



# Lean Government

## EPA Region 7 and 4 States Water Quality Standards Review Process Kaizen Event Case Study

### Summary

In June 2007, participants from EPA headquarters, EPA Region 7, and the four States in EPA Region 7 (Iowa, Kansas, Missouri, and Nebraska) conducted a Lean business process improvement event (kaizen event) on the EPA–State process for developing and revising water quality standards (WQS). Water quality standards define allowable uses for water bodies and identify specific water quality criteria to achieve those uses within state or tribal lands. The water quality standards developed by a State must be approved by EPA prior to going into effect. EPA regional offices, in this case Region 7, assist States and Tribes in the development of water quality standards programs that meet the Clean Water Act’s goals of restoring and maintaining the chemical, physical, and biological integrity of the nation’s waters.

The objective of the week-long event was to improve communication and understanding among the States, EPA Region 7, and EPA Headquarters on the process to develop and revise water quality standards. Prior to the event, the water quality standards submittal, review, and approval process was time-consuming, unpredictable, and frustrating for all parties. The event resulted in a redesigned process that was simpler, clearer, and more collaborative.

### Results

- 51% reduction in number of steps in EPA’s approval process (from 53 to 26), cutting the length of the process from a few years to several months.
- 18% reduction of handoffs (from 17 to 14).
- 100% reduction in the number of loop-backs in the process (from 2 to 0).
- Increased collaboration between EPA and States to improve strategic planning.
- On-time completion and approval of Iowa Department of Natural Resources’ chemical criteria package.
- Clearer understanding among EPA headquarters, Region 7, and the States of each other’s processes.
- Identified strategic points early in the process where EPA involvement in state water quality standards rulemaking processes is most effective.

### Scope of the Lean Project

**Project Scope:** Region 7 EPA–State WQS submittal, review, and approval process

### Goals of the Lean Event

- Establish and improve the partnership and trust between EPA and the Region 7 States.
- Determine when and how to communicate with stakeholders and the public to facilitate the process and understand the impact on the public.

- Clarify and improve the water quality standards process and everyone’s roles for working together.
- Achieve 100% technically and legally defensible water quality standards approvals on time.
- Engage EPA early in the state water quality standards development process, prior to stakeholder involvement and the public review process.
- Enable States to address new EPA water quality standards recommendations within two triennial reviews.

## Process Changes

During the event, participants designed a new process for submitting, reviewing, and approving water quality standards. Key process changes included:

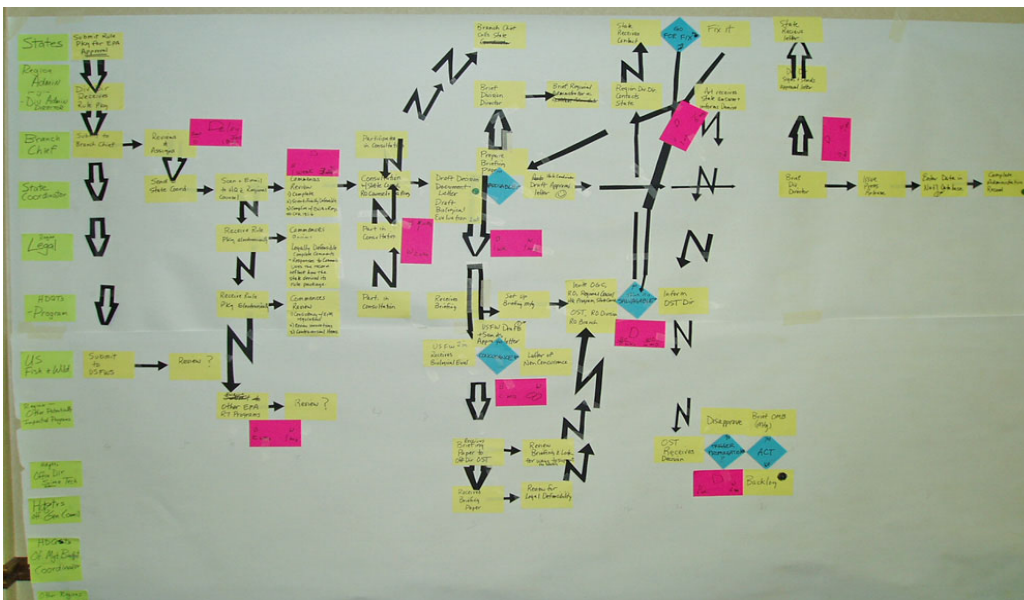
- Development of an understanding of each agency’s processes and an appreciation for the motivation and restrictions of these processes.
- Identification of strategic points where EPA’s involvement in the States’ water quality standards rulemaking process is most critical and effective.
- Coordination of state and EPA efforts as soon as a State starts to consider new water quality standards or changes to existing standards in order to streamline the submittal, review, and approval process.

## Implementation

Since the event, EPA Region 7 and States have implemented the following changes:

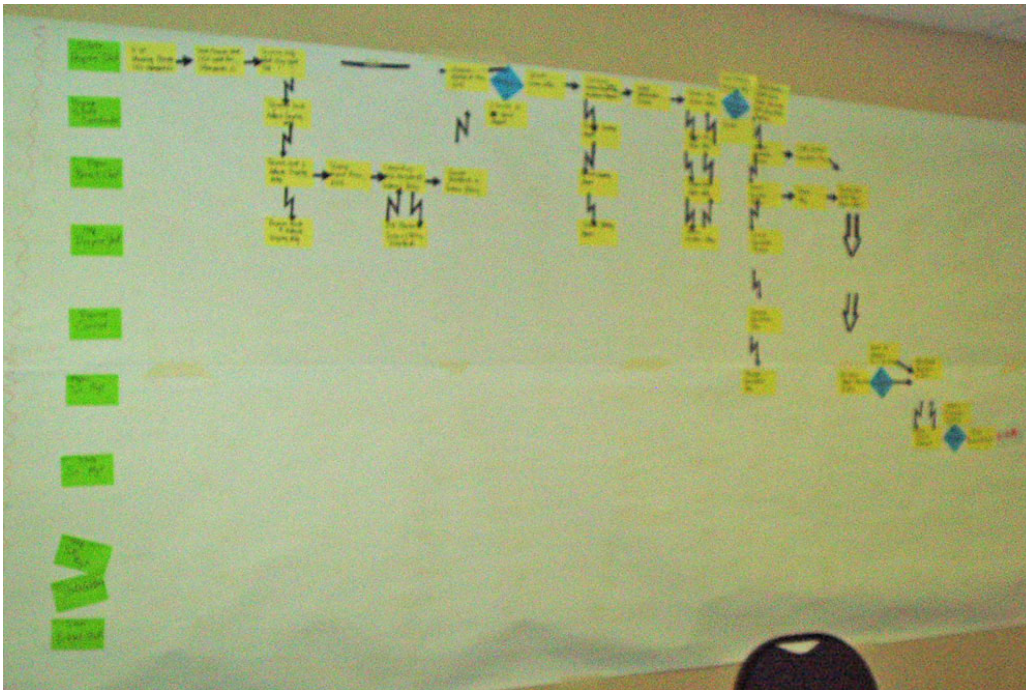
- State and EPA Region 7 staff members have been trained in the new process.
- The States and Region 7 hold scoping meetings to discuss water quality standards science and policy approaches.
- The process roles and expectations for States and EPA are clearer and the workload is spread out instead of concentrated at the end.

## Pre-Kaizen Process Map



- The kaizen event process narrative, process map, and associated documents were posted on the EPA Region 7 website.
- The States and Region 7 have worked together early in the WQS process to agree on deadlines.
- States provide early editions of water quality standards packages to EPA to ensure that the subsequent formal submissions will be reviewed and approved in a timely manner and expectations for agencies are clear.

### Post-Kaizen Process Map



### For More Information:

John Delashmit, EPA Region 7, (913) 551-7821, [delashmit.john@epa.gov](mailto:delashmit.john@epa.gov)  
 Jamie Burnett, EPA NCEI, (202) 566-2305, [burnett.jamie@epa.gov](mailto:burnett.jamie@epa.gov)  
<http://www.epa.gov/lean/leangovernment.htm>