

**Procurement Title\*** Develop protocols for soil and water samples Protoc

**Statement of Work\***

1. Develop protocols to distill environmental factors from soil and water samples.
  - a. Develop laboratory protocols for preparing soil, water and other environmental matrix samples for laboratory screening protocols.
  - b. Deliver protocols to SNL for evaluation.
2. Develop, in collaboration with Johns Hopkins University Applied Physics Laboratory (APL) and SNL, appropriate protocols for screening environmental samples against bacteria of interest.
  - a. Deliver protocols to SNL for evaluation.
3. Perform experiments to elicit anti-bacterial factors from non-infectious bacteria and evaluate anti-bacterial activity on bacteria of interest.
  - a. Deliver report and supporting data for all experiments performed.
4. Collaborate with Sandia National Labs and APL to develop sampling plan for collections.
  - a. Missouri
  - b. Martha's Vineyard
  - c. Site to be determined
5. Participate in the collection of environmental samples in up to 3 locations.
  - a. Missouri
  - b. Martha's Vineyard
  - c. Site to be determined
6. Identify future sampling sites.
  - a. Identify sites CONUS and OCONUS that are of potential interest for future sampling activities.
  - b. Develop an picture of seasonal variability/epidemiology of key regional bacteria to allow planning for future site visits using existing data and local researchers.
  - c. Obtain test samples (soil, water, extracted nucleic acids, etc) from future sites for analysis to determine relationship to common bacteria of interest.
  - d. Deliver report for each site and supporting data, as necessary, to SNL for evaluation.

**Mandatory Requirements\*** Contractor was pre-selected by DETRA