

# **Contractors for Shoreline Protection and Bluff Stabilization Services**



## ***The Lake Erie Coastline***

The glaciers that carved out the Great Lakes Basin during their advance in the Pleistocene Epoch (10,000 years ago) are responsible for the sediments that make up the bluffs. These unconsolidated glacial sediments include sand, gravel and clay, all of which are very vulnerable to erosion.

The Pennsylvania portion of the Lake Erie coastline is at risk from two coastal hazards: ***bluff recession and shoreline erosion***. Bluff recession is the landward retreat of the bluff face caused by erosive forces along the shoreline. The average rate of bluff recession along Lake Erie is approximately one foot per year. Shoreline erosion occurs when the amount of beach sand replenished by littoral drift processes is exceeded by erosional forces. The two main factors responsible for natural beach erosion are increases in lake levels and / or human activity.

The rates at which these processes occur vary from area to area, depending upon a variety of factors, including vegetative cover, soils, hydrology, bedrock geology, slope gradient, offshore bathymetry and human activity.

### ***What Causes Bluff Recession and Shoreline Erosion?***

Bluff recession is primarily caused by wave erosion at the toe of the bluff and can be exacerbated by groundwater seepage, surface water runoff and human activity, such as improper land use management practices. One of these exacerbating factors alone will not significantly weaken a bluff, but a combination of these forces may start the process of recession in motion.

A stable shoreline exists when there is a balance between beach replenishment and erosional processes. When this balance is disturbed, shoreline erosional processes such as increased lake levels and / or human activity increase the amount of sediment lost from the beach, thereby offsetting the amounts replaced by littoral drift processes.

### ***How Can Bluff Recession and Shoreline Erosion Be Prevented?***

Through proper land use management practices, both bluff recession and shoreline erosion processes can be slowed, though not prevented. Some examples are listed below:

#### ***Shoreline Protection Measures***

**Revetments** are concrete blocks placed on banks to absorb the energy of incoming waves. These structures protect only the land immediately behind them, not adjacent areas. If placed in the water, revetments do not encourage sediment buildup and little, if any, beach will occur.

**Groins** are concrete structures that extend perpendicular from the shore. Groins interrupt the natural wave movement of beach sediment by trapping and retaining sand on the updrift side of the groin.

### ***Bluff Face Re-contouring and Stabilization Measures***

**Biotechnical slope protection** combines the use of biodegradable wood cribbing and wet soil vegetation. The structure provides support for the bluff at a groundwater seepage area, while the vegetation absorbs the groundwater, eventually revegetating the bluff face.

**Dewatering** intercepts groundwater before it reaches the bluff face. Wells and groundwater trenches can collect groundwater for re-channeling to the base of the bluff.

**Vegetation** is a natural and inexpensive method to help stabilize the bluff. Plant root systems hold soil together and absorb surface and groundwater. Plant leaves intercept the impact of raindrops and allow water absorbed by the root system to return to the atmosphere through a process called evapotranspiration.

### **Your First Contact Should Be...**

The Pennsylvania Department of Environmental Protection (DEP), Coastal Resources Management Program offers free Technical Advisory Services (TAS) to property owners affected by shoreline erosion and bluff recession. The TAS consists of on-site inspections and recommendations on shoreline protection, surface and groundwater control, bluff stabilization, and use of vegetation to stabilize loose soil. There is no charge for the TAS. The contact for this free service is Jake Moore (814) 217-9634.

### **Then, locate a Qualified Contractor...**

Pennsylvania Sea Grant has compiled the following list of companies that design, manufacture and install shoreline protection and bluff stabilization structures. The contractors on this list have attended a Best Management Practices workshop for Professionals, presented by Pennsylvania Sea Grant and the Coastal Resource Management Program. These workshops, funded by the Great Lakes Commission and Coastal Resources Management Program, provided current scientific information to familiarize participants with bluff processes and recommended methods for work done in erosion-prone areas along Lake Erie bluffs and ravine systems.

**Please note: this list is provided as a public service and is not meant as an endorsement of any particular company. Obtain appropriate credentials before contacting and professional services.**

**Consulting Engineers**

**CT Consultants**

Mr. Tim Lannon  
Mr. Time Hadden  
35000 Kaiser Court  
Willoughby, OH 44094  
440-951-9000  
Email: tlannon@ctconsultants.com  
thadden@ctconsultants.com

**Czop/Specter**

Mr. Mark Kukla  
69 East Main Street  
North East, PA 16428  
814-725-4310  
Email: mkukla@czopspecter.com

**Kusmer and Associates**

Mr. Bob Kusmer  
622 W. State Street  
Fremont, OH 43420  
419-332-1027  
Email: kusmer.associates@sbcglobal.net

**Matczak Architects**

Mr. John Evans  
4509 West 26<sup>th</sup>  
Erie, PA 16505  
814-836-8500  
Email: John@gjmaia.com

**Matrix Engineering, Inc.**

Mr. John Maticardi  
12815 Detroit Ave.  
Lakewood, OH 44107  
216-226-6520  
Email: matrixlake@aol.com

**Porter Consulting**

Mr. L. Ashely Porter  
Mr. Bruce Patterson  
Mr. Kevin Mullen  
Mr. Justin Dickey  
Mr. Bill Mechlenburg  
814 North Main  
Meadville, PA 16335  
814-337-4447  
Email: admin@pcengineers.com

**Sanford Surveying and Engineering**

Mr. Michael Sanford  
2209 W Grandview Blvd  
Erie, PA 16506  
814-835-0010

**Urban Engineers**

Mr. Tim Polaski  
Mr. Matt Jonas  
1319 Sassafras Street  
Erie, PA 16501  
814-453-5702  
Email: mejonas@urbanengineers.com

**Environmental and Ecological Services and Products**

**A Skywalker Tree Services**

5580 Crane Rd  
Edinboro, PA 16412  
814-434-3233

**Davey Tree Service**

Ms. Ana Burns  
Ms. Ruth Ann Sobnosky  
1500 N. Mantua Street  
Kent, OH 44240  
330-673-5685x37  
Email: ana.burns@davey.com  
Ruthann.sobnosky@davey.com

**Ernst Conservation Seed**

Mr. Greg Kedzierski  
9006 Mercer Pike  
Meadville, PA 16335  
800-873-3321

**Hagg Environmental Company**

Mr. Bob Haag  
Ms. Ruth Haag  
315 East Market Street  
Sandusky, OH 44870  
419-621-9311  
Email: ruth.hagg@hagghg.com

**J. Thomas Tree Service**

Mr. Jacob Thomas  
325 Crescent Drive  
Erie, PA 16505  
814-882-5111

**Landscape Architects/Landscapers**

**Dahlkemper Landscape Architects and Contractors**

Mr. Dan Dahlkemper  
Mr. David Marino  
Mr. Tony Gingrich  
1650 Norcross Road  
Erie, PA 16510  
814-825-3252  
Email: [Dan@dahlkemperlandscape.com](mailto:Dan@dahlkemperlandscape.com); [Dave@dahlkemperlandscape.com](mailto:Dave@dahlkemperlandscape.com);  
[Tony@dahlkemperlandscape.com](mailto:Tony@dahlkemperlandscape.com)

**David Laird Associates**

Mr. John Laird  
1557 West 26<sup>th</sup> Street  
Eire, PA 16508  
814-456-0330  
Email: info@lairdsurvey.net

**Schmidt Copeland Parker Stevens**

Mr. Michael Kannard  
1220 West 6<sup>th</sup> Street, Suite 3  
Cleveland, OH 44113  
216-696-6767x112  
Website: www.scpsohio.com

**Stuart's Landscape**

Mr. Bob Stuart  
670 Stuart Road  
Falls Creek, PA 15840  
814-371-5298  
Email: rstuart@brockwaytv.com

**The Plant Place**

Mr. Bill Darrin  
11232 Perry Highway  
Meadville, PA 16335  
814-724-2444

**Real Estate Agencies**

**Bay City Real Estate**

Mr. Alan Taylor  
3544 West 12<sup>th</sup> Street  
Erie, PA 16505  
814-835-8000  
Email: al@goaltaylor.com

**Coldwell Banker Realty**

Ms. Sue Gerrety  
Ms. Kathe Rafferty  
2100 West 8th Street  
Erie, PA 16505  
814-452-2100x135  
Email: sgerrety@eriemoves.com  
kathe@coldwellbanker.com

**ERA Signature Realty**

Ms. Sue Busse  
2950 West 12<sup>th</sup> Street  
Erie, PA 16505  
814-838-0740  
Email: suebusse@eriehome.com

**Howard Hanna**

Mr. Elmer LeSeur III  
Mr. Bill Schaaf  
Ms. Jeanette Hayes  
5620 Peach Street  
Erie, PA 16509  
814-864-3200  
Email: elesuer@howardhanna.com  
schaafappr@aol.com  
jahayes@gte.net

**REMAX Realty**

Mr. Douglas Prozan  
Ms. Nedra Lehrian  
Ms. Loretta Dwyer Schaal  
2701 Evanston Ave.  
Erie, PA 16505  
814-833-9801  
Email: stellar@gmail.com  
dprozan@prozan.com  
nedlehrian@aol.com  
lorettaschaal@remax.net



## **Surveyors**

### **Benchmark Surveying**

Mr. Lynn Hofius  
12612 Route 19  
Waterford, PA 16441  
814-796-2053  
Email: Benchmrk1@earthlink.net

### **David Laird Associates**

Mr. John Laird  
Erie, PA 16508  
814-456-0330  
Email: info@lairdsurvey.net

### **Henry T. Welka and Associates**

Mr. Jim Welka  
3200 West 32<sup>nd</sup> Street  
Erie, PA 16506  
814-833-3900  
Email: tlusconi@welka.com

### **Rabell Surveying**

Mr. Robert Rabell  
10560 Walnut St  
Albion, PA 16401  
814-833-9487

### **Sanford Surveying and Engineering**

Mr. Michael Sanford  
2209 W Grandview Blvd  
Erie, PA 16506  
814-835-0010

## **Trucking Firms**

### **Denny's Trucking Company**

Mrs. Brenda Pyle

Mr. Dennis Pyle

9000 Wattsburg Road

Erie, PA 16509

814-825-0976

Email: p2004@adelphia.net

### **Eagle Excavating**

Mr. Mark Mihalik

2388 Countyline Road

Madison, OH 44057

440-466-1776

Email: eagle\_ex@windstream.net

### **Renick Trucking and Excavating**

Mr. Steve Renick

14601 Beason Road

Edinboro, PA 16412

814-734-8932

**Township Contact Information:**

**Please note:** If you are considering any type of construction you must contact your township officials for building and zoning permits. A list of township officials is included here:

**City of Erie Zoning Officer \***

626 State Street  
Erie, PA 16505  
814-870-1265

**Fairview Township Zoning Officer**

7471 McCray Road  
Fairview, PA 16415  
814-474-5942

**Girard Township Zoning Officer \***

10140 Ridge Road  
Girard, PA 16417  
814-774-4738

**Harborcreek Township Zoning Officer**

5601 Buffalo Road  
Harborcreek, PA 16421  
814-899-3171

**Lake City Borough Zoning Officer**

2350 Main Street  
Lake City, PA 16423  
814-774-2116

**Lawrence Park Township Zoning Officer**

4230 Iroquois Avenue  
Erie, PA 16511  
814-899-2305

**Millcreek Township Zoning Officer**

3608 West 26<sup>th</sup> Street  
Erie, PA 16505-2037  
814-833-1111

**North East Township Zoning Officer**

10300 West Main Road  
North East, PA 16428  
814-725-8606

**Springfield Township Zoning Officer**

13300 Ridge Road, Box 274  
West Springfield, PA 16443  
814-922-3274

**Additional sources of information regarding this subject include:**

**Department of Conservation of Natural Resources - Bureau of Forestry**

Erie County Service Forester  
12723 Route 19  
Waterford, PA 16442  
814-796-6787

**Department of Environmental Protection**

**Northwest Regional Office**

230 Market Street  
Meadville, PA 16335  
814-332-6945

-or-

**Department of Environmental Protection**

**Coastal Resources Management Program**

Tom Ridge Environmental Center  
301 Peninsula Drive, Suite 4  
Erie, PA 16505  
814-217-9634

**Chautauqua County Soil and Water District**

3542 Turner Road  
Jamestown, NY 14701  
716-664-2351  
Email: [chaut-co@soilwater.org](mailto:chaut-co@soilwater.org)

**Crawford County Conservation District**

21742 German Road  
Meadville, PA 16335  
814-763-5269

**Erie County Conservation District**

1927 Wager Road  
Erie, PA 16509  
814-825-6403

**Erie County Department of Planning**

140 West 6<sup>th</sup> Street, Room 111  
Erie, PA 16501  
814-451-6336

**Erie County Department of Health**

606 West 2<sup>nd</sup> Street  
Erie, PA 16507  
814-451-6700

**Lake County Ohio**

125 East Erie Street  
Painesville, OH 44077  
440-350-5900  
Storm Water Management Department: 440-350-5900  
Planning Department: 440-350-2740

**Lake County Soil and Water Conservation District**

125 East Erie Street  
Painesville, OH 44077  
440-350-2730

**Northeast Ohio Areawide Coordinating Agency (NOACA)**

1299 Superior Ave.  
Cleveland, OH 44114  
216-241-2414

**New York Department of Environmental Conservation**

625 Broadway  
Albany, NY 12233  
518-402-8013

**Ohio Department of Natural Resources**

105 W Shoreline Drive  
Sandusky, OH 44870  
419-609-4112

**Ohio Department of Transportation**

1980 West Broad Street  
Columbus, OH 43223  
614-466-7170

**Ohio Environmental Council**

1207 Grandview Ave, Suite 201  
Columbus, OH 43212  
614-487-7506

**Ohio Environmental Protection Agency**

Central Office  
P.O Box 1049  
Columbus, OH 43216  
614-644-3020

**PA Department of Environmental Protection**

Northwest Region  
230 Chestnut Street  
Meadville, PA 16335  
814-332-6982

**PA Fish and Boat Commission**

Northwest Region Office  
11528 State Highway 98  
Meadville, PA 16335  
814-337-0444

**Pennsylvania Sea Grant**

Tom Ridge Environmental Center  
301 Peninsula Drive, Suite 3  
Erie, PA 16505  
814-217-9015

**US Forest Service**

29 Forest Service Drive  
Bradford, PA 16701  
814-363-6086

**United States Army Corps of Engineers**

**Pittsburgh District**

Wm. Moorehead Federal Building  
1000 Liberty Avenue  
Pittsburgh, PA 15222-4186  
412-396-7158

**United States Army Corps of Engineers**

**Great Lakes and Ohio River Division**

550 Main Street, Room #10032  
Cincinnati, OH 45202  
513-684-3010

**Western PA Conservancy**

800 Waterfront Drive  
Pittsburgh, PA 15222  
412-586-2333

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