

## Key Professional Staff

### Ronald Bergeson

Ph.D. University of Oregon  
22 years professional experience

### Randall Boese

B.S. Geology - Oregon State University  
Registered Geologist - Oregon  
21 years professional experience

### Daniel Mumford

M.S. Geology - Oregon State University  
B.S. Geology - University of Delaware  
Registered Geologist - Oregon and Washington  
24 years professional experience

### Jim Kooiman

M.S. Engineering - Oregon State University  
B.S. Engineering - San Diego State University  
Professional Engineer - Oregon and California  
29 years professional experience

### Stephen Omo

B.S. Geology - University of Texas  
Registered Geologist - Oregon  
14 years professional experience

### Erik Chapman

M.S. Geology - Oregon Graduate Institute of Science and Technology  
B.S. Geology - University of Oregon  
Registered Geologist - Oregon  
15 years professional experience

### Mark Riedel-Bash

M.S. Earth Science/Geology—Northern Arizona University  
B.A. Geology - California Lutheran University  
Registered Geologist - Oregon and California  
6 years professional experience



### *Other professional services provided by Bergeson-Boese & Associates, Inc. include the following:*

- Hazardous Waste and Solid Waste Investigations
- Underground Storage Tank (UST) Investigations
- Water Resource Evaluations
- Stormwater Discharge Permitting and Management
- Remediation System Design and Engineering
- Environmental Compliance

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## Phase I and II Environmental Site Assessments (ESA)



*Serving commercial, industrial, residential, and public clientele throughout Oregon, southwest Washington, and northern California since 1989.*

# Environmental Site Assessments (ESAs)

## Phase I ESA

### Purpose

The purpose of a Phase I ESA is to identify recognized environmental conditions (RECs) generally defined as the presence or likely presence of any hazardous substance or petroleum product on the subject property under conditions that indicate an existing release, a past release, or a material threat of a release into structures, or into the ground, groundwater, or surface water of the subject property or contiguous and surrounding properties.

### Standards

Phase I ESAs performed in accordance with the American Society for Testing and Materials (ASTM) Standard Practice E 1527-05 will satisfy the all appropriate inquiry (AAI) rule under the Federal Superfund Law or Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). While CERCLA has provided statutory defenses for innocent landowners, prospective purchasers, and contiguous property owners, those defenses are available only if there was “all appropriate inquiry” into the environmental condition of the property.

### Scope of Services

- **Historical Review**
  - ✓ County Appraisal and Deed Records
  - ✓ City Permit and Fire Marshal Records
  - ✓ Aerial Photographs
  - ✓ Sanborn Fire Insurance Maps
  - ✓ City Directories
- **Federal and State Agency File Review**
  - ✓ US Environmental Protection Agency (EPA)
    - National Priority List (NPL) and Superfund Sites
    - Registered Hazardous Waste Generators
  - ✓ Oregon Department of Environmental Quality (DEQ)
    - Confirmed Release List (CRL)
    - Environmental Cleanup Site Information (ECSI) Database
    - Underground Storage Tank (UST) Facilities and Cleanup Sites
- **Interviews**
  - ✓ Owners and others knowledgeable of the current and historical use of the subject property
- **Site Reconnaissance Survey**
  - ✓ Subject property inspected for the presence of “recognized environmental conditions”
- **Preparation of Final Report**
  - ✓ Documentation of all findings
  - ✓ Present conclusions and, as appropriate, recommendations for further assessment (i.e., Phase II ESA)



## Phase II ESA

### Purpose

Based upon the findings of the Phase I ESA, a Phase II ESA may be recommended. The purpose of the Phase II ESA is to further assess identified “recognized environmental conditions.”

### Scope of Services

The Phase II scope of services typically includes the following:

- Determination of the presence of contamination through sampling and laboratory analysis
- Comparison of analytical results with applicable regulatory cleanup standards
- Preparation of final report presenting findings and, if necessary, recommendations for further assessment (e.g., delineation of vertical and lateral extent of confirmed contamination)