



Fact Sheet 18

Identifying Your Shoreline Erosion Problems

by Frank R. Lichtkoppler, Area Extension Agent

Defining the problem is the first step in shoreline erosion abatement. Deciding upon a specific solution before the problem is adequately defined wastes time, effort and money. A careful visual survey of your property using this "do-it-yourself checklist" will help you define your particular problem.

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SHORELINE CHECKLIST

- I On what shore type is your property located? (Check the answer below that describes your situation.)
- high erodible bluff (greater than 30 feet high)
 - low erodible bluff (10 to 30 feet high)
 - low erodible plain (less than 10 feet high)
 - sand dunes
 - wetlands or marsh
- II Describe your shoreline property. (Actually measure the distances with a tape and fill in the blanks below.)
- How high above the water level is your house?
 - How close to the edge of a bluff is your house?
 - How close are other structures to the edge of a bluff?
 - What is the angle of slope of the bluff, sand dune or beach?
(See page 5)
 - How wide is the beach from the waterline to the base of the bluff?
- What kinds of material make up the bluff? (Place a check beside the appropriate answer.)
- sand
 - one layer of clay or unstratified material
 - one layer of sand or silt
 - bedrock
 - mixed layers of sand, silt, clay or till

What kinds of materials make up the beach?

- sand
- sand and gravel
- gravel and rock
- other (specify) _____

III What are the problems along your shoreline? (Place a check in the box beside the appropriate answer to the following questions.)

A. Wave Action:

- | yes | no | |
|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | Are waves eroding the beach? |
| <input type="checkbox"/> | <input type="checkbox"/> | Are waves eroding the base of the bluff during storms? |
| <input type="checkbox"/> | <input type="checkbox"/> | Are there presently any shore protection structures on your property? |
| <input type="checkbox"/> | <input type="checkbox"/> | Are there presently any shore protection structures on your neighbor's property? |
| <input type="checkbox"/> | <input type="checkbox"/> | Are shore protection structures, if present, in good repair? |

B. Groundwater:

- | yes | no | |
|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | Does groundwater flow out of the face of your bluff? |
| <input type="checkbox"/> | <input type="checkbox"/> | Is active slumping (landslides) occurring? |
| | | In what ways do you add water to the groundwater supply on the top of the bluff? |
| | | <input type="checkbox"/> septic tank |
| | | <input type="checkbox"/> sprinkling or irrigation |
| | | <input type="checkbox"/> drain pipes |
| | | <input type="checkbox"/> swimming pool |

C. Surface Runoff and Wind Erosion:

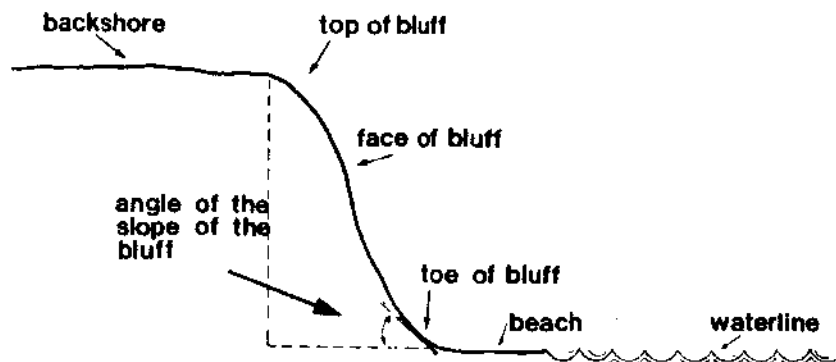
yes no
____ ____ Are the effects of either visible on your property?
 ____ raindrop impact
 ____ rills (small ruts)
 ____ gullies
____ ____ Are you contributing to surface runoff?
 ____ drain pipes from home or garage
 ____ sprinkling or irrigation
 ____ other (specify) _____
____ ____ Is sand being blown off the beach or are
 dunes shifting?

D. Vegetation:

yes no
____ ____ Is there any vegetation on the bluff top,
 bluff face or toe?
____ ____ Was there ever any vegetation on the bluff
 top, bluff face or toe?
 If yes, what happened to it?

 What vegetation types are (or were) found on the bluff top, bluff face
 or toe?
 ____ trees or woods
 ____ shrubs or brush
 ____ grass

Definitions and terms:



E. Property Use:

How do you use your shoreline property? (Check the appropriate answer.)

- homesite
- vacation cottage or recreation
- agriculture or forestry
- developed for business
- rental property

How do you use the bluff or backshore area?

- for access to beach by foot or vehicle
- as a place to view the lake
- as a building site
- for fill
- other (specify) _____

After you have defined your shore area and have identified its erosion problems, your next step is to determine solutions to each of the problems you have identified. Learn as much as you can about the nature of shoreline erosion. Organize with your neighbors to cooperatively combat the common problem. Seek out competent advice on technical matters such as engineering, soils, drainage and vegetation, before you proceed. Consult experienced coastal engineers, the Soil Conservation Service, County Extension Service agents, Sea Grant Advisory Service agents and others knowledgeable about specific aspects of shoreline erosion for information.

Information in this fact sheet was adopted from the following two publications:

"The Role of Vegetation in Shoreline Management: A Guide for Shoreline Property Owners." Great Lakes Basin Commission, Ann Arbor, Michigan.

"Harmony with the Lake: Guide to Bluff Stabilization," Division of Water Resources, Illinois Department of Transportation, Room 1010, Marine City Office Building, 300 N. State Street, Chicago, Illinois 60610.

Angle of Slope Guide

Make a guide to determine the angle of the slope of the bluff by pasting this drawing to a piece of cardboard. Attach a piece of string with a weight on the end to the upper left hand corner. Align the bottom edge along the slope of the bluff. Read the angle of the slope. (Adapted from "Harmony with the Lake: A Guide to Bluff Stabilization," Division of Water Resources, Illinois Department of Transportation.)

CUT HERE

