

# Lean in Government Starter Kit

*A Practical Guide to Implementing Successful Lean  
Initiatives at Environmental Agencies*

*Lean in Government Series: Volume 2*

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# Acknowledgments

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- Delaware Department of Natural Resources and Environmental Control ([www.dnrec.delaware.gov](http://www.dnrec.delaware.gov))
- Iowa Department of Management ([www.dom.state.ia.us](http://www.dom.state.ia.us))
- Michigan Department of Environmental Quality ([www.michigan.gov/deq](http://www.michigan.gov/deq))
- Minnesota Pollution Control Agency ([www.pca.state.mn.us](http://www.pca.state.mn.us))
- Nebraska Department of Environmental Quality ([www.deq.state.ne.us](http://www.deq.state.ne.us))

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# Guide to Resources in the Lean in Government Starter Kit

**This Starter Kit contains three types of resources:**

- ⇒ **Practical guidance and background information on how to use Lean methods to improve agency processes (Chapters 1–4)**
  - **Look for “Resources” textboxes throughout the document for links to supporting tools in the Appendices**
- ⇒ **Bibliography of Lean References (Appendix A)**
- ⇒ **Resources, tools, and templates to support agency Lean implementation efforts (Appendix B), covering the following topics:**
  - **Getting started with Lean**
  - **Event planning**
  - **Lean event implementation**
  - **Lean event follow-up**
  - **Sustaining and diffusing Lean activity**

**This website version of the *Lean in Government Starter Kit* contains downloadable versions of all the resources in Appendix B. You may access the Starter Kit webpage through EPA’s Lean and Environment website ([www.epa.gov/lean](http://www.epa.gov/lean)) and ECOS’s website ([www.ecos.org](http://www.ecos.org)).**

# Chapter 1. Introduction

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Since 2003, several state environmental agencies have achieved impressive results improving their administrative and permitting processes using Lean production methods. This *Lean in Government Starter Kit* is designed to assist interested agencies in effectively and efficiently planning and implementing successful Lean improvement events. The Starter Kit builds on ideas presented in *Working Smart for Environmental Protection: Improving State Agency Processes with Lean and Six Sigma*, Volume 1 in the ECOS-EPA Lean in Government Series.

The Starter Kit contains practical tools, resources, and tips for:

- How to get started with Lean;
- How to implement and manage the phases of a Lean event; and
- How to sustain and diffuse Lean activity within an organization.

The Starter Kit answers questions to help agency managers determine whether Lean is right for their agency, and presents ideas for agencies interested to expand their Lean initiatives. Each section includes a set of resources for download that can be tailored to meet the specific needs of an agency.

Conducting a Lean improvement event is an eye-opening experience—for agencies just getting started as well as agencies with significant experience implementing Lean. The rapid, dramatic, and transformative improvements that several public environmental agencies have achieved in recent years using Lean has piqued the interest of many agency managers—even in a large governmental agency. At the same time, this excitement raises important questions:

- ⇒ **What does Lean mean for our agency?**
- ⇒ **How can we get started with Lean?**
- ⇒ **How can we sustain and diffuse the successes of our initial Lean activity?**

Oriented around three topics—getting started with Lean, implementing and managing Lean event phases, and sustaining and diffusing Lean activity within an agency—this Starter Kit provides practical answers to questions that are likely on the minds of agency managers. The Starter Kit focuses on ways to ensure that initial time and resource investments in Lean are highly successful. As some agencies are painfully aware, one or two poorly planned and executed Lean events can sour the organization on Lean and undo past progress. Conversely, a few well-executed Lean events can transform how agency personnel think about what is possible to achieve in terms of excellence in government.

## Getting Started with Lean

Chapter 2 introduces Lean methods, explains how Lean is different from other initiatives, and helps agency decision makers consider whether Lean is right for their agencies. Key topics include:

- What is Lean?: Lean is a process improvement approach and set of methods that seek to eliminate non-valued added activities or waste. Kaizen events are a key to Lean's effectiveness making rapid, breakthrough improvements while creating an employee-empowered continual improvement culture. In Japanese, *kaizen* means "to change for the good of all."
- Why Do Lean?: Lean can dramatically improve the performance and effectiveness of agency processes in a relatively rapid time frame.
- How to Select a Lean Project: Focus Lean improvement efforts on processes with the most "pain" or the greatest perceived problems.
- How to Find Technical Assistance for Lean Efforts: There are a variety of technical assistance providers that exist to assist agencies through Lean implementation.

## Implementing Lean Events

Lean event implementation consists of three phases: event planning, event implementation, and event follow-up. Chapter 3 provides guidance, resources, and tips for conducting a Lean event from start to finish, including:

- Event Planning: This phase ensures that a Lean event is well scoped and planned. From team selection to logistics to communication, preparation is essential for a productive Lean event.
- Event Implementation: Each Lean event is a journey that requires skilled facilitation and guidance as well as hard work from a committed team.
- Event Follow-up: Once the event has ended, effective follow-up is essential to complete remaining action items and to prevent backsliding on progress.

## Sustaining and Diffusing Lean Activity

Once your agency has completed a Lean event, it is important to think strategically about how to sustain the improvements and, if desired, diffuse Lean throughout your agency. Chapter 4 discusses four models for deploying Lean in an organization, along with specific steps to sustaining and diffusing Lean activity. The chapter also discusses key strategies for getting more value out of Lean and for building a strong continual improvement culture across an agency.

The possibilities are exciting, whether you plan to use Lean for targeted problem-solving or to transform the culture of your agency. Whatever your path, this Starter Kit will help you get the most out of your Lean events and activities.

# Chapter 2. Getting Started with Lean

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As your agency considers getting started with Lean or begins its Lean journey, you will likely encounter questions from managers and staff. This chapter discusses some of these common questions and topics, including:

- ⇒ **What is Lean?**
- ⇒ **Why do Lean?**
- ⇒ **How to select a Lean project?**
- ⇒ **How to find technical assistance for Lean efforts?**

## What Is Lean?

*Lean refers to a collection of principles and methods that focus on the identification and elimination of non-value added activity (waste) involved in producing a product or delivering a service to customers.*<sup>1</sup> While Lean process improvement approaches were developed originally for use in the private sector to target manufacturing processes, there has been steady progress towards adapting these approaches for use on service and administrative processes. Public sector interest in Lean is increasing rapidly, fueled by strong improvement results. Common Lean methods include value stream mapping, kaizen events, and Six Sigma.

**Value Stream Mapping (VSM).** Value stream mapping refers to the activity of developing a high-level visual representation, from start to finish, of the process flow involved in delivering a desired outcome, service, or product (a “value stream”) to customers. In the context of environmental agencies, a value stream could be the process of enabling redevelopment of brownfield sites or attracting and hiring new agency staff. The typical products of a 2–5 day VSM event are two maps—a “current state” map of the targeted processes and a “future state” map of the desired process flow—and an implementation plan for future process-improvement activities. Because value stream maps help you see not only waste but the source of the waste, they enable an agency to target future kaizen improvement events on specific processes or

### **SEVEN “DEADLY” PROCESS WASTES**

1. Production of defects
2. Overproduction ahead of demand
3. Unnecessary transport of materials
4. Waiting for the next process step
5. Inventories (excess material and information)
6. Unnecessary movement by employees
7. Over-processing

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<sup>1</sup> James Womack, Daniel Jones, and Daniel Roos coined the term “lean” in their 1990 book *The Machine that Changed the World* to describe the manufacturing paradigm (often referred to as the Toyota Production System) developed by the Toyota Motor Company based on principles pioneered by Henry Ford.

process steps in the value stream to help move the agency towards its desired “future state” value stream map.

**Kaizen Events.** Kaizen is a combination of two Japanese words: *kai* meaning “to change” and *zen* meaning “for the good of all.” Kaizen is founded on the belief that small, incremental changes routinely applied and sustained over a long period result in significant performance improvements. Kaizen events—also called breakthrough rapid process improvement events or kaizen blitz events—focus on eliminating waste in a targeted system or process, improving productivity, and achieving sustained improvement. Whereas VSM events focus on the big picture and future directions, kaizen events dig deep into the specific steps of a process to identify and implement improvements. Kaizen events bring together a cross-functional team for two to five days to dissect a process and implement process changes.



Resources

- o **Lean Overview Presentation**

**Six Sigma.** Six Sigma is often used in conjunction with Lean, but is a separate process-improvement methodology that uses a collection of statistical tools to analyze causes of variation in a process and to identify and test improvements. Trained Six Sigma experts, “black belts” and “green belts,” typically support teams in using Six Sigma tools in a project context. While this Starter Kit does not focus much on this method, Lean and Six Sigma methods can be effectively combined (often called “Lean Six Sigma”)—Lean eliminates unnecessary time and process wastes, while Six Sigma targets quality improvements and variation.

### ***What Other Tools Are in the Lean Toolbox?***

Along with VSM and kaizen events, and Six Sigma, agencies are using other Lean tools, such as:

- **5S:** 5S is an improvement process involving five steps (Sort, Set in order, Shine, Standardize, and Sustain) to create and maintain a clean, neat, and high-performance workplace. 5S is often used to ready the workplace for future kaizen events and continual improvement. Some organizations add a sixth “S” for Safety.
- **Standard Work:** Standard work is a documentation of the best (“least-waste”) way to perform a given operation. Improvements made during kaizen events are immediately documented as standard work to ensure that all employees understand and consistently implement the new process.
- **Visual Controls:** Visual controls are used to reinforce standardized procedures and to display the status of an activity so every employee can see it and take appropriate action. Visual controls are frequently implemented during kaizen events to simplify the workplace and provide visual feedback on process performance.



## HOW TO LEARN MORE ABOUT LEAN

- Read the first volume in EPA and ECOS' Lean in Government Series, *Working Smart for Environmental Protection*, which provides additional information on Lean methods, describes the activities and lessons learned from several state Lean efforts, and includes contact information for staff involved in those efforts. You can find this publication and additional information on public agencies and companies implementing Lean at EPA's Lean and Environment website ([www.epa.gov/lean](http://www.epa.gov/lean)) and on ECOS's website ([www.ecos.org](http://www.ecos.org)).
- Consult the bibliography (Appendix A) of this Starter Kit for a list of resources and websites geared towards agencies interested in learning more about Lean principles and methods.
- Talk to other agencies implementing Lean. Agencies are generally excited to share their experiences and can be helpful resources for agencies considering Lean.

## Why Do Lean?

Lean can dramatically improve the performance and effectiveness of agency processes in a relatively short timeframe (see textbox for a list of typical benefits from Lean). The impressive results from environmental agency Lean efforts also speak for themselves. Here are a few examples:

- **Delaware Department of Natural Resources and Environmental Control** lowered a backlog of air construction permits from 199 to 25, while reducing the average permit processing time to less than 76 days.
- **Iowa Department of Natural Resources** streamlined the corrective action process activities in the Leaking Underground Storage Tank program, reducing the number of decisions by 80 percent and the total number of process steps from 43 to 26 (a 40 percent reduction). This dropped the average decision-making timeframe in the program from 38 months to 3 months.
- **Michigan Department of Environmental Quality** decreased the time needed to process major air construction permits from 422 days to 98 days. Quality also improved, with initial application administrative completeness rising from 82 to 95 percent.

### BENEFITS OF LEAN

By using Lean tools, an agency can expect to:

- Eliminate or dramatically reduce backlogs
- Reduce lead times by more than 50%
- Decrease the complexity of processes and eliminate unneeded process steps
- Improve the quality of applications and the consistency of reviews or inspections
- Allocate more staff time to "mission critical" work
- Improve staff morale and process transparency

States achieved these results by using value stream mapping, kaizen events, and other Lean methods. Because of their initial success with Lean, these agencies have also conducted Lean events on a range of other processes.

Using Lean to achieve process excellence is a growing trend among state environmental agencies. The 2006 *Working Smart for Environmental Protection* primer looked in depth at the Lean experiences of five state environmental agencies, all of which have continued with Lean

implementation efforts. In addition, as of September 2007, there are about fifteen state environmental agencies that have conducted Lean events or are planning Lean events in the near future.

### ***Distinguishing Lean from Other Improvement Initiatives***

Lean is different from past improvement efforts in several key ways; Lean:

- Takes a “customer service” perspective that seeks to optimize value delivered to the environment, the public, and the regulated community;
- Involves employees and external stakeholders in continual improvements and problem-solving activities;
- Deploys a rapid continual improvement framework that emphasizes implementation rather than prolonged planning;
- Seeks to reduce the complexity of processes; and
- Uses metrics and visual controls to provide rapid feedback to improve real-time decision-making and problem-solving.

By eliminating non-value added activities, environmental agencies can redirect staff time to higher-priority activities related to their core mission of environmental protection.

Resources

- **State Lean Inventory**

## ISN'T LEAN JUST THE LATEST "FLAVOR OF THE MONTH"?

If your agency is typical, every management trend that has come around in the last fifteen years has been tried. Total Quality Management? Continuous Quality Improvement? What makes Lean any different? Isn't this just the latest way for consultants to line their pockets? There are some key differences.

Remember TQM? After several days of training on what seemed like obtuse principles, staff were sent back to their regular duties and told to improve the quality of their work process. No one typically thought their process was broken so there wasn't a lot of incentive to change anything and besides, they were already behind from all those days in training. Once a TQM team was formed, they likely met once a week for six months or until they forgot why they were meeting. If the team ran into conflict about what the "problem" was or how it might be solved, there was a good chance team members started dropping out and the team dissolved. Kaizen teams receive a half-day of just-in-time training and learn how to improve their process by actually making changes directly to the process. Events never last for more than five days (including the training time) and kaizen events can be as short as one or two days. Kaizen team leaders push the team through the cycle of change, and conflict if it arises, to ensure a successful conclusion.

TQM teams developed a list of recommendations and sent them up the chain of command. If they were lucky, they heard back from the powers that be and some of their recommendations might be implemented – eventually. Kaizen teams are empowered and actually change the process during the course of the event. Management is kept abreast of what is happening in the event but the team has the authority, and the expectation, to change the process. (Sound scary? Letting a team change things on their own? Remember, the team is changing process, not policy.)

Another significant difference is that TQM focused exclusively on quality while Lean addresses quality, cost, and delivery simultaneously and all in the context of time. All of these components play a crucial role in the success of our work and are inextricably linked. Additional distinctions include kaizen team composition (ensuring that the customer is part of the team), standardized follow-up to the event at 30, 60 and 90 day intervals, and gathering data as pre-work rather than during the improvement process.

TQM wasn't bad in theory but it lacked in execution. Lean – be it kaizen events, value stream mapping, or other Lean Six Sigma methods – has been proven to work in government time and again, no matter what the process.

## How to Select a Lean Project

Most agencies begin their Lean implementation efforts with a pilot project (a kaizen event or value stream mapping event) to improve an existing agency process. If this is your agency's first event, it may be useful to start with a relatively simple permitting process (e.g., air construction permitting for minor sources or a permit modification process) to get a feel for Lean methods. The selected process should be sufficiently important to capture organizational attention. It is critical to start with a process area where there is a high level of management support and commitment to ensuring a successful Lean event. However, other circumstances may dictate which process is the best candidate for a Lean event. For example, it may make sense to hold the

Lean event in conjunction with another major change within the agency during the implementation of a new rule or major staffing changes.

Although each agency weighs its own criteria to select a target process for a Lean event, agencies often focus initial Lean events on processes that have the most “pain,” that is, the greatest perceived problems. Problems could include backlogs, bottlenecks, complaints, funding constraints, and quality and performance concerns. It is also important to consider improvement projects that could free staff capacity to address mission-critical work, address stakeholder concerns, or alleviate budget or fiscal pressures. Once an agency has conducted several events, it often makes sense to take a more strategic approach to selecting events that is linked to the agency’s strategic plan and workforce development goals.

Potential criteria for project and process selection include:

- Funding concerns
- High volume and/or criticality
- Number of customer and staff complaints
- Productivity problems
- Backlogs and amount of work in progress (WIP)
- Administrative bottlenecks and delays
- Existence of a project “champion”
- Staff willingness and energy

## How to Find Technical Assistance for Lean Efforts

There are a range of technical assistance providers that facilitate Lean events, including private consultants, non-profit National Institute of Standards and Technology (NIST) Manufacturing Extension Partnership (MEP) centers, and university-based training programs.<sup>2</sup> In addition, private sector companies who are using Lean have also provided technical support to state agencies by allowing agency staff to attend industry trainings and providing Lean facilitators for agency events. Most agencies have sought outside technical assistance for their initial Lean implementation efforts; even agencies that have developed in-house capacity for lean training and facilitation occasionally seek additional Lean implementation assistance.

All Lean events are led by a Lean facilitator who organizes and manages the discussions. Some agencies have internal staff members that are certified to fill this role; however, most agencies hire an external party—a Lean consultant—at least when beginning to use Lean. When evaluating a potential Lean facilitator, it is important to consider the facilitator’s past experience, areas of expertise (e.g., administrative Lean or Lean office), price, and availability. The next chapter provides additional guidance on how to select a Lean facilitator.

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<sup>2</sup> A directory of NIST MEP centers is available at: [www.mep.nist.gov/about-mep/center-info.html](http://www.mep.nist.gov/about-mep/center-info.html).

# Chapter 3. Implementing Lean Events

This chapter assumes that your agency has chosen a Lean project focus and outlines the three main phases for conducting a successful Lean event: event planning, event implementation, and event follow-up. A Lean event is a highly structured, 2-5 day facilitated event involving a team of agency staff and stakeholders that is designed to rapidly make progress in identifying and implementing improvements to a process.

## Lean Event Planning

### STARTER KIT RESOURCES SUPPORT KAIZEN AND OTHER LEAN EVENTS

While most guidance and resources in this Starter Kit were developed to support kaizen events, the information and resources are also useful for planning and implementing other types of Lean events, including value stream mapping (VSM) events and 5S events.

Once you have decided to conduct a Lean event, effective planning and scoping are essential for success. There are three major phases of activity prior to conducting a successful Lean event. These phases are outlined below, along with key activities associated with each phase. It is important to note that some activities in each phase should occur concurrently, rather than in sequence. For example, it may be necessary to address some logistics, such as setting event dates or securing a conference room, well in advance of the pre-event meeting.

### Phases in Planning for a Lean Event

#### **Phase 1: Initial Planning and Scoping**

- ⇒ Secure a Lean facilitator
- ⇒ Scope the event
- ⇒ Identify the Lean method to use
- ⇒ Identify the Lean event sponsor and team leader

#### **Phase 2: Pre-event Meeting**

- ⇒ Refine the event scope and objectives
- ⇒ Set clear boundaries for the event
- ⇒ Identify performance metrics and pre-work needed
- ⇒ Select participants and determine roles

#### **Phase 3: Event Preparation and Logistics**

- ⇒ Prepare the event agenda
- ⇒ Arrange logistics
- ⇒ Collect needed data and information
- ⇒ Communicate about the event

## ***Phase 1: Initial Planning and Scoping***

### **Secure a Lean Facilitator**

The importance of securing an experienced Lean facilitator cannot be overstated. The Lean facilitator serves as a team’s guide throughout the Lean process, helping to scope the Lean event, facilitate the event, and advise on follow-up activities. Sometimes the Lean facilitator is referred to by the Japanese term *sensei* (SEN-SAY), meaning teacher or “one who has gone before.”

While it is possible to cultivate experienced Lean facilitators within an organization, most organizations seek the external consulting services of a Lean facilitator, at least for the first several years of Lean implementation. It should be noted, however, that even experienced Lean organizations retain outside senseis to bring fresh perspectives to their Lean implementation efforts and to push them to make more progress than they otherwise would.

Several helpful tips for securing a Lean facilitator include:

- Talk with representatives from other environmental agencies to ask for recommendations for potential Lean facilitators.
- Consider issuing a request for proposal to help with the selection of an experienced Lean facilitator. The sample Lean Facilitator Request for Proposal resource document in this Starter Kit should give you some ideas of the types of information to request.
- When evaluating potential Lean facilitators, take into consideration the facilitator’s past experience, areas of expertise (e.g., administrative Lean or Lean office), references, price, and availability.
- Remember that securing a talented facilitator is not the same as getting a talented facilitator who has experience running Lean events.

**Resources**

- **Event Preparation Checklist**
- **Lean Facilitator Request for Proposal**

### **Scope the Event**

Early on in the planning process, it is important to answer three key questions:

- What is the purpose of the event?
- What value stream or process will be targeted in the Lean event?
- What are the desired outcomes?

The answers to these questions will guide initial planning activities, such as making sure the right people participate in the pre-event meeting (Phase 2). During the pre-event meeting, the scope, goals, objectives, and boundaries for the event will be further refined and documented. Key planning and scoping tips include:

- Make sure the scale and scope of the Lean project is manageable and will allow for a successful event. In particular, managers should consider the breadth and complexity of the process and be realistic about how much of the process can be tackled in a 5-day event.

## Resources

- **Pre-Screening Application for Value Stream Mapping Events**

### **Identify the Lean Method to Use**

Once the initial scope of the event has been determined, consider which Lean methods to use. As discussed in Chapter 2, there are a variety of methods to choose from for your event. Two common Lean methods are value stream mapping and kaizen events. Six Sigma is also used by some agencies to drive improvement projects, but organizations are increasingly viewing Six Sigma as a powerful collection of statistical analysis tools and methods that can be used during or in conjunction with a kaizen event. Your Lean facilitator can guide you in choosing the methods that are right for your agency and process.

Agencies just starting out with Lean often use kaizen events to quickly achieve the results that have interested many in Lean. Conducting one or a few kaizen events can help build momentum for a Lean initiative. Some agencies choose value stream mapping (or simplified process mapping) for their first event, since this method can help an agency clearly understand its process and identify areas of waste that can be targeted through future kaizen events. Other agencies have integrated value stream mapping and kaizen rapid implementation techniques in the same event.

### **Identify the Lean Event Sponsor and Team Leader**

#### ***Event Sponsor***

Identifying a Lean event sponsor is critical to success. Ideally, the sponsor is a director or leader of a division within which the Lean event is taking place. Having a sponsor for an event can also increase buy-in within the agency and among upper management, and assist with removing any obstacles in getting the event planned and implemented. This role is especially useful when trying to ensure that team members can get 3-5 days worth of time away from their regular duties and responsibilities to participate in the event. The sponsor participates at key times during the event and helps with follow up.

The sponsor should be enthusiastic, committed to the process, willing to take risks, and be open-minded and communicate this spirit to the team members. At times it can be difficult to sustain creative thinking and risk taking. The sponsor's role is to help infuse the team with energy and direction, and to encourage openness to out of the box thinking. Specific responsibilities of the Lean event sponsor include:

- At the event kick off, communicate expectations to the team and set the direction of the Lean event.
- Clearly state that the process that the Lean team develops during the event will be the new process—the team is not making recommendations.

- State that the sponsor will do everything possible to support the new process developed by the team.
- Challenge the team to develop innovative solutions and ideas without introducing pre-conceived ideas.
- Be visible during the event and provide enthusiastic support of the participants.
- Attend team leader meetings and daily management briefings and provide redirection if needed.
- Assist in removing obstacles.
- Be strategic: use the event to advance agency objectives by improving the performance of the targeted process while being aware of the impact to the total system.
- Attend the report-out session for the event to show support and congratulate team members on a job well done.
- Track the status of implementation efforts following the event to make sure the team continues to make progress and does not backtrack.

Resources

- **Lean Event Sponsor Contract**

A Lean event sponsor contract document can be used to affirm a sponsor’s responsibilities and to demonstrate their commitment of support.

***Team Leader***

The team leader is usually determined after the event focus and scope have been decided. In general, the team leader should not work in the area of the event’s focus. This ensures impartiality, thereby creating a more open and transparent environment for team members to be creative. It is also common for the team leader to have participated previously in one or more Lean events. The role can vary some, as some team leaders also facilitate the event and thus, are more involved in the early planning phases. Specific roles and expectations of the team leader include:

- Support the team members in finding solutions.
- Facilitate an open exchange of ideas.
- Encourage creative thinking and problem-solving.
- Lead the team during event implementation.
- Ensure that all event objectives are met.
- Help prepare for the event.
- Assist in selecting team members.
- Prepare the schedule and agenda.
- Gather needed materials and tools.
- Keep up to date on all aspects of the event.
- Assist with documentation and reporting.

Because the team leader is from outside the specific content area in which the event is occurring, good communication is crucial. Team leaders will need to know the goals and objectives of the event, any process requirements, and the expectations of the team members. Any contextual



information, such as past problems encountered and gains achieved should be shared with the team leader.

## ***Phase 2: Pre-event Meeting***

The pre-event meeting occurs between three and six weeks prior to the Lean event. It is probably the most crucial step in planning and preparing for a successful Lean event. The pre-event meeting is commonly held in the venue in which the Lean event training will take place. The pre-event meeting should involve the Lean facilitator, the event sponsor, the team leader, and key managers and staff who oversee or are involved in the process to be targeted by the Lean event. Pre-event meetings typically last between two and four hours, depending on the complexity of the process and event and the Lean experience of the participants. The following topics should be addressed and finalized during the pre-event meeting:

- Refine the event scope and objectives
- Set clear boundaries for the event.
- Identify performance metrics and pre-work.
- Select participants and determine roles.

Resources

- **Pre-event Meeting Agenda**
- **Team Charter**
- **Example Team Charter**

Document decisions made at the pre-event meeting in a *team charter*. The team charter sets out the scope of the process that will be addressed in the event, establishes the goals and objectives of the event, identifies any work that must be completed prior to the event, and identifies the team members.

### **Refine the Event Scope and Objectives**

The sample team charter referenced above includes examples of how the event scope and key goals and objectives can be clearly and concisely documented. Key tips include:

- Once a production process, administrative process, or area is selected, choose the specific “waste elimination” problem within that area to focus the Lean event.
- It is important to select an event scale (breadth and complexity) that can be accomplished within the timeframe allotted for the event.
- Ask for help with the event scoping. Your Lean event facilitator will be able to assist you with appropriately scoping your Lean event. Another strategy is to talk with other environmental agencies that have targeted similar processes using Lean. Staff at these agencies may be able to offer suggestions for scoping and planning your Lean event.

### **Set Clear Boundaries for the Event**

During the event scoping discussions, it is crucial that the event sponsor, possibly in coordination with other key agency managers, set clear boundaries for the Lean event. There are two key types of boundaries:

- *Process-scope boundaries.* It is important to clearly identify where the process starts and ends, at least insofar as which parts of the process will be discussed during the Lean event. It may also be necessary to draw clear lines where hand-offs are made to other

processes. For example, it may be appropriate for a state Lean event to set an external review process (e.g., EPA review, public comment process) as a part of the broader value stream or process that is “out of bounds” during the Lean event.

- *Solution-scope boundaries.* It may also be important to set limits on the types of changes that are allowed as part of the Lean event. For example, it is typically appropriate to say that policy changes are off-limits.

Establishing clear boundary conditions for the Lean event can address potential concerns that some agency staff or stakeholders may have while also clarifying team expectations about aspects that are fair game for improvement. Key tips include:

- *Clear boundary conditions ensure that agency objectives—such as environmental protection and public participation—are not undermined.* For example, changes that would require rulemaking action are generally considered out of bounds during a Lean event, although these ideas could be held in a “parking lot” for future consideration.
- *Boundary conditions can be helpful in addressing key stakeholder concerns up front.* For example, when conducting a Lean event on a permitting process it may be necessary to clearly state that public comment and participation opportunities will not be lessened, or that the time for substantive analysis and review by permit engineers will not be lessened.
- *Boundary conditions can help set clear expectations about the availability of resources.* Lean events are designed to strongly encourage creativity over capital expenditures.
- *Boundary conditions also may be identified during the course of the event.* While it is okay to allow teams to set some boundary conditions during the event, it is important to identify which boundary conditions must be set in advance.

**EXAMPLE BOUNDARY CONDITIONS FOR AN AIR PERMITTING EVENT<sup>3</sup>**

<b>In Scope</b>	<b>Out of Scope</b>
<ul style="list-style-type: none"> <li>▪ Interpretation of agency rules, policies, and guidance documents</li> <li>▪ Internal organizational structure</li> <li>▪ Internal permit process and timing</li> <li>▪ Applicant interaction and timing</li> <li>▪ Electronic submittals</li> <li>▪ Application content and format</li> <li>▪ Permit and technical memo format</li> <li>▪ Special condition content</li> <li>▪ Communication (internal/external)</li> </ul>	<ul style="list-style-type: none"> <li>▪ EPA regulations</li> <li>▪ Interpretation of EPA rules, policies, and guidance documents</li> <li>▪ Modifying existing agency rules</li> <li>▪ Additional resources</li> <li>▪ Permit appeal process</li> <li>▪ Mandated public participation requirements</li> <li>▪ Permit involving enforcement action</li> <li>▪ Public hearing process/officer</li> </ul>

<sup>3</sup> Example “In Scope, Out of Scope” list based on a presentation of the Delaware DNREC.

## Identify Performance Metrics and Pre-Work Needed

Collecting data on the current state of a process enables a Lean team to understand the process, to identify areas for improvement, and to assess the effectiveness of potential changes to the process. Often, pulling together information at the sub-process level can help inform the team's understanding of the current state of the targeted process. It is not enough to know the overall process performance, it is also necessary to understand how things work at the process step level.

Sometimes it can also be helpful to have information on how key “customers” or stakeholders perceive the targeted process and its outputs. Getting a sense of the “customer’s voice” prior to the Lean event can be helpful, particularly if key customer groups will not be represented on the Lean event team. It may take some lead time to get customer input, through interviews or surveys, so it can be helpful to plan for and collect this information in advance of the Lean event. It is useful to collect data in the metrics categories listed below, including measures of time, quality, and cost.

### *Performance Metrics*

Current state performance metrics establish the baseline by which to measure the outcome of a Lean event. While the specific metrics will differ from process to process, key metrics are typically identified in each of the following categories:

- *Time metrics.* What is the total lead time for the process (e.g., start-to-finish time for a permit application review)? How much of that time is value-added time? How long does it take to complete a full cycle or transaction within the process? What backlogs exist in the process?
- *Quality metrics.* How much rework is necessary? How often does the process lead to mistakes (e.g., incomplete forms) or compliance violations? How well are key parties able to understand and act on the information coming out of the process?
- *Cost metrics.* How much does the process cost to operate? What costs does the process incur to clients or stakeholder groups?
- *Customer perception metrics.* How do key stakeholders view the effectiveness and efficiency of the process? How frequently do customers complain about process? Metrics should be quantified both before and after a Lean event.

**COMMON LEAN METRICS**

- Number of process steps
- Number of handoffs
- Amount of backlog
- Total lead time
- Cycle time
- Percent value-added time
- Transaction volume in process (e.g., number of applications)
- Rework percentage (e.g., percent of permits needing rework)
- Voice of Customer or Voice of Employee survey results

**Resources**

- **Pre-event Data Collection Guide**

Consider these points when identifying key performance metrics:

- *Do not choose too many performance metrics.* One or two per category should suffice. Having too many metrics dilutes the focus of the event and can create unnecessary work.

- *Metrics may not be appropriate in all of the categories above.* Ask whether there is something important about the targeted process related to each category, and do not worry if the answer is “no.”

### **MEASURING ENVIRONMENTAL OUTCOMES**

In most cases, administrative processes targeted by Lean are well removed from having direct impacts on environmental outcomes. While it may be possible to claim that a Lean process enables an agency to more efficiently and effectively influence environmental outcomes, measuring the contributions from Lean events to environmental outcomes is often tenuous. Occasionally, however, the process targeted by a Lean event can have a more direct impact on environmental outcomes. In such cases, the team should consider whether it is appropriate to set a baseline environmental outcome measure. Ask the question: *How does the targeted process affect environmental outcomes?*

#### ***Pre-work***

In many cases, it may be helpful to assign responsibility for some “pre-work” before the Lean event. Pre-work can also include collecting data prior to the event that is needed to establish baseline metrics, and gathering background documents that are likely to be useful during the Lean event, such as existing process maps, procedures, or examples of process outputs (e.g., recurring reports). Also, if it is not possible or appropriate to collect sufficient data to establish baseline metrics prior to the event, this can be done during the Lean event.

#### **Select Participants and Determine Roles**

Thoughtful participant selection can ensure a successful and productive event, making it important to carefully select external stakeholders and agency staff participants. Team members are expected to attend the entire event and fully participate by providing input and ideas. Team members are also expected to complete assignments identified during the meeting or tasks that may be defined after the event. Here are some things to consider when selecting participants and determining roles:

- Ensure the team has cross-functional representation. The “thirds rule” provides a good guide for structuring the Lean team composition (see textbox).
- It is often helpful to have a representative from the agency’s information technology group, since most processes have some important relationship to agency databases or information systems. It may also be useful to consider whether representatives from other support functions, such as accounting, legal, or human resources would be helpful to involve.
- Participant selection can help secure buy-in from all levels of an agency for the process improvement efforts. Most importantly, you should include staff and managers on the

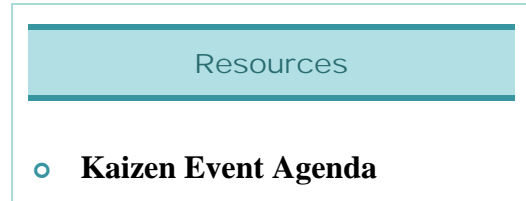
#### **THE “THIRDS RULE”**

The “thirds rule” provides a guide for structuring the Lean Team. Include:

- 1/3 of participants who work directly in the process
- 1/3 of participants who manage or supervise the process
- 1/3 of participants who have no knowledge of the process (e.g., external stakeholders, customers)

team that can continue implementation beyond the event itself. Consider involving informal as well as formal leaders on your Lean event team.

- Lean event teams are typically comprised of 12-18 members. However, some processes are extremely complex and it may take additional participants to get all the right players at the table. If additional participants are required, the largest size recommended is 20. Once the group size gets beyond the mid-twenties, it can become very challenging to manage, especially for the facilitator.
- If you cannot pare down your list of critical participants for an event below 20, another option to consider is to convene off-site meetings on specific topics, such as holding a meeting that deals exclusively with a specific aspect of the process that some participants may care most about, such as legal review. This approach is suggested for highly complex processes or issues.
- One strategy for getting more people into the room during a Lean event is to distinguish between observers and participants. Observers should be limited in number and should not outnumber team members as too many observers may cause team members to be uncomfortable or hesitant to express their viewpoints. While observers are welcome, it is critical to communicate that they are observers only.
- Team members are expected to shed all of their operational responsibilities during the course of the event, thereby allowing them to completely focus on the event. It is highly disruptive and disrespectful to the team if a senior manager is routinely taking calls, checking email, or leaving the room for other meetings. Ensure that each team member's responsibilities are delegated to other staff during the event and communicate the expectation that team members should not be doing other work during the event.
- If you are having trouble selecting team members, it may be useful to hold a pre-event meeting with a small group of staff to identify all the activities included in the event scope and which staff members are connected to these activities. In addition, the Lean facilitator can provide advice on how to select participants (e.g., qualities/characteristics to look for).



### ***Phase 3: Event Preparation and Logistics***

#### **Prepare the Event Agenda**

Prior to the Lean event, prepare an event agenda that clearly articulates the objectives and timing for the event. An effective agenda ensures that the objectives and goals of the event match the given timeframe. The Lean facilitator is typically responsible for preparing the agenda, or at least reviewing it prior to sharing it with participants. It is important to distribute the agenda to participants before the event.

#### **Arrange Logistics**

All events require a certain amount of logistical planning, such as selecting a date, reserving meeting space, re-distributing staff workloads, and securing meals during the event. Addressing

these logistical questions before the event helps to ensure smooth implementation and create a comfortable, stress-free environment for participants.

- *Schedule the event.* The typical duration for a kaizen or value stream mapping event is 3-5 days. Thus, it is important to consider these timeframes when scheduling a Lean event, as holidays or staff vacations could interfere with event timing. If you have opted to hire a Lean facilitator, keep the same scheduling considerations in mind.
- *Reserve sufficient meeting space.* During some Lean events, participants may need to break out into smaller groups for part of the event, so it is important to ensure that there is space and materials available for breakout sessions and the group as a whole. Furthermore, it may be helpful to reserve additional space for the initial training session and/or final report-out presentation.
- *Designate an event coordinator who will not be participating in the event.* When arranging the logistics, it can be useful to designate someone to coordinate event logistics, including securing the event space, arranging for meals, and purchasing supplies. It is often helpful to have someone tracking and managing these logistics who will not need to be actively involved as a participant.
- *Finalize logistics and schedules.* Logistical preparations such as setting aside space for the event team or meal orders and the finalization of the agenda should be addressed or completed prior to the event.
- *Send reminder e-mail.* It is helpful to send a reminder e-mail or calendar invitation to ensure that team members have the correct dates and times blocked on their calendars.

**Resources**

- **Lean Event Supplies List**
- **Lean Event Meal Coordinator Roles and Responsibilities**

### **Collect needed data and information**

Prior to the event, collect background materials and data about the current state of the process, based on the performance metrics and pre-work identified during the pre-event meeting.

## Communicate About the Event

Communicating proactively is critical to building organizational buy-in to process improvement efforts. Transparent communications, particularly with employees whose work may be affected by the Lean event is vital to ensuring success.

- *Schedule a briefing with senior management once the scope and objectives of the Lean event has been set.* Top management support is crucial for a successful Lean event, in part because it can affect budget and staff availability. It is also important for senior management to approve many of the aspects of a Lean event, including:
  - The process that will be addressed;
  - The decision to hire an external Lean facilitator;
  - The anticipated timeframe, products, and results; and
  - How the event will affect staff availability and workload.
- *Inform staff about the Lean event.* Notifying internal staff that a Lean event will occur provides transparency to the process and is a great opportunity to solicit feedback and ideas on event scope or “areas of pain” in the targeted process. Communications with staff should include information on the Lean event as well as background information on Lean methods and how the Lean event could affect staff. It may be helpful to directly address potential concerns that some employees may have about Lean or the focus of a particular event. For example, it may be helpful to clearly indicate that no staff will lose their jobs as a result of improvements made from the Lean effort. The Frequently Asked Questions about Lean resource referenced in the box above contains information that is often helpful to communicate to others in the organization.

### Resources

- **Frequently Asked Questions About Lean**

## Lean Event Implementation

This section addresses key activities and steps involved in conducting a successful Lean event, including the following:

**Lean Event Implementation Steps**

- ⇒ **Lean Event Overview**
- ⇒ **Kick off a Lean Event**
- ⇒ **Manage the Phases of a Lean Event**
- ⇒ **Manage Change During a Lean Event**
- ⇒ **Identify Follow-Up Action Items from the Event**
- ⇒ **Report Out at the End of the Event**
- ⇒ **Celebrate a Successful Event**

### *Lean Event Overview*

The diagrams below lay out the main phases of a kaizen event and VSM event. Kaizen and VSM events often take place over a 5 day period. They can be shorter, however, if the scope of the process being addressed is more limited. Some organizations conduct one-day “point kaizen” events that focus on a very specific area for improvement. All events follow the steps outlined below. Lean leaders highly discourage efforts to short cut the kaizen or VSM process, since much of the power of Lean lies in following the methods closely.

### **Kaizen Event Overview**

<b>Day 1</b>	<b>Day 2</b>	<b>Day 3</b>	<b>Day 4</b>	<b>Day 5</b>
<b>Training Day</b> Lean training; begin mapping and measuring current work process	<b>Discovery Day</b> Measure and analyze current work process	<b>Do Day</b> Create and map new process	<b>Do, Re-Do, Document Day</b> Evaluate improvements, operate using new process, finalize	<b>Celebration Day</b> Present results and celebrate

Some Lean facilitators describe the flow of a kaizen event as (1) measure, (2) analyze, (3) improve, (4) control, and (5) report and celebrate. While the terminology may vary slightly, the steps and flow of a kaizen event tends to vary little whether it is being applied to a manufacturing workshop or an office administrative environment.



## Value Stream Mapping Event Overview

Day 1	Day 2	Day 3	Day 4	Day 5
<p><b>Training Day</b></p> <p>Training on VSM tools and how to draw a VSM map</p>	<p><b>Current State</b></p> <p>Draw a map of the current-state and identify problems</p>	<p><b>Future State</b></p> <p>Map the shared vision of the new process</p>	<p><b>Planning</b></p> <p>Evaluate how to implement the future state map and create a plan</p>	<p><b>Celebration Day</b></p> <p>Present results and celebrate</p>

One of the main differences between a VSM event and a kaizen event is that a VSM event typically focuses at a higher level, mapping the entire chain of processes that create and “flow a stream of value” to a customer. While the general flow of a VSM event is relatively similar to that of a kaizen event, the VSM event is typically designed to develop a roadmap to guide future kaizen events that target specific areas where improvement is needed.

### The Detailed Event Agenda

In addition to the event agenda prepared prior to the Lean event (see section under Phase 1 above), it is also important to prepare a *team leader daily agenda*. This detailed agenda is essential for identifying the team leader’s responsibilities and actions throughout the event. This agenda also ensures that the flow between the main phases of a Lean event is smooth and that all activities are well executed.

Resources
<ul style="list-style-type: none"> <li>○ <b>Team Leader Daily Agenda</b></li> </ul>

### *Kick-Off a Lean Event*

Planning for the kick-off of your Lean event is essential for success. The kick-off session is typically introduced by the Lean event sponsor and the Lean team leader, and then handed off to the Lean facilitator. The kick-off session should include the following activities.

- *Introduce all team members and observers.* Ask each team member to briefly address a few key questions:
  - (1) Who are you and where do you work?
  - (2) What are your goals for this event?
  - (3) What do you like to do when you are not at work?
- *Capture team members’ goals on a flipchart and post them on the wall.* By understanding participants’ goals, it is often possible to create improvements in a form and manner that meet diverse needs.
- *Have the event sponsor say some opening words.* This can be helpful to clearly articulate the event scope and boundaries, while encouraging (or even inspiring) team members to work towards the desired outcomes and event goals.

- *Set ground rules for the event.* This helps ensure that all participants respect and hear all ideas and viewpoints expressed during the event. Ground rules also remind participants to keep an open mind and to “think outside of the box.” Ground rules are established during the pre-event meeting and are prominently posted for all participants to see. It is important to review the ground rules during the kick-off session. Sample ground rules are included in the adjacent resources box.
- *Briefly review key performance data and background materials that have been assembled.* This can help anchor the team around desired outcomes and key reasons for working creatively to improve the process.
- *Set a tone for having fun!* Team engagement is key to success. Make the event fun for everyone, including staff and support personnel. If the event facilitator and team leader are fully engaged and show enthusiasm, it will be contagious.

<b>EXAMPLE LEAN EVENT GROUND RULES</b>	
1.	Keep an open mind to change
2.	Maintain a positive attitude
3.	Never leave in silent disagreement
4.	Create a blameless environment
5.	Practice mutual respect everyday
6.	Treat others as you want to be treated
7.	One person—one voice, regardless of position or rank
8.	There is no such thing as a dumb question

## **Training**

Lean training is typically a core part of the first day of a Lean event. For many people this may be their first event and it is important that all participants be on the same page about how the Lean event will work. Think of this as just-in-time training—where participants learn about Lean immediately prior to implementation. Most organizations continue to have training as part of the kick-off for every Lean event, even if most or all team members have previously participated in a Lean event. Most organizations find that the just-in-time training provides invaluable reminders, gets everyone on the same page, and serves as a sort of icebreaker to get the team warmed up for several days of intensive activity.

## ***Manage the Phases of a Lean Event***

While much of the success of a Lean event rests on careful planning and preparation, managing the event phases is also a significant responsibility. During the Lean event it is easy for the process and participants to get off track. While your Lean facilitator will help keep discussions on track, it is important for the team leader to maintain the focus on the event’s objectives. A few tips include:

- *Develop and adjust the agenda daily and post it in a high traffic area for all participants to see.* The agenda should be accessible to all participants as a reminder of the day’s events.
- *Ensure that the team members understand Lean terms conceptually and in practice.* One of the underlying goals of an event is to identify waste or non-value added activity in a process. While some terminology can sound negative, waste in Lean terminology refers to anything that adds cost or time without adding value.

- *Promote and encourage creative, problem-solving.* It is critical to the success of Lean that the event foster creative thinking. Both kaizen and VSM events can be compared to navigating a river—the goal of both events is to create a process that is easy to navigate without sharp turns and obstacles, and to facilitate “smooth sailing.”
- *End each day at a reasonable hour.* Working late into the evening is not necessary and can hurt team morale. If the work is complete, don’t hesitate to end early. If longer hours are needed, all participants must agree to this schedule.
- *Assign homework during the event to track actions and the work completed.* Homework often includes ideas that participants did not have the time or resources to complete and can be used to track actions for event follow-up.

A few method-specific tips include:

- *When doing process mapping in a Lean event, don’t assume that the process works as it is intended to work.* Develop the current state map based on actual data and observations about how the process works in practice, even if that makes the map messy.
- *Ask “why” five times to identify the root causes of problems in a process or value stream.* This is a good way to identify waste and improvement opportunities. You may find that there no longer are good reasons why a process is implemented a certain way.

Resources

- **Lean Event Homework**

### ***Manage Change During a Lean Event***

Real change is difficult. There are often a thousand reasons to maintain the status quo. Yet it is vital to trust the insights and ideas that emerge during the Lean event. Lean methods are specifically designed to help people see processes in a new light, making it painfully clear where improvement is needed and opening paths for change that were not previously evident.

Diverse emotions are often stirred when individuals involved in the targeted process watch the Lean team rip into the work they do on a daily basis and highlight large amounts of non-value added activity. Be sensitive to this, remembering that the focus is on the process, not on the performance or accomplishments of individuals. The team goal is to forge a process that increases all participants’ ability to add value and to perform meaningful work. Note that these emotions can be magnified for those who are involved in the targeted process but who may not be participating on the Lean team. Give some thought to how to best reach out during and after the Lean event to others whose jobs may be directly affected by changes made during the event.

A few tips include:

- *Brainstorm new ways to eliminate waste and/or to re-conceptualize a process or an entire value stream.* Stay innovative. Don’t be limited by what has been tried before.
- *Be flexible and willing to try new things.* Keep testing new ideas during kaizen events but avoid the paralysis of over-analysis. Create value stream maps using sticky notes on

white boards or butcher paper, so that they can be easily adjusted during the event. Expect to revisit and revise “future state” implementation plans.

- *Test improvement ideas as much as possible in an event before changing the layout or order of a process.* Afterwards, implement the new plan. Lean encourages testing new improvement ideas and utilizing creative thinking. In VSM events, it is common to develop several iterations of your future process map before settling on one that the team agrees on.
- *Communicate with management.* Immediate supervisors should to be kept informed about changes to the process. One way to do this is to hold a 15 to 20 minute daily briefing for the event sponsor and other key managers and supervisors each afternoon of the event. These brief meetings can help ensure management buy-in and tap help in removing any obstacles the team may be facing.
- *Hold trainings for staff about process changes and future plans.* Explain to workers not involved in the event how the new process will make their jobs easier and more rewarding. Let them know how to get involved in future process improvement efforts.

**Resources**

- **Report-Out Summary**
- **Event Report-Out Presentation**
- **Event Evaluation Form**

### ***Identify Follow-up Action Items from the Event***

While conducting your Lean event, you may discover other areas or processes that would benefit from Lean. While common, it is important to maintain the group’s concentration on the focus of the current Lean event. *For tracking purposes, make note of these opportunity areas for future projects.* On the final day of the event document action items your team was not able to complete in the event and assign responsibilities and due dates.

### ***Report Out at the End of the Event***

Participants give a report-out presentation at the end of the Lean event. The event sponsor and other senior managers who did not participate in the Lean event often attend the report-out presentation. The report-out serves as a forum for exchanging ideas and informing others of the team’s accomplishments. Generally, the presentation includes an overview of the event objectives, activities, and results. A few tips include:

- Assign individual team members with presenting part of the presentation. It is helpful to involve all team members if possible.
- Conduct a “dry run” presentation so team members are comfortable with their roles.
- Focus on the highlights of participants’ experience rather than presenting a verbatim recap of the entire event.
- Keep the presentation to less than 45 minutes, leaving approximately 10 minutes for questions and comments by the audience.

- Hand-out an event evaluation form prior to the presentation. This allows participants to share their experiences confidentially and can be used to identify possible process candidates for future Lean events.

### ***Celebrate a Successful Event***

Upon completing the Lean event, it is important to celebrate the achievements and hard work of the event. An event celebration is a great way to extend thanks to participants, planners, and managers, and to recognize the team's contributions.

- Coordinate with the event sponsor or staff support to plan the celebration.
- Consider providing each team member with a certificate or a small token of appreciation to commemorate the event.
- Take a team photo and make copies for all team members.
- Consider sharing the results of the event through an agency newsletter, a posting on a bulletin board, or in a press release. (See additional ideas in the next section).
- Give credit to support personnel, other staff in the area, and the team members for making the gains possible.

## Lean Event Follow Up

Now that you have completed your Lean event, there are a number of follow-up actions that should be considered in the days and months following implementation.

- ⇒ **Track Event Actions**
- ⇒ **Evaluate Performance**
- ⇒ **Communicate Internally and Externally**

### *Track Event Actions*

Follow-up is necessary to reap the full benefit of your Lean event. One of the most important products of a value stream mapping event is the future state implementation plan, yet that only delivers value to the extent it results in future process improvements. In addition, while kaizen events encourage implementation of many process changes during the event, there is often a list of follow-up actions that the team was not able to make during the event.

Action items should be clearly documented and tracked carefully to ensure completion by target dates. In particular, make sure there is a person and deadline associated with each action item. Lean's continual improvement focus means that process changes are never really done—continue to monitor the performance of the process over time, and be on the lookout for countermeasures needed to address problems as well as additional process improvement opportunities.

When tracking actions and results, keep in mind the following tips:

- *Track follow-up actions in a centralized place.* Consider using 30- and 60-day lean event follow up templates provided in the Starter Kit.
- *Dedicate staff time and assign clear responsibility for each action.* The team leader or event sponsor should be assigned responsibility for periodically checking to ensure that open actions are being addressed and closed.
- *Create a schedule for reviewing follow-through.* Most organizations conduct 30-, 60-, and 90-day and 6-month and 12-month event follow-up meetings. These meetings ensure that actions are effectively tracked and serve as an opportunity to evaluate the event's success, identify countermeasures to adjust aspects of the new process that may not be working as desired, and remove barriers that may be preventing individuals from completing their follow-up actions.

Resources

- **30-Day Lean Event Follow Up**

Resources

- **60-Day Lean Event Follow-up**

## ***Evaluate Performance***

Regularly evaluating performance and analyzing results is a critical component of Lean. It is important to both evaluate performance based on the key metrics identified during the pre-event meeting and to track the extent to which the event achieved the goals and objectives set for the event.

- *Use the event objectives as targets for monitoring the performance of the process.* Referring back to the team charter and other early documents can help ground the results. It also may be useful to identify milestones that represent interim steps to reaching the final performance objectives.
- *Consider using visual displays or dashboards to show progress towards the performance objectives and to motivate additional improvement efforts.* Visual displays can be powerful communication and motivational tools.
- *Consider adjusting key performance metrics to ensure that you have a clear dashboard to monitor the future performance of the process.* For example, in VSM events, you should rely on the initial metrics identified in the current-map and future-maps as indicators of success. Having a few good measures can help identify potential backsliding and spur action to sustain momentum for improvement. This information can also help identify appropriate timing for a follow-up Lean event, if warranted.

## ***Communicate Internally and Externally***

Broadly communicating your agency's results and experiences implementing Lean is often important for both securing internal agency and external stakeholder buy-in and for promoting broader diffusion of Lean within your agency. Establishing a communication plan related to the Lean event can help ensure that your agency proactively addresses any potential public and private-sector concerns that may arise around process changes. Common communication activities include:

- Send thank-you letters to all internal and external participants.
- Present event results at a department or division meeting or retreat.
- Post results on bulletin boards or "exhibit areas" in the agency lobby or common spaces.
- Acknowledge Lean event results or activity at an agency award ceremony.
- Write an article in your agency's internal or public newsletter that outlines your Lean implementation experience.
- Post the results on the agency's intranet or internet website.
- Reach out to your customers and key stakeholders to identify any changes to the process that affects their involvement.

Communication materials should include the following information:

- Brief description of the *process* and the *problem* (what was not working well)
- Basic information on the event (what, when, who)

- Key performance results related to time, quality/effectiveness, cost, customer satisfaction, and other outcomes
- Key differences between the old process and the new process (what has changed or will change? What types of improvements were made?)
- Brief statements on the significance of the improvements
- Outline of future improvement plans



# Chapter 4. Sustaining and Diffusing Lean Activity

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Doing one (or a few) Lean improvement events at an environmental agency can be an eye-opening and exciting experience. Observing rapid and dramatic improvements in an agency process can offer glimpses into what is possible to accomplish—even in a large government bureaucracy. Yet after the first few Lean events, the inevitable questions arise:

- ⇒ **What does Lean mean for our agency for the long term?**
- ⇒ **How can we sustain and diffuse the successes of our initial Lean activity?**

Responses to these questions can range significantly, from “we are done with Lean” to “let each part of the agency pursue use of Lean on its own” to “we are going to incorporate Lean into how our agency does its business.” Each agency must decide whether it sees sufficient value to continue using Lean. If the agency decides to continue with Lean, then it must decide how. There is no right answer to this question, but failure to strategically consider it can be disastrous. At best, failure to think strategically about sustaining and diffusing Lean activity will increase the cost of capacity building, Lean training and facilitation, and Lean tool development. Far worse, one or two poorly planned and executed Lean events can sour the agency on Lean and undo past progress. Furthermore, given the frequency of changes in agency leadership, initiatives that are not well-planned or entrenched in the agency can be vulnerable to elimination.

This chapter is designed to help you think strategically about how your agency can sustain and diffuse Lean continual improvement activity. The topics covered in this chapter include:

- Sustaining Lean Improvements
- Understanding the Lean Journey
- Getting Started with Lean Diffusion
- Four Deployment Models for Lean Diffusion
- Future Directions—Building a Lean Continual Improvement Agency

## Sustaining Lean Improvements

While Lean methods can be used for one-time, one-shot improvement efforts, the real value of Lean lies in its focus on continual improvement. Follow-up from Lean events is critical to sustaining success and preventing back-sliding in process execution and performance. Three activities are vital for sustaining Lean improvements: champion event follow-up, revisit processes with future Lean events, and cultivate employee ownership of process improvement.

### ***Champion Event Follow-up***

The event follow-up activities discussed in Chapter 3 directly prevent back-sliding by focusing attention on open action items and challenges that may have arisen after the Lean event. Someone with sufficient authority must champion the event follow-up and hold team members accountable for closing out action items. The brief 30-, 60-, and 90-day follow-up meetings, coupled with check-ins after 6 and 12 months, are worthwhile investments to ensure that the results from the Lean event are sustained and enhanced.

### ***Revisit Processes with Future Lean Events***

Lean is not a one-time event. Significant improvements can result from conducting periodic improvement events on a process every one to five years or more frequently. World-class Lean organizations are often amazed at the magnitude of process improvement results that can be achieved when targeted by multiple times over a few years. Fresh thinking and perspectives often unleash time, quality, and cost improvement ideas that could not have been imagined during the first Lean event.

### ***Cultivate Employee Ownership of Process Improvement***

Empower employees involved in a process to become active stewards of the process. By actively engaging those involved in a process to “own” its activities and performance, it is possible to identify and address improvement opportunities “on the fly.” Managers should routinely ask employees for their improvement ideas and process “malfunctions” should be examined for lessons and improvement options. Consider developing formal or informal systems for collecting improvement suggestions from employees (such as idea boards) and recognizing employees for their suggestions and initiatives.

## **Understanding the Lean Journey**

Achieving the desired deployment model does not happen overnight. Lean organizations describe their efforts as a “journey,” consisting of various phases of Lean activity and culture change. The figure below describes three key stages that typically occur as an organization matures in its use of Lean: improving, optimizing and transforming.

# The Lean Journey



The road is not always smooth and many organizations implementing Lean report an elevated risk of failure between 6 and 18 months into their Lean journey. This often occurs due to a lack strategic focus to the Lean activities, a lack of management passion and commitment to successful Lean implementation, and a lack of staff time and money devoted to support the journey. During this period, initial excitement and momentum from the first few Lean events can subside, especially without active leadership or a clear plan for continuing and diffusing Lean activity.

## Getting Started with Lean Diffusion

While a hands-off, grassroots approach to Lean may be appealing in some agencies, some cross-agency coordination and planning is invaluable for effective Lean implementation. Lean leaders in the public and private sectors have found ways to expand Lean activity at a lower cost and with better consistency and results. There are six important steps for diffusing Lean within an agency.

## Lean Diffusion Steps

- 1. Implement Lean in several areas and share results**
- 2. Send clear and consistent supportive messages from agency leadership**
- 3. Establish an agency Lean coordinator**
- 4. Build a core Lean team and expand staff capacity through cross-training**
- 5. Develop a consistent approach and tools for implementing Lean**
- 6. Keep at Lean to sustain momentum, but do not push too hard too fast**

### *1. Implement Lean in several areas and share results*

The best way to sustain and expand Lean activity is to achieve results and to share them throughout the agency. Identify several departments or programs in the larger agency that may be good places to conduct Lean events and to build staff experience with Lean. Conducting “one-off” events throughout an agency can yield good improvement results and expose many personnel to Lean, but this approach will not necessarily build centers of Lean experience that are sufficient to sustain organizational interest and attention and to champion Lean activity.

After your first Lean event, consider these four factors when selecting areas for Lean activity:

- One or more processes in the area have significant improvement needs and/or opportunities for impressive results
- Managers and/or key personnel in the area are highly receptive to using Lean
- Managers and/or key personnel in the area are well respected throughout the agency and could become an effective champion and/or advocate for Lean within the agency
- Personnel in the area have previous experience using Lean methods

Share the results of these events and let them speak for themselves. Prepare a brief, attractive presentation that shares key information on Lean events conducted throughout the agency. Involve key personnel from other departments and divisions in pilot Lean events to help introduce key personnel and “idea leaders” within the agency to Lean. Chapter 3 discusses additional information sharing ideas.

### *2. Send clear and consistent supportive messages from agency leadership*

Strong support from agency leaders is critical to effective diffusion of Lean. Without the personal and visible support of senior managers, the effectiveness of Lean efforts can be undermined. Effective Lean implementation requires sustained attention and resources, along with an openness to change. Leadership commitment is crucial to ensuring that the agency will back and support the work of Lean practitioners.

## SUCCESS FACTORS FOR LEAN LEADERSHIP

### **Create a clear and compelling case for change.**

- Communicate continually with internal and external constituents
- Address employees' questions about "what's in it for me?"
- Define success – and celebrate success when it occurs

### **Build the infrastructure for change.**

- Align rewards and compensation
- Clear obstacles to change and improvement as they arise
- Identify and nurture leaders who emerge during Lean implementation

### **Establish metrics and reinforce accountability.**

- Expect follow-through and track open actions
- Encourage the use of visual management approaches to share results

### ***3. Establish an agency Lean coordinator***

Once your agency has committed to implementing multiple Lean events, it is critical to identify an agency Lean coordinator to keep track of Lean activity throughout the agency. An agency Lean coordinator can help prevent unnecessary rework by linking those interested in using Lean with potential consultants or event facilitators, training resources, and helpful information. An agency Lean coordinator can also track the use of Lean across other environmental agencies.

#### Resources

- **Lean Coordinator Job Description**

### ***4. Build a core Lean team and expand staff capacity through cross-training***

Begin to build Lean expertise in your organization by having a few employees who participate in multiple Lean events across your agency (or at other public agencies). The best way to learn about Lean and become skilled as a Lean practitioner is by participating in Lean events. While training courses can be interesting, they are no substitute for time spent in Lean events, even if the events are focused on processes different than those an individual works on.

### ***5. Develop a consistent approach and tools for implementing Lean***

Avoid having each office or department reinventing its own Lean tools and resources. This Starter Kit provides numerous templates that can be adapted to meet your agency's needs. Be consistent and adapt them to work for your agency. Also consider employing a common approach for selecting and contracting with a Lean facilitator. This can be an important way to ensure that every project uses a common approach to Lean, and that the transaction costs of retaining a Lean consultant are minimized.

**6. Keep at it to sustain momentum, but do not push too hard too fast**

Successful Lean implementation requires a lot of hard work, but the results are often well worth the effort. Consider holding at least three to four Lean events per year at your agency to sustain interest and momentum. As an agency gains experience with Lean, a good rule of thumb is to hold at least one kaizen event per month per 100 employees. While it is not uncommon for leading Lean organizations in the public and private sector to run numerous Lean events each year, remember to pace yourself. Moving too aggressively with Lean implementation when the agency is not ready can quickly turn people off and make it seem like too much attention has shifted to improvement efforts, at the expense of the agency’s core mission.

**Four Deployment Models for Lean Diffusion**

Once an agency decides to expand its use of Lean, the challenge shifts to how to do this most effectively and efficiently. There are four main models for deploying Lean in an organization:

- Agency-wide (traditional model)
- Department/Division level (scalable model)
- Targeted (problem-solving model)
- Grass roots (bottom-up model)

Resources

- **Lean Deployment Presentation**

<b>LEAN DEPLOYMENT MODELS</b>		
<p><b>Agency-Wide Model</b> (traditional Lean model)</p>	<p><i>Characteristics:</i></p> <ul style="list-style-type: none"> <li>⇒ Top down driven</li> <li>⇒ Comprehensive</li> <li>⇒ Major culture change</li> <li>⇒ Rapid, highly visible deployment</li> </ul>	<p><i>Deployment Considerations:</i></p> <ul style="list-style-type: none"> <li>⇒ Solid leadership from the top management is essential</li> <li>⇒ Large infrastructure and full-time staff</li> <li>⇒ Significant planning and management</li> <li>⇒ Integration with other management systems</li> <li>⇒ Need for common language and problem-solving methodology</li> <li>⇒ Need to address cross-functional processes</li> <li>⇒ 5+ years to achieve lasting culture change</li> </ul>
<p><b>Department/Division Model</b> (scalable model)</p>	<p><i>Characteristics:</i></p> <ul style="list-style-type: none"> <li>⇒ Department leadership but agency management support</li> <li>⇒ Department pilot for agency</li> <li>⇒ Comprehensive at the department level</li> <li>⇒ Culture change</li> </ul>	<p><i>Deployment Considerations:</i></p> <ul style="list-style-type: none"> <li>⇒ Easier to start due to smaller scale</li> <li>⇒ Slower pace is possible; scale up after initial success</li> <li>⇒ Greater use of consultants and outside training</li> <li>⇒ Less integration with management systems</li> <li>⇒ Similar to agency-wide model but on a smaller scale</li> <li>⇒ Risk of not getting beyond the department level</li> </ul>

<b>LEAN DEPLOYMENT MODELS</b>		
<p><b>Targeted Model</b> (problem-solving model)</p>	<p><i>Characteristics:</i></p> <ul style="list-style-type: none"> <li>⇒ Top management leadership</li> <li>⇒ Focused on a few specific agency problems</li> <li>⇒ Driven by a desire for strategic impact</li> <li>⇒ Culture change is not a deployment objective</li> </ul>	<p><i>Deployment Considerations:</i></p> <ul style="list-style-type: none"> <li>⇒ Easy to get started</li> <li>⇒ Can work in smaller agencies</li> <li>⇒ Quick results because problems are identified ahead of time</li> <li>⇒ Infrastructure needs are small; use contracted resources</li> <li>⇒ Risk of not sustaining the gains</li> </ul>
<p><b>Grass Roots Model</b> (bottom-up model)</p>	<p><i>Characteristics:</i></p> <ul style="list-style-type: none"> <li>⇒ Originates at the bottom of the agency</li> <li>⇒ Highly motivated individuals lead the effort</li> <li>⇒ Project or problem specific</li> <li>⇒ Culture change is not an objective</li> </ul>	<p><i>Deployment Considerations:</i></p> <ul style="list-style-type: none"> <li>⇒ Easy to do</li> <li>⇒ Track record for sustainable improvement is not good</li> <li>⇒ Few if any infrastructure needs</li> <li>⇒ Big success can lead to using other deployment models</li> </ul>

Most world-class organizations in the public and private sectors have found that having a guiding vision and clear goals is critical for effective change management. Long-term agency goals should drive which model is selected. Key goals to consider include: organizational culture and transformation, strategic improvement, problem-solving, cost reduction, and image. When selecting a model for diffusion, careful thought should be given to three factors: desired impact, implementation scale, and organizational readiness (see table below).

<b>DIFFUSION MODEL SELECTION FACTORS</b>		
<p><b>Desired Impact</b></p> <ul style="list-style-type: none"> <li>⇒ <i>Business Transformation</i> <ul style="list-style-type: none"> <li>▪ Agency-wide deployment</li> <li>▪ Major culture change</li> </ul> </li> <li>⇒ <i>Strategic Improvement</i> <ul style="list-style-type: none"> <li>▪ Targeted deployment on critical problems</li> <li>▪ Projects necessary for success or survival</li> </ul> </li> <li>⇒ <i>Problem-solving</i> <ul style="list-style-type: none"> <li>▪ Specific operational problems</li> <li>▪ Incremental improvements in agency performance</li> </ul> </li> </ul>	<p><b>Implementation Scale</b></p> <ul style="list-style-type: none"> <li>⇒ Entire agency</li> <li>⇒ Department/division</li> <li>⇒ Project/Section/Team</li> </ul>	<p><b>Organizational Readiness</b></p> <ul style="list-style-type: none"> <li>⇒ Culture</li> <li>⇒ Past process experience</li> <li>⇒ Management team</li> <li>⇒ Stability</li> </ul>

There is no one “right” Lean deployment model. Select a deployment model and adapt it to best fit your agency’s situation.

## Future Directions—Building a Lean Continual Improvement Agency

The experiences of world-class companies show us that Lean can be much more than a process improvement tool to be occasionally used when a process seems broken. There are several exciting directions that environmental agencies implementing Lean may want to consider to get even more value from Lean.

### ***Develop New Programs, Regulations, and Initiatives Using Lean***

While improving existing processes is important, environmental agencies can realize significant value by designing new programs and processes to be efficient and effective from the start. Methods such as Design for Lean Six Sigma and Production Preparation Process (3P) offer powerful approaches and tools for designing new processes to be highly effective and efficient. These methods can also be used to design or redesign products and “service products.”

### ***Improve and Manage Agency Value Streams***

Most world-class Lean organizations are working to identify and manage their key value streams—the full chain of processes and activities that deliver value to customers or stakeholders. For an environmental agency, this means looking at the key services the agency provides to society and to key constituents and working to optimize these flows of value. This may open opportunities for considering more holistic approaches to environmental management that get around traditional air, water, and waste silos. For example, an agency could look collectively at how it delivers all environmental protection services (permitting for air, wastewater, and hazardous waste impacts, as well as technical assistance with pollution prevention and sustainability initiatives) to businesses seeking to locate in the state, rather than focusing on optimizing just air permitting or another specific part of that value stream.

Lean approaches offer some useful lessons in how to effectively plan, organize, and manage enterprises to optimize their chosen value streams. Such lessons may open up exciting possibilities for environmental agencies.

### ***Link Lean Improvement Events to Agency Mission and Strategy***

World-class Lean organizations are increasingly linking their improvement activities to their organization’s strategic visioning, planning, and goal-setting processes. A powerful method known as “policy deployment” (also known as *hoshin kanri*, *hoshin* planning, and strategy deployment) elegantly links the strategic goals of an organization with a cascade of increasingly specific programs and activities that support those goals. Policy deployment has a 12-18 month focus, taking longer-term strategic planning goals and objectives and honing in on what needs to be accomplished in the coming year.



The visual presentation of this highly interactive planning process incorporates key performance measures and assigns specific responsibilities for achieving the goals to individuals at all levels of the organization. This creates a powerful means for connecting Lean initiatives with an organization's mission and strategy. The end result is a living, dynamic strategic planning process that is intrinsically linked to the activities and improvement efforts that are planned and executed in the organization.

## Concluding Thoughts

While the Lean journey takes hard work and perseverance, the power of harnessing the hearts and minds of employees for achieving excellence can be transformative. World-class Lean organizations find that freeing employees to focus more time on value-added mission-critical work dramatically improves performance outcomes, customer and stakeholder satisfaction, and employee morale. The Lean journey can lead to satisfied constituents, empowered and engaged employees, passionate leaders, and better environmental quality. Best wishes for a productive and successful Lean effort.



# Appendix A. Bibliography of Lean References

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## Resources on Lean for Office and Administrative Processes

### *Articles, Reports, and Presentations*

U.S. Environmental Protection Agency and the Environmental Council of the States (ECOS). *Working Smart for Environmental Protection: Improving State Agency Processes with Lean and Six Sigma*. Lean in Government Series, Volume I. September 2006. [www.epa.gov/lean/primer.pdf](http://www.epa.gov/lean/primer.pdf).

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Maleyeff, John. *Improving Service Delivery in Government with Lean and Six Sigma*. Strategy and Transformation Series, IBM Center for the Business of Government. [www.businessofgovernment.org/pdfs/MaleyeffReport.pdf](http://www.businessofgovernment.org/pdfs/MaleyeffReport.pdf).

### *Books*

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Womack, James P. and Daniel T. Jones. *Lean Solutions: How Companies and Customers Can Create Value and Wealth Together*. New York: Free Press, 2005.

---. *Lean Thinking: Banish Waste and Create Wealth in Your Corporation*. New York: Simon & Schuster, 1996.

### **Websites**

Environmental Council of the States (ECOS), [www.ecos.org](http://www.ecos.org). (ECOS is an organization that supports strategic initiatives for state environmental agencies.)

U.S. Environmental Protection Agency, Lean and Environment website, [www.epa.gov/lean](http://www.epa.gov/lean). (This is an EPA website providing resources and information on Lean and the environment for the private and public sector.)

State of Iowa, Office of Lean Enterprise website, <http://lean.iowa.gov>. (This website provides background information on Lean concepts and tools, a series of downloadable resources for Lean events, and information about Iowa agency Lean efforts.)

Lean Enterprise Institute, [www.lean.org](http://www.lean.org). (LEI is a non-profit research and training organization focused on value stream mapping and Lean principles.)

National Institute of Standards and Technology, Manufacturing Extension Partnership, [www.mep.nist.gov](http://www.mep.nist.gov). (NIST MEP centers are non-profit Lean technical assistance providers.)

Productivity Press, [www.productivitypress.com](http://www.productivitypress.com). (Productivity Press is a private Lean publishing company.)

## Appendix B. Resources

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This appendix includes practical tools and resources for (1) how to get started with Lean, (2) how to implement and manage the phases of a Lean event, and (3) how to sustain and diffuse Lean activity across an agency. A summary description of each resource is below. The resources are organized according to the chapter and section in which the Starter Kit references them. *All of the resources are available for download from EPA's Lean and Environment website, [www.epa.gov/lean](http://www.epa.gov/lean).*

### Starter Kit Resources

#### ***Chapter 2: Tools and Resources for Getting Started with Lean***

- Lean Overview Presentation
- State Lean Inventory

#### ***Chapter 3: Tools and Resources for Lean Event Planning***

- Event Preparation Checklist
- Lean Facilitator Request for Proposal
- Pre-Screening Application for Value Stream Mapping Events
- Lean Event Sponsor Contract
- Pre-event Meeting Agenda
- Team Charter
- Example Team Charter
- Pre-event Data Collection Guide
- Kaizen Event Agenda
- Lean Event Supplies List
- Lean Event Meal Coordinator Roles and Responsibilities
- Frequently Asked Questions about Lean

#### ***Chapter 3: Tools and Resources for Lean Event Implementation***

- Team Leader Daily Agenda
- Lean Event Homework
- Report-out Summary
- Event Report-out Presentation
- Event Evaluation Form

#### ***Chapter 3: Tools and Resources for Event Follow-up***

- 30-Day Lean Event Follow-up
- 60-Day Lean Event Follow-up

*Chapter 4: Tools and Resources for Sustaining and Diffusing Lean Activity*

Lean Coordinator Job Description

Lean Deployment Presentation

## Chapter 2: Tools and Resources for Getting Started with Lean

1. **Lean Overview Presentation.** *This presentation introduces senior agency management to Lean principles, methods, and key success criteria, and offers example results from past agency improvement efforts.*
2. **State Lean Inventory.** *This inventory summarizes Lean implementation efforts at state environmental agencies. It can be used with managers and staff to provide context for your agency's Lean initiative.*

## Chapter 3: Tools and Resources for Lean Event Planning

1. **Event Preparation Checklist.** *This event preparation checklist provides a summary of key actions needed across the phases of Lean event planning and implementation.*
2. **Lean Facilitator Request for Proposal.** *This sample request for proposal describes potential qualifications to look for in a Lean facilitator and how to rank candidates.*
3. **Pre-Screening Application for Value Stream Mapping Events.** *Once an agency has conducted its first Lean event, it is helpful to have a standard form for evaluating and prioritizing potential future events. This application outlines questions for agency managers and staff to answer about potential value stream mapping projects.*
4. **Lean Event Sponsor Contract.** *This contract is signed by the team sponsor and team leader to ensure that the sponsor understands the event's focus and the critical role that the sponsor plays.*
5. **Pre-event Meeting Agenda.** *This agenda includes a set of objectives and guiding questions to discuss with the event team during the pre-event meeting.*
6. **Team Charter.** *This team charter allows an agency to articulate the scope, goals, and objectives of the event, along with follow-up dates to ensure that the process will move forward after the event.*
7. **Example Team Charter.** *This is an example of a completed team charter.*
8. **Pre-event Data Collection Guide.** *This guide outlines critical steps and questions associated with gathering baseline or "current state" data before a Lean event.*
9. **Kaizen Event Agenda.** *This kaizen event agenda provides an example of time allocation over a five-day kaizen event. The agenda is a high-level guide and can be easily modified to be more event-specific.*
10. **Lean Event Supplies List.** *This supplies list includes materials frequently used at Lean events. To help ensure smooth event functioning, come prepared with the right supplies on hand.*
11. **Lean Event Meal Coordinator Roles and Responsibilities.** *This checklist provides a chronological guide for making food and logistical arrangements for a Lean event. While food and logistics preparation may seem like minor roles, they ensure that an event functions smoothly and allows participants to focus on the process.*

- 12. Frequently Asked Questions about Lean.** *This sample Question and Answer document answers many of the key questions that get raised about Lean events. The document can be distributed to agency staff prior to an event.*

### Chapter 3: Tools and Resources for Lean Event Implementation

- 1. Team Leader Daily Agenda.** *This detailed agenda outlines specific roles and responsibilities of a team leader over a five-day Lean event.*
- 2. Lean Event Homework.** *This homework sheet is a useful way to track action items and assignments identified during a Lean event.*
- 3. Report-Out Summary.** *The event report-out summary is a one-page “snapshot” of the event results. The summary includes the event scope, objectives, goals, a tabular representation of improvements, and a list of actions implemented.*
- 4. Event Report-Out Presentation.** *This presentation provides an example of the type of information shared in a Lean event report-out presentation.*
- 5. Event Evaluation Form.** *This form is used to evaluate and solicit feedback from event participants. It is important to listen to participant’s perspectives since their responses can inform the success of future events.*

### Chapter 3: Tools and Resources for Event Follow-up

- 1. 30-Day Lean Event Follow-up.** *This tracking sheet is a useful way to track action items assigned during the event report-out. The sheet identifies who is responsible for completing an action item and when the item is due.*
- 2. 60-Day Lean Event Follow-up.** *This tracking sheet is a useful way to track action items assigned during the event and subsequent check-ins. The sheet identifies who is responsible for completing an action item and when the item is due.*

### Chapter 4: Tools and Resources for Sustaining and Diffusing Lean Activity

- 1. Lean Coordinator Job Description.** *This job description outlines the roles and responsibilities of an agency Lean coordinator; it can be used by agencies interested in expanding their Lean efforts.*
- 2. Lean Deployment Presentation.** *This presentation outlines several options as well as key considerations for broader agency Lean deployment.*



# Event Preparation Checklist

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## Planning

- ❑ Scope of event
- ❑ High level process steps
- ❑ Data available (time, quantity, frequency)
- ❑ Budget (cost center)
- ❑ Potential internal and external team members
- ❑ Identify support staff (refer to support staff role)
- ❑ Identify communication staff (prints team certificate, communicates with other employees)
- ❑ Identify staff with Microsoft Visio software (installed on laptop)
- ❑ Reserve room for pre-event, event, and report-out presentation
- ❑ Reserve laptop, projector and speakers
- ❑ Send invitation/email to team members about pre-event and event date, time, and location

## Pre-event Meeting

- ❑ Setup room
- ❑ Setup projector and laptop (for Lean overview)
- ❑ Setup 1 easel stand and pad, provide easel markers
- ❑ Develop scope, goals, and objectives for event
- ❑ Identify pre-work
- ❑ Finalize team member selection
- ❑ Identify sub-team leader
- ❑ Finalize team members meal selection

## Before Event

- ❑ Order meals, snacks and drinks
- ❑ Order supplies (refer to supplies List)
- ❑ Print/order training manuals
- ❑ Prepare folder and nametag (include training manual, agenda, scope, goals, and objective)
- ❑ Invite management to daily report (e.g., Tuesday and Wednesday from 4:00 to 4:30 p.m.)
- ❑ Invite interested parties and employees to report-out (e.g., Friday from 10:00 to 11:00 a.m.)

## Event

- ❑ Setup room and layout folders and nametag
- ❑ Setup projector, laptop and speakers
- ❑ Setup 2 easel stands and pads, provide easel markers
- ❑ Event supplies available in the room
- ❑ Provide meals, snacks, and drinks
- ❑ Take team picture on Tuesday morning (for team certificate)
- ❑ Setup room with 2-3 computer/laptop on Wednesday and Thursday (connected to network for accessing files if possible)
- ❑ Print and distribute team certificate on Friday
- ❑ Communicate with other staff via website or email on progress of team

## After Event

- ❑ Email team member report-out presentation and other relevant files to event participants
- ❑ Fill out travel payment form
- ❑ Send thank-you letters to team members
- ❑ Setup 30-day follow-up date, time, and location
- ❑ Develop communication plan (e.g. update website with event results, inform stakeholder groups)

# Lean Facilitator Request for Proposal

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Please describe in detail how you will meet each requirement. The successful Vendor will work the [insert Agency name] (the Agency) to facilitate the expansion of lean process improvement methodology in executive branch agencies. Such services shall include, but are not limited to, the following:

- A. Lead department Kaizen events, Design for Lean Six Sigma events, value stream mapping events, conduct 5S training and audits, and consult with the Agency on other relevant Lean tools and methodologies. While serving as the lead consultant, the service provider will also coach and mentor state employees, serving in the capacity of team lead, to build the Agency's capacity to successfully lead Lean events.
- B. Meet with Agency leadership to identify potential Lean projects. Conduct pre-work events that result in the identification of project scope, objectives, goals and data compilation. The consultant will also guide the Agency in team member selection for participation in Lean events.
- C. Provide follow-up services, on an as needed basis, to ensure sustainability of Lean process improvement efforts.
- D. Work with department leadership to implement policy deployment so that Agency improvement efforts are linked to strategic goals.

If a Vendor's proposal does not meet the required services, the proposal will be rejected.

## 3.2 QUALIFICATIONS AND INFORMATION

Vendors should offer detailed answers to the questions in this section.

- A. Please describe your experience facilitating and consulting on Lean in a public sector organization.
- B. Please describe the methodology used to implement Lean in an organization. Please outline basic methodology as well as tools.
- C. Please describe in detail any additional services that you believe would assist the Agency in this project. The benefit that is provided to the Agency should be specifically addressed.

## 3.5 VENDOR INFORMATION

The following information is required of prospective Vendors and will be used to evaluate their qualifications:

- A. Name of Vendor
- B. Form of business entity (e.g. corporation, partnership, etc.).
- C. State of incorporation (if a corporation).
- D. Home office address and telephone number.
- E. List of branch locations.
- F. Provide a description of your background, organizational history, size and years in business.
- G. Specialized services, if any, and years of experience in each such area.
- H. Minimum of three (3) business references from companies or government agencies that use services within the scope of this RFP.

#### 4.4 SELECTION PROCESS

##### B. Evaluation criteria and assigned point values:

• Credentials and Qualifications	<i>35 points</i>
▪ Demonstration of vendor’s qualifications and expertise	
▪ Number of years experience in providing service sought by RFP	
▪ Level of experience providing types of services sought in RFP in a public sector organization	
▪ List of services similar to those sought by RFP that vendor has provided to other organizations.	
• Proposal Meets Mandatory Requirements	<i>35 points</i>
• References	<i>10 points</i>
• Completeness and Organization of Bid	<i>10 points</i>
• Costs	<i>10 points</i>
	<i>Total            100 points</i>

The cost will be used in the cost formula below to compute the relative number of cost points awarded to each proposal. The lowest cost will receive the maximum number of cost points.

$$\frac{\text{Lowest Cost}}{\text{Vendor X Cost}} \times \text{Available Points} = \text{Points}$$

## Pre-Screening for Application for Value Stream Mapping Events

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Identify the area of study:

Is the anticipated field of view manageable?

What are the current problems with the “value stream” for this area of study (from the organization’s perspective and from the customer’s perspective)?

What is the extent of variation in the area of study?

What data is currently collected to measure activities in/about the area of study?

Who touches the “value stream”?

What is in and out of scope for the proposed VSM workshop?

Who is directing the process?

What do your customers want that you are currently not able to supply?

Is there senior executive leadership support for this area of study?

Is there sufficient funding available to support the VSM for this area of study?

What is the anticipated schedule for the workshop(s)?

## Lean Event Sponsor Contract

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The purpose of this contract is to help you and your team achieve successful event outcomes. Critical behaviors to help ensure your team's success include:

- **Passionate**—Enthusiastic support of the team to ensure team success.
- **Strategic**—Using the event activity to advance a business objective by improving the performance of the targeted process while being aware of the impact to the total system.
- **Committed**—Engaged from pre-event planning through sustainment.
- **Risk Taking**—Encourage creative thinking to drive paradigm-breaking results.
- **Open Minded**—Influence the team to develop the best solution without introducing pre-conceived ideas.

**It is the responsibility of the team sponsor to ensure clarity regarding the coverage of event expenses including team members coming in from other locations. It is suggested that the team sponsor review with the team leader, as well as parties who may be covering the event expenses, early in the planning stages of the event activity.**

I have read and support the position paper for this event and understand the critical role that I play within the event process. As a team sponsor, I will follow the event-planning checklist to ensure my role to support the overall success of the team.

Event Sponsor Signature: \_\_\_\_\_

Team Leader Signature: \_\_\_\_\_

Date: \_\_\_\_\_

*Team leader is to retain the signed contract with all other event documentation.*

# Pre-event Meeting Agenda

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[Date, Time]

[Location]

- I. Understand critical issues
  - What is the purpose of this event?
  - Why is it taking place?
  - What is the desired outcome?
  - What are the boundaries of the activity?
- II. Understand and discuss high-level process steps
- III. Develop scope statement based upon agreement of critical issue focus
- IV. Define goals and objectives for the event
- V. Identify pre-work for event: what, who to complete, etc.
- VI. Which resources must/can be utilized?

# Team Charter

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[Agency]  
 [Division/Bureau of event and event name]  
 [Event Date]

## SCOPE

The breadth, or area, of opportunity to change and improve [e.g., *this event will address the process from / of \_\_\_\_\_ to \_\_\_\_\_.*]

## OBJECTIVES

[A narrower version of the scope of the improvement event.]

## GOALS

Specific numbers or percentages

For example:

1. Reduce lead-time by XX%, from \_\_\_\_ to \_\_\_\_.

## PARTICIPANTS

Team leader	Team Leader Name, Agency, bureau
Sub-team leader	Sub-team leader Name, Agency, bureau
Consultant	Consultant Name
Members	Name, Agency, bureau
	Name, Agency, bureau
	Name, Agency, bureau
	Name, Company Name

(No more than 20 people/event)

## PRE-WORK

1. [e.g., determine average lead time] (name person responsible)
- 2.

## FOLLOW-UP DATES

Month, day, year – 30 day

Month, day, year – 60 day

Month, day, year – 90 day

Month, day, year – 6 month

Month, day, year – 1 year



# Example Team Charter

## SCOPE

This event will address the Iowa DNR’s Air Quality Bureau – Construction Permits section, and the process for reviewing and issuing Complex Construction Projects.

**Complex construction projects** are generally those that involve Prevention of Significant Deterioration (PSD) permitting, Air Toxics review under 112g of the federal Clean Air Act, Netting evaluations for PSD credit, Non-attainment State Implementation Plan (SIP) permitting, and other permitting that involves establishing facility-wide or extensive permitting to limit potential emissions to reduce the facility’s regulatory burden.

## OBJECTIVES

1. Streamline the process to review and issue Complex Construction Projects and reduce variability.
2. Develop a standard operating procedures guide for project reviewers and project applicants.

## GOALS

1. Issue 100% of Complex PSD permits in a maximum of 180 calendar days (132 work days) from the application received date.
2. Reduce lead time for processing projects from 210 days (including 40-day comment period) to 125 days (including 40-day comment period). (Reduction of 50% not including comment period).
3. Reduce requests for additional information by 50%.
4. Reduce the number of unanticipated comments in the comment period by 50%.

Team	Daily Briefing Participants:
<b>Consultant:</b>	[Insert name here]
<b>Team leader:</b> [Insert name here]	[Insert name here]
[Insert name here]	[Insert name here]

## PRE-WORK:

- Process Mapping ([Insert name here]) – Completed draft 8/16/04
- Matrix Construction ([Insert name here])
- Data Collection ([Insert name here])
- Guide Materials ([Insert name here])

## FOLLOW-UP DATES, TIME, AND LOCATION

- Monday, Noon to 6:00 PM, Tuesday through Thursday, 7:30 AM to 7:00 PM, Friday, 7:30 AM to Noon

- Some additional after hours work may be required during the week.
- Location: Air Quality Bureau, 7900, Suite 1, Hickman Road, Urbandale
- Pre Event Meeting will be held at the Air Quality Bureau – October 5, 1:30-3:00

# Pre-event Data Collection Guide

## Pre-event Data Collection Steps

- 1) Initial map of the current process developed by the area that is going through the kaizen event.
- 2) Determine from the map steps that can and cannot be changed, i.e., identify those steps that are mandatory by rule.
- 3) Outline what items are currently tracked for time.
- 4) For those items currently tracked for time, determine longest item, quickest item and an average of the items. Do not try to gather data here that you do not already know.
- 5) Have the staff write down what they do for a week. This includes the projects, as well as meetings, site visits, telephone calls, regular meetings, etc.

## The “Voice of the Customer” Data Considerations

Some questions to ask as part of the "voice of the customer" are the following:

1. What do they want?
2. When do they want it?
3. Why do they want it?
4. How do they use the product and how much of it do they use?

These questions will ultimately help in determining the "value-added" steps in the process, as well as provide potential design criteria for the final "product." The best approach would be to ask our customers (select a few), or at least think through these questions from their perspective. If the process has different customer segments, the questions could be asked for each one. As above, this information would be useful for goal setting purposes.

Bench marking would also be helpful in establishing goals for the event. Additionally, it could equip the team with example strategies for achieving the goals for the event.

### OTHER POTENTIAL BASELINE METRICS INCLUDE:

- Number of process steps
- Total lead time
- Data on staffing needs
- Data on staff time
- Cycle time
- Data on transaction volume in process (e.g., number of applications)
- Number of handoffs
- Amount of backlog
- Rework percentage (e.g., percent of permits needing rework)

# Kaizen Event Agenda

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[Date]  
[Location]

**Monday:**     *Training Day*

1:30 P.M.     Team member introduction.  
1:45 P.M.     Training.  
4:30 P.M.     Adjourn for the day.

**Tuesday:**    *Day of Discovery*

8:00 A.M.     Work on process mapping, data needs, opportunities for waste elimination, and review ideas against scope and objectives.  
12:00 P.M.    Working lunch.  
12:30 P.M.    Continue with previous work. Create implementation plan.  
5:00 P.M.     Draft Wednesday assignment.  
5:30 or later  Adjourn for the day.

**Wednesday:** *Do Day*

8:00 A.M.     Review Tuesday work. Begin working on selected projects. Sub-teams report progress.  
12:00 P.M.    Working lunch.  
12:30 P.M.    Continue with previous work. Sub-teams report progress.  
5:00 P.M.     Sub-teams report-out. Make Thursday assignments.  
5:30 or later  Adjourn for the day.

**Thursday:**   *Do, Re-Do, Document Day*

8:00 A.M.     Review Wednesday work. Continue Wednesday's work. Sub-teams complete specific opportunities for improvement and report-out. Implement new process operation procedures, forms, process map, and baseline data.  
12:00 A.M.    Working lunch.  
12:30 P.M.    Continue with previous work. Document changes and complete the new process. Report out from sub-teams and review all work to ensure everything is complete.  
5:00 P.M.     Prepare for Friday's presentation.  
5:30 or later  Adjourn for the day.

**Friday:**     *Day of Celebration*

7:30 A.M.     Finish work on presentation.  
10:00 A.M.    Team presentation.  
11:00 A.M.    Adjourn event. Thank you!

## Lean Event Supplies List

Note: Supplies quantities are for an event with approximately 18 people.

Description	Qty	Estimated List Price	Estimated Total Cost
Perforated Note Pads (White)	2	\$12.73 DZ	\$25.46
Butcher Paper Roll 36" W X 150' L	1	\$13.04 RL	\$13.04
Self Stick Easel Pads	2	\$25.26 PK	\$46.52
Construction Paper (assorted)	4	\$1.36 PK	\$5.44
Sticky Notes (pastel color) 3"X5"	3	\$5.05 PK	\$15.15
Sticky Notes (florescent color) 3"X5"	1	\$5.91 PK	\$5.91
Ballpoint pens (Black or Blue)	20	\$.60 EA	\$12.00
Permanent Markers (Black)	6	\$.75 EA	\$4.50
Flip Chart Markers (4 color)	4	\$1.95 ST	\$7.80
Removable Glue Stick	4	\$.84 EA	\$3.36
Adhesive Spray	2	\$8.12	\$16.24
Masking Tape 1"X 60yards	2	\$5.71 RL	\$11.42
Scissors	8	\$1.45 EA	\$11.60
Twin Pocket Portfolios 25 per box	1	\$4.21 BX	\$4.21
Hang Name Badges 50 per box	1	\$10.95 BX	\$10.95
Easels for easel pads	4	\$14.12 EA	\$56.48
<b>GRAND TOTAL</b>			<b>\$250.08</b>

# Lean Event Meal Coordinator Roles and Responsibilities

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## **6 weeks before event**

- ❑ Aid in finding meeting rooms
  - Monday 1:30 – 4:30 - T-TH 8-5:30 - F 7:30-noon
  - Fridays – Reserve the report-out location
- ❑ Order supplies

## **2 weeks before event**

- ❑ Order meals (in the Bag)
- ❑ Make nametags (get list from team leader)
- ❑ Prepare team member folder (agenda, charter, nametags)

## **1<sup>st</sup> Day of event**

- ❑ Help team leader setup room
- ❑ Make coffee, setup all coffee supply (1 hour before start of event)
- ❑ Set out team member folder
- ❑ End of day disconnect coffee pot

## **2<sup>nd</sup>, 3<sup>rd</sup>, and 4<sup>th</sup> Day of event**

- ❑ Make coffee
- ❑ Bring breakfast into room
- ❑ Fill cooler with pop, juice and water
- ❑ Bring lunch into room
- ❑ Bring snacks into room
- ❑ Order dinner (if necessary)
- ❑ Assist in clean up at the end of the day

## **5<sup>th</sup> Day of event**

- ❑ Make coffee
- ❑ Bring breakfast into room
- ❑ Setup snack/coffee/drink to the report-out location (if necessary)
- ❑ Assist in clean up at the end of report
- ❑ Collect and store all extra meal supplies

## **After the event**

- ❑ Gather all receipts
- ❑ Fill out Travel Payment to pay vendors
- ❑ Summarize event evaluations

# Frequently Asked Questions about Lean

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- 1. Are we compromising environmental protection?**

This is not about loosening environmental regulations or our agency's commitment to environmental protection. We are looking for efficiencies in workflow, paper processing, number of steps in our process, etc. In fact, our goals are to enhance our ability to protect the environment by being able shift more time and resources on environmental protection activities.
- 2. Will anyone lose his or her job by making this process so efficient?**

Our people are very important and will continue to be part of this agency. Some people's job duties may change and some may have different office locations or configurations. But all staff will remain part of this agency.
- 3. Municipalities, consulting engineers, and other external entities slow down the permitting process. How are they involved, and who will make them more efficient?**

Outside stakeholders will take part in the event to help identify opportunities and concerns. However, this is not about how other organizations conduct processes, which we cannot control. Rather, we are focusing on what we can control, and that is how we move a permit through the approval process.
- 4. What guarantees do we have that this will actually help the process?**

Lean is a proven methodology used to break through barriers and cut through bureaucracy, helping teams reach their goals.
- 5. Why are we doing this on [Event Name]? Why not another issue?**

First, [Event Name] meets the three criteria for undertaking a Lean event: it should be a large-volume process; it should use the same steps every time; and it should be a core business activity. Second, we see this issue as an integral step to improving the water quality in the State.
- 6. Have we messed up? Have we done something wrong?**

The [Agency] is proud of the professionalism and performance of this staff. Conducting a Lean event is a way to enhance that performance. The goal is to give people the tools to do their jobs better. Each of us, in our own work areas, could benefit from that type of assistance.
- 7. Is this a test of my job performance? Will I get in trouble for not doing well in my job?**

These events are performed under the assumption that everyone involved is already doing their best—but that with some assistance, efforts can be altered to lessen steps, delays, and time, with no loss of performance or quality. Improvements will focus on reducing the time that no one is working on a project. The time it sits in someone's in-box or is waiting for a reply is waste that can be reduced.

8. **How can you expect to get meaningful change in one week?**  
These events are specifically engineered to achieve results in an intense, one-week work session. Additionally, preparation has taken place prior to the actual event.
9. **How can they understand something as complex as [Event Name or Process] in a week?**  
The participants will learn the steps in the process, not how to conduct the process. The process will be laid out in graphical form to make it easier to understand the sequence and how steps are interrelated.
10. **Who is involved and why?**  
The team that will be designing the new process is composed of [Team Members], other Agency employees involved in the [Event Name], and some of the people who are impacted by the process or who impact the process. All of these different viewpoints are important in designing a better process.
11. **Even if I'm not directly involved on the team, what will I need to do during that week?**  
You may be asked questions by the team members to clarify your part in the process. Please take the time to answer their questions completely. Team members may also ask to observe and time you while you complete a step in the process or discuss the time necessary to complete a step.
12. **Will people be in my office? Will they observe us talking about confidential issues, sensitive operations, controversial issues, sensitive policy issue debates, and phone calls that all occur each week?**  
The team is not interested in specific projects, but how the process works in general.
13. **What happens if I have to leave during the week?**  
If you are a member of the team, please coordinate your absence with the team leader, [team leader name]. If you are not on the team, you only need to coordinate your absence with your supervisor, as usual.
14. **Will the recommendations be rigid or able to change in the future if they fail or cause unintended consequences?**  
The team will not be making recommendation—they will design an improved process that will be implemented immediately. The new process will be tested during the event, but if adjustments need to be made later, they will be made.
15. **How is this process to be judged a success or failure?**  
Data are being gathered on how well the process performs before the event and data will be collected after the event for comparison.



# Team Leader Daily Agenda

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## Day 1

### Morning

- ❑ Arrange the room in the picture shown (get someone to help)
- ❑ Get the supplies, easel and easel pad
- ❑ Setup 1 easel and easel pad
- ❑ Setup the laptop, projector and speakers
- ❑ Set out the folder, training manual and nametag

### Afternoon

- ❑ Greet everyone when they arrive
- ❑ Start promptly at 1:30 p.m.
- ❑ Welcome everyone and introduce yourself
- ❑ Go through logistics (parking, building access, cell phones, restrooms, meals, etc.)
- ❑ Go through agenda (warn team of potential late nights on Tuesday, Wednesday, and Thursday)
- ❑ Go through ground rules
- ❑ Have everyone introduce themselves
  1. Who are you? Where do you work?
  2. What are your goals this week?
  3. What you like to do when you are not at work?
- ❑ On the easel pad, write “Goals of Team Members” and capture the team member goals
- ❑ Post “Goals of Team Members” on the wall
- ❑ Introduction from senior manager
- ❑ Introduce consultant and/or trainer (begin training)
- ❑ Review the goals and objectives
- ❑ Discuss pre-event data collected
- ❑ Let team know they can leave folder in the room
- ❑ Remind team of start time tomorrow

### Evening

- ❑ Disconnect laptop and projector (store in save location overnight)
- ❑ Tape roll paper on the East and West wall (get 1-2 people to help)
- ❑ Spray paper with adhesive glue
- ❑ Setup 2 easels and easel pad
- ❑ Write on easel pad and post on the wall “Parking Lot/Bike Rack” and “Homework”

- ❑ Layout scissors, color pad, and markers for team member to volunteer for flow mapping
- ❑ Tidy up the room (unplug the coffee pot, pick up bottles and cups)

## Day 2

### Morning

- ❑ Start on time
- ❑ Ask if anyone have question about yesterday's training
- ❑ Start training on flow mapping
- ❑ Ask for volunteer for each flow mapping task
- ❑ Review the goals and objectives
- ❑ Start mapping current state (Identify functions, steps, handoffs)
- ❑ Identify value-added activities and delays on map
- ❑ Estimate lead time (best case, worst case, and average) based on data collected

### Afternoon

- ❑ Count the number of steps, handoffs, loops, delay, value add, delay
- ❑ Calculate lead time (best case, worst case, and average)
- ❑ Let meal coordinator/support know by 3 p.m. if dinner is needed
- ❑ Attend 4 p.m. daily report out to management
- ❑ Remind team of start time tomorrow

### Evening

- ❑ Setup 3 easels and easel pad
- ❑ Tidy up the room (unplug the coffee pot, pick up bottles and cups, markers and note pads)

## Day 3

### Morning

- ❑ Start on time
- ❑ Communication staff takes team pictures
- ❑ Ask if anyone have questions or comments about the current process
- ❑ Give the team 20 minutes to write down what they think the ideal state should be individually
- ❑ Capture the team members ideas on easel pad
- ❑ Break up team into groups (5-6 people per group)
- ❑ Give each group some of the ideas and ask them to apply it to de-selection matrix

- ❑ Ask group to write down on easel pads 7 ways of implementing the ideas in the High Impact and Low Difficulty quadrant
- ❑ Have each group report to the team

### Afternoon

- ❑ Start to map the ideal/future process
- ❑ Capture Parking Lot/Bike Rack and Homework items on easel pad
- ❑ Identify value-added activities and delays on new process map
- ❑ Estimate lead time (best case, worst case, and average) based on data collected
- ❑ Count the number of steps, handoffs, loops, delay, value add, delay
- ❑ Calculate lead time (best case, worst case, and average)
- ❑ Let meal coordinator/support know by 3 p.m. if dinner is needed
- ❑ Attend 4 p.m. daily report out to management
- ❑ Remind team of start time tomorrow

### Evening

- ❑ Setup 3 easels and easel pad
- ❑ Tidy up the room (unplug the coffee pot, pick up bottles and cups, markers and note pads)

## Day 4

### Morning

- ❑ Setup laptop and projector
- ❑ Ask if anyone have concerns or comments about the new process map
- ❑ Review the goals and objectives
- ❑ Review the parking lot and homework items
- ❑ Ask team to volunteer to work on homework items
- ❑ Collect the completed homework items from each group

### Afternoon

- ❑ Assign/Volunteer team member to homework items that are incomplete
- ❑ Review “Goals of Team Members”
- ❑ Prepare report-out presentation
- ❑ Inform team about flow of report-out presentation (where to stand, introduce next speaker, what to expect, who answer questions from audience)
- ❑ Assign/Volunteer team member to different slides in the presentation
- ❑ Vote on team name
- ❑ Send team name to communication staff
- ❑ Prepare report-out summary
- ❑ Make 50 copies of report-out summary

- ❑ Attend 4 p.m. daily report out to management
- ❑ Remind team of start time tomorrow

## **Evening**

- ❑ Disconnect laptop and projector (store in save location overnight)
- ❑ Tidy up the room (unplug the coffee pot, pick up bottles and cups, markers and note pads)

## **Day 5**

### **Morning**

- ❑ Setup laptop, projector and speaker
- ❑ Show “Staff Motivation” video
- ❑ Invite meal coordinator/support to room for a team thank you
- ❑ Distribute “Kaizen Event Evaluation” to team members
- ❑ Collect filled out “Kaizen Event Evaluation”
- ❑ Setup laptop and projector in the auditorium
- ❑ Practice report-out presentation
- ❑ Collect team participation certificate from communication staff
- ❑ Distribute report-out summary to audience
- ❑ Report-out presentation
- ❑ Return supplies to support/meal coordinator
- ❑ Put the room back in order (get 1-2 people to help)

### **Afternoon**

- ❑ Give kaizen event evaluation to event coordinator
- ❑ Place all files for event on computer server

# Lean Event Homework

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**As of:**  
**Event #:**  
**Event Name:**  
**Owner:**

Item	Item Description	Person Responsible	Due Date
1	Hold Meeting to Standardize “Front End” Documents With Other Funders/Agencies	Gabe	02/17/06
2			
3			
4			
5			
6			
7			
8			

*Notes:*

## Report-out Summary

---

**DATE:**

**SCOPE:**

**OBJECTIVE:**

**GOALS:**

**RESULTS:**

	<b>Old</b>	<b>New</b>	<b>% Change</b>
<b>Steps</b>			1 - (new # / old #)
<b>Value Added Steps</b>			
<b>Decisions</b>			
<b>Loop Back</b>			
<b>Handoffs</b>			
<b>Delays</b>			
<b>Functions in Process</b>			

**IMPLEMENTED**

[List actions implemented]

# Event Evaluation Form

Event: \_\_\_\_\_

Date: \_\_\_\_\_

Facilitator: \_\_\_\_\_

Team Leader: \_\_\_\_\_

You have just completed an event to improve one of your processes. We are interested in your opinion on how things went during the event. We are continuously trying to improve the effectiveness of the events. Below is a list of questions that will help us improve future events. Please be open and honest with your ratings and comments. Thank you.

On a scale of 1 to 5 please rate the questions below.

1 – Strongly Disagree    2 – Disagree    3 – Neutral    4 – Agree    5 – Strongly Agree

Rating	Questions
	I was given at least 2 weeks notice prior to the event.
	The training on Day 1 was effective and prepared me for the event.
	The consultant was effective teaching and guiding the team through the event.
	The consultant listened to my ideas and suggestions.
	The team leader was effective and helpful through the event.
	When my ideas or suggestions were not used, the reasons were explained to me.
	Management support and direction was adequate.
	The time spent this week was productive.
	I have increased my understanding of the value of continuous improvement.
	The material provided was useful.
	The food and beverages provided were adequate.

What did you find most useful during the event?

What suggestions or comments do you have that could help us improve future events?

## 30-Day Lean Event Follow-up

---

**As of:**  
**Event #:**  
**Event Name:**  
**Owner:**

Item	Item Description	Person Responsible	Due Date	Revised/Completed Date	Expected Results
1	Hold Meeting to Standardize “Front End” Documents With Other Funders/Agencies	Gabe	02/17/06		
2					
3					
4					
5					
6					
7					
8					

*Notes:*

*Parking Lot Issues:*

- [Add outstanding parking lot issues here]



# 60-Day Lean Event Follow-up

As of:  
 Event #:  
 Event Name:  
 Owner:

Item	Item Description	Person Responsible	Due Date	Revised/ Completed Date	Expected Results
1	Hold Meeting to Standardize “Front End” Documents	Gabe	2/17/06	6/15/06	Forms ready for joint meeting
2					
3					
4					
5					
6					
7					
8					

Notes:

Parking Lot Issues:

- [Add outstanding parking lot issues here]

## Lean Coordinator Job Description

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This position is located in the Director's Office under the immediate supervision of the Deputy Director and functions as a program manager for the Agency's process improvement program. The person in this position is responsible for implementing and managing the department's Lean process improvement program, including the deployment of training and other duties that will enhance organizational efficiency and support a culture of continuous improvement and customer satisfaction.

**Lean Deployment and Facilitation:** Develop and implement an action plan for the deployment of all aspects of the Department's Lean process improvement program, including, but not limited to kaizen, 5S and Design for Lean Six Sigma Events. Responsible for working with department managers in identifying areas for process improvement events, establishing objectives for each project, and selecting cross-functional team members and leaders. Act in the capacity of the facilitator for each event. Coordinate each project/event phase and ensure that participants and stakeholders have the tools and resources they need, necessary information, and guidance to enable them to fully engage in the process and maximize the potential outcome of each event.

**Tracking Progress:** Develop and implement an action plan for tracking, analyzing and reporting return on investment of departmental programs that have undergone process improvement initiatives. Monitor the progress of projects, including ongoing status reviews. Ensure that the database is current relative to process improvement activities. Responsible for coordinating and participating in 30 day, 60 day, 90 day, 6 month, and 1 year follow-up meetings for each event to ensure follow-up activities are completed and improvements are realized and maintained. Develop a comprehensive report which delineates the status and outcomes of each event, including, but not limited to efficiencies gained, increased customer satisfaction and or reduced costs or savings realized. Conduct formal reviews with the management team on a quarterly basis to review accomplishments, identify areas for improvement, and respond to questions.

**Training:** Coordinate the training of Agency staff on Lean process improvement techniques, including a plan for deployment of training to all departmental staff. Ensure that tools, resources and instructional materials are developed, updated as necessary and maintained to meet ongoing needs. Responsible for tracking participation and associated costs of time and materials for training deployment. Establish a library of learning materials, both electronic and paper that can be made available to interested staff. Conduct research focused on benchmarking world-class business process performance and utilize findings to assist supervisors in establishing tangible measures of time, cost, and quality.

**Communications:** Develop and implement an effective strategy for communicating the status and results of the Agency improvement efforts to department partners, customers and staff. This includes, but is not limited to the development of an Internet presence to showcase departmental activities. Keep staff informed of revised procedures and methods and related work changes as implemented.