PROBLEM: Pacific cordgrass (*Spartina foliosa*) (Figure 1) has been shown to be useful for reducing erosion on sheltered and low wave energy shorelines. However, a method is needed for determining site suitability and for identifying appropriate plant materials and planting methods on a case by case basis.

APPROACH: A potential site can be evaluated using Figure 2 - Vegetative Stabilization Site Evaluation Form. This Form helps the user to determine whether or not the site is suitable for stabilizing with Pacific cordgrass (the primary plant used for bank stabilization in this region).

**Step One - Site Suitability:** Consider each of the shore variables in Figure 2. Select the descriptive category for each variable which best describes the site. Place the numerical score assigned to the appropriate descriptive category in the right-hand column. Total the column to determine the cumulative wave climate score. Sites which score from 0 to 30 are suitable for vegetative stabilization with Pacific cordgrass.

Figure 1 - Pacific Cordgrass
**Report Documentation Page**

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5. **AUTHOR(S)**
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    - Same as Report (SAR)

12. **NUMBER OF PAGES**
    - 3

Standard Form 298 (Rev. 8-98)
Prepared by ANSI Std Z39-18
### 1. SHORE VARIABLES

**a. FETCH - AVERAGE**

<table>
<thead>
<tr>
<th>Score: 0</th>
<th>Score: 2</th>
<th>Score: 4</th>
<th>Score: 6</th>
<th>Score: 8</th>
<th>Score: 10</th>
</tr>
</thead>
<tbody>
<tr>
<td>LESS</td>
<td>3.1</td>
<td>6.1</td>
<td>9.1</td>
<td>12.1</td>
<td>GREATER</td>
</tr>
<tr>
<td>THAN</td>
<td>(1.9)</td>
<td>(3.9)</td>
<td>(5.7)</td>
<td>(7.6)</td>
<td>THAN</td>
</tr>
<tr>
<td>3.0</td>
<td>to</td>
<td>to</td>
<td>to</td>
<td>to</td>
<td>15.0</td>
</tr>
<tr>
<td>(1.8)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(9.4)</td>
</tr>
</tbody>
</table>

**b. FETCH - LONGEST**

<table>
<thead>
<tr>
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<th>Score: 2</th>
<th>Score: 4</th>
<th>Score: 6</th>
<th>Score: 8</th>
<th>Score: 10</th>
</tr>
</thead>
<tbody>
<tr>
<td>LESS</td>
<td>4.1</td>
<td>8.1</td>
<td>12.1</td>
<td>16.1</td>
<td>THAN</td>
</tr>
<tr>
<td>THAN</td>
<td>(2.6)</td>
<td>(5.1)</td>
<td>(7.6)</td>
<td>(10.1)</td>
<td>GREATER</td>
</tr>
<tr>
<td>4.0</td>
<td>to</td>
<td>to</td>
<td>to</td>
<td>to</td>
<td>20.0</td>
</tr>
<tr>
<td>(2.5)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(12.6)</td>
</tr>
</tbody>
</table>

**c. SHORELINE GEOMETRY**

<table>
<thead>
<tr>
<th>Score: 0</th>
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<th>Score: 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>COVE</td>
<td>IRREGULAR SHORELINE</td>
<td>HEADLAND OR STRAIGHT SHORELINE</td>
</tr>
</tbody>
</table>

**d. SHORE SLOPE**

- GRADUAL
  - 1 to 15 OR LESS
- STEEP
  - MORE THAN 1 to 15

**e. SEDIMENT**

<table>
<thead>
<tr>
<th>Score: 0</th>
<th>Score: 2</th>
<th>Score: 4</th>
<th>Score: 6</th>
<th>Score: 8</th>
</tr>
</thead>
<tbody>
<tr>
<td>SILT &amp; CLAY</td>
<td>FINE SAND</td>
<td>MEDIUM SAND</td>
<td>COARSE SAND</td>
<td>GRAVEL</td>
</tr>
</tbody>
</table>

**f. BOAT TRAFFIC**

- NO NAVIGATION CHANNEL WITHIN 1 KILOMETER (0.6 MILES)
- NAVIGATION CHANNEL WITHIN 1 KILOMETER (0.6 MILES)
- NAVIGATION CHANNEL WITHIN 100 METERS (330 FT)

**g. WIND**

- SHELTERED FROM WIND
- DOES NOT FACE IN THE DIRECTION OF PREVAILING WINDS OR FREQUENT STORM WINDS
- FACES IN THE DIRECTION OF PREVAILING WINDS OR FREQUENT STORM WINDS

### 4. CUMULATIVE WAVE CLIMATE SCORE

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Figure 2. Vegetative Stabilization Site Evaluation Form
Step Two - Planting Specifications for Pacific Cordgrass: The following planting specifications are keyed to the cumulative wave climate score, determined in step one.

TABLE - Planting Guide

<table>
<thead>
<tr>
<th>Specification</th>
<th>Evaluation Score</th>
<th>1-10</th>
<th>11-20</th>
<th>21-30</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planting Techniques:</td>
<td></td>
<td>Sprigs</td>
<td>Sprigs or 15 week seedlings</td>
<td>5-7 month seedlings or plugs</td>
</tr>
<tr>
<td>Plant Spacing:</td>
<td></td>
<td>0.5 meters</td>
<td>0.5 meters</td>
<td>0.5 meters</td>
</tr>
<tr>
<td>Minimum Width of Planting Zone:</td>
<td></td>
<td>3.0 meters</td>
<td>3.0 meters</td>
<td>6.0 meters</td>
</tr>
</tbody>
</table>

Optimal Salinity Range: 10 to 35 parts per thousand.

Planting Zones: Mean tide to mean high water.

Optimal Planting Time: March, April, and May

Fertilization: 30 to 50 kilograms per hectare 2 to 4 weeks after planting (consisting of equal parts of nitrogen and phosphate).

ADDITIONAL INFORMATION: For further information contact E. J. Pullen (601) 634-3650

