



Connecticut Department of Energy and Environmental Protection



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LEAN at DEEP

- To date, 52 teams have participated in Kaizen events
- More than 350 staff participants
- Wide range of projects including permitting and enforcement of air, waste, and water pollution control and land use programs; wildlife, fisheries, boating; and energy management
- Working with DOT, DECD, OPM, Siting Council and DAS on interagency processes



Making Government Work: LEAN is a key enabler for our transformation efforts

Faster

More effective

More efficient

More responsive

More predictable

More transparent



- Investing in information technology solutions to achieve efficiencies
- Identify statutory and regulatory obstacles to change
- Pursue shift from a “command and control” focus toward market based approaches
- Developing core metrics with measurable environmental and programmatic improvements



What is LEAN?

- LEAN is a growth strategy
- A process improvement approach that seeks to eliminate non-value added activities or waste
- An opportunity for continuous improvement
- Customer-focused – What do they value?



LEAN as a Growth Strategy

- Internal operations are more efficient
- Staff is more engaged and has developed greater capacity
- DEEP has an increased ability to address new challenges
- Customer experience: improved timeliness, responsiveness, transparency, predictability



A Streamlined Future State of the OLISP Structures, Dredging and Fill Permit Application Process.



Building Capacity for LEAN

- Over 50 employees have received advanced LEAN training
- Staff shadow facilitator at the Lean events – beginning to conduct self-facilitated events
- Lean Coordinators/contacts identified for each Bureau
- Facilitator/Coordinator contacts meet regularly on LEAN implementation



LEAN has been Positive for Our Customers

- **Businesses**

Wastewater discharge permitting program (NPDES) – reduce time to process permit by 77%

- **Homeowners**

Office of Long Island Sound Programs (OLISP) Permitting- reduced permit review time by 70%

- **Municipalities**

Clean Water Fund – payment processing reduced by more than 170 days

- **Environment**

Underground Storage Tank (UST)- reduced the number of significant releases from USTs to the environment from a regular occurrence to an average of less than 1 per year and a significant drop in impacts to drinking water(contaminated wells), going from regular occurrences affecting entire neighborhoods to being highly uncommon events

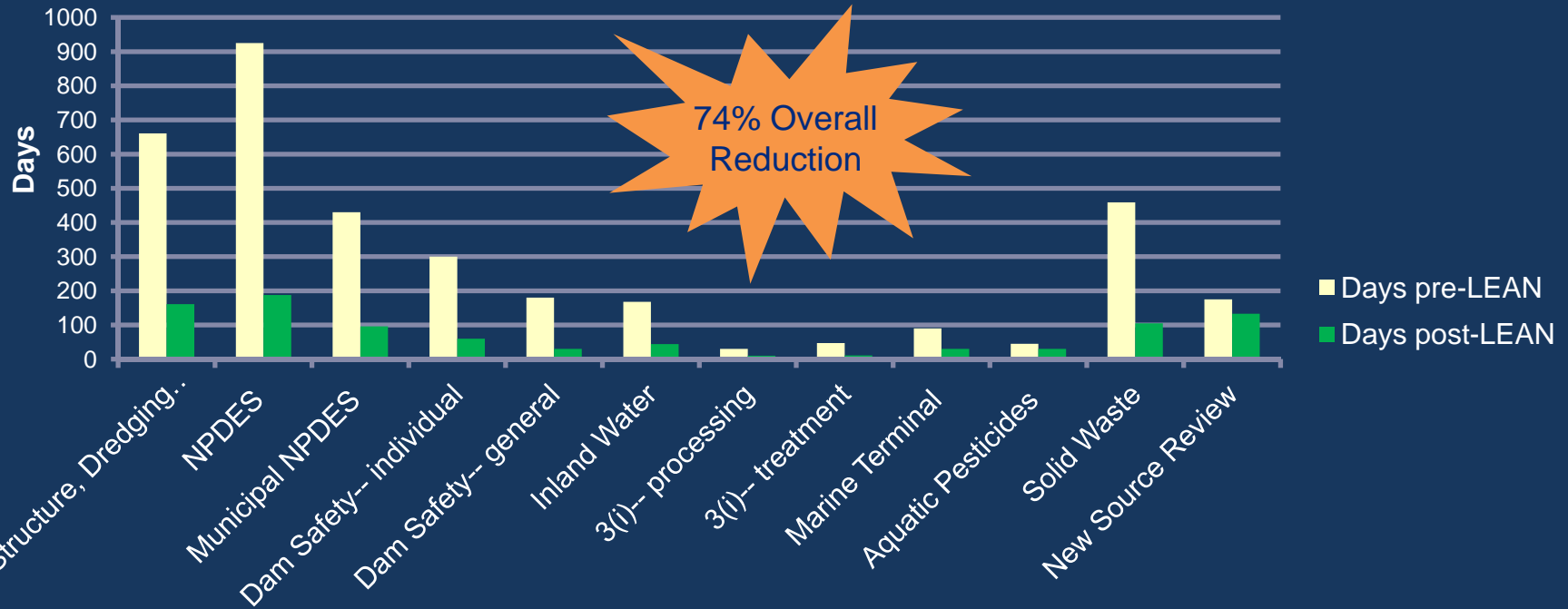


Lean Team identified strategies to streamline and simplify environmental land use restriction application and approval process.



Permit Processing Times Have Been Reduced

Average Processing Time for Select DEEP Permits, Pre- and Post-Lean



Example of Common Permitting Process Wastes

The following are several common permitting process wastes identified:

- Incomplete applications
- Backlogs
- Approval bottlenecks
- Redundant review or data entry
- Lack of templates – need for development of Standard Operating Procedures (SOP)



Material for one pre-lean permit application.



Lessons Learned from LEAN

- Plan and Communicate
 - Including/partnering with affected parties in planning efforts
 - Revising application content and fact sheets
 - Pre-application meetings
- Standard Work
 - Creating checklists and Standard Operating Procedures
 - Targeting permits for fast-tracking
- Eliminate Waste
 - Removing redundancies and silos
 - Leveraging existing technology



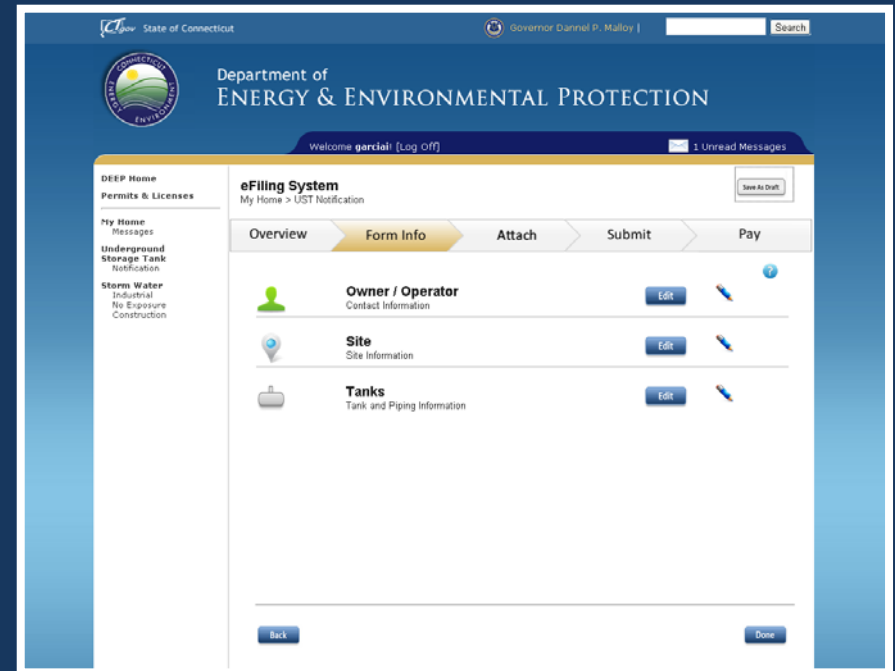
More Effective and Efficient Delivery of Permitting Assistance

- Increase opportunities for pre-application meetings
- Provide applicants with examples of model applications
- Increase opportunities for electronic submittals—eliminates paper and results in faster distribution
- Post permit status/action on the website for applicants to reduce status question phone calls
- Provide outreach to constituent groups about new permitting procedures to educate and solicit feedback (e.g., HWAC, SWAC and SIPRAC meetings)



Technology- Online Permits will Result in Faster, More Complete Submittals

- Online Permit with E-Logic
 - Direct submissions to DEEP staff
 - E-logic will prompt applicants to fill in missing information
- General permits/notifications first then individual permits
 - Stormwater General Permit
 - Underground Storage Tank (UST) Notification



Evaluation of DEEP's Coastal Management Certificate Of Permission (COP) Process



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COP Current State and History

- COP process started in 1990
- Applications are processed in 45 days, with the ability to extend to 90 days if the application is insufficient.
- If no decision by 90 days, application is auto-approved
- Pre-application process can take from 1 day to 3 years!
- Over 50% of COP applications are extended beyond the initial 45-day period
- Average time from application receipt to decision = 53 days
- Approximately 70% of staff time spent on COP processing
- Applicants push for more activities to be considered eligible for the COP process



Proposed Future State

- Implement a robust pre-application process which will result in more complete application submissions
- Review categories of COP-eligible projects and move certain categories to general permit as appropriate (“binning”)
- Clarify and quantify eligibility criteria and definitions
- More clearly define continuously maintained and serviceable and minor alterations across multiple eligibility categories
- Improved delegation of signature requirements



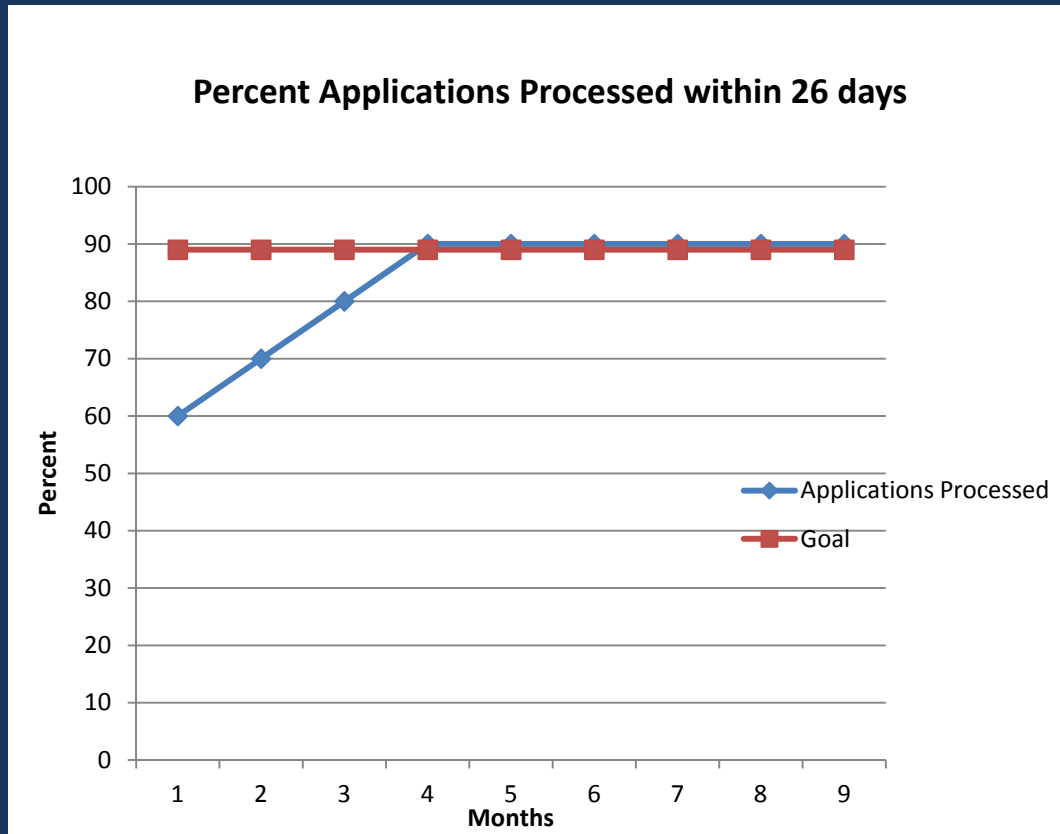
Waste Identified!

- Extensive inefficiencies in pre-application process
- Similar situations handled inconsistently
- Lack of consistency in interpreting eligibility criteria



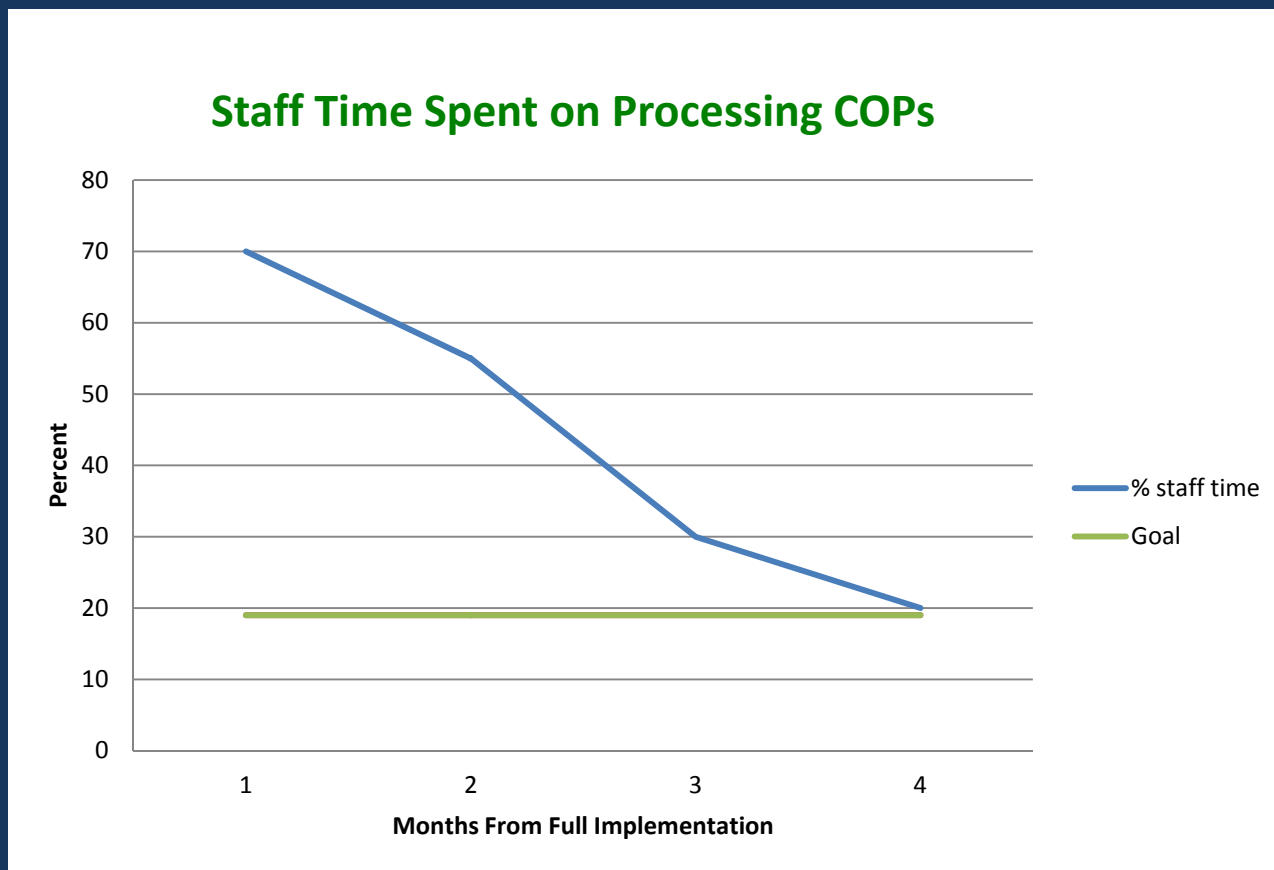
Key Performance Indicators

90% application processed within 26 calendar days



Key Performance Indicators

Reduction of staff time spent on COPs from 70% to 20%



Industrial Storm Water General Permit E-file LEAN Project



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The “Opportunity”



- Industrial Storm Water General Permit
 - Wide range of pollutants potentially affecting water quality
 - Large regulated universe (1500+ permits)
 - Many small business w/ no environmental expertise
- Old process cumbersome
 - Time consumed by physical movement of paper
 - Limited staff resources to thoroughly review registrations
- Changes in the Law compounded the challenge. DEEP must now:
 - Provide public participation process
 - Provide additional compliance assistance



LEAN Project

- Lean project goals (program & IT staff)
 - Develop an electronic registration process
 - Include logic in e-registration to improve adequacy of information submitted
 - Eliminate waste and/or non-value added steps
 - Incorporate new permit requirements in process



The “Now”

- LEAN team met weekly for 6 months to create e-forms in-house
- Successfully deployed e-forms in April, 2011
- Scan Applications into SIMS (fee & wet ink signature limitations)
- Streamlined and more efficient workflow by paperless processing
- Online status of registrations to allow 24/7 public access and participation
- Steps eliminated: no more lost time due to physical transport of paper, no more printing registration certificates, no more incomplete applications



The “Future”

- Full online registration w/ electronic submission of fees and with a verified signature
- Benefits:
 - more environmental protection,
 - more efficient,
 - more effective,
 - more transparent
- Model for agency-wide permit processing



UNDERGROUND STORAGE TANK (UST)

Inspection and Enforcement Lean Projects



Photo by Gary Robbins



UST Inspection Pre Lean Challenges

Opportunity Statement

The US Environmental Protection Agency mandated new program requirements (with no new money or staff):

- Inspect 4,000 facilities at least once every 3 years
- Return facilities in violation to compliance
- Improve facility compliance rates.



UST Inspection LEAN EVENT

Value Stream Mapping

Underground Storage Tank Inspection Process	Pre Lean Prior State (Steps)	Post Lean Current State (Steps)
Pre-Inspection Prep	19	3
Inspection	34	35
Post Inspection Processing	65	9
Total Steps	118	47
Total Process Time	47.6 days	1.4 hours



Tools for Success

“UST Inspector”
Software



Panasonic TOUGHBOOK –
CF-19



*Olympus –Stylus TOUGH digital
camera*



HP 470C Bluetooth Printer



GlobalSAT USB GPS Receiver

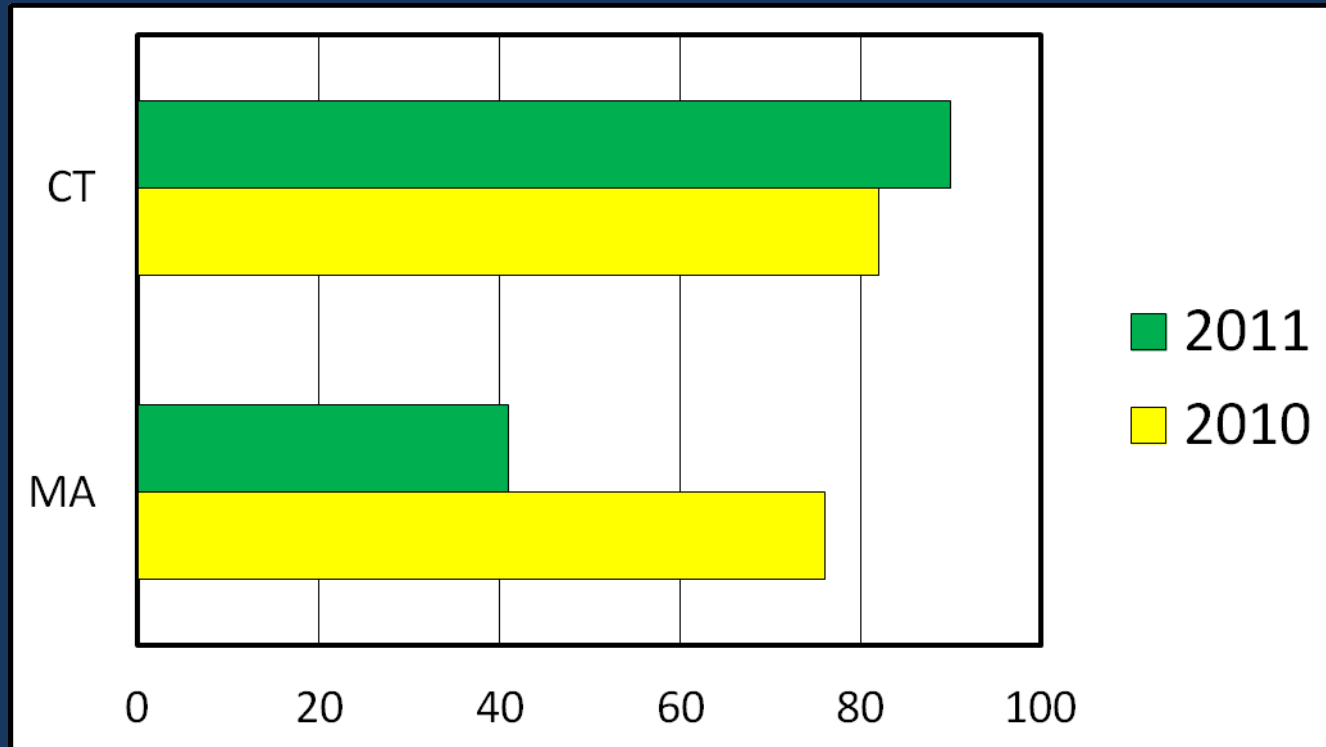


Sprint USB Mobile
Internet AirCard



Benchmarks

UST Compliance Rates up as much as 10%



Compliance with Release Prevention Regulations as Reported to EPA (shown in %)



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Results

WIN – Public and Environment

- Reduced impact to soil and ground water
- Clean Groundwater and Safe Drinking Water

WIN – Regulated Community

- Compliance = Loss prevention. Avoid cleanup costs and down time
- Clear, consistent, transparent, inspection and enforcement process
- Improved compliance assistance services

WIN – DEEP

- Increased Compliance = Fewer Releases = Reduced Expenditures from UST Fund
- More inspections with same amount of staff
- Staff can provide better customer service



More Information

- DEEP's LEAN Initiative

http://www.ct.gov/dep/cwp/view.asp?a=2699&Q=455414&depNav_GID=1511

- Permit and Environmental Compliance Assistance

www.ct.gov/dep/cwp/view.asp?a=2709&q=324224&depNav_GID=1643

- Contact: Nicole Lugli, Office Director
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