of a permit largely correlates with complexity in issuing its renewal. This means the older a permit is, the more likely it is that it will take more time to reissue it. There are a variety of

reasons for this including the original factor that caused it to not be renewed on time as well as the need for new and additional data on conditions as the original information becomes outdated.

In recent years DEQ has prepared annual permit issuance plans. The following actions amplify this effort by incorporating a larger understanding of the existing workload and extending the planning timeframe to 5 years. These activities are also associated with and integrated with those in Recommendation area 3, item R3.1 Community Capacity Evaluation. They are different in that the focus of this activity is permit workload planning and the focus of R3.1 is on the capacity of the community to comply with current and future standards.

<table>
<tr><th>ACTIONS</th><th>COMMENTS</th></tr>
<tr><td>A2.15 In coordination with R3.1 activities, prepare an inventory of all permits by:
<table>
<tr><th>All Permits</th><th>Administratively Extended Permits</th></tr>
<tr><td>Permit reissue date
Reissue history
Known issues indicating a need for priority approval
Known potential issues in renewal
Estimated degree of difficulty/complexity as related to permit issuance
Current monitoring and data
Expected monitoring and data acquisition requirements for reissuance</td><td>Cause of issuance delay – detailed (include legal, policy or other considerations)
Current data adequacy and required effort and time to achieve adequacy if it is not sufficient for reissuance</td></tr>
</table></td><td></td></tr>
<tr><td>A2.16 Develop a detailed draft permit issuance plan for current year permits. Prioritize issuance of all permits ready for renewal to prevent backlog. Where needed, work with permittees to identify remedial actions to be taken to prevent substantial aging of a current year permit that may need administratively extended reissue dates.</td><td></td></tr>
<tr><td>A2.17 Develop a draft permit issuance plan for 100% of backlogged permits. In conjunction with permittees establish realistic timelines to acquire necessary data, and/or preparation compliance schedules or variances. Prioritize re-issuance for those administratively extended permits that can be renewed in the current year.</td><td></td></tr>
<tr><td>A2.18 Evaluate remaining permits to estimate 5-year workload, including a discussion with permittees of data monitoring requirements, and the potential necessity for compliance schedules or variances. Also identify future priority for permit reissuance associated with changes in the permittee infrastructure or operations.</td><td></td></tr>
<tr><td>A2.19 Issue 5-year work plan. Use predicted workload to augment calculations in other recommendations and actions included in this Implementation Plan.</td><td></td></tr>
</table>

R2.4 CHANGE STRATEGY		COMMENTS
What the change is	5-year work plans will guide permit issuance	
How the change will affect permit writers	Workload maybe organized differently, with different priorities than had been in place previously.	
How the change will affect permittees	Will require support from permittees in the development of the foundational permit information.	
Methods used to implement the change	• Create inventory • Create individual issuance plans for permits to be reissued in the near term • Issue high level 5-year plan • Incorporate plan into other backlog reduction efforts	•
Benefit/ Costs of not Changing	In the absence of the inventory and permit planning, predictable conflicts and inefficient responses to NPDES permit development will continue to hamper the renewal of NPDES permits. At the same time, solid workload planning will increase accountability and permit improved workload planning.	
Unintended Consequences	Resources devoted to implementation of these recommendations may impact the ability to implement other recommended actions. Some permit priorities may be shifted and create unintended consequences for permittees.	
Opportunities for input and to improve the approach	The recommended approach needs to be a collaborative with regulated community. Opportunities for improvements and adjustments to the approach are anticipated and should be incorporated into the collaborative effort.	

COMMUNITY CAPACITY (R3)

Recommendation Area 3: Community Capacity (R3)

DEQ staff, EPA staff, NGO representatives and the regulated community have all described the inability of some permittees to meet anticipated new limitations in NPDES permits as widespread and a future impediment to the renewal of NPDES permits. Numerous respondents reported that DEQ's NPDES permitting staff is reluctant to write permits that will drive major expenditures.

The need to understand and address current and future resource needs for wastewater facilities in Oregon is imperative. The development of factual information pertaining to wastewater treatment infrastructure needs will allow proper strategic planning and actions to occur.

R3.1 Community Capacity Evaluation

On-going success at NPDES permit backlog reduction will require anticipating future problems as well as addressing current compliance concerns. In the short term, anticipated NPDES permit compliance problems point to the need for utilization of tools provided by USEPA (compliance schedules, variances, integrated planning) as a means to develop approvable permits. DEQ has not used a number of these tools in its NPDES program to date.

In order to successfully conduct permit planning, the magnitude of concerns and potential resolutions need to be better understood.

<table>
<tr><th colspan="3">ACTIONS</th><th>COMMENTS</th></tr>
<tr><td colspan="3">A3.1 Develop a geo-referenced statewide database inventory of the existing municipal and industrial wastewater treatment facilities subject to the 360 NPDES permits in question. The inventory should characterize the following aspects of these existing treatment facilities:</td><td rowspan="11"></td></tr>
<tr><th>Data Point</th><th colspan="2">Accompanying Information</th></tr>
<tr><td>Owner of Facility</td><td colspan="2">Facility Name</td></tr>
<tr><td>Location</td><td colspan="2">DEQ Region, City, County, watershed</td></tr>
<tr><td>Permit Adoption Date</td><td colspan="2">Current and previous 15 years</td></tr>
<tr><td>Municipal only</td><td colspan="2">Population served</td></tr>
<tr><td>Industrial only</td><td colspan="2">Description of industry, wastewater flow streams</td></tr>
<tr><td>Treatment Facility design capacity</td><td colspan="2">Average dry weather flow
Current average dry weather flow</td></tr>
<tr><td rowspan="2">Treatment Facility description</td><td colspan="2">Unit processes (liquid stream)</td></tr>
<tr><td>Primary sedimentation
Aerated lagoon
Stabilization Pond
Activated Sludge
Oxidation Ditch
Trickling filter
Nitrification
Phosphorus removal
Secondary sedimentation</td><td>Denitrification Filtration
Membrane treatment
Temperature control facilities
Disinfection – chlorination, Ultraviolet
Other</td></tr>
<tr><td>Receiving Water</td><td colspan="2">Location, 7Q10, Harmonic mean flow</td></tr>
<tr><td>Approved Dilution Credits</td><td colspan="2">Acute, chronic, harmonic mean</td><td></td></tr>
</table>

ACTIONS		COMMENTS
Seasonal or Year-round discharge	Description	
Existing effluent limitations	Description	
Compliance history	With existing limitations	
A3.2 Using inventory of individual municipal and industrial treatment facilities, develop groupings of facilities into discharge categories that will be useful in the analysis of projected NPDES effluent limitations resulting from existing or future water quality standards (see subsequent actions below). Suggested discharge category groupings include treatment system (e.g. ponds, activated sludge, advanced secondary with nitrification/denitrification, advanced secondary with filtration, etc.), receiving water type (inland stream, estuary, etc.), and available dilution credit (e.g. no dilution, limited dilution, intermediate dilution, significant dilution).		
A3.3 Convene and work cooperatively with a designated stakeholder body to develop the above information regarding the existing treatment facilities in Oregon for the permittees covered by the 360 individual wastewater NPDES permits. This effort is needed to bring common understanding regarding the status and capabilities of the existing wastewater treatment infrastructure in Oregon. This information is also necessary to the assessment of the impact of new water quality based effluent limitations and other implementation measures resulting from existing, proposed or anticipated future water quality standards on the municipal and industrial entities regulated by NPDES permits. **It is in interest of the regulated community for this information to be available to DEQ and the public for use in implementation of USEPA tools, including compliance schedules, variances, use attainability analyses, etc.**		
A3.4 Partner with regulated community and other stakeholders to evaluate the ability to comply with (a) existing NPDES permit effluent limitations and (b) projected NPDES permit requirements in renewed permits. • Assemble representative effluent data by treatment category • Define representative effluent limitations by discharge category based on existing NPDES permit requirements • Define representative effluent limitations by discharge category based on anticipated NPDES permit requirements		

ACTIONS	COMMENTS
• Evaluate compliance for different sectors of the regulated community based on the above information Utilize work completed by the Oregon Association of Clean Water Agencies (ACWA) in their December 2015 report titled Compliance Options for Oregon Wastewater Treatment Plants (Updated) to assist in the development of the above information and information described below.	
A3.5 Estimate additional resources at local, state or federal level needed to build facilities to achieve compliance with NPDES permit requirements. • Using the information developed in the above actions, develop an estimate of capital and operational costs needed to comply with NPDES permit requirements associated with existing and future water quality standards. This would be a revision to existing information developed for the Clean Water Needs Survey under the SRF program.[3] • Using the information generated in the above actions, prepare report similar to the Cost of Compliance with Water Quality Criteria for Toxic Pollutants for Oregon Waters, June, 2008 report which provides these comprehensive estimates to serve as the basis for the Clean Water Needs Survey. The approach should also draw on DEQ expertise with the State Revolving Fund (SRF) and other financing to develop a suite of options for funding support for treatment facility capital and operating costs.	
A3.6 Working with designated NPDES stakeholders (identified in A3.3), develop a strategic approach and a short term action plan for moving forward with NPDES permitting and addressing anticipated compliance issues. The strategic approach must address the need for time to either (a) plan, design and construct facilities or (b) to allow for a re-examination of the beneficial uses and associated standards which drive those effluent limitations. USEPA tools are available which should be used to implement this approach.	Note: It is anticipated that the next round of NPDES permit renewals will lead to effluent limitations which compel the construction and operation of new treatment facilities or implementation of alternative solutions by a number of municipalities and industries.

R3.1 CHANGE STRATEGY		COMMENTS
What the change is	DEQ will gather and maintain an inventory of Oregon wastewater treatment facilities	

[3] As part of the Human Health Criteria development effort, DEQ (through USEPA) retained Science Applications International Corporation (SAIC) to prepare a cost evaluation of measures needed to implement proposed revised fish consumption rates and associated water quality criteria and effluent limitations (Cost of Compliance with Water Quality Criteria for Toxic Pollutants for Oregon Waters, June, 2008). This report focused primarily on short term responses for selected dischargers and did not provide a comprehensive estimate of capital and operational costs of facilities to meet the proposed criteria.

R3.1 CHANGE STRATEGY		COMMENTS
	discharging to surface waters to provide foundation for sustainable implementation of the NPDES permitting program.	
How the change will affect permit writers	Short term investment by senior permit writers for participation in development of subject information. Long term improvement in efficiency of permit renewal process as supported by strategic planning to integrate implementation of key elements of the water quality program (uses, standards, TMDLs and NPDES permits).	
How the change will affect permittees	Will require support and resources from permittees in the development of the foundational information pertaining to Oregon's wastewater treatment infrastructure.	
Methods used to implement the change	Determine the best data format for the inventory (which may include existing platforms) Use existing permit information to initiate the inventory Work with permittees to update and verify Incorporate maintenance of the inventory into other standard permit review activities	
Benefit/ Costs of not Changing	In the absence of the inventory and permit planning predictable conflicts and inefficient responses to NPDES permit requirements will continue to hamper the renewal of NPDES permits and will ultimately delay implementation of necessary wastewater treatment upgrades.	
	Understanding of capital and operational costs of facility upgrades will enable support for the development of adequate funding and necessary policy shifts pertaining to use designation, standards and permitting requirements.	
Unintended Consequences	Resources devoted to implementation of these recommendations may impact the ability to implement other recommended actions. Questions have been raised by DEQ staff, independent reviewers and stakeholders regarding the timing of this effort, the use of the information and the potential diversion of resources away from more immediate needs. It is important that these recommendations be properly implemented in balance with other needs to ensure that essential strategic planning can be performed.	
Opportunities for input and to improve the approach	The recommended approach needs to be a collaborative with regulated community. Opportunities for improvements and adjustments	

R3.1 CHANGE STRATEGY		COMMENTS
	to the approach are anticipated and should be incorporated into the collaborative effort.	

R3.2 Technical Assistance

DEQ has included technical assistance or "technical support services" to permittees as a permit writer function. The actions in section R3.2 stop this practice. For the purposes of this report, these "technical support services" are defined to include assistance with compliance assessments, facilities planning, operational improvements, and funding strategies. While well intended, this practice creates difficult situations for permit writers in their attempt to serve a dual role as technical/policy advisor and regulator.

ACTIONS	COMMENTS
A3.7 Identify to what extent there is a need for technical assistance to communities.	
A3.8 Implement a short term program to provide resources to address identified technical assistance gaps - should such a need occur (on a needs basis and with resources external to the current NPDES permitting function)	

R3.2 CHANGE STRATEGY		COMMENTS
What the change is	Technical assistance will no longer be a role fulfilled by DEQ. As funds are available, some assistance may be available through external resources.	
How the change will affect permit writers	Short term investment by permit writers to assist in identification of permittees needing technical support during a transition period. Long term improvement in efficiency of permit renewal process due to reduced obligation to provide technical support services beyond the realm of NPDES permit renewal communications	
How the change will affect permittees	For some communities and industries who have relied on DEQ staff support for technical assistance in the areas of compliance assessments, facilities planning, funding strategies, etc., this change will compel resource expenditures in the long term to replace those services. In the short term, may include participation in a transitional program to be established by DEQ.	
Methods used to implement the change	An evaluation of the need to provide resources to provide transitional technical assistance to municipal and industrial permittees to replace assistance currently provided by DEQ staff. If a determination of need is made, take steps to implement a transitional program to provide such resources.	

R3.2 CHANGE STRATEGY		COMMENTS
Benefit/ Costs of not Changing	The change will enable a reallocation of NPDES permit renewal resources away from the provision of technical services to permittees. If a short term program is implemented, transitional resources will avoid abrupt changes that may impact some communities and industries.	
Unintended Consequences	The potential exists for resources devoted to provision of technical support to some permittees to impact the ability to implement other recommended actions. Establishment of a system and program to implement this short term support program may require more time and resources than the value added of providing this technical support Elected officials may receive complaints about DEQ's lack of TA to communities trying to comply with DEQ's regulations.	
Opportunities for input and to improve the approach	Discussions should be initiated to address the definitive need for transitional technical support to permittees. DEQ should work with the regulated community to evaluate the benefits and costs of this recommendation prior to investing significant resources.	

ALIGNMENT (4)

Recommendation Area 4: Alignment

A number of the stakeholders indicate the adoption of new water quality standards or changes to existing standards as a result of either litigation or EPA disapprovals has had an ongoing disruptive effect on the renewal of wastewater NPDES permits in Oregon. These events, and, in some cases, the absence of an effective response to these events in terms of direction to NPDES permit writers, has contributed to significant delays in NPDES permitting, and increased NPDES permit backlog. After analysis it became clear that, despite the recognition of this problem, effective strategies or processes are not in place to deal with the long term effect of current and future water quality standards, 303-d listings and resulting TMDL wasteload allocations on the NPDES permitting program.

In addition, indications that the NPDES permitting process is not consistently aligned with EPA and DEQ legal requirements are illustrated in a recent document and in feedback received from various stakeholders. Failure to address such deficiencies affects the NPDES permit renewal backlog, as rework is required to meet legal requirements while an NPDES permit remains incomplete.

R4.1 WQ Standards Implementation in NPDES Permits

DEQ's authority and the State of Oregon's effectiveness in controlling all the major activities that impact ambient water quality in Oregon (e.g. agriculture, silviculture) must be recognized and addressed. In cases where such factors are important in terms of loadings to impaired water bodies, it was suggested by multiple stakeholders that attainment of designated uses and associated water quality standards will not be possible through the management of municipal and industrial wastewater sources regulated under the NPDES program alone. In those cases, TMDL wasteload allocations and NPDES permit effluent limitations must be carefully developed to avoid unwarranted compliance problems for municipalities and industries. The use of available tools and flexibilities afforded under the Clean Water Act in the NPDES permitting program will be necessary in such cases.

ACTIONS	COMMENTS
A4.1 Initiate a coordinated effort with designated stakeholders to identify NPDES permitting solutions for problems associated with implementation of existing water quality standards and resulting compliance issues that affect the NPDES permit renewal process. Build off the information developed in the draft 2008 issue paper which addressed implementation of proposed Human Health Criteria.[4]	
A4.2 Develop a strategic approach and a short term action plan for moving forward with NPDES permitting within the existing legal boundaries and flexibilities as established under the Clean Water Act, EPA regulations and DEQ regulations. Address the need to provide time in the renewed permits to either (a) plan, design and construct facilities or (b) to allow for a re-examination of the beneficial uses and associated standards which drive those effluent limitations which compel treatment upgrades. USEPA tools (compliance schedules, variances, integrated plans, consent decrees) are available which should be evaluated for use as tools to address the anticipated compliance issues in multiple permits.	Integrated with actions identified in Recommendation areas 2 and 3, items R4.5 Five Year Workplan and R3.1 Community Capacity Evaluation.
A4.3 Specific plans should be developed for NPDES permitting each of the following standards: • Temperature standards (recommend continued implementation of ongoing DEQ process) • Human health standards • Aquatic life standards • Ammonia standard (based on 2013 EPA ammonia criteria)	

[4] A draft NPDES Issue Paper titled *Implementing Water Quality Standards for Toxic Pollutants in Clean Water Act Permits* dated September, 2010 was prepared. In that paper, DEQ examined variances, restoration standards, site specific objectives, and other approaches to deal with anticipated compliance difficulties. to develop a better defined approach to be used in Oregon NPDES permits.

R4.1 CHANGE STRATEGY		COMMENTS
What the change is	Full implementation of existing and future water quality standards will be addressed through new strategies to address both near term and long term NPDES permitting issues associated.	
How the change will affect permit writers	Short term investment of resources by senior NPDES permit writers and DEQ water quality standards staff to develop short term and long term strategies and plans.	
How the change will affect permittees	Short term investment of in-kind services to participate in planning effort to collaborate with DEQ in development of subject strategies and plans. Potential changes to planned approaches.	
Methods used to implement the change	Convening DEQ staff and stakeholders to address issue. Initial focus on development of short term plan to utilize EPA tools in NPDES permit renewals. Utilization of results from R3 actions to assist in long term planning effort.	
Benefit/ Costs of not Changing	The benefits of this action are long term certainty and stability in the NPDES permitting program and removal of existing roadblocks to NPDES permit renewals. The costs of not taking the recommended actions is a continuation of historical problems associated with disruptive NPDES permit requirements associated with water quality standards decisions and determinations.	
Unintended Consequences	Incomplete or ineffective implementation of these recommendations could result in a failure to develop effective strategies and/or tools. Stakeholder involvement takes significant staff and management resources. Preparing variances and UAAs is a very lengthy process and will likely exacerbate the backload unless an efficient process is developed. Potential for variances to be challenged by 3rd parties.	
Opportunities for input and to improve the approach	The planning effort will be collaborative and allow for input from DEQ staff and stakeholders. Inputs will be used to modify processes to achieve the overall purpose and goals.	

R4.2 WQ Standards Process

It is anticipated that the next round of NPDES permit renewals implementing existing water quality standards will result in effluent limitations which compel the construction and operation

of new treatment facilities or implementation of alternative solutions by a number of municipalities and industries. Looking forward to the development and adoption of new water quality standards, the opportunity exists to incorporate the attainability of designated uses and standards protecting those uses into the water quality standards process. This would provide greater flexibility in addressing the issues of implementation of NPDES permit requirements in a proactive way.

ACTIONS	COMMENTS
A4.4 Evaluate DEQ's water quality standards development and use designation process. Identify and implement methods for assessing and addressing the attainability of uses and associated standards.	
A4.5 Evaluate incorporation of a use attainability analysis (UAA)[5] process as a prime tool in addressing the standards attainability issue. Write permits to provide that provide clarity on the UAA process. Establish a commitment by DEQ to consider and utilize the results from the UAA process.	

R4.2 CHANGE STRATEGY		COMMENTS
What the change is	DEQ will implement a water quality standards process to address use and standards attainability issues.	
How the change will affect permit writers	Permits will reflect the results of addressing attainability issues. Removes a barrier to permit issuance	
How the change will affect permittees	Provides additional options for addressing water quality standards through the UAA process.	
Methods used to implement the change	• Convene a stakeholder work group to evaluate alternatives and develop a process for addressing the subject issue. • Incorporate EPA guidance and regulation, including the 2015 EPA Water Quality Standards regulation.	

[5] A use attainability analysis (UAA) must be conducted for any water body with designated uses that do not include the "fishable/swimmable" goal uses identified in the section 101(a)(2) of the Act. Such water bodies must be reexamined every three years to determine if new information has become available that would warrant a revision of the standard. If new information indicates that "fishable/swimmable" uses can be attained, such uses must be designated. The establishment and attainment of water quality standards that protect designated beneficial uses is a major emphasis of the CWA. NPDES permit requirements are established to implement WQS, i.e. to contribute to the attainment of standards. Therefore, the issue of the attainment of standards is of paramount importance to all NPDES stakeholders. USEPA addresses this issue in its recent Water Quality Standards regulations dated August 21, 2015. EPA operates under a rebuttable presumption that uses and associated standards to protect those uses will be attained. In cases where this presumption is questioned, EPA provides the use attainability analysis as a tool to address such concerns.

R4.2 CHANGE STRATEGY		COMMENTS
	• Address complicating issues associated with Endangered Species Act and tribal/cultural uses. • Implement new processes	
Benefit/ Costs of not Changing	Indirect benefits to NPDES program through development of more robust water quality standards process. Costs of not implementing this change include unnecessary expenditure of resources by NPDES permittees or other regulated entities in pursuing unattainable water quality standards.	
Unintended Consequences	May divert resources from other essential NPDES permitting needs.	
Opportunities for input and to improve the approach	Recommendation is for a transparent, collaborative process that will provide opportunity for midcourse adjustments to achieve greater purpose.	

FUNDING (R5)

Recommendation Area 5: Funding

DEQ operates as part of a dynamic system of governance that seeks to provide public health and safety, environmental stewardship, economic viability, and enriching experiences (recreation, education, etc.). As such, its roles, responsibilities and contributions are continually balanced with other societal goals and requirements. This results in circumstances outside of DEQ control driving budgetary processes, infrastructure investment, and regulatory considerations of other agencies and sectors. This dynamic has three direct impacts on the permit issuance backlog.

1. Deferred and increased costs: Given that NPDES permit renewal workload is fully predictable (each permitted facility will have a renewal in 5 years), failure to adequately resource it one year adds costs to future years that will exceed the cost and time of completing the renewal in the scheduled year. Delayed permit renewals are more time consuming and costlier to the permittee, DEQ and ultimately the environment.
2. Unstable funding streams: The current NPDES permit funding approach relies on a specified proportion of the State General Fund to provide the agency budget. This creates a cap on the budget regardless of other fund sources. While the balancing of general public good to permittee cost is a reasonable public policy approach, it creates greater uncertainty in planning future work. The availability of General Fund for the NPDES permitting is subject to significant fluctuation as it depends on anticipated revenues and planned and unplanned expenditures, which may change over the course of a fiscal year.
3. Costs to achieve compliance - A jurisdiction's inability to meet NPDES standards because of funding is not DEQ's direct responsibility. However, permitting delays are known to have occurred as staff have attempted to develop permit requirements or identify other options that allow permittees to achieve standards without adequate local funds to invest in solutions.

In order ultimately resolve the backlog and achieve Oregon's environmental goals DEQ should work with its stakeholders to evaluate and make recommendations to the Executive branch and Legislature regarding mechanisms to stabilize and adequately fund the NPDES permitting function. Concurrently, DEQ, the State Legislature and stakeholders should identify and work together to provide the resources needed to fund major capital expenditures to assist the regulated community in achieving CWA requirements

R5.1 Consistent Permit Preparation Funding Stream

Given that uneven funding and resourcing increases costs and precludes solid permit planning, alternative funding approaches should be considered that link directly to the known permit workload.

ACTIONS	COMMENTS
A5.1 Using an analysis of actual personnel and other costs associated with a permit issuance, develop a per-permit funding formula (see Recommendations area 1).	
A5.2 Use the 5-year work plan (established by other actions in Recommendations areas 1 and 3) to establish realistic annual funding estimates for budget planning. Consider both routine and backlog workload in establishing 5-year plan.	
A5.3 Establish a process for flagging annual funding gaps as compared to the 5-year plan and work with the Executive Branch, Legislature and regulated community to manage and mitigate the consequences when funding shortages occur.	

R5.1 CHANGE STRATEGY		COMMENTS
What the change is	• Formula funding for NPDES permits • Institution of 5-year planning cycles to support leveled workload and budget planning	•
How the change will affect permit writers & permittees	Short term disruption in some permit renewal schedules. Potential for variations in fees based on general fund fluctuations.	
Methods used to implement the change	DEQ management and the identified project team will: a. Using workload analysis conducted in earlier project phases identify actual FTEs required to produce permits. b. Identify how overhead will be accounted for within the permit structure (calculated as a percent, unfunded, etc.). Determine how other costs associated with production of the specified NPDES permits (including data management, training, direct supervision and support functions) will be accounted for.	

R5.1 CHANGE STRATEGY		COMMENTS
	c. Using the 5-year permit schedule identify annual costs based the per permit estimates. d. Conduct annual reviews to determine variation in projected costs versus actual costs. e. Work with the Executive Branch and Legislature to establish formula budgeting to support known and anticipated workload.	
Benefit/ Costs of not Changing	Formula funding will create better accountability for the entire funding process. Failure to achieve desired results can be immediately attributed to actual causes and a failure to fully fund the process can equally be accounted for in workload planning. Scheduled workload will also create more certainty for permittees and create a better understanding how fees are utilized.	
	Fluctuating funding creates inefficiencies in the system.	
Unintended Consequences	Use of formula funding may force disproportionate funding cuts for other DEQ functions in years of reduced funding. Errors in funding calculations may cause continued erosion in confidence in DEQ.	
Opportunities for input and to improve the approach	Staff and stakeholders will be invited to comment on and improve the formula components and 5 year workplan.	

R5.2 Statewide Infrastructure Planning

A jurisdiction's inability to meet NPDES standards because of funding is not DEQ's direct responsibility. However, it is in DEQ's interest to raise and encourage that stakeholders address this issue. By supporting efforts to anticipate and properly resource needed infrastructure creates good will for DEQ and will ultimately reduce backlog by facilitating issuance of permits that do not require variances or compliance schedules.

A variety of policy issues must be considered in addressing this concern:

1. Deficiencies are likely to be disproportionally identified in smaller jurisdictions or economically disadvantaged areas. One policy concern is the extent to which there is a State of Oregon interest in investing in health and safety activities that would normally be more self-funded by these communities.

2. Another concern, as identified in previous sections of this Implementation Plan is the extent to which investment in deficient infrastructure will provide sufficient benefits as compared to cost. A related issue is whether or not investment in a different part of the water management system would yield better environmental results. For example, resources put

into establishment of riparian buffers or channel complexity may yield a better environmental result than installing mechanical systems to cool effluent.

ACTIONS	COMMENTS
A5.4 Identify infrastructure funding gaps. Convene a stakeholder body to consider the need for state planning related to NPDES related infrastructure funding. Using information from Recommendation area 3, item R3.6, determine infrastructure funding gaps.	
A5.5 Identify policy and finance options for filling gaps. Stakeholders in concert with the Executive Branch and Legislature should identify potential approaches for addressing critical needs.	
A5.6 Prepare financing plan. Based on results of discussions and findings created by item A5.4 & 5.5, prepare a financing plan for NPDES and related infrastructure upgrades.	

R5.2 CHANGE STRATEGY		COMMENTS
What the change is	Statewide analysis and financial support for NPDES infrastructure investment	
How the change will affect permit writers & permittees	Reduction of barriers to permit issuance. Increased options for infrastructure investment due to additional fund sources	
Methods used to implement the change	• Determine the infrastructure gaps • Determine costs of compliance and improvements • Articulate the State of Oregon's interest in facilitating improvements and create accompanying policy • Identify funding options to fulfill policy direction • Prepare finance plan for use by stakeholders, the Executive Branch and Legislature to consider investment options.	
Benefit/ Costs of not Changing	Improved infrastructure will support improvements to overall watershed health.	
	Without financial support some jurisdictions may not be able to meet state and federal CWA requirements.	
Unintended Consequences	NPDES related infrastructure improvements alone will not be able ensure a healthy watershed. Investments may be made without achieving overall desired results. Some communities	
Opportunities for input and	Staff and stakeholders will be invited to help prepare, comment on and improve the Finance Plan.	

R5.2 CHANGE STRATEGY		COMMENTS
to improve the approach		

LEADERSHIP (R6)

Recommendation Area 6: Leadership

Throughout the preparation of this Implementation Plan and related review processes, DEQ personnel have continuously demonstrated a sincere desire to see the NPDES Permit backlog problem resolved. That said, the continuation of the permit backlog over the past 15 to 20 years and the multiple efforts commissioned to address the issue suggests a lack of total commitment by the DEQ and stakeholders to work together to resolve the problem. An additional problem that touches on DEQ's culture is an identity conflict. The conflict is between being a technical advisor and being the lead regulator under the CWA. Based on feedback from a number of respondents during the assessment, this presents real problems to permit writers who try to wear these two hats and is suggested as a contributor to the NPDES permit backlog.

R6.1 Executive Direction for NPDES Functions

The lack of clear executive direction, the decentralized structure of DEQ and the distribution of water quality personal across several organizational entities has inhibited the ability of the organization to overcome its NPDES permit backlog. The absence of a chain of command knowledgeable about NPDES requirements also results in a lack of accountability when goals are not met.

ACTIONS	COMMENTS
The DEQ Director and organization leadership will take the following actions.	
A6.1 Issue policy directives that elevate NPDES permit renewal to be a top priority of its Water Quality Program.	
A6.2 Direct Senior staff to update organizational metrics to emphasize elevated NPDES issue.	
A6.3 Centralize authority for NPDES permit adoption. Determine if any additional reorganization is required to achieve desired program results. Do mitigation planning for organizational change management.	
A6.4 Provide policy guidance confirming the typical roles of a regulatory agency. This direction is not intended to preclude effective collaboration with stakeholders to accomplish goals or a cooperative spirit.	Note: To address backlog, DEQ may need to make difficult decisions in fulfilling its role in achieving the requirements of the CWA.

R6.1 CHANGE STRATEGY		COMMENTS
What the change is	Reduction of NPDES permit backlog will become an executive sponsored activity with accompanying authority and accountability	

R6.1 CHANGE STRATEGY		COMMENTS
	provided to organizational actors to achieve desired results.	
How the change will affect permit writers & permittees	The enhanced focus on reducing NPDES permit backlog will result in changes for the current methods and approaches for permit issuance. Permit writers may experience a new chain of command. Permittees will have access to a clean of chain command responsible for decision making.	
Methods used to implement the change	Policy directives Organizational realignment initiatives Performance metrics Internal and external outreach and communication	
Benefits / Costs of not Changing	These activities will support effective change management.	
	Without change backlog will continue to grow.	
Unintended Consequences	DEQ has experienced multiple large scale changes in a short period of time. Additional changes are likely to reinforce change fatigue.	
Opportunities for input and to improve the approach	Staff and stakeholders will be offered opportunities to suggest implementation steps.	

R6.2 Reconfiguration of Stakeholder Bodies

In 2001, Oregon had one of the highest backlog rates in the nation for processing/renewing major NPDES individual permits, a status it has retained. In December 2002,[6] A Blue Ribbon Committee (BRC) on Wastewater Permitting was convened to help DEQ improve Oregon's wastewater permit program. The committee completed recommendations for improving the permitting program in 2004 and issued a report, *Blue Ribbon Committee Report on Key Enhancements to the Oregon Wastewater Permitting Program.* The *Wastewater Permitting Program Improvements and Measures* Report,[7] submitted a little over six years later on January 2011 to Governor Kitzhaber, the Oregon Legislative Assembly, and the Environmental Quality Commission, recapped progress on the recommendations proposed in 2004. This report indicates some progress towards watershed based management goals but ultimately reduction of the NPDES backlog was not achieved. Identified obstacles included litigation on the Willamette Basin TMDL and use of compliance schedules in permits, as well as an EPA objection regarding the permitting of sanitary sewer overflows that prevented permit issuance.

[6] This document section is directly quoted or paraphrased from http://www.deq.state.or.us/WQ/wqpermit/brcreports.htm (accessed 09.05.16)

[7] This document is quoted or paraphrased directly from: http://www.deq.state.or.us/WQ/pubs/reports/2011WastewaterLegReport.pdf (accessed 09.05.16)

At the same time, in anticipation of general fund reductions during the 2009-2011 biennium, DEQ chose not to refill certain positions in order to manage the budget. Even with legal issues resolved in late 2009 and 2010 but operating at less than full staff, DEQ still managed to make some progress toward meeting the Committee's recommendations but ultimately continued to fall short and continues to do so today.

Given the need for perhaps more than one stakeholder workgroup and the longevity of the existing Committee, a re-assessment and re-chartering, with an updated focus, identified specific tasks, and a process for refreshing its mission and membership is indicated. This in turn can drive membership composition and create clarity about meeting topics, expected deliverables, and the committee's role.

ACTIONS	COMMENTS
A6.3 Sunset the 2002 Blue Ribbon Committee (BRC) on Wastewater Permitting.	
A6.4 Assess activities identified in the Implementation Plan benefiting from stakeholder involvement. Convene one or more advisory bodies with specific charters, deliverables and timeframes to provide appropriate input and collaborative support.	

R6.2 Engagement of Other External Stakeholders

Both the EPA and Oregon's Environmental Quality Commission are positioned and committed to supporting DEQ's permit backlog reduction efforts. Both provide leadership for their respective responsibilities. Stakeholder engagement, along with outreach and communications with internal and external audiences are an important feature of change management efforts.

ACTIONS	COMMENTS
A6.5 Engage EPA, the regulated community and other knowledgeable stakeholders to implement improvements.	
A6.6 Engage the Environmental Quality Commission (in its leadership role) in a discussion of a policy direction that aligns the DEQ Water Quality function with the typical roles of a regulatory agency. Seek options to maintain effective collaboration with stakeholders to accomplish goals and demonstrate a cooperative spirit while supporting DEQ in making difficult decisions to fulfill its role in achieving the requirements of the CWA.	

R6.2 & 6.3 CHANGE STRATEGIES		COMMENTS
What the change is	New stakeholder bodies will be convened to provide input to Implementation Plan actions. Collaborative interactions with oversight bodies will be increased	
How the change will affect permit	Individuals maybe engaged with more than one stakeholder group.	

R6.2 & 6.3 CHANGE STRATEGIES		COMMENTS
writers & permittees		
Methods used to implement the change	• Inventory actions that will require stakeholder input • DEQ Director notifies existing BRC of change in stakeholder input approach, thanks members for service, and as appropriate to identified workgroups, express interest in the member remaining engaged in some other capacity. • All standing stakeholder bodies will utilize group charters that include clear mission, goals, tasks and timelines.	
Benefit/ Costs of not Changing	Will result in better utilization of participant time.	
	Failure to adopt changes will result in continued frustration by some BRC members with the direction of the stakeholder group(s).	
Unintended Consequences	Caution will be needed to prevent over scheduling of group activities. This can lead to burnout as well as divert from other important tasks.	
Opportunities for input and to improve the approach	Specific opportunities will be provided to provide input on Group Charters.	

PROGRESS REPORTING (R7)

Recommendation Area 7: Progress Reporting

R7. Progress Reporting Change Strategy

CHANGE STRATEGY		COMMENTS
What the change is	Project staff will regularly monitor and report progress on backlog reduction implementation	
How the change will affect permit writers and stakeholders	This change will increase focus on needed activity (what gets measured gets done)	
Methods used to implement the change	High level progress reports will be used with identified audiences and detail provided for out of schedule or compliance items	

CHANGE STRATEGY		COMMENTS
Benefit/ Costs of not Changing	Reporting is a best practice to incent project success, this particular change intends to disrupt a pattern of great starts but no or slow finishes of previous efforts	
Unintended Consequences	This adds some additional workload and measuring these focused activities will potentially disrupt other activities by DEQ and stakeholders	
Offer opportunities for input and to improve the approach	The reporting format should be evaluated after 6 months, then every 12 months thereafter, to ensure relevant information is being reported and the intention of maintaining project focus is achieved.	

IMPERATIVE TO ACT

Oregonians have proudly valued the State's natural resources and the proud heritage of healthy landscapes and watersheds. As affirmed by statute and regulation, "Maintaining high water quality is critical to supporting economic and community growth and sustainability. Protecting high water quality also provides a margin of safety that will afford the water body increased resilience to potential future stressors, including climate change. Degradation of water quality can result in increased public health risks, higher treatment costs that must be borne by ratepayers and local governments, and diminished aquatic communities, ecological diversity, and ecosystem services.

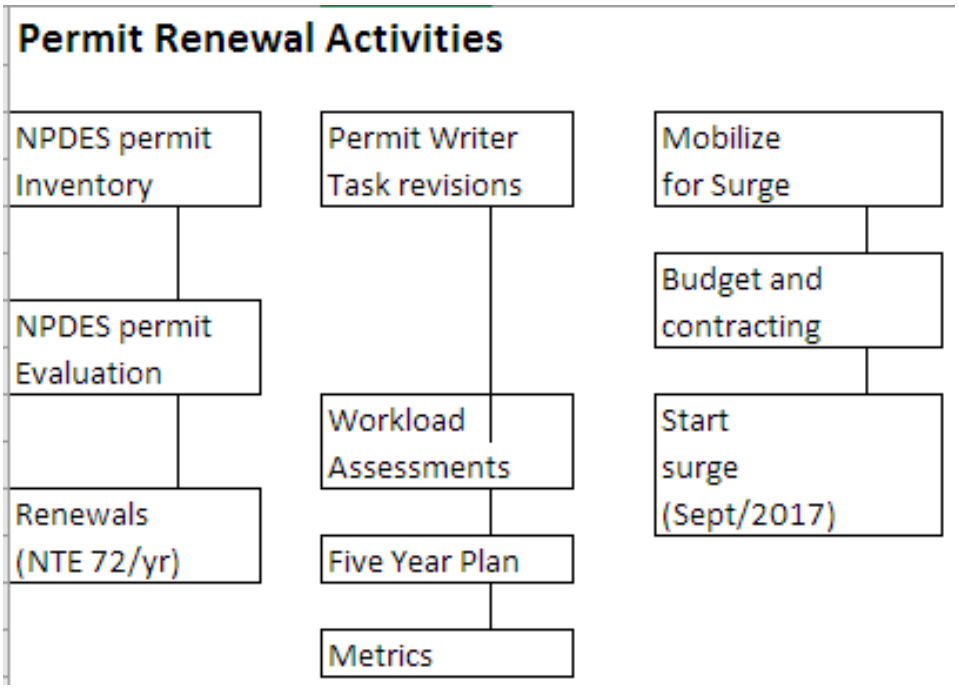
Conversely, maintaining high water quality can lower drinking water costs, provide revenue for tourism and recreation, support commercial and recreational fisheries, increase property values, create jobs and sustain local communities. While preventing degradation and maintaining a reliable source of clean water involves costs, it can be more effective and efficient than investing in long-term restoration efforts or remedial actions."

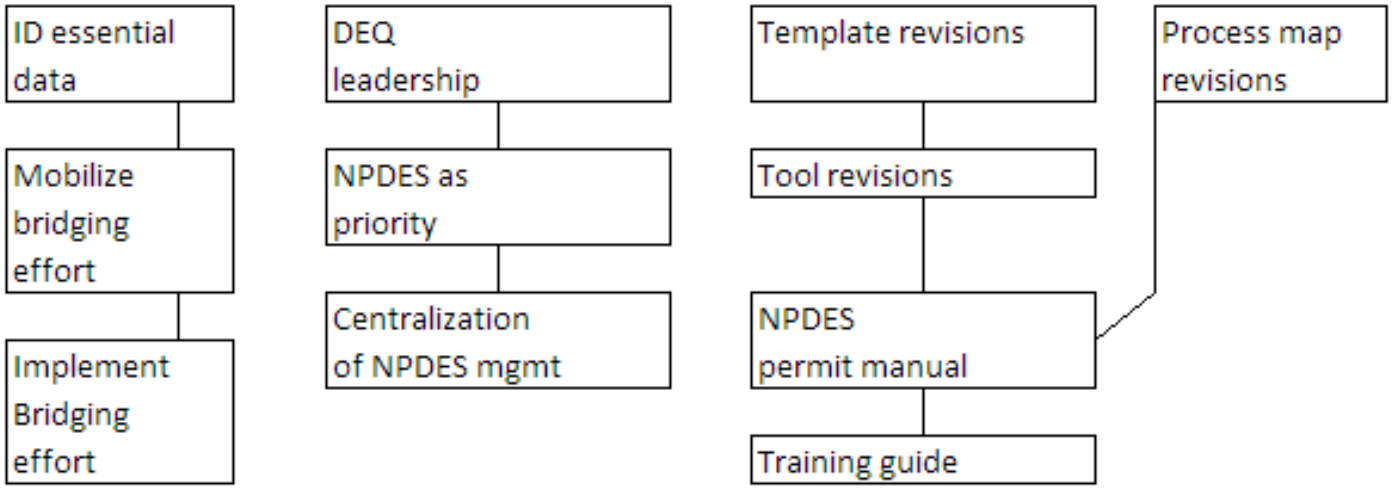
The actions recommended by this Implementation Plan constitute a suite of activities that, in total, offer the best option for systemic improvement. Each action individually leads to incremental improvement in some aspect of the permitting process; however, non are sufficient to sustainably improve the situation. A full system approach must be used to create durable solutions.

NEXT STEPS

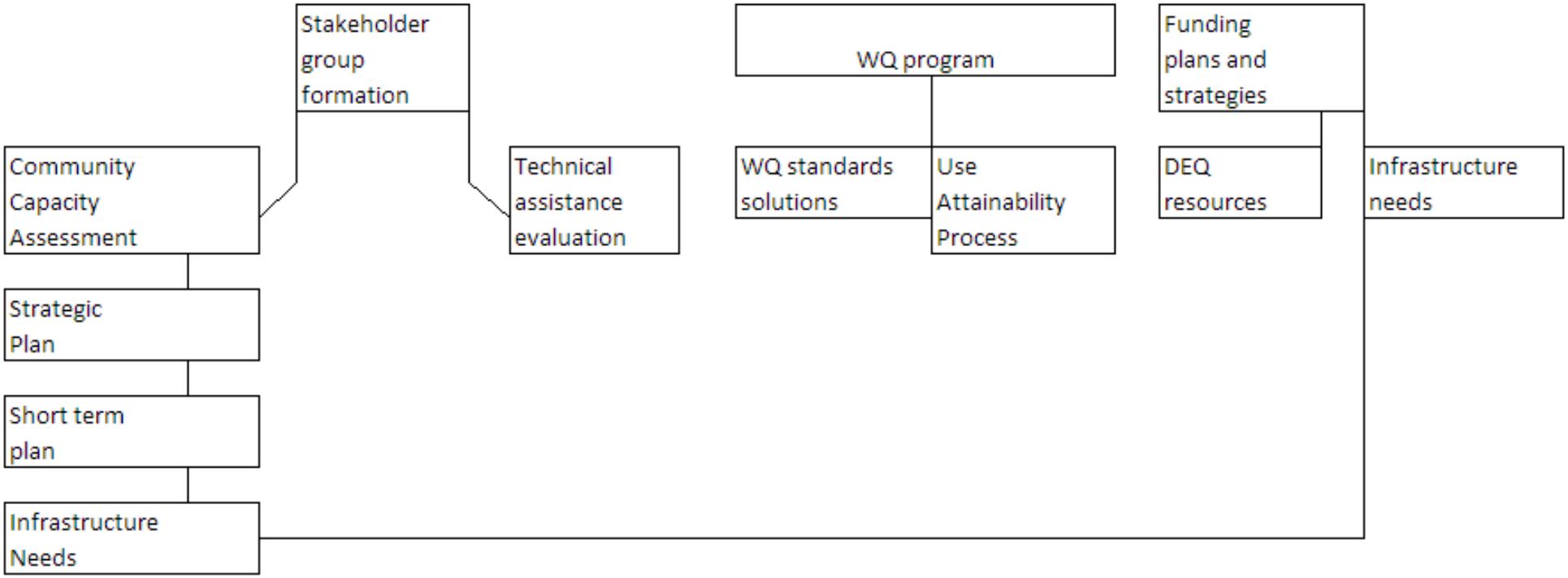
A Final Evaluation and Implementation Plan will be submitted to DEQ on November 18, 2016.

Implementation Flowcharts





Foundational Work



Tracking