



# Department of Environmental Protection

## LEAN – managing in a world of “do more with less”

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### What is LEAN?

A process improvement approach that identifies and minimizes wasted time and effort. Through a week-long exercise, staff teams identify needed improvements and develop a one-year plan to implement the improvements.

### Benefits of LEAN

- Empower staff to identify and implement the improvements, not management alone.
- Become more efficient, without lowering our environmental requirements.
- Promote tracking of performance indicators and use of visuals so staff adhere to standard processing time.
- Increase the value of DEP’s services to customers.
- Embrace a continuous improvement philosophy, bringing about cultural changes.

### Added Value of LEAN

As more innovative and efficient practices are implemented through LEAN, DEP is able to use staff resources to more effectively meet our obligation to protect and preserve the environment and natural resources of this state. Improving and streamlining our processes allows DEP to:

- Address backlogs and stay current
- Improve the quality of our work
- Better meet the needs of our “customers”
- Address new challenges and tackle emerging issues
- Promote environmental sustainability

### DEP LEAN Projects and Value Stream Mapping

19 projects undertaken as of February 2010 that addressed processes related to environmental quality and conservation as well as business administration. Areas that have undergone LEAN projects include permitting, inspection, and enforcement in air, waste, and water pollution control programs, trout stocking, boating safety, requisition and purchasing, health and safety, information management, radiation registration, natural diversity database review and forest management.

Value Stream Mapping (VSM) is a tool used in the LEAN process. VSM is a mapping method used to document the Current State and the desired Future State of information and material flows.

- VSM was used to compare Current State versus desired Future State; this type of analysis enables a determination of the percent reduction in process steps resulting from more efficient delivery of services.

**Table Showing Some Examples of the Results Gained from a Number of Lean Events.**

| <b>Lean Team/Project</b>  | <b>Pre-Lean Goals</b>   | <b>Post-Lean Results</b>   | <b>Reduction or Improvement</b> |
|---|---|--|---------------------------------|
| <b>Water Enforcement Program (Lean I - completed)</b>                                   | Reduce violation response review time by 50% (60 to 30 days)                                | Average = 11.4 days  | 81%                             |
|   | Reduce time to draft enforcement document by 70% (387 to 120 days)                          | Average = 96 days  | 75%                             |
|   | Reduce Notice of Violation (NOV) backlog by 75% (998 NOV's to 250 NOV's )                   | Closed out 776 NOV's; Remaining 222 NOV's  | 78%                             |
| <b>Office of Long Island Sound Permit Program (Lean I – completed)</b>                  | Reduce processing time of initial response letter by 85% (205 to 30 days)                   | Average = 24 days  | 88.5%                           |
|   | Reduce processing time from application receipt to permit decision by 78% (566 to 125 days) | Average = 71 days  | 88%                             |
| <b>Solid Waste Enforcement Program (Lean II - completed)</b>                            | Establish electronic tracking mechanism for solid waste enforcement cases                   | Electronic system in place making for more efficient oversight and completion of cases | NA                              |
|   | Reduce open enforcement cases by 10% (651 to 586 cases)                                     | Case load = 478  | 27%                             |
| <b>Inland Water Resources Division, Permitting Program (Lean II – completed)</b>        | Reduce response times back to applicants by 40%   | Sufficiency review process being completed within 90 days (83% of the time)            | 67%                             |
|   | Collapse 7 regulatory programs into 2 technical disciplines                                 | 7 programs to 2 technical disciplines  | 65%                             |
|   | Reduce backlog of pending applications (300 pending applications)                           | Backlog of pending applications = 132  | 78%                             |
| <b>Storage Tank Compliance Inspection Program (Lean II - completed)</b>                 | Increase number of inspections from 20 to 100 per month                                     | Exceeded goal = averaged 133 inspections per month                                     | 565%                            |
| <b>Wastewater Discharge Permitting Program (NPDES) (Lean IV – project end May 2010)</b> | Reduce time to process permits by 70% (925 to 284 days)                                     | Current average = 135 days (sample size is two application)                            | 85%                             |