State of Connecticut
Department of Environmental Protection
Permitting Assessment Report

Amey W. Marrella, Commissioner

September 30, 2010

Mission of the Department of Environmental Protection

" the General Assembly hereby declares that the policy of the state of Connecticut is to conserve, improve and protect its natural resources and environment and to control air, land and water pollution in order to enhance the health, safety and welfare of the people of the state. … as trustee of the environment for the present and future generations. … in a manner calculated to foster and promote the general welfare, to create and maintain conditions under which man and nature can exist in productive harmony, and fulfill the social, economic, and other requirements of present and future generations of Connecticut residents."

STATE OF CONNECTICUT

DEPARTMENT OF ENVIRONMENTAL PROTECTION

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Amey W. Marrella
Commissioner

September 30, 2010

Governor M. Jodi Rell
Executive Office of the Governor
State Capitol, 210 Capitol Avenue
Hartford, Connecticut 06106

Sen. Edward Meyer, Co-Chair
Rep. Richard Roy, Co Chair
Environment Committee
Room 3200, Legislative Office Building
Hartford, Connecticut 06106

Sen. John McKinney, Ranking Member
Rep. Clark Chapin, Ranking Member

Dear Governor Rell and Members of the General Assembly:

In compliance with the requirements of Public Act 10-158, the Department of Environmental Protection (DEP) submits this Permitting Assessment Report.

At DEP, we understand that timely action on permits is a key component of the State's role in promoting sustainable economic growth. While we have worked hard in the past few years to be more efficient and effective, we recognize there is still a great deal of work to do.

We welcomed enactment of Public Act 10-158 because it sets a path to improve the timeliness of permit programs while preserving our state's protective environmental standards. It is critical to sustain our commitment to these standards, as they exist to protect public health, natural resources and the quality of life we enjoy in our state.

DEP permits are required for numerous activities because permits are the primary mechanism used to implement both federal and state laws. As prescribed by Public Act 10-158, this report takes a comprehensive look at 25 individual permit programs and identifies process improvements, programmatic changes, and additional staffing and resources that will help to improve the timeliness of DEP action on permit applications.

This comprehensive Permitting Assessment Report reflects the hard work of many people throughout the Department, and the valuable input of many stakeholders. The report describes numerous opportunities to continue to improve DEP permitting processes and achieve the permitting time frame goals set forth in Public Act 10-158.

While this report identifies additional staffing and resource needs as directed by Public Act 10-158, we realize Connecticut is in the midst of a budget crisis. Absent budgetary increases, the Department will collaborate with our stakeholders to prioritize and to develop a realistic timeline for implementing the recommended improvements and programmatic changes.

Finally, it is important to note that DEP's permits are just one of several pathways to achieve environmental results. For example, we welcome opportunities to work with the business community on ways to enhance profits by being "green," whether through waste minimization, green marketing, or sustainable product design. Going forward, the Department is committed to continuing our work with many partners to foster sustainable growth and a vibrant, green economy.

Yours truly,

Amey Marrella
Commissioner

cc: Sen. Andrew M. Maynard, Vice Chair
Rep. Bryan Hurlburt, Vice Chair

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I. Executive Summary

Public Act 10-158 requires the Department of Environmental Protection (DEP) to evaluate individual permitting programs and identify "the process improvements, additional resources, staffing and programmatic changes" needed to meet the law's time frame goals.

Specifically, Public Act 10-158 requires DEP to assess the feasibility of:

- Deciding within 60 days whether there are deficiencies in an application (referred to as the sufficiency review); and
- Completing, within 180 days after the sufficiency determination, the technical analysis necessary to issue a formal notice of tentative determination to approve or deny a permit.

Public Act 10-158 contains additional provisions and the Department's responses to these provisions are detailed in the full report.

A. Permitting Assessment Process

The Department is responsible for managing federal delegated regulatory programs, such as the Clean Air Act and the Clean Water Act, as well as various state programs. The primary mechanism for implementing these programs is the issuance of permits. A permit sets the conditions that allow an entity to perform a regulated activity – such as generating air emissions or wastewater discharges – in a manner that protects public health and the environment.

In performing the required assessment of the Department's individual permitting programs, the DEP:

- Reviewed the recommendations outlined by Governor Rell's 2010 Permitting Task Force;
- Revisited the findings from previous permit streamlining efforts (1993 and 1997);
- Applied efficiency principles from the Department's LEAN initiative, which was launched in 2008;
- Analyzed historic time frames for conducting sufficiency and technical reviews; and
- Evaluated best practices in other permit programs and other jurisdictions.

To gather input from Department stakeholders, DEP conducted more than a dozen public listening sessions, met with five Chambers of Commerce, the Connecticut Business and Industry Association, the Connecticut Home Builders Association and various environmental organizations.

In all, DEP conducted an assessment of 25 individual permit programs that govern air emissions, water discharges, inland water resources, coastal resources, and waste management.

B. Current Permitting Time Frames

In a snapshot review of the most recent annual data from all 25 individual permit programs, nine programs met the sufficiency goal (60 days) 100% of the time. Another four programs do not require sufficiency reviews. With respect to tentative determination, 13 programs met the time frame goal (180 days) 100% of the time. Of the 25 programs, a total of nine met the combined goals.

Extensive data on timeliness over a period of years is offered in the full report.

C. Permitting Assessment Findings: Common Themes

As a result of its assessment, DEP identified the following common themes among its individual permitting programs:

- Data gathered for the assessment clearly shows the Department's LEAN projects and previous streamlining efforts have helped reduce permitting time frames.
- Dedicating staff time to improve the way the Department conducts business is necessary to achieve permitting time frame improvements. The challenge is these are often the same staff processing permit applications.
- While DEP continues to expand opportunities to exchange information and conduct business electronically, demand far exceeds the Department's current capacity.
- As federal programs evolve, DEP staff must take time to update Connecticut's programs to ensure consistency, which takes staff away from processing permits.
- DEP has experienced a significant loss of experienced staff through the retirement incentive programs of 2003 and 2009. This loss of staff has been exacerbated by attrition, hiring freezes, and, when hiring is possible, the time needed to train new staff.
- DEP protects public health and the environment by implementing the "whole" program – complementing permitting efforts with compliance assistance and enforcement initiatives. Maintaining this programmatic balance requires adequate technical staffing.

- The outreach associated with this assessment was very useful. DEP needs to continue to do more to reach out to the business community and other stakeholders.

D. Permitting Recommendations

In response to Public Act 10-158 the Department offers many recommendations to achieve more timely decisions on permit applications while assuring continued environmental improvement.

Process Improvements – steps that can be taken without statutory or regulatory changes (e.g., new procedures and forms):

- Expand the use of pre-application meetings with applicants;
- Prioritize applications for projects having significant positive economic impact as defined by Section 3 of Public Act 10-158, in coordination with the Department of Economic and Community Development's Permit Ombudsman;
- Continue to apply LEAN and process improvement approaches;
- Improve data collection and quality;
- Provide clear direction when requesting additional application information; and
- Develop simpler processes for permit renewals where no changes are needed.

Each permit program area developed specific process improvement recommendations that build off the list above. Some examples include:

- Air: develop streamlined application forms and permit template, enhance outreach and technical assistance;
- Water Discharges: implement LEAN efficiencies across all NPDES programs, improve application instructions and enhance stakeholder communications; and
- Waste: develop and update standard operating procedures, develop templates and checklists to expedite permit modifications.

In all, the Department recommends more than 40 process improvements.

Programmatic Changes – changes that require new authorizations (e.g., new general permits, and regulatory and statutory changes):

- Eliminate programs that are no longer necessary to meet core mission or emerging needs ; and
- Utilize the right regulatory tools to accomplish the desired outcome (e.g., switch from individual permits to general permits where appropriate).

Specific recommendations include:

- Coastal: adopt regulations for residential docks;
- Inland Water Resources: repeal the Stream Channel Encroachment Line program; and
- Water Discharges: develop general permit for industrial metal finishing and electroplating pretreatment, and consolidate nine existing pretreatment general permits.

In all, the Department recommends more than 20 programmatic changes, including many new general permits or general permit revisions.

Staffing Needs

DEP has indentified the need for an additional 53 program staff, five legal staff and six information technology staff to consistently meet the time frame goals outlined in Public Act 10-158.

Additional Resources

DEP's primary recommendation for additional resources is focused on contractual services necessary to improve information technology for the benefit of Department staff and customers. Annual needs are estimated at $500,000.

II. Background

A. Public Act 10-158

The 2010 General Assembly directed the Department of Environmental Protection (DEP) to conduct an assessment of the DEP's review process for individual environmental permits. The Act directs the Commissioner to issue a comprehensive report that "prescribes changes to be made to the department's review schedules for individual permits, including reducing the time frames for identifying deficiencies in permit applications and issuing tentative determinations." Further, the assessment is to identify "the process improvements, additional resources, staffing and programmatic changes necessary" to meet specific time frame goals. In conducting this assessment, DEP understood that recommended process improvements and programmatic changes would not compromise environmental standards. Upon signing Public Act 10-158, Governor M. Jodi Rell stated: "our goal is to meet tighter deadlines for action on projects that are important to our state and its economy – keeping and growing jobs while maintaining our environmental standards. I believe DEP's review of its permitting processes and recommendations for improvements will help us meet this goal."

The Department of Environmental Protection Gathered Stakeholder Input on the Permit Processes by:

- Conducting 13 public listening sessions
- Meeting with 5 Chambers of Commerce and both the Connecticut Business and Industry Association and Home Builders Association to hear directly the concerns of Connecticut businesses
- Convening a meeting of environmental groups

Public Act 10-158 also requires DEP to review and report on:

- A plan to establish a pilot expedited permitting process for not less than two hundred representative manufacturing or other industrial facilities;
- The public participation process in permitting and the impact of Connecticut's Environmental Protection Act;
- The procedures for issuing general permits; and
- The establishment of a consulting services program or alternative program to provide compliance assistance to businesses and municipalities.

In preparing this report, DEP listened closely to the concerns expressed by many stakeholders. This included comments raised during the Permitting Task Force, established by Governor Rell's Executive Order No. 39, from testimony during the 2010 legislative session, and in subsequent dialogue with many stakeholders engaged during a series of public listening sessions conducted by DEP.

Prior to embarking on this review, DEP began an initiative in 2008 known as LEAN, which has resulted in significant process improvements. LEAN is a tool that is a designed to identify and minimize wasted time and effort. DEP's improvements through LEAN initiative were noted by the Permitting Task Force in its report to Governor Rell stating that, "in the past two years, several state regulatory agencies, in particular DEP, have initiated improvements to streamline the permitting process. These efforts are beginning to help Connecticut develop a reputation as a state that is welcoming to businesses."[1] Throughout, this report highlights the efforts that DEP has taken to improve the efficiency and predictability of its permitting programs. Greater detail on recent improvements can be found in Appendix A.

B. Permitting at DEP

Many of DEP's permit programs spring from federal laws for which DEP has been delegated the authority to manage, largely through the issuance of permits. That delegation typically carries with it certain administrative requirements (i.e., public notice and comment opportunities) that must be maintained in order to comply with federal law. All changes recommended in this report have been looked at with an eye to continuing this delegated authority in order to keep permit decision-making in Connecticut.

The federal programs include implementation of the Clean Air Act, the Clean Water Act, the Resource Conservation and Recovery Act, as well as provisions of the Federal Insecticide, Fungicide and Rodenticide Act, and the Safe Drinking Water Act. These federal programs evolve, and DEP must be positioned to meet new and changing federal mandates, such as the many new rules required by the Clean Air Act. Staying current with this change can strain DEP resources and create uncertainty for permittees. Therefore, these programs are implemented by DEP in a manner that ensures that all parties can continue to meet the requirements of these evolving federal programs and avoid potential federal sanctions that may jeopardize state delegation or result in the loss of significant federal funding. Loss of delegation of any federal program would return permit application review to the federal government. If permitting programs were operated by the federal government, applicants would be subject to decisions

[1] REPORT OF THE PERMITTING TASK FORCE TO GOVERNOR M. JODI RELL, April 2010

made by those without local knowledge or context and result in subsequent loss of local accountability.

In addition to these federally-delegated permit programs, DEP implements permitting programs established by the Connecticut General Assembly. These permit programs govern land use, natural resource protection and allocation, and public health and safety. For example, land use permits cover activities that may permanently alter the natural environment and are usually associated with construction. These permits are typically issued for a limited duration and include terms and conditions that minimize impacts through the application of best management practices. Where appropriate, land use permits may include requirements for mitigating losses, such as creating replacement wetlands. Typically, new activities are not allowed to commence until a permit is in place; in contrast, those that submit timely renewal applications are usually authorized to continue their operations during DEP's review. Other state permitting programs, include, but are not limited to water diversion, flood management, coastal permitting, and dam safety.

Permits issued to control activities that may affect the environment take various forms, ranging from individualized permits and licenses issued to an applicant for a specific project or facility to general permits that can cover similar minor activities throughout a prescribed geographic area. Permits may be issued

DEP Individual Permit Programs

Air Emissions

New Source Review
Title V Operating Permits
Title IV Acid Rain
Clean Air Interstate Rule (CAIR)
Construction of Indirect Sources of Air Pollution

Water Discharges

To Groundwater
To Sanitary Sewer (POTW)
To Surface Water (NPDES)

Inland Water Resources

Dam Safety
Flood Management Certification
Inland 401 Water Quality Certification
Inland Wetlands and Watercourses
Stream Channel Encroachment Lines
Water Diversion

Coastal Resources

Certificate of Permission
Coastal 401 Water Quality Certification
Structures and Dredging/Tidal Wetlands

Waste Management

Aerial Pesticide Application
Aquatic Pesticide Application
CGS Section 22a-454 Waste Facilities
Hazardous Waste Treatment, Storage and Disposal Facilities
Stewardship Permits
Marine Terminal License
Solid Waste Facilities
Waste Transportation

for one time activities of limited duration or may be issued to cover on-going operations that require regular re-evaluation and reissuance. Air emission and water discharge permits are typically issued for a set number of years and must be renewed at regular intervals that allow for re-evaluating conditions and addressing appropriate technological advances. Permit coverage is limited to the activities being proposed at the time of application and, therefore, may require future modifications to allow for process changes that create new or different emissions or discharges. The type of permit used to regulate a specific activity may be dictated by the underlying state or federal authorization, or where flexibility allows, DEP will chose the most appropriate and efficient permitting tool.

The analysis conducted in preparing this permit assessment focused on examining the process of issuing individual permits; however, Section VII addresses general permit development. Prior permit assessments and evaluations have led to considerable standardization of the process and the development of various expedited and short processes to facilitate the permitting of minor activities including, but not limited to, general permits, Certificates of Permission (COP), and temporary and emergency authorizations.[2,3]

In accordance with Public Act 10-158, this report focuses on the twenty-five individual permit programs, listed in the above sidebar, that fall under the responsibility of the Environmental Quality Branch of DEP. Each of these individual permit processes share a number of steps, regardless of the underlying programmatic authority.

The typical process includes:

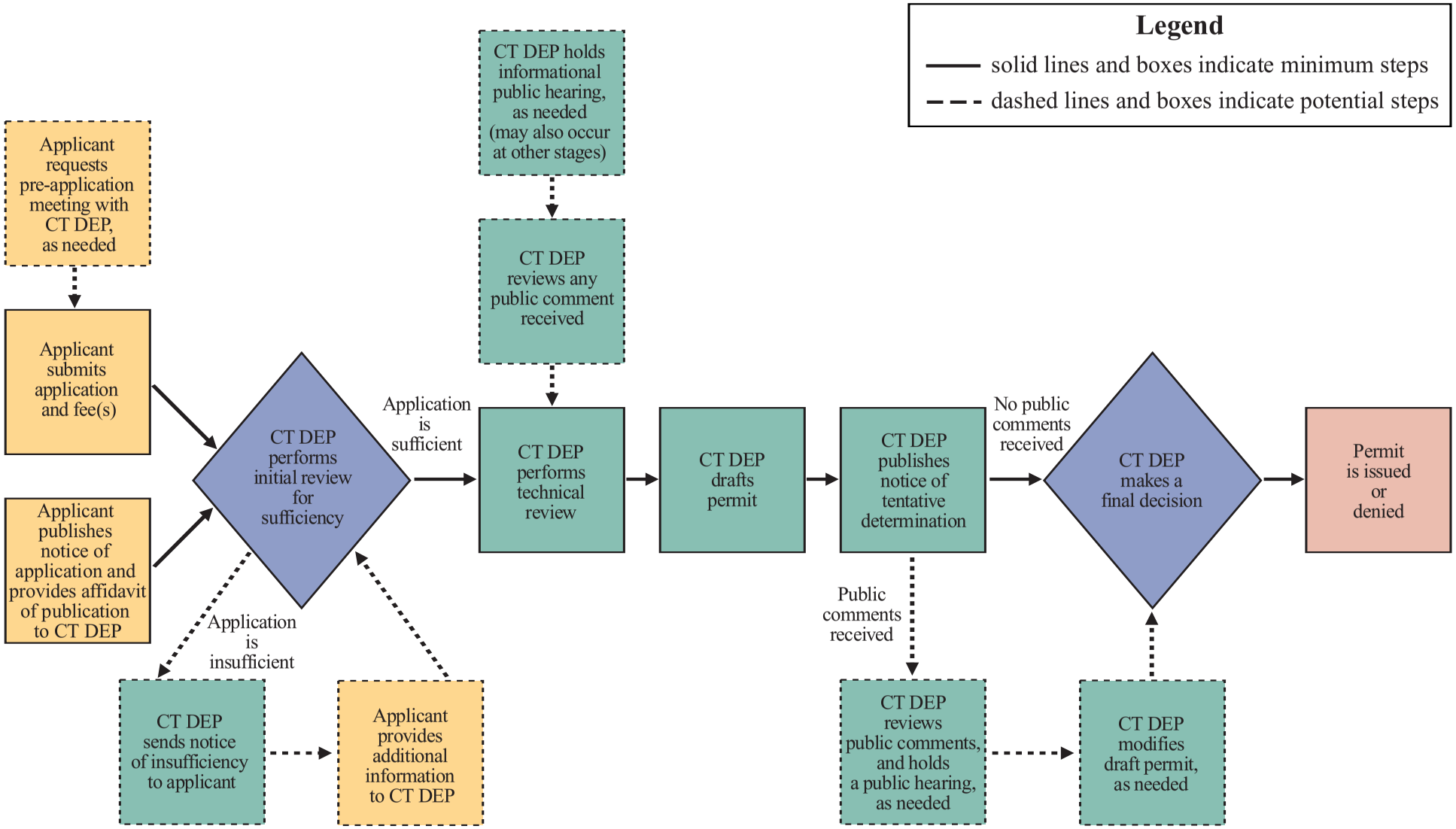
- Pre-application meetings with DEP (if requested)
- Submission of application, fee, and publication of notice of application
- Initial sufficiency review and (if needed) notice of deficiency (NODs)
- Technical review
- Draft permit prepared
- Notice of tentative determination
- Public participation (including a public hearing if necessary)
- Final decision

For a more detailed description of the typical permit process see the flowchart below.

[2] Environmental Permitting Reengineering and Restructuring Plan, Connecticut Department of Environmental Protection, March 1, 1993
[3] Governor's Blue Ribbon Task Force to Evaluate Permitting, January 24, 1997

Air, Waste, Water and Land Use: Typical Individual Permit Process

The process of applying for and obtaining an individual permit may differ slightly from program to program, but almost all programs follow the generic process depicted here:



Public Act 10-158 specifically directs the DEP to examine two critical steps in this process – determining whether there are any deficiencies in an application (referred to as sufficiency review); and the technical review necessary to notice a tentative determination on an application.

Time Frame Goals

Sufficiency Review Goal – 60 Days

- Sufficiency review begins after DEP receives an application on the correct application forms, the application fees and, when required, confirmation that notice of the filing of the application has been published.
- Once the sufficiency review begins, a Notice of Sufficiency or Notice of Insufficiency of the application should be issued within 60 days. A Notice of Insufficiency will include a deadline for submittal of supplemental material. This response time is dependent on the complexity of the information being requested. If additional information is needed to make an application sufficient, a second sufficiency determination should be issued within 30 days of receipt of supplemental material.

Technical Review Goal – 180 Days

- The technical review of an application begins once the Notice of Sufficiency is issued by the DEP and should be completed within 180 days. If the DEP requests additional information from the applicant, the 180-day "clock" stops while the applicant generates the requested information. Upon receipt of the requested information, the "clock" begins again. At the end of the technical review, DEP will issue a Notice of Tentative Determination (NTD).

III. Methodology

The main focus of this report, as required by Section 1 of Public Act 10-158, is the permit process assessment. Specifically, DEP reviewed the processing of individual permit applications for the twenty-five permitting programs listed above. As part of this assessment, DEP conducted 13 public informational workshops where stakeholders were given an opportunity to provide input on the existing process and suggest improvements. A list of public informational meetings is included in Appendix B. In addition to these workshops, Commissioner Marrella met with local and regional business organizations to seek further input from the business community.

The typical workshop included a presentation by DEP on the initial permit program assessment and preliminary recommended changes. These presentations were followed by opportunities for questions and comments by all stakeholders. A few stakeholders also submitted written comments. Comments and ideas received through the public informational meetings were taken into consideration as the permit programs finalized their program assessments.

The individual program assessments included an analysis of historic time frames for conducting sufficiency and technical reviews. The results of this data analysis are presented below in the findings section of this report. Where data was available, permit programs that have already conducted and begun implementing LEAN continuous improvement processes offer time frame comparisons for pre- and post-LEAN permit processing. In developing final recommendations, permit programs considered comments, evaluated best practices in other permit programs and other jurisdictions, and looked for opportunities to apply lessons learned from earlier program assessments and LEAN evaluations to current permit processing.

The analysis takes into account programmatic variations as well as permit types (e.g., new activity, or renewal or modification of previously permitted activity). While programs typically review permit applications by a first-in, first-out basis, prioritization of the type of permit application was considered during this review process. This is an important consideration, as prioritization is critical in determining where DEP should apply its limited staff resources. Care must be taken to balance meeting broad time frame goals across all programs, while ensuring staff resources are capable of responding quickly to important projects that promote economic growth and achieve important environmental outcomes.

As a further part of the assessment DEP conducted a number of cross media in-house meetings to discuss and share findings and best practices and to ensure that common solutions and improvement opportunities were considered across permitting programs. Common findings and recommendations precede the individual program assessments in Section VI of this report.

Over the past several years, DEP has embraced a culture where staff are encouraged to improve business processes while increasing environmental benefit. The following key principles to this effort also formed a framework for this assessment and resultant recommendations:

- Increase the efficiency of decision making while preserving environmental standards;
- Foster a culture of continuous improvement by focusing on "value added" steps;
- Apply technology where appropriate and within resources while building on existing efforts; and
- Factor emerging issues and changing conditions into planning and decision making.

DEP is committed to ensuring transparency exists throughout its on-going permit analysis and to ensuring that all changes provide for open, public involvement in decision-making.

IV. Findings and Analysis

Common, department-wide findings are presented below. Individual program findings are presented in the reports contained in Section VI.

A. Data Analysis

On an annual basis DEP receives nearly 3,000 applications. The table below represents the average number of applications received over the last five years (2005 - 2009).

Permit Application Type	Average Received
General Permits	1254
Individual	713
Short Process	900
Total of All Applications	**2867**

DEP through its 25 permit programs and 56 general permits has authorized 29,627 current activities.

B. Data Quality Limitations

In conducting this assessment, each permit program analyzed the historic data available. The detailed results of that analysis are found in the individual program reports later in this report. The following table provides a snapshot of that data across the Department. There are a number of limitations on the data that make program to program comparisons difficult. The shortcomings of this historic information include:

- data gaps,
- lack of consistency in data,
- variations in level of detail,
- inconsistent tracking of time awaiting additional information from applicants, and
- program-to-program differences.

As the Department transitions to its new data management system, these quality issues are being addressed on a going-forward basis.

The following table presents a snapshot of each program's ability to meet the sufficiency and tentative determination goals of the Act for applications received in 2009.

2009 Permit Program Time Frame Goal Attainment

DEP Individual Permit Programs	Sufficiency % Met Goal (60 days)	Tentative Determination % Met Goal (180 days)
Air Emissions		
New Source Review	95	81
Title V Operating Permits	71	93
Water Discharges		
To Groundwater - New	100	100
To Groundwater- Renewal	50†	0†
To Sanitary Sewer – New	33†	33†
To Sanitary Sewer - Renewal	100	0
To Sanitary Sewer - Modification	0†	0†
Municipal Facilities - Renewal	100	0
To Surface Water (NPDES) – New	100†	0†
To Surface Water (NPDES) - Renewal	100	100
To Surface Water (NPDES) - Modification	33‡	100‡
Inland Water Resources		
Dam Safety	67	83
Flood Management Certification	53	95
Inland 401 Water Quality Certification	39	56
Inland Wetlands and Watercourses	31	54
Stream Channel Encroachment Lines	50	100
Water Diversion	33	64
Coastal Resources		
Certificate of Permission	100	100
Coastal 401 Water Quality Certification	100	100
Structures and Dredging/Tidal Wetlands	96	98
Waste Management		
Aerial Pesticide Application	¥	100
Aquatic Pesticide Application	¥	100
CGS Section 22a-454 Waste Facilities	67	100
Hazardous Waste Treatment, Storage and Disposal	100	0
Marine Terminal License	¥	100
Stewardship Permits	100	100
Solid Waste Facilities - New	33†	67†
Solid Waste Facilities - Renewal	58	40
Solid Waste Facilities - Modification	33	100
Waste Transportation	¥	100

† denotes data from 2008
‡ denotes data from 2006
¥ denotes step not required

As is apparent from the data presented in the table above, several of the programs are currently meeting the goals outlined in Public Act 10-158. However, much remains to be done to consistently meet these goals and to complete the processing of all previously submitted pending applications. In the individual program reports, contained in Section VI, programs present historical timeliness data. These tables show that many programs have achieved improvements, while others still require more work.

Historically, application reviews have been an iterative process.
DEP staff traditionally spend considerable time and effort working with permit applicants to "get to yes." Repeated informational requests and redesigning of a project to be consistent with environmental and natural resource constraints leads to considerable expense and delay for both parties. DEP is encouraging the use of pre-application meetings to communicate clearly what the standards are for allowing an activity to be permitted and what information is necessary to make a decision on an application.

Permit application complexity can vary widely even within a permit program.
As application processing time frames were analyzed, it became obvious that even within a permit program, one application is not necessarily comparable to another. Project size, variations in mechanical and chemical processes, control technologies, flow or emission levels, effluent categories, topography, natural resources, geology, and many other factors all contribute to differences between applications that require significantly different levels of technical review. Due to the diversity of application types and limitations on time frame data, the assessment did not categorize applications by complexity. Therefore, the data presented represents average processing times. Where possible, this assessment differentiates between new applications and renewals.

Various factors affect the rate and timing of applications received by DEP on an annual basis, and the effects of any one factor may impact program workloads differently.
In conducting any process assessment, it is important to understand the input rate. As program staff looked at their statistics, they often found variations in the number of applications received from year-to-year, some of which were predictable while others were not. The economic climate in the state has a direct impact on new development starts, not unlike the housing market. During economic downturns, the reduction in environmental permit applications is sharpest in the land use-based programs. As economic conditions improve, there is often a rush of new activity that challenges the ability of these programs to keep up. In the NPDES discharge permit program, workload is more dependent on renewal applications rather than on new activities. This workload is typically steady but may vary depending on new regulatory requirements or emerging environmental concerns. Therefore, each permit

program must consider these variations in planning, a task made more difficult by recent staff reductions and the lag time necessary to train staff when funding is available.

What constitutes sufficiency varies by program.
The information necessary to consider an application sufficient to begin technical review is program-dependent. For example, the New Source Review air permit program conducts a minimal "administrative sufficiency" review since determination of applicable control technology is an iterative process and interim decisions often dictate additional informational needs. In contrast, the level of review necessary for water diversion applications to determine sufficiency is more comprehensive because of the amount of data and information that is necessary as part of this application.

Care must be taken in drawing conclusions based on current processing time frames.
The loss of staffing and expertise from the 2003 early retirements is clearly seen in the historic data. In the most heavily affected programs, the increase in pending permits lasts for two to three years before process improvements and replacement staff begin to show improvements in processing. The full effects of the Department's 2009 retirements and recent hiring freezes are likely to show a similar negative impact on permit processing times. In addition, new state and federal mandates will increase DEP's workload, and current staff will be stretched even further.

C. Common Findings

Continuous improvement and applying lessons learned.
As described in more detail in Appendix A, in 2008 DEP launched a highly successful process improvement approach known as LEAN – designed to identify and minimize wasted time and effort in permitting, enforcement and other programs of the Department. Across the board, this effort has borne out significant improvements. In many cases, the data shows striking improvement when pre- and post-LEAN time frames are compared. As DEP conducted this assessment, programs returned to earlier permit streamlining reports[4], and the findings of the many LEAN teams saw the demonstrated improvements generated by those efforts and looked for opportunities to further apply these lessons to other program areas.

[4] Prior to this year's Permit Task Force convened by Governor Rell, DEP had participated in two earlier permit evaluation efforts. See, Environmental Permitting Reengineering and Restructuring Plan, Connecticut Department of Environmental Protection, March 1, 1993 and Governor's Blue Ribbon Task Force to Evaluate Permitting, January 24, 1997

Working "on" the business.

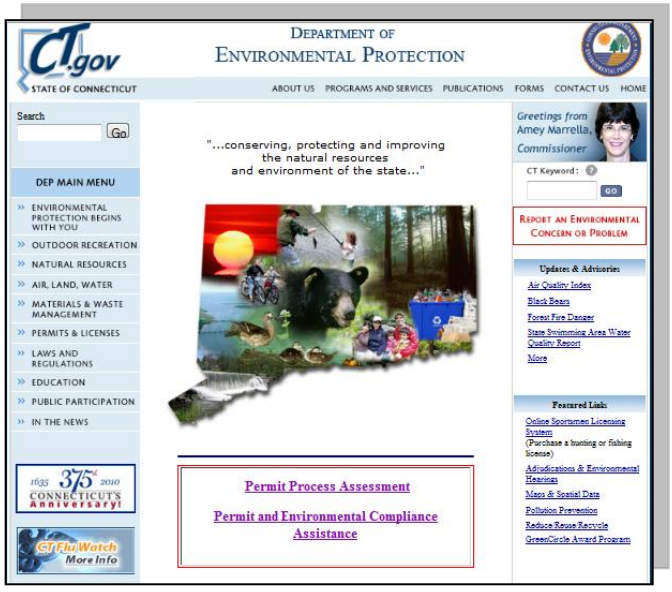
The success of LEAN has demonstrated the importance of taking the time and resources to work on the business. The only way that programs can be improved is if knowledgeable staff has the opportunity to analyze the existing processes, develop appropriate recommendations and implement those changes. The challenge is that these are the same staff who are currently conducting the program's business of processing applications. This investment is critical. Identifying and implementing innovative solutions (e.g., the Stewardship Permit initiative that garnered a National Achievement Award for this first-in-the-nation reform) takes a great deal of staff time; however, the upfront time spent engaged in this effort can payback many times over for both the Department and its customers.

Working "on" the Business

As DEP has embraced LEAN, DEP staff have learned to balance two complementary tasks. While continuing to review and issue permits (working "in" the business), staff are also taking time to identify and implement improvements to our permitting programs (working "on" the business). DEP must continue to invest staff time in both efforts if DEP is to consistently achieve and maintain timely permit reviews.

Increasing demand for eGoverment and web based resources.

As technology continues to evolve, society has become more reliant on internet transactions and information, creating a growing demand for greater use of technology by government. Consistently, stakeholders have asked that DEP provide more "eGovernment" opportunities, including, but not limited to, e-filing of applications and reporting, online access to application status information and smart tools such as "permit wizards". Through our LEAN process improvement efforts, DEP has identified many opportunities for technology to deliver process improvements. DEP's Office of Information Management, in cooperation with the Department of Information Technology, has made strides in helping to meet these requests (see discussion of recent improvements in Appendix A); however, the demand far exceeds capacity. In addition to the limitations on information technology staff and resources, developing tools that best serve internal and external customers will require a significant commitment of program staff who process applications and meet other customer needs.



Changes in federally-delegated programs are simply beyond the DEP's control.

Many of DEP's permitting programs implement federal programs. Both DEP and permittees must act in accordance with changing federal requirements. With increasing changes to the federal programs and several areas of federal program expansion, DEP permit staff need time to update Connecticut programs to ensure Connecticut and its permittees are in compliance with these federal requirements. This takes staff away from their main function – processing permits. A short list of new federal rules focused solely on the Air New Source Review program is presented in the sidebar.

List of Pending New Source Review Federal Rules

- Greenhouse Gas SIP Fix Rule
- PM2.5 Increments, SILs and SMC Rule
- NSR Aggregation Rule
- PM2.5 Implementation Rule
- Repeal of the Grandfathering Provision/PM10 Surrogate Policy
- Condensable Particulate Matter
- 8-hour Ozone NAAQS Implementation: NSR Antibacksliding Rule
- Fugitive Emissions Reconsideration Rule
- NSR Reasonable Possibility Rule

DEP needs to balance permitting with other programmatic considerations.

When analyzing a permit program it is important to consider the entire program - conducting compliance assistance, enhancing the permitting program, performing inspections, and taking enforcement action against those that violate permit requirements are all critical elements of each permitting program. Adequate staff need to be available to implement the "whole" program. This is especially critical for federally-delegated programs, as EPA has been increasing its emphasis on inspections and enforcement components of federal permitting programs.

DEP has lost staff due to budget constraints, attrition, and retirements while program complexity and new mandates continue to grow.

After a period of continued growth followed by a leveling out of staff resources over the past decade, DEP has been subject to an overall decline in staffing that was accentuated by a significant loss of senior and experienced staff. The 2003 early retirement incentive and last year's retirement incentive, coupled with periodic hiring freezes, have taken a considerable toll on DEP's knowledge base. In the case of both retirement incentives, DEP has refilled a limited number of positions, but staff have continued to leave DEP through normal attrition at a rate of approximately 30 people per year. Even when allowed to refill a position, hiring is a time consuming process typically compounded by the time needed to get new staff up to speed in complex permitting programs. These losses in staffing numbers and expertise have occurred at the same time that

Staff Reduction

- **In 2003 DEP lost 90 staff with 2,556 years of experience.**
- **In 2009 DEP lost 67 additional staff with 1,994 years of experience.**

new federal and state mandates have increased DEP's responsibilities and emerging environmental issues are presenting new challenges.

The current level of DEP legal support staffing is not adequate to fully support permitting programs.

Timely and accessible legal advice and review is needed to support a strong and timely permitting program. Attorneys are needed to help write and review draft regulations; review drafts of individual and general permits; and provide legal opinions on existing and new state statutes, new federal rules, and new court decisions. At DEP, the existing legal staff must triage their work. As a result, only the most pressing matters getting legal attention.

The degree to which states support environmental permitting programs with legal resources varies widely across the country. The scope of programs within an environmental agency also varies from state-to-state. DEP conducted a limited survey of the number of attorneys that support other state environmental agencies to determine how Connecticut compares.

In general, the states surveyed retain a larger number of attorneys and legal support staff compared to DEP's legal office of three lawyers and one paralegal. Iowa was most comparable in its state population and number of agency employees. DEP would benefit from additional attorneys to adequately support DEP's permitting programs and to assist in meeting the time frame goals outlined in Public Act 10-158.

State	Number of Attorneys
Connecticut	3
Florida	60
Indiana	21
Iowa	10
Massachusetts	45-55
Rhode Island	5
Vermont	15

DEP needs to continue regular communications with our business customers.

The outreach associated with this assessment was very useful. DEP needs to continue to do more to reach out to the business community to make sure that they are aware of the current practices and resources available. The Department also needs to work closely with DEP's partners in the economic development community to make sure that potential developers have an up-to-date understanding of the environmental permitting process. Information available on the DEP website and through other venues needs to be expanded and organized to be more accessible to targeted audiences, particularly smaller businesses.

V. Recommendations

DEP offers the following general recommendations in response to Public Act 10-158 as a framework for achieving timely decisions on permit application while assuring continued environmental improvement. These strategies are grouped into four categories that track the Act: process improvement, programmatic changes, staffing needs, and additional resources (see below). Additional program-specific recommendations are discussed in the program-by-program assessments.

DEP is committed to pursuing these recommendations; the pace at which they can be delivered will be dictated by available staffing and resources. DEP will also continue to engage stakeholders through the Department's well-established advisory groups to further the discussions on permitting. As necessary, DEP will convene topical advisory committees to garner further stakeholder input. In addition to these regular meetings, DEP will continue to engage constituents in dialogue on this and other important environmental issues. DEP is committed to expanding and keeping the DEP website up-to-date for the benefit of all stakeholders.

Process improvement – includes changes that can be made without the need for statutory or regulatory change, such as new procedures and forms.

Programmatic changes – includes changes that require new authorizations, such as the development of new general permits, and regulatory or statutory changes.

Staffing Needs – includes permanent staff to conduct administrative technical and support functions necessary to achieve the identified timeline goals.

Additional Resources – includes temporary resource needs such as contractual services and Information Technology resources, hardware and software.

A. Process Improvements

1. Continue to expand the use of pre-application meetings with applicants to ensure that information requirements are well understood.

The Solid Waste Program's LEAN implementation plan identified the need to improve the use of pre-application meetings, including concurrent Environmental Justice public participation plan reviews for permitting waste facilities.

Pre-application meetings have been very effective in communicating what information is needed for DEP to make timely decisions on applications. Complex projects requiring multiple environmental permits from DEP can benefit from a pre-application meeting by ensuring that an applicant knows what permits are required. Pre-application meetings provide an applicant the opportunity to discuss options that might simplify the regulatory process. For example, reductions in flow achieved through water conservation, or reduction in pollutants through changes in process chemistry may qualify a business for a general permit.

DEP intends to continue to expand the use of pre-application meetings as a way of establishing expectations for applicants regarding informational needs and what can realistically be permitted. After these expectations are made clear, it is incumbent upon the applicant to submit a sufficient application.

Continue to apply LEAN and continuous process improvement techniques.

DEP will continue to focus on evaluating permit application processing to eliminate non-value added steps. Through the LEAN process, permitting programs will establish processing metrics. DEP will regularly re-evaluate permit application informational needs and adjust permit applications and guidance materials accordingly.

DEP will conduct three, week-long process improvement events per year with three to four teams per event – typically resulting in year-long team implementation plans. To avoid overwhelming the staff of any one program area, no more than two process improvement projects will be on-going at any one time within a division.

LEAN Process Improvement Events Conducted in 2010

- Diagnostic and Therapeutic X-Ray Device Registration and Radioactive Materials and Industrial Devices Team †
- Improvement in Natural Diversity Database Species Review Request Processing †
- State Forest Management Planning
- Air Quality Monitoring Data Acquisition Improvement Project †
- Office of Adjudications: Revisit/Revise Hearing Procedures and Rules of Practice †
- Solid Waste Facility Individual Permits †
- Surplus Property Review Process Standardization

† directly supports permit timeliness

This assumes the availability of contractual services to facilitate the DEP's LEAN initiative, a commitment of staff time to work on the business, and the resources necessary to accomplish improvements identified in LEAN team implementation plans.

Formal requests for additional information necessary to process an application should clearly state the information needed and establish a reasonable time frame for submission.
When required information is missing or additional detail is necessary to make a decision on an application, DEP will notify the applicant and make clear what information is needed to complete the review. A reasonable time for the applicant to submit the information will be stated in the request. Adherence to this time frame will help to keep the application review "fresh" and allow for a more timely decision.

Develop simpler processes for permit renewals where no changes are needed by the applicant or DEP.
DEP will examine opportunities for streamlining procedures for renewing permits where the applicant can certify that nothing has changed since the previous application and the permittee has maintained compliance with its permit requirements.

Prioritize applications for projects having a significant positive economic impact, as defined by Section 3 of Public Act 10-158 in coordination with the Department of Economic Development's Permit Ombudsman.
DEP's Office of Permit Assistance will work with the Department of Economic Development's Permit Ombudsman to ensure coordination and expedited review for projects that qualify under Section 3 of Public Act 10-158. Such applications will be given priority in processing and may require the temporary shifting of resources from other permit application reviews. For permits not covered by Section 3 of Public Act 10-158, DEP will continue to review permits on a first-in, first-out basis.

Improve data collection and quality.
DEP will conduct a week-long process improvement event to evaluate the way in which each permitting program collects, enters, and tracks data with respect to permit applications. The consistency and quality of this data is important in determining permit processing time frames and is useful in selecting future process improvement projects.

In addition to the Department-wide recommendations for process improvements described above, the following table summarizes the additional process improvement recommendations detailed in the individual program reports contained in Section VI.

Individual Program Process Improvements

Air Emissions
Develop streamlined Title V application forms and review process so focus is limited to changes.
Require modeling submittal with permit application to reduce delays associated with requesting modeling later in the process.
Shorten time frames to implement federal actions by requesting EPA provide implementation guidance at the same time new rules are promulgated.
Develop a new Title V template that ensures consistency among facilities and forms the basis for accurate compliance certifications.
Continue process improvement efforts focused on timeliness and streamlining by identifying causes of processing delays and developing solutions through internal and external stakeholder meetings.
Enhance assistance and outreach on new rules and associated technical issues so small businesses and applicants understand new requirements.
Continue SIPRAC permitting subcommittee created during the permit program assessment.
Provide compliance assistance tools to ensure applications are accurate and complete and reduce review time by completing the permit wizard and MASC (toxics) calculator.
Coastal Resources
Increase technical assistance and outreach to applicants and stakeholders.
Administer and incorporate feedback from customer satisfaction surveys.
Enhance procedures for pre-application consultation.
Enhance on-line guidance and forms for applicants, including clarification of LEAN procedures.
Inland Water Resources
Increase the use of pre-application meetings.
Continue implementing and refining LEAN improvements through creation of standard templates and sufficiency review procedures.
Provide technical assistance and outreach to applicants and stakeholders.
Look for opportunities during general permit renewal process for six IWRD construction related to create new categories by streamlining the process and providing for consolidated permitting.
Water Discharges
Apply the LEAN NPDES permit renewal efficiencies to individual NPDES applications for new and modified discharges, and reduce the DEP time frame for issuing a tentative determination on an industrial NPDES discharge permit application to 240 days.
Streamline determinations under RCSA Section 22a-430-3(i).
Streamline review of application submittals.
Clarify commencement of 60-day sufficiency time frame for permit renewal applications.
Improve communication by engaging stakeholders regarding programmatic issues, and provide outreach and technical assistance for new stormwater and pretreatment processes.
Develop fact sheets and revise the instructions for preparing groundwater discharge permit applications.

Address the performance of advanced treatment systems using the web-based database (e-DMR) that was developed to track all permitted subsurface sewage treatment and disposal system monitoring and maintenance data.
Re-evaluate the information available regarding large scale on-site wastewater renovations systems.
Distribute final review of municipal facilities permits among senior staff and enhance communication to ensure consistency.
Develop a schedule to issue back-logged municipal NPDES permits to avoid a peak year condition for the next five-year renewal.
Waste Management
Implement the Solid Waste LEAN process improvement work plan: • Limit issuance of notice of insufficiency to one sufficiency review; • Limit number of Requests for Additional Information to two technical reviews; • Improve and increase the use of pre-application meetings, including concurrent Environmental Justice public participation plan reviews for waste facilities; • Develop and update permit templates for waste transportation and solid waste facility permit programs; • Develop and update standard operating procedures for waste transportation, CT Regulated Wastes, hazardous waste, stewardship and solid waste permitting programs, prioritizing those programs where transitions in permitting staff resources are expected due to attrition; and • Develop and update permit templates for the waste transportation and solid waste facility permit programs.
Develop electronic applications and fees (eGovernment) to expedite part of the administrative process.
Continue improving materials management permitting web pages to provide additional content and resources.
Expand use of stakeholder input through the Solid Waste Management Advisory Committee and the Hazardous Waste Management Advisory Committee.
Evaluate the use of Stewardship Permits at properties that need RCRA Corrective Action schedules to ensure cleanups are completed and maintained in lieu of enforcement actions.
Fast track applications for activities prioritized in the Solid Waste Management Plan to improve permitted capacity for all waste types.
Improve the use of pre-application meetings, including concurrent Environmental Justice public participation plan reviews for waste facilities.
Update the existing MOU with DPH to cover pesticide applications to public water supply reservoirs.
Assess the viability with input of Solid Waste Management Advisory Committee of 10 year permit durations for certain waste facilities – RRFs and remaining landfills.
Update the marine terminal page of the DEP website in order to enhance customer service to licensees.
Promote registering under the Municipal Transfer Station general permit in lieu of individual transfer station permits.
Develop templates and checklists to expedite solid waste modifications which address emerging markets or operational approaches (e.g., single stream) and improved control technologies.

B. Programmatic Changes

Eliminate certain programs that are no longer necessary to meet the core mission or emerging needs.

Over time certain programs have lost their relevance or have been effectively supplanted by other systems. DEP recommends that where components of the regulatory system no longer contribute to environmental improvement or the protection of health and safety, or where adequate safeguards or other programs now fulfill the underlying need, such components should be eliminated. One example is the Stream Channel Encroachment Line program (SCEL).

Eliminate Out-Dated Programs

Initially adopted following the floods of 1955 to regulate activities within Connecticut's streams for the purpose of protecting environmental floodplain resources and to maintain a river's flood carrying and water storage capacity, the Stream Channel Encroachment Line program applied to only a small amount of stream miles in Connecticut. Since that time the Federal Emergency Management Agency (FEMA) has subsequently developed the National Flood Insurance Program (NFIP), studied, and mapped flood ways and floodplains throughout Connecticut with all towns now participating in the NFIP program. These maps identifying flood-prone areas have been adopted by local communities and municipalities through local planning and zoning together with floodplain ordinances to regulate activities within FEMA flood zones in accordance with FEMA requirements.

Use the right permitting tool to accomplish the desired outcome.

The DEP's significant investment in the use of general permits has paid great dividends. More than half of all permitted activities are now covered by registrations under one of the Department's 56 general permits. DEP will continue to look for opportunities where a general permit can take the place of an individual permit. When reissuing or establishing new general permits, consideration will be given to consolidating categories of activities both within and across statutory authorizations. For example, applicants who obtain authorization under the Groundwater Remediation general permit are automatically authorized under the Diversion general permit without the need for an additional registration. In accordance with Section 1 of Public Act 10-158, DEP is developing a pilot-expedited permitting process that will introduce a new general permit for businesses that conduct metal finishing (a large manufacturing and industrial sector in Connecticut). This general permit would replace an existing individual permit process. This pilot program is described in the sidebar and in further detail in Section VI.

A Multi-phased Pilot Expedited Permit Process for the Industrial Pretreatment Program

- Develop a general permit for industrial metal finishing and electroplating pretreatment discharges.
- Consolidate up to nine existing general permits for sewer discharges into General Permit for Miscellaneous Discharges of Sewer Compatible Wastewater.
- Re-evaluate eligibility thresholds for coverage under consolidated General Permit for Miscellaneous Discharges of Sewer Compatible Wastewater.
- Implement provisions for certifying compliance with terms and conditions of pretreatment general permits in lieu of DEP review and approval.
- Expand the pretreatment general permit to cover additional federally-regulated industrial pretreatment discharges.

Adopt new and revised regulations to promote consistency and clarity.
DEP will develop new regulations and revise existing regulations to ensure consistency and clarity in permitting programs. For example, the Office of Long Island Sound will develop new regulations that establish clear regulatory standards for environmentally-acceptable residential dock design and construction. These regulations will identify what is necessary to ensure appropriate implementation of Connecticut's coastal management and coastal regulatory statutes and to further reduce regulatory uncertainty.

Other programmatic changes include adoption of the necessary regulatory provisions to fulfill Clean Air Act obligations and the repeal of the noise and indirect source programs.

The following two tables summarize all statutory and regulatory changes, and general permit and other program developments that are detailed in the individual program reports contained in Section VI.

Specific Programmatic Changes – Statutory and Regulatory

Statutory	Regulatory
Air Emissions	
Repeal noise program.	Adopt necessary regulatory provisions to fulfill expanding Clean Air Act obligations.
Benchmark CT's regulation adoption process with other states and seek changes to improve efficiency.	Repeal indirect source program and replace with a DEP-DOT MOA.
Authorize municipalities to respond to odor and outdoor wood-fired furnace complaints.	
Water Discharges	
	Transition state Water Quality Standards, which provide chemical criteria necessary to setting permit limits, into regulations beginning in March 2011.
Coastal Resources	
	Adopt regulations for residential docks.
Inland Water Resources	
Repeal the Stream Channel Encroachment Line statute.	
Waste Management	
Undertake a comprehensive review of solid waste statutes and regulations to modernize materials management laws and regulations as part of the implementation of the State Solid Waste Management Plan.	Evaluate the need to update regulations to increase permit durations for marine terminal applications and update regulations
Promote use of BUD determinations and continue to develop authorities for beneficial use of special materials (e.g., gypsum board).	Revise pesticide regulations to extend permit duration beyond 1 year.
	Conduct more frequent re-authorizations and updates of State programs to keep better pace with changes in federal hazardous waste rules.

Specific Programmatic Changes – General Permit and Other Program Development Efforts

Coastal Resources
Evaluate revising three general permits and developing three new general permits.
Inland Water Resources
Look for opportunities to extend general permit time frames and consolidate general permits.
Water Discharges
Develop general permit for industrial metal finishing and electroplating pretreatment discharges.
Consolidate up to nine existing general permits for sewer discharges into General Permit for Miscellaneous Discharges of Sewer Compatible Wastewater.
Re-evaluate eligibility thresholds for coverage under consolidated General Permit for Miscellaneous Discharges of Sewer Compatible Wastewater.
Implement performance based terms and conditions in pretreatment general permits for various plans and required documents.
Expand pretreatment general permit to cover additional federally-regulated industrial pretreatment discharges once metal finisher general permit is in place.
Develop a General Permit to Discharge from Subsurface Sewage Disposal Systems Serving Existing Facilities.
Resolve phosphorus permit limits consistent with EPA requirements and DEP criteria/standards development.
Waste Management
Develop non-municipal transfer station general permits to handle bulky waste and non-putrescible commercially generated wastes.
Develop NPDES general permit for discharges from pesticide applications per 2009 federal court decision.
Undertake an assessment through the Solid Waste Management Advisory Committee and Hazardous Waste Management Advisory Committee to review opportunities to evaluate consolidation of the CT Regulated Waste facility and the solid waste facility permit programs to eliminate regulatory confusion.

C. Staffing Needs

Most permitting functions fall within the purview of the three Environmental Quality Bureaus – Air Management, Materials Management and Compliance Assurance, and Water Protection and Land Reuse. The Bureau of Natural Resources, the Offices of Planning and Program Development, Adjudications, Environmental Justice, Information Management and Legal Counsel all provide various support functions to the permitting programs. This structure supports:

- 25 permitting programs
- 56 general permit categories
- 27,151 active permits or general permit registrations
- 12,228 registered underground storage tank registrations
- 2,476 registered air sources

DEP staff work on a variety of issues protecting and enhancing Connecticut's environment. Staff in other areas of DEP are working on equally important federal and state environmental protection and conservation activities, such as wildlife management and site cleanup, to name a few. They also encourage sound environmental practices through many pathways in addition to permitting. For example, staff work with municipalities to limit pesticide use, increase recycling, foster watershed protection, and promote low-impact development. All of this work cannot be completed in a timely manner with available staffing. There is a need for additional staff to process permits, develop permit program enhancements and support the permitting programs.

Reassigning staff offers limited opportunities since staff that are not already supporting or directly working on permit application reviews are fully tasked at performing other core mission activities. In addition, many of the permitting programs require staff that have very specific skills and particular basis of knowledge. While there are staff in DEP that may have the requisite skills and knowledge, these staff are currently fulfilling other federal or state requirements (i.e., inspections, enforcement, developing standards, etc.). As federal and state requirements continue to grow without an increase in DEP staffing or resources, existing staff and resources have become stretched.

Seek adequate program staffing to meet time frame goals outlined in Public Act 10-158. Meeting the time frame goals outlined in Public Act 10-158 for all permit applications will require a significant increase in program staffing levels. Based on the program-by-program assessments, as summarized below and detailed in the individual program reports contain in Section VI, DEP would need to hire 53 additional program staff in order to consistently achieve Public Act 10-158's time frames.

Permitting Program	Technical & Administrative Permit Processing Staff	Program Development, Enhancement & Applicant Assistance Staff
Air Emissions	3	9
Water Discharges	9	6
Inland Water Resources	8	2
Coastal Resources	0	1
Waste Management	11	4

Seek Adequate Legal Support Staff

Comprehensive legal support for DEP is provided by three attorneys and one paralegal in the Office of Legal Counsel. This office assists in environmental permitting and enforcement matters that arise under the Environmental Quality branch of the Department, and provides advice concerning natural resource and outdoor recreation issues that exist under the Environmental Conservation branch of the Department. This means attorneys at DEP need to be able to navigate a wide array of federal, state and local environmental laws that can range from hazardous waste to boating under the influence, for example. In addition, attorneys within the legal office spend a significant portion of their time handling matters involving contracts, labor and employment, intellectual property, ethics and disclosure of records pursuant to the Freedom of Information Act, along with representing the Commissioner and DEP staff in contested cases involving permitting, enforcement or lien hearings. These services are distinct from the representation provided by staff of the Office of the Attorney General in formal legal proceedings.

All permit programs identified a specific need for additional legal support staff to assist with timeliness in their permitting programs. Five additional legal staff are necessary to meet the needs identified in the individual program reports contained in Section VI.

Legal Support Staff Needed for DEP Permitting Programs to Meet Time Frame Goals of PA 10-158	
Legal Support Staff	5

Information Technology Support and Development Staff

Within DEP, information technology support and development is managed through the Office of Information Management (OIM). OIM supports projects that advance eGovernment, improve public interface with DEP and improve internal processes. Staff within OIM perform various tasks that support permitting programs, such as information technology planning, coordination and management; design, development and maintenance of program-specific technical applications; maintenance of DEP's data and network; and support and development of DEP's Geographic Information System.

Recent Information Technology Projects

- **Air Emissions Inventory – EMIT.** Web-based reporting system that allows permit holders to submit their monitoring reports through a secure website to meet federal Title V reporting requirements.
- **CT Environmental Conditions Online (CT ECO).** Provides web accessible GIS information to support the permit application and review process.
- **Discharge Monitoring Reporting On-Line – NetDMR.** Web-based reporting tool for submitting data to EPA, a requirement of the federal Clean Water Act.

Significant staff time and state and federal resources have been invested in the design and development of projects that have improved programs within DEP. Some significant projects recently completed are outlined in Appendix A. A few key projects that affect permit timeliness include initiatives for internal permit processing, enhancements of financial control systems, support for the Coastal Management permitting programs, and the registration and inspection of underground storage tanks. It is critical that each project build upon the Department's primary enterprise information system. The maintenance and enhancement of this enterprise system is essential to the consolidation and centralization of DEP's

information, one of its most important assets. As information technology projects are completed and resulting applications are put into use, additional staff, resources, or both are required to sustain, monitor and enhance these applications.

Demand continues to increase for new information technology tools that would help DEP and its customers. Unfortunately, DEP has neither the staff nor the resources to meet these needs in a timely manner. New project proposals are considered by OIM, but only the most critical needs can be addressed. This means that projects that could launch new applications capable of streamlining DEP's business processes and improving permit applicants' interaction with DEP have to wait many months or even years.

Major Information Technology Projects

- Nine major projects completed in the last five years *taking an average of 2-3 years from design to launch.*
- Ten major projects currently in development – many other projects are in the queue.
- DEP's LEAN efforts have identified 24 opportunities for further improvement that require an information technology solution.

DEP utilizes a team approach to designing and building information technology tools. These teams are typically comprised of one project manager from OIM, one developer from OIM, and database and technology infrastructure assistance from OIM. In addition, resources – in the form of contractual support – are very often necessary to complete these projects. Further, program staff are needed to assist OIM with the design and production of information technology tools, so information technology applications meet program needs. This is another instance where program staff need to be available to work "on" the business.

Major projects that result in new information technology tools have taken anywhere from two to three years from design to launch of the application. Currently, DEP has staff committed to 10 major projects that are in various stages of production. Over the next 12 months, these projects will be launched. DEP is leveraging work completed on DEP's primary enterprise information system and additional, recent investments in data management systems; as a result, projects are now being completed faster with a turnaround time of one and a half to two years.

DEP will require additional information technology support staffing to meet the growing demand for new information technology solutions and to address the pending requests for new tools. DEP recommends an increase of six information technology staff to begin to address the significant number of projects that would help accelerate permitting time frames. These six

staff would be able to form two additional teams to work on new information technology tools and would increase by 20 percent the number of projects DEP would be able to complete in a given year. Specific information technology projects and requests are outlined in the individual program reports contained in Section VI.

Information Technology Support Staff Needed for DEP Permitting Programs to Meet Time Frame Goals of PA 10-158	
Information Technology Support and Development Staff	6

D. Additional Resources

1. Information Technology Resources

Expanding the use of information technology solutions is critical to facilitating permitting improvements. Within the constraints of the State-wide information technology system and as budgetary resources are made available, DEP will work with the Department of Information Technology to prioritize information technology projects that both improve internal workflow processing and improve the Department's interface with DEP's customers. DEP will prioritize projects that increase opportunities for electronic filing of information, such as the electronic filing of permit applications, and provide staff with tools (i.e., electronic workflow applications) to improve permit application processing.

When managed wisely, investments in information technology can improve organizational performance. For example, DEP has realized substantial improvements in processing data and information by developing its primary enterprise information system that links important DEP data with geographic information and documents. This system was designed and produced with both DEP staff and contractual resources. Most information technology tools under development and those being evaluated for future production require the support of a contractor to complete.

Assuming the 10 major information technology projects currently in development are representative of future projects, each new project will require an average of $240,000 for contractual services to complete.

A preliminary review of the specific information technology projects and requests outlined in the individual program reports contained in Section VI indicate the need to use contractual services to design and develop new tools. If staffing is increased to utilize two additional teams (six new staff) to produce new information technology tools, an increase in OIM's budget is necessary to complete additional projects. On average, new projects require $240,000.

To take on these additional projects, OIM would need to increase their annual budget on an on-going basis.

Additional Resources Needed by OIM to Support DEP Permitting Programs in Meeting Time Frame Goals of PA 10-158	
Additional Annual Budget Needs	$500,000

These resources will support DEP's continued expansion of the information technologies to improve internal workflow processing, DEP's interface with its customers, and improvement of DEP's ability to electronically track permit time frames. The following table summarizes additional resource needs, including technology improvements, identified in the individual program reports.

Individual Program Additional Resource Needs

Air Emissions
Make available on DEP's web page radius search and air monitoring data needed by permit applicants to conduct impact assessments.
Develop ambient air quality infrastructure for NO2 and SO2 so permit applicants have the data needed to conduct impact analysis components of permit applications.
If additional staff resources can be made available, develop a control technology database so applicants have full access to the data needed to select appropriate controls.
Consider developing an on-line application system with robust document management so applicants have ready access to relevant air records and documents associated with similar equipment and control requirements.
Consider state provision of offsets since permits go on hold until project funding is obtained before actual offset acquisition occurs.
Water Discharges
Develop and maintain an on-line general permit registration system to allow applicants to register for coverage under a general permit through the Internet.
Evaluate contractor services to look comprehensively evaluate Connecticut's regulation of on-site wastewater management systems, and make recommendations for improvements to ensure that such regulation is accomplished efficiently and effectively.
Coastal Resources
Move toward electronic permitting and web access for permit status information.
Inland Resources
Move toward electronic permitting and web access for permit status information.
Waste Management
Use information technologies to provide more electronic access to Marine Terminal Program documents, applications, permits, inspection reports, maps, forms, etc.
Use information technologies for eGovernment systems for electronic application filing, electronic reporting, document management and data quality management for the aquatic pesticide permitting program.
Use information technologies to support eGovernment systems for electronic application filing, electronic reporting, document management and workflow for waste transportation permitting.

VI. Individual Program Reports

Each permit program conducted a detailed, program-specific assessment that included application processing time frame data analysis, an evaluation of the current permitting processes and LEAN process improvement findings, consideration of stakeholder input and other best practices. The programs followed the charge of Public Act 10-158, which directed the DEP to conduct an assessment and develop a report that "prescribes changes to be made to the department's review schedules for individual permits, including reducing the time frames for identifying deficiencies in permit applications and issuing tentative determinations." The individual program reports follow.

Air Permit Assessment Report

The federal Clean Air Act is the statutory framework designed to protect human health and the environment by attaining and maintaining health-based air quality standards and reducing risk-based air toxics. The air permitting programs administered by DEP achieves these protections by:

- Implementing source-specific control requirements;
- Offsetting new emissions when necessary;
- Establishing monitoring, record keeping, and reporting conditions to assist sources in meeting air requirements; and
- Assuring all interested stakeholders are provided meaningful opportunity to participate in the permitting process.

A. Introduction

Connecticut operates two main air quality permitting programs: New Source Review (NSR) and Title V Operating Permits (Title V). Both programs are set out in state regulation and fulfill the state's obligations under the federal Clean Air Act (CAA), 42 U.S.C. 7401 et seq. These two umbrella air permit programs implement a number of federal clean air requirements:

NSR includes both the prevention of significant deterioration (PSD) and nonattainment NSR programs, each of which is characterized by a different set of requirements of varying stringency. NSR permits are required prior to construction of a new or modified emissions unit or source.

Title V, required by U.S. Environmental Protection Agency's (EPA's) regulations, see 40 CFR Part 70, includes the Acid Rain program established under Title IV of the CAA and the Clean Air Interstate Rule (CAIR) permit program. Title V imposes no new regulatory requirements on a source but rather compiles all the air program applicable requirements in a single facility-wide permit. The Title V program currently applies to 81 major emitting facilities in Connecticut. DEP is presently integrating permitting procedures for Acid Rain, CAIR, and Title V into a single process.

Both Connecticut's NSR and Title V programs are federally approved, meaning that EPA has authorized Connecticut to administer these programs, including key efforts such as issuing permits, conducting inspections and initiating enforcement actions, as appropriate. Changes to the programs must be approved by EPA to maintain this approved status.

Connecticut's air quality permitting programs are driven almost entirely by the requirements of the CAA. Regulatory programs under the CAA are marked by frequent changes and sometimes dramatic expansion. See Table 1 for the list of pending EPA rulemakings. In addition to the number of pending EPA actions regarding NSR permitting, there have been and will continue to be a number of changes to the National Ambient Air Quality Standards (NAAQS). For example, since February 2010, EPA has issued new, more stringent NAAQS for nitrogen dioxide and sulfur dioxide and proposed a more stringent ozone NAAQS. Each change in the NAAQS results in complex planning activities and may result in changes to the air permitting requirements which in turn impact permit issuance.

Table 1: List of Pending Federal NSR Rulemaking Actions, as of 07/14/10
• GHG PSD SIP Fix Rule
• PM2.5 Increments, SILs and SMC Rule
• NSR Aggregation Rule
• PM2.5 Implementation Rule
• Repeal of the Grandfathering Provision/PM10 Surrogate Policy
• Condensable Particulate Matter
• 8-hour Ozone NAAQS Implementation: NSR Antibacksliding Rule
• Fugitive Emissions Reconsideration Rule
• NSR Reasonable Possibility Rule

While actual measured air quality provides the key performance indicator of Connecticut's progress towards meeting each NAAQS and other air quality goals, EPA periodically updates emission limits and standards for sources of air pollution that emit criteria, hazardous and greenhouse gas pollutants to assist states in achieving clean air goals. EPA has promulgated new requirements to regulate greenhouse gas emissions in state permitting programs and proposed a comprehensive rule to replace the Clean Air Interstate Rule which is intended to address interstate air pollution among 32 states, including Connecticut. EPA has also proposed significantly more stringent national emissions standards for pollutants emitted by industrial, commercial and institutional boilers and process heaters, and proposed performance standards for commercial and industrial solid waste incinerators. All of these proposals will require revisions to Connecticut's regulations and the State Implementation Plan (SIP) and all of them must be reflected in individual air quality permits that will be issued in coming months.

Beyond a complex and dynamic federal regulatory environment, air quality permitting is significantly complicated by Connecticut's geographic location with regard to the interstate transport of air pollutants. The state is located at the easternmost end of prevailing wind patterns that carry pollutants from as far away as Ohio in levels that measurably impact Connecticut's air quality. EPA's own air quality modeling has shown that Connecticut is subject

to levels of transported ozone exceeding that of any other state.[1] Emissions from New York, Pennsylvania, New Jersey, Ohio, Virginia, Maryland, West Virginia, and Kentucky all contribute significantly, and in aggregate contribute overwhelmingly, to ozone levels in Connecticut. As a result of emissions occurring out-of-state, Connecticut is designated nonattainment for both the ozone and fine particulate NAAQS.

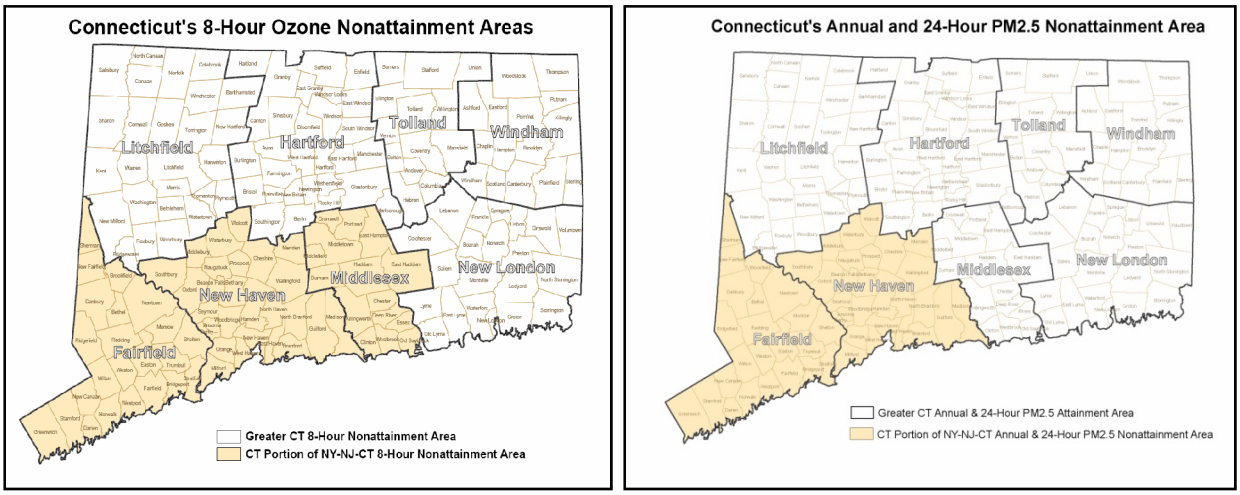


Figure 1. Connecticut Nonattainment Maps for Ozone and PM2.5

A nonattainment designation under the CAA requires a state to impose more stringent requirements in its NSR permit program to ensure that emissions from new and modified sources of air pollution do not contribute to continuing nonattainment of a NAAQS. Connecticut's current nonattainment areas for the ozone and fine particulate (PM 2.5) NAAQS are delineated in Figure 1. One requirement of particular concern to Connecticut businesses or potential businesses is the requirement in nonattainment areas to obtain emissions offsets to reduce overall emissions to the airshed that will result from new source of air pollutants. Offsetting emissions are limited in quantity since they need to be produced in the same geographical area as the potential new source and can only be created by permanent actions that result in emission reductions that are real and quantifiable, such as the shutdown of an emission unit or source. In addition, air permitting in nonattainment areas requires sources to install emission controls that will achieve the lowest emission rate, regardless of the cost of the controls. The offset requirements and inability to consider cost in determining control requirements increases the cost of constructing some air emissions units in a nonattainment area compared to an attainment area. These costs may make it harder, in some instances, for Connecticut to attract new industry and retain the existing industrial base.

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1 See, "*Federal Implementation Plans to Reduce Interstate Transport of Fine Particulate Matter and Ozone; Proposed Rule*," (75 Fed. Reg. 45,210, August 2, 2010) at page 45,268 (Table IV.C-21). See also, EPA's modeling in support of this proposed rule as documented in the excel file, Air Quality Contributions Data File, which can be accessed at EPA's Technical Information webpage.

As shown in Figure 2, power plants and large manufacturers account for 68 percent of the Title V emitting facilities. A significant portion of all applications involves permitting for the installation of equipment for power generation.

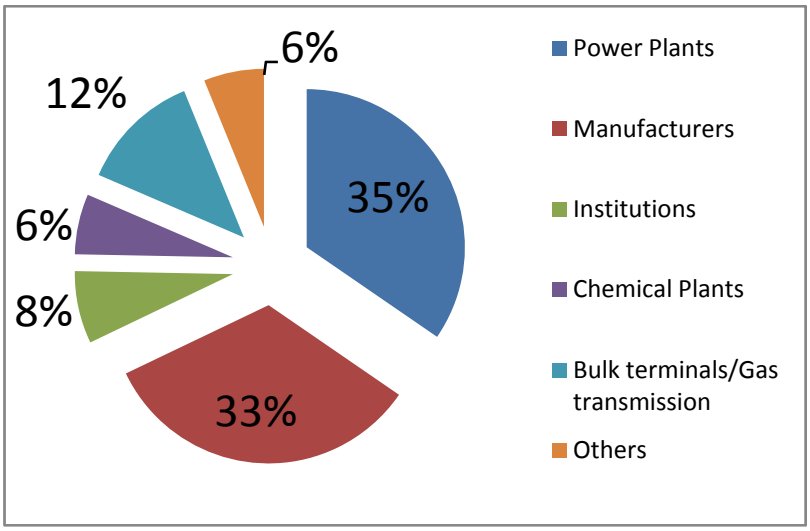


Figure 2. Title V Universe

B. Analysis and Findings

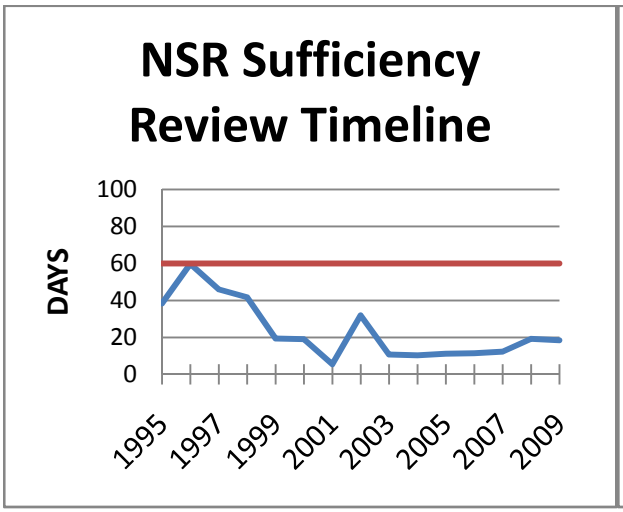
While DEP's air program administers five individual permit programs: NSR, Title V, Acid Rain, CAIR, and Indirect Sources, the analysis in this report focuses on the NSR and Title V programs. The Acid Rain and CAIR permit programs are incorporated into Title V permits and once fully integrated, those permit programs will be subsumed into the Title V permit process. The Indirect Source permit program (ISP) timeframes were not included in the analysis because this program applies only to certain highway construction projects with a single applicant, the Department of Transportation (DOT). In 2006, the ISP regulations were amended to include an alternative compliance option which has become the regulatory path used by DOT to comply with ISP. As such, DEP has concluded that additional program analysis is not necessary, and the now obsolete ISP should be replaced with a Memorandum of Agreement between DEP and DOT to define the process for reducing emissions from highway projects of concern.

1. Sufficiency Reviews – Both NSR & Title V

95% of NSR sufficiency reviews done in 2009 met PA 10-158 60 day goal.

71% of Title V sufficiency reviews done in 2009 met PA 10-158 60 day goal.

Both the NSR and Title V permit programs involve an administrative sufficiency review of permit applications. The current administrative sufficiency review consists of ensuring that an application is submitted with the appropriate signatures, application fees and proof of application notice publication in the local newspaper. The current NSR sufficiency review timeframes average well below 60 days, and since 2003, typically require fewer than 20 days (Figure 3). Title V permit application sufficiency reviews have averaged, with one exception (1998), at or below 60 days (Figure 4).



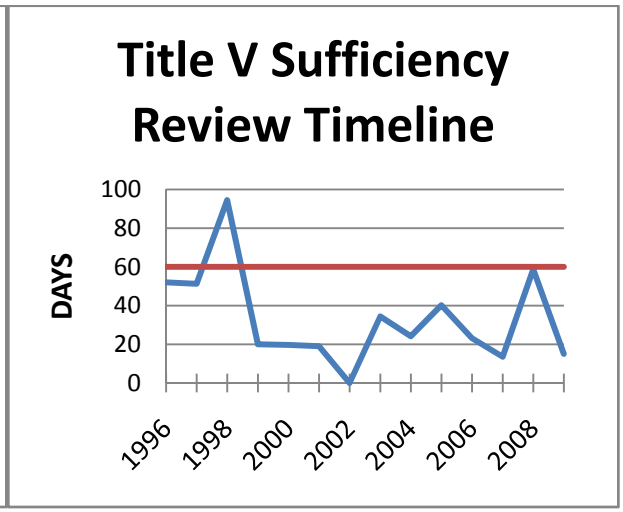


Figure 3. NSR Sufficiency Review Timeline

Figure 4. Title V Sufficiency Review Timeline

The air permitting program's administrative sufficiency review differs significantly from that conducted by other DEP permit programs, or that envisioned as part of Public Act 10-158, under which DEP identifies all deficiencies of an application before conducting a technical review.

As part of the process of preparing this report, members of the air program met with stakeholders to obtain feedback on its permitting programs. According to external feedback obtained during these stakeholder meetings, the air permitting administrative sufficiency approach appears to work well for the regulated community.

2. Technical Reviews

NSR

Current timeframes for technical review to reach a tentative determination vary among the air permit programs, with the variation resulting from the degree of complexity of the permit and timeframes established in regulations. NSR permits are necessary for industry to construct and operate equipment. On average, NSR technical reviews are currently completed in well under 180 days. Technical reviews can range from 30 days for a basic air emissions unit such as a boiler to a few years for contested and multimedia cases. Figure 5 provides the average time to complete a technical review during the period from 1995-2009. These average values do not account for time delays associated with requests for additional information and include short NSR processes such as permit revisions and minor permit modifications. Over 95% of the NSR applications involve minor NSR permit applications.

81% of NSR technical reviews done in 2009 met PA 10-158 180 day goal.

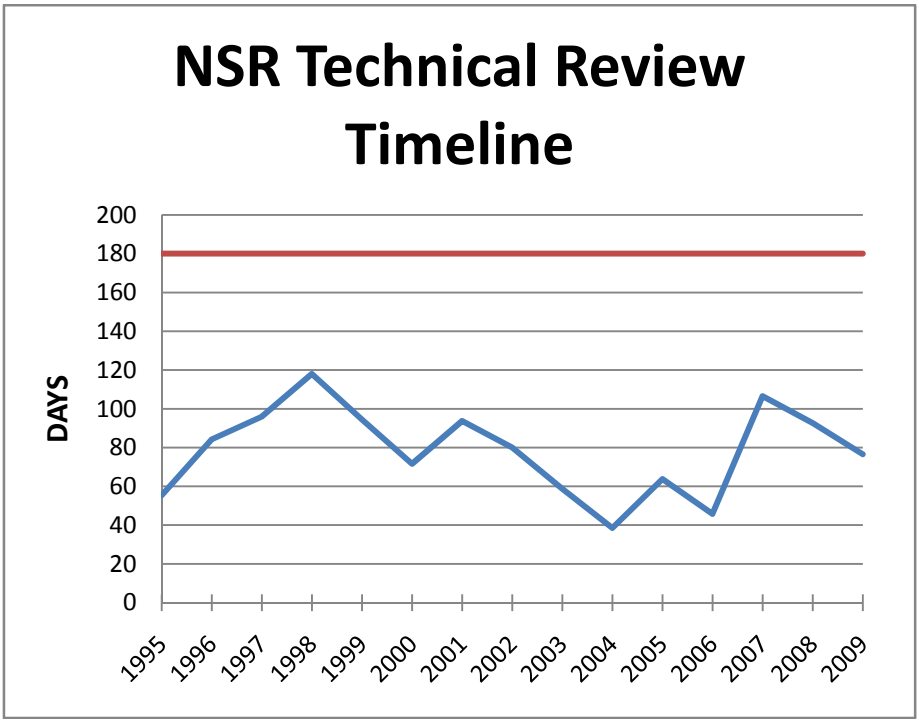


Figure 5. Average days to complete a technical review of a NSR application

While the NSR average technical review time is less than 180 days, this average does not highlight the differences in the types of NSR permit applications. NSR permit processing times vary based on emissions thresholds and what an applicant seeks. Applications for minor NSR, permit revisions and minor permit modifications typically have minimal environmental impact and little additional information is needed to clarify permit terms and conditions. Decisions on these applications are typically made in less than 180 days.

Permit reviews that involve significant emissions require more technical review resulting in longer processing times. Major NSR analysis differs from minor NSR analysis and requires longer processing times due to three elements: a control technology review, an ambient impact analysis, and a hazardous air pollutant review. These reviews are detailed, comprehensive, iterative and are reviewed by EPA. The evaluation and documentation of the public record is comprehensive as these applications typically draw significant public interest and scrutiny. As a result of the project complexity and the public participation processes, major NSR permits typically require up to 365 days to process.

Title V

While the NSR program requires a prospective business to obtain a permit before construction can begin, the Title V program does not require a permit to be issued before construction or operation begins. The average number of days to complete a technical review of a Title V application is currently well below 180 days, but exceeded 180 days in 2006 and prior to 2002. Figure 6 sets out the average Title V technical review time by year. The historical differences and general trend of reduction in the average Title V technical review time reflects the maturation of the federal Title V program. Until 2002, Connecticut (and other states) were issuing Title V permits for the first time. Since then, Connecticut has focused on renewal of existing Title V permits. In 2006, limited resources resulted in diverting staff from processing Title V permits to issuing General Permit Registrations.

93% of Title V technical reviews done in 2009 met PA 10-158 180 day goal.

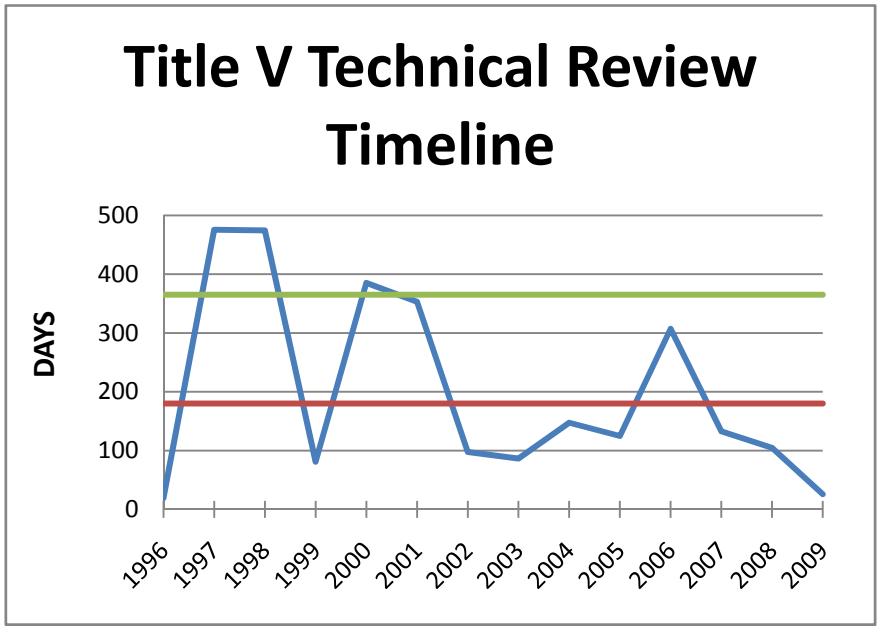


Figure 6. Average days to complete a technical review of a Title V application

C. Staffing

The Air Bureau currently has twelve permit engineers, two permit supervisors, and is in the process of filling two vacancies. Permit experience ranges from 35 years to 2 years. All engineers process both NSR and Title V permit applications. A permit engineer assigned a Title V source also serves as the NSR permitting contact. This approach allows the flexibility to manage assignments to meet demand and provides each source with a known permit engineer as the single point of contact for all permit transactions at the facility. However, because the CAA requires the integration of monitoring, planning, permitting and compliance assurance,

staffing needs to be assessed in light of all of the components necessary to carry out the federal mandates. Adequate monitoring data and the associated staff are necessary for ambient impact determinations. The SIP and regulatory infrastructure must be maintained to EPA's full satisfaction so that the resultant permits are federally enforceable as required by the CAA. The holistic nature of permitting requires a robust and timely compliance assurance effort such that all compliance terms can be incorporated into a permit (See Figure 7).

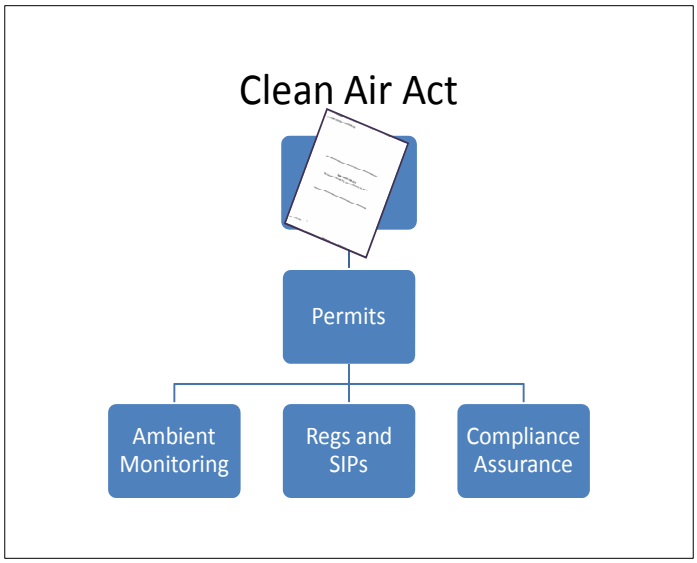


Figure 7. Program components necessary for permitting

As shown in Figure 8, the staff available to carry out the expanding CAA driven requirements has declined significantly over time.

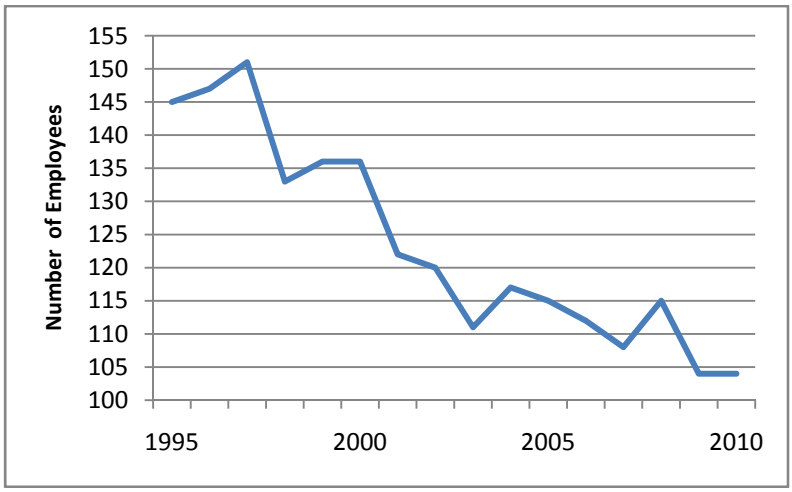


Figure 8. Air Staffing Trend

3. Historical Improvements

In light of decreasing staff and increasing federal requirements, the Air Bureau has historically looked for and implemented process improvements for its NSR and Title V permit programs, to increase processing efficiency without compromising environmental results.

For the NSR program, DEP has continuously updated NSR permit application forms and instructions, as these documents are the tools to submit complete and accurate information to DEP. Incomplete information results in rework for the applicant and staff and causes delay. Permit templates developed for fourteen source sectors have increased processing efficiencies. Other realized efficiencies include: increasing the applicability thresholds for obtaining an individual permit from five tons per year to fifteen tons per year in 2002; and limiting individual permits to the sources of emissions that are large and complex which in turn, increased efficiency and allowed DEP to focus on real air quality benefits (See Table 2).

Table 2: List of Air Permitting Improvements
• General Permits • Permit by Rule, Permit Exemptions • Electronic Reporting • Engineer of the Day Help Line • Electronic Engineering Evaluations • Permit Templates • Continuous Update of Application Materials

Concurrently, this approach removes an administrative burden on the smaller emitters with minimum environmental impact. The Air Bureau has also effectively instituted the use of general permits, and, in 2002, created "permits-by-rule" for five source categories, obviating the need to apply for a permit while maintaining environmental protections. These rules have been successful in removing non-value added permitting time, activity and costs (See Table 3).

In 2008, the Air Bureau created a LEAN team for the ambient impact analysis required for certain NSR permit applications. The LEAN team re-engineered the modeling review and reduced a typical review from 154 days to 45 days. This change alone significantly reduces the permit processing time for a number of NSR applications.

Table 3: Existing Permits-by-Rule
R.C.S.A 22a-174-3b: Boilers, emergency engines, autobody shops, surface coating, and rock crushers
R.C.S.A 22a-174-42: Distributed generators
R.C.S.A 22a-174-3c: Limitation on Potential to Emit

4. Current Improvements

In the course of this analysis, DEP sought feedback from applicants and other members of the public. This feedback indicated that the greatest opportunity to improve air permit processing efficiency is through assistance, outreach and development of new tools designed with the applicant and Connecticut's unique circumstances in mind. This will minimize, and in some cases eliminate, time wasted in rework and additional requests for information. The air webpages of DEP's website provide the ideal tool to make improvements in assistance and outreach.

Applicants for permits generally fall into two categories: small businesses who lack staff dedicated to environmental compliance and require help understanding the regulatory scheme; and large, highly sophisticated businesses with environmental professionals who expect specialized outreach on new rules and initiatives. For both sets of applicants, website enhancements can provide necessary information. In the course of this analysis, and guided by stakeholder input during the summer of 2010, the Air Bureau developed a dedicated permitting webpage (see Figure 9, http://www.ct.gov/dep/airpermits). As suggested by the stakeholders, the webpage now provides easy access to technical references relied on by permitting staff for engineering evaluations, and will soon include a permit wizard to help potential applicants determine permit applicability.

Figure 9. Air Permitting Webpage

The Air Bureau is committed to making its decision-making process for permits more transparent and sees the website as a useful means to act on this commitment. Stakeholders welcome such transparency for facilitating project planning and budgeting and increasing certainty in obtaining permits for air emissions units. Applicants without access to recently issued permits and the underlying documentation may submit applications with obsolete control technology recommendations or standards. Permitting engineers must then reject such applications or request revisions, resulting in delays and cost increases for projects.

The permitting pages of the website are an ideal opportunity to clarify expectations for permit applications, to provide models in the form of issued permits, and to collect and make available information used by DEP engineers in conducting permit application reviews. Permit engineers use various references and technical reports and state and federal clearinghouses in conducting permit evaluations. Rework and inefficiency occurs when DEP and the applicant use different or outdated technical information. Based on stakeholder feedback, DEP's website did not effectively identify to applicants which technical resources are needed. Stakeholders also noted that the information posted on the website is not easily found. Additional enhancements designed to improve transparency are being developed and added to the Air permit web page. However, additional resources will be needed to fully develop the website as requested by stakeholders.

Connecticut has a SIP-approved NSR permitting program and a federally approved Title V program. Both these programs differ slightly from the federal program. The benefit of implementing these programs using state developed formats is that this allows DEP to provide rules that better meet the needs of Connecticut. However, sources and consultants familiar with the federal requirements may not realize the nuances of Connecticut's rules and regulations, and may therefore submit incomplete applications as a result. Pre-application meetings clarify expectations on what information is essential for an application. For applicants that are not familiar with the complex world of air permitting, this service is critical. The Bureau will continue to encourage applicants to schedule pre-application meetings.

C. Recommendations

The Air Bureau's recommended program and process improvements and resources needed to achieve the 60 and 180 day timeframe goals are described in the following sections.

1. Process Improvements

External feedback identified potential process improvements to reduce times, with the primary focus on the Title V program and the permit renewal process. Stakeholders questioned the current renewal process and offered streamlining suggestions. Based on this feedback and the internal review of the Air Bureau's permit programs, the key actions recommended to streamline permitting are listed in Table 4.

Table 4: Process Improvements
• Streamline Title V application renewal process • Develop a new Title V permit template to ensure consistency and form the basis for accurate compliance certifications • Require modeling submittal coincident with the application • Provide toxics emissions calculator to expedite technical review • Request timely EPA implementation guidance on new rules • Revise application materials when new rules are promulgated to ensure submission of correct information • Continue process improvement efforts focused on timeliness and streamlining by identifying causes of delays and developing solutions

The air program has a long history of working closely with the environmental and regulated communities. This process has added value to clean air programs and contributed to the development of innovative solutions that advance the state's air quality goals and recognize the business needs of permit applicants. The commitment to outreach and education raises awareness for developing regulations and provides a forum for open dialogue. Proactive effort is critical to assure permit applicants know what is required and craft readily approvable applications. Proactive effort is also critical to keeping the regulated community aware of rapidly changing federal requirements. DEP's EPA grant commitments for Fiscal Year 2011 include the agreement to work with EPA to provide enhanced outreach on new state and federal rules and the associated technical issues. Table 5 lists additional proactive permitting recommendations to assist customers.

Table 5: Proactive Permitting
• Continue SIPRAC permitting subcommittee established during this assessment • Enhance targeted assistance to small businesses on new rules and requirements • Develop compliance assistance tools such as permit wizards and web-based technical resources • Increase use of permit application meetings for new applicants

2. Programmatic Changes

The federal Clean Air Act creates a unique federal/state relationship. Known as "state primacy with federal oversight," the Clean Air Act encourages states to innovate, but still prescribes certain federal minimum standards. The flexibility to adopt federal requirements promptly can be more burdensome for a state like Connecticut where the regulatory adoption process extends beyond the executive branch and requires legislative approval to enact a final regulation. This type of legislative veto does not exist in federal law or in the majority of other states. The current process also requires review by the Attorney General's Office and other executive branch agencies, often adding weeks to the regulatory adoption timeframes.

At present, Connecticut must implement state regulations to address the federal mandates as shown in Table 6.

Table 6: Federal Actions to Address
• GHG tailoring rule for NSR & Title V • New and amended NAAQS and associated implementation rules • Transport Rules • Federal NSR Reforms • Control Technique Guidelines

Because Connecticut's Air program needs to keep pace with rapid federal rule changes, a significant amount of DEP staff effort must be dedicated to insure that federal regulatory mandates move through Connecticut's lengthy regulatory adoption process. Other states that compete with Connecticut to create new businesses and jobs have simpler administrative procedures.

Clear and consistent regulatory requirements, and the ability to make quick regulatory improvements, are important tools that DEP needs to help the Air Bureau's permit engineers to achieve the 60 and 180 day permit processing timeframe goals.

DEP has reviewed its permitting process in the interest of creating better value for Connecticut's citizens. And, DEP would be happy to work with all interested parties to improve Connecticut's' regulatory adoption process. In fact, this year, the National Conference of Commissioners on Uniform State Laws has finalized its *2010 Revised Model State Administrative Procedure Act*[2]. This proposal is scheduled to be brought to the General Assembly during the 2011 Session. DEP welcomes the opportunity to review this proposal with all interested parties and work to enact a leaner, more responsive and efficient regulatory adoption process.

In addition, disinvestment is necessary to enable staff to remain focused on the core business. DEP recommends the following disinvestments:

Repeal the Indirect Source Permitting Program. This permit program, applying to certain highway construction projects, should be replaced with a Memorandum of Agreement between DEP and the Connecticut Department of Transportation addressing emissions from highway projects of concern.

DEP is not well suited to respond to nuisance complaints regarding outdoor wood-burning furnaces and odor. Such complaints are geographically and temporally widespread, yet require a quick response simply to witness the violation. Municipalities, whether local health districts or zoning officers, are better situated to respond in a timely manner. CGS 22a-174k should be revised accordingly.

DEP staff currently has limited expertise to run the state noise program. The existing regulations and statutory framework, established in 1972, are archaic. In the 1990 budget cuts, this program was eliminated; however, the statutory framework was not. Currently, municipalities still submit new or amended noise ordinances to DEP for approval. Towns that want to address noise issues should be able to do so without state oversight. The role of DEP should be limited to training and advising local officials. CGS 22a-67 through 22a-76 should be repealed.

[2] http://www.law.upenn.edu/bll/archives/ulc/msapa/2010am_approved.htm

3. Staffing Needs

Meeting the 60 and 180 day review timeframe goals established in Public Act 10-158 and maintaining efficiencies in permit processing cannot be accomplished by considering the Air Bureau permitting function in isolation. Efficient permitting requires an infrastructure of current and clear regulations; tracking and analysis of federal regulatory program changes; current emissions inventory data; legal support; document management; time-tracking systems and forms; and adequate staff.

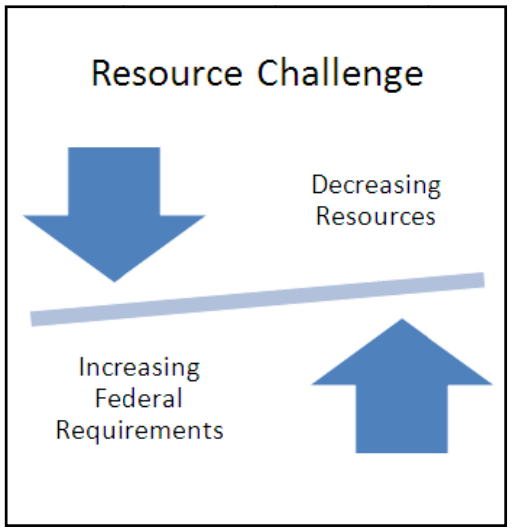


Figure 10.

Significant new federal CAA driven mandates will increase the level of effort required by the air program over the next two years while resources are decreasing. See Figure 10. Major resource commitments will need to be made to address the new workload outlined in Figure 11. However, because this report is focused solely on individual permit timeframe goals, the recommendations are limited to the staffing and resources needed to achieve the timeframe goals in Public Act 10-158 and do not account for the emerging significant workload increase unrelated to permitting.

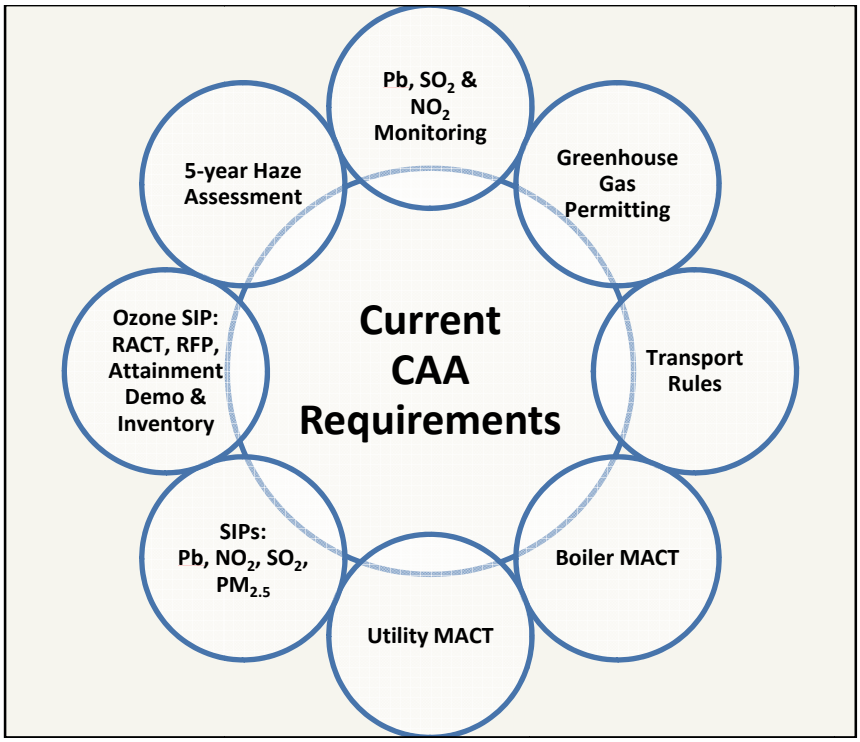


Figure 11. New Federal Mandates Impacting Air Permitting in FY11 and FY12

To continue to make process improvements and meet the 60 and 180 day timeframe goals for 100% of submitted applications, the Air Bureau will require more permit engineers and support staff.

Permit engineers process both NSR and Title V permit applications. The permit engineer assigned a Title V source also serves as the NSR permitting contact. A permit application review requires federal and state regulatory review, complex control technology review, ambient impact and hazardous air pollutant analysis and emissions calculations for a number of criteria and toxic air pollutants. In addition to reviewing permit applications, permit engineers perform additional duties such as completing technical reviews of air pollution control equipment unrelated to applications, processing permit and registration revocations, recording data, evaluating emission statements and updating the emissions inventory, providing permitting expertise to support compliance assessment and enforcement, responding to public and industry questions on the Engineer of the Day helpline, responding to Freedom of Information Requests, and reviewing federal rulemaking activity. Assuming the other recommendations are implemented and the two permit staff vacancies are filled, 3 additional permit engineers are needed to consistently meet the PA 10-158 timeframe goals.

As described earlier, air permitting relies on support staff to evaluate, write and revise the regulatory basis for permitting to maintain equivalency with federal requirements and on air quality data collection and analysis for ambient impact assessment. Given the specialized knowledge required to perform this work, dedicated staff are required to review and assess federal air regulations, evaluate their impact on state regulations, and comment on proposed federal regulations to ensure Connecticut issues are raised and federal mandates reflect an understanding of Connecticut's business, industry, and meteorology. The changes to federal rules must then be incorporated in state regulations and SIP modifications. EPA requires extensive emissions accounting and reporting as well. Another significant support function that requires staffing is providing the business analysis and program direction for the creation of information technology tools which support the permitting function. These support functions require an additional 9 FTEs. Without the program development, enhancement and technical support, the timeframe goals cannot be met consistently.

To carry out the recommendations above, to meet the 60 and 180 day timeframe goals for 100% of submitted applications, and to provide the necessary infrastructure to maintain and improve the air permit program, the Air Bureau needs to add the program and support staff set out in Table 7. In addition, new staff will need to be added in numbers equal to the attrition rate that is currently about 3 FTEs per year. Waiting to address attrition leaves supervisors balancing the value of training versus the need for timely permit processing because new hires take time to become fully productive.

Table 7: Additional staffing required to meet commitments pursuant to PA 10-158		
	Technical & Administrative Permit Processing Staff	Program Development, Enhancement & Applicant Assistance Staff
Air Emissions	3	9

Training

Administering highly technical and evolving programs such as NSR and Title V require high quality training. The highly specialized nature of this work often requires relying on national and regional training venues. Budget constraints reduce DEP's ability to provide staff with the training needed. Training directly correlates to efficiency. Figure 12 illustrates the factors that drive the need for continuous specialized training.

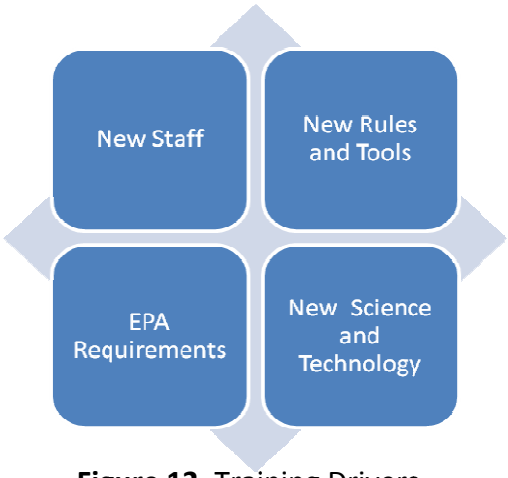


Figure 12. Training Drivers

Legal Support

The highly complex, technical and rapidly changing federal air requirements result in applicants reaching different conclusions about how to interpret the regulations and federal guidance. As questions arise in permitting, legal assistance needs to be available to provide quick answers or permits may be delayed. The large number of regulations make this a real challenge. Legal advice in adjudicatory hearings is also necessary at times. The Air Bureau recommends .5 FTE of legal staffing in DEP Counsel's Office be added to support this need.

Information Technology Support

The air program is highly dependent on information technology for handling large volumes of technical data. The air monitoring system is highly automated and captures 1.1 million data points per week. Air Bureau staff must analyze, quality assure and format this data to make it available for permit ambient impact analysis. Similarly, the permitting program requires staff calculate emissions for hundreds of air pollutants under different operating scenarios and constraints to set conditions and limits. As such, not only does the air permitting business need information systems to track timeliness and report data to EPA, information technology support is needed for very complex specialized engineering calculations, equipment specifications, operating parameters and emissions data. Before the centralization of information technology in DEP, the Air Bureau maintained a dedicated information technology group. To maintain the existing systems and carry out the recommendations in this report, the Office of Information Technology requires additional staffing.

4. Additional Resources

Information Technology Needs

The Bureau successfully launched an eGovernment initiative this year involving an electronic reporting platform allowing customers to submit emissions statements electronically. The EMIT template leveraged new technology that can now be employed to support more eGovernment applications. To reduce the time spent searching for data and information, additional eGovernment opportunities to increase efficiencies need to be pursued.

DEP's website must provide easy access to the information customers need most. This summer Air Bureau permitting staff developed a new air permitting web page, and now applicants can easily find regulations, references and technical reports, copies of issued Title V permits and monitoring and meteorological data for modeling analyses. However, critical future improvements include developing a mechanism for public web access to Title V permit evaluations, creating of a database of air pollution control technologies for permit applicants, and building ready access to the radius search tool so applicants can extract inventory data needed for permit modeling without having to rely upon DEP staff to provide this information. All of these improvements require information technology support.

User-friendly information technology tools are needed to support achieving the objectives of Public Act 10-158 and the 60 and 180 timeframe goals. These tools require information technology support. Specific recommendations are:

- Consider the creation of an on-line application system with comprehensive document management and ready retrieval of relevant air records and documents associated with the specific equipment and sources. The system envisioned would have quality assurance routines to prevent errors and reduce review time.
- Modify SIMS to enable DEP to track time from submission to sufficiency determination and to tentative determination and generate progress dashboards. The system needs to be easy to use by engineers and provide useful tracking and resource management reports.

Ambient Air Quality Data

With new 1-hour average NAAQS for NO2 and SO2, promulgated by EPA in 2010, it will be more difficult for permit applicants to demonstrate that they can operate without exceeding the new NAAQS. Generally, permit applicants must estimate ambient impacts from the operation of any new emissions unit using dispersion modeling combined with measured (or background) air quality data in the area. These new NAAQS require DEP to establish an adequate state monitoring infrastructure, or the applicant will need to acquire a minimum of one year of monitored data. Acquiring the necessary monitoring data entails establishing a site that meets EPA siting criteria, procuring instruments and a data capture system, obtaining approval of a

quality assurance plan and operating procedures, collecting data continuously for a year, and then assuring that the data are accurate. Historically, DEP has maintained a monitoring network and provided the data to permit applicants. DEP plans to undertake establishing a network for the new nitrogen dioxide and sulfur dioxide NAAQS, but doing so requires additional resources. DEP will provide updates as it refines its monitoring needs.

Offsets

Since Connecticut has been designated nonattainment for ozone and particulate matter under the CAA – a designation that is likely to continue as the national standards become more stringent – both new businesses and existing businesses upgrading equipment that have emissions exceeding the major stationary source thresholds will be subject to the CAA's nonattainment permitting provisions. The Clean Air Act mandates that applicants for major source permits in nonattainment areas offset their emissions by 20% to 30%. Emission offsets are limited in number and are expensive. New businesses located in attainment areas in other parts of the country do not face this same barrier to new construction or plant modification as these other locations enjoy attainment. For economic development projects entitled to expedited permit review under Public Act 10-158, DEP recommends working in collaboration with the Department of Economic and Community Development to explore options for acquiring offsets for new businesses or major plant upgrades. Options to investigate might include, but not be limited to, development of a revolving offset bank or the feasibility of the state directly obtaining any necessary emissions offsets for such projects. This could help put new and expanding Connecticut industries on par with those in other states.

Water Discharge – Groundwater Discharge Permitting

The **Groundwater Discharge Program** regulates discharges to groundwater from any source, including, but not limited to, large septic systems, agricultural waste management systems, and all waste landfills. This program implements provisions of the federal Safe Drinking Act and Connecticut's water pollution control laws to meet the following key goals:

- Protect groundwaters from pollution; and
- Protect the public drinking water supply.

A. Introduction

The groundwater discharge permitting program has its regulatory basis in the federal Safe Drinking Water Act, 42 U.S.C. 300f et seq., and CGS 22a-430, and RCSA 22a-430-8. Pursuant to these laws, DEP regulates subsurface sewage disposal systems with design flows of 5,000 gallons per day or greater, all community [1]sewerage systems regardless of size, and all alternative sewage technology treatment (AT)[2] systems.

Currently, the Groundwater Discharge Permitting Program has authorized discharges from approximately 224 permitted systems. About 25% of these permitted systems use AT to treat the discharge. There are approximately 210 groundwater discharge applications pending with DEP. Approximately 40% of the pending applications are permit renewal applications, as new permits are issued for five years and renewals can be and typically are issued for 30 years. The duration of a permit is governed by CGS 22a-430(i).

[1] Community sewerage system means "any sewerage system serving two or more residences in separate structures which is not connected to a municipal sewerage system or which is connected to a municipal sewerage system as a distinct and separately managed district or segment of such system". (CGS7-245 (3)

[2] Alternative sewage treatment (AT) system means "a system serving one or more buildings on one property which utilizes a method of treatment other than a subsurface sewage disposal system and which involves a discharge to the groundwaters of the state.

The Subsurface Disposal and Agriculture Group of the Water Permitting and Enforcement Division is staffed by four sanitary engineers and supervised by a Supervising Sanitary Engineer. One of the engineers is also solely responsible for all the water permitting and compliance-related activities related to discharges from agricultural activities within the state. This engineer spends approximately 50 % of the time on subsurface discharge permitting and enforcement activities and 50% of the time on agriculture activities, including time in the field conducting inspections of farms and evaluating appropriate regulatory approaches and permitting mechanisms to deal with discharges from concentrated animal feeding operations (CAFOs) – a growing NPDES priority of the U.S. Environmental Protection Agency (EPA). In summary, the subsurface sewage disposal system workload of this group is distributed between only 3.5 FTEs.

There are many unique challenges facing the Groundwater Discharge Permitting Program. These challenges include confusing jurisdictional-distinctions and the various strategies used by applicants to avoid having to apply for a permit from the DEP[3]. Another challenge centers around the local decision-making process and land use policies. There are also technological challenges and technical issues related to the use of alternative treatment technologies. Lastly, there are timing issues reflective of the "boom or bust" nature of the housing market and new development. The permitting process runs more efficiently if a project moves forward without experiencing delays or substantial revisions. Sometimes projects lie dormant for years while developers work through local or financial issues. The permitting process cannot effectively meet expectations when the project scope continually changes.

The use of AT systems has been the subject of some controversy in recent years, given questions about their performance and concerns about their land-use implications. AT systems may make development possible on land that was previously deemed not suitable for development. There are approximately 58 AT systems in use in Connecticut. The uses of AT systems include: systems installed for repair or upgrade of existing conventional failing or malfunctioning systems, systems proposed or installed for new development, systems installed for municipal use, and systems used in "decentralized wastewater management districts" which would potentially include smaller AT systems for household and small commercial use. By statute, alternative on-site sewage treatment systems are prohibited in public water supply watersheds (CGS 22a-430) with some exceptions (i.e. schools, repairs). The types of facilities using AT systems in Connecticut include: residential communities, schools, restaurants, shopping plazas or malls, office buildings, marinas, grocery stores, hospitals, convalescent

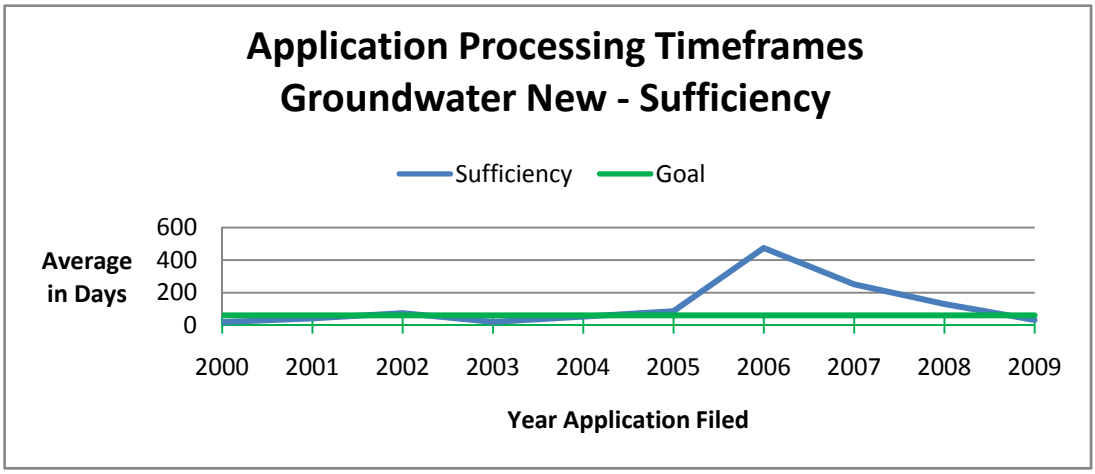
[3] Systems on lots of separate ownership under 5,000 gallons per day are regulated by either the Department of Public Health or the local health departments. Jurisdictional issues have arisen when there are smaller systems and separate ownership arrangements.

homes, assisted living units, hotels, and recreational facilities. AT systems are used in various ways to treat domestic sewage in difficult areas where a conventional system would not work.

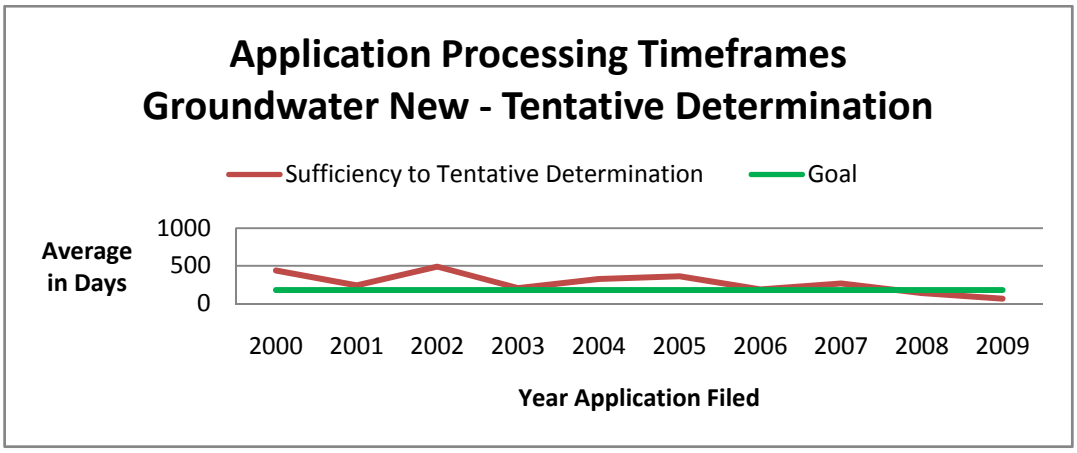
B. Analysis and Findings

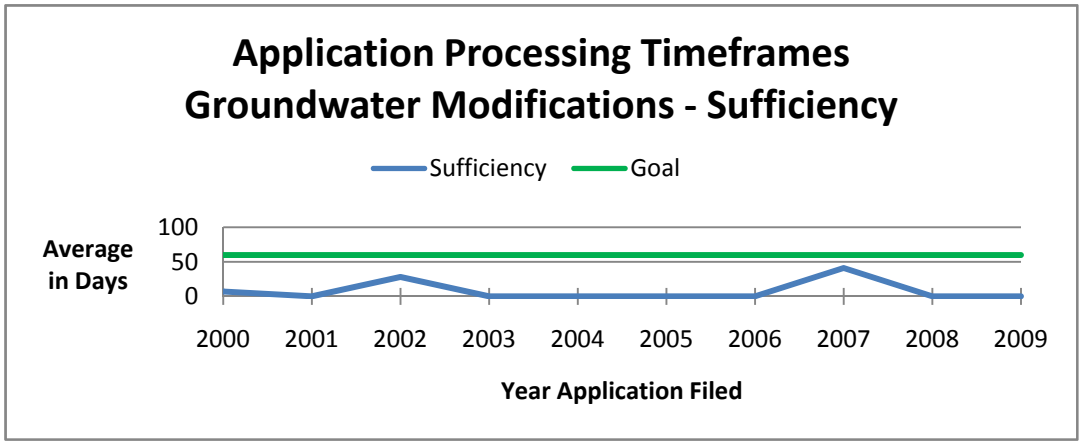
67% of groundwater discharge permit applications received in 2008 met PA10-158 goal of 180 days to reach tentative determination after sufficiency review.

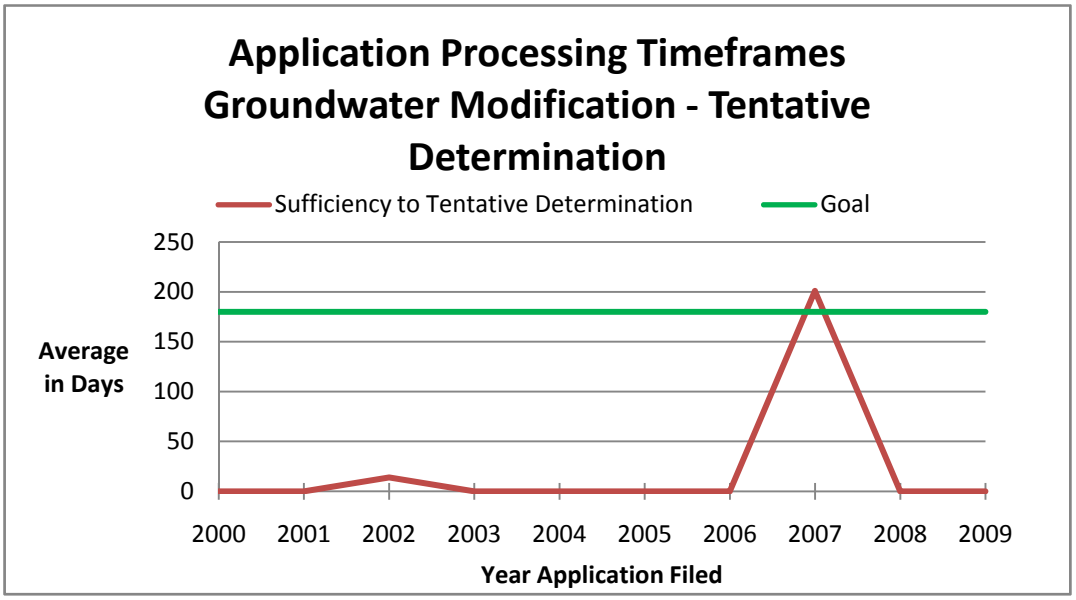
The graphs below depict the trends for new, renewal and modification applications for groundwater discharge permits. There is a substantial number of pending permit applications. DEP is not meeting either of the timeframe goals for renewal applications in this program[4]. However, as the graphs below show, DEP is currently meeting the timeframe goals for applications for new permits and modification requests for both the sufficiency review and the notice of tentative determination. The graphs below also include information on the total number of new permit applications, and applications for renewal and modification of permits received by the program. Also, the data presented for the Groundwater Discharge Permitting Program is not entirely accurate since this data set includes some permit applications that are processes by another program. Groundwater remediation permit applications are tracked by the Department's electronic permit application management system as belonging to the Groundwater Discharge Permitting Program. DEP is currently working toward rectifying this data tracking issue. However, at this time, there is no separate data available from the two programs.

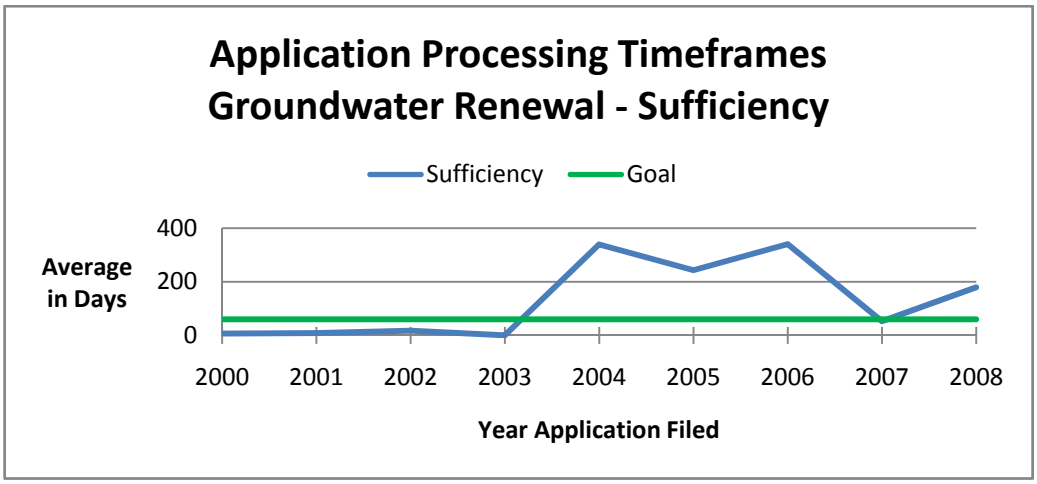


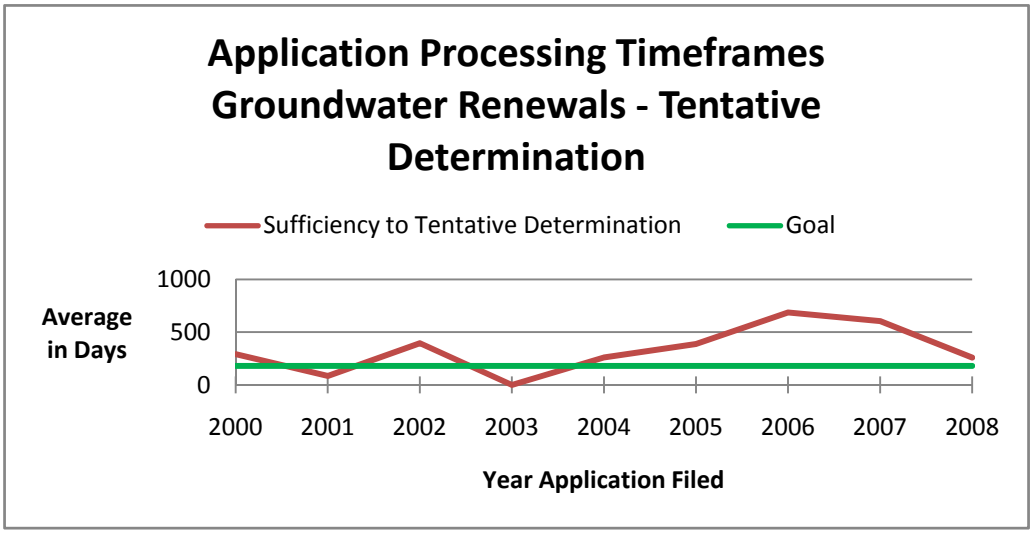
[4] There are no renewal applications in the data set for 2009.

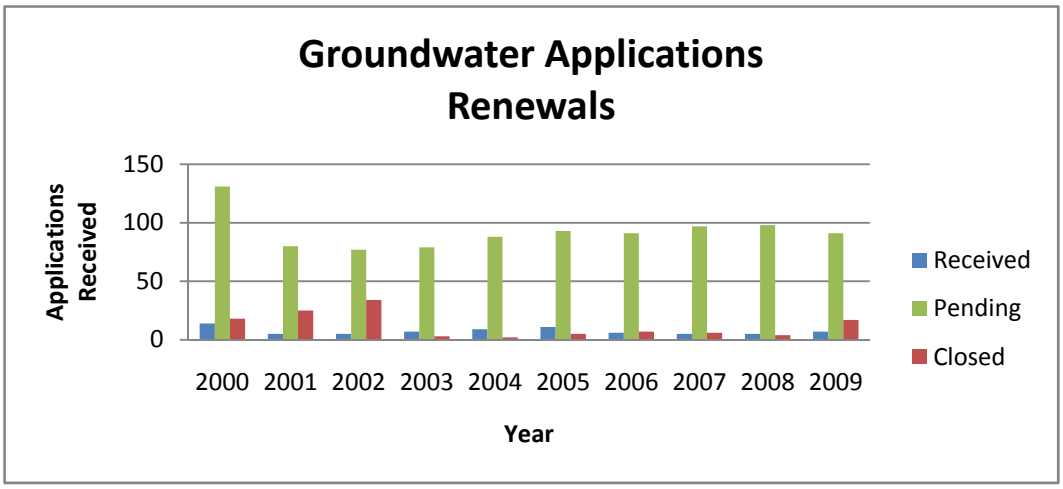

Application Processing Timeframes
Groundwater New - Tentative Determination
Sufficiency to Tentative Determination
Goal
Average in Days
1000
500
0
2000 2001 2002 2003 2004 2005 2006 2007 2008 2009
Year Application Filed

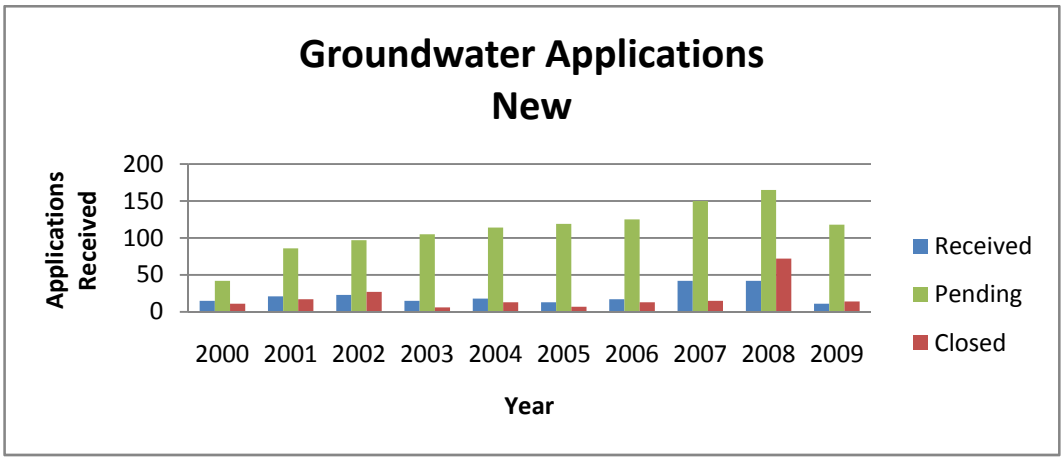

Application Processing Timeframes
Groundwater Modifications - Sufficiency
Sufficiency
Goal
Average in Days
100
50
0
2000 2001 2002 2003 2004 2005 2006 2007 2008 2009
Year Application Filed

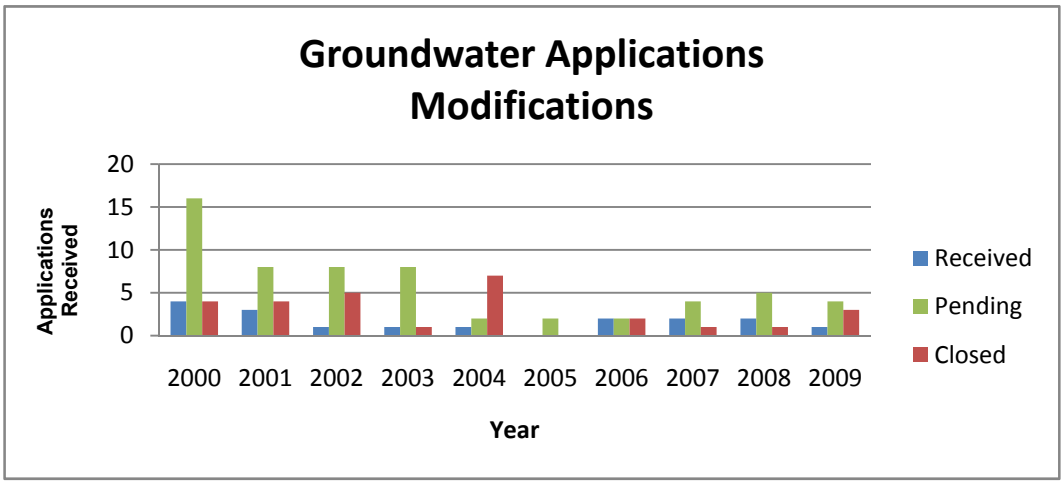

Application Processing Timeframes
Groundwater Modification - Tentative Determination
Sufficiency to Tentative Determination
Goal
Average in Days
250
200
150
100
50
0
2000 2001 2002 2003 2004 2005 2006 2007 2008 2009
Year Application Filed


Application Processing Timeframes
Groundwater Renewal - Sufficiency
Sufficiency
Goal
Average in Days
400
200
0
2000
2001
2002
2003
2004
2005
2006
2007
2008
Year Application Filed


Application Processing Timeframes
Groundwater Renewals - Tentative Determination
Sufficiency to Tentative Determination
Goal
Average in Days
1000
500
0
2000
2001
2002
2003
2004
2005
2006
2007
2008
Year Application Filed


Groundwater Applications
Renewals
Applications Received
150
100
50
0
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
Year
Received
Pending
Closed





Historically, the backlog of pending groundwater discharge permit applications were for systems that either could not be permitted due to technical issues or environmental concerns, or were never constructed for any number of reasons. In order to prevent applications from being stalled due to technical issues and environmental concerns, DEP now conducts pre-application site evaluations. The pre-application steps include engaging in preliminary discussions with prospective applicants and conducting site evaluations. These were steps DEP staff had previously conducted only after an application was submitted to the Department.

The administrative permitting process begins with the pre-application preliminary review, discussion with the applicant and the applicant's consultant, and a site evaluation by DEP. The next step is the submittal of the application by the applicant, including the conceptual design of the treatment system. DEP then reviews the application and supporting information and the terms and condition of a permit maybe drafted by DEP's engineers.

There are complicating factors that have hindered the day-to-day workflow of this group. The most overarching impediment was the loss of the group's supervisor and more than 40% of the group's staff to retirement in 2009. The supervisory position has recently been re-filled after a twelve month hiring process. The second obstacle was the significant increase in the number of requests for authorization to perform repairs and/or upgrades to existing unpermitted subsurface sewage disposal systems. DEP recognized the need to improve both the methodology and the timeliness associated with these requests and that repair and upgrade applications could benefit tremendously from DEP's LEAN efforts.

Streamlining and LEAN Efforts To-Date

As part of DEP's overall LEAN efforts, in October, 2009 a team was established to conduct a week-long LEAN event on the Groundwater Discharge Permitting. The focus of this LEAN event was the review and approval process used for on-site wastewater disposal system repairs and upgrades. The recommendations from this event include the development of a new general permit designed to improve both the method and the timeliness associated with requests for authorization to perform repairs and/or upgrades to existing unpermitted subsurface sewage disposal systems. The types of subsurface sewage disposal systems that would benefit from this general permit include: existing seasonal cottages and campgrounds, lake and other waterfront communities, manufactured home communities (aka mobile home parks), schools, commercial properties, residential institutions, and residential communities with existing inadequate systems.

The general permit is expected to reduce the number of steps in the authorization process for a repair of a failing system by 87%. The table below depicts the number of steps in the process and the minimization of the 'no value', 'transportation' and 'waiting' steps in the new process.

Type of Step in Process	No. of Steps in Current Process	No. of Steps in Future Process
Value Added	10	3
No Value Added	13	1
No Value Added but Necessary	36	5
Waiting	18	1
Transport	16	2
Total Steps in the Process	93	12
REDUCTION IN THE NUMBER OF TOTAL NUMBER OF STEPS = 87%		

Staff is in the process of preparing the proposed general permit for public review and has shared early versions of the draft with various stakeholders, including, but not limited to, the Connecticut Environmental Health Association (CEHA), CT Rivers Alliance, CT Fund for the Environment, CT Homebuilders Association, and state and local health departments through the Department of Public Health's (DPW) Code Advisory Council. DEP anticipates going to public notice and issuing the general permit in the next few months.

C. Recommendations

1. Process Improvements

- DEP plans to develop fact sheets for property owners, homeowners, local health departments, and building officials in order to provide consistent direction and clarification concerning the groundwater discharge permitting process. DEP plans to clarify what information is needed and in what format the information should be presented when submitted to DEP. DEP plans to revise and enhance the instructions for filling out its groundwater discharge permit application.
- DEP will be addressing the performance of AT systems. DEP recognizes that AT systems need more oversight and until recently, DEP did not have an efficient system to track the performance of all systems, including AT systems. The new eDMR system is a web-based database that was developed to track all permitted subsurface sewage treatment and disposal system monitoring and maintenance data. DEP's eDMR system is up and running as of October 2009 and DEP will continue to implement the use of this system to monitor compliance.
- In the future, DEP plans to re-evaluate the information available regarding large scale on-site wastewater renovations systems.

2. Programmatic Changes

As part of the implementation of LEAN ideas generated in October 2009, DEP plans to propose issuance of a General Permit to Discharge from Subsurface Sewage Disposal Systems Serving Existing Facilities. This general permit should help address and improve the methodology and the timeliness associated with requests for authorization to perform repairs and/or upgrades to existing unpermitted subsurface sewage disposal systems. The draft general permit has been shared with several stakeholders. DEP has received many favorable comments and helpful feedback has been incorporated into the draft general permit. DEP anticipates that the general permit will be issued in late December 2010.

3. Staffing Needs

Permit Program	Technical & Administrative Permit Processing Staff	Program Development, Enhancement & Applicant Assistance Staff
Groundwater Discharge	3	

In order to meet the timeframe goals set forth in Public Act 10-158, DEP will need three (3) additional FTEs in the Subsurface Disposal and Agriculture Group to assist in handling the heavy work load, reducing the number of pending permits and meeting the target timeframes. An 86% increase (3 FTEs) in the number of staff will reduce the caseload per engineer by 46%. Increasing staffing, The redistribution of cases, in addition to the ability to handle some cases by a general permit registration rather than an individual permit issuance, is expected to enable DEP to achieve the permitting timeframe goals established by Public Act 10-158.

4. Additional Resources

State authority for regulating sewage systems is handled by two state agencies and the local directors of health, creating potential uncertainty as to authority, accountability and responsibility. DEP and DPH use different legal authorities, regulations, design standards and administrative processes, adding to the confusion. DEP is interested hiring a contractor to look comprehensively at Connecticut's system and consider recommendations for improvements to ensure that the regulation of on-site wastewater management systems is accomplished efficiently and effectively in a manner that: (1) protects the environment; (2) protects public health, including drinking water quality; (3) promotes abatement and prevention of community and non-point source pollution; (4) promotes wise land use decisions; and (5) encourages comprehensive and consistent regulation of on-site wastewater management systems. In addition to contractor support, this effort would necessitate resources from the subsurface program and DPH to assist in any such contractor.

Water Discharge - Industrial NPDES and Pretreatment Discharge Permitting

The **Industrial NPDES and Pretreatment Discharge Permit Programs** regulate discharges under the federal Clean Water Act and Connecticut's water pollution control laws to meet the following key goals:

- Protect the waters of Connecticut from pollution;
- Ensure Connecticut's waters are suitable for fishing, swimming and drinking water supplies; and
- Ensure that industrial discharges do not impair the operation of sewage treatment plants.

A. Introduction

Water pollution degrades surface waters making them unsafe for drinking, fishing, swimming and other activities. Over forty years ago, surface waters in Connecticut and across the nation were in a deplorable condition; discharges of untreated sewage and industrial wastewaters from industries, commercial businesses and municipalities were commonplace, causing widespread pollution of rivers, lakes and coastal waters. Point sources were the dominant cause of pollution. The implementation of federal and state water pollution control laws[1] regulating the wastes and pollution loads released into state waters had, and continues to have, a key role in restoring water quality.

The federal Clean Water Act (CWA) made it unlawful to discharge any pollutant from a point source into navigable waters, unless a permit is obtained. As authorized by the CWA, the National Pollutant Discharge Elimination System (NPDES) permit program controls industrial and municipal discharges to surface waters and the National Pretreatment Program controls discharges through sewers to Publicly Owned Treatment Works (POTWs, also known as sewage treatment plants). Connecticut administers both programs through a delegation from the U.S. Environmental Protection Agency (EDPA).

[1] Federal Clean Water Act 33 U.S.C. §1251-1387 and Connecticut Water Pollution Control Act, CGS 22a-416 thru 22a-484.

Under the federally delegated program, anyone discharging pollutants from any point source into waters of the state is required to obtain a permit. Discharge permits are the regulatory mechanism that has been largely responsible for the significant successes in controlling point sources of pollution and is critical to protecting, restoring and enhancing water quality. Since discharge permits must take into consideration the potential impact of each pollutant discharge on the quality of the receiving water, such permits embody a combination of requirements based on treatment technology, the level at which the quality of the receiving surface waters must be protected, the specific characteristics of the facility and the activities generating the discharge, the characteristics of the wastewater being discharged and the site where the discharge is located.

Scope and Evolution of the Clean Water Act's NPDES and Pretreatment Permit Programs
When the CWA was first enacted in 1972, the NPDES permit program primarily regulated municipal and industrial point sources discharges to surface waters. When Connecticut was first authorized to implement the NPDES program in 1973, there were approximately 300 industrial point source discharges to surface waters in the state regulated under individual NPDES permits.

In the late 1970's, the CWA was amended by establishing the National Pretreatment Program. Implementation of the Pretreatment Program significantly expanded the universe of discharges regulated under individual permits to include several hundred more industrial discharges in Connecticut.

In the 1980's, Congress amended the CWA to regulate stormwater discharges from various categories of industrial and construction activities and municipal separate storm sewer systems. Congress also authorized the use of general permits as the preferred regulatory mechanism for these discharges. There are now over 2,000 stormwater discharges in the state regulated by one of four stormwater general permits issued by the Department.

In the 1990's, as a result of significant pollution problems associated with Concentrated Animal Feeding Operations (CAFOs), Congress further amended the CWA to regulate discharges from CAFOs. Animal feeding operations are agricultural operations where animals are kept and raised in confined situations. There are up to 50 concentrated animal feeding operations (i.e., primarily dairy, poultry and egg farms) in the state that are regulated as CAFOs.

Recent federal court rulings have further increased the scope of activities subject to regulatory jurisdiction under the CWA. Among these activities are aquatic pesticide applications to surface waters, and general permits have become the preferred regulatory control mechanism to regulate these discharges.

Connecticut implements the NPDES program, National Pretreatment Program, Stormwater Program, CAFO program and aquatic pesticide applications pursuant to the federal CWA and Connecticut laws and regulations (CGS 22a-430 and RCSA 22a-430-3 and 22a-430-4). Today, the following discharges are permitted or regulated in Connecticut under the authority of the federal CWA and state law:

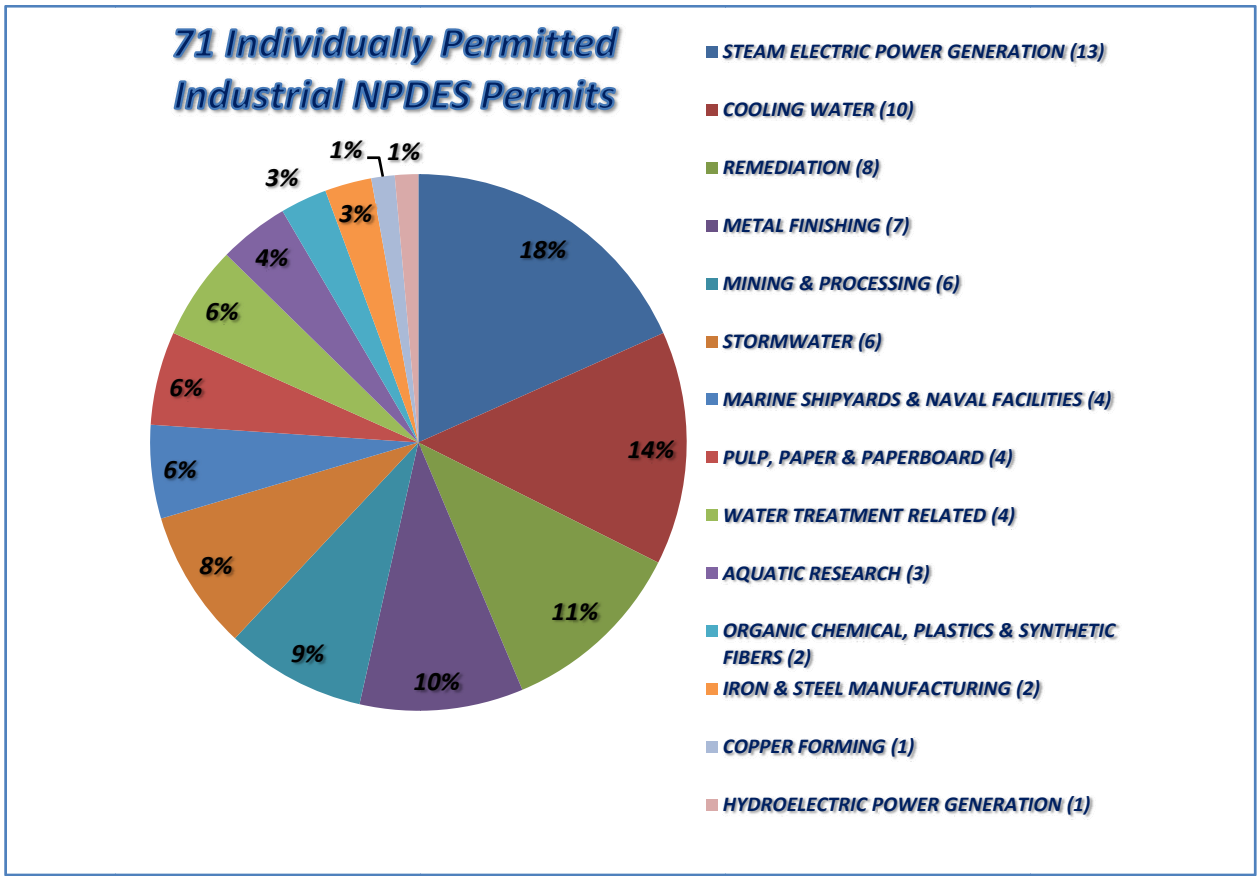
- Industrial (71 NPDES and 188 Pretreatment discharges regulated under individual permits)
- Stormwater (Over 2,050 registered discharges regulated under 4 general permits)
- Other NPDES (Over 400 registered discharges regulated under 4 general permits)
- Concentrated Animal Feeding Operations (up to 50 farms subject to federal regulation)
- Aquatic Pesticides (New federal requirement, general permit to be issued by DEP)

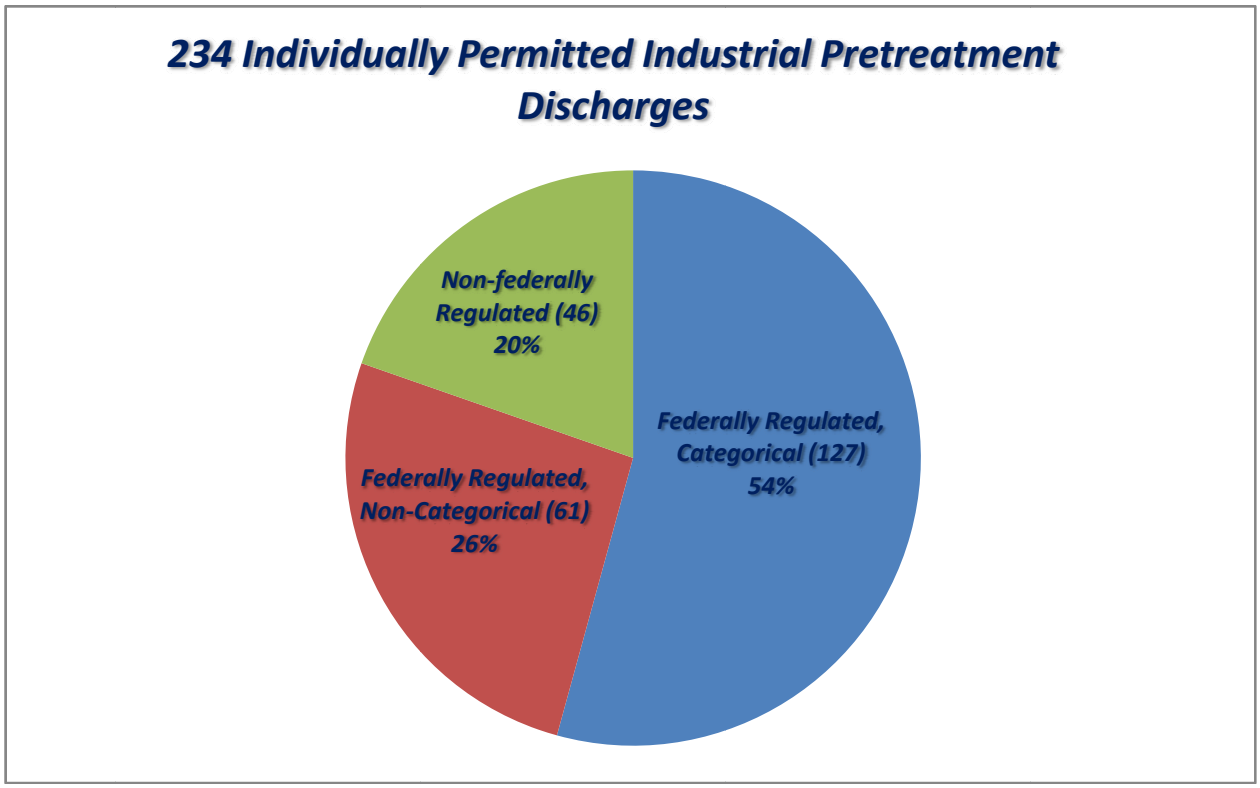
There are other non-federally regulated industrial and commercial discharges to the municipal sewer systems that are permitted or regulated solely under state law. While some of these pretreatment discharges are regulated by individual permits, thousands of such discharges are regulated by one of several general permits. The following are state (or non-federally) regulated or permitted discharges:

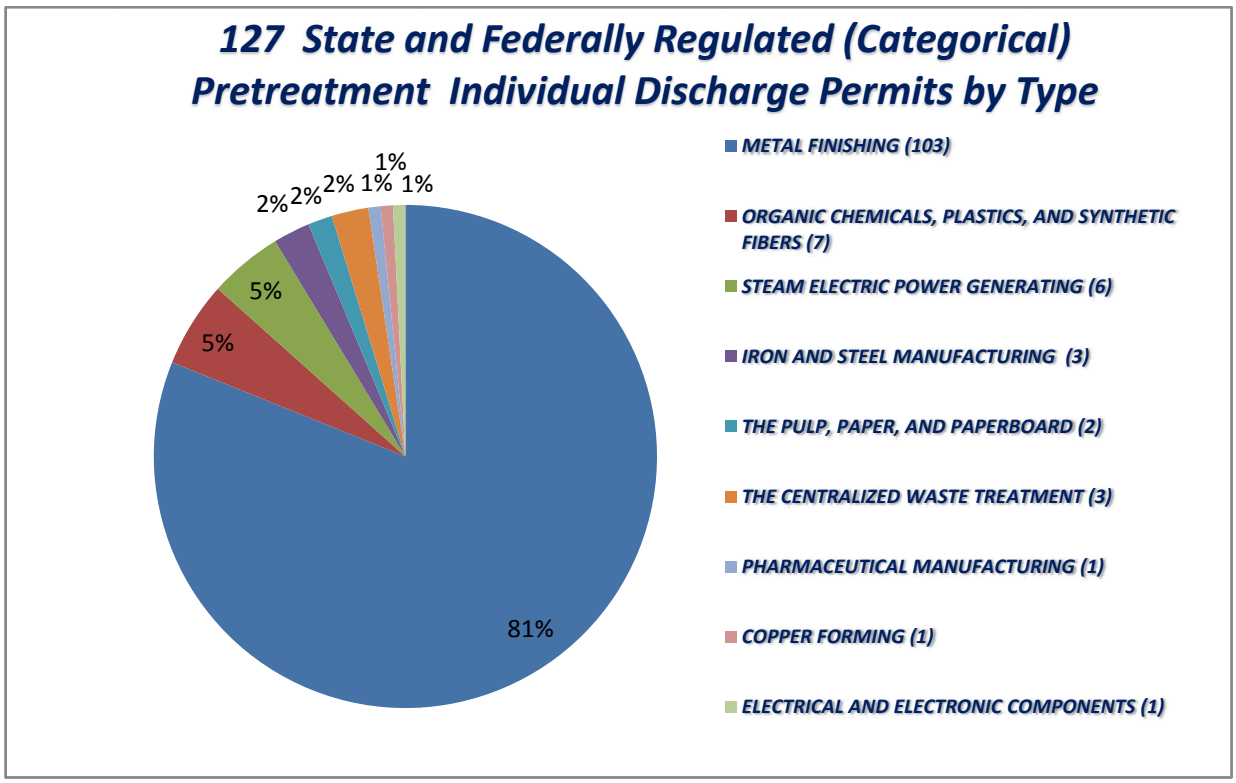
- Industrial/Commercial (46 discharges regulated under individual permits)
- Pretreatment discharges (over 2,500 registered discharges regulated under 9 general permits)

Although the scope of activities regulated under the federal CWA has significantly increased primarily due to changes in federal law, and the total number of regulated discharges is expected to continue to increase, since the 1970's the number of individually permitted industrial discharges has declined substantially in Connecticut as well as regionally and nationally. Among the reasons for the decline in the number of individually permitted discharges is the increased reliance on the use of general permits as the preferred regulatory control mechanism. Many individually permitted discharges in Connecticut have since become eligible for coverage under one or more categories of general permits.

The following three charts show the types and number of industrial dischargers that are currently issued individual NPDES and pretreatment permits in Connecticut:

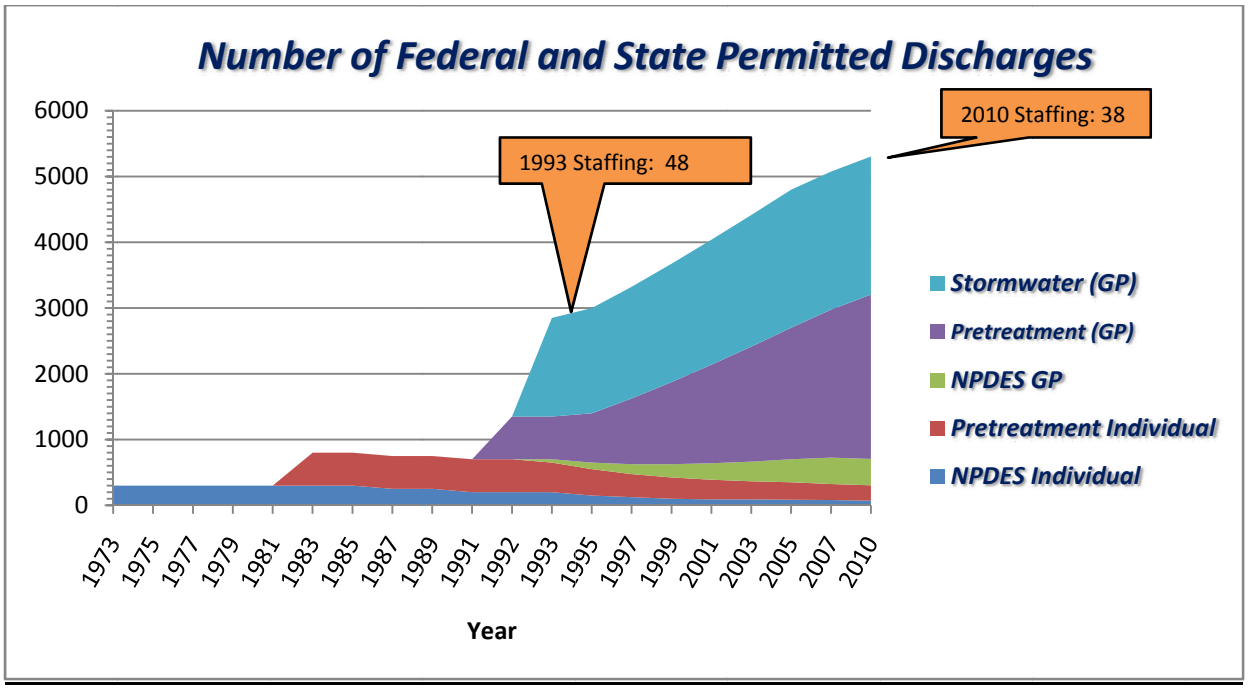

71 Individually Permitted Industrial NPDES Permits
18%
14%
11%
10%
9%
8%
6%
6%
6%
4%
3%
3%
1%
1%
STEAM ELECTRIC POWER GENERATION (13)
COOLING WATER (10)
REMEDIATION (8)
METAL FINISHING (7)
MINING & PROCESSING (6)
STORMWATER (6)
MARINE SHIPYARDS & NAVAL FACILITIES (4)
PULP, PAPER & PAPERBOARD (4)
WATER TREATMENT RELATED (4)
AQUATIC RESEARCH (3)
ORGANIC CHEMICAL, PLASTICS & SYNTHETIC FIBERS (2)
IRON & STEEL MANUFACTURING (2)
COPPER FORMING (1)
HYDROELECTRIC POWER GENERATION (1)


234 Individually Permitted Industrial Pretreatment Discharges
Non-federally Regulated (46) 20%
Federally Regulated, Categorical (127) 54%
Federally Regulated, Non-Categorical (61) 26%



The first chart identifies the type of industrial activity generating the NPDES discharge. The second chart shows the distribution of industrial pretreatment discharges and whether they are regulated under both federal law and state law or just state law. The 46 non-federally regulated discharges are regulated only under state law and are typically discharges that have not been able to meet eligibility criteria for coverage under a general permit. The 61 state and federally regulated, non-categorical discharges are typically regulated under an individual permit because of their higher discharge flows or because they may adversely impact the quality of discharge from a POTW. The 127 state and federally regulated categorical discharges noted in the second chart are subject to specific National Pretreatment Standards. The third chart identifies the type of industrial activities generating the discharges that are subject to these standards.

During the same time period when federal requirements significantly increased the scope of the program's universe of permitted discharges from 300 to over 5,000, a seventeen-fold (1700%) increase, levels of federal funding to Connecticut to implement the federal program remained relatively unchanged. In 1993, there were 48 staff assigned to regulate discharges. In 2010 there are 38; representing a twenty percent (20%) decrease in permitting and inspection staff over a seventeen-year period.



As noted by the red and dark blue shaded areas in the graph above, individually permitted discharges now represent only about six percent (6%) of the entire universe of permitted industrial discharges.

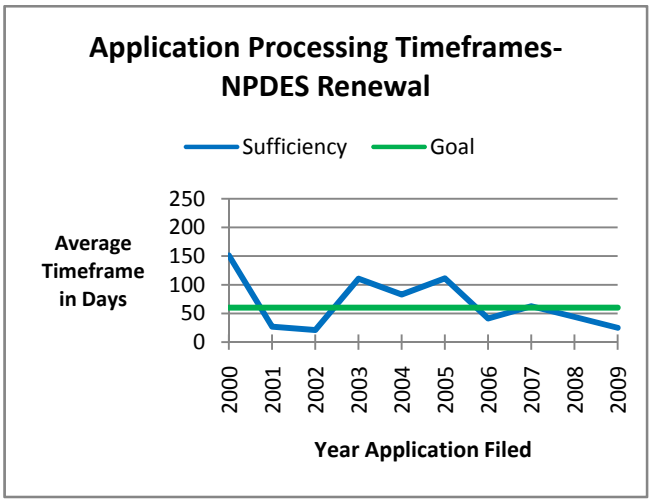
B. Findings and Analysis

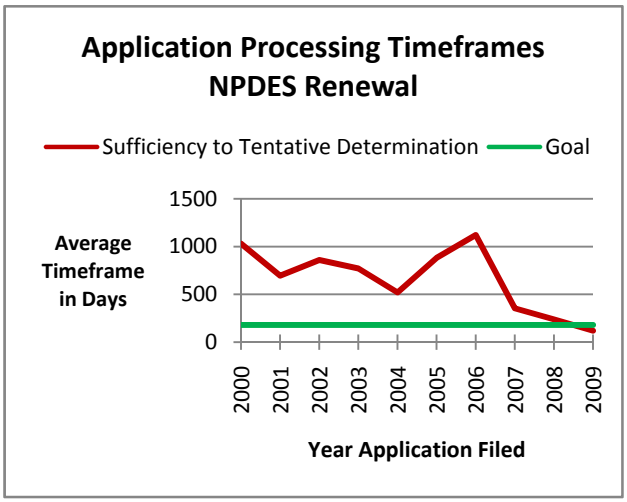
A review was conducted of timeframes for processing individual permit applications for industrial NPDES and Pretreatment discharges over the past ten years. The applications were categorized based on the type of discharge, NPDES or Pretreatment, and whether the application was for a new, modified or renewed permit. The line graphs shown below present the available data according to the year in which the application was filed, the average timeframes taken to complete the initial sufficiency review and to issue a tentative determination and a comparison to the respective 60-day and 180-day targets set forth in Public Act 10-158.

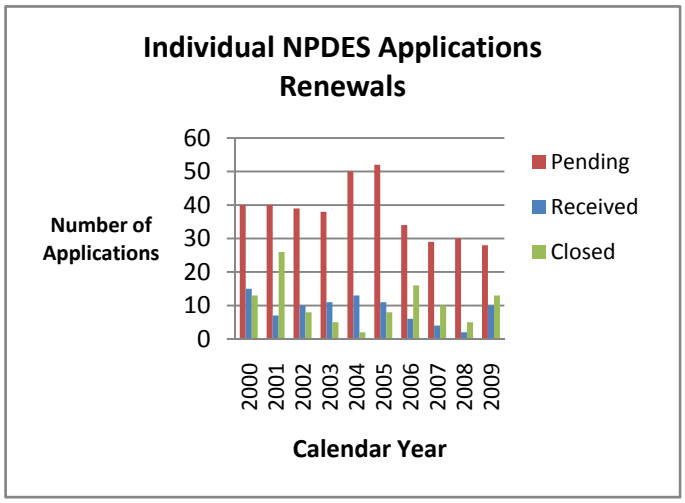
The same information has been summarized in the table below, which shows the range of average processing timeframes over two periods of time – from 2000 to 2006 and from 2007 to 2009:

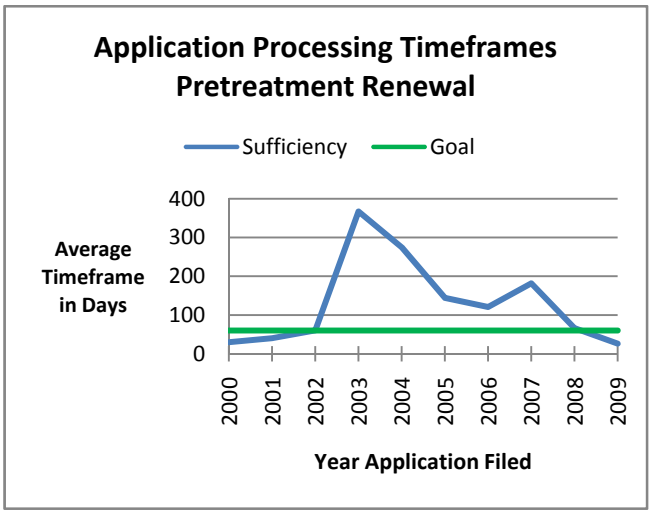
Summary of Permit Processing Timeframes			
Application by Type of Individual Permit	**Timeframes for Applications Filed from 2000 to 2006**	**Timeframes for Applications Filed from 2007 to 2009**	**Goal**
NPDES Renewal	18 –42months	4 – 12 months	8 months (60 days Sufficiency + 180 days to Tentative Determination)
Pretreatment Renewal	18 - 36 months	10 – 15 months	
NPDES New	6 – 60 months	6.5 – 12 months	
Pretreatment New	9 – 25 months	Less than 12 months	
NPDES Modification	1 – 12 months	1- 12 months	
Pretreatment Modification	2 – 12 months	Less than 18 months	

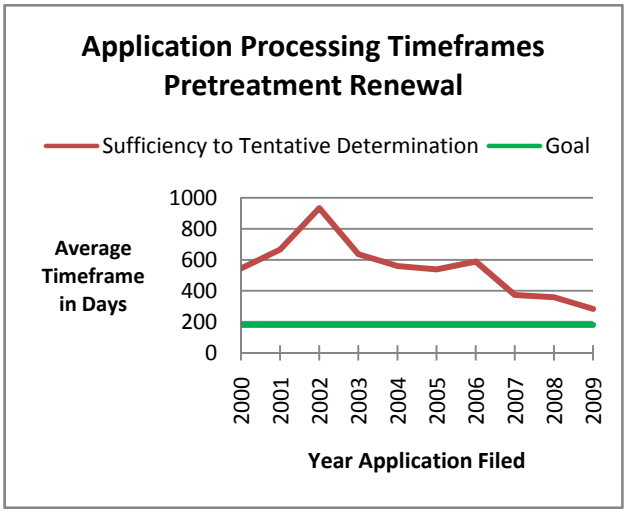
A review was also conducted of the number and type of applications being processed on an annual basis based on the number of applications in each category which have been received, are under review, or which have been closed (i.e., permit issued or denied) each calendar year over the past ten years. This information is presented in the bar graphs for each type of discharge and application. In most cases, the bar graphs show that more applications were processed than were received in a given year, which resulted in some declines in pending applications.


Application Processing Timeframes-
NPDES Renewal
Sufficiency
Goal
Average Timeframe in Days
250
200
150
100
50
0
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
Year Application Filed


Application Processing Timeframes
NPDES Renewal
Sufficiency to Tentative Determination
Goal
Average Timeframe in Days
1500
1000
500
0
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
Year Application Filed


Individual NPDES Applications
Renewals
Number of Applications
60
50
40
30
20
10
0
Pending
Received
Closed
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
Calendar Year


Application Processing Timeframes
Pretreatment Renewal
Sufficiency
Goal
Average Timeframe in Days
400
300
200
100
0
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
Year Application Filed


Application Processing Timeframes
Pretreatment Renewal
Sufficiency to Tentative Determination
Goal
Average Timeframe in Days
1000
800
600
400
200
0
2000
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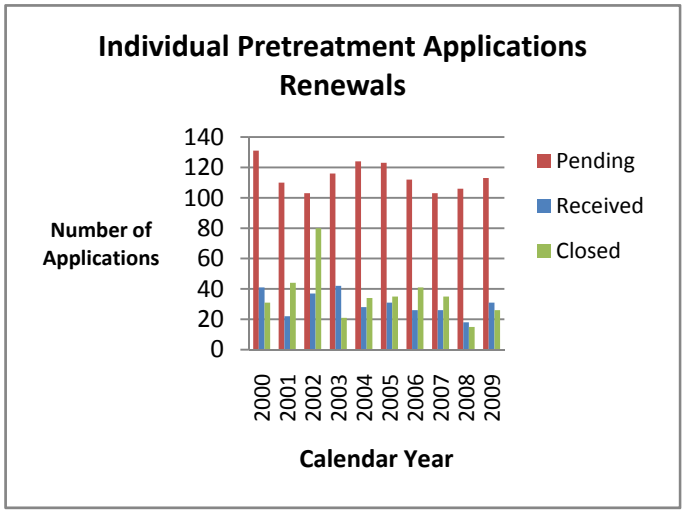
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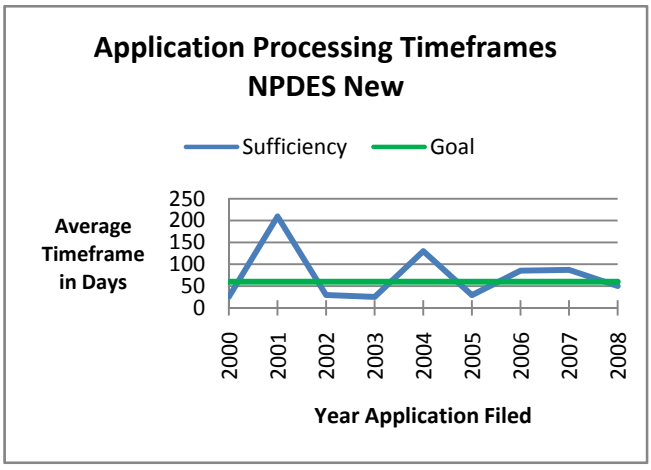
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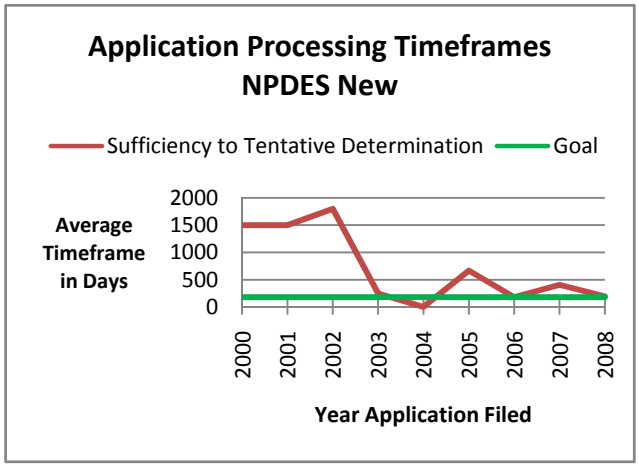
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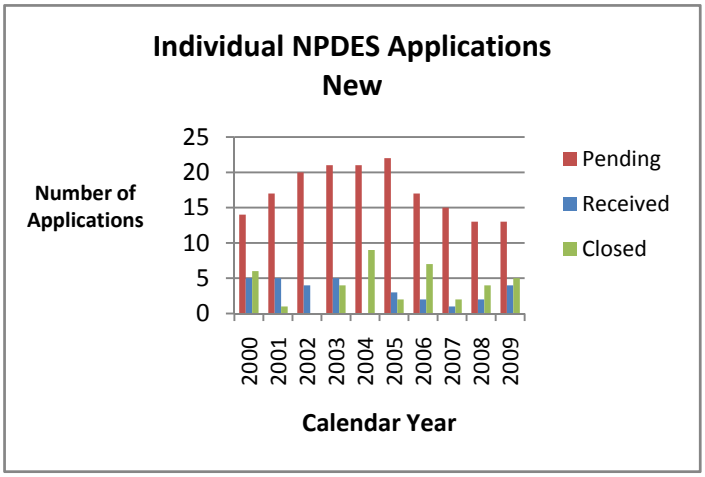
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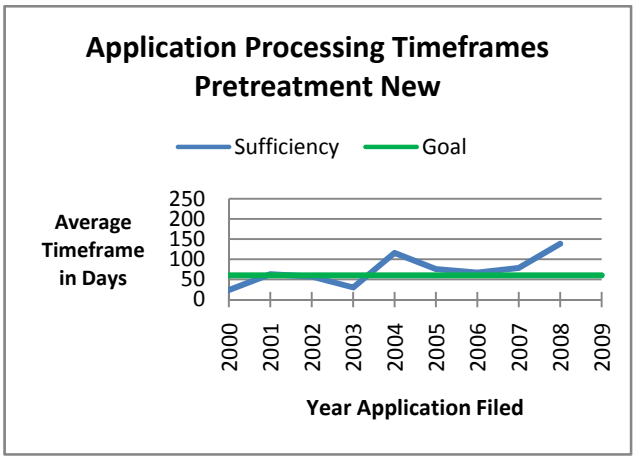
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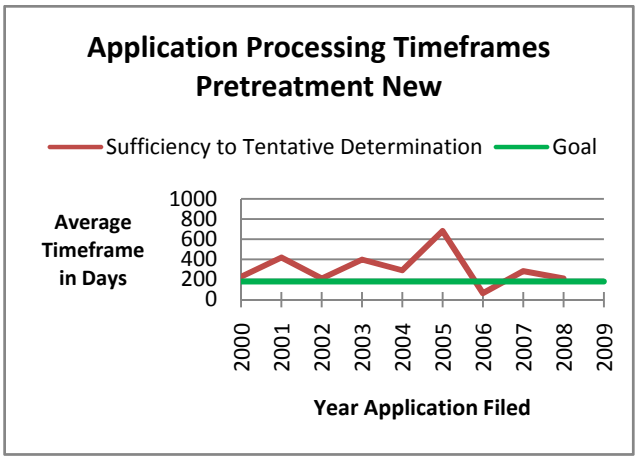
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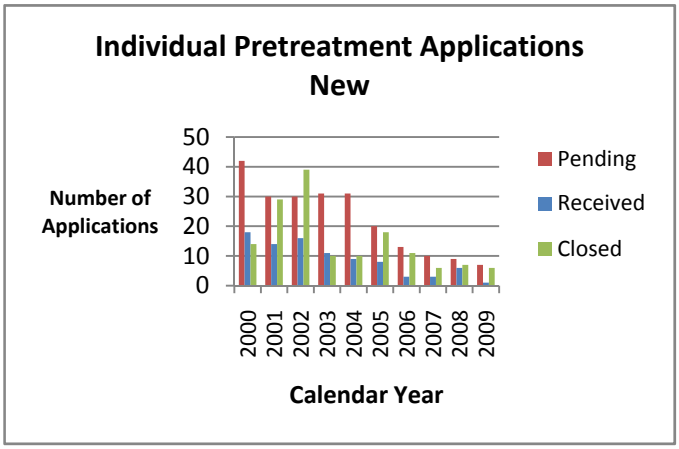
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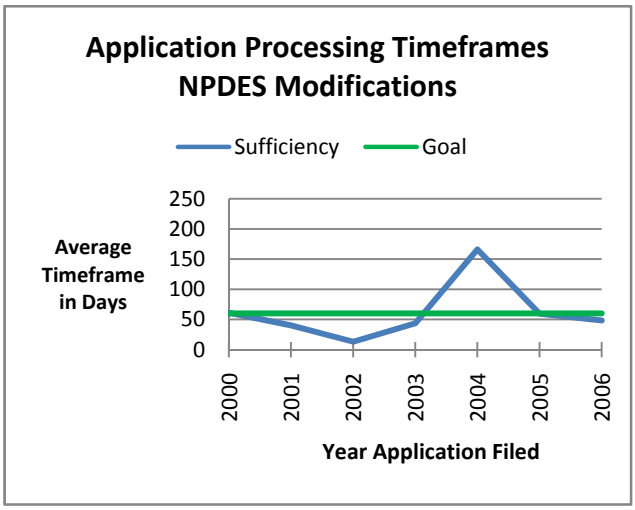
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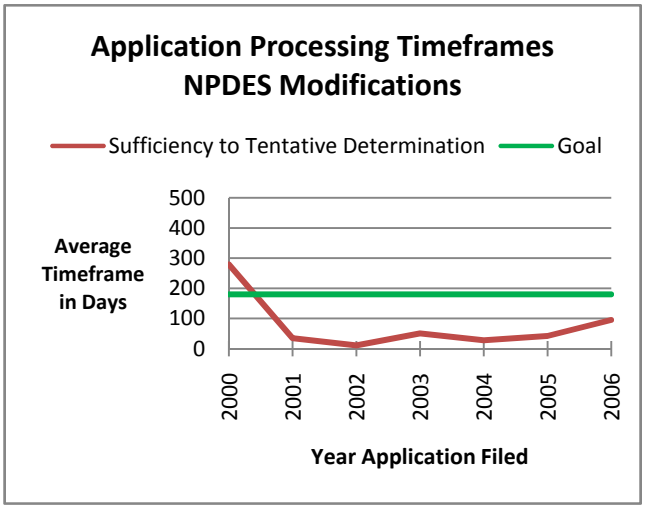
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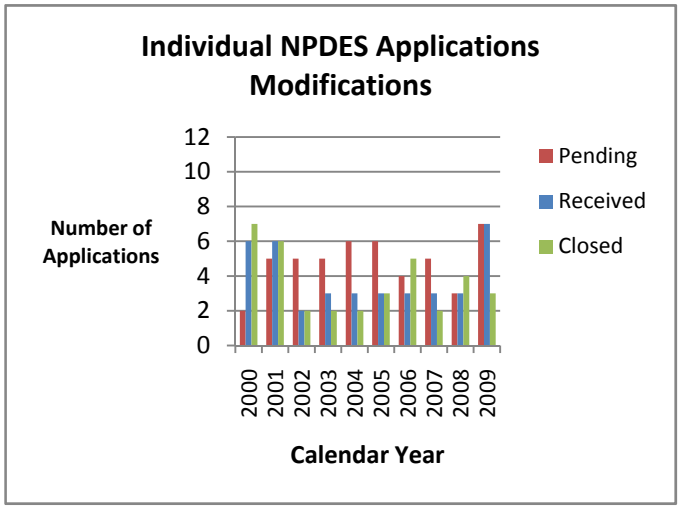
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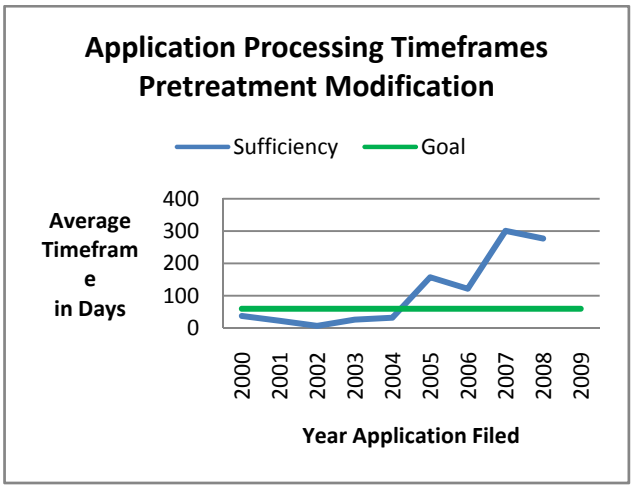
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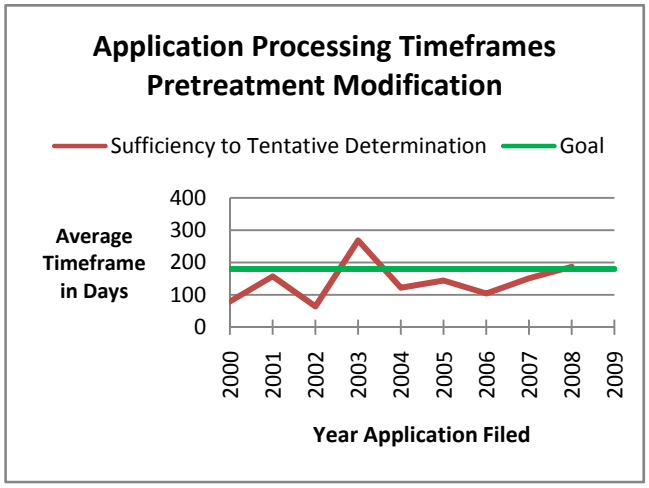
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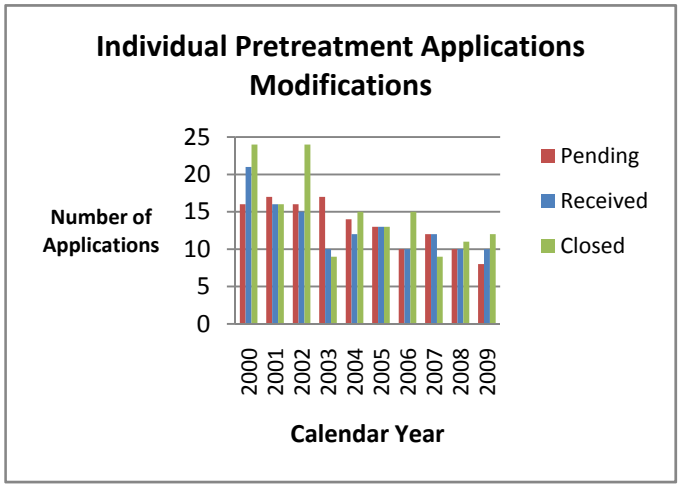
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The charts also reflect, with the exception of new pretreatment permit applications, the impacts of the 2003 Early Retirement Incentive Program: the early retirement reduced the number of staff and supervisors available to process discharge permit applications, as noted by the leveling or slight increase in pending applications in 2004 and 2005. New staff were hired and trained between 2004 and 2006 to process applications.

Currently, resources to process discharge permit applications are allocated according to environmentally significant permit applications (i.e., NPDES renewal applications) and economic priorities (applications for new or modified permits for NPDES and Pretreatment discharges). Processing of renewal applications for pretreatment discharges are assigned the lowest priority, which is reflected in the corresponding bar graphs by the lack of progress in reducing the number of pending applications for those discharges.

Recent Permit Streamlining and Process Improvements

In 2005, the Water Permitting and Enforcement Division identified that environmental priorities and limited available resources were impairing its ability to process applications for industrial pretreatment discharges in a timely manner. Division staff conducted a comprehensive evaluation of the Pretreatment Program to identify opportunities for improvement. The comprehensive evaluation included the following:

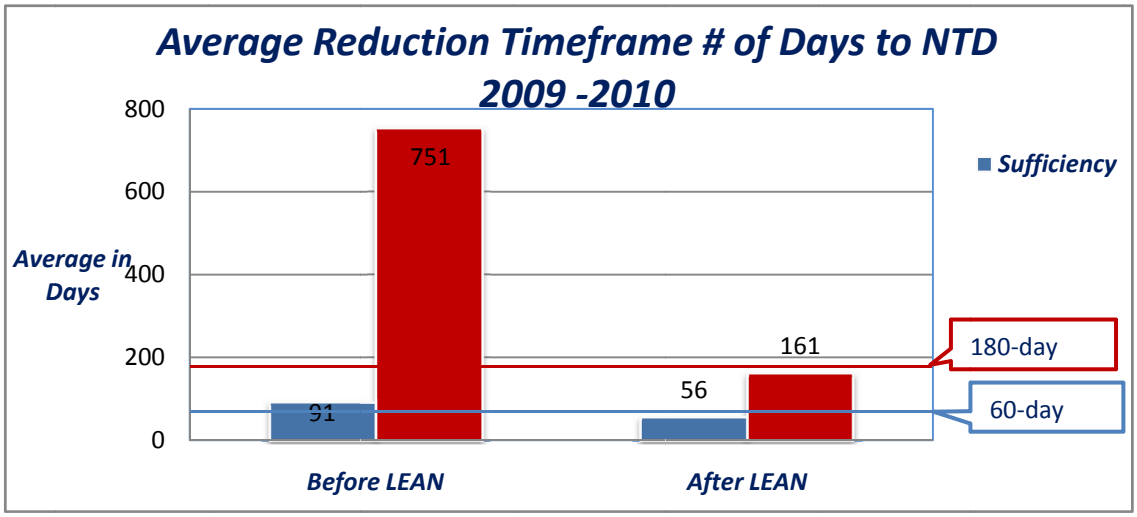
- Review of pretreatment programs in other states
- Review of alternative regulatory options (i.e., use of general permits or delegation to local water pollution control authorities)
- Streamlining procedures for reviewing application submittals, including requirements for spill prevention and control, resource conservation and treatment system operation and maintenance
- Streamlining procedures for determinations regarding permit modifications and alterations to wastewater treatment systems under RCSA 22a-430-3(i)
- Streamlining procedures for review of treatment system plans and specifications

The comprehensive evaluation led to enactment of Public Act 06-76 (CGS 22a-430b) which allows issuance of general permits for categorical industrial pretreatment discharges to Publically Owned Treatment Works. This approach is consistent with the authority under newly promulgated federal Pretreatment Program streamlining rules. Unfortunately, a lack of staffing resources has precluded DEP from implementing these new authority, which requires a significant commitment of resources, time and effort to develop the new general permit.

In 2008, the Water Permitting and Enforcement Division sought to address inefficiencies identified in the processing of individual industrial permit renewal applications in the NPDES Permit program. As these discharges can directly and immediately cause adverse impacts to the quality of Connecticut's waters, and since such discharges can legally continue under an expired permit when a complete and sufficient renewal application is timely filed, NPDES permit renewal applications should be processed in a timely manner to ensure that renewed permits, with the most current environmentally protective terms and conditions, are in effect as soon as possible. Factors such as addressing complex environmental issues with the applicant and the coordination needed with other DEP Divisions has significantly extended permit renewal processing timeframes. For these reasons, in May 2009, Division staff conducted a LEAN evaluation of the Industrial NPDES permit renewal process, from when an application is received to when DEP issues a tentative determination.

The objective of the LEAN evaluation was to reduce the DEP's permit renewal processing timeframe by seventy percent, from an average of 925 days to 284 days, for both sufficiency and technical review. As noted in the graph below, based on a sample size to date of five individual NPDES permit renewal applications reviewed under the new LEAN permit process, the average processing timeframe (sufficiency and technical review) was **reduced to 217 days – a seventy-four percent (74%) reduction**, which is consistent with the processing timeframe goals identified in Public Act 10-158. To achieve these significant reductions in processing timeframes, Division staff:

- Created a much more streamlined process by eliminating duplicative steps, improving communication internally and externally, with a focus on the pre-application phase;
- Revised forms and related program documents;
- Developed Standard Operating Procedures (SOP) for permit writers; and
- Developed coordination procedures with other DEP programs.



In 2009, 100% of NPDES renewal applications met the PA 10-158 60-day sufficiency and 180-day technical review goals.

As noted in both the tables and the line graphs above, NPDES applications filed within the last three years have been typically processed within 12 months. However, Public Act 10-158 requires that all reasonable efforts be made to issue a tentative determination within 8 months (60 days sufficiency and 180 day for tentative determination – but not account for the time DEP awaits for information). The LEAN process has demonstrated the capacity to reduce timeframes for processing NPDES renewal applications within this 8-month timeframe, and the potential exists for processing NPDES applications for new and modified discharge within such timeframes. Currently, there are 40 pending individual NPDES discharge permit applications, of which 23 are applications for renewal of existing NPDES discharge permits. Based on the implementation of the LEAN process improvements, it is anticipated that by the end of 2011, 50% of the remaining 23 individual NPDES permit renewal applications pending for more than 240 days will be processed. (Note: existing electrical power generation facilities are subject to pending revisions to the CWA for cooling water intake structures and may take longer given the uncertainty of final rules). Conversely, there are currently 130 pending individual pretreatment discharge permit applications, of which 113 are applications for renewal of existing pretreatment discharges. Current resources are not available to be allocated to process these individual permit renewal applications within the aggregate 240-day timeframe target of Public Act 10-158.

The DEP's Water Permitting and Enforcement Division has deployed general permits to manage the expanding universe of regulated discharges and to significantly streamline the processing of discharge permit applications in the NPDES and Pretreatment Programs. Discharges, where allowed by state and federal law, are now largely regulated by general permits, a regulatory control mechanism that while still requiring approval of a registration, involves significantly shorter processing timeframes while still ensuring the protection of the waters of the state. The timeframe for processing a general permit registration process is typically less than 90 days, including sufficiency and technical review. The 30-day public comment period is not required for each registration, as is the case for an individual permit application. In other words, timeframes for processing a general permit registration are substantially less than the aggregate, 240-day processing timeframe goals set forth in Public Act 10-158. In all, the Division has issued nineteen categories of general permits.

C. Recommendations

The Water Permitting and Enforcement Division recommends several process improvements and programmatic changes that will require a significant commitment of time and resources to implement. Existing staff cannot implement all these recommendations in a timely fashion and will therefore require additional staffing, that is described in further detail below under Staffing Needs.

1. Process Improvements

Apply the LEAN NPDES permit renewal efficiencies to individual NPDES applications for new and modified discharges.

Through this action, it is expected that subsequently filed applications for new, modified or renewed individual NPDES permits could be processed within the timeframes goals identified in Public Act 10-158. There are some renewal applications for facilities that will require certain data, information and/or studies that are complicated by recent changes undertaken at the particular facility or by recent rulemaking by EPA. DEP will continue to work with applicants and the EPA to resolve such issues. In the interim such facilities operate under their existing permits.

Streamline determinations under RCSA Section 22a-430-3(i).

RCSA 22a-430-3(i)(2) requires that a permittee notify DEP of any changes to a facility's operations that may result in a discharge beyond the terms and conditions of their discharge permit or constitute a new discharge; no such change can be undertaken until DEP notifies the permittee whether a modification to their discharge permit must first be obtained. Similarly, RCSA 22a-430-3(i)(3) generally prohibits a permittee from significantly altering a wastewater collection or treatment facility, without the prior written approval of DEP. It is recommended that standardized forms and guidance be developed to provide better clarity for seeking regulatory determinations regarding permit modifications and alterations to wastewater treatment systems under RCSA 22a-430-3(i). Particular focus will be given to developing streamlined, self-implementing provisions that will clarify and minimize the circumstances under which notification and a DEP determination would be required. Any notifications requiring a DEP determination or approval would be tracked with other applications to ensure timely review and processing.

Clarify commencement of 60-day sufficiency timeframe for permit renewal applications.

Public Act 10-158 contemplated that the 60-day sufficiency timeframe begin when an application is filed with DEP. CGS 22a-6f(a) and 22a-6g(a) state that an application is not deemed submitted unless all applicable fees have been paid and notice of the application has been verified to have been published in the local newspaper in accordance with CGS 22a-6g.

Furthermore, the fee regulations for the Industrial NPDES and Pretreatment Discharge Programs preclude review of an application until all applicable application, annual, and other past-due fees have been paid. Under current business practices, fees for applications are invoiced upon receipt of the application, with payment due within 45-days. On certain instances, DEP has not been able to process an application in a timely manner as a result of these requirements not being met. If fees are not paid or notice of application is not documented at the time the application is filed, the applicant seeking to renew a discharge permit is at risk of forfeiting its legal right to continue discharging beyond the expiration date of its discharge permit until such time as the Commissioner makes a final decision on the application. To ensure that an application to renew an individual permit can be deemed to be submitted and timely filed under state law, and to establish the commencement of the 60-day sufficiency review timeframe, it is recommended that application forms and instructions be modified to clarify that renewal application fees and annual fees be paid and notice of application be documented at the time of filing the application. Adjustments to the fees will be identified during the 60-day sufficiency review.

Improve communication by engaging our stakeholders regarding programmatic issues.
The Water Permitting and Enforcement Division values input from interested stakeholders regarding specific issues and will seek opportunities in the future to obtain their feedback as the Division pursues its process improvements and programmatic changes. The Division recommends pursuing opportunities to enhance targeted assistance to small businesses on rules and requirements utilizing the Department's website, and implementing the LEAN approach of more proactive use of permit application meetings to assist applicants in filing a complete and sufficient application that can be reviewed efficiently and readily approved.

2. Programmatic Changes

A Pilot Expedited Permit Process for the Industrial Pretreatment Program
The Pretreatment Discharge Permit Program regulates several thousand discharges to municipal sewage treatment plants. 234 of these discharges are individually permitted discharges from manufacturing or other industrial facilities. DEP recommends development of a multi-step pilot expedited permitting process that is responsive to section 1 of Public Act 10-158, and which is described below:

<u>Step 1:</u>

- Develop a general permit, which provides an expedited permit process, for selected categories of federally regulated industrial pretreatment discharges. DEP intends to start with the metal finishing and electroplating category, which represent over 81%, or

103 of the 127 industrial pretreatment discharges that are subject to federal pretreatment standards and are currently issued individual permits.

Step 2:

- Consolidate up to nine existing general permits for sewer discharges into the DEP's General Permit for Miscellaneous Discharges of Sewer Compatible (MISC) Wastewater. Consolidation of these general permits would reduce the number of separate registrations that an applicant may be required to file for more than one type of discharge. The DEP would also be able to significantly streamline the number of general permits that would be required to be administered under the Pretreatment Program.
- Reevaluate eligibility thresholds for coverage during the development of the consolidated General Permit for Miscellaneous Discharges of Sewer Compatible (MISC) Wastewater to allow more individually permitted pretreatment discharges to be covered by a general permit. It is anticipated that more than 100 individually permitted discharges may be eligible for coverage when the general permit is consolidated.
- In both Step 1 and Step 2, implement performance-based terms and conditions in the pretreatment general permits for various plans and other documentation, including spill control plans, wastewater collection and treatment system plans and specifications, and operation and maintenance plans. In lieu of submitting such documentation to DEP, forms and checklists prescribing the required elements of the respective plans would be submitted to DEP with certification by a Connecticut-licensed Professional Engineer that such documentation was prepared in compliance with the prescribed forms, checklists and the general permit, and with certification by the applicant that such plans and documents are being maintained at the facility and implemented in compliance with the general permit. Such self-certification provisions in lieu of submitting such plans and specifications for DEP review and approval and would minimize DEP review time for reviewing and processing individual general permit registrations.

Step 3:

- Once the general permit for the metal finishing and electroplating category is in place and operating successfully, expand it to include additional categories of industrial pretreatment discharges. The next most common categories of discharges representing 10%, or 13 of the 234 individual permits for industrial pretreatment discharges, are from the manufacture of organic chemicals, plastics and synthetic fibers and from steam-electric power generating activities.

3. Staffing Needs

	Technical & Administrative Permit Processing Staff	Program Development, Enhancement &Applicant Assistance Staff
NPDES Stormwater	1 FTE	3 FTEs
NPDES Industrial		.5
Pretreatment Program	3 FTE	2.5 FTE

The successful outcome in reducing the processing timeframes for applications to renew industrial NPDES discharge permits through the implementation of LEAN concepts was accomplished by reallocating and prioritizing staffing resources. As a consequence, there are no resources available to work on reducing the number of pending applications in the Pretreatment Program. Therefore, it is recommended to structure the Pretreatment Program similar to the industrial NPDES discharge permit program by establishing a separate unit for the Pretreatment Program with a new supervisor (1 FTE) to prioritize workflow and provide oversight of economically significant projects requiring new discharge permits, and to meet the needs of industries that are undergoing growth and adaptation in the state that may require them to modify their discharge permit. Additional staff are recommend for the proposed new Industrial Pretreatment unit, including 1 FTE for general permit development and administration and 2 FTEs for processing individual and general permit applications consistent with the timeframe goals of Public Act 10-158.

The NPDES Stormwater program regulates thousands of discharges effectively and efficiently through general permits. Recent federal court cases have impacted the manner in which public participation is required as part of the registration process for these general permits, particularly with respect to the stormwater plans that are required to be developed and implemented by general permit registrants. The public participation process will involve tracking 30-day comment periods for thousands of registrations, including any subsequent inquiries or input by the public and follow-up with the general permit registrant. Stormwater general permits are also NPDES permits that are issued for up to a five-year permit term, which typically requires that all registrants reapply at the beginning of each five-year permit cycle. Moreover, as stressors to water bodies shift from traditional point sources to more diffuse sources and causes such as nutrient pollution, excess sedimentation, toxics from storm runoff,

farm animal wastes, pesticides, etc., the universe of regulated activities may expand in the future. Additional resources are therefore needed in DEP's stormwater program to effectively and efficiently administer the stormwater general permits, the public participation process, and the thousands of registrations. DEP recommends that additional resources be allocated to increase the stormwater staffing by 3 FTEs to support general permit development and administration, processing of permit applications and registrations, inspections and enforcement.

As the Industrial NPDES and Pretreatment Discharge Programs move more towards the use of general permits as the preferred, more efficient regulatory mechanism to control thousands of discharges, current resources are inadequate to efficiently administer the day-to-day operational needs of the program. Expectations by the public and the regulated community for increased government transparency and accountability, greater access to information and more efficient means to do business with government has created an imperative to move more quickly towards electronically based systems, or what is often referred to as eGovernment. To be able to meet these expectations, DEP recommends that an additional staff resource (1 FTE) be allocated for the Industrial NPDES and Pretreatment Programs within the Water Permitting and Enforcement Division for continued support for existing document management and data quality management systems. This position would also support newer eGovernment systems that are currently being implemented, such as the newly available electronic discharge monitoring reporting system, or are planned to be implemented, such as an electronic general permit registration system.

Available resources have been unable to meet the increasing level of public and stakeholder interest in the Industrial NPDES and Pretreatment Discharge Permit programs, which have been the subject of extensive public hearing proceedings, frequently changing and evolving federal regulatory requirements, and litigation. It is recommended that additional legal staff resources (1 FTE) be allocated for legal support and adjudicatory proceedings, including representation at public hearings, for the NPDES and Industrial Pretreatment Programs.

The Water Permitting and Enforcement Division process has established a long-standing practice of providing technical and compliance assistance and outreach to permittees, the public and other stakeholders. For example, the Division staff are on a daily, rotational assignment to respond to inquiries, provide information and assistance on general technical and regulatory matters. Permit writers routinely communicate with and assist permittees and applicants on regulatory matters concerning their facility's activities and discharges, such as changes to facility operations and discharge permit monitoring requirements. However, increased expectations by the regulated community to provide enhanced assistance and outreach to small businesses, and to support outreach and assistance regarding changes in the

stormwater program and the implementation of the pilot expedited permit process for the industrial pretreatment program will require additional resources. Additional staff resources (2 FTEs) are recommended to be allocated to support these efforts.

4. Additional Resources

About 5,000 discharges, representing approximately 94% of all regulated discharges, are covered under a general permit. Registrations for a pretreatment general permit are required to be filed every five years, while registrations for non-federally regulated pretreatment general permits are required to be filed every five to ten years. Limited resources are available to process large numbers of registrations in a timely manner. It is recommended that DEP be provided with the requisite resources to develop and maintain an on-line general permit registration system to allow applicants to register for coverage under a general permit through the internet. An online registration system provides greater flexibility and convenience for the regulated community to file a registration application and provides DEP with the ability to track and process the increasingly large numbers of registrations electronically. Assistance from DEP's Office of Information or a contractor will be required.

Bureau of Water Protection and Land Reuse

Municipal Wastewater Treatment Plant Discharges

DEP's Municipal Facilities section in the Planning and Standards Division regulates and provides municipalities guidance and support related to discharges from municipal wastewater treatment plants to ensure protection of human health and the environment. This includes planning, design and construction oversight for projects financed through DEP's Clean Water Fund, and operation, maintenance, and permitting under programs delegated by the U.S. Environmental Protection Agency (EPA).

A. Introduction

The Municipal Facilities Section (MFS) within the Bureau of Water Protection and Land Reuse (WPLR) is responsible for implementing the federally-delegated National Pollutant Discharge Elimination System (NPDES) program under the Clean Water Act (CWA) for the treatment and discharge of primarily domestic wastewater from mostly municipal wastewater treatment plants. Currently, there are 98 individual permits that are issued for these discharges with infrequent applications for new discharges. Discharge volume distribution ranges from 23 facilities with less than 0.5 million gallons per day (MGD) to 18 facilities that exceed 10 MGD. About one-third of the facilities (32) discharge 1.0 to 4.99 MGD.

Most MFS permitted facilities are municipally-owned, numbering 84 distributed among 78 municipalities. Twelve permitted facilities are privately-owned and the remaining two are state-owned. Permitting and enforcement activities consume about 20% of the time of the MFS staff, and individual permits are distributed among staff for reissuance to ensure that staff most knowledgeable about each facility's operations are involved in the permit process. MFS staff also receive technical support from staff who are expert in toxicity and toxic pollutant requirements that must be included in the permits. MFS staff have broad responsibilities for many aspects of municipal facilities financing, design and construction as well as regulatory and management responsibilities to ensure protection of the state's waters. There are also two general permits that are issued under state authority, rather than federal – a nitrogen general permit to control nitrogen loads that impact Long Island Sound, and a fats, oils and grease

(FOG) permit aimed at controlling FOG from restaurants. FOG has been shown to be responsible for sewer clogging and subsequent bypasses onto the land and into the waters of the state.

Permit Application Process

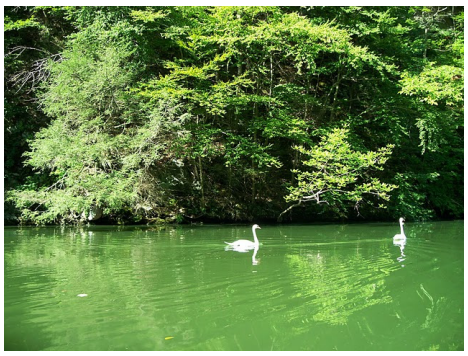
In accordance with the federal CWA NPDES program, permits are scheduled to be renewed on a five-year cycle. Applicants are required to submit an application 180 days prior to the expiration of their current permit, which allows continued operation under their existing permit while their renewal application is pending. Application forms and supporting materials are available on the DEP website.

Each application is reviewed for sufficiency, which is straightforward as almost all are routine renewals. Staff meets with the applicant to discuss any changes that may be required to meet water pollution control objectives. In recent years, phosphorus has been a major consideration for any facility that discharges to non-tidal, fresh waters. That emphasis is being driven by an EPA requirement to reduce loads of both nitrogen and phosphorus to the nation's waters by adopting numeric nutrient criteria into state Water Quality Standards. NPDES permit limits would be set to attain those criteria. EPA has been aggressively pursuing permit limits for such nutrients.

MFS drafts each permit, shares it with the applicant for review, and makes any adjustments prior to issuing the draft permit for public comment. The public has an opportunity to provide written comments on the draft permit and, with a petition signed by 25 individuals, may request a formal public hearing on the permit. Comments are received and addressed with or without a formal public hearing and a final determination on the permit is made.

Technical and Administrative Challenges

There are three technical challenges that presently dominate MFS permits: 1) nutrient removal including both phosphorus and nitrogen; 2) toxicity and toxic pollutant limits; and 3) combined sewer overflow (CSO) impacts, especially as related to bypasses and blending of bypassed effluent with final effluent. Of these, phosphorus is currently the primary challenge to expeditious permit issuance.



Lake Lillinonah (Photo Credit: Tod Osier)

Why is phosphorus such a big issue? As noted above, EPA is making a national push to develop nutrient criteria and incorporate numeric limits for nutrients in NPDES permits. DEP concurs that this is primarily a concern for municipal wastewater permits and some receiving waters show significant signs of phosphorus-

induced eutrophication in fresh waters. Symptoms of cultural eutrophication include excessive plant growth, which can turn the water green, and related water quality violations for clarity and dissolved oxygen.

DEP's preferred approach to address cultural eutrophication in Long Island Sound is a watershed permitting approach for nitrogen, which is the nutrient that accelerates eutrophication in estuarine waters. Permitting is effectively accomplished with a nitrogen trading program, which has kept 79 municipal permits on track since 2002 with a nitrogen general permit. The phosphorus issue is under consideration through negotiations with EPA, which will result in a determination of an acceptable phosphorus condition, or criterion, for non-tidal, freshwater rivers. A resolution to these discussions with EPA is anticipated in the next few months.

Administratively, there are additional challenges due to limitations of staff resources, especially competing demands on staff time. Growing priorities to address federal and state requirements and management needs continue to expand. This includes increased project financing through the state's Clean Water Fund and special funds received through the American Recovery and Reinvestment Act (ARRA) as well as the demands for issuing permits with more stringent limits for nutrients and other pollutants.

B. Analysis and Findings

It is the goal of the MFS to issue all permits in a timely manner. This means complying with the timeframe goals in Public Act 10-158, namely 60 days for sufficiency review and 180 days for technical review. For the MFS NPDES program, there is a growing list of permits that now exceeds these goals and needs to be addressed.

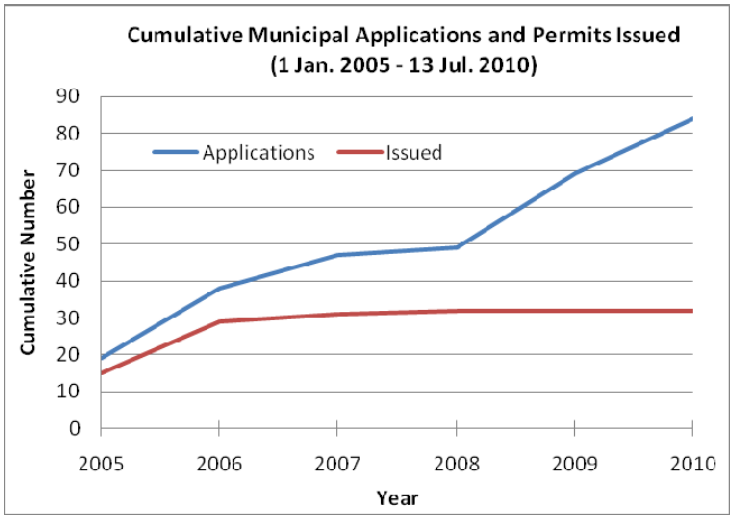


Figure 1. Status of permit applications and pending permits (cumulative) in MFS NPDES permitting program by year.

Permit Issuance Status

Between January 1, 2005 and July 13, 2010, the MFS received 84 NPDES permit applications and issued 32 permits or about 38% of the applications. There are presently 54 permit applications pending. There is a growing gap in the comparative rates at which new

applications have been received and the rate of permit issuance, leading to the growth in the number of pending applications (Figure 1).

Of the 84 applications received since 2005, 54 are pending issuance. Thirty-three are being held because of phosphorus permit limit issues (Figure 2); a few of the other pending applications have toxicity and combined sewer overflow (CSO) issues to work out, but non-phosphorus permits are primarily delayed because of workload and priority assignment of tasks; and two pending applications predate 2005. However, ten permits are drafted, and three have been public noticed this year. For those permits that have been issued, performance has on average exceeded the 240 days of combined sufficiency and technical review set as a goal (Figure 3). No permits for applications received in 2009 and to date in 2010 have been issued.

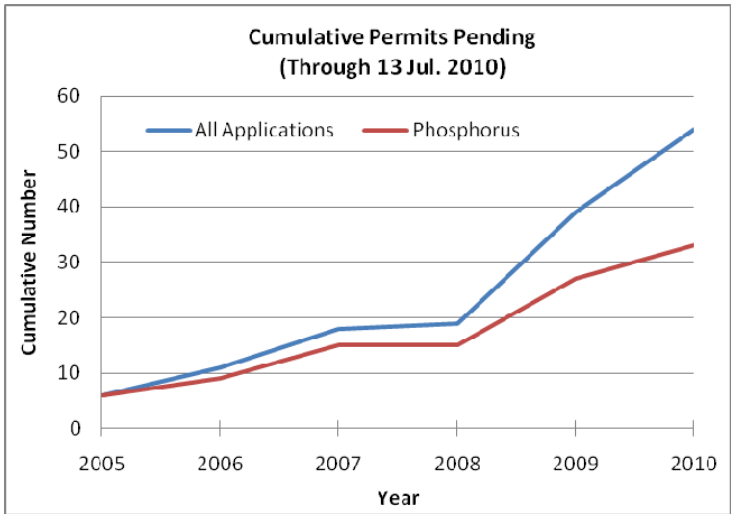


Figure 2. Permits issued and backlogged in the PSD MFS NPDES permit program, 2005-2010 (Phosphorus applications in red and

Days for pending applications are very long for two reasons: 1) in some cases permits have been expired for several years, including two that predate 2005, while metals limits and surface vs. subsurface discharge issues are resolved, which adds significantly to the cumulative statistics; and 2) phosphorus permits tend to dominate the older, backlogged permits.

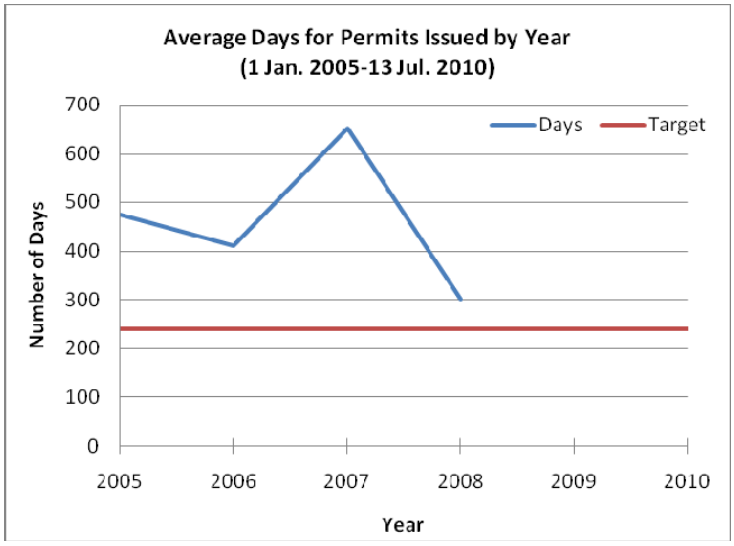
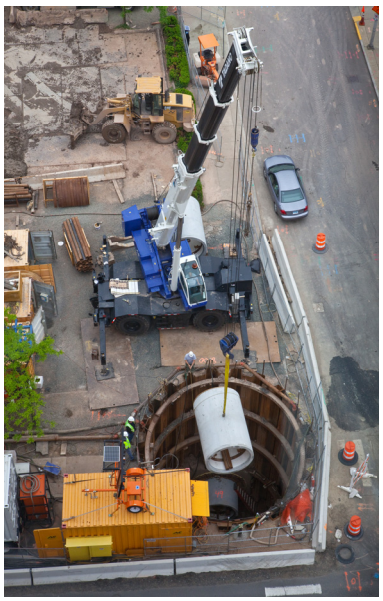


Figure 3. Average days for permit issuance for permits received January 1, 2005 through July 13, 2010. No permits for

Administrative and staff issues have also impacted the MFS's ability to issue permits in a more timely manner. MFS structure does not include full-time staff dedicated exclusively to permits. This is intentional as staff manages a

variety of tasks related to specific municipal facilities to which they are assigned. This approach creates a versatile staff knowledge base that allows them to efficiently use their experience to address the multiple tasks necessary to implement water quality improvement projects throughout the state under the Connecticut Clean Water Fund (CWF). Because financing and constructing water quality improvement projects are top priorities, and CWF workload can vary, sometimes permitting activity can be placed at a lower priority. This has been the case over the last two years as historically high bonding levels for the CWF and an infusion of federal funds under ARRA have diverted staff resources to get those funds out into the economy funding construction projects.



Staffing levels have ebbed over the last fifteen years since a peak in the mid-1990s, when 14 staff were employed, not including inspection personnel, which currently number 2 employees in the MFS. Although four non-inspection positions were filled about a year ago, MFS currently employs 10 non-inspection staff, four below the historical high in staffing levels. At the same time, in recent years, the non-permitting workload has grown substantially. Initiatives for toxicity limits, nitrogen, combined sewers and now phosphorus have increased both the complexity of all aspects of MFS work, and the time required to serve municipalities effectively. A year ago the retirement incentive program reduced supervisory staff from 3 to 1 employees and one other senior staff member retired, a collective reduction of over 100 years of experience, leaving just one supervising engineer in MFS. Recently, a second supervisor position has been filled from within MFS, and backfilling that position will result in a net gain of 1 position, to 11 non-inspection staff.

In addition to MFS staff, it is essential that ancillary programs within the Planning and Standards Division, primarily permitting support services in the Total Maximum Daily Load/Toxicity Section, that support nutrient criteria development and assist with other permitting issues (e.g., toxicity) continue to be adequately staffed. Those staff also support other permitting programs, including industrial permitting in the Materials Management and Compliance Assurance Bureau, and assure consistency with state Water Quality Standards. Legal staff support of at least 0.5 FTE are required to assist with complicated permitting and CWA issues, such as setting phosphorus limits in MFS, and administrative and regulatory processes, such as a new requirement for translating state Water Quality Standards into regulations.

In sum, to address the growing needs in the MFS and to recoup the positions vacated during the retirement incentive program of 2009, in addition to the backfill, two refills (one additional supervisor, and one additional staff position) are recommended to bring staffing to the mid-1990's level to provide assurance that MFS can move forward on all fronts, including permit timeliness. This would provide the staff necessary to address the backlog and keep pace with permits along with other MFS responsibilities.

	Technical & Administrative Permit Processing Staff (FTE)	Program Development, Enhancement & Applicant Assistance Staff
Municipal Facilities	2	0

C. Recommendations

To address the backlog of MFS NPDES permits, the following is proposed:

1. Process Improvements

- Distribute final review of permits among senior staff rather than having one point person, which has sometimes caused a bottleneck for permit reissuance.
- These senior staff will need to regularly communicate on permit outcomes to ensure the consistency that the one point person formerly provided.
- Develop a schedule to issue back-logged permits to avoid a peak year condition for the next five-year renewal.

2. Programmatic Changes

- Transition state Water Quality Standards, which provide chemical criteria necessary to setting permit limits, into regulations beginning in March 2011.
- Resolve phosphorus permit limits consistent with EPA requirements and DEP Water Quality Standards.

3. Staffing Needs

- Establish two positions by creating an entry-level sanitary engineer and one supervisory position in the MFS.

Bureau of Water Protection & Land Reuse

Inland Water Resources Division

The Inland Water Resources Division regulates activities in the state's inland wetlands, watercourses and floodplains, including oversight of municipal inland wetland commissions; enforcement of the State's inland wetlands and floodplain protection statutes; management of water resources through water allocation permitting; prevention or mitigation of natural disasters; and protection of public safety through dam safety programs.

A. Introduction

IWRD Permit Programs

The Inland Water Resources Division (IWRD) of the Bureau of Water Protection and Land Reuse administers six separate permit programs. They are primarily land use based permit programs that evaluate the impacts of proposed activities on the environment. The six permit programs are:

- Water Diversion (Conn. Gen. Stat. 22a-365 through 22a-379a)
- Water Quality Certification (Section 401 of the federal Clean Water Act)
- Inland Wetlands & Watercourses (Conn. Gen. Stat. 22a-26 through 22a-45d)
- Flood Management Certification (Conn. Gen. Stat. 25-68b through 25-68h)
- Stream Channel Encroachment Line (Conn. Gen. Stat. 22a-342 through 349a)
- Dam Safety (Conn. Gen. Stat. 22a-401 through 22a-411)

Water Diversion Policy Act

The permitting program of the Connecticut Water Diversion Policy Act commenced July 1, 1982. Under this program, a diversion permit is required for withdrawals of surface water greater than 50,000 gallons in a 24 hour period; groundwater withdrawals greater than 50,000 gallons in a 24 hour period; and alteration or modification of watercourses and waterbodies. In accordance with the law, the Department evaluates the use of the proposed diversion and

strives to balance the need for that use with existing uses, including the impact to the environment, considering the costs and benefits of that proposal together with those of available alternatives to the proposal.

The primary reasons for historic diversion permitting delays have been:

- First, the Department and the applicant often lack essential information about the effects of proposed and registered diversions on the particular water resource under consideration, resulting in lengthy delays as staff and the applicant gather necessary information;
- Second, the Department's diversion program has never been adequately staffed; and
- Third, the 2003 Diversion Amnesty Program (Public Act 01-202) resulted in a significant spike in diversion permit applications as a diverter who had neither registered nor applied for a diversion permit was allowed to file for a permit by July 1, 2003 without penalty. Approximately 175 diverters took advantage of this amnesty program. While the amnesty program helped bring water users into the Water Diversion program, DEP received no staffing to support the amnesty program and the resulting increase in permit applications.

Water Quality Certification

The 401 Water Quality Certification program regulates any applicant for a federal license or permit who seeks to conduct an activity that may result in any discharge into the navigable waters of the United States, including all wetlands, watercourses, and natural and man-made ponds. Such persons must obtain certification from DEP that the discharge is consistent with the federal Clean Water Act and Connecticut's Water Quality Standards. In making a decision on a request for 401 Water Quality Certification, DEP must consider the effects of proposed discharges on ground water and surface water quality and on existing and designated uses of the waters of the state.

Authorization under Section 401 of the federal Clean Water Act can be achieved either through an individual application or Programmatic General Permit (PGP). The PGP authorizes activities with minimal impacts. IWRD receives approximately 25 individual and 25 PGP applications a year.

Inland Wetlands and Watercourses

This program regulates activities undertaken by state agencies in or affecting inland wetlands or watercourses. As required by law, in making a decision on an inland wetlands and watercourses permit application, DEP must consider, among other things, the impact of proposed activities on the environment including wildlife and fisheries habitats, flooding and

flood hazards, and whether there are alternatives to the proposed action that will cause less environmental impact.

Flood Management Certification

This program requires Department approval of a certification, or an exemption from such approval, for all State actions in or affecting floodplains or natural or man-made storm drainage facilities. Such proposed activities may include:

- any structure, obstruction or encroachment within the floodplain;
- any site development which increases peak runoff rates; and
- any grant or loan which affects land use.

As required by law, in making a decision to approve a state agency's flood management certification, the Department must find that the proposed activity: is consistent with state standards and criteria for preventing flood hazards to human life, health or property and the provisions of the National Flood Insurance Program (NFIP); does not adversely affect fish populations or fish passage; and does not promote intensive use and development of flood prone areas.

Stream Channel Encroachment Lines

This program regulates the placement of encroachments and obstructions riverward of stream channel encroachment lines to lessen the hazards to life and property due to flooding. Stream channel encroachment lines (SCEL) have been established on about 270 linear miles of riverine floodplain throughout the state, and are shown on stream channel encroachment line maps, which are on file in the Town Clerk's office in each affected town. The extent of SCEL jurisdiction is approximately 5% of stream miles in Connecticut.

In making a decision on a stream channel encroachment line permit application, DEP must consider the impact of proposed activities on the floodplain environment, including wildlife and fisheries habitats, and on flooding and the flood hazards to people and property posed by such activity. The SCEL program commenced after the floods of 1955 and predates the National Flood Insurance Program, the Federal Emergency Management Agency (FEMA) floodplain mapping studies, and other FEMA floodplain programs.

Dam Safety

A permit is required to construct, repair or alter a dam, dike or similar structure. Existing dams, dikes and similar structures must be registered and periodically inspected to assure that their continued operation and use does not constitute a potential threat to life or property from a dam failure.

Dams are an integral part of our state's infrastructure as they provide important agricultural, recreational, environmental and flood control benefits. However, they also pose public safety and environmental risks. The exact number of all dams in Connecticut is unknown, although IWRD estimates that there are 5,500 dams on the landscape and, of these, approximately 3,000 are regulated by DEP as having some degree of hazard should they fail. Approximately 72% of dams are privately owned. DEP is responsible for the maintenance and repair of approximately 260 state-owned dams.

Other Division Responsibilities

Permitting staff, consisting of staff of the Environmental Analysis Section, the Engineering Analysis Section and 2 staff from the Dam Safety Program, account for about one-half of total IWRD staff. The Division has many responsibilities beyond permitting. Enforcement and technical assistance is a significant component of the Division's workload. Other Division staff is engaged in implementation of provisions of FEMA's National Flood Insurance Program, natural hazard mitigation planning, enforcement, inspection of state construction projects permitted by IWRD, , and repair of state-owned dams. The staff is responsible for educating local inland wetland officials and coordinating with other state agencies on emergency response related to flooding.

Dam safety section staff are also responsible for inspection of privately-owned and state-owned dams. The one full time dam safety inspector is inadequate to meet the regulatory requirements for periodic state inspection of the approximately 3,000 regulated dams.

Current Staffing

Currently, permit review staff consists of 3 Supervisors, 5 Engineers, 4.5 Environmental Analysts and 1 Engineering Aide. These staff are responsible for the review and processing of approximately 242 permit applications per year (5 year average). In addition, the dam safety program has other staff responsible for performing regulatory inspection, issuing maintenance and dam repair requests, providing technical assistance, undertaking enforcement actions, and responding to reports of unsafe dam conditions.

Administrative and staffing issues have impacted IWRD's ability to issue permits in a more timely manner. Staffing levels have ebbed over the last decade and supervisory staff in the Division has declined from 7 supervisors in 2003 to only 4 in 2010. Staffing levels are significantly below historical staffing levels while at the same time the work load and level of

responsibility has grown substantially. In addition, IWRD's clerical support services have declined. Data entry, document management and clerical support function needs are increasing.

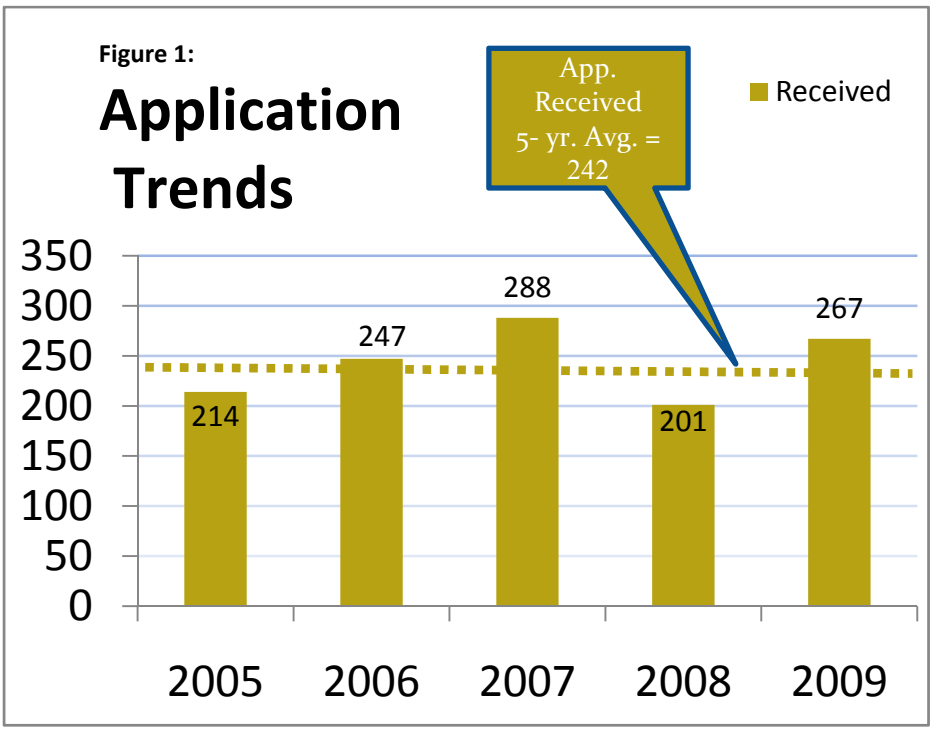
B. Analysis and Findings

Application Receipt and Processing

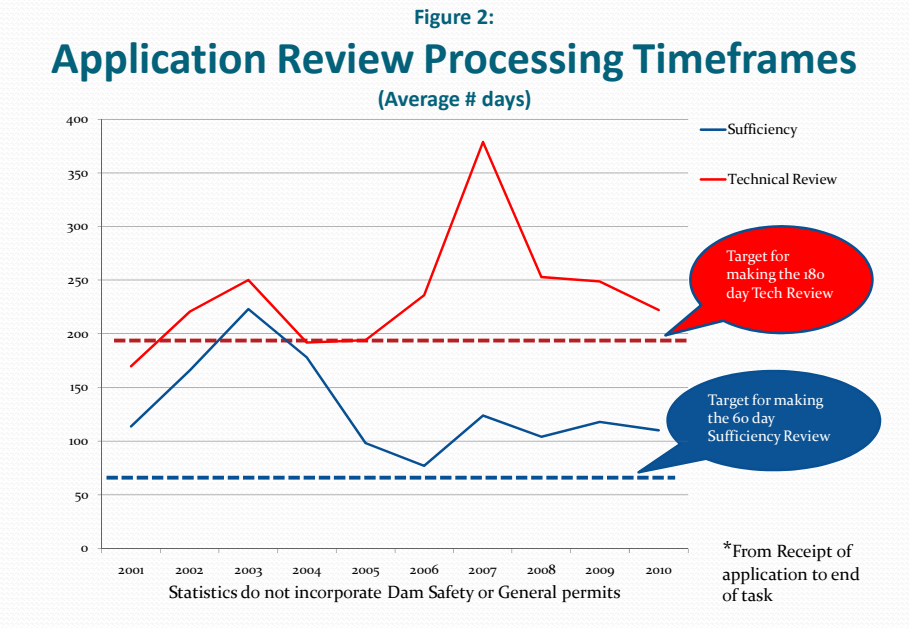
IWRD undertook an analysis of current permit review timeframes and improvements achieved by LEAN activities and other streamlining efforts as discussed herein, such as revised consumptive general permits and flood management programmatic efficiencies.

As Figure 1 indicates, based on a five year average, IWRD receives approximately 242 permit applications per year for all six programs. The slightly higher amount of applications received in 2007 is attributable to the Consumptive Diversion General Permit renewal process. Excluding that blip, Figure 1 demonstrates that the permitting workload has been relatively stable despite the economic turn down.

Figure 1:



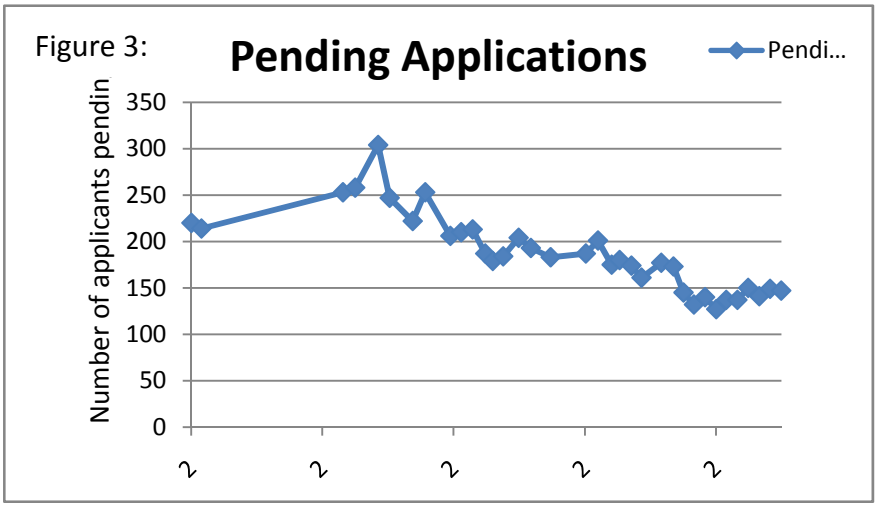
As Figure 2 indicates, IWRD has made tremendous improvements in review timeframes for both technical and sufficiency aspects. However, as shown, the 60 day sufficiency and 180 day technical review timeframe target goals are not being met. Please note that the data is based upon average processing times for the given year and that there is a great deal of variability in the type of project for which a permit is sought. Smaller straight forward projects with few environmental issues can expect better processing times and larger more complex projects will typically be at the higher end of expected processing times.



Post LEAN, IWRD statistics indicate that during 2009, the first partial year of LEAN implementation, IWRD completed 80% of sufficiency reviews within 90 days of receipt. Of that 80% of applications, 60% completed the technical review within 90 days of receipt as well. The remaining 20% were forwarded for a detailed technical review. This further emphasizes the importance of applications being submitted in a complete and sufficient manner as the first building block to efficient and timely permit decision-making.

Reduction of Pending Permits

Figure 3 demonstrates the declining number of pending applications. This is attributable to concerted efforts to improve and streamline the permitting process through general permits and LEAN improvements. For instance, timeframes of over three years to receive a tentative determination on an individual application for a consumptive diversion permit was not previously outside of the norm. Currently, these same types of applications are processed in 9 months to a year.



IWRD has implemented significant changes in the past three to five years to improve permit processing times and reduce the permit backlog. These changes have included development of new consumptive diversion general permits, streamlining the general permit renewal process, undertaking a LEAN event focusing on the application sufficiency review process, modifying SCEL to provide additional statutory exemptions, and making revisions to the Flood Management Act (Conn Gen Stat. 25-68b through 25-68h). These efforts collectively have dramatically reduced the number of pending permits from 304 in 2008 to approximately 149 pending permits in 2010 (see Figure 3.)

Revisions and Efficiencies to the Flood Management Certification Process

Since 2005 DEP has undertaken numerous steps to improve the flood management act certification process.

2005 - PUBLIC ACT 05-174, REVISIONS TO THE FLOOD MANAGEMENT ACT

DEP proposed a revision in 2005 to the State's Flood Management Act to eliminate jurisdiction over state funded local projects that are out of the floodplain. This reduced IWRD's involvement with local school projects funded by the State Department of Education (DOE), eliminating some 30 to 50 applications per year without compromising environmental standards.

PUBLIC ACT 07-233, AN ACT IMPLEMENTING THE RECOMMENDATIONS OF THE BROWNFIELD'S TASK FORCE

Working with DECD, in 2007, DEP proposed additional flexibility for flood management certification approvals when an exemption is requested, pursuant to Conn. Gen. Stat. 25-68d(d), by considering brownfield redevelopment projects to be "in the public interest." This facilitates issuance of flood management certification approvals by DEP when a state agency requests an exemption that is related to a brownfield redevelopment. Public Act 07-233 specifies the types of activities considered to be in the public interest.

2008 – INTERAGENCY AGREEMENT WITH THE CONNECTICUT DEPARTMENT OF TRANSPORTATION (CONNDOT)

Over 50% of the Flood Management Certification requests from CONNDOT were not state agency projects, but rather are local transportation projects (local bridge repair/replacements funded by CONNDOT with state or federal dollars). In 2008, DEP proposed and entered into an interagency agreement (MOU) with CONNDOT for processing CONNDOT funded municipal projects. The MOU authorizes CONNDOT to certify the project on behalf of DEP for sufficiency with the Flood Management Act. Prior to the MOU, both agencies engaged in similar reviews, resulting in duplicative effort and time delays.

The interagency MOU sets forth a streamlined approval process by which CONNDOT-funded municipal projects that require a Floodplain Management Certification pursuant to the Flood Management Act and that meet the requirements detailed in the MOU are deemed approved by DEP under the Flood Management Act. Specific review procedures and design criteria are set forth in the MOU, including certification procedures, record-keeping, and reporting to DEP.

Use of General Permits

IWRD has made extensive use of general permits to provide greater regulatory consistency, reduce permit processing time, and facilitate streamlined permitting. By law, general permit categories are limited to "minor activities" with "minimal environmental effects". The sidebar box lists the currently adopted general permits.

IWRD General Permits

Water Resources Construction

Minor Grading – 5 Categories
Minor Structures – 11 Categories
Habitat Conservation – 5 Categories
Utilities and Drainage – 11 Categories
Lakes, Ponds & Basin Dredging -2 Categories
Dam Safety – 3 Categories

Consumptive Diversion

Consumptive Diversion –Authorization Required 3 Categories
Consumptive Diversion – Filing Only 4 Categories
Consumptive Diversion - Non-filing 3 Categories
Consumptive Diversion – Reauthorization 6 Categories

Diversion of Remediation Groundwater

Of note are the substantive changes to the Consumptive Diversion General Permit which was issued in 2007. Before that time, there was only one consumptive diversion general permit. It required applicants to file an authorization request and wait for IWRD to review and approve that request. It often took six months to a year to receive an authorization. After the 2003 diversion amnesty program, pursuant to Public Act 01-202, there was often thirty or more consumptive diversion general permit requests awaiting review and authorization.

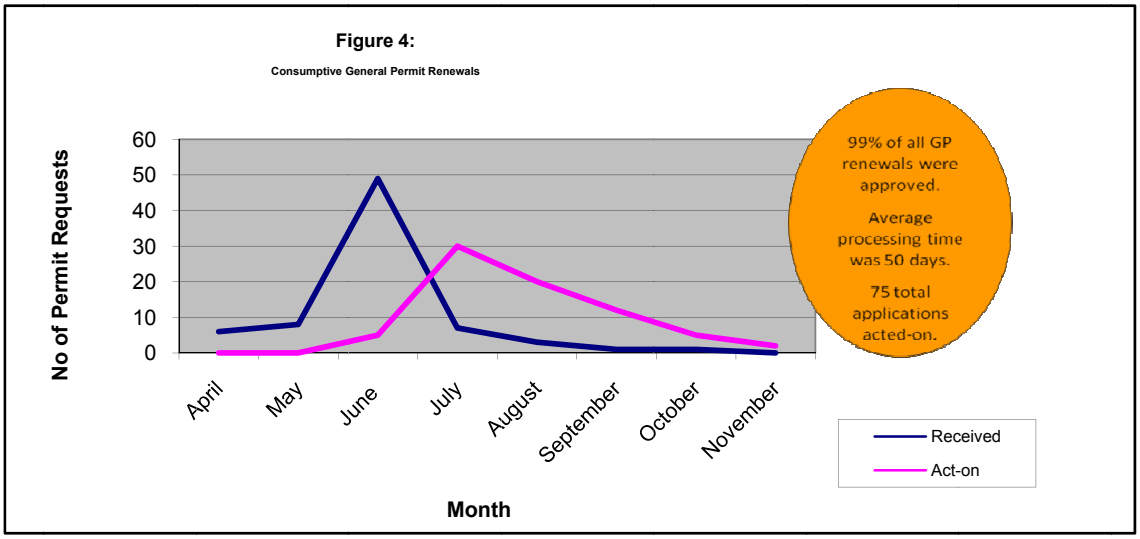
To remedy this situation, in 2007, IWRD revamped the Consumptive Diversion General Permit and created new "filing only" and "non-filing" general permits. Working with stakeholder groups, new eligibility categories were also developed. The revamped process eliminated the backlog for processing consumptive diversion general permit authorizations, provided additional flexibility and increased certainty for applicants.

Noteworthy revisions to the process included:

- Reworking the application form to make information requirements clearer;
- Creating a separate non-filing general permit for diversion of remediation groundwater;
- Extending general permit duration to 10 years from 5 years; and
- Creating 3 new consumptive general permits with 10 new categories (see chart on the following page).

DEP-IWRD-GP-012	DEP-IWRD-GP-011	DEP-IWRD-GP-010
Authorization Required Categories	**Filing Categories**	**Non-filing Categories**
Withdrawal of up to 250k gpd (Surface w ater & Stratified Drift)	Backup Well w/in 250 ft	Pump and Recharge Geoexchange System
Withdrawal of up to 250k gpd Bedrock	Small Supplemental Bedrock Well	Non-Contact Cooling - Surface Waters (Discharge w /in 500 ft)
Interconnection & Transfer - Up to 1 MGD	Small Water Supply System (Ex. CWS or Agric <= 50k gpd)	Long Island Sound - Up to 2 MGD
	Large Tidally Influenced Rivers - Up to 2 MGD	
Effective date of Authorization	**Effective date of Authorization**	**Effective date of Authorization**
Authorized after DEP review and written approval of request	Authorized upon receipt of complete request and fee	June 27, 2007
Process	**Process**	**Process**
DEP issues written authorization - may include special conditions.	DEP sends confirmation and acknowledgement of effective date	None. Covered as long as Operating Conditions in GP are followed

In addition, IWRD streamlined the consumptive diversion general permit renewal process to allow for filing-only renewal whereby the permittee is covered immediately upon filing a renewal application and the associated fee. This allows for quick processing of renewals and continuous coverage for the permittee. The short form renewal program is now automatic for permitees seeking renewal of withdrawal amounts, provided that the permittee is in compliance with the conditions and annual reporting requirements of the previous authorization. This streamlined renewal process provides for all previous authorized activities to continue uninterrupted and with a fast track approval process.



As can readily be seen from Figure 4, the consumptive general permit renewal process has been a success. During the summer of 2007, 75 applications for authorization under the general permit were authorized with an average processing time of 50 days.

In addition, IWRD in developing the "Diversion of Remediation Groundwater" general permit coordinated with the Permitting and Enforcement Division within the Bureau of Materials Management and Compliance Assurance to leverage programmatic approvals and avoid duplication of effort. By law the pumping and discharge of remediation groundwater requires both a discharge permit and diversion permit. By coordinating these programs, this activity now has automatic coverage under a non-filing diversion general permit provided that the discharge permit under section 22a-430 or 22a-430b of the Connecticut General Statutes has been obtained. Additionally, the Permitting and Enforcement Division developed 2 general permits to facilitate authorization. An activity that previous had required 2 individual permits from 2 separate DEP Divisions now can be seamlessly covered through a single filing.

Stream Channel Encroachment Line Streamlining

By law, the commissioner must establish, along certain inland waterways or flood-prone areas, boundaries beyond which no one may place any encroachment or hindrance. In 2005 IWRD proposed 15 additional permitted uses as of right within stream channel encroachment lines. These additional exemptions were enacted in Public Act 05-174. This reduced the number of permits required to be processed by DEP and eliminated the need for permitting of minor activities.

LEAN Kaizen Event focused on IWRD Sufficiency Reviews

IWRD is applying LEAN principles and practices to improve the way it does business. To meet the needs of applicants, IWRD is becoming more efficient while maintaining environmental requirements. IWRD is eliminating time-consuming steps that add no value.

IWRD undertook a LEAN event in October of 2008, looking at the sufficiency review process for all incoming IWRD permits. The sufficiency review process encompasses when an application is submitted until it is either determined sufficient or insufficient for technical review. The LEAN event occurred over a five day period during which a lot of passionate discussion took place on how to look at IWRD's existing processes differently and eliminate non-value added steps.

IWRD's LEAN goals were to reduce response times to applicants; standardize work procedures; and improve communication both within the Department and with applicants. In addition, IWRD continues to look for opportunities to progress to electronic filing of applications. The LEAN review resulted in the elimination of 11 separate databases and subsequent consolidated use of DEP's SIMS database for application tracking. In addition, 6 separate permit programs were merged into 2 discipline reviews (engineering and environmental analysis) with a single

project lead. With this new approach, every applicant has a single point of contact within the Division. In addition, through LEAN, functional steps in undertaking a sufficiency review were reduced from 57 to 14. LEAN resulted in a commitment to perform a sufficiency review in 90 days for all applications. Application forms were also reviewed for clarity and improved. The functional and time savings achieved through the LEAN process have resulted in improved sufficiency review times and a reallocation of staff resources devoted to pre-application meetings.

The LEAN team developed a work plan which lays out key components to move the new sufficiency review process forward. Implementation of the plan continues.

C. Recommendations

1. Process Improvements

LEAN Improvements

Further LEAN implementation includes standardizing letter formats and templates for sufficiency letters to applicants, developing templates for joint notices and permits when more than one permit is sought from IWRD for the same project, pursuing electronic submittal of applications, and providing outreach to consultants and engineers.

General Permits

IWRD will continue to evaluate options for utilizing new general permits and categories within general permits and expanding eligibility and the use of Non-Filing and Filing-Only general permits where appropriate. Upon reissuance or revision, the general permit duration will be extended to ten years from the current five years if appropriate. Wherever feasible, consolidated general permits that cover activities under multiple IWRD programs or that are inclusive of other DEP programs should be crafted.

In particular, the six Water Resource Construction General Permits will expire in June 2012. IWRD intends to meet with stakeholders to investigate expanding existing categories or creating new general permits such as:

- Removal of partially breached dams;
- Removal of negligible hazard dams;
- Stream bank stabilization;
- In-kind structure replacement or maintenance with no change in grade; and
- Building foundation dewatering systems.

Ongoing development of general permits and other streamlining tools are needed. Currently, IWRD looks for general permit enhancement when a general permit is up for renewal. This does not allow for timely implementation of innovative ideas to respond to a rapidly changing business environment. For instance, opportunities for expedited permitting of green infrastructure should be explored. Also, permit staff is reassigned from reviewing permits to undertake general permit development, which adversely impact permit process times. In order to consistently meet permit timeframe goals, additional staff resources are need for program development and enhancements.

Proactive Permitting

Providing outreach and assistance to applicants improves the overall level of service IWRD can provide by assuring that environmental consultants, engineers and applicants are aware of regulatory requirements, options for expediting permitting through the use of existing and propose general permits, and Low Impact Design and alternate design approach that can avoid and minimize environmental impacts. IWRD has been chronically under resourced to provide this important technical assistance and outreach. Proactive education and outreach is critical to assure permit applicants know what is required and craft readily approvable applications. The side bar table lists proactive permitting recommendations to assist applicants. Additional staff resources are needed to undertake this effort.

Proactive Permitting

- Provide technical training to consultants and applicants
- Initiate targeted assistance to specific stakeholder groups such as agriculture or private dam owners on regulatory requirements and how to navigate the permitting process
- Develop compliance assistance tools such as web based technical resources
- Increase use of permit application meetings for new applicants

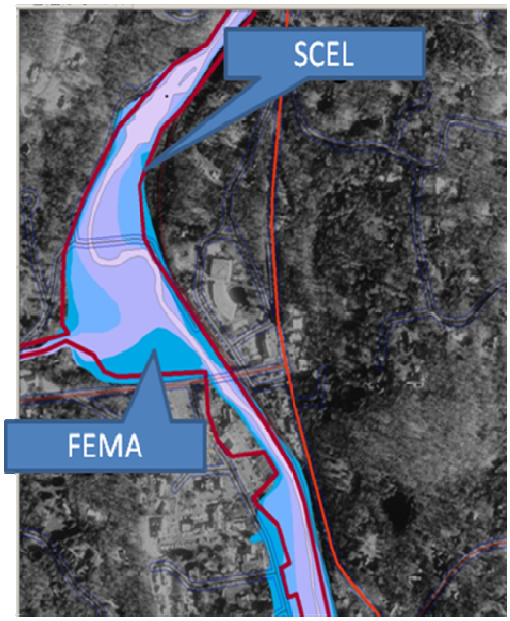
2. Programmatic Changes

Repeal the Stream Channel Encroachment Line Program

Given the small extent of SCEL coverage in the state (approximately 5% of stream miles), the amount of regulatory time spent by both applicants in preparing and the state in reviewing SCEL applications, and the existing regulation of floodplain activities by municipalities in accordance with FEMA requirements, it is recommended that the SCEL program Conn. Gen. Stat. 22a-342 through 22a-350 be repealed. IWRD received comments from CONNDOT supportive of SCEL repeal.

When this program was adopted, it was one of the first programs in the nation to identify flood prone areas, establish encroachment lines and regulate activities within such encroachment

lines for the purpose of protecting environmental floodplain resources and maintaining rivers' flood carrying capacity and water storage capacity. Since that time, FEMA has developed the National Flood Insurance Program (NFIP) and studied and mapped flood ways and floodplains in all Connecticut counties. These maps identifying flood prone areas have been adopted by the local communities. In addition, municipalities through local planning and zoning have floodplain ordinances that regulate activities within FEMA flood zones in accordance with FEMA requirements. All Connecticut towns participate in the NFIP program. Several state laws that define additional municipal floodplain oversight also offer floodplain protection. The local and federal floodplain requirements are adequate to protect floodplains. Issues with development in floodplains arise most frequently not from new development, which is strictly regulated, but from historic development in low lying areas that pre-dated the current floodplain regulations.



In addition, the SCEL lines are surveyed lines that do not necessarily match up well with the FEMA flood lines which are based on a flood elevation. As a result, some proposed activities located landward of FEMA flood zones are regulated under SCEL because they are within the SCEL zones. This juxtaposition of differing jurisdictional floodplain boundaries often leads to confusion among the regulated community.

For all these reasons, IWRD recommends that the SCEL program be repealed. This would eliminate approximately 20 individual permit applications and approximately a dozen general permit authorizations a year from IWRD's administrative review workload. Repeal of the SCEL program would also remove a perceived state regulatory roadblock that provides little value added over the regulation of floodplain activities by municipalities consistent with FEMA requirements.

3. Staffing Needs

Staffing levels are currently inadequate to meet permit application processing timeframes based upon the current rate of applications before IWRD. In order to meet Public Act 10-158 timeframes additional staff resources are needed. These staff are required for pre-application meetings, technical assistance to applicants, permit processing, and general permit development. If demand for permits increases as the result of economic recovery, impacts of climate change or otherwise, additional staffing will be needed to maintain permit processing timeframes. In addition, during significant flooding events permitting staff is diverted to emergency preparedness, response, and recovery efforts.

IWRD permit programs are dependent upon technical assistance, and field evaluations performed by resource specialists in Wildlife, Fisheries and Water Planning Units within DEP. For instance sites with rare, endangered or threatened listed state species trigger the involvement of wildlife and habitat specialists. In addition, consumptive diversion permit require review by a hydrogeologist located in the Remediation Division.

	Technical & Administrative Permit Processing Staff	Program Development, Enhancement & Applicant Assistance Staff
Inland Water Resources	8	2

Land use permitting issues often generate extensive public hearing proceedings, declaratory rulings, and legal questions. Assistance for technical staff during adjudicatory permit hearings is needed. Currently, staff represents themselves and such participation in the hearing process drains staff resources from permit processing. It is recommended that additional legal staff resources (.5 FTE) be allocated for legal support and adjudicatory proceedings, including representation at public hearings, for the IWRD permit programs.

4. Additional Resources

Electronic Permitting and Web Access

Web access to information on the status of permit application reviews would be a valuable enhancement for improving responsiveness and transparency to the regulated community. In addition, moving towards electronic application submittal would result in cost savings to applicants, improved DEP document management, and enhanced public access to records. For example, CONNDOT has estimated that it costs approximately $700 to $1200 in copying costs to provide the multiple copies of an application, plans and reports necessary for IWRD to undertake a technical review. There are clearly savings to applicants in moving toward electronic submittal of applicants. There are also savings to IWRD in being able to accept electronic documents in terms of document management, retrieval and retention for FOIA purposes. Currently, storage and retrieval of IWRD application materials is problematic due to limited space and lack of resources for indexing and other tracking.

IWRD's ability to implement the LEAN recommendation for electronic permit filing and more transparent web based permit status viewing by applicant will require an investment in information management and technology by the Office of Information Management within DEP. Additional support resources within IWRD are also needed to track, manage and scan documents, and address increasing database and data management requirements.

D. Looking Ahead

Going forward, the ability of IWRD to meet the timeframe goals for sufficiency and technical review targets in Public Act 10-158 are greatly influenced by existing and future staffing levels as well as uncertainty over the variable rate at which applicants seek permits. There is a high level of uncertainty about future workload and the affect of economic recovery and infrastructure investment on application rates. In addition, sea level rise and the projected increase in storm intensity associated with climate change may increase future demand for modifications of dams, levees, bridges and other state and private structures, thereby triggering the permit process. If demand for permits increases as the result of economic recovery, impacts of climate change or otherwise, additional staffing will be needed to maintain permit processing timeframes.

In addition, anticipated climate change impacts will also influence work loads for IWRD. According to a 2003 report by the University of Connecticut, entitled Precipitation in Connecticut, there has been a statistically significant increase in precipitation amounts in Connecticut over the past 100 years. This report analyzed precipitation [rainfall] data through August of 1996 in Connecticut and indicates that annual precipitation amounts have increased. In addition, regional climate change reports are predicting more wet days and more extreme rainfall events.

E. Program Specific Stakeholder Comments

IWRD received positive comments at the public forum held on July 14, 2010. In general the audience encouraged the increased use of general permits and voiced positive support for the repeal of the Stream Channel Encroachment line program Conn. Gen. Stat. 22a-342 through 22a-350. In addition, stakeholders recommended a permit status dashboard approach whereby each applicant could check the status of the application review on-line. In addition, IWRD received two formal comment letters with specific suggestions. One was from the Department of Transportation and the other from the Connecticut Water Works Association.

Bureau of Water Protection & Land Reuse

Coastal Resources

The Office of Long Island Sound Programs administers Connecticut's federally-approved Coastal Management Program. The goals of the program are to ensure balanced growth along the coast; restore coastal habitat; improve public access to coastal waters and resources; protect water-dependent uses, public trust waters and submerged lands; and promote harbor management.

A. Introduction

The Office of Long Island Sound Programs ("OLISP") regulates activities in the tidal, coastal and navigable waters of the state and in tidal wetlands. This regulatory responsibility spans more than 1,065 linear miles of regulated shoreline in 56 municipalities. OLISP reviews applications for six types of authorizations based in state and federal law, as described below.

- **Structures, Dredging and Fill ("SDF"):** Individual permit process pursuant to Conn. Gen. Stat. 22a-361 for most new coastal structures and activities waterward of the high tide line.
- **Tidal Wetlands ("TW"):** Individual permit process pursuant to Conn. Gen. Stat. 22a-32 for any new coastal structures and activities within tidal wetlands.
- **Certificate of Permission ("COP"):** Expedited review process pursuant to Conn. Gen. Stat. 22a-363b for repairs or minor modifications to previously authorized or historically existing structures.
- **General Permit ("GP"):** Expedited review process pursuant to Conn. Gen. Stat. 22a-361(d)(1) for minor activities that have minimal environmental effects. OLISP has 14 general permits currently in place.
- **Water Quality Certification ("WQC"):** Certification process pursuant to Section 401 of the Federal Clean Water Act for discharges to waters of the state.

- **Federal Coastal Consistency ("FCC"):** Determination process pursuant to 15 C.F.R. 930 to ensure that direct federal actions or licenses are consistent with Connecticut's federally-approved Coastal Zone Management Program.

Of these, the Department has identified the following three permit types for review in accordance with Public Act 10–158: (1) Structures, Dredging and Fill/Tidal Wetlands; (2) Certificate of Permission; and (3) Water Quality Certification.

Overlying all of OLISP's activities, including these regulatory functions, is Connecticut's federally-approved Coastal Zone Management Program ("CZMP") in accordance with the federal Coastal Zone Management Act ("CZMA"). The CZMA is administered by the National Oceanic and Atmospheric Administration ("NOAA"), which provides federal grants funds in an amount equal to approximately half of OLISP's program budget. OLISP is accountable to NOAA for compliance with the CZMP and annual grant funding agreements through semi-annual performance reports and annual performance measures reporting.

OLISP's regulatory authorities are implemented through the Permitting and Enforcement Section, which is currently composed of nine environmental analysts and two supervising environmental analysts. The OLISP Permitting and Enforcement staff is divided into east and west districts, each with its own staff (four in the east, five in the west) and a supervisor.

Analysts are responsible for permitting and enforcement within assigned municipalities. Each district has an enforcement lead but each analyst at times is responsible for enforcement actions within his or her assigned municipalities.

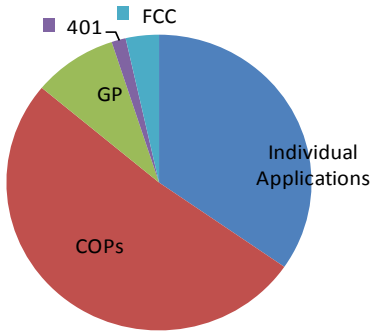
The Permitting and Enforcement Section used to have ten environmental analysts. However, in 2009, an analyst in the east district resigned, the position was eliminated and the workload distributed to the remaining four staff. In addition, a position in another section that provided technical support to the Permitting and Enforcement Section was vacated through retirement and has not been refilled because of budget constraints. The functions and workload of that position have been distributed to the Permitting and Enforcement staff.

B. Analysis and Findings

Summary of Applications Received

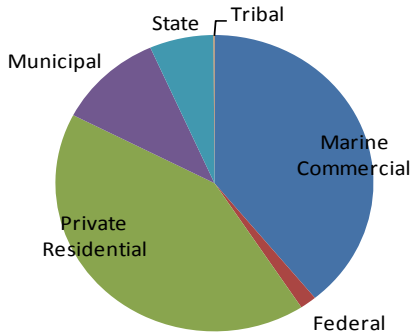
Over the last ten years, OLISP has received an average of approximately 360 applications per year. As shown in Figure 1, over 50% of the applications received in the last decade were Certificates of Permission, while approximately 33% were individual permit applications.

Fig. 1 - Application Types



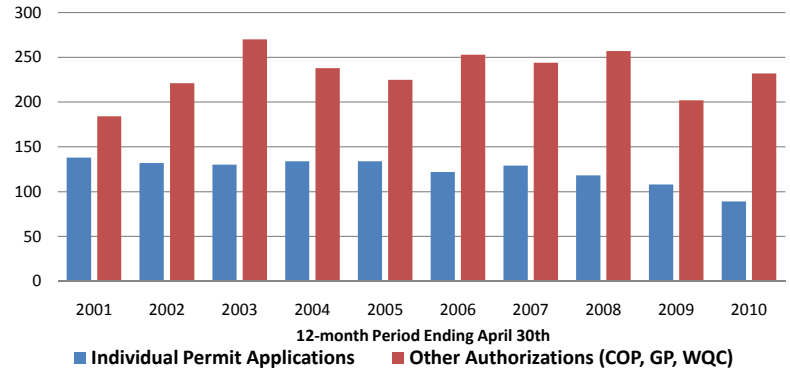
As illustrated in Figure 2, over that ten-year period, more than 40% of the applicants with whom OLISP interfaced were private residential property owners. An additional 33% of applicants were marine commercial, such as marinas, yacht clubs, port facilities and other water-dependent businesses.

Fig. 2 - Types of Applicants



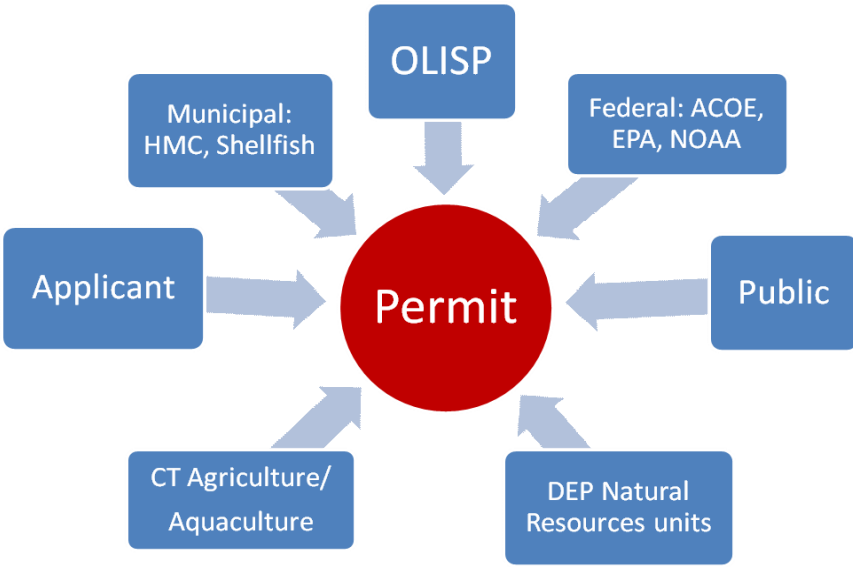
As shown in Figure 3, the number of individual permit applications received annually declined approximately 33% over the last ten years, with the most significant decline occurring over the past two years. In the 12 months prior to May, 2010, OLISP received 89 individual permit applications compared to a high of 138 in 2001.

Fig. 3 - Applications Received
Number per Time Period



When new LEAN procedures were implemented in 2008, OLISP had approximately 250 individual permit applications pending. By May 2010, that number had been reduced to 117, a 53% reduction in pending applications.

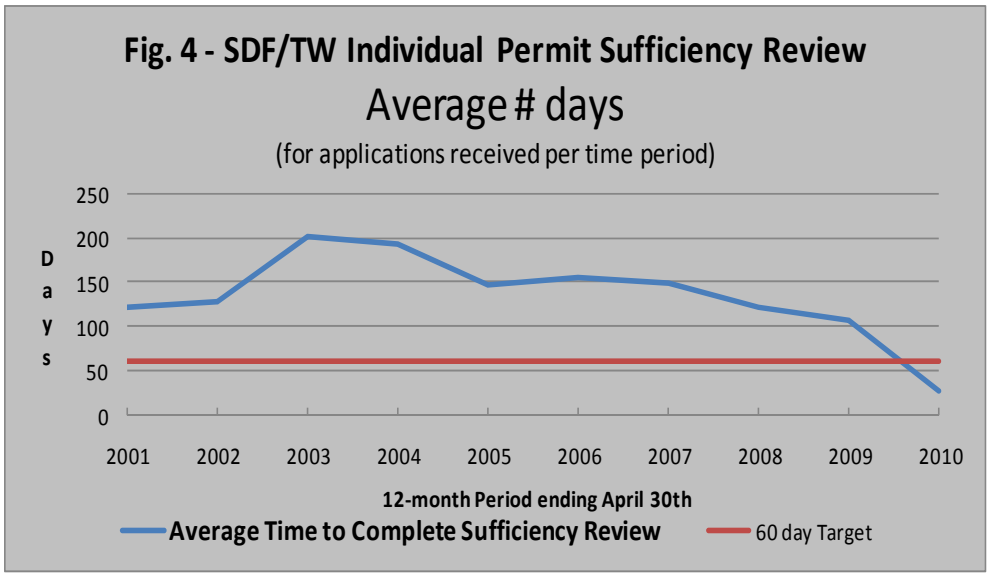
Although individual permit applications account for only about one-third of the applications received, they tend to be the most complex and time-consuming to process. There are a variety of entities outside of OLISP that are involved in the review process through consultations that are statutorily-required or otherwise appropriate and necessary. In addition to consultations between OLISP and the Department of Agriculture regarding possible effects to shellfisheries, OLISP coordinates with federal agencies including the Army Corps of Engineers, U.S. Environmental Protection Agency and NOAA, and municipal commissions, including conservation, shellfish and harbor management commissions to ensure that local interests are considered.

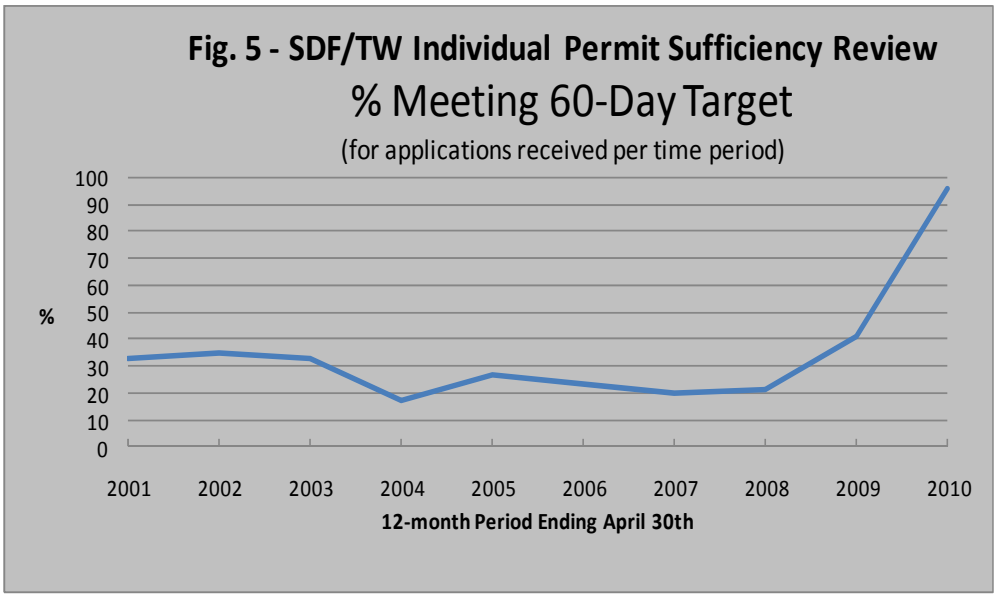


Individual Structures, Dredging and Fill and Tidal Wetlands Application Processing

96% of SDF/TW sufficiency reviews done in 2009 met the PA 10-158 60-day goal.

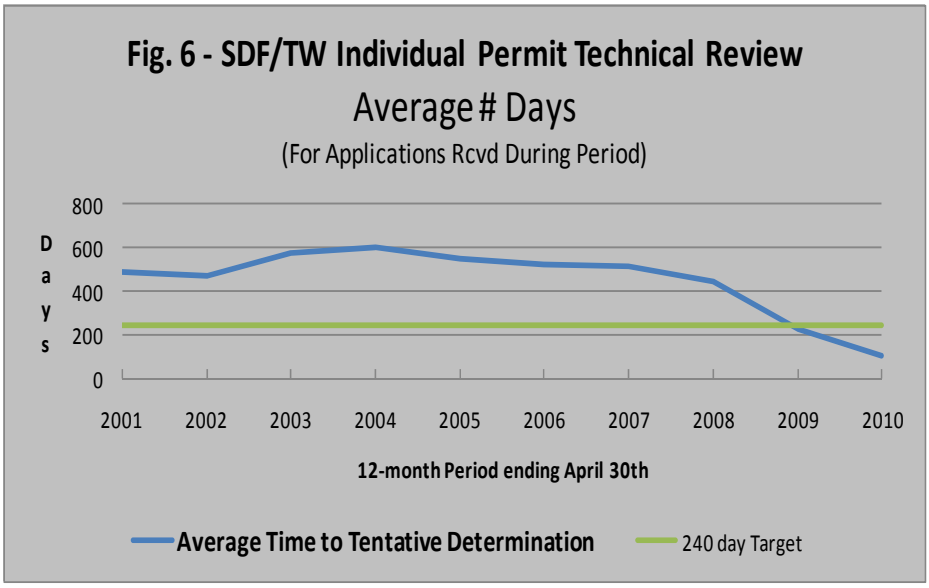
OLISP has made considerable progress in meeting the sufficiency review timeframe goals set out in Public Act 10-158. For individual Structures, Dredging and Fill and Tidal Wetlands ("SDF/TW") applications, the time to complete a sufficiency review has been reduced from an average of 146 days during the period 2001 – 2008 to an average of 27 days in 2010. The percentage of sufficiency reviews completed within 60 days has increased from 26% during the period 2001 – 2008 to 96% in 2010. See Figures 4 and 5 below.

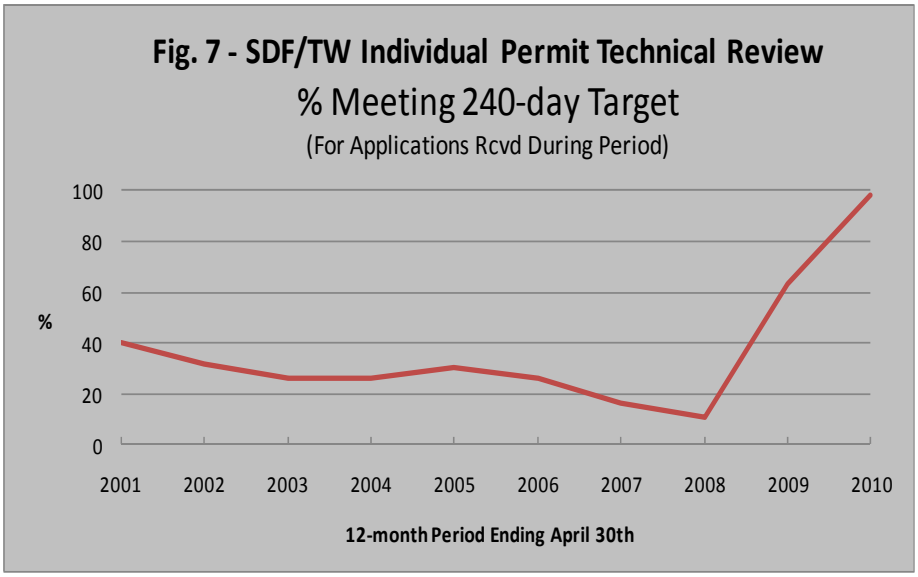




The target timeframe in Public Act 10-158 for completion of technical review is 180 days as measured from the completion of sufficiency review. In this analysis, due to limitations of the data, technical review timeframe is measured from the date of receipt of an application rather than completion of sufficiency review. Thus, assuming a maximum sufficiency review period of 60 days, the target timeframe for completion of technical review is set at 240 days from the date an application is received. The average processing time to complete technical review of an application has been reduced from 530 days during the period 2001 – 2008 to 98 days in 2010. Technical review is now being completed within 240 days for 98% of applications. See Figures 6 and 7 below.

98% of SDF/TW technical reviews done in 2009 met the PA 10-158 240- day goal.



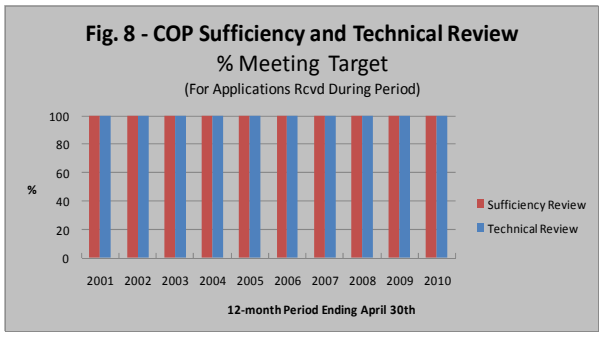


On average, the overall time from receipt of application until permit issuance for applications received has been reduced from over 625 days during the period 2001 – 2008 to less than 200 days in 2010.

Certificate of Permission Application Processing

Minor activities related to previously authorized work may be eligible for a Certificate of Permission ("COP"). These activities include maintenance dredging and substantial maintenance of existing structures. In some cases, maintenance of unauthorized activities that were completed prior to specific dates may also be authorized by a COP. In addition, certain environmentally beneficial activities, such as the removal of derelict structures and restoration of degraded tidal wetlands, may be approved through a COP. COPs are issued within 45 days, or within 90 days if additional information is requested by OLISP to complete its review. These timeframes are much shorter than those prescribed by Public Act 10-158. The COP processing timeframes have never been exceeded.

100% of COP sufficiency and technical reviews done in 2009 met the PA 10-158 goals.



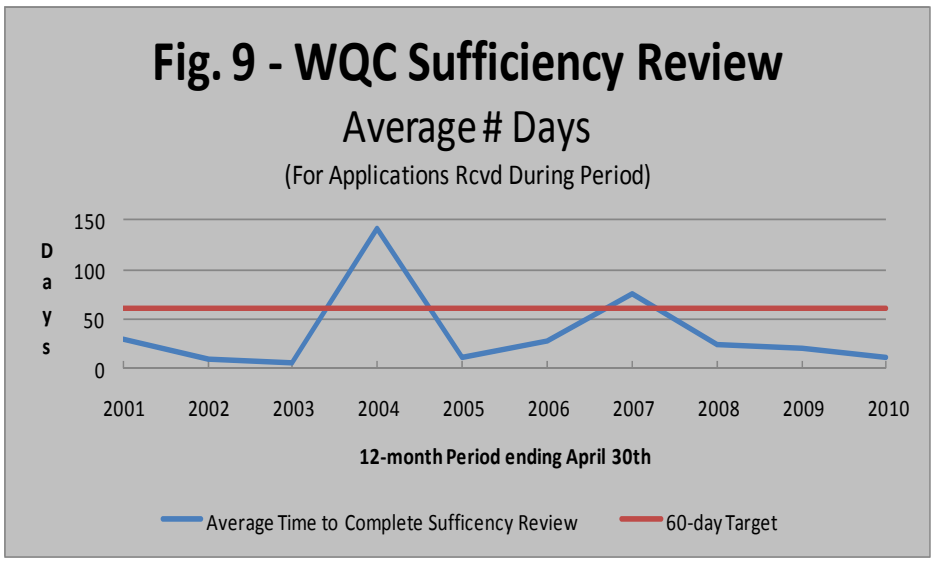
By design, review of COP-eligible activities is generally less intensive than the review for most activities for which a full permit is required. Nonetheless, due to the mandated timeframes COP processing is afforded a high priority and OLISP staff often must set aside other tasks, including processing of other permit applications, in order to meet COP timeframes.

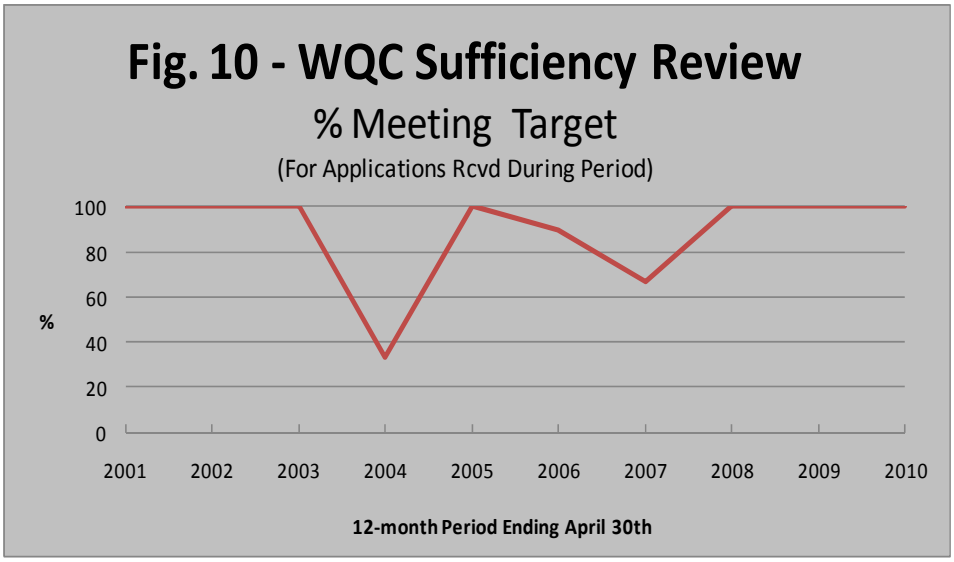
Water Quality Certificate Application Processing

Water Quality Certificates ("WQC") issued under the authority of section 401 of the Federal Clean Water Act are often processed in conjunction with individual SDF/TW permit applications or federal coastal consistency reviews. Very few WQC applications are processed by OLISP without performing a review under these other programs.

100% of Coastal WQC sufficiency reviews done in 2009 met the PA 10-158 60-day goal.

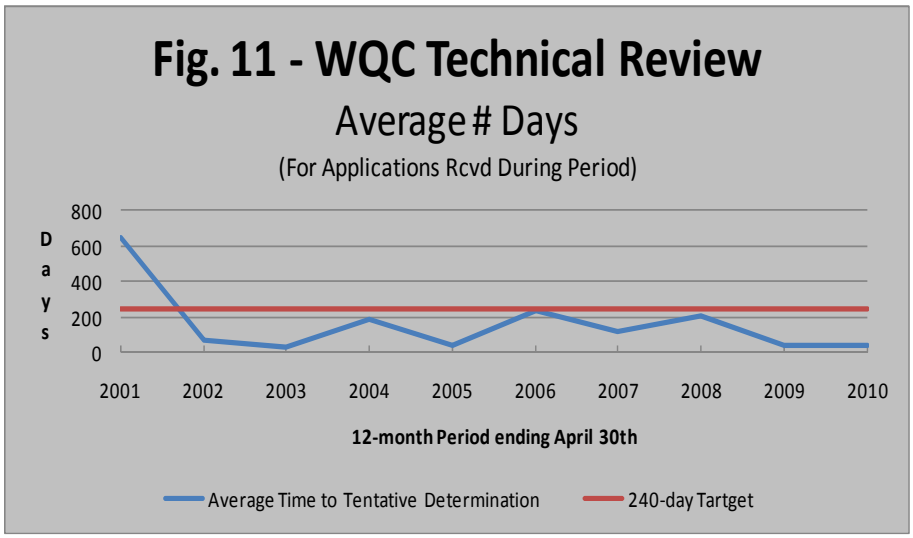
Over the last 10 years, the time to complete sufficiency review for WQCs has averaged 32 days. The percentage of time that sufficiency reviews have been completed within 60 days was 100% in seven of those years. See Figures 9 and 10 below.

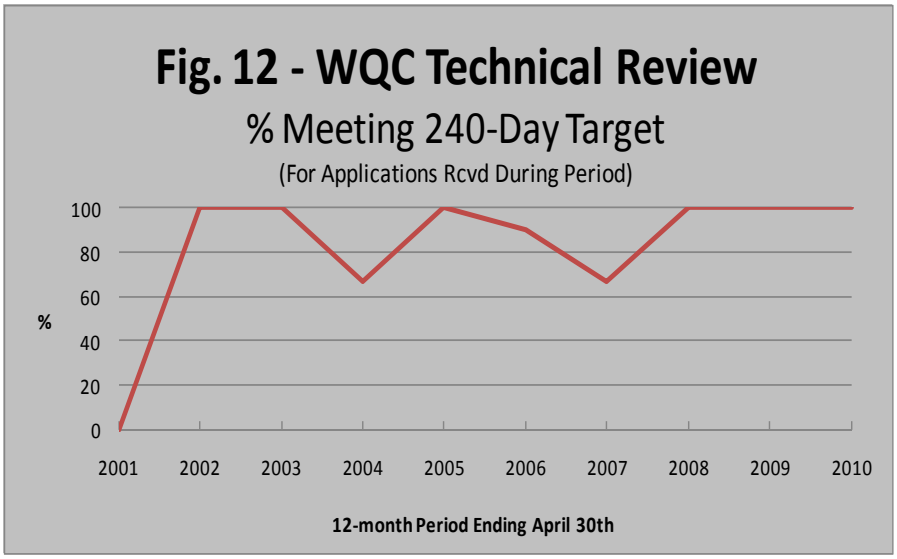




Over the last 10 years, the time to complete technical review (application receipt until Notice of Tentative Determination) for WQCs has averaged 140 days. In the past two years, 100% of technical reviews have been completed within 240 days from the date of application. See Figures 11 and 12 below.

100% of Coastal WQC technical reviews done in 2009 met the PA 10-158 240-day goal.





Successes and Improvements to Date

The statutory framework for the Structures, Dredging and Fill process has been in place for over 70 years and Tidal Wetland permitting has been in place for 40 years. The Department has supported a number of innovative improvements in the last two decades to streamline these programs. Recent innovations include:

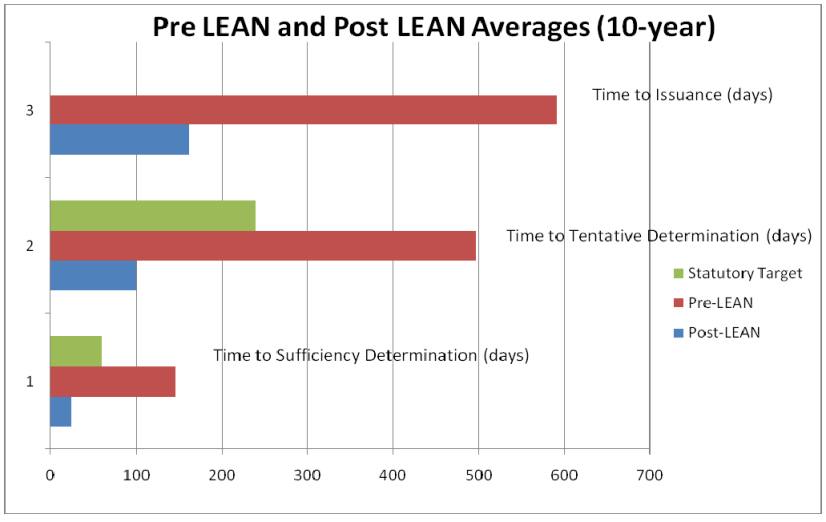
- 2006: Adopted Administrative Civil Penalties regulations
- 2007: Developed Programmatic General Permit with the federal Army Corps of Engineers to improve coordination
- 2008: Reissued nine and adopted five new General Permits
- 2008: Developed and implemented LEAN application review improvements

- 2009: Developed new permitting and enforcement data management system
- 2010: Statutory revisions (Public Act 10-106) to improve various aspects of permitting and enforcement

Once authorized by statute, OLISP also developed and issued nine general permits in 1997. These cover a variety of activities that would have otherwise required authorization through individual permits, including harbor moorings, non-harbor moorings, certain small residential docks, osprey platforms, swim floats, flood-hazard mitigation, navigational markers, and installation of pump-out facilities. Five new general permits were added in 2008. While processing of general permits is typically much simpler and faster than individual permits, the universe of eligible projects is limited consistent with the statute.

The process improvements that were implemented in November 2008 as a result of LEAN are of particular significance to the goal of reducing processing times for individual permit applications. Through LEAN, the permit application review process was analyzed in its entirety to determine how it could be improved. The number of steps in the review of an application, the iterative nature of the review process, and the backlog of pending applications in the queue were identified as key impediments. Improvements implemented as a result of LEAN include revised application forms and instructions, new procedures and forms for pre-application consultations by an applicant with external review organizations, such as municipal harbor management commissions and the Department of Agriculture, increased emphasis on pre-application meetings between applicants and OLISP analysts, website enhancements and the development of a customer satisfaction survey for permit applicants. Prior to implementing the new procedures, baseline values were established for a number of key performance indicators, including the average overall processing time (566 days), the average time to complete a sufficiency review (205 days), and the average time to tentative determination (439 days). Figure 13 below compares key parameters pre and post LEAN.

Figure 13.



In 2010, at the request of the Department, the Structures, Dredging and Fill and Certificate of Permission statutes were amended to implement some of the LEAN strategies and other improvements to the permitting and enforcement programs. The most significant of these changes are a requirement that OLISP permits be recorded on the land records of the applicant's property at the time of issuance or property transfer and a provision for increased permitting fees for after-the-fact permitting of structures built without authorization. These changes are intended to reduce potential compliance issues by increasing awareness and to streamline the process for achieving compliance of unauthorized structures, respectively.

The Structures, Dredging and Fill, Tidal Wetlands, Water Quality Certification and Federal Coastal Consistency review processes all include public notice requirements which range from 15 days to 40 days. There has been a growing trend over the last decade in the number of public hearings requested. From 1990 – 1999, OLISP applications were the subject of public hearings six times. From 2000 to the present, OLISP applications have been the subject of thirty public hearings. Adjudicatory proceedings require substantial staff time in the preparation for and participation in such hearings.

Enforcement is a significant component of the Permitting and Enforcement Section staff workload. In recent years, OLISP has made a concerted effort to bolster the enforcement aspect of the program to ensure fairness and to provide an incentive for compliance. This effort has led to OLISP making a many-fold increase in formal enforcement actions, from approximately six per year to over thirty-five per year over the last three years. At the same time, OLISP has made significant strides in improving responsiveness to complaints and in closing open enforcement cases.

C. Recommendations

1. Process Improvements

OLISP has implemented many LEAN improvements in the coastal permitting program. OLISP is progressing toward adoption of a LEAN culture within the organization such that continuous improvement in efficiency while maintaining environmental standards is incorporated into day-to-day activities. Additional recommended LEAN improvements include administration of, and incorporation of feedback from, customer satisfaction surveys, enhancement of guidance on application procedures and enhancement of procedures for pre-application consultation by an applicant with other organizations.

2. Programmatic Changes

Dock Regulations

OLISP has received a strong message from stakeholders over the last several years that a set of clear standards for environmentally acceptable residential dock design and construction is desirable to ensure appropriate implementation of Connecticut's coastal management program and coastal regulatory statutes and to reduce regulatory uncertainty. In 2007, OLISP conducted a residential dock workshop attended by a wide range of participants that included property owners, consultants, attorneys, municipal harbor management commissions, environmental organizations, and federal and state resource agencies. Establishment of clear regulatory standards was identified as an important step toward better management of residential docks. Likewise, during OLISP's LEAN event, residential dock regulations were identified as a key element for the successful implementation of the LEAN improvements. Adoption of dock regulations is OLISP's single highest priority for achieving greater regulatory efficiency. Following the 2007 workshop, OLISP began drafting proposed residential dock regulations and in June, 2009 conducted a series of stakeholder outreach sessions at which the draft was presented. OLISP received numerous comments on the draft and subsequently revised the proposal. OLISP anticipates moving forward with the regulation adoption process in 2011.

General Permits

OLISP will continue to evaluate options for the implementation of new general permits and updating the existing general permits in order to provide the most useful and effective regulatory tools.

General Permits to Be Reissued:

- **4/40 Docks**
- **Harbor Mooring**
- **Non-Harbor Moorings**

New General Permits Under Consideration:

- **Scientific Monitoring Devices**
- **Aquaculture Structures**
- **Dock Repairs**

Staffing Needs

There are no recommended staffing increases for permitting analysts within the OLISP Permitting and Enforcement Section at this time.

In order to proceed with the programmatic improvements proposed above and still achieve permit processing timeframes, OLISP will need additional support to work on development and adoption of dock regulations and general permits. In addition, increased staff support to provide more proactive outreach to the regulated community would greatly assist OLISP permitting staff and applicants and their representatives. OLISP has found that many coastal property owners lack awareness and understanding of regulatory requirements, which contributes to noncompliance. Enhanced outreach would help to improve the quality of incoming applications and increase awareness of regulatory requirements among coastal property owners and improve compliance rates.

To address the needs of regulatory program development and outreach, as discussed above, OLISP recommends the addition of one position to serve as a regulatory program development and outreach specialist. The responsibilities of this position would include drafting proposed regulations and general permits and guiding them through the adoption process; providing proactive compliance assistance and pre-application guidance; assisting with preparation of site reports for consultants and staff; and assisting with increasing database and data management requirements, including data reporting and tracking and scanning documents.

	Technical & Administrative Permit Processing Staff	Program Development, Enhancement & Applicant Assistance Staff
Coastal Resources	0	1

LEGAL ASSISTANCE

Land use permitting issues often generate extensive public hearing proceedings, declaratory rulings, and legal questions. Assistance for technical staff during adjudicatory permit hearings is needed. Currently, staff represents themselves and such participation in the hearing process drains staff resources from permit processing. It is recommended that additional legal staff resources (0.5 FTE) be allocated for legal support and adjudicatory proceedings, including representation at public hearings, for the OLISP permit programs.

Additional Resources

ELECTRONIC PERMITTING AND WEB ACCESS

Web access to information on the status of permit application reviews would be a valuable enhancement for improving responsiveness and transparency to the regulated community. In

addition, moving towards electronic application submittal would result in cost savings to applicants, improved DEP document management, and enhanced public access to records. There are clearly savings to applicants in moving toward electronic submittal of applicants. There are also savings to OLISP in being able to accept electronic documents in terms of document management, retrieval and retention for FOIA purposes.

OLISP's ability to implement electronic permit filing and more transparent web based permit status viewing by applicants will also need an investment in information management and technology by the Office of Information Management within DEP.

D. Looking Ahead

It is important to ensure that adequate staffing levels are maintained so that both permitting and enforcement mandates and other programs needs are met. OLISP is currently meeting the target application review timeframes at the current rate of new applications and staffing. However, a relatively low number of permit applications have been received in the past two years, and there is a high level of uncertainty about future workload and the ability to meet target application review timeframes if application rates increase to levels that are more typical historically. With economic recovery, a parallel increase in investment in waterfront facilities, as well as private expenditures on capital improvements, such as property protection and docks, is likely. In addition, sea level rise and the projected increase in storm intensity associated with climate change may increase future demand for modifications of coastal structures. These issues may impact OLISP's ability to continue to meet timeframes with current levels of staffing and additional staffing in the Permitting and Enforcement Section may be needed to maintain current permit processing timeframes.

E. Program Specific Stakeholder Comments

In May and June, 2010, OLISP conducted two stakeholder and public informational meetings to present the results of OLISP's permitting assessment and provide opportunity for public comment and feedback. It was during these meetings and in subsequent correspondence to the DEP that OLISP received suggestions which were categorized into two main themes. Ideas categorized as "tools" are those that the public and regulated community suggested OLISP consider in order to make the permitting programs more user-friendly. Ideas categorized as "process" include those that were suggested for consideration in improving the manner in which we review applications or otherwise provide service to the public.

Materials Management - Aerial and Aquatic Pesticide Application Permitting

The main goal of the **Pesticide Management Program** is to prevent adverse human health or environmental effects arising from the misuse of pesticides. The Aerial and Aquatic Pesticide Permitting Programs seek to:

- Allow for control of nuisance or invasive aquatic plants and animals in waters of the state, while maintaining close oversight of pesticide applications.
- Assure adherence to strict requirements for aerial application of pesticides and mitigate potential drift issues.

A. Introduction

There are two activities in the pesticide management program that are regulated by individual permits: aquatic application of pesticides and aerial pesticide application. Federal law (FIFRA – Federal Insecticide, Fungicide and Rodenticide Act) covers pesticide registration and labeling, while state law deals with aquatic and aerial permits. State statutes (CGS 22a-66z) require permits for adding chemicals, usually pesticides, to state waters to control aquatic organisms. Aerial permits are required under CGS 22a-54 of the state statutes for applications of both pesticides and fertilizers from the air.[1] The purpose of these programs is to allow for the use of

[1] The aquatic permit program is by far the larger of the two, with more than 500 permits issued annually. By contrast, there are only 1 or 2 aerial permits currently issued each year, all within a short (average time 20 days) timeframe. During past gypsy moth outbreaks, over 100 aerial permits were issued annually, but none of these

pesticides to control important pests, including nuisance and invasive plants, while providing for protection from the chemicals themselves. The permitting process also gives a method of tracking and recording the use of chemicals in our sensitive state waters. Aerial pesticide applications in this densely populated state often engender controversy, and tight controls have proved useful in limiting unintended impacts, including drift.[2]

The pesticide program review of aquatic permit applications focuses on the particular chemical requested, the target organism and the dose. All must be within appropriate limits, which are determined by the federally regulated pesticide label. In addition, the use of the water/waterbody and its outflow is assessed for incompatible uses, for example, drinking water or irrigation. Other DEP reviewers could include inland fisheries, for public waters, or the Natural Diversity Database, when rare species might be affected. If the application is to tidal waters (which is rare), the Office of Long Island Sound Programs is consulted.

B. Analysis and Findings

The vast majority of Aquatic Pesticide Application permits are issued in less than two months time, well below the targets identified in Public Act 10-158. Both of the Aerial and Aquatic Pesticide permits are considered short process permits, i.e. there is no formal sufficiency review, no requirement for public notice or hearing, no notice of tentative determination, and approval has been delegated to the division director or the bureau chief level. This short process is warranted due in large part to procedures outside of the permit review process which helps ensure consistency and adherence to environmental and public health safety standards. For example, the pesticides themselves are subjected to a registration process, both on the federal and state levels, and are specifically registered for the site conditions proposed, with this registration supported by detailed risk assessments. In addition, commercial applicators, who perform the bulk of the permitted

100% of the aquatic and aerial pesticide permit technical reviews were completed in less than 180 days in 2009.

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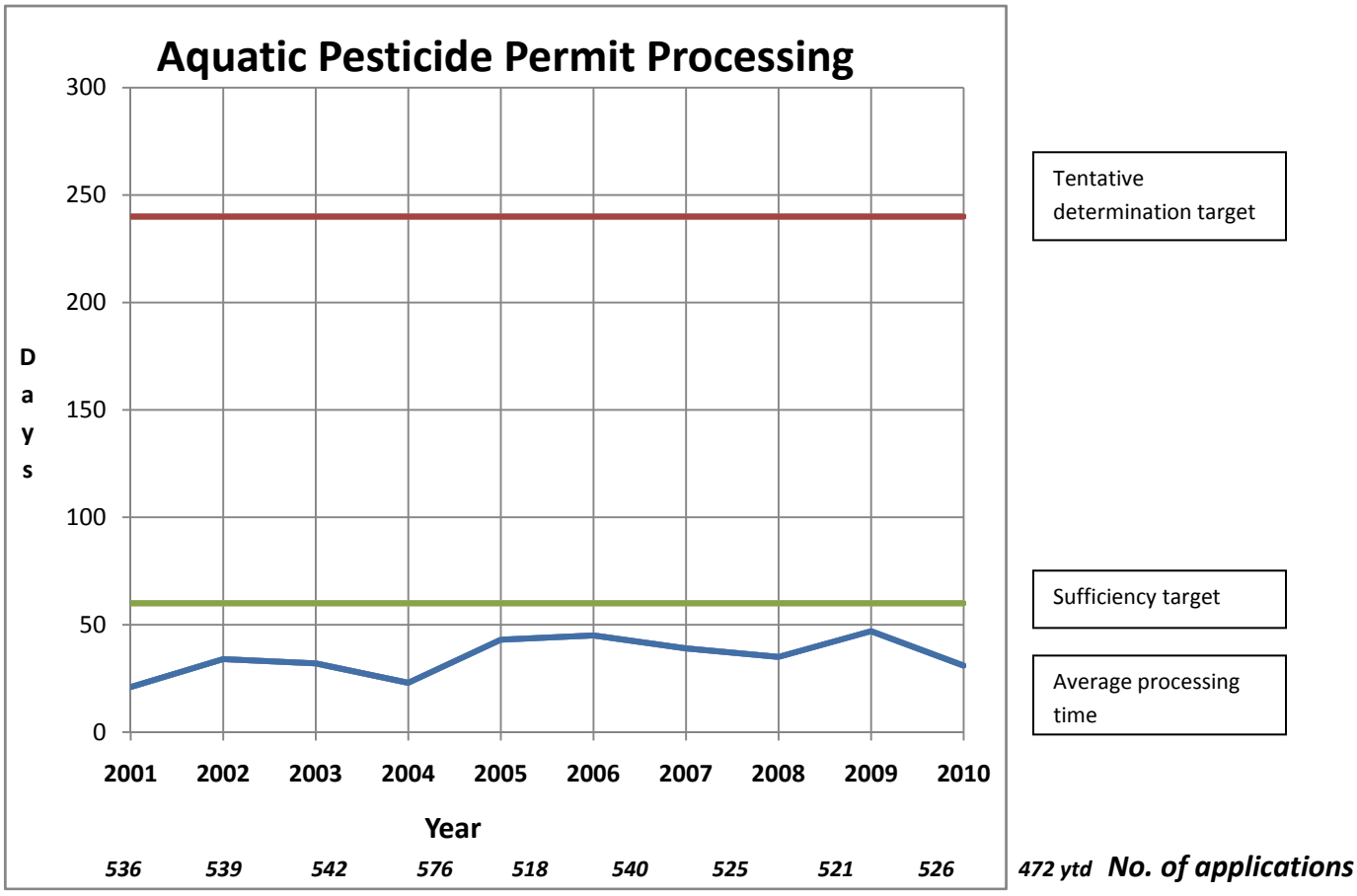
have been issued in many years. This review will therefore concentrate on the aquatic pesticide permitting process.

[2] Connecticut has stringent aerial application permit regulations [RCSA 22a-66-7]. All property owners within a buffer zone (200 ft. for helicopters, 300 ft. for airplanes) from the flight path of the aircraft must sign a release acknowledging the possibility of drift. No broad spectrum chemical pesticides are allowed for non-agricultural purposes. There are regulatory provisions for emergency use of mosquito adulticides aerially in the event of a disease outbreak. Application review includes an on-site inspection, by either the DEP or Connecticut Agricultural Experiment Station.

applications, are subject to stringent licensing procedures. It is also important to note that the biology of the pests necessitates application of the pesticide during a specific window of time, and permit delay is tantamount to denial. Another aspect of permit review occurs when the waterbody is a tributary to a public water supply reservoir. State statute (CGS 22a-66z), requires the approval of the Department of Public Health (DPH) before a permit is issued for pesticide application to these waters. In order to increase the efficiency of this review process, the two departments (DEP and DPH) entered into a memorandum of understanding (MOU) in which the standards for this review were agreed upon and DEP does the review for the DPH. This MOU was put into effect in 1994, and is in the process of being revised to reflect new procedures, products and other changes that have occurred since the original agreement.



Other agency reviews can add significantly to the review time for aquatic permits. The LEAN process in other DEP programs, notably the Natural Diversity Database (NDDB), which becomes involved where rare species are present, has improved internal review and coordination, thereby helping to improve aquatic pesticide processing times.

A recent federal court decision has necessitated the development of a general permit for Discharges from the Application of Pesticides pursuant to the Clean Water Act, i.e., an NPDES permit, by April of 2011. This general permit is being jointly developed by the Water Permitting and Enforcement Division and the Pesticide Management Program. While it is anticipated that the general permit requirements can and will be integrated into the existing aquatic permit process to the greatest extent possible, resources from both programs must be directed to this development effort.

While the permit processing timeframes for Pesticide Application Permits are timely, there currently are no administrative support personnel permanently assigned to this program. A void created from a 2009 retirement incentive program has currently been filled by redeploying staff from the waste programs and by using seasonal employees as a stop gap measure. This leads to professional staff doing transactional work rather than focusing on technical review and assistance. This is not sustainable over the long term and the position needs to be refilled to maintain current levels of timeliness, support and maintain data and to support eGovernment systems and efforts.

C. Recommendations

1. Process Improvements

DEP will continue to work with DPH to update the existing MOU to cover situations where applications are submitted that are beyond the scope of the current MOU. New herbicides registered since the existing MOU need to be integrated. Once done, the timeliness of the review of these applications will improve, since DPH will not need to review every one.

2. Programmatic Changes

- DEP plans to revise the existing pesticide regulations to extend the permit duration allowing for multiple years of activity. The one year validity of the permit is governed by regulation rather than statute. Many applications reflect ongoing problems that require continuing treatment, which results in similar applications being submitted annually. A multi-year permit will allow staff and other resources to be used for other priorities and save permit holders from having to reapply each year.
- DEP will develop an NPDES general permit for discharges from the application of pesticides to comply with the 2009 federal court decision regarding the scope of the federal Clean Water Act. EPA has recently closed the comment period on a proposed general permit to cover certain discharges resulting from pesticide applications for jurisdictions where EPA is the permitting entity. This general permit may provide a good framework for Connecticut's proposed general permit.

3. Staffing Needs

Permit Program	Technical & Administrative Permit Processing Staff	Program Development, Enhancement & Applicant Assistance Staff
Aquatic and Aerial Pesticide	1	

As noted above, one (1) FTE of a new processing technician is needed to support administration of the program, since there is no dedicated support staff for this function. Resources from the Water Permitting and Enforcement Division will be necessary to lead the development of the NPDES general permit for discharges from pesticide applications and while DEP does not anticipate the need for additional resources to process such applications, as the intent is to incorporate the general permit requirements into the existing aquatic pesticide permitting review, pesticide program staff will need to be deployed to assist in this integration. It is not anticipated that additional staff for the multi-year permit regulation change will be needed.

4. Additional Resources

Providing for electronic submission, reporting, and fees would streamline many of the administrative processes that take up much time. To move to electronic permitting and document management, support from DEP's Office of Information Technology will be required. As noted above, the program receives over 500 applications yearly. Many of these are from a relatively small number of professional applicators. Allowing these applicators to submit their paperwork electronically would improve customer service dramatically – some have already inquired about the possibility of electronic submission – and increase internal efficiency.

Materials Management - Connecticut Regulated Waste Permitting (a.k.a. Section 22a-454 Waste)

The Connecticut Regulated Waste facility permit is aimed at:

- Ensuring safe waste management practices for industrial, chemical and petroleum wastes that may pose a significant risk if mismanaged;
- Promoting conservation of energy and natural resources through permitting facilities that recycle waste, treat waste, and decrease disposal of waste; and
- Minimizing site contamination resulting from mismanagement or inappropriate disposal of toxic and other chemical wastes.

A. Introduction

The Connecticut Regulated Waste facility permit program is administered by the Bureau of Materials Management and Compliance Assurance under authorities and requirements established by CGS 22a-454. Connecticut Regulated Wastes include waste polychlorinated biphenyls (PCBs), used oil, waste water soluble oil, waste chemical liquids and waste chemical solids. These wastes can pose a significant risk to human health and the environment and, therefore, management of such wastes requires a permit from DEP. This permit program ensures that Connecticut Regulated Wastes are managed in an environmentally safe manner, and minimizes the threat of pollution caused by the release or uncontrolled disposal of these wastes.

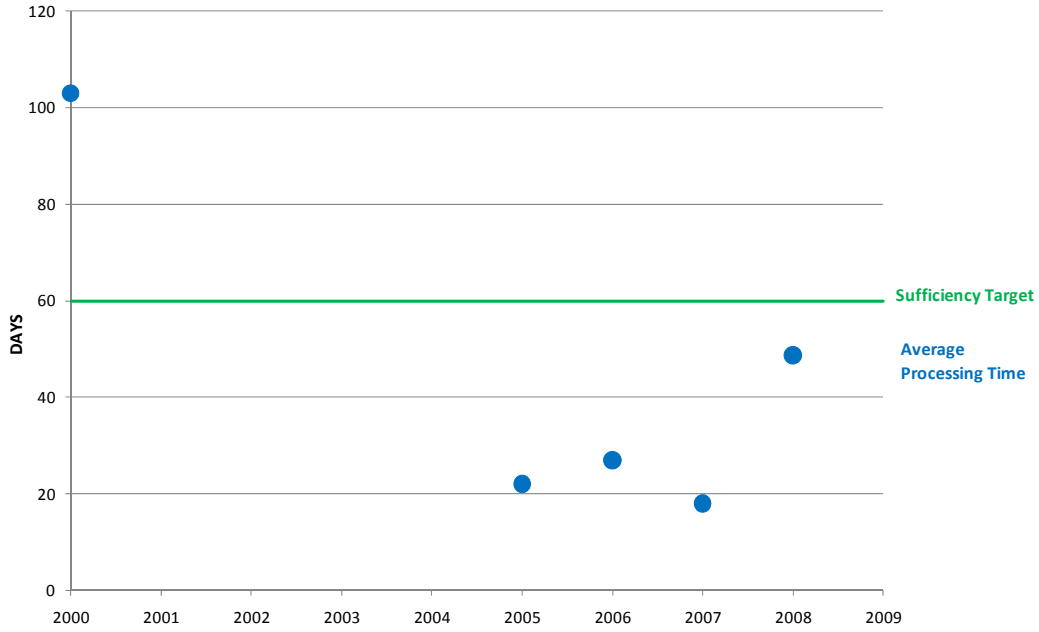
This permit program regulates facilities where Connecticut Regulated Waste is aggregated, stored, treated or disposed. Connecticut Regulated Wastes are types of industrial wastes not regulated under the state's hazardous waste program and no permit is required when such wastes are generated. However, if a generator of Connecticut Regulated Waste hires a commercial hauler to take away these wastes, that hauler must be permitted by DEP and, if the generator of Connecticut Regulated Wastes sends such waste to a Connecticut treatment, storage, or disposal facility, the receiving facility must be permitted by DEP for the receipt of Connecticut Regulated Wastes. Examples of Connecticut Regulated Waste facility permits include permits authorizing used oil treatment, contaminated soil treatment, hazardous waste transfer and hazardous waste storage for up to 10 days.

B. Analysis and Findings

100% of the Connecticut Regulated Waste Facility applications done in 2008 met PA 10-158 60-day sufficiency and 180 day technical review goals.

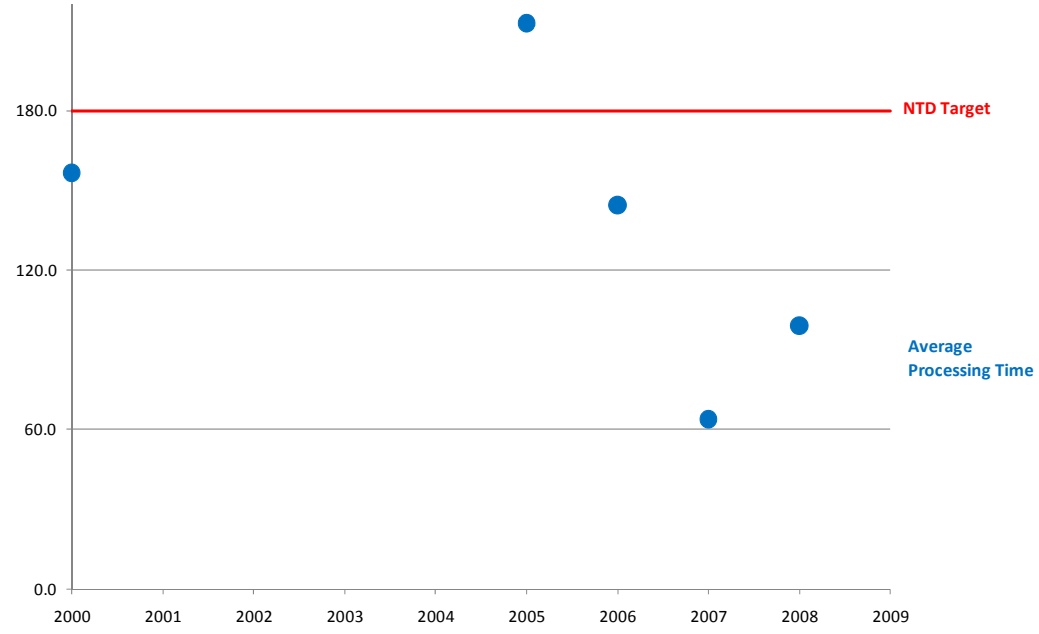
There were eleven Connecticut Regulated Waste facility applications assessed under the ten year review criteria for this permit program. The analysis found sufficiency reviews met the 60 day timeframe goal for over half the applications, and the technical reviews met the 180 day timeframe goal for about two-thirds of the applications. Current timeframes for technical review to reach a tentative determination do vary in this permit program. Variations can result from the degree of complexity of the specific application, the staff resources available and the competing demands with other permits and projects. The graph below plots the average time to complete a technical review year. Data for 2008 is being used to assess the current percentage meeting technical review timeframes in this program as no applications in this permit program were received in 2009.

Connecticut Regulated Waste Permit
Sufficiency Review Timeframe for New Permits
(For Applications Received During Review Period)



# APPLICATIONS:	2	0	0	0	0	1	3	2	3	0

Connecticut Regulated Waste Permit
Technical Review Timeframe for New Permits
(For Applications Received During Review Period)



# APPLICATIONS:	2	0	0	0	0	1	3	2	3	0

During the public informational meeting held on July 13, 2010 to review the DEP's processes, two comments were received, and both speakers expressed satisfaction with their experience with the permitting process under the Connecticut Regulated Waste program. Adjustments in this permit program to meet the target timeframes for sufficiency and to ensure timeliness for technical reviews 100% of the time are being evaluated. Changes in the application review process are being modeled after the goals established as a result of the Department's May 2010 LEAN project for solid waste management facility individual permits. Specifically, the post-LEAN goal for the solid waste permit program and the Connecticut Regulated Waste Program - is to reduce the steps in the processing permits by 34%.

Timeliness in this program is affected by the uniqueness of the facility subject to permitting. Connecticut Regulated Waste facilities tend to be unique and specialized businesses. The special nature of these facilities and the infrequency of applications received means that the applicants are often applying for this permit type for the first time and are unfamiliar with the permit process. This also leads to increased processing time for both sufficiency and technical review, as staff members may be reviewing this type of operational facility for the first time and additional research is needed on technical standards for design and operation, pollution control technologies, and other safe handling practices. An example is the need to review and accurately determine the facility specific costs associated with closing and decontaminating the site. Connecticut Regulated Waste facility permits include financial assurance requirements, a mechanism to protect the public against having to assume the closure and decontamination costs in the event the permittee does not fulfill these obligations. The financial assurance requirements and documents are technical and complicated, and can consume large amounts of staff time during the application review process.

Currently, there are a limited number of permitted Connecticut Regulated Waste facilities. However, as landfill space in Connecticut continues to decline, the future need for increased capacity for certain waste treatment and recycling facilities will grow. Increased capacity reduces the need to transport such wastes out of state. For example, a significant infrastructure gap exists in key materials management areas such as construction and demolition materials (lead based paint wastes) and contaminated soils. In excess of 300,000 tons per year of construction and demolition materials are transported out of state for disposal. This practice costs state agencies and private construction and redevelopment businesses significant amounts of time and money from the added expenses in transportation costs, causes Connecticut to miss the economic benefits from such facilities being located in state, burdens the state's transportation system and increases transportation related pollution.

C. Recommendations

1. Process Improvements

The following changes in the Connecticut Regulated Waste facility permitting program are proposed to help reduce the timeframes for identifying deficiencies in permit applications and for issuing tentative determinations. Many process improvements to be applied to this program are the same as those for the solid waste facility program. DEP staff that process the Connecticut Regulated Waste permit applications are the same staff that process the solid waste facility applications, therefore, process improvements in one program are expected to be carried through to the other program. These changes include:

- Fast tracking applications for activities prioritized in the Solid Waste Management Plan to improve permitted capacity for all waste types. Successful implementation of the Solid Waste Management Plan may require reallocation of staff and supervisory resources from planning to permitting tasks.
- Utilizing implementation strategies from the May 2010 LEAN project for the solid waste facility program to:
    - Improve and increase the use of pre-application meetings, including concurrent review with DEP's Environmental Justice program. Connecticut Regulated Waste facilities typically meet the definition of an "affecting facility" under the Environmental Justice law (CGS 22a-20a),
    - Limit the number of sufficiency reviews to one and eliminate the exchange of multiple correspondences to gather information that should have been submitted at the time the application was filed;
    - Limit the number of Requests for Additional Information during the technical review process to two; and
    - Develop and update standard operating procedures that will be useful to guide both DEP staff and permit applicants.

2. Programmatic Changes

Long term plans within available resources include undertaking an assessment through the Solid Waste Management Advisory Committee and the Hazardous Waste Management Advisory Committee to review opportunities to consolidate this permit program by integrating the permit authority in CGS 22a-454 for Connecticut Regulated Waste facilities into the solid waste management chapter (446d) of the statutes. This would not affect the permit authority in CGS 22a-454 for waste transportation or emergency spill response contractors. Consolidation of the Connecticut Regulated Waste facility and the solid waste facility permit

programs would reduce the demand for staff time to develop and maintain forms, instructions, guidance materials and other documents necessary to support each permit program. Consolidation of these programs could also standardize and simplify the application process for applicants and thereby reduce demand on staff to provide technical assistance in the pre-application and application processes.

3. Staffing Needs

Permit Program	Technical & Administrative Permit Processing Staff	Program Development, Enhancement & Applicant Assistance Staff
Connecticut Regulated Waste	*	*

(*) In light of the programmatic recommendation to consider the potential of integrating the Connecticut Regulated Waste permit program into the solid waste facility permit program, staffing needs are being reported under the Solid Waste Facilities section of this report.

Materials Management - Hazardous Waste Treatment, Storage, and Disposal Facilities *and* RCRA Stewardship Permits for Corrective Action

The **federal RCRA program** is based upon distinct goals aimed at creating a safe and effective 'cradle to grave' management system for hazardous waste. These goals include:

- Protection of human health and the environment;
- Reduction of waste and conservation of energy and natural resources;
- Reduction of hazardous waste generation;
- Minimization of uncontrolled releases and illegal dumping; and
- Correction of historical releases through sitewide investigation and cleanup.

A. Introduction

Congress passed the Resource Conservation and Recovery Act (RCRA) in 1976, and later amendments in 1984, to address waste management, and to protect taxpayers from the possibility of future shifts of cleanup liability from private to public hands (i.e., to prevent future Superfund sites such as Love Canal, NY). The law created a comprehensive "cradle to grave" system that set standards to ensure that hazardous wastes are managed safely. Before RCRA, many solid waste landfills and many industrial sites in Connecticut and throughout the nation had become severely contaminated by industrial wastes. Improper waste management also created numerous uncontrolled hazardous waste disposal sites. The federal RCRA program is implemented through delegation to Connecticut. To obtain delegation, a state program must be fully equivalent to, no less stringent than, and consistent with the federal program. States with authorized RCRA programs receive federal funding and assume primary responsibility for program administration, including permitting and enforcement, and states must update their regulations to conform to changes in the federal rules.

Connecticut's Hazardous Waste Management Program regulates all generators and transporters of hazardous waste and all hazardous waste treatment, storage, and disposal facilities (TSDF) in the state. Generators of hazardous waste are not required to obtain a

permit, but must file a notification form with DEP, unless their generation volumes are less than 100 kilograms (about 26 gallons) per month. The notification form must be kept updated and each generator is issued a site specific RCRA Identification Number that is maintained in a national database by DEP's hazardous waste permit program. Facilities that treat, store, or dispose of hazardous waste must notify the U.S. Environmental Protection Agency (EPA) and DEP and obtain a permit from DEP for such activities. Post-Closure or Stewardship permits are needed for former treatment, storage and disposal facilities until cleanup, closure, and post-closure responsibilities are fulfilled.

The overall number of generators in Connecticut has remained fairly constant, although shifts from Large Quantity Generators (LQGs) of hazardous waste to Small Quantity Generators (SQG) or to Conditionally Exempt generators are on-going[1] due in part to proactive pollution prevention and waste minimization efforts, as well as downsizing in the manufacturing sector. Currently there are approximately 215 TSDFs, 360 LQGs, and approximately 1,750 SQGs.

DEP initiated an analysis of the RCRA Hazardous Waste Management Program, including permitting, in 2007. This process involved both internal and external committees. The external committee members consisted of individuals in leadership positions in various trade organizations, such as Connecticut Business and Industry Association, Connecticut Association of Metal Finishers, the Connecticut Chapter of Air and Waste Management Association, the Connecticut Environmental Forum, the Connecticut Forum of Regulated Environmental Professionals, Connecticut State Technology Extension Partnership (CONNSTEP), and the Connecticut Conference of Municipalities.

External committee recommendations were developed into an action plan that DEP is implementing. As part of this process, a standing external stakeholder advisory group was established to steer the scope and focus of the action plan. This Hazardous Waste Management Advisory Committee provides a forum for both the regulated community and DEP to collaborate in defining the RCRA program's priorities in both permitting and compliance assistance to the many generators in the state. As part of this process, DEP updated its webpages and guidance documents and offered free training seminars to SQGs.

RCRA Operating Permits

Of the more than 200 facilities that initially notified DEP under Part A of the permit process in the 1980s of treatment, storage, and disposal activities only eight ultimately pursued an operating permit. Of these, seven have received operating permits, and the eighth continues to operate under an "interim status" permit. The remaining TSDFs do not require an operating

[1] Large Quantity Generators (LQGs) generate more than 1000 kilograms (about 260 gallons or 2,200 pounds) of hazardous waste per month. Small Quantity Generators (SQGs) generate between 100 – 1000 kilograms per month. Conditionally Exempt Small Quantity Generators (CESQGs) generate up to 100 kilograms per month.

permit, but are subject to sitewide environmental investigation and remediation (corrective action) and are discussed below in the Stewardship section. Of the eight operating TSDF in Connecticut, three are commercial facilities that treat waste generated by others and five facilities are non-commercial, which means they are treating or storing hazardous waste generated through their own processes. The one facility that has not yet received its individual permit to operate has changed ownership and is considering whether to continue pursuing an operating permit, pending the outcome of the company's assessment of whether to alter the manufacturing process that generates hazardous waste.

Another major aspect of RCRA TSDF permits is the requirement to include sitewide investigation and remediation (corrective action). Such facilities are not released from these cleanup obligations until it is demonstrated that all releases of hazardous waste and hazardous constituents have been investigated and cleaned up. A TSDF that has completed sitewide investigation and remediation and does not require a permit to conduct treatment, storage, or disposal activities will have its interim status terminated so that there is a final administrative disposition of the TSDF Part B permit application. Simultaneously, DEP issues a "certificate of completion" following opportunities for public comment on the determination that remediation is complete.

RCRA Stewardship Permits (for long-term care of closing or closed hazardous waste facilities)

As noted in the section above, there are more than 200 facilities that since the early 1980s treated, stored, or disposed of hazardous waste and submitted permit applications. Almost all of these activities were ancillary to the companies' primary business, such as manufacturing. In fact, as noted above, currently there are only eight facilities that require a permit to conduct hazardous waste treatment or storage activities. The rest of the 200+ facilities do not require an operating permit, but are still required to ensure that the areas of their property where hazardous waste treatment, storage, or disposal activities occurred are investigated and cleaned up ["closed"]. The rest of the property must undergo sitewide investigation for

potential release, and remediation of any releases, of hazardous waste or hazardous constituents, regardless of when they occurred, a process known as "corrective action."

Permitting innovations have been made to respond to the RCRA hazardous waste facilities that no longer wish to operate as TSDFs or which are no longer in business, but are still obligated to conduct sitewide investigation and remediation. DEP has addressed this need and created a streamlined process to provide improved certainty and facilitate property sales and redevelopment.

While some facilities can investigate and clean up environmental contamination in the course of a few years, other facilities will need to maintain remediation systems and monitor the effectiveness of a cleanup through the use of institutional [land use] controls, engineered controls [such as landfill caps], and long-term groundwater monitoring. Financial assurance is required to protect taxpayers from needing to take over these cleanup and monitoring obligations if a facility fails to do so.

Rather than issuing an operating permit for these facilities, DEP developed a long-term 'Stewardship Permit' to consolidate and spell out the obligations for caring for the property and present the obligations in a way that is understandable to the facility, potential purchasers of the facility, and the community. The permitting process involves the community and allows the permit to be expeditiously transferred to a new property owner in the future. Additionally, the permit consolidates overlapping permitting authorities that may apply to these facilities. For example, in the case of two sites, the multiple individual permitting obligations for each site that were previously held by the site owner pursuant to hazardous waste management, solid waste management, and water discharge authorities, were consolidated into a single stewardship permit for each site. This consolidation saves resources for both the DEP and the site owners, some of which are municipalities.

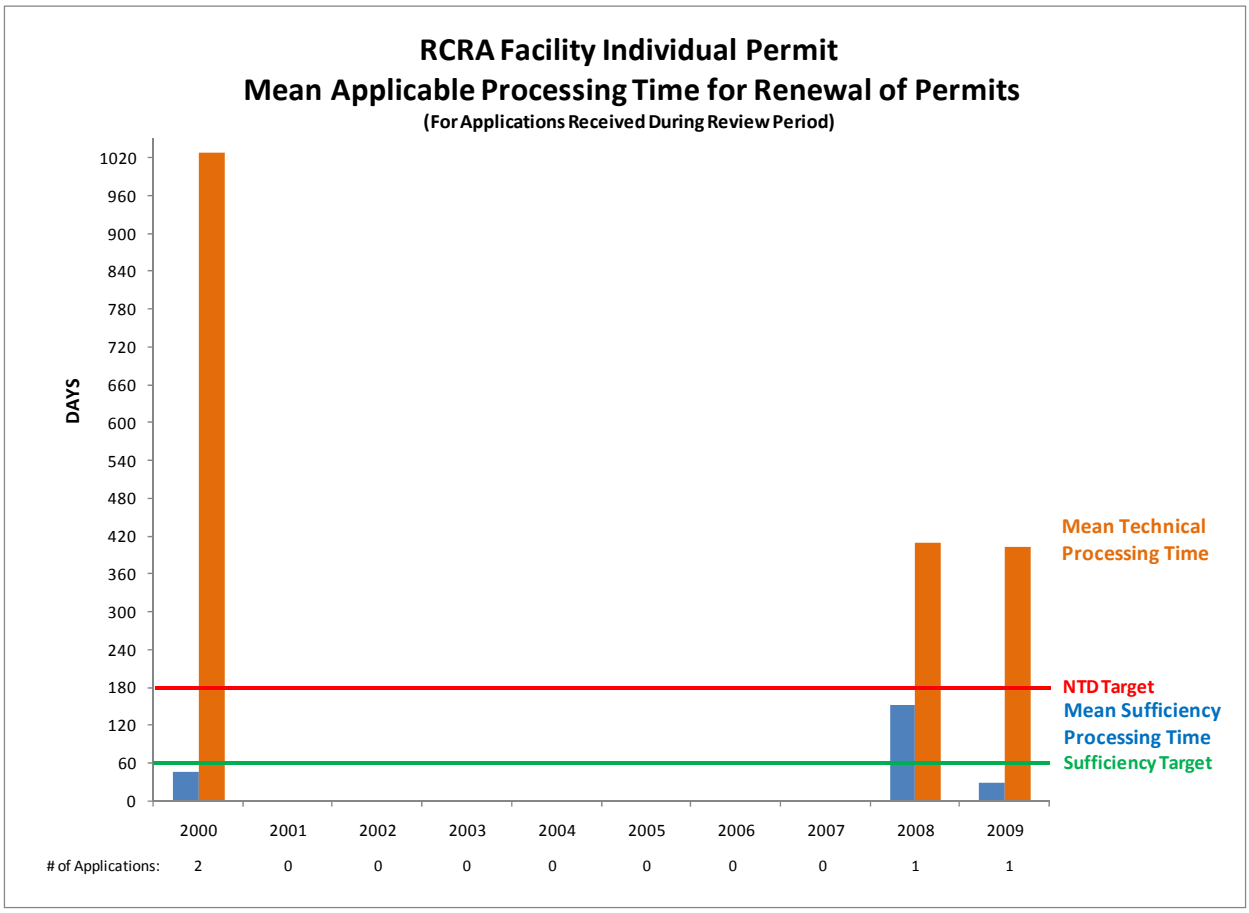
EPA awarded a National Achievement Award in 2008 to DEP for this permitting innovation, since it simplified the permitting process for the applicants and focused on results over process. As of the current date, fourteen facilities have received such permits, and the average time to issue such permits is less than one year, with some issued in less time to accommodate real estate and business transactions.

B. Analysis and Findings

Review of the Hazardous Waste Facility Permit timeframes was focused on renewals, as only one new permit application was filed and issued within the past ten years. Of the four renewal applications received and processed in the last ten years, three out of

100% of RCRA Part B Renewal Permit sufficiency reviews done in 2009 met PA-10-158 60-day goal.

four sufficiency reviews were conducted within the target timeframe. The technical review timeframes for renewals of these four individual permits were not met. The extended technical review periods result from both the technical complexity and nature of these facilities and the lack of sufficient staff to review all waste-related permit applications. A hazardous waste facility is legally allowed to continue operating under the existing permit pending action on the renewal application, so DEP has assigned a lower priority to reviewing renewal requests given limited staff resources. This prioritization is reflected in the timeframe for technical review. The "RCRA Facility Individual Permit" chart below summarizes the mean sufficiency processing time and technical review time for renewals of hazardous waste facility permits and compares them with the timeframes goals.

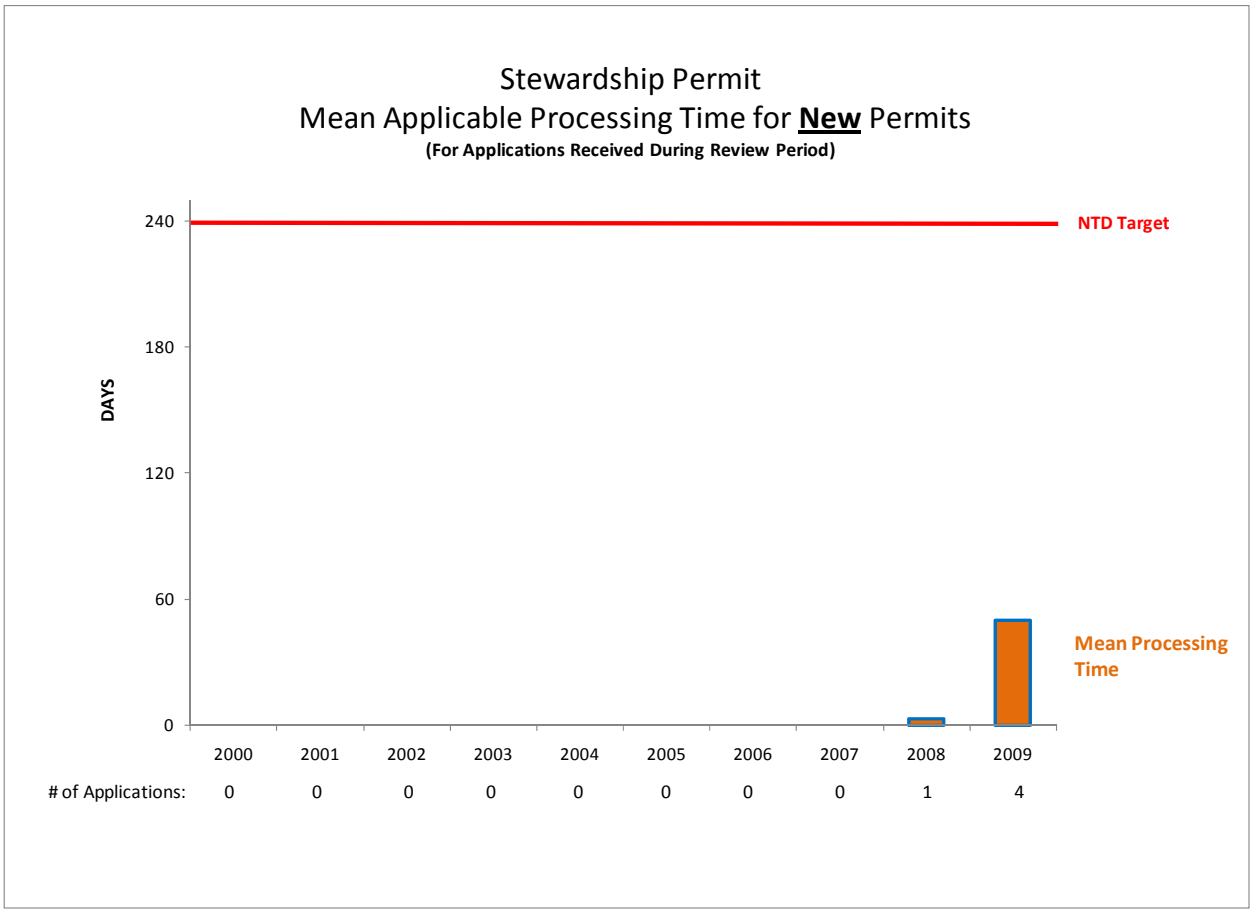


Since renewals and modifications are the permit processes that now affect the hazardous waste facilities with issued operating permits, the process improvements for these facilities will be focused on the continued effort to ensure that renewals and modifications are processed efficiently. Therefore, the process will focus on any changes requested or needed and any applicable regulatory updates, rather than on all aspects of the facility. In 2005, DEP began converting all of the non-commercial RCRA TSDFs from a 5-year to a 10-year permit duration, the maximum duration federal law allows. This will continue to provide resource savings and

efficiencies for these non-commercial hazardous waste management facilities, while still allowing the facility or DEP to make permit modifications, if needed, during the life of the permit.

An assessment of timeliness for Stewardship Permits illustrates achievement of goal timeframes in all cases. Sufficiency and technical reviews are combined and are meeting the 180 day goal. Stewardship permits are issued with a 10-year duration, and new permits, renewals, and modifications will be the permitting scope for this universe of facilities.

100% of hazardous waste Stewardship Permit technical reviews done in 2009 met PA-10-158 180 day goal.



C. Recommendations

1. Process Improvements

The following changes in the hazardous waste program, including stewardship permits, are proposed to reduce the timeframes for identifying deficiencies in permit applications and for issuing tentative determinations for permit decisions.

- Continue and expand stakeholder involvement in the Hazardous Waste Management Advisory Committee to regularly assess priorities for permit assistance, and other opportunities for greater program efficiency.
- Develop, standardize, and update standard operating procedures (SOPs).
- Develop webpage information regarding how to exit RCRA after completing sitewide cleanup to better guide permit applicants and save staff resources.
- Evaluate opportunities to use Stewardship Permits in lieu of enforcement at 166 properties that need enforceable corrective action schedules to more efficiently initiate or accelerate completion and maintenance of property cleanups by the year 2020.

2. Programmatic Changes

Conduct more frequently reauthorization and updating of the state program to incorporate changes in federal regulations and to more quickly adopt federal changes that relax standards such as reduced or electronic reporting.

3. Staffing Needs

Permit Program	Technical & Administrative Permit Processing Staff	Program Development, Enhancement & Applicant Assistance Staff
RCRA Hazardous Waste Operating	0.5	0
Stewardship (Corrective Action)	3.5	1.0

Operating Permits

0.5 FTE information management staff resources are needed within the program to support the state's renewals of permits for hazardous waste permitted facilities, to meet the permit timeframe goals, to support administration of the program and to support eGovernment systems. In particular, the existing data management systems used in this program will ultimately need to be integrated with other systems, including the federal electronic manifest system now being developed by EPA.

Stewardship Permits

Four (4) FTE technical and administrative staff and program development are needed to be added to support this new permit program designed to address the outstanding cleanup work needed at facilities that do not end up with RCRA operating permits, but instead would benefit from a Stewardship permit to advance outstanding cleanup obligations. There are

approximately 166 facilities in Connecticut that are subject to the national goal of substantially completing corrective action by the year 2020. Administrative support is needed since all stewardship permits require financial assurance and financial analyses are needed to assist with proper valuation and financial security mechanisms. These resources are needed to achieve that goal and to facilitate property transfers and Brownfield redevelopment.

Support on eGovernment systems for electronic application filing, electronic reporting, document management and data quality management will also be needed from DEP's Office of Information Management.

One-half (0.5) FTE in the Environmental Justice Program is recommended as many facilities involve cleanups in communities that would benefit from improved community relations between the facilities subject to cleanup obligations and the communities in which they are located.

An additional one (1.0) FTE for the legal office will be particularly important for ongoing regulation updates and reauthorization process needed to comply with federal rules. Of this resource, 0.5 FTE is needed for additional legal office support for the timely updating of the hazardous waste management regulations to incorporate new federal rules. These updates are required and are important to secure annual federal grant funding for the RCRA program. Even though staff with permitting and enforcement roles conduct much of the rule revision drafting, a comprehensive review by legal staff is necessary to ensure programmatic consistency, enforceability, and legal sufficiency. Increased use of stewardship permits to address outstanding investigation and cleanup needed at dozens of RCRA facilities will also increase the need for another one-half (0.5) FTE of legal resources to assist with questions related to property subdivisions, environmental land use restrictions, and title transfers. This staff need exists because of the backlog of facilities that have not yet achieved completion of their cleanup obligations, not because of the development of the permit. If a permit is not used to trigger and advance cleanup, then other authorities or enforcement must be used and these same legal resources are needed.

4. Additional Resources

Technological investment such as contractor services or one (1.0) FTE of information management staff time will be needed to connect Connecticut's manifest system to the national electronic manifest system when EPA begins development in approximately two years. EPA plans to have a contractor maintain a national clearinghouse for electronic and paper manifest receipt and data entry. To make use of the data, DEP would need to download data extracts, which would require DEP to have its own compatible database platform and information management staff programming time to prepare the database to accept the data

extract. Separate from the need to update electronic data systems to be compatible with the national electronic manifest system, the current hazardous waste manifest database is limited in capabilities to share the data and also is prone to data corruption and/or loss, and does not meet the needs of the RCRA Program or regulated community for real time and accurate information. Information management staff time or a contractor is needed to migrate data from an older system (data from around the mid 1980's) to a newer platform. DEP would then be able to provide timely access to the data for internal and external use, such as inspection planning and support for Property Transfer Program use. The Property Transfer Act covers many RCRA sites and the hazardous waste manifest system contains critical information for assessing compliance with the Property Transfer Act. It continues to be important to keep pace with the public's expectations that DEP's database of manifest information related to hazardous waste permitted facilities and generators is available in a timely fashion with complete and accurate data, particularly because information from that database is commonly used in due diligence reviews conducted as part of property transfers.

Materials Management - Marine Terminal Licensing

The **Marine Terminal Program** licenses and regulates oil, petroleum, and chemical storage facilities that receive or dispense product from or to ships or barges. This program protects the public and the environment, including Long Island Sound, from releases including releases that may cause a fire or explosion hazard and environmental damage based upon two primary goals:

- Prevention of releases; and
- Appropriate and timely response when releases do occur.

A. Introduction

The DEP Marine Terminal License Program (MT Program) is administered by the Bureau of Materials Management and Compliance Assurance. The program licenses and regulates oil, petroleum and chemical storage facilities that receive or dispense product from or to ships or barges. The purpose for regulating such facilities is to prevent releases, including releases that may cause a fire or explosion hazard and damage the environment. DEP works closely with terminal personnel, the U.S. Environmental Protection Agency (EPA) and the U.S. Coast Guard (USCG) to meet state requirements pursuant to CGS 22a-449(b) and the regulations promulgated thereunder, as well as federal requirements, including the federal Oil Pollution Act of 1990, also known as OPA-90. OPA-90 is intended to address prevention and cleanup of oil spills into navigable waterways.

There are currently twenty-six (26) marine terminals licensed by the MT Program. Based on the information provided by the licensees in their permit applications, the licensed MT facilities include 278 aboveground storage tank systems (ASTs) with a total storage capacity of 15 million barrels of oil, or approximately 630 million gallons (1 barrel = 42 gallons). The annual throughput (all petroleum off-loaded to terminals over the course of one year) for all of the licensed facilities is approximately two billion gallons. All owners or operators of terminals which receive petroleum or hazardous chemical liquid products from waterborne vessels or dispense such petroleum or products to vessels must apply for and obtain this license.

In considering permit applications, program staff reviews engineering design and certification of aboveground storage facilities, including the type of product stored, the storage capacity, and the age and condition of the facility tanks and other containment systems. The application review process also includes an engineering analysis of all documents submitted, such as an Incident Action Plan, Spill Prevention Control and Countermeasure Plan, Terminal Operations Manual, and Facility Response Plan (FRP). This review includes verifying all internal facility inspection reports for tanks, piping, and docks are present, as well as mathematical calculations to confirm that the required spill containment is present. Much of the information reviewed is of a highly technical nature and is necessary to ensure that adequate protections are in place to prevent catastrophic failures, releases, and other incidents.

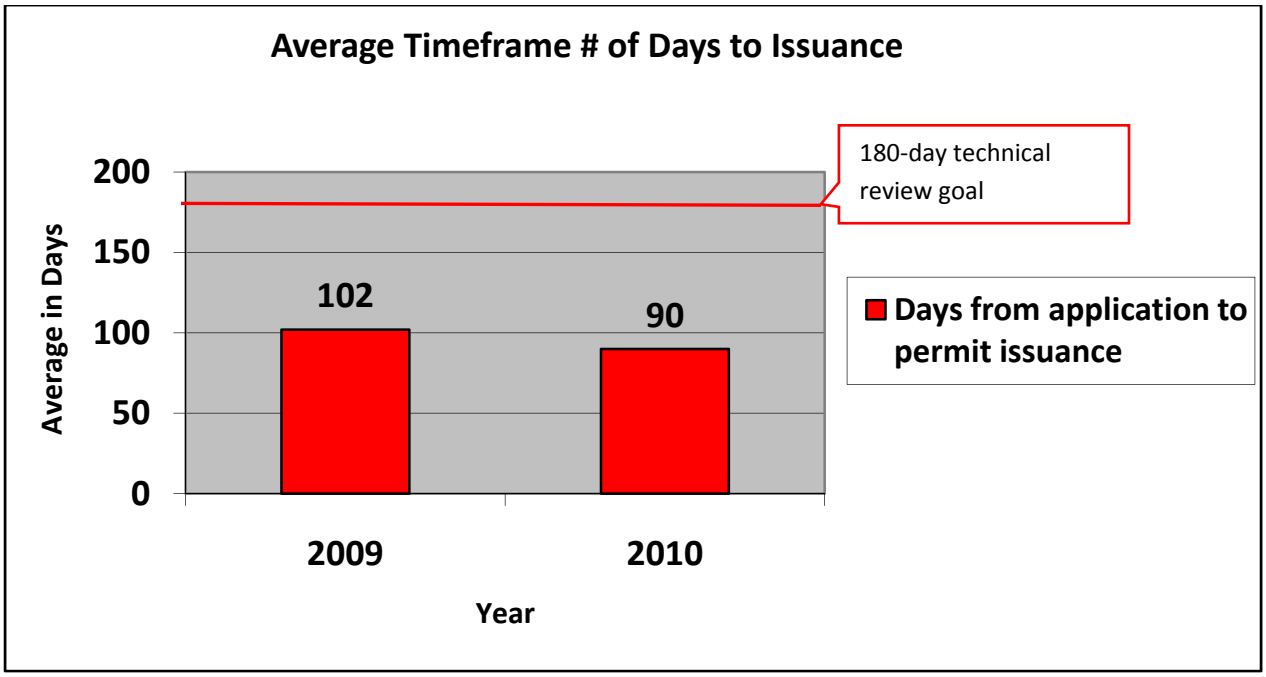
100% of technical reviews done in 2009 met PA-10-158 180 day goal.

In both 2009 and 2010, DEP received Marine Terminal License applications from all 26 licensed facilities. The applications are due each year by March 1st. While there is not a formal sufficiency review, any deficiencies found during the application review process result in expeditiously notifying the applicant of such deficiencies (such as providing missing information, updating out of date materials, plans, or drawings, as well as errors in calculations) and the need for resubmittal. All 26 applicants received a Marine Terminal License that expires on June 30 of the following year. The licenses are delivered in-person by MT Program staff to each Licensee, who obtains a signature confirming receipt and conducts a walk-through inspection of the terminal facility.

B. Analysis and Findings

Due to organizational changes in 2007, the MT Program underwent a change in oversight and staffing. As a result of these changes, the application review process was updated and streamlined to include: an initial submittal of a full application package by all licensed terminals in order to update the complete universe of MT Program documentation and cull old, outdated information; a renewal process which is limited to certain key information and documentation; a checklist process whereby applicants are notified of the sufficiency of their applications by outlining all required documents and identifying anything that is missing or incomplete. License issuance was also combined with a site visit to have a one-on-one meeting with the applicant and review site conditions. Any problems, deficiencies, or violations identified during the site visit are memorialized in an inspection report followed by appropriate enforcement in accordance with DEP's Enforcement Response Policy.

The average time from receipt of application to issuance of permit was 96 days for 2009 and 2010 (see graph below).



In response to Public Act 10-158, the MT Program conducted outreach efforts seeking feedback from licensees, including a survey form (MT survey) that was developed to give each licensee an opportunity to submit input and suggestions for improving the permit process. The New Haven Harbor Cooperative (co-op), Inc. is a group of terminal managers, operators and contractors that meet monthly at PSEG, 1 Waterfront Street in New Haven to discuss a variety of terminal issues. This is the only active terminal co-op in the state. The MT Program and the USCG are regular attendees at these meetings. The MT Program requested to be on the agenda for the June 9, 2010 regularly scheduled co-op meeting in order to discuss the MT permit process and Public Act 10-158. At this meeting, MT Program personnel were able to discuss the objectives of Public Act 10-158 and hand out copies of information from DEP's website showing the 'Permit Process Assessment' webpage and related links. The MT survey form was distributed to all attendees.

In addition, for the terminals that did not attend the co-op meeting or are not co-op members, when delivering the MT license and conducting an on-site visit, MT Program personnel used the opportunity to have one-on-one discussions with terminal managers. Every licensed terminal was made aware of this permit assessment via the co-op meeting or through site visits.

The MT Program received responses to the MT survey from 23 out of 26, or 88% of the holders of MT licenses. Generally, responses regarding licensees' experiences and interactions with the MT Program were favorable. The largest issue raised concerned the duration of the license. Of those responding, 83% or 19 out of 23, indicated that they would like to see the duration of the

permit increased. Currently, it is an annual permit which expires on June 30 of each year. The majority favored a 3-year permit.

> A quotation from the MT survey:
> "The recent changes in the Marine Terminal License Application Process have made this the most efficient and transparent renewal process of all the CTDEP permits that I apply for."

C. Recommendations

1. Process Improvements

The application and permitting process for the MT Program is working efficiently. Feedback from MT operators indicates that the regulated community is satisfied with their interactions with the MT Program. A potential improvement would be to update the MT Program page of DEP's website to enhance communication regarding MT Program processes, program news and information. The MT Program will work on this improvement as time allows.

2. Programmatic Changes

There has been a consistent suggestion from permit holders that the duration of the license be increased from 1 to 3 years. Currently, statutes allow for flexibility to implement such a change, a regulatory revision however, will allow this duration to be specifically defined. The MT Program will further evaluate the potential for making this change. It will primarily depend on the staffing resources available to work on this project.

The existing MT Program regulations are vintage 1970. Provisions of these 40-year old regulations should be evaluated and possibly revised in conjunction with consideration of adjusting the permit duration. One objective would be to ensure that the provisions for identifying and licensing terminals, preventing releases, and protecting the environment, including natural resources such as Long Island Sound, as well as public health and safety are current and adequately address the issues relevant to modern facilities, issues and equipment. The MT Program is currently meeting timeframes for review of applications and issuance of permits. However, the current regulations do not address the technologies currently available and commonly utilized, and may therefore not be sufficiently protective or relevant to modern facilities.

3. Staffing Needs

Permit Program	Technical & Administrative Permit Processing Staff	Program Development, Enhancement &Applicant Assistance Staff
Marine Terminals	1.5	1

The MT Program currently consists of one temporarily-assigned, full-time employee (FTE), utilized the majority of the time as a technical permit analyst and as a program development staff approximately 25% of the time. The temporarily-assigned employee is taken from the Underground Storage Tank (UST) Program to fill a gap in the MT Program created by a recent retirement. The UST Program has very challenging federal mandates and in the long term cannot sustain this shortfall in staffing. The void created in the UST Program has been filled by utilizing seasonal staff as a stop gap measure. However, this does not meet the needs of the UST Program in that seasonal staff are not able to perform the full range of duties needed, nor is this reliance on seasonal staff sustainable. Therefore, the MT Program must obtain its own staff for the continued success of both the UST and MT Programs.

In order to maintain the current permit issuance timeframes, the current one (1) FTE borrowed from the UST Program must be replaced. Staffing is needed (two and one-half (2.5) FTEs) to research and draft new regulations, revise the existing permit language to reflect the updated regulatory requirements, and perform outreach activities in order to keep the regulated community informed of all program initiatives. In addition, administrative support will be needed to perform basic clerical functions in support of the technical and program development activities (about one-half (.5) FTE). The expectation is that the clerical position could be a position shared with another program outside of the unit, possibly the Pesticides Program, whose staff are located close to MT program staff.

Additional staffing would allow the MT Program to more proactively address disaster preparedness issues which could arise during a hurricane or similar event, particularly with the lessons learned from the recent incidents in the Gulf of Mexico. MT Program staff would have an important role if any event (hurricane, plane crash, heavy weather, tank failure, etc.) were to take place at a terminal. This role would include becoming a part of the Incident Command System (ICS) as a Technical Specialist, DEP Agency Representative, Public Information Officer, or Liaison Officer. MT Program staff would work closely with all federal, state and local authorities to provide support for any incident, exercise, training or meeting. An updated Area Contingency Plan (ACP) is in the process of a 5-year review, with upgrades completed by the

USCG Sector Long Island Sound. This ACP includes scenarios for booming strategies, incident command posts and staging areas that could be used, if needed, in the event of an oil spill.

4. Additional Resources

In order to streamline the exchange of information between the regulated community, documentation regarding MT Program licenses and application supporting materials and plans could be made available electronically for reference by the public and regulated community. This effort would involve a document management component, scanning, and data management. Updated information submitted for renewals could be scanned and uploaded for external viewing. This kind of workflow and document management system would require assistance from DEP's Office of Information Management or a contractor services.

Materials Management - Solid Waste Facilities Permitting

The **Solid Waste Facilities permit program** protects human health and the environment by:

- Preventing pollution and conserving natural resources through promoting reuse and recycling of materials;
- Fostering a sustainable approach for waste management through implementation of the State Solid Waste Management Plan; and
- Ensuring safe and sanitary waste management practices.

A. Introduction

The statutory framework for the solid waste permitting program is one of the oldest within the Department. The program, with roots in the 1960s, was initially implemented by the Department of Public Health (DPH). In 1971, the legislature passed the Solid Waste Management Act (the Act) and transferred responsibility for this program to the newly created DEP. Early administration by DPH reflects the state's former dependence on landfills for waste management, and the need for sanitation because of the putrescible waste from typical household garbage, now referred to as municipal solid waste (MSW). Since passage of the Act, numerous statutory and regulatory changes impacting the solid waste program have been made, including some overlapping multimedia (air and water) authorities.

The State Solid Waste Management Plan, amended in December 2006, identifies strategies for effectively managing solid waste and serves as the basis for Connecticut's solid waste management planning and decision making through year 2024. Pursuant to CGS 22a-228, any action taken by a person, municipality, or regional authority that is governed by CGS chapter 446d shall be consistent with such plan.

The solid waste facilities program regulates wastes that go beyond what is commonly recognized as a solid waste, such as household trash and other materials commonly placed in a garbage can or dumpster for disposal. The program regulates waste from businesses, institutions, and certain industrial wastes that are not regulated as "hazardous waste", vegetation and woody waste, bulky waste such as furniture, dredge material, and contaminated soils.

Solid waste activities requiring a permit from DEP include:

- consolidating or transferring solid waste;
- resources recovery (waste to energy);
- processing waste for volume reduction;
- waste composting;
- recycling (intermediate processing) solid wastes; and
- disposal of solid waste by incineration or land disposal.

Direct collection and transportation of solid waste does not require a permit from DEP However, the offloading or transfer of any waste from a collection or transportation vehicle is a regulated activity requiring a solid waste permit.

In reviewing a solid waste facility permit application, the Department ensures that all proposed activities provide for proper planning, design, construction, operation, monitoring, closure and post-closure maintenance so that human health and safety are safeguarded and the environment is protected. Additionally, the Solid Waste Facilities permit program may also be involved in developing and implementing new programmatic mechanisms for solid waste management through demonstration projects and beneficial use determinations in addition to general permits.

Connecticut has implemented a waste management hierarchy that takes an integrated and comprehensive approach, encompassing multiple methods for solid waste management. These methods have been adopted into law. Specifically, CGS 22a-228(b) establishes the hierarchy as follows:

1) source reduction (reduce and reuse);
2) recycling;
3) composting;
4) bulky waste recycling;
5) resources recovery facilities (waste-to-energy); and
6) incineration and landfilling.

Implementation of the hierarchy is guided by the State's Solid Waste Management Plan (the Plan), a twenty year strategic plan. The overall goal of the Plan is to safely and effectively meet the solid waste management needs of Connecticut by reducing the amount of waste generated and disposed of, thereby minimizing the impacts of waste management and product manufacturing on the environment. The Plan influences the work load and prioritization within the solid waste facilities permit program along with interrelated responsibilities for solid waste planning and recycling. The Solid Waste Management Advisory Committee, a diverse stakeholders forum which meets regularly, provides input regarding implementation of the Plan. This committee addresses short term and long term issues and provides ongoing feedback to the Department on permitting issues, including recommendations on permit program improvements.

B. Analysis and Findings

100% of Solid Waste Facilities technical reviews for permit modifications done in 2009 met PA 10-158's 180 day goal.

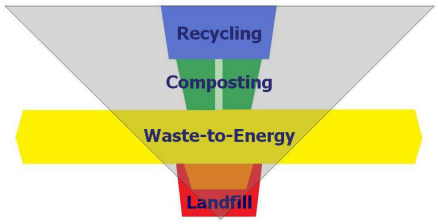
Sufficiency reviews of applications for individual solid waste facility permits show that the majority of sufficiency reviews processed in the last ten years were conducted in less than 60 days. The technical review timeframes for those permits has typically been greater than 180 day. For each type of permit application (new, modification and renewal), the percentage of reviews meeting the 180 day timeframe goal for 2009 is as follows: New - 0%; Modifications - 100%; and Renewals - 40%.

The reasons that some sufficiency review periods exceed 60 days and technical review periods may exceed 180 days include staff having assignments which span multiple types of solid waste facilities requiring permits and the allocation of staff resources to develop new programs resulting from legislative initiatives. The same resource pool works on issuing numerous other types of permits and authorizations including, but not limited to, Connecticut Regulated Waste facilities, stewardship permits, waste facilities eligible for general permits, i.e., recycling facilities, municipal transfer stations, one day collections, emergency authorizations, etc.

DEP's analysis of the solid waste facilities permit program began prior to the review conducted for this report. In May 2010 the solid waste permitting program conducted a LEAN event that evaluated the current process for issuing individual solid waste permits. The chief conclusion was that due to the large number of permits assigned to each staff, time spent awaiting review by staff and then waiting for responses to DEP's inquiries from permit applicants in the review process accounted for the majority of time associated with the overall timeframe for issuance of permits.

Based on feedback from stakeholders through the May 2010 LEAN analysis, these are the Key Performance Indicators for solid waste facility permitting:

- Reduce backlog by 20%.
- Fast track renewals and modifications.
- Fast track certain permitted activities to reflect prioritization of Solid Waste Management Plan [see graphic below]
- Decrease overall processing time by at least 20%.
- Percentage of SOPs in place within a year.



- **Comparison of Solid Waste Management**
- **Prioritization: Current [color] and future [gray]**

[Graphic from LPRI Committee Report 2010]

As part of the May 2010 LEAN process, stakeholders representing a variety of applicant types visited with the LEAN team and offered their feedback on the current state of the permitting process including areas to focus on for improvement. The feedback included comments that DEP permitting staff members were informative, that recent webpage improvements were helpful, that posting the status of pending applications on the website would be helpful, that renewals could be "fast tracked," and that incentives should be considered for "good" applications. The LEAN assessment concluded that one of the most important tasks to improve the permitting process for issuing individual solid waste facility permits was to reduce the number of process steps. A goal of a 34% reduction in the number of steps was established. Steps eliminated included redundant requests for additional information during the sufficiency review and technical review processes. Other process improvement tasks were identified and incorporated into an action plan for implementation.

Adjustments in this permit program are needed to meet the timeframe goals for both sufficiency review and technical review. Recommended improvements through program and process changes will close the gap, however, without additional resources, meeting the timeframes goals for this program is not feasible without adversely affecting other materials management program areas.

The solid waste facility permitting program is currently comprised of seven technical staff, one processing technician, and one supervisor for the multiple permitting and program development workgroups. The processing technician and supervisor also provide support and supervision to the staff in the source reduction and recycling workgroup. Program staff are responsible for both solid waste facility permits, and registrations for management of materials under about a dozen general permits. This staff also draft regulations, such as the electronic waste recycling regulations that were promulgated earlier this year develop and issue general

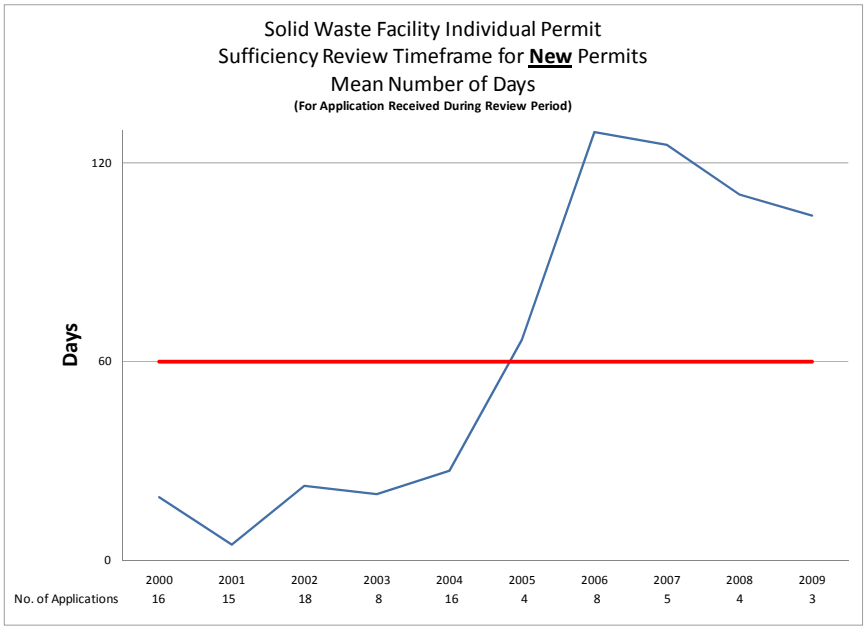
permits, review authorizations relating to the disruption and closure of historic landfills and prepare groundwater monitoring reports for landfills.

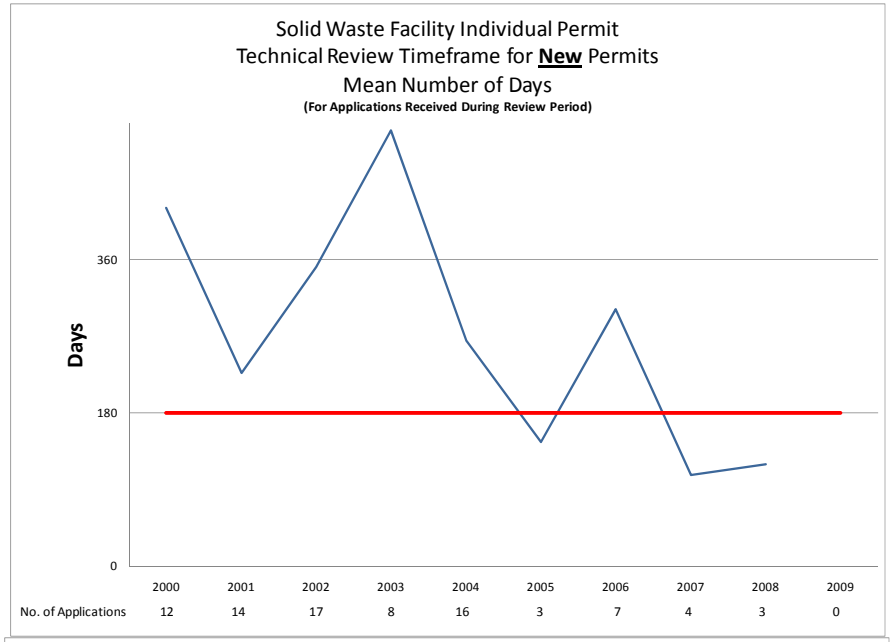
Program staff also coordinate with the Environmental Justice program to develop informational materials on public participation and ensure that the program achieves the objectives of CGS 22a-20a. In the absence of a separate planning division for all materials management programs, solid waste facility permitting program staff assist other technical staff assigned to developing the state's source reduction and recycling program to implement the State Solid Waste Management Plan, as well as support planning for management of debris from natural disasters.

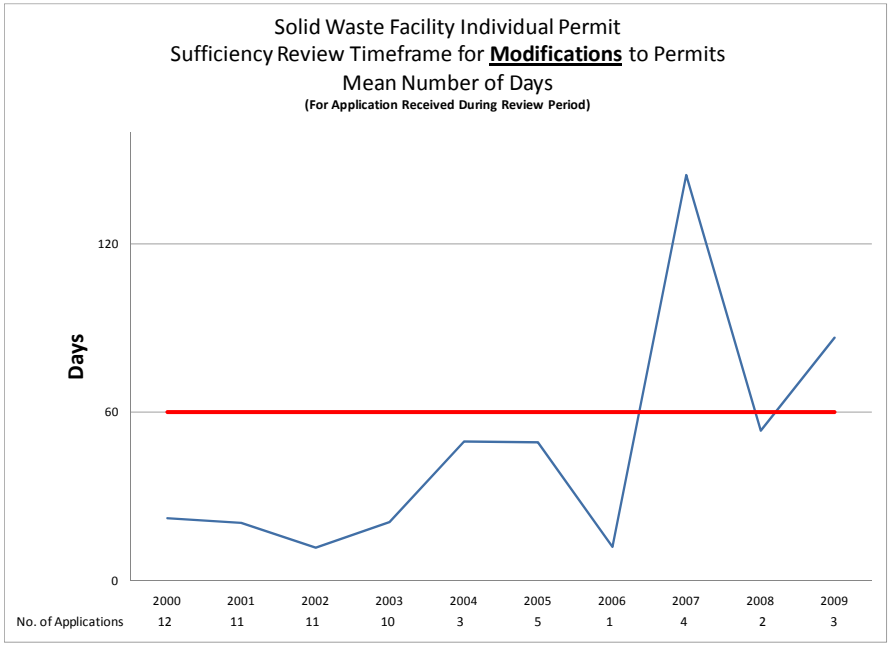
The solid waste facility permit group had a substantial reduction in staff and supervisory resources during the 2003 Early Retirement Incentive Program (ERIP). During that time and through 2004, the ERIP combined with other staff attrition reduced the staff from ten to one. The effect of the reduced staff and supervisory resources was a substantial backlog of permit applications which appears in data spikes for increased processing time and decreased percentages of timely reviews. Related to the issue of resource availability is the allocation of these resources. The data indicates that improving performance in a particular program area such as quicker sufficiency reviews can result in declining performance in another program area such as slower technical reviews since program staff are tasked with both reviews.

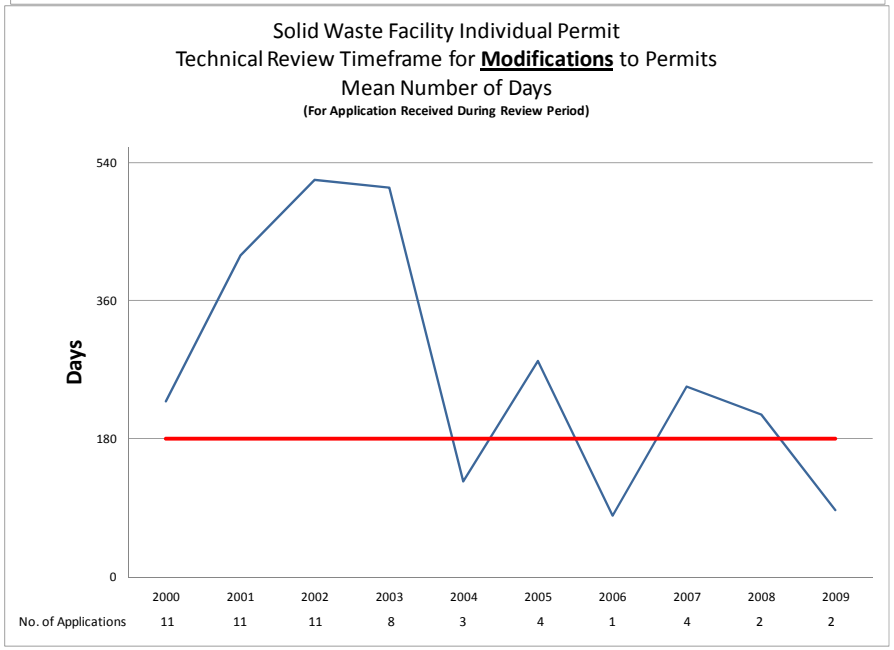
The solid waste facilities permit program identified that limited available resources and multiple priorities were impairing its ability to process applications in a timely manner and sought to improve its efficiency. Two examples are the Municipal Transfer Station General Permit (2007) and the newly reissued General Permit for Certain Recycling Facilities (August 2010). Both of these general permits provide applicants with an expedited permitting process via a registration. The timeframes for processing registrations are substantially reduced when compared to the individual solid waste facilities applications and coverage for additional waste types was expanded.

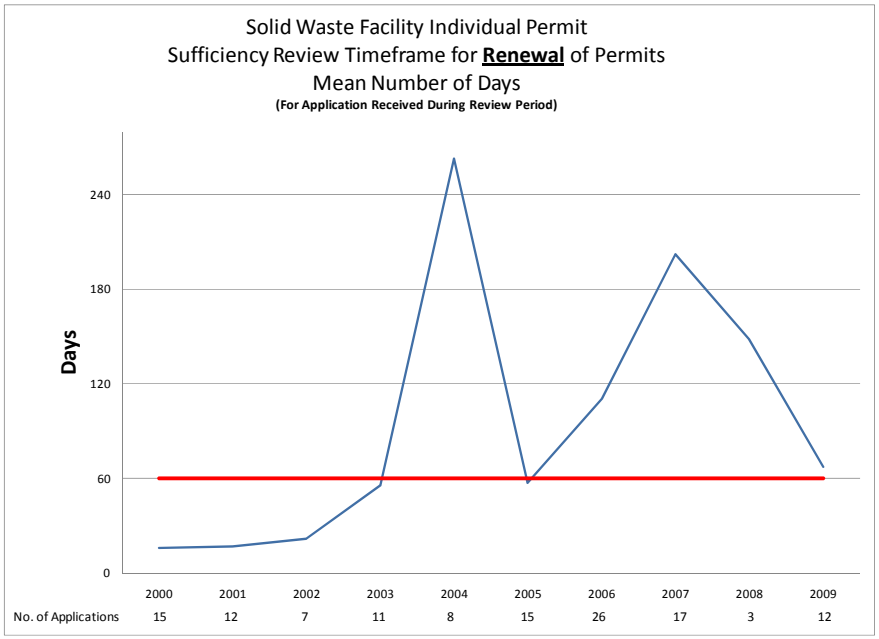
The charts below summarize the typical timeframes in recent years and identify the changes needed to meet the proposed timeframes.

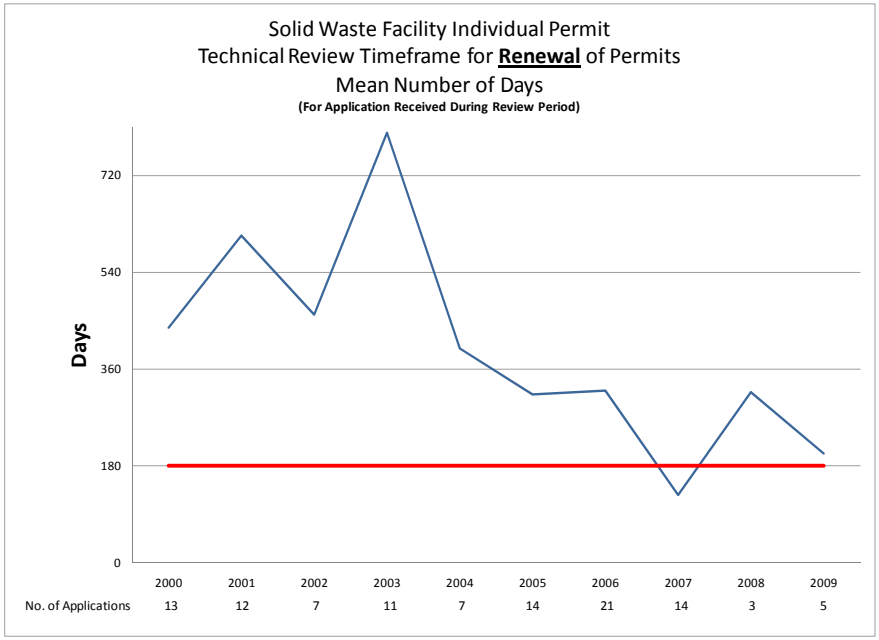

Solid Waste Facility Individual Permit
Sufficiency Review Timeframe for New Permits
Mean Number of Days
(For Application Received During Review Period)
Days
120
60
0
2000 2001 2002 2003 2004 2005 2006 2007 2008 2009
No. of Applications 16 15 18 8 16 4 8 5 4 3


Solid Waste Facility Individual Permit
Technical Review Timeframe for New Permits
Mean Number of Days
(For Applications Received During Review Period)
Days
360
180
0
2000 2001 2002 2003 2004 2005 2006 2007 2008 2009
No. of Applications 12 14 17 8 16 3 7 4 3 0


Solid Waste Facility Individual Permit
Sufficiency Review Timeframe for Modifications to Permits
Mean Number of Days
(For Application Received During Review Period)
Days
120
60
0
2000 2001 2002 2003 2004 2005 2006 2007 2008 2009
No. of Applications 12 11 11 10 3 5 1 4 2 3


Solid Waste Facility Individual Permit
Technical Review Timeframe for Modifications to Permits
Mean Number of Days
(For Application Received During Review Period)
Days
540
360
180
0
2000 2001 2002 2003 2004 2005 2006 2007 2008 2009
No. of Applications 11 11 11 8 3 4 1 4 2 2


Solid Waste Facility Individual Permit
Sufficiency Review Timeframe for Renewal of Permits
Mean Number of Days
(For Application Received During Review Period)
Days
240
180
120
60
0
2000 2001 2002 2003 2004 2005 2006 2007 2008 2009
No. of Applications 15 12 7 11 8 15 26 17 3 12


Solid Waste Facility Individual Permit
Technical Review Timeframe for Renewal of Permits
Mean Number of Days
(For Application Received During Review Period)
Days
720
540
360
180
0
2000 2001 2002 2003 2004 2005 2006 2007 2008 2009
No. of Applications 13 12 7 11 7 14 21 14 3 5

C. Recommendations

1. Process Improvements

The following changes are proposed to improve the percentage of sufficiency reviews and technical reviews for solid waste facility permits meeting the timeframe goals set for in Public Act 10-158.

- Ensure continuous process improvement through implementation of LEAN initiatives by:
    - Improving and increasing the use of pre-application meetings, including concurrent Environmental Justice reviews;
    - Reducing permitting process steps;
    - Limiting the number of Notices of Insufficiency resulting from sufficiency reviews to one;
    - Limiting the number of Requests for Additional Information during technical review to two;
    - Developing, standardizing and updating standard operating procedures (SOP); and
    - Updating permit template.
- Continue and expand stakeholder involvement in the Solid Waste Management Advisory Committee to identify opportunities for partnerships to expedite the permit process and achieve the permit objectives in the Solid Waste Management Plan, such as increasing the recycling of food wastes and other organic materials.
- Continue to promote registration under the Municipal Transfer Station General Permit in lieu of individual permits by all eligible municipalities. Currently, over one-third of municipalities utilize this general permit and more are expected to take advantage of this opportunity as their individual permits expire.
- Fast track applications for activities prioritized in the Solid Waste Management Plan to improve permitted capacity for all waste types.
- Develop templates and standard conditions to expedite permit modifications which facilitate improved business operations, enhance pollution control technologies, or address emerging markets for different wastes types.
- Assess, in consultation with the Solid Waste Management Advisory Committee, the viability of issuing 10-year term permits for certain solid waste facilities, such as resources recovery facilities or certain landfills.

2. Programmatic Changes

- Develop a general permit for the non-municipal transfer station activities for certain easy to handle wastes, such as bulky waste and non-putrescible commercially generated wastes.
- Promote the use of Beneficial Use Determinations and continue developing authorities for beneficial use of specific materials, such as certain construction materials and industrial byproducts such as gypsum wallboard.
- Within available resources, undertake an assessment through the Solid Waste Management Advisory Committee and Hazardous Waste Management Advisory Committee to evaluate consolidating permit programs by integrating the permit authority in CGS 22a-454 for Connecticut Regulated Waste facilities into the solid waste management CGS chapter (446d) of the statutes. Consolidation of these programs could also standardize and simplify the application process for applicants and staff.

3. Staffing Needs[1]

Permit Program	Technical & Administrative Permit Processing Staff	Program Development, Enhancement & Applicant Assistance Staff
Solid Waste Facilities & Connecticut Regulated Waste	3.75	2.0

Three (3) FTE of solid waste technical staff are needed to meet the permit timeframe goals established in Public Act 10-158, manage the pending individual facility permits, and achieve and maintain timely application processing. This is particularly important given the state's need for increased recycling facilities and materials reuse authorizations to close existing infrastructure gaps in key materials management areas (electronic waste, food scraps, contaminated soils, mattresses and other oversized wastes, and construction and deconstruction materials such as gypsum wall board, and wood). These resources will also provide timely permitting of Connecticut Regulated Waste facilities that can close critical waste infrastructure gaps. Permitting these facilities efficiently is critical given the state's current and future need for increased capacity for waste treatment and recycling facilities to reduce the need to transport such wastes out of state.

[1] In light of the recommendation to assess integration of the Connecticut Regulated Waste permit program into the Solid Waste Facilities permit program, staffing needs for the Connecticut Regulated Waste permit program are being reported within this section of the report.

One- half (0.5) FTE of a new processing technician is needed to maintain timely application processing. With the responsibility to conduct the initial sufficiency review assigned to a single staff person, greater efficiency and consistency could be achieved in this process, thus freeing up the more specialized engineers and analysts to focus on the technical review phase of the permit process. This position could be consolidated with the administrative support staff needed for the waste transporter permit program.

One-quarter (0.25) FTE of a new administrative support staff is needed to provide fiscal oversight, including financial analyst resources, to assist with the financial assurance component of Connecticut Regulated Waste Facility, Solid Waste Facility and Hazardous Waste Facilities permits. This support staff will also assist in handling applications and annual fees for permitted facilities, and provide support for electronic application filing, electronic reporting, document management and data quality management.

One (1) FTE of a new solid waste technical staff is to work on new general permits, permit templates, and regulatory framework improvements. Current staff is fully engaged with existing workloads; without additional resources, development of updated or new program tools will become an impediment to staying current with changes in technical standards and new regulatory requirements.

One (1) FTE for an outreach and assistance staff is needed to concentrate and coordinate proactive development of outreach and assistance for the Solid Waste Facilities program. The Solid Waste Management Advisory Committee, and the Hazardous Waste Management Advisory Committee have consistently identified the need for new and updated materials to help permit applicants understand the regulatory requirements in order to facilitate submittal of complete and accurate application packages. Improved outreach and assistance can save both permit applicants and the DEP time and resources during the pre-application and application review stages.

One (1) FTE of a new legal staff is needed to meet the permit timeframe goals. This FTE will improve legal office resources which will be particularly important for ongoing regulation updates, program development and other administrative proceedings. For example, Public Act 10-106 requires DEP to interpret new terms in order to assess the impact of the Public Act on the Commissioner's authority to issue certain solid waste facility permits. Legal resources are also needed to support the recommended evaluation consolidating of the Connecticut Regulated Waste and Solid Waste Facility programs.

One-half (0.5) FTE of a new Environmental Justice program staff is needed to improve internal coordination with each permit program, as well as external coordination with applicants and municipal contacts. Demand on current Environmental Justice program staff is expected to

substantially increase as the Solid Waste Facilities permit program and the Connecticut Regulated Waste permit program improve and increase the use of pre-application meetings and public informational meetings.

4. Additional Resources

Information technology resources are needed to provide support on eGovernment systems for electronic application filing, electronic reporting, document management and data quality. Investments in technological improvements will provide for better access to information for permit applicants and all stakeholders. These kinds of projects require assistance from DEP's Office of Information Management.

Materials Management - Waste Transportation Permitting

The **waste transportation permit program** minimizes the threat of illegal and improper dumping of waste and protects human health and the environment by:

- Ensuring as part of the hazardous waste 'cradle to grave' waste management system, safe and proper delivery of hazardous wastes from point of generation to the point of ultimate treatment, storage or disposal; and
- Ensuring the safe transportation of Connecticut Regulated Waste, biomedical waste and other high risk wastes.

A. Introduction

The Waste Transportation Permit program regulates certain activities related to the transportation of hazardous waste, non-hazardous waste liquids, biomedical waste, and emergency spill response waste. The permit program authorities and requirements are established by CGS 22a-454 and RCSA sections 22a-449(c)-11 and 22a-209-15. The goal of this permit program is to ensure that companies seeking to transport such waste in or through Connecticut have acceptable safety records and are otherwise qualified to safely transport wastes. This program ensures that certain safety inspections are conducted, that transportation vehicle registration and insurance are maintained, and that the transporter has an acceptable record of compliance with applicable requirements.

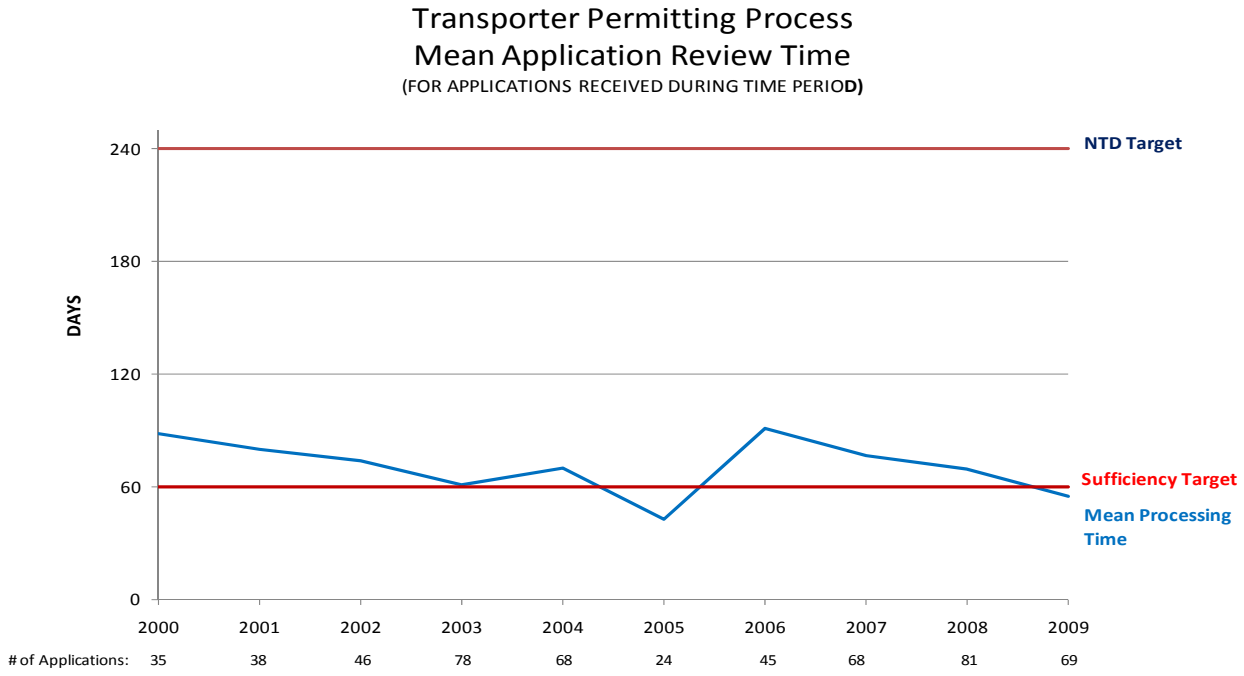
This program also provides DEP with important data regarding the amount and nature of waste transported in or through the state, and helps ensure that hazardous waste generated in Connecticut is sent to a properly permitted facility. Connecticut's waste transportation permit program is an important part of the comprehensive 'cradle to grave' system established through the federal and state hazardous waste management laws to ensure that hazardous and certain non-hazardous wastes are handled, transported, recycled, and disposed of safely.

Additionally, any person seeking to act as a contractor for emergency spill response, to contain, remove or otherwise mitigate the effects of discharge, spillage, uncontrolled loss, seepage or filtration of a regulated substance, material, or waste is required to obtain a permit. Permits are granted to applicants who can demonstrate that they are qualified and adequately equipped for such activities. Transportation of municipal solid waste (i.e. household trash) does not require a permit under CGS 22a-454.

B. Analysis and Findings

There are 188 permitted waste transporters. Of that total, 27 are also authorized as emergency spill response contractors and 17 are authorized as biomedical waste transporters. A review of the waste transportation permit processing timeframes determined that 100% of these permits are issued within the technical review timeframe goals of 180 days, and on average within 60 days in 2009. Waste transportation permits are considered short process permits, i.e., there is no formal sufficiency review, no requirement for public notice or hearing, no notice of tentative determination, and approval has been delegated to the division director. This short process is warranted due to the limited scope of the information required by the application, the standardization of permit conditions, and the additional oversight by the U.S. Department of Transportation and the Connecticut Department of Motor Vehicles for the transportation of hazardous materials, including hazardous wastes.

100% of Waste Transportation Permit technical reviews done in 2009 met the PA-10-158 180 day goal.



C. Recommendations

The following changes in the Waste Transportation permitting program are proposed to help ensure that timeliness is maintained, and to identify potential areas for improvement in this permit process.

1. Process Improvements

- Develop and update standard operating procedures (SOPS) to ensure continuity during any change in staff resources through attrition or reassignment.
- Improve and update permit templates, when needed.

2. Programmatic Changes

There are no programmatic changes recommended at this time.

3. Staffing Needs

One-quarter (0.25) FTE of a new processing technician is needed to support administration of the program. While the permit processing timeframes for waste transportation permits meet the timeframe goals specified in Public Act 10-158, there is currently no administrative personnel permanently assigned full-time to this program and the focus on ensuring these permits are issued in a timely way has adversely impacted timeliness for another federally required program.

Permit Program	Technical & Administrative Permit Processing Staff	Program Development, Enhancement & Applicant Assistance Staff
Waste Transportation	.25	

4. Additional Resources

Providing for electronic submission, reporting, and fees would streamline many of the administrative processes that take time. As noted above, the program receives close to 200 applications yearly. Electronic application filing, electronic reporting, document management and data quality management and the biennial reporting relating to hazardous waste transportation would require resource assistance from DEP's Office of Information Management.

VII. Other Provisions of Public Act 10-158

A. The Hearing Process

Section 2(b) of Public Act 10-158 requires that the Commissioner conduct an analysis of the hearing process in an effort to streamline the permit process. In addition to this general analysis, section 2(b) mandates that DEP incorporate hearing procedures "to increase the use of settlement conferences, enforce the requirement for submittal of prehearing evidence, and require the filing of prehearing written testimony."

To put the matter in context, over the past five years DEP has issued more than 11,000 permits, including renewals. During this time a hearing concerning a permit was requested seventy times or slightly more than one half of one percent of the time that DEP issues a permit. Unless otherwise provided by law, in general, permit hearings are required if the Department receives a petition with twenty-five signatures.

When a hearing is requested the Department's Office of Adjudications conducts the hearing, makes findings of fact and conclusions of law, and recommends a final decision to the Commissioner to grant, grant with modifications, or deny the permits. The Office of Adjudications has set three goals as part of its efforts to contribute to the improvements to permitting at DEP: 1) increase efficiencies in the hearing process; 2) provide a hearing process that is more effective; and 3) enhance the ability of the Office to help streamline and improve the permitting process at DEP.

In May 2010, DEP kicked off a LEAN event led by the Office of Adjudications to evaluate hearings that involve an application for a permit. This LEAN event focused on the rules that govern the hearing process, whether to revise hearing procedures to reduce waste or "no value" process steps, and improving the effectiveness of the hearing process. With the assistance of stakeholders, the Adjudications LEAN team identified and prioritized hearing procedures that needed to be developed, revised, or clarified to streamline the hearing

Adjudications LEAN
Key Performance Indicators

- Reduce time for hearing process (petition for hearing to proposed final decision).
- Reduce time for those pre-hearing, hearing and post-hearing processes within control of hearing officers (e.g. settlement conferences, pre-filed testimony, pre-hearing evidence).
- Reduce timeframe for discovery/requests for production (through use of voluntary/mandatory production of documents).
- Increase use of settlement conferences in permit application cases.

process. An Implementation Plan was developed and is currently being implemented through two, four, six, eight and twelve-month tasks. The Office of Adjudications is either currently finalizing or has already completed updating various forms, standardizing operating procedures for status conferences, and is developing new guidelines for discovery. Upcoming tasks include: developing procedures and guidelines for mediation and alternative dispute resolution, making clarifications to the intervention process to explain the rights and obligations of all participants, and providing guidelines for pre-hearing submission of evidence and pre-hearing conferences.

In addition, in June 2010, Commissioner Marrella directed the Office of Adjudications to comply with the specific provisions of section 2(b) of Public Act 10-158 as follows:

- Settlement conferences, or at least the consideration of the possible settlement of all or part of the issues presented for hearing, will be made a routine aspect of the pre-hearing process.
- Hearing officers will enforce the rule that requires the submittal of pre-hearing evidence in permit application cases.
- Hearing officers will routinely require the filing of written testimony before a hearing, particularly where this procedure is likely to streamline the hearing process.

Section 7 of Public Act 10-158 ("Section 7") included another potentially important innovation to the hearing process. Before passage of Section 7, a hearing would have to go forward even if all of the parties to the hearing process reached agreement on a permit. After passage of Section 7, a petition may identify a person authorized to engage in discussions regarding an application and that person can withdraw the petition if a resolution is reached, terminating the hearing process. This ability to withdraw a petition coupled with an increased emphasis on settling matters may result in hearings being avoided altogether.

Section 7 was effective immediately upon passage of Public Act 10-158. The Office of Adjudications has developed procedures to facilitate petition withdrawal and has made efforts to notify members of the public - including potential petitioners - about this new provision. For example, information on DEP's website and forms for the public to use when requesting a hearing have been revised to include information about petition withdrawal and to provide specific language that a petition for hearing can utilize to qualify for possible withdrawal.

Conclusion: The Beginning of a Better Process.

The plan developed during the May 2010 LEAN exercise and the procedures either put in place or refined as a result of the mandates of Public Act 10-158 are designed to reduce unnecessary steps in the hearing process and increase efficiencies in the necessary steps in that process. As these new and revised procedures are developed and implemented, the goal of the Office of

Adjudications will remain the same: to continue to provide a fair, impartial and consistent hearing process that considers the concerns and includes the interests of all parties to that process, including applicants for DEP permits, the public and staff of DEP.

B. Connecticut Environmental Protection Act Review

1. Introduction

Section 2(a) of Public Act 10-158 requires that the Commissioner undertake a study of the impact of the Connecticut Environmental Protection Act ("CEPA") on (A) the business community, (B) the timeliness and certainty of the permitting process, and (C) the efficacy of the permitting process under CEPA in protecting and preserving the environment. This study was to be undertaken in coordination with representatives from environmental groups, the business community and municipalities.

2. Background

CEPA declared, as a matter of public policy, a public trust in the air, water, and other natural resources of the state and the entitlement of each person to the protection, preservation and enhancement of these resources. Conn. Gen. Stat. § 22a-15. CEPA was enacted in part due to a recognition that administrative agencies may not always know what to do, or do what is needed, to best protect the state's resources. CEPA allows citizens to play a role in protecting the state's air, water and other natural resources from unreasonable pollution, impairment or destruction.

The central provisions of CEPA authorize a broad class of entities, businesses, governmental personnel, or virtually any person the right to intervene into any administrative, licensing or other proceeding, and in any judicial review thereof made available by law, or the right to maintain an action in Superior Court for declaratory and equitable relief for the protection of the public trust in the air, water and other natural resources of the state from unreasonable pollution, impairment or destruction. See Conn. Gen. Stat. §§ 22a-16 and 22a-19. While these rights are afforded for the protection of the public trust in the air, water and other natural resources of the state, this does not mean that CEPA is used primarily by environmental organizations. Businesses also use CEPA.

CEPA intervention in the Department's permitting process is rare. To put the matter in perspective, over the past five years, as was noted above, the Department estimates that it will have issued, including renewals, approximately 11,000 permits. Of these 11,000 permits, a hearing was requested 70 times. Of the hearings requested, there was a CEPA intervenor in 26 out of the 70 cases. So, of the total permits issued by the Department over the past five years,

CEPA was invoked 0.2 percent of the time or in less than one-quarter of one percent of the time a permit is issued by DEP.

3. The Discussion With Stakeholders

To implement the requirements of Section 2(a) of Public Act 10-158, the Department sought participation from the stakeholder categories mentioned in the legislation and from members of the public. All were invited to participate in a work group meeting and notice of the meeting was posted on DEP's website. Representatives from various stakeholders participated, including the Connecticut Business and Industry Association, the Connecticut Homebuilders Association, the Connecticut Fund for the Environment and the Rivers Alliance of Connecticut, among others.

The work group focused on permits issued by the Department and not on permits issued by other state agencies or by municipalities. It should be noted that CEPA may be invoked in matters before other governmental entities, but this was beyond the scope of the work group.

There was a common theme echoed by almost all work group participants: all believed that members of the public should have a meaningful and fair opportunity to participate in the Department's permitting process. All recognized that CEPA is one means by which this opportunity is ensured.

Securing the opportunity for public involvement - perhaps the heart of CEPA - also brings with it certain responsibilities. More than one work group member commented that the Department's adjudication process has a certain structure and that those intervening under CEPA must take the process as they find it. Everyone understood that a CEPA intervenor will be provided an opportunity to express his or her views, but this expression must be within the context of the rules that guide the adjudication process. A number of comments and recommendations were discussed regarding the adjudication process and CEPA.

Participants from the environmental community voiced strong support for CEPA as a mechanism to protect and preserve the environment. They provided a list of permits where, as a result of CEPA, modifications, considered environmentally beneficial by these participants, were made. Many of these cases involved modifications that were made with the agreement of the applicant, an indication, according to those participants, that CEPA allows for constructive resolution of issues. These participants also noted that in some cases CEPA-like participation is mandated by federal law.

Participants from the business community voiced concerns about the lack of finality and noted that a CEPA action can be brought at any time. In addition, these commenters noted CEPA's apparent contribution to the *perception* that Connecticut is a difficult place to conduct

business. There is, according to these participants, a perception that CEPA is "abused" and as a result, according to these participants, developers have not pursued projects in Connecticut. Participants, especially from the environmental community, questioned whether there really are "abuses" of CEPA. However, even if CEPA is being used "correctly", participants from the business community report that a perception issue remains. Participants from the business community were also concerned about the impact CEPA has on the process for obtaining permits, principally the cost, uncertainty and delay occasioned by a hearing.

4. Recommendations

Other than comments about potential perceptions, it is the Department's view that overall CEPA functions as expected. When considering changes to CEPA, it should be kept in mind that the rights afforded by CEPA affect a very small number of the permits issued by the Department. In the working group, a number of recommendations were offered and discussed. They include:

- Developing strategies to overcome the perception that CEPA is an impediment to economic development;
- Combining the permit processes across state agencies where feasible;
- Allowing a person to pay for faster permitting;
- Requiring early disclosure of the issues to be raised by a CEPA intervenor through
    - An offer of proof; or
    - Disclosure of experts and their opinions;
- Increasing opportunities for settlement; and
- Creating a specialized land-use court that relies upon decision-makers who specialize in land-use matters.

Some of these recommendations dovetail with other actions already underway. As discussed earlier, in May 2010 the Department conducted a LEAN event for the Office of Adjudications and will continue to implement measures to streamline the permit hearing process. In addition, section 2(b) of Public Act 10-158 requires that the Commissioner "increase the use of settlement conferences, enforce the requirement for submittal of pre-hearing evidence and require the filing of pre-hearing written testimony" in the hearing process. Section 3 of Public Act 10-158 also establishes an Office of the Permit Ombudsman to help facilitate expedited review of permit applications filed with the Departments of Environmental Protection, Transportation and Public Health for qualifying projects. This includes the possibility of combined proceedings or hearings.

The efficacy of some other recommendations is unclear. For example, requiring an additional offer-of-proof procedure as part of a hearing may prolong, rather than expedite, the hearing process. The creation of specialized tribunals raises a number of issues, including, but not limited to, home-rule for municipalities, resources for such tribunals, and how such tribunals would be integrated into the existing legal structure. Before adopting or recommending the adoption of additional measures, the Department recommends that it is important to first gain experience from the changes noted above that are already underway.

One suggestion for additional review might be to examine how or whether to integrate the right to bring an independent action in court under CEPA with the Department's permitting process. Another might be to examine how Connecticut compares to other states with respect to CEPA.

The Department also recommends continued dialogue with the business community to address whatever negative perceptions CEPA has caused or is causing. Providing greater information about permit timeframes utilizing this report may be a starting point. The Department also provides much information about the permits it issues on its website in an easily accessible manner. To overcome whatever negative perceptions there may be about CEPA, the Department remains open to working with members of the work group or others to develop and implement additional strategies.

C. Issuing General Permits

Section 2(a) of Public Act 10-158 directs the Commissioner to examine "existing procedures regarding the issuance of general permits . . ." and to make recommendations designed to improve the process for issuing such permits.

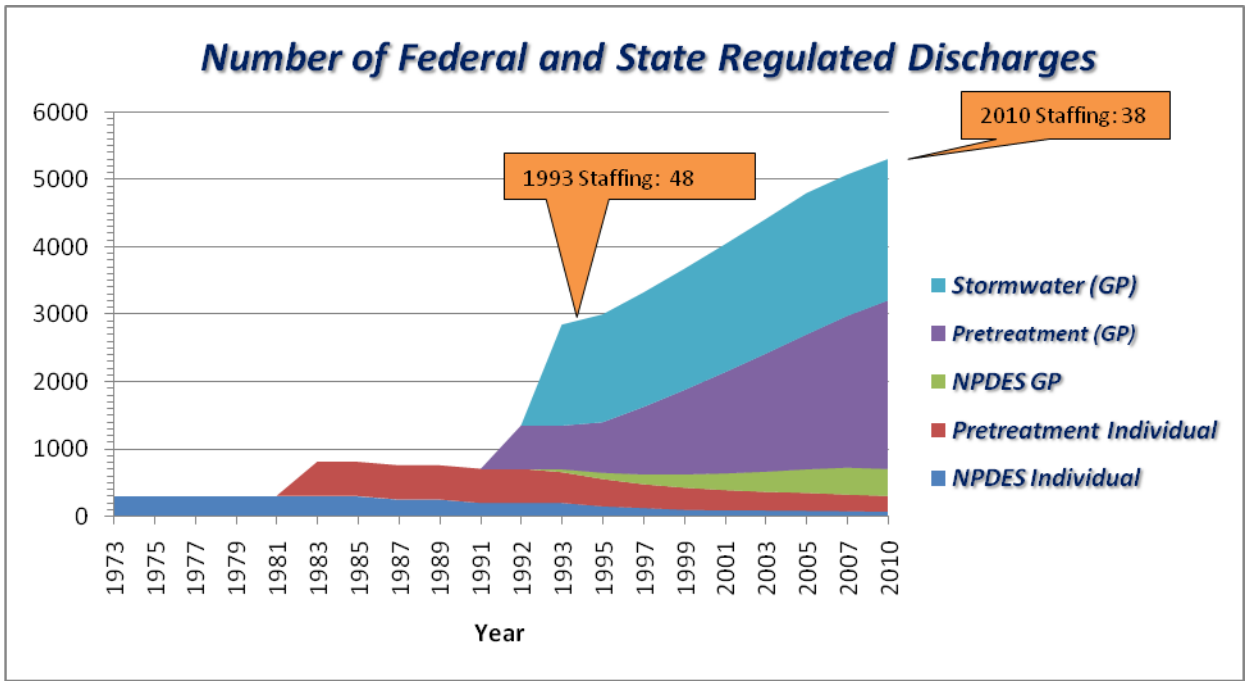
General Permit
A single permit under which many can register that covers similar types of minor activities throughout a prescribed geographic area with common BMPs, terms and conditions.

Since their inception in the early 1990s as a solution to a growing backlog of permit applications, DEP has made a significant investment in developing and issuing general permits in all of its permitting programs. Through the use of general permits, DEP has achieved direct environmental benefit by efficiently establishing controls covering a wide range of minor activities while freeing up DEP staff to focus efforts on significant activities covered under individual permits. The efficiencies garnered through the use of general permits directly benefit both business and industry and DEP. The Department currently has 56 general permits. Activities authorized through the use of general permits now account for half of all permitted activities authorized by DEP.

Why General Permits?

- Assures consistent and efficient regulation of similar types of operations or activities
- General permits are typically quicker and more cost effective for both the Department and the applicant
- By providing defined permit criteria and often allowing for self-certification, general permits put the applicant in greater control of project schedules.

The use of general permits has helped DEP to keep pace with changing demands. As permit program mandates grew, general permits became an important tool in DEP's portfolio. The stormwater management program is one example of how DEP has relied on general permits to keep pace with a growing federal mandate. Stormwater permits were initially issued as individual permits, a time consuming process. Ultimately, it became evident that general permits provided an efficient and effective way to permit the discharge of stormwater runoff. The graph below shows the precipitous growth of the NPDES permitting program and how the use of general permits helped to manage this workload even as staffing declined.



1. Typical General Permit Issuance Process

General permits are, of course, a type of permit. Like other permits, the ability to issue general permits is derived from the statutory provisions that govern DEP's permitting programs. These statutes prescribe what is now a well-settled process for issuing a general permit. (This process may also need to conform to federal requirements). Typically, in developing a general permit, stakeholder input is sought and, in many cases, formal workgroups are formed to assist in developing the scope of coverage, to review technical considerations, and to establish control technologies, limitations and standards. Of course, the underlying statutory and regulatory authority for the affected program must also be taken into account. Once a draft permit is developed, notice of the draft permit is published in the area of coverage, usually statewide. This notice is followed by a thirty day comment period and a public hearing may be requested. Ultimately, DEP publishes notice of the final decision on the permit and a general permit is issued.

There are three basic modes of authorizing activities after a general permit has been issued. Each way is keyed to the level of approval needed to initiate an activity. One, a person conducting an activity described in a general permit may initiate the activity without any additional approval. Such a person is simply covered by a general permit after it is issued. Two, while no approval is required, a person must submit a registration to the Department before initiating the activity. This registration frequently requires certification by a professional engineer. Three, a person must submit a registration and have that registration approved by the Department before initiating the activity. In some cases, a DEP approval may contain site-specific conditions in addition to the general requirements contained in the general permit.

2. Stakeholder Input

In August 2010, DEP held a stakeholder workshop to gather input on the process for issuing general permits. The workshop was attended by stakeholders representing various points of view, including the Connecticut Business and Industry Association, the Connecticut Homebuilders Association, the Connecticut Fund for The Environment and the Rivers Alliance of Connecticut, among others. Input covered a range of topics including, but not limited to, concerns about overlapping state and municipal jurisdiction and scope of authority, how standards are set, how to assure transparency throughout the development of a general permit, the potential for allowing variances, and the balancing of "one-size fits all" solutions. In addition, some stakeholders commented on the potential for using other regulatory tools in lieu of a general permit, e.g., permit-by-rule, and looking at underlying permitting authority to determine if *de minimis* thresholds should be considered.

3. Recommendations

In view of the high degree of efficiency already achieved and the environmental benefit gained through the current suite of 56 general permits, DEP recommends that all permitting programs continue to consider general permits as an important tool for regulating minor activities. Furthermore, the current process for issuing general permits affords sufficient opportunity for input into the development of these permits. The process includes both early stakeholder input and the formal process of full notice and comment, and the right to an adjudicatory hearing. General permits set clear performance standards directly in the permit whenever possible. Where individual requirements are established through individual plans, the general permit shall provide for adequate transparency so that the public can review the individual plan. To address further concerns about flexibility, it is recommended that in issuing future general permits, DEP should consider conditions that may provide for minor variances in eligibility for coverage subject to prior agency approval, in accordance with established standards and criteria set forth in the general permit.

Section 2(a) of Public Act 10-158 also directed DEP to consider reducing the time to issue a final determination on general permits. These final determinations occur when a hearing is requested concerning a general permit. The recommendations discussed under improvements to the adjudication process described above will help to reduce the time to final determination, since the general permit adjudicatory process is similar to that for individual permits.

Though outside the scope of this evaluation, DEP recognizes the utility of other tools in solving environmental problems and will consider permits-by-rule or applicability thresholds as DEP continues to assess all tools in developing regulatory approaches. In addition, as DEP develops new general permits, it will evaluate options to avoid force fitting solutions into a “one size fits all” approach.

Finally, as described throughout the program specific assessments in this report, DEP will work to utilize general permits where feasible and will incorporate improvements in general permits that:

- Link coverage between regulatory programs;
- Extend general permit duration from 5 to 10 years, where appropriate;
- Consolidate general permit categories; and
- Create a streamlined renewal process for previously authorized activities that allows these activities to continue uninterrupted.

D. Compliance Assistance – "Developing a Consulting Services Program"

Section 8 of Public Act 10-158 ("Section 8") requires DEP, not later than September 1, 2010, to commence negotiations with the United States Environmental Protection Agency ("EPA") for the purpose of creating a consulting services program within DEP. Section 8 specifies that the consulting services program should be similar to CONN OSHA under which "civil penalties are not incurred and notices of violations are not issued as a result of the consultation process, provided any noncompliance identified by the consultation process is limited to minor violations, as defined in section 22a-6s, and reasonable efforts are made by the regulated entity to comply with environmental laws and regulations."

In accordance with Section 8, in a letter dated June 16, 2010, Commissioner Marrella provided the EPA New England ("EPA NE") Regional Administrator with an update on Section 8 and directed DEP regulatory managers to begin discussions with their EPA NE counterparts to comply with this provision. At the EPA NE states Compliance Assurance planning meeting in June, DEP's regulatory managers stressed how compliance assistance plays an integral role in a strong compliance assurance program. While EPA NE was receptive and is willing to work with DEP to continue to discuss a reasonable approach to meet the charge of Section 8, EPA NE voiced concerns regarding DEP's need to keep within the statutory and regulatory bounds and grant commitments of its delegations and the EPA NE/DEP Performance Partnership Agreement/Grant (PPA/PPG), as well as the amnesty or legal immunity that is suggested by Section 8.

DEP also sought stakeholder input regarding a potential consulting program. To gather stakeholder input, DEP regulatory managers from the air, water and materials management programs attended the July meeting of the Connecticut Business and Industry

COMPASS
Hazardous Waste Compliance Assistance Program

The COMPASS program provides assistance to Connecticut businesses and industries in complying with waste management regulations through outreach and education programs and on-site assistance. COMPASS has four main components:

- **A toll-free number** - provides access to DEP staff for general compliance assistance.
- **Compliance Assistance Information** - including guidance documents, training conferences, and seminars.
- **Consultative Services** - in the form of site specific conferences focusing on hazardous waste regulations applicable to a facility and its operations. DEP also offers on-site voluntary compliance audits to operators of new or expanding businesses.
- **Hazardous Waste Advisory Committee** – established to promote communications with stakeholders on new and changing provisions of the hazardous waste laws.

Association's Environmental Policies Council ("the Council") to discuss potential implementation of a consulting services program. DEP described its existing COMPASS program offered by the hazardous waste division and sought feedback as to what areas or sectors the Council believes need additional compliance assistance. DEP also shared EPA NE's initial comments and concerns with the Council. In general, the Council expressed the need for DEP to improve how regulatory information is made available on the Department's website. This will improve the accessibility of information to the regulated community as well as enhance communication. The Council also explained that small businesses, in particular within the manufacturing sector, are most in need of assistance from DEP. It noted that small businesses often cannot afford to hire an environmental consultant to keep abreast of applicable regulatory requirements.

Specifically, with regard to offering on-site consulting assistance of the type mentioned in Section 8, some of the Council members expressed concern about the degree of enforcement discretion DEP would exercise if it were to discover violations of various types at the site. Questions arose as to what types of violations could be corrected without consequences. DEP discussed the possibility of developing an on-site assistance protocol that would help make the parameters of the on-site visit more transparent and understandable.

With regard to next steps, EPA NE's and DEP's discussions regarding the PPA provide a framework to determine the feasibility of a consulting services program. In accordance with Section 8, not later than October 31, 2010, DEP "…shall reallocate existing resources and adjust existing policies to implement such consulting services program in accordance with any applicable requirement of EPA." If, however, EPA's requirements are not compatible with implementing such a program, DEP will consult with representatives of the regulated community to implement alternative programs to provide compliance assistance to business and municipalities.

Over the next month, DEP will continue discussions with EPA NE on the feasibility of expanding a consulting services program focused on small business assistance. DEP will continue to offer existing on-site technical assistance through the Department's COMPASS program offered by the hazardous waste division and will continue to reassess and improve upon compliance assistance information made available on the Department's web site. If EPA's requirements are found to be incompatible with the implementation of a consulting services program, DEP will reconvene with representatives of the regulated community to discuss implementation of alternative programs to provide compliance assistance to businesses and municipalities such as training sessions, additional information on DEP's website or best management practices manuals.

Once negotiations are completed with EPA NE, a path forward will be selected, i.e., expanded consulting services program or additional compliance assistance. At that time, DEP will, regardless of the outcome, reconvene with business stakeholders to discuss an implementation plan and the staff and resources needed to establish such a program.

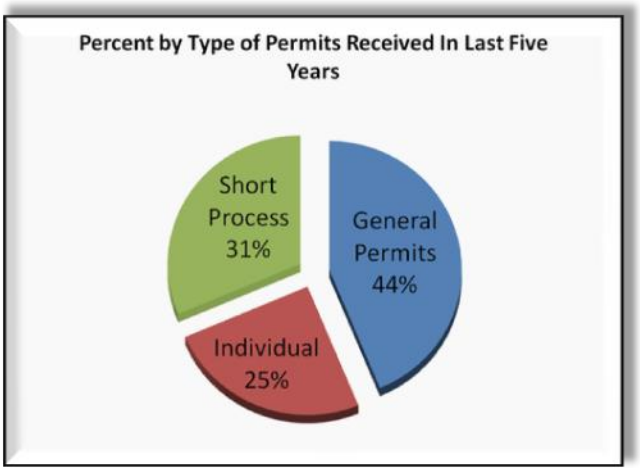
Appendix A
Recent Improvements

Even before the Governor's Permitting Task Force had been formed or Public Act 10-158 had been enacted, DEP understood that more must be done to make permitting decisions timelier. DEP has taken a number of steps to improve both permitting procedures and services and support to permittees in the recent past. Regardless of the service, concerns from customers typically relate to their past experiences with the service provider – in this case DEP provides the service of reviewing permits. DEP has been faced with many accounts of past shortcomings in DEP's processing permits. While many of these stories are not completely accurate, there is truth behind the examples repeated by those critical of DEP's permit timeliness.

DEP needs to ensure that our processes continue to improve, and DEP needs to do a better job explaining to permittees – who typically apply to DEP for permits on an infrequent basis – that DEP continues to improve. Past delays or concerns will likely not be indicative of current processes at DEP.

As this permit analysis was conducted, it was important to look forward and build on past successes and improvements that have improved DEP's permitting programs. Some of these improvements include the introduction and increased use of general permits that provide defined permit criteria and often allow for self-certifications, since the 1990s, more extensive use of technology to allow for eGovernment, programs that provide compliance assistance, initiatives that support "green" business and market "green" businesses, and recent, significant efficiency improvements from DEP's LEAN initiative. The following sections describe these recent improvements.

General Permits



This type of permit was introduced in the 1990s to address permits that apply to classes of similar activities in a certain geographic area. Typically, general permits are for minor activities compared to comparable individual permits. General Permits provide for more efficiently processing permits for common activities and have resulted in significant benefit to both business and industry and DEP. They also allow staff to focus their time on more significant activities covered under individual permits. General Permits provide defined permit criteria and often allow for self-certification, and now cover approximately half of all permitted

activities. DEP currently has 56 categories of general permits. The staff time committed to reviewing General Permits is significantly less than individual permits. Without general permits, DEP's permit review timeliness would suffer greatly.

Out-of-the-Box Permitting

DEP is continuing to look at new authorities and mechanism that benefit business and the environment. These innovative processes create an alternative mechanism to applying for one or more individual permits.

Solid Waste Demonstration Projects used by business to research develop or promote new methods and technologies of solid waste management.

Beneficial Use Determinations allows for the reuse of solid waste that serves as an effective substitute in other processes or products, thereby reducing the disposal of solid waste, minimizing the reliance on raw material, and promoting sustainable and green business practices.

As businesses change, DEP is working to ensure that permitting programs evolve. DEP needs to ensure that permitting programs and requirements of permitting programs achieve environmental benefit.

Compliance Assistance

Even with the programs that have been in effect for years, environmental compliance can be difficult for businesses – especially small businesses that can't afford staff dedicated to environmental compliance. DEP has an obligation to provide compliance assistance to ensure that federal and state expectations are understood and permittees can meet permitting requirements in the most efficient manner. Over the years, DEP has taken such steps as simplifying application forms and providing applicants with checklists for completing applications, developing user-friendly guides to permitting, and developing web pages on DEP's website dedicated to permitting assistance.

In addition, since 1997 DEP has run COMPASS, a consulting services program that provides compliance assistance to businesses. This program involves on-site inspections without the

fear of enforcement action for all but major violations, and includes an outreach and education program aimed at the business community. COMPASS focuses on providing assistance to Connecticut businesses in complying with waste management issues.

This summer, information specific to the DEP's permitting and licensing programs and permitting assistance has been consolidated at the dedicated webpage for permits and licenses (www.ct.gov/dep/permits&licenses). This clearinghouse on permitting and licenses is prominently located on DEP's homepage. All relevant information on permits and licenses can be found in one place; no longer do applicants need to search for program-specific web pages to find information about each program's permits.

DEP's User Guide to Environmental Permits

DEP understands that for many businesses environmental permitting can seem like a confusing process. In order to provide businesses with simple and clear information about the various permitting programs, DEP has published a user guide on the DEP web page. This user guide includes the very basics of environmental permitting, actual permit application forms and detailed instructions, and information about DEP pre-application assistance. This user guide can be found on DEP's web page at: www.ct.gov/dep/permitguide.

Green Business Support

DEP is supporting the efforts of many Connecticut businesses that are seeking to improve environmental practices in a manner that helps them stand out among their peers. The following are some examples of how DEP is both helping these businesses achieve their goal and recognizing them for their efforts.

- **Green Lodging** - Working in partnership with the Connecticut Commission on Culture and Tourism, DEP has developed "Connecticut Green Lodging." This is a self-certifying, voluntary program that recognizes hotels, motels and other lodging facilities who implement environmentally friendly practices, such as conserving energy and water and using toxic free cleaning products. Lodges that can demonstrate that they have implemented appropriate environmental practices are certified as Green Lodges and can use the Green Lodging logo on marketing materials.
- **Clean Marinas -** Connecticut's Clean Marina Program is a voluntary program that encourages inland and coastal marina operators to minimize the environmental impact of their operations. The program recognizes Connecticut's marinas, boatyards, and yacht clubs that go above and beyond regulatory compliance as "Certified Clean Marinas." All certified marinas receive a Clean Marina Flag to fly at their facility and

authorization to use the Clean Marina Program logo on company publications. DEP recognizes certified Clean Marinas with press releases and at public events.

- **Green Hospitals -** DEP works closely with the Connecticut Environmental Hospital Roundtable to promote environmental practices that minimize environmental impacts and help to make our hospitals healthier and more cost effective. The program focuses on removing potentially harmful toxics from health care facilities while maintaining necessary protections for public health. The program provides hospitals and health care institutions with an opportunity to share information about issues such as environmentally preferable cleaning products, "green" building techniques, pharmaceutical disposal, serving local food and energy efficiency.
- **Green Circle Awards -** Established in 1998, the GreenCircle Award program recognizes businesses, institutions, individuals, and civic organizations who have participated in energy conservation, transportation, pollution prevention or recycling related activities or projects that promote natural resource conservation or environmental awareness. To date, more than 1,100 projects from 750 award winners have been recognized.
- **Climate Change Leadership Awards** - The Connecticut Climate Change Leadership Awards Program was established in 2006 by the Governor's Steering Committee on Climate Change. It was designed to recognize individuals, businesses and organizations that take exemplary actions to reduce global warming pollution and promote the goals of the *Connecticut Climate Change Action Plan.* Several Connecticut businesses – both large and small – have been honored with this award.

eGovernment

DEP is also furthering work on eGovernment initiatives to better serve our permitting customers. Many have become accustomed to using the internet for business functions, from sales to reporting. Although permit forms can be downloaded from DEP's web page, there isn't the level of interactivity available that many have come to expect from businesses – and even other government agencies. To address this need, DEP has been making progress on several eGovernment projects over the last five years. These projects have ranged from making sportsmen's licenses available on-line to enabling electronic reporting of air emissions data. These solutions have effectively used technology to collect, store and provide on-line access to environmental information and data.

Several eGovernment initiatives that have helped the permit applicants and the following are some examples:

- **Air Emissions Inventory System – EMIT** Businesses that have a Title V permit (covering air emissions regulated by the federal Clean Air Act) are required to annually report air pollution emissions. DEP has developed a new web-based reporting system to allow permit holders to submit their monitoring reports through a secure website. EMIT became available to DEP's permitting customers in January 2010.
- **Discharge Monitoring Reporting On-Line – NetDMR** This system provides the regulated community with a self-reporting tool to submit data (usually monthly) to DEP and US EPA, which is required to meet NPDES (National Pollutant Discharge Elimination System) permit reporting requirements under the federal Clean Water Act.
- **CT Environmental Conditions Online – CT ECO** (www.cteco.uconn.edu) Many environmental permits require an understanding of the natural resources in the area of the activity that may be affected by construction or the discharge of pollutants to the environment. The process of collecting this information for environmental permits has improved since DEP launched a new publically available, web-based geographic information system tool that can be used to view natural resource and environmental information state-wide. This on-line tool was funded and developed by DEP and the University of Connecticut.

LEAN

DEP needs to ensure that once permit applications are received, it is efficient and timely in making environmental permitting decisions. Action is well underway to address timeliness. In the summer of 2008, DEP launched a program known as LEAN, which was designed to identify and minimize wasted time and effort in permitting, enforcement and other programs of the agency. LEAN is a process improvement approach that identifies and minimizes wasted time and effort. Through week-long process improvement events, staff teams identify needed improvements and develop a one-year plan to implement the improvements.

Through the LEAN initiative, DEP is increasing the efficiency of the agency while maintaining the state's strong environmental standards. The additional environmental benefit of LEAN is that improvements allow the agency to allocate its resources to better focus on core program issues and address new environmental challenges.

Extraordinary reductions have been achieved, through DEP's LEAN initiative, in the time it takes to review permit applications and complete enforcement actions. These gains are noteworthy because they show that DEP is working to fulfill its important programmatic responsibilities and striving to provide more timely and consistent service to the public it serves.

While LEAN has resulted in significant changes more importantly, there is an on-going change in the culture at DEP. This culture is empowering staff to bring forward and implement changes that save time, eliminate waste and continue to achieve environmental benefit.

The following table shows some of the remarkable changes made through LEAN. These changes are directly affecting DEP's ability to meet permitting timeframe goals outlined in Public Act 10-158. An important aspect of LEAN, which cannot be stressed enough, is that change was from within at the staff-level. DEP staff have laid a course for improvement and shown success with every opportunity they have been given. If staff understand that change is welcome and that others are not wedded to the systems in place, LEAN will continue to succeed.

DEP Has Conducted 23 LEAN Projects Since 2008

Projects have included reviews of:

- permitting
- inspections
- enforcement
- trout stocking
- boating safety
- health and safety
- information management
- permit hearings
- natural diversity database review

Process Improvements Achieved Through LEAN

Lean Team/Project	Pre-LEAN Goals	Post-LEAN Results	Reduction
Office of Long Island Sound Permit Program The program set out to eliminate waste in the application review process of the Structure, Dredging & Fill permit (the program's major permit) that had created extended processing times and inefficiencies, delaying permit issuance and preventing staff from undertaking new initiatives in permitting, compliance, and enforcement. The review covered application to issuance.	Reduce processing time of initial response letter by 85% (205 to 30 days)	Average = 26 days	**87%**
	Reduce processing time from application receipt to permit decision by 72% (566 to 160 days)	Average = 167 days	**70%**
Air Planning and Standards Division Permit Modeling Program This Division's air modeling process had impacted the timely issuance of new source review (NSR) air permits. The process reviewed included pre-permit application meetings through approval of a dispersion modeling analysis performed in support of a permit application. This analysis is particularly important for the review of new power generation projects.	Reduce processing time for modeling program review by 61% (154 to 60 days)	Average = 45 days	**70%**
Inland Water Resources Division, Permitting Program Historical permit review processes and frequent insufficient applications led lengthy review times for the Division's seven programs (Inland Wetlands & Watercourses, Floodplain Management, Stream Channel Encroachment Line, Water Diversion, Dam Safety and Water Quality Certification). The work process review focused on the application workflow and sufficiency review processes.	Reduce response times back to applicants by 40%	Sufficiency review process being completed within 90 days (80% of the time)	**67%**
	Reduce pending applications from 300 pending applications	Pending applications = 143	**48%**
Wastewater Discharge Permitting Program (NPDES) – *Conducted May 2010* Inefficiencies in the processing of industrial NPDES permit applications and the coordination needed with other Divisions and Bureaus had extended application processing times. The work process reviewed included the entire Industrial NPDES permit application review process.	Reduce time to process permit by 70% (925 to 284 days)	Current average = 200 days (sample size - five applications)	**78%**

Appendix B
Permit Time Frame Analysis – Public Informational Meetings

In preparing this report, DEP listened closely to the concerns expressed by many stakeholders at a series of public listening sessions. The following is a listing of those sessions.

Bureau of Air Management

- State Implementation Plan Revision Advisory Committee meeting – May 13, 2010
- State Implementation Plan Revision Advisory Committee meeting – June 10, 2010

Bureau of Water Protection and Land Reuse

- Office of Long Island Sound Programs public meeting – June 17, 2010, Hartford
- Office of Long Island Sound Programs public meeting – July 8, 2010, Old Lyme
- Planning and Standards Division/Municipal Facilities public meeting – July 22, 2010
- Inland Water Resources Division public meeting – July 15, 2010

Bureau of Materials Management and Compliance Assurance

- Marine Terminals public meeting with New Haven Harbor Cooperative, Inc. June 9, 2010, New Haven
- Solid Waste Management Advisory Committee meeting – June 22, 2010
- NPDES/Pretreatment public meeting – July 14, 2010
- Subsurface/Groundwater Discharge public meeting – July 21, 2010
- Hazardous Waste Facilities, 454 Waste Facilities, Stewardship Permits, Waste Transportation, Aquatic and Aerial Pesticides public meeting – July 13, 2010

Other

DEP convened a public meeting in Hartford on August 5, 2010, to consider the impact of Connecticut's Environmental Protection Act on the environmental permitting process and to consider the process for the issuance of general permits.

In addition, Commissioner Marrella met with five Chambers of Commerce, multiple business organizations and various environmental organizations to seek input on this analysis.

Copies of presentations can be found at DEP's website – www.ct.gov/dep.

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