

Applying Lean to Optimize Site Reviews for Project Strategy Alignment and Sustainable Remedial Approaches

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Background/Objectives. Our client conducts site reviews to optimize investigative and remedial strategies as well as remedial system O&M. These reviews ensure that site management practices are in alignment with Corporate goals and best practices. They have found that the “cold eye” reviews are time intensive, expensive and do not produce sufficient desired, meaningful improvements. As part of an ongoing Lean journey at the client company, the team applied Lean thinking to better understand the purpose and desired outcomes for strategic site reviews and how those reviews could better support site and portfolio management objectives. Lean thinking focuses on increasing value (e.g., achieving the desired outcomes for site reviews), reducing waste (e.g., optimizing use of resources or reducing waste such as treated groundwater) and respecting people (e.g., team alignment on client site objectives). Based on this deeper understanding, the team was able to apply Lean to design an improved, standardized program the focus of which is not limited to reducing spend but moreso to improve the efficiency of active site management.

Approach/Activities. The program is comprised of a standard, step-wise process in which key stakeholders (including the client PM and client-based technical reviewer(s), incumbent consultant project manager, engineers, scientists and field staff, etc.) work together to evaluate the entire value stream of the site with the help of an outside facilitator (Lean Practitioner). The bulk of the work is completed in a two-day Lean-based Workshop in which the team strategically assesses and addresses project objectives and challenges, goes to ‘gemba’ at the site to see together conditions and active remediation, and then develops improvements and agrees to an action plan for implementation (usually within 90 days).

In contrast to traditional cold eye reviews, the process is collaborative, utilizing the strong historical knowledge and experience of the key project staff. Because the ‘right people are in the room, this approach can better surface the roots of the existing problems (rather than just symptoms), aligns the team on site objectives and needs and then supports rapid assessment of the feasibility of improvement ideas to produce a project-specific improvement plan which the entire team supports. This collaborative and structured, focused approach results in sustained improvements and allows for significant progress and deep thinking to be rapidly accomplished.

Results/Lessons Learned. To date, the program has been implemented at three project sites, with more planned. We will present major lessons learned and results including benefits in making the client remedial program more efficient and therefore sustainable. We will also highlight specific outcomes including:

- eliminated ~1 FTE and streamlined materials usage needed for field operations through optimization of a remedial O&M process
- estimated reduction in remediation life cycle of 5 years by recognizing the need for and rapidly implementing investigation and remedial action to address an off-site issue impacting a commercial property
- remedial and management improvements significantly reduced the risk that the client would need to replace an adjacent municipal well (\$5 to \$7M)
- optimized remedial strategy via deeper understanding of site conditions, objectives, etc.