

# Working More Efficiently: Insights from Henry Darwin, Acting Deputy Administrator and Chief of Operations, U.S. Environmental Protection Agency

By Michael J. Keegan




The U.S. Environmental Protection Agency (EPA) is getting back to basics—re-energizing its mission of protecting human health and the environment. Today we’re working to ensure that future generations inherit a cleaner, healthier environment that supports a thriving economy.

The nation has made great progress in making rivers and lakes safer for swimming and boating, reducing the smog that clouded city skies, cleaning up lands that were once hidden chemical dumps, and providing Americans greater access to information on chemical safety. Yet, more needs to be done, and be done more quickly, efficiently, and effectively. To do this, the agency has sought to deploy a new management system based upon lean principles.


What is EPA doing to get back to basics? How is EPA changing the way it does business? Henry Darwin, Acting Deputy Administrator and Chief of Operations at the U.S. Environmental Protection Agency, joined me on *The Business of Government Hour* to share his insights on these topics and more. The following is an edited excerpt of our discussion, complemented with additional research.

## Would you tell us about your role within EPA?

 The chief of operations is a new role within EPA. My primary responsibility is to ensure that the agency is running as effectively and efficiently as possible. As such, I am the key advisor to the EPA administrator on day-to-day operations and the leader of the agency’s transformation to an organization of continuous improvement.

When I arrived at EPA, there was no system in place that would allow me to do my job well. In my first seven months, I focused on the deployment of a management system based upon lean principles. By deploying the EPA Lean Management System (ELMS) to reduce waste and maximize value-added work, I am working to create more effective ways to better serve EPA’s customers while increasing support for EPA employees to do environmental good. This includes strengthening partnerships with the states in streamlining and modernizing environmental protection. I am also working to reduce EPA’s backlog of new permit applications so that the agency can meet its goal of making permit-related decisions in six months. I am working closely with EPA’s state partners, in part by serving as a co-chair of the E-Enterprise Leadership Council, which oversees the collaborative modernization effort called E-Enterprise for the Environment.

## What is the mission of EPA’s Office of Continuous Improvement?

 In May 2018, EPA’s Office of Continuous Improvement (OCI) was officially formed, establishing a centralized team of lean experts charged with deploying the EPA Lean Management System across the agency. The goal of the ELMS effort is to deploy ELMS to 80 percent of the agency by September 30, 2020. Since April 2018, OCI has completed three ELMS deployments, scheduled monthly deployments through early 2019, and is scheduling the remainder now.

In January 2018, I brought together EPA’s entire senior executive service—or SES—to explain ELMS to them and to discuss the urgency of improving EPA’s business operations. A first step in the ELMS process was to develop new monthly metrics or modify existing ones, then to begin submitting





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monthly updates on those metrics. The metrics are recorded on a “bowling chart” that compares monthly progress to targets and uses a red/yellow/green signal to reviewers. When a particular metric is in the red for two months or in the yellow for three months, the office is required to take action to get back on track and report progress to the COO.

At this point, all 22 offices are successfully onboard with the new system. Through the EPA’s Reform Plan, we’ve established priorities such as improving the speed of the acquisitions process, improving the oversight relationship EPA has with the states, reducing EPA’s Freedom of Information Act (FOIA) backlog, and relieving the reporting burden associated with EPA regulations. Over the next two years, we plan to improve EPA’s contracting process, establish a better means to consider regulatory reforms, and ensure that ELMS delivers on its promise to improve EPA processes. It is important to note that lean comes from the manufacturing sector. There is a fundamental difference between the manufacturing sector and the government. Until we realize that, deploying private sector or manufacturing concepts in the government context simply won’t work. The lean management system that I have brought to EPA is about visual management. Unlike the manufacturing, we must design ways to see our work, which is often hidden inside desks, file cabinets, and computers.

**In putting that operational capacity in place and changing the culture, what are your top management challenges?**


 One of the biggest challenges is properly identifying the owners of a process. In such a large organization with a complex mission, it is often difficult to identify the agency leader who is responsible for a given process. For example, the Superfund was established by Congress to provide resources to clean up sites, yet it was hard to find an individual responsible for that task. These historically contaminated sites are very complex and can take decades to remedy and ready for future use. Finding a person responsible for the overall health of the process generally has been a challenge.

The next challenge involves getting the agency comfortable with measuring its efforts on a more frequent basis. EPA was very used to measuring on an annual or at most a semi-annual basis. That means you only give yourself at most two opportunities per year to make course corrections. By contrast, if we can measure on a monthly basis, we have


twelve opportunities. Do it weekly, 52 opportunities. It’s been a challenge to monitor operations on a more frequent basis.

Another challenge is how we measure success. At its core, any management system is about measuring and managing success. In the private sector, measuring success focuses on the bottom line—profits and losses. In the government, measuring and evaluating success can be infinitely more complex.

**In your current role, what has surprised you in the push for a new operational environment?**

 It’s not so much a surprise as a rewarding benefit. It’s been incredibly rewarding for me to work with the career staff at EPA, who truly believe in their mission. I appreciate the willingness of EPA staff to listen and embrace a new path forward. They realize and understand that in order to continue to succeed and get better that the agency needs to be more effective and efficient in its delivery. One way to do that is by taking lean management—which the agency is quite familiar with—to the next level. EPA has a long history of using lean to improve processes. What it was lacking is a system that helps us identify strategic opportunities where lean can improve our processes. Where the previous administration merely asked or required the programs to perform lean events, we’re actually setting very strategic goals with high targets. We’re asking our programs and regional offices to meet those targets using lean. And then through the management system, we’re monitoring whether or not those improvements are actually occurring.

**Would you tell us more about your career path? How did you get to your current leadership position?**

 I am a lifelong environmental professional. I have an engineering degree in hydrology from the University of Arizona. I am a graduate of Lewis and Clark Law School in Portland, Oregon, which is widely regarded as being the best environmental law school in the country. In college and law school, I developed a real appreciation for public service. Immediately after law school, I worked for the Arizona Department of Environmental Quality for the next 18 years, serving as its director for five years. I was director at the height of the recession, which forced me to find ways to operate more efficiently. At that time, the department became a fee-for-service organization; the workforce reduced by 30 percent. In

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such a constrained environment, I began to identify and adapt tools and principles to meet mission goals.

I also served as the state of Arizona’s chief of operations, where I oversaw the operations of all 35 state agencies and worked to stand up the first state government intentional management system based upon lean principles. Among the improvements, we eliminated a backlog of 16,000 uninvestigated child abuse allegations and reduced customer wait times at motor vehicle division offices by over 50 percent. We also reduced review times of aquifer water quality compliance data from up to three months to 24 hours.


**Given your background as both a state and federal executive, what are the characteristics of an effective leader?**

 It all begins by having a passion for performance, process, and people. An effective leader has to be passionate about organizational performance and constantly look for opportunities to measure its effectiveness.

When performance falls short, effective leaders need to look at the process before the people. An ineffective leader does the opposite. Their first reaction to a performance problem is to look for someone to blame. But most often it’s a broken process. Either the process isn’t designed well or adherence to the process is not occurring. Effective leaders need a real passion for process. You need to identify what processes you are responsible for and what steps are associated with that process. You also need to visually manage that process and know whether it’s performing as expected.

Lastly, leaders need to be passionate about people, especially developing people. Good leaders help employees develop as professionals. Leadership is not about solving problems for them, or becoming a pillar of knowledge that employees must depend upon. It’s about developing their skills and ability so they can solve problems for themselves.

**As you pointed out, EPA’s mission is to protect human health and the environment. The agency’s most recent strategic plan focuses on getting back to basics. Would you tell us more about this vision and the overarching goals?**

 The EPA’s mission has its roots in various authorizing statutes, which affords the agency the authority and responsibility over statutes such as the Clean Water Act, the Clean Air Act, and the Resource Conservation and Recovery Act.

Over time, EPA has become focused on areas of some disagreement. For instance, what EPA has the authority to do or not to do. I’m not here to argue either way. The plan calls on the agency to focus on making sure that it is doing well in what it is authorized to do. It is about getting better at what the agency is suppose to do. The agency’s strategic plan has three overarching goals. At its core, the vision is based on the rule of law and process. It is about getting back to basics and making sure that everything the agency does is based on the rule of law, as well as an authorizing statute or an authorizing rule.

The vision also rests on acknowledgement of the special relationship that EPA has with the states. The vast majority of environmental work is performed by the states. Congress, when it created the various authorizing statutes, clearly intended for the states to take on the lion’s share of responsibilities. The EPA would serve in an oversight function. We’re reviewing our current relationship with the states and reevaluating that partnership to see what role we should be playing and what role the state should be playing. We’re doing this for the third goal, our core mission—that is, to improve air quality, provide safe drinking water, make sure state lands are clean, and ensure that chemicals in the marketplace are safe.

## Let's talk about air quality. What efforts are being pursued to prioritize key activities that support attainment for the national ambient air quality standards?



The way the Clean Air Act is designed, whenever there is an area that is in nonattainment, the state is required to submit a plan to EPA that describes how they are going to achieve attainment. We found that we had a significant backlog in EPA approval of state implementation plans. We looked at how we can become more efficient in approving this process. We've done a lean kaizen blitz, or rapid improvement, where we brought a group of people into a room with a facilitator who knows about all of the lean tools. We review each process and eliminate all of the steps in the process that don't add value. After a full week of work, we have what we call a future state. It's the future state that we want to adopt. In the end, we are working to reduce not only the time it takes to approve a plan, but also to reduce the backlog of unapproved plans.

## What advice would you give someone who is thinking about a career in public service?



There is no greater opportunity to make a difference than being in the public sector. My advice is to find a government agency or program that complements your passion, be it environmental protection, building roads, protecting children, or whatever your passion happens to be—and go make a difference.

To learn more about the EPA, go to [epa.gov/](https://epa.gov/)



To hear *The Business of Government Hour* interview with Henry Darwin, go to [businessofgovernment.org](https://businessofgovernment.org).



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To read the full transcript of *The Business of Government Hour* interview with Henry Darwin, go to [businessofgovernment.org](https://businessofgovernment.org).