

# Natural Attenuation of ethylene dibromide (1,2-Dibromoethane [EDB]) at MA Military Reservation



## Principal Investigators

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## Funding Sources

- Air Force Center for Engineering and the Environment

## Synopsis

- Conduct microcosm studies under varying conditions to understand the natural attenuation of EDB at the FS-12 site and the effect of aeration (aerobic, anaerobic, microaerophilic), EDB concentration, addition of electron donors (e.g. jet fuel, lactate, polylactate, H<sub>2</sub>), co-substrates (e.g. methane), and nutrients (N, P, trace elements) on EDB biodegradation.
- Describe kinetics of EDB degradation in a way that can be incorporated into groundwater fate and transport models.
- Characterize the structure and in situ function of EDB degrading microbial populations using culture independent community analysis and stable isotope probing, and identify active EDB degraders.