Coastal Bluffs

Classification of Coastal Bluffs

- **Low**:
  - Erosion Type: Low. Bluff slopes are generally steep and can be unstable. This type is found in low-energy environments.
  - Beach Erosion: Low. Beaches are not significantly eroded.

- **Medium**:
  - Erosion Type: Medium. Bluff slopes are moderately steep and stable. This type is found in moderate-energy environments.
  - Beach Erosion: Medium. Beaches are moderately eroded.

- **High**:
  - Erosion Type: High. Bluff slopes are very steep and unstable. This type is found in high-energy environments.
  - Beach Erosion: High. Beaches are significantly eroded.

- **Very High**:
  - Erosion Type: Very High. Bluff slopes are extremely steep and unstable. This type is found in extremely high-energy environments.
  - Beach Erosion: Very High. Beaches are extremely eroded.

- **None**:
  - Erosion Type: None. Bluff slopes are not present or are very flat. This type is found in areas with low energy.

- **No Bluff**:
  - Erosion Type: No Bluff. The area does not have a bluff present.

Shoreline Processes and Bluff Hazards

- **Shoreline Hazards**:
  - Erosion: Erosion is a major hazard along coastal bluffs. It can lead to the loss of coastal property and infrastructure.
  - Flooding: Flooding can occur during high tides and storms.

- **Morphological Hazards**:
  - Slumping: Slumping can occur due to the instability of the bluff.
  - Thrust: Thrust is another morphological hazard, where the land moves horizontally.

- **Other Hazards**:
  - Storm Surge: Storm surge can increase the risk of flooding.
  - Sediment Delivery: Sediment delivery can exacerbate coastal erosion.

Estimation of Bluff Hazards

- **Potential Erosion**:
  - Low: Low potential for erosion. Bluffs are stable and not at risk.
  - Medium: Medium potential for erosion. Bluffs are moderately stable.
  - High: High potential for erosion. Bluffs are unstable and at risk.
  - Very High: Very high potential for erosion. Bluffs are extremely unstable.

- **Beach Erosion**:
  - Low: Low potential for beach erosion. Beaches are relatively stable.
  - Medium: Medium potential for beach erosion. Beaches are moderately stable.
  - High: High potential for beach erosion. Beaches are unstable.
  - Very High: Very high potential for beach erosion. Beaches are extremely unstable.

- **Bluff Erosion**:
  - Low: Low potential for bluff erosion. Bluffs are stable and not at risk.
  - Medium: Medium potential for bluff erosion. Bluffs are moderately stable.
  - High: High potential for bluff erosion. Bluffs are unstable and at risk.
  - Very High: Very high potential for bluff erosion. Bluffs are extremely unstable.

- **Total**:
  - Total potential for coastal hazards. This includes all types of erosion and is a measure of the overall risk.

North Haven West Quadrangle, Maine

**Open File No. 93-20**

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**Maine Geological Survey**

**Coastal Bluffs**

**Classification of Coastal Bluffs**

- Low: Bluffs with minimal erosion and stable slopes.
- Medium: Bluffs with moderate erosion and unstable slopes.
- High: Bluffs with significant erosion and very unstable slopes.
- Very High: Bluffs with extreme erosion and highly unstable slopes.
- No Bluff: Areas without coastal bluffs.

**Shoreline Processes and Bluff Hazards**

- Erosion: Caused by wave action and storm surges.
- Flooding: Caused by high tides and storm surges.
- Slumping: Caused by soil instability.
- Thrust: Caused by horizontal movement of land.

**Potential Erosion**

- Low: Bluffs with minimal potential for erosion.
- Medium: Bluffs with moderate potential for erosion.
- High: Bluffs with significant potential for erosion.
- Very High: Bluffs with extreme potential for erosion.

**Beach Erosion**

- Low: Beaches with minimal potential for erosion.
- Medium: Beaches with moderate potential for erosion.
- High: Beaches with significant potential for erosion.
- Very High: Beaches with extreme potential for erosion.

**Bluff Erosion**

- Low: Bluffs with minimal potential for erosion.
- Medium: Bluffs with moderate potential for erosion.
- High: Bluffs with significant potential for erosion.
- Very High: Bluffs with extreme potential for erosion.

**Total**

- Total potential for coastal hazards.

**Other Sources of Information**

- Local government reports and studies.
- Coastal engineering reports and studies.

**Data Collection and Compilation**

- Data collected by the Maine Geological Survey and other relevant agencies.
- Compilation by the Maine Geological Survey.

**Limitations**

- Some data may be outdated or incomplete.
- Some areas may not be accurately mapped due to limitations in technology.

**Acknowledgments**

- Acknowledgment to all contributors and stakeholders.

**Map Scale**

- 1:24,000 scale.

**Legend**

- Bluff types, erosion types, and potential hazards are represented on the map.

**References**

- Local government reports and studies.
- Coastal engineering reports and studies.