



Project

## Our whole-system approach achieves compliance at complex Superfund site

### Summary

- Our clients faced a prescriptive Record of Decision (ROD) that required them to address a pond containing arsenic, ammonia, and other contaminants at a complex Superfund site.
- Numerous experts, each focusing on a specific challenge, had already worked on the case, but the parties wanted our big-picture view of whether the prescribed remedy would be a reliable and cost-effective solution.
- We identified potential flaws with the proposed remedy and presented alternate approaches, ultimately drawing on technical expertise to persuade the EPA to accept alternative, more effective remedial approaches.

# Client challenge

Potentially Responsible Parties (PRPs) were faced with a prescriptive ROD to address a pond site containing arsenic, ammonia, and other contaminants at a complex Region I Superfund site. Numerous experts worked on the case; however, they worked separately, each focusing on a very specific challenge. They did not consider the interaction of these multiple variables and their effect on the site, including geochemistry, limnology, surface water hydrology, and the unique challenge of ammonia treatment in a pond. The PRPs were concerned that the ROD remedy may not be a reliable long-term solution and wanted to determine if the remedy was cost effective. At that point, the PRPs engaged the Haley & Aldrich team for their full bench strength, reputation as client advocates, and creative problem-solving abilities.

## Our approach

Our team understood pond hydrodynamics and the interrelated geochemistry of the site. To strengthen our position we conducted in-depth monitoring of the water chemistry and flows, advanced dye studies, and used biotrap and microcosm studies to evaluate innovative approaches to ammonia treatment. By assessing all contributing factors to the site we were able to identify potential flaws with the proposed remedy in the ROD and presented alternate approaches. Because our team served as advocates for our client early in the process by involving and educating various stakeholders, including city officials and neighboring property owners, we gained their critical support for our approach. This support, in addition to a thorough evaluation and confirmation of our findings with world-renowned scientists, persuaded the EPA to amend the Consent Decree governing the ROD to include flexibility for alternative remedial approaches.

This flexibility allowed for our proposed remedial design, which included aspects of the ROD and modifications that will provide contaminant treatment to achieve compliance, while minimizing flooding impacts to the surrounding area. Through this “whole-system” approach, we evaluated the technological and regulatory options for the complex Superfund site, determined the best course of action, served as a liaison to the public and EPA, and implemented practical, effective solutions.

## Value delivered

- Obtained an EPA Consent Decision that allowed for flexible alternative solutions which proved to be more effective than what was suggested in the original ROD
- Used innovative technology to isolate and identify the bacteria present, assess the complexities of the problem, and help determine our recommended remedies

For more information, contact:



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