# Method 10: In-Water and Overwater Structure Repair and Replacement

# 10A: *Piling*

**Project Title:**

**Project CIP Number:**

*See Section 3 of the SBE, Method* ***10A*** *for a complete description of the activity and conservation measures for this method. You need this information to fill out this form.*

Piling

1. Identify activity that will be conducted

Full extraction of existing piles

Cutting off existing piles a piles

Below the mudline: How far below?       ft

At the mudline

Above the mudline: How far above?       ft

Cutting off damaged section of pile and splicing in a new section.

Installation of new piles

2. Number, composition, and diameter of piling that will be extracted or cut off (e.g., *14 12” creosote treated piling and 3 10” steel piling*):

3. Method of piling extraction:

Choker chain  Vibratory pile driver

Other (describe):

4. Explain how the hole left from the extracted pile will be filled (e.g., clean sand will be backfilled into the hole; hole will be filled with similar material to match surrounding area):

5. If piles will be cut, what equipment will be used:  pneumatic knife  pneumatic saw

6. Will any excavation occur around the piles to facilitate cutting, if so, explain how excavation will occur, how much material will be removed, and where material will be stored:  No  Yes Explanation:

7. For treated piles that are being cut off, what type of cap or cover will be used to minimize or reduce to prevent leaching of contaminants into the water:  None  plastic cap  metal cap Other:

8. Number, composition, and diameter of piling where the damaged section will be removed and new section spliced onto the pile: (e.g., *14 12” creosote treated piling and 3 10” steel piling*):

9. How large of sections will be removed from the piles:

10. Explain how section of pile will be replaced? (e.g., will dock or superstructure be removed first and then pile cut and replaced, or will temporary structure be installed to bear weight of structure when section of pile is removed and replaced):

11. Number, composition, and diameter of piling that will be installed (e.g., *5 10” diameter steel piling and 3 untreated 12” diameter timber piling*):

12. Method of piling installation:

Impact hammer  Vibratory with proofing  Vibratory without proofing

Other (describe):

13. Sound attenuation method you’ll use for impact driving or proofing steel piling:

Bubble curtain  Wood block  Nylon block

Other (describe):

14. Substrate material into which piling will be installed:

15. Provide additional information (if any) on this construction method:

Conservation Measures

The following table contains the conservation measures identified for Method 10A. The table only provides a brief summary of the conservation measures. Please see Section 4 of the SBE for a complete description of each conservation measure. To get programmatic coverage by the Corps and Services for projects using this method, all conservation measures identified below must be included with the project (see Section 10 of the SBE). If, for some reason, a conservation measure is not applicable, or will not be used, you MUST provide a reason the conservation measure is not applicable or will not be used in the “Provide additional information” section below. Provide any additional conservation measures that may be implemented but are not listed. These may be found in Section 4: Conservation Measures of the SBE or in the City Standard Specifications.

| **Conservation Measures** | **Description** | **Included in**  **Project?** |
| --- | --- | --- |
| 1 | Approved work windows |  |
| 34 | Minimize number of piles and increase spacing between piles to reduce shading |  |
| 45 | Use plastic, cement or timber piles over steel piles |  |
| 46 | Use containment boom |  |
| 47 | Cap holes from pulling or cutting treated pilings |  |
| 48 | Do not use piling treated with creosote, pentachloraphenol, or coal tar |  |
| 49 | Do not use hydraulic water jets to remove or place piling |  |
| 50 | Replace piling in same general location (see CM# 34) |  |
| 51 | All treated wood removed will be contained on land or barge to preclude sediments and contaminated material from entering water |  |
| 52 | Use vibratory driver for installing piles |  |
| 53 | Use bubble curtain or other noise attenuation method |  |
| 54 | Conduct hydroacoustic monitoring during installation of large piles |  |
| 55 | Reduce noise from work operation |  |
| 56 | Deploy sound attenuation devices with use of impact hammers in marine/estuarine waters. An onsite observer must be available to scan for marine mammals |  |
| 62 | Do not ground or rest construction barge on substrate or on vegetation |  |
| 65 | Retrieve and remove debris that enters waterbody |  |

Please provide any additional information on Conservation Measures used or not used for this Method: