

## The Coastal Resources Management Council

### Maintenance Dredging - Ninigret Pond Sedimentation Basin

2011-2012

The CRMC, along with the Town of Charlestown, plans to perform a maintenance dredge of the sedimentation basin in Ninigret Pond. The dredging will be done to allow eelgrass growth within portions of the flood tidal delta, and to maintain flow and sedimentation to an area where eelgrass recruitment has been successful. Portions of the delta were previously dredged as part of the South Coast Restoration Project to create eelgrass habitat, and a sedimentation basin was created to prevent sediment from reaching the restoration areas and burying the restored eelgrass. The project was successful in that there was significant eelgrass growth in both a two acre section that was seeded and much of the remaining unseeded areas. A maintenance dredging schedule was developed for the sedimentation basin; however, sedimentation rates exceeded model predictions for the project, filling the basin and burying a significant percentage of the restored eelgrass habitat prior to the first scheduled maintenance dredging. The sedimentation basin will be dredged to 8 feet below mean low water. Sand dredged from the sedimentation basin will be hydraulically dredged into the intertidal beach to incorporate natural coastal processes to create beach habitat used by Piping Plover and other important species.

#### **Scope of Work**

The general description below is given to indicate the approximate scope of this project only. It does not limit the work required under the project drawings and performance standards. This project is the complete maintenance dredging within the area outlined and in accordance with the performance standards. The data and information furnished or referred to below is for the Contractor's information. The State shall not be responsible for any interpretation of or conclusion drawn from the data or information by the Contractor.

Description of Work: The work of this project is to perform maintenance dredging of a settlement basin near the entrance of Ninigret Pond in Charlestown, Rhode Island. The dredge material shall be removed using a hydraulic dredge and pipelines. Material dredged from the previously dredged basin shall be placed in the inter-tidal area on Charlestown Beach as indicated on the drawings. The pipeline shall be within the easement shown and the documents. All permits required for the project are included with this solicitation. The contractor shall supply all engineering and surveying work to comply with the project conditions and project performance standards. As an additional alternative, based on available funding the relief channel shall also be maintenance dredged to the limits shown on the attached plans.

The Ninigret Pond Channel is used mainly by small recreational and commercial vessels that may cause interference with dredging operations. The State will not act to keep the channel free from other users and the Contractor shall be required to obstruct navigation as little as possible. The contractor shall promptly recover and remove any material, plant, machinery that is lost, dumped, thrown or sinks into the waters of the State.

Restoration of the site shall include restoration to pre-construction condition based on a joint site inspection pre and post construction with the State/Town representative. The Contractor may work 24 hours per day, seven days per week, including holidays for the entire dredge window.

The blanket assignment will commence on November 1, 2011 and continue through March 30, 2012. The delivery schedule for individual projects will be set with task assignments.

### **Project Background**

The State of Rhode Island and the USACE are conducting a multiphase, multi year habitat restoration project along the south coast of Rhode Island. The project objectives are to improve eelgrass habitat and increase the abundance of scallops in Ninigret Pond as well as other ponds along the south coast. The dredge material has been beneficially reused by disposing of the sand to the down drift beach and dune habitat. This project is the maintenance dredging of the sedimentation basin portion of the habitat restoration of Ninigret pond habitat restoration. An alternative portion of the project (based on funding) is the maintenance dredging of the "relief channel" which provides a location for sand to bypass the basin and settle out before impacting eel grass.

Figure 1 - Project Overview





Figure 2 - Maintenance Dredging - Ninigret Pond Sedimentaion Basin

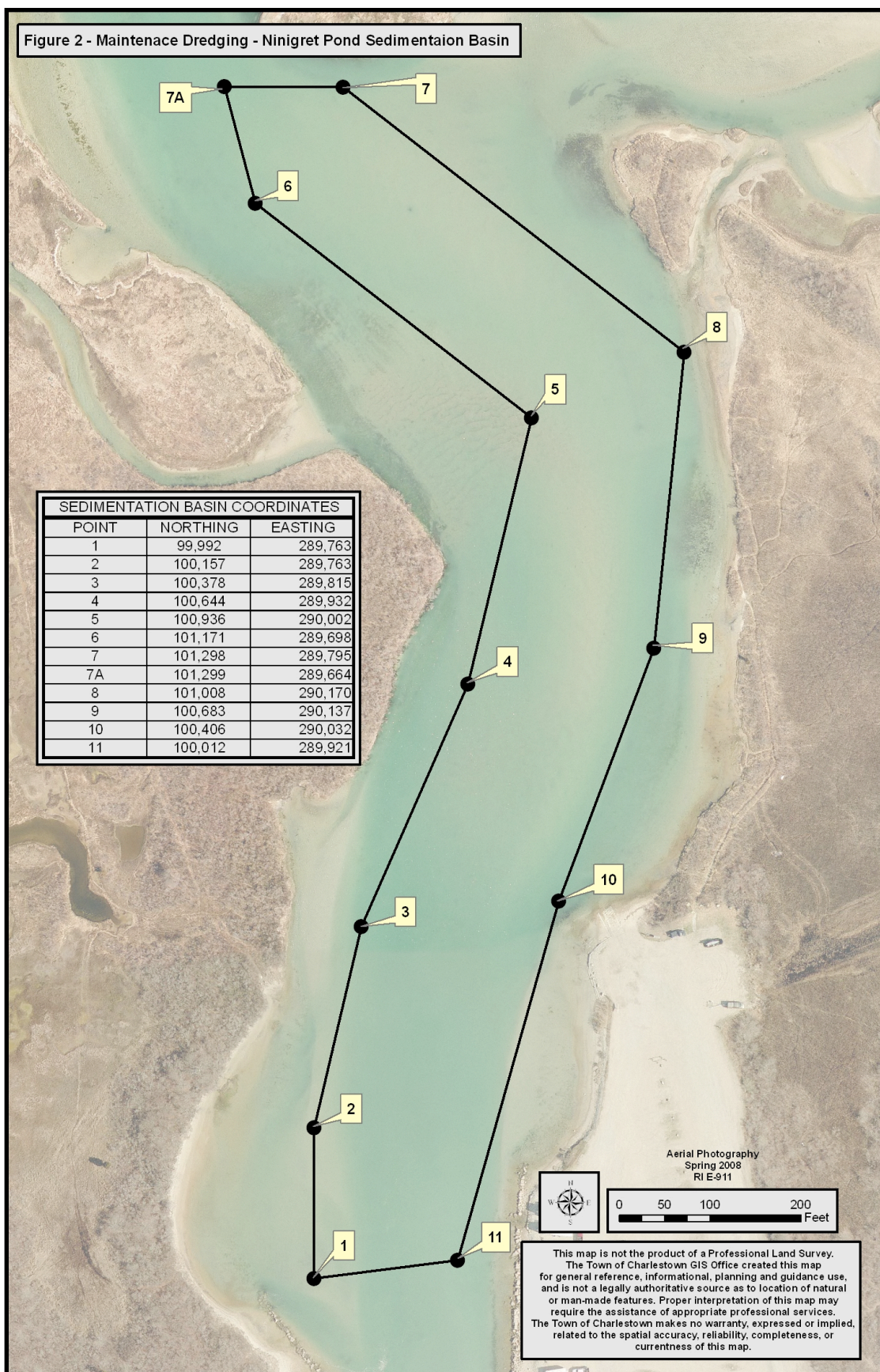




Figure 3 - Maintenance Dredging - Ninigret Pond Relief Channel  
(Add Alternative 1)

| RELIEF CHANNEL COORDINATES |          |         |
|----------------------------|----------|---------|
| POINT                      | NORTHING | EASTING |
| 1                          | 102,342  | 289,489 |
| 2                          | 102,481  | 289,413 |
| 3                          | 102,618  | 289,413 |
| 4                          | 103,128  | 289,981 |
| 5                          | 103,584  | 290,200 |
| 6                          | 103,837  | 290,258 |
| 7                          | 103,094  | 290,034 |
| 8                          | 102,591  | 289,473 |
| 9                          | 102,496  | 289,473 |
| 10                         | 102,371  | 289,542 |

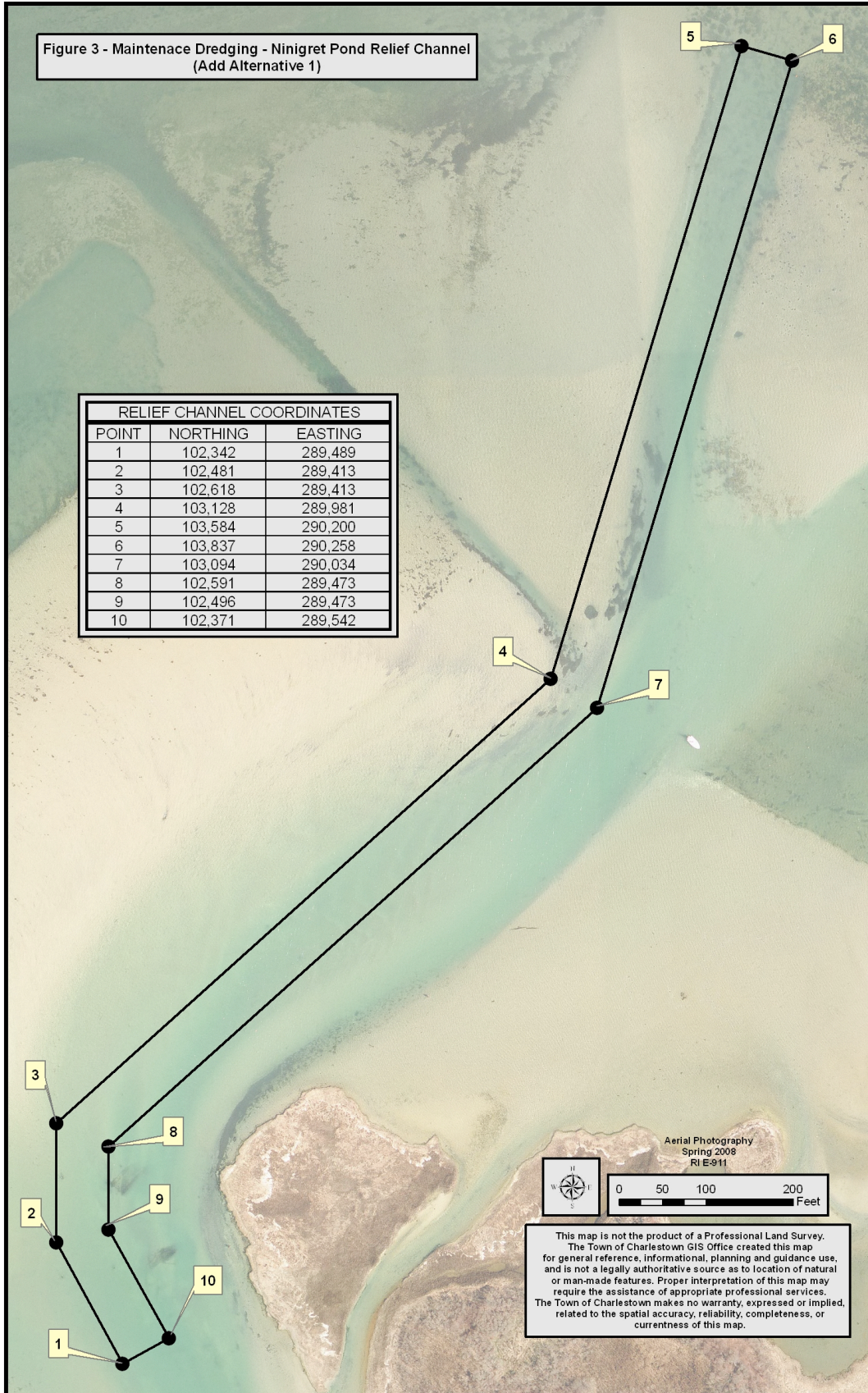




Figure 4 - Dredge Material Beneficial Reuse Location

