

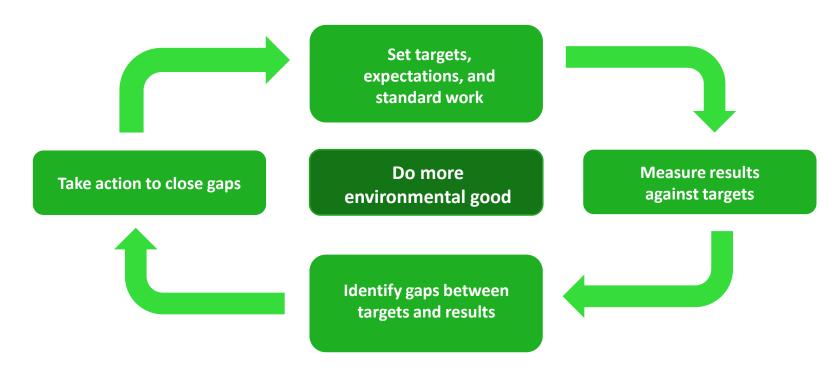


# EPA SIP Lean Effort Overview

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#### Fundamentally . . . .







- Intentional means of continuous improvement through identification and solving of problems at the level closest to the work
- Based on respect for the people doing the work
- Seeks to create accountability to process without blame of people
- Seeks to sustain gains from improvement efforts (kaizen)
- Seeks to emphasize developing and adhering to standard process
- Solves small problems before they become big problems

#### EPA LEAN MANAGEMENT SYSTEM (ELMS)



#### What is "Lean"

- •A set of principles and methods for identifying and eliminating waste (non-value added activity) in any process.
- •Method for eliminating waste in a process and let value flow through the process most efficiently.
- •Lean provides for an emphasis on empowerment, real-time change, tracking progress, and change culture.
- •What is a "Kaizen event"? A 3-5 day facilitated rapid improvement project, comprised of a cross-cutting team using lean tools to identify and eliminate waste from a process by implementing solutions that improve customer value.
  - Kaizen is a Japanese term meaning "change for the good of all."



#### How Does Lean Work?

#### **Practices**

- Continuous improvement
- Problem solving
- Root cause analysis
- Eliminating waste (non-value added activities)
- Visual performance
- Standard work

#### **Tools**

- Kaizen event; Just Do It
- Value Stream Map; Swim Lane Process Map
- Root cause analysis 5 Whys; Fishbone diagram
- SIPOC understanding customers at each step



#### How Does Lean Work?

- Focus on People, Principles, Practices, and Tools
- People
  - Our most important resource
  - Clarity about expectations
  - Ground up management of inefficiencies/waste
  - Engagement
- Principles
  - Value
  - Value stream
  - Flow
  - Pull
  - Performance



# ELMS Deployment Road Map

We will understand the components of the process, use basic problem-solving to address challenges, identify measures to track and assess our performance, establish visual management, and utilize huddles to sustain our progress.





# Initial Steps: Priority Area Kaizen

# 13 Reform Plan Areas

Each project is led by an executive sponsor, process owner, project leader, and EPA coach.

Eventually, Kaizen will be performed for all EPA Strategic Plan goals

- Deploying a Lean Management System
- Speeding Up Environmental Permitting
- Reducing Unnecessary Industry Reporting Burdens
- Maximizing Infrastructure Investments
- Examining EPA Field Presence
- Tailoring State Oversight
- Improving Management of EPA Laboratories
- Enhancing HR Shared Services Centers
- Speeding Up the EPA Acquisition Process
- Eliminating the SIP Backlog
- Speeding Up FOIA Responses
- Increasing Flexibility in State and Tribal Assistance
- Seeking Organizational Efficiencies



## Additional Projects

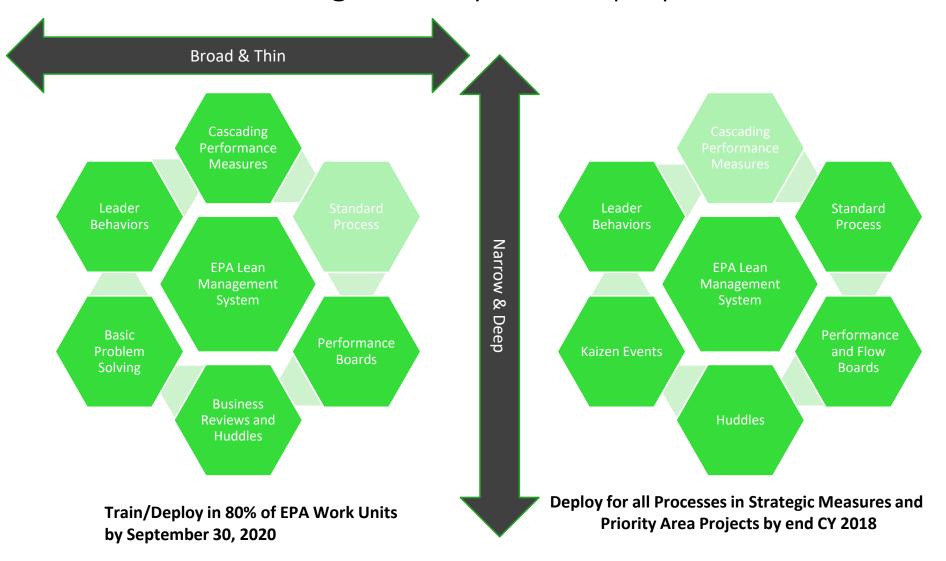
## 8 Projects

Each project is led by an executive sponsor, process owner, project leader, and EPA coach.

- NPDES 402 Permitting
- Underground Injection Control Permits
- •TSCA Premanufacture Notice Final Determinations
- Brownfields RAU
- Superfund RAU
- Reporting requirements
- CAA Title V
- CAA New Source Review (Preconstruction)



#### EPA Lean Management System Deployment Model





### SIP Processing Improvements

- ☐ **High priority** continues to be reducing the SIP backlog and improving SIP processing times
- Trends in SIP processing
  - ☐ Historic backlogged SIPs reduced by 80% (between October 2013 and March 2018)
  - ☐ Total pending SIPs reduced by 20% (between October 2013 and March 2018)
- SIP management improvement efforts ongoing
  - □ SIP management plans continue to provide opportunities for EPA regional offices and states to engage on setting SIP action priorities
  - ☐ EPA emphasizing early engagement with air agencies
  - Continued commitment to providing timely guidance on SIP development issues
  - ☐ EPA maintaining emphasis on internal SIP processing improvements
    - ☐ Significant IT investments (SPeCS)
    - □ National use of lean to improve SIP review process



### SIP Lean Priority Area

- □ SIP lean event held in February 2018 focused on both EPA process and state process and included participants from 3 states and 1 local area.
- Goal of SIP lean event was to develop process and tools that would enable EPA to eliminate the backlog and process SIPs within CAA timelines, by 2022.
- ☐ Timely action on SIPs is a priority for EPA, as reflected in EPA's Strategic Plan for FY 2018 2022 and the Agency's Reform Plan.



# Key Principles of Revised Process

- Early engagement with air agencies during SIP development process
- ☐ Early feedback from EPA on approvability issues and/or concerns with draft submission
- Regular communications to ensure EPA is taking action on air agency priorities and/or SIPs that are most important
- Internal improvements use of electronic systems and other methods to improve efficiency
- ☐ Standard work use of more standard work across regional offices in terms of templates, checklists, etc...



# Benefits of a Lean Management System for SIPs

- Reduce rework
- Early feedback on potential issues
- Faster action on SIPs once submitted to EPA
- Greater regulatory certainty



#### Next Steps

- Internal work to develop resources, tools, and internal training needed to effectuate new process
- Tools includes products that would support EPA early engagement with air agencies
- EPA is also looking at the current pending SIPs (backlogged and not) and evaluation options for handling those in a manner consistent with lean management
- EPA will provide air agencies with regular updates and anticipates that there will be opportunities for air agency input on specific tools/resources as they are developed
  - EPA has developed a "Fact Sheet" to give overview of SIP lean project
- Initial implementation steps focus on internal improvements to EPA processes



#### For more information ...

For more information about EPA's SIP lean effort, please contact Vera Kornylak in EPA's Office of Air Quality Planning and Standards at 919-541-4067 or Debra Suzuki at EPA Region 10 at 206-553-0985



# **Questions and Comments**



