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# Solving the unsolvable:
## How to address complex politically-charged transorganizational problems☆

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## INTRODUCTION

Washington State had a big problem. Every time there was a significant rainfall, tens of thousands of acres of shellfish beds in the Puget Sound were automatically closed due to potentially dangerous levels of fecal coliform bacteria. These closures were highly disruptive and expensive, idling workers and creating shortages throughout the entire supply chain that delivered fresh oysters and clams for restaurants, stores, and export. The closures lasted until the beds could be tested to confirm that fecal coliform concentrations were back to acceptable levels. The high volume of seawater that shellfish filter as they feed means that contaminants leave their systems relatively quickly once the water becomes clean again.

The process of solving this problem was complicated by the fact that various aspects of it fell under the jurisdictions of some 24 different state, local and federal agencies which often had conflicting goals and interests. Some of these government agencies had even advised their constituencies not to cooperate with representatives of certain other government agencies. Nor were key private-sector stakeholders in agreement about the causes of the problem. For example, in one of the largest areas with compromised shellfish beds, the shellfish farmers thought the dairy farmers were the main cause of the problem, while the dairy farmers blamed homeowners with faulty septic systems. Some people even blamed wildlife—mostly beavers and geese.

In 2011, Governor Christine Gregoire had created the Shellfish Coordination Group (SCG) and set it a goal of eliminating the need for automatic closures of 9000 acres of shellfish beds statewide. The SCG decided to target the Samish Bay area located two hours north of Seattle, which alone had 4000 acres of compromised beds, then take the lessons learned there and apply them statewide. Over the next few years, the Clean Samish Initiative (CSI), a coalition of local and state stakeholders acting as the primary local working group on the problem, made good headway. But in 2014, the CSI had been unable to make any further progress, and the bacteria levels were still too high to avoid the frequent automatic bed closures. At this point, Governor Jay Inslee's office and the CSI asked Results Washington, the department responsible for championing lean improvement principles across the state government, to see if it could generate a breakthrough.

## BACKGROUND

The membership of the CSI comprised representatives of all the key stakeholders including numerous federal, state and county government agencies, shellfish farmers, dairy farmers, local Native American tribes, and residents. Over its first three years, the CSI was successful at reducing fecal coliform contamination levels after significant rainfalls by 50% in 2010–2011, another 50% in 2011–2012, and a further 25% in 2012–2013. But in 2013–2014, despite a lot of hard work, the CSI was unable to make any further reductions, and the

☆ The research in this article is part of an ongoing multi-year global study of continuous improvement in government. To date, the field work portion of this study has involved more than eighty government entities in eight countries. Because of the unique approach that Results Washington was using to address the seemingly impossible problem of shellfish bed closure, we chose to undertake a longitudinal real-time study of the initiative in order to discover any lessons that could be helpful in solving similar higher-order problems elsewhere.

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beds had been closed for a total of 71 days by the State Department of Health. The lack of progress made the situation tense. Many stakeholders still blamed the dairy farmers (who created a lot of manure in their operations, much of which was spread on their fields as fertilizer), despite the fact that the state Department of Ecology had already come down hard on them with additional inspections, enforcement, and fines. The farmers, however, were sick of being blamed for the problem, particularly with all the improvements in farming practices they had made over the last several years, and pointed to other sources of fecal coliform as the primary remaining causes of the problem.

Before the Governor's office asked Results Washington to step in in 2014, the CSI had eliminated the obvious sources of fecal coliform. The remaining bacteria appeared to be coming from "non-point sources," widely dispersed human and animal pollutants that were collectively flushed into the Samish Bay watershed by major rainstorms. And since these rainstorms happened primarily in the winter season, there were limited windows where water testing could be used to identify which areas in the watershed were contributing most to the problem. Complicating the situation further were issues with the tests themselves. For example, decay of certain plant matter could release a type of bacteria into the water that was completely harmless but set off "false positives" in the Department of Health's testing regime for fecal coliform.

Twenty-four government agencies (local, state and federal), together with several tribal nations, had jurisdiction over various aspects of the problem. Some of these agencies had a history of working at cross-purposes on this issue, as they had different constituencies and priorities. For the sake of collegiality and collaboration, some highly promising but "uncomfortable" lines of inquiry about sources of the bacteria had been intentionally ignored up to this point. In addition, while policies had been developed at the state level, their enforcement was left to local officials. These officials, who lived in the same community as the individuals and properties involved, were sometimes hesitant to bring strong enforcement action against their neighbors.

It was clear that the political challenges of the fecal coliform problem might prove even more intractable than the technical ones, particularly after the obvious sources had already been dealt with. The Results Washington team quickly realized that the lack of trust between many of the parties involved, as well as the lack of coordination and the conflicting positions among the various government agencies and stakeholders, had been big factors in blocking further progress.

## A NEW APPROACH

Results Washington was stepping into a problem that not only featured deep-seated transorganizational political conflict, but significant technical challenges as well, given that the remaining sources of fecal coliform were small, unknown and spread widely across the Samish Bay watershed. At the same time, Results Washington's expertise was in the application of lean thinking, traditionally applied to relatively straightforward process improvement projects. This kind of problem was well out of the traditional domain of lean.

From its origins in the auto industry, lean spread throughout the manufacturing sector, and from the plant floor into the office. From there it moved into the service sector, and then into more complex knowledge-based and service areas such as software development, healthcare and education. Today, one of the emerging frontiers for the application of lean principles is government.

The pattern has been that as lean is pulled into each new domain the initial activity focuses on processes and problems to which previous lean experience most easily translates. As the lean improvement philosophy takes root in the organization's culture, its application migrates to problems to which lean has not previously been applied. In this way, lean thinking is extended to new types of problems, and its techniques are adapted for the new context. The question for Results Washington was this: Could lean thinking be used to break the stalemate with this kind of higher-order problem?

The Results Washington team recognized that in order to break through the barriers to further progress, it would need to drive the politics out of the process, and come up with tools that could dig more deeply into the mystery than previous approaches had been able to. This was where a creative application of lean, with several of its tools repurposed and extended, played a vital role.

The first step was to develop an A3 Report. Normally, the A3 process is used as a fully contained problem-solving approach, but in this case it was used to gain high-level agreement from all of the disparate players on the full dimensions of the problem, and the problem-solving strategy that would be deployed. Many A3 drafts — each circulated among the CSI members — and a lot of hard work were required to build consensus. One outcome was a shared understanding that because the remaining sources of fecal coliform were small, highly idiosyncratic, and more numerous and disaggregated than those previously addressed, the best people to root them out and eliminate them were the local experts on the front lines "working together and with free reign to test innovative out-of-the-box solutions."

The next step was to pull representatives of all the key CSI stakeholders together for a three-day workshop to develop and agree upon a plan of action to ferret out and eliminate the small non-point sources of the bacteria. Right at the start of this workshop, when Stew Henderson, the lead Results Washington facilitator, asked everyone to introduce themselves, the distrust was evident. Oscar Lagerlund, the lone dairy farmer in the group, said:

> *I am a third generation dairyman in Skagit County. My father and my grandfather cleared our land and my son, our fourth generation dairyman, was asked to be here and he didn't want to be in the same room with you people. Thanks to you people and how you have chosen to attack this problem, and what you have done to farmers, there isn't going to be a fifth generation of dairymen in the Skagit Valley. Who's next?*

The room went silent. "Thanks, Oscar, for telling the truth. That's what we want for the whole three days," Henderson replied.

After the introductions, and before starting to work on the problem, Henderson got the group to agree to a set of operating principles:

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