

Worksheet - Decision Tree for Undefended Shorelines and Those with Failed Structures

The numbers below correspond to those found on the decision tree diagram. At the first question (number 1), evaluate the site in relation to the question. Follow the answer relevant to the site to the next appropriate number indicated by your response. You will not answer every question, because not every question is relevant to every situation.

For example: If your answer to the first question “What type of Bank erosion is present?” is Low Erosion, you will proceed to 1a. You will never answer question 2, because it is only relevant in situations where there is high erosion.

1. What type of bank erosion is present?

- ☐ Low → Proceed to **1a**
- ☐ High and/or undercut → Proceed to **2**

1a. Is the shoreline forested?

- ☐ Yes → 1a(1). VEGETATION MANAGEMENT: FOREST STEWARDSHIP
- ☐ No → 1a(2). VEGETATION MANAGEMENT OF MARSH AND/OR RIPARIAN BUFFER AREA

2. Is the shoreline forested?

- ☐ Yes → Proceed to **2a**
- ☐ No → Proceed to **3**

2a. What is the bank height?

- ☐ 0-30 feet
2a(1). MANAGE THE FOREST TO PREVENT TREE FALLS **AND** Proceed to **5**
- ☐ Greater than 30 ft
2a(2). GRADE THE BANK AND USE GOOD UPLAND MANAGEMENT PRACTICES TO PREVENT FURTHER EROSION **AND** Proceed to **5**

3. Does structure or other improvement location prohibit grading?

- ☐ Yes → 3a. MOVE THE IMPROVEMENT, IF POSSIBLE; CONSULT WITH AN EXPERT
- ☐ No → Proceed to **4**

4. GRADE BANK AND VEGETATE
AND → Proceed to **5**

5. Is there a marsh present?

- ☐ Yes, < 15 feet wide → Proceed to **5a**
- ☐ Yes, ≥ 15 feet wide → Proceed to **5b**
- ☐ No → Proceed to **6**

5a. How long is the fetch?

- ☐ Low (< ½ mile)
5a(1). EXPAND THE MARSH, USE A FIBER LOG FOR TOE PROTECTION
- ☐ Moderate or High ($\geq ½$ mile)
5a(2). EXPAND THE MARSH, USE A SILL FOR MARSH TOE PROTECTION

5b. How long is the fetch?

- ☐ Low (< ½ mile)
5b(1). MANAGE RIPARIAN BUFFER AND MARSH VEGETATION TO PREVENT FUTURE EROSION
- ☐ Moderate or High ($\geq ½$ mile)
5b(2). BUILD A ROCK SILL FOR MARSH TOE PROTECTION

6. Is there a beach present?

- ☐ Yes → 6a. NOURISH THE BEACH WITH SAND; ADD A SILL OR BREAKWATER WHERE NECESSARY
- ☐ No → Proceed to **7**

7. How long is the fetch?

- ☐ Low (< ½ mile) → Proceed to **7a**
- ☐ Moderate (between ½ and 2 miles) → Proceed to **7b**
- ☐ High (> 2 miles) → Proceed to **7c**

7a. What is the nearshore water depth?

- ☐ Shallow (at 30 ft. channelward from MLW, water depth is ≤ 3 ft.)
7a(1). CREATE A MARSH, PROTECT THE TOE WITH A FIBER LOG
- ☐ Deep (at 30 ft. channelward from MLW, water depth is > 3 ft.)
7a(2). CONSTRUCT A REVETMENT, PLACE IT ONSHORE TO THE EXTENT POSSIBLE

7b. What is the nearshore water depth?

- ☐ Shallow (at 30 ft. channelward from MLW, water depth is ≤ 3 ft.)
7b(1). CREATE A MARSH, PROTECT THE TOE WITH A SILL
- ☐ Deep (at 30 ft. channelward from MLW, water depth is > 3 ft.)
7b(2). CONSTRUCT A REVETMENT, PLACE IT ONSHORE TO THE EXTENT POSSIBLE

7c. CONSTRUCT A BREAKWATER AND ADD BEACH NOURISHMENT