BRIEF OVERVIEW AND RELEVANCE

Northwest Annex's (NWA) water system is comprised of two water treatment plants each supplied by a wellfield (WF). The Navy detected several contaminants exceeding Safe Drinking Water Act's maximum contaminant levels for volatile organic compounds at one plant during compliance sampling. Jacobs prepared a preliminary design to treat for these contaminants using granular activated carbon (GAC).

To evaluate the feasibility of the planned treatment, Jacobs recommended collecting well water samples to conduct rapid, small-scale column tests for treatment with GAC (Calgon F400) to evaluate/determine breakthrough times and replacement intervals and assess the cost-effectiveness at the new concentrations.

Treatability Study, Water Treatment Plant 1, NAVFAC MidAtlantic

Naval Support Activity (NSA) Hampton Roads – Northwest Annex, Chesapeake, VA

PROJECT SCOPE

- Field Sample Collection and Shipping
- Rapid Small Scale Column Testing
- Media Changeout Cost Estimating
- Technical Memorandum on Sampling Methods and Results and Rapid Small-Scale Column Testing
- Environmental Management Plan

CHALLENGES

The team was challenged with rapidly changing regulatory guidance on disposal of investigation-derived waste generated by sampling activities.

KEY ACCOMPLISHMENT

Jacobs subject matter experts brought an extensive knowledge base for regulatory compliance, which eliminated the need for integration or training on Navy standards and requirements.