U.S. Army Corps of Engineers
San Francisco District
Regulatory Branch

figure 1
USACE File #2010-00209S
Mallard Slough Intake Channel
Maintenance Dredging
Vicinity Map

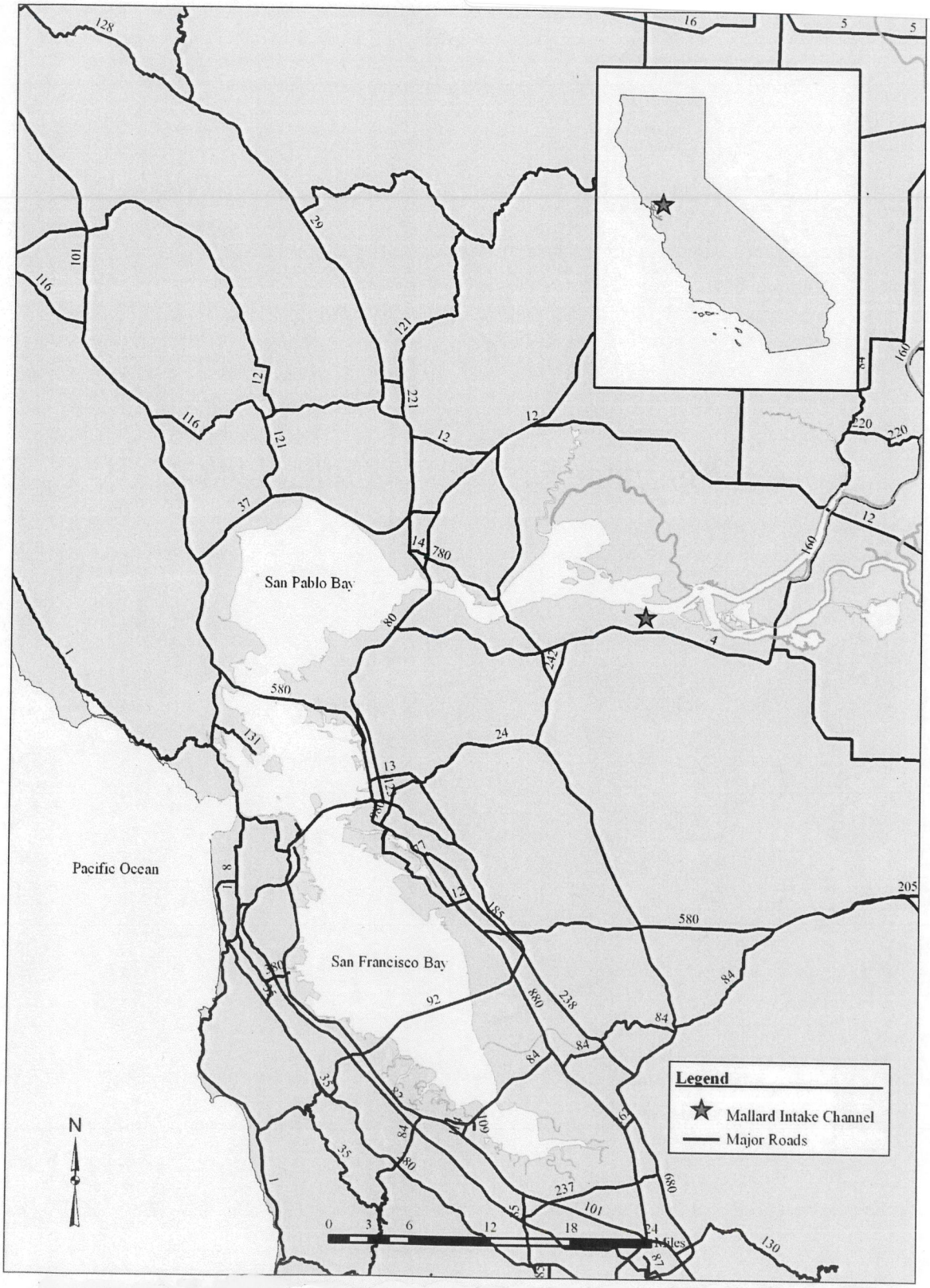


figure 2
USACE File #2010-00209S
Mallard Slough Intake Channel
Maintenance Dredging
Permitted Dredge Area

U.S. Army Corps of Engineers
San Francisco District
Regulatory Branch

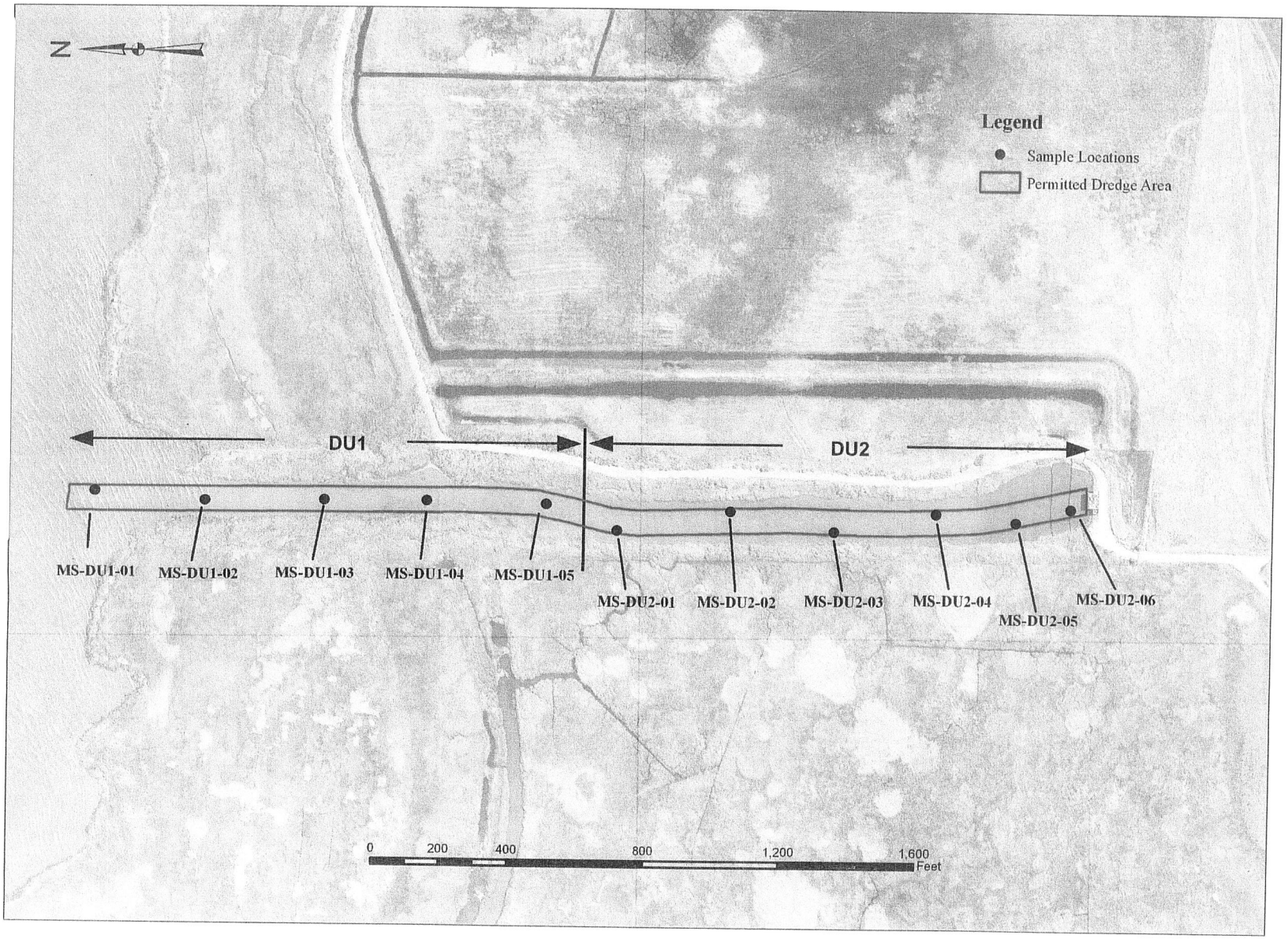
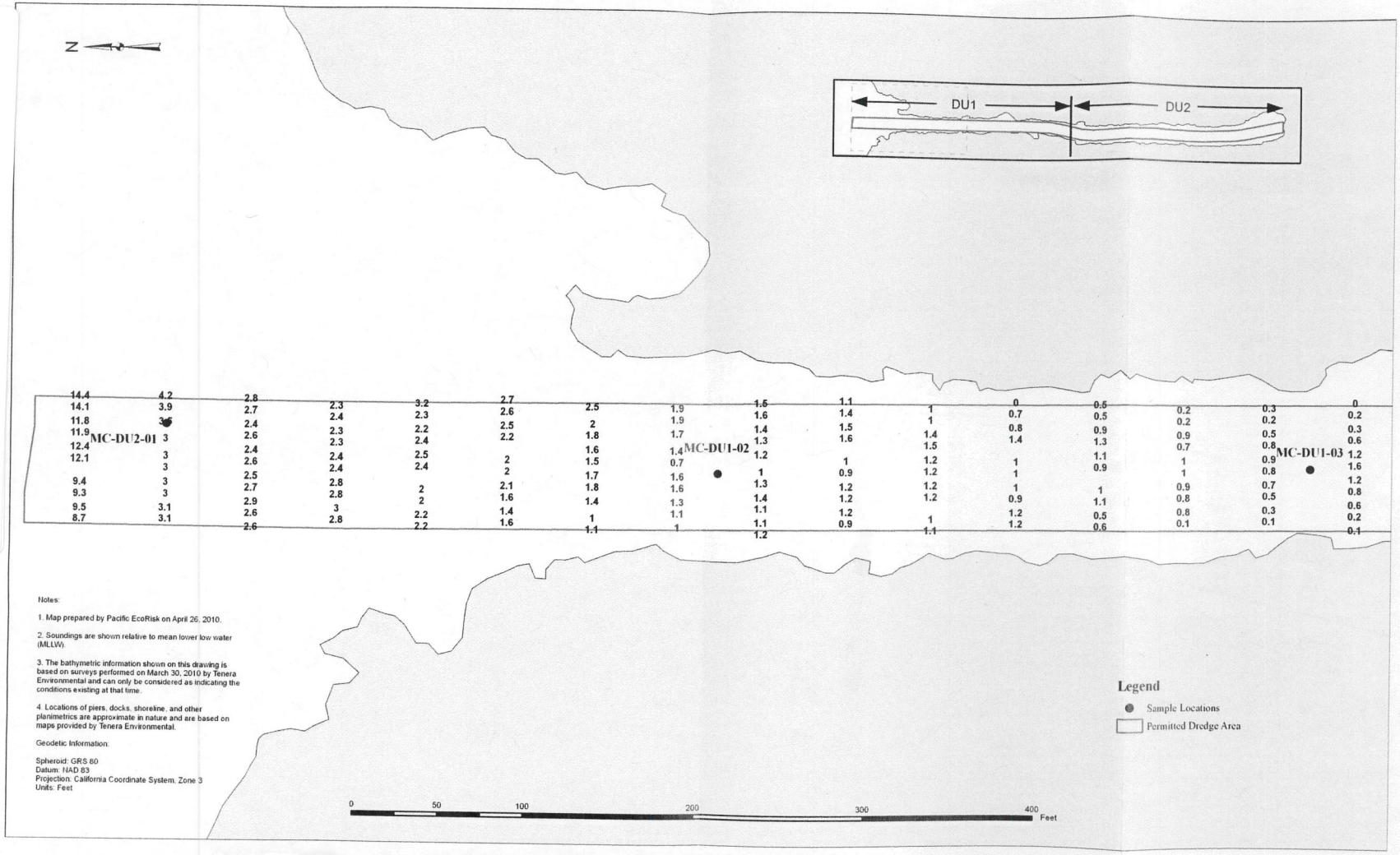


figure 3
USACE File #2010-00209S
Mallard Slough Intake Channel
Maintenance Dredging
Plan View (Survey 1 of 2 sheets)

U.S. Army Corps of Engineers
San Francisco District
Regulatory Branch



Notes:

1. Map prepared by Pacific EcoRisk on April 26, 2010.

2. Soundings are shown relative to mean lower low water (MLLW).

3. The bathymetric information shown on this drawing is based on surveys performed on March 30, 2010 by Tenera Environmental and can only be considered as indicating the conditions existing at that time.

4. Locations of piers, docks, shoreline, and other planimetrics are approximate in nature and are based on maps provided by Tenera Environmental.

Geodetic Information:

Spheroid: GRS 80
Datum: NAD 83
Projection: California Coordinate System, Zone 3
Units: Feet

figure 3a
USACE File #2010-00209S
Mallard Slough Intake Channel
Maintenance Dredging
Plan View (Survey 2 of 2 sheets)

U.S. Army Corps of Engineers
San Francisco District
Regulatory Branch

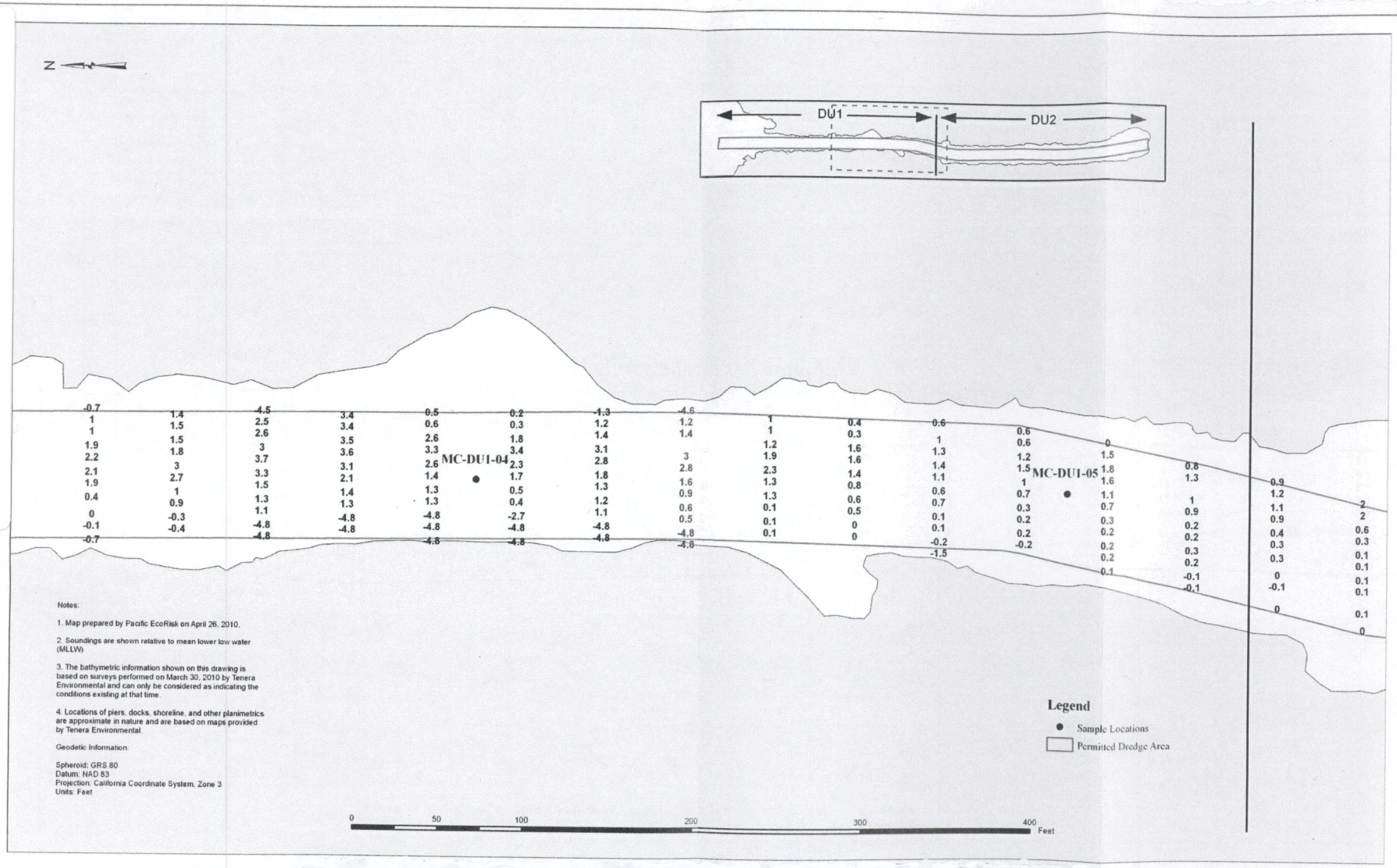
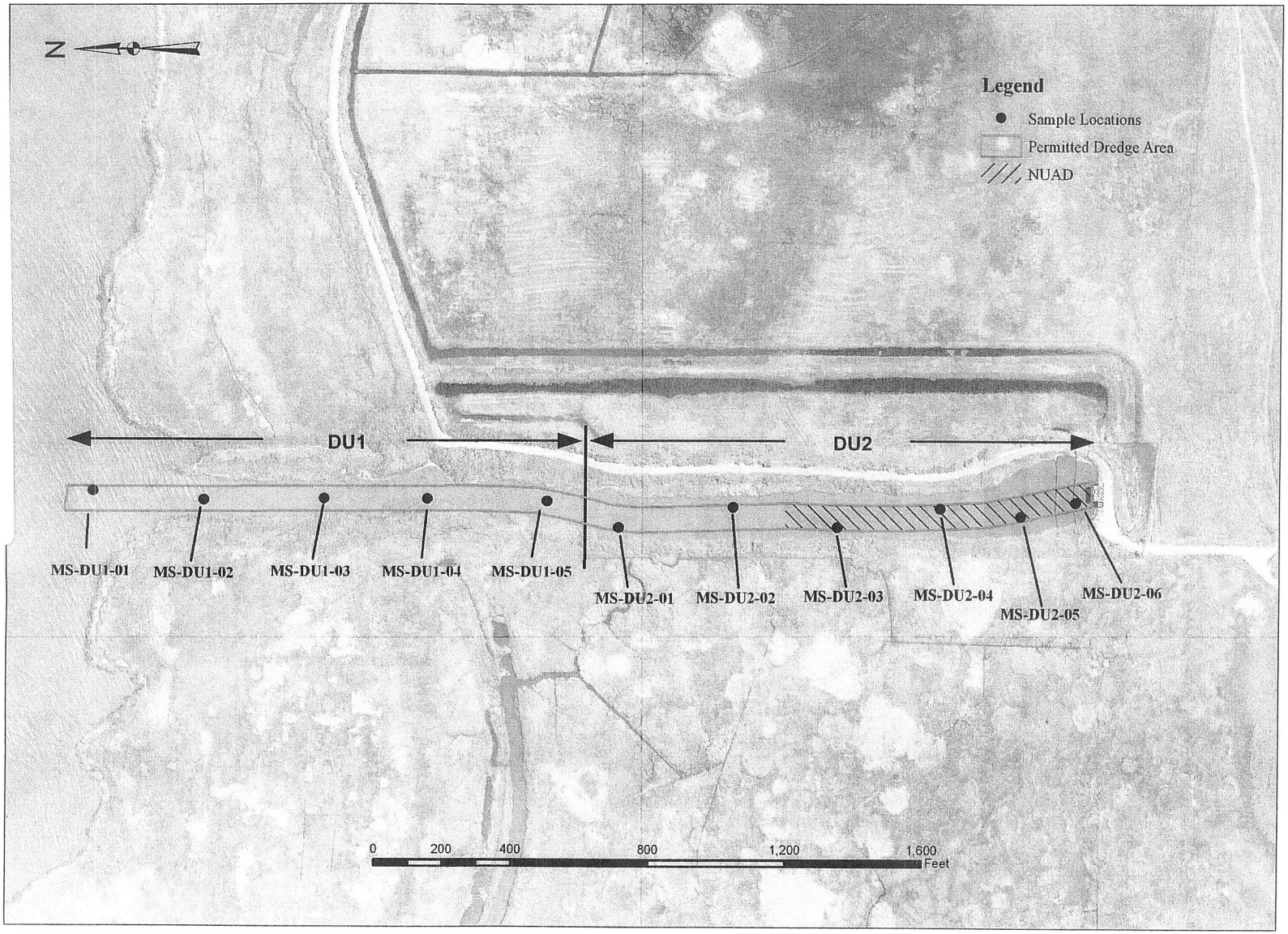


figure 4
USACE File #2010-00209S
Mallard Slough Intake Channel
Maintenance Dredging
NUAD Material

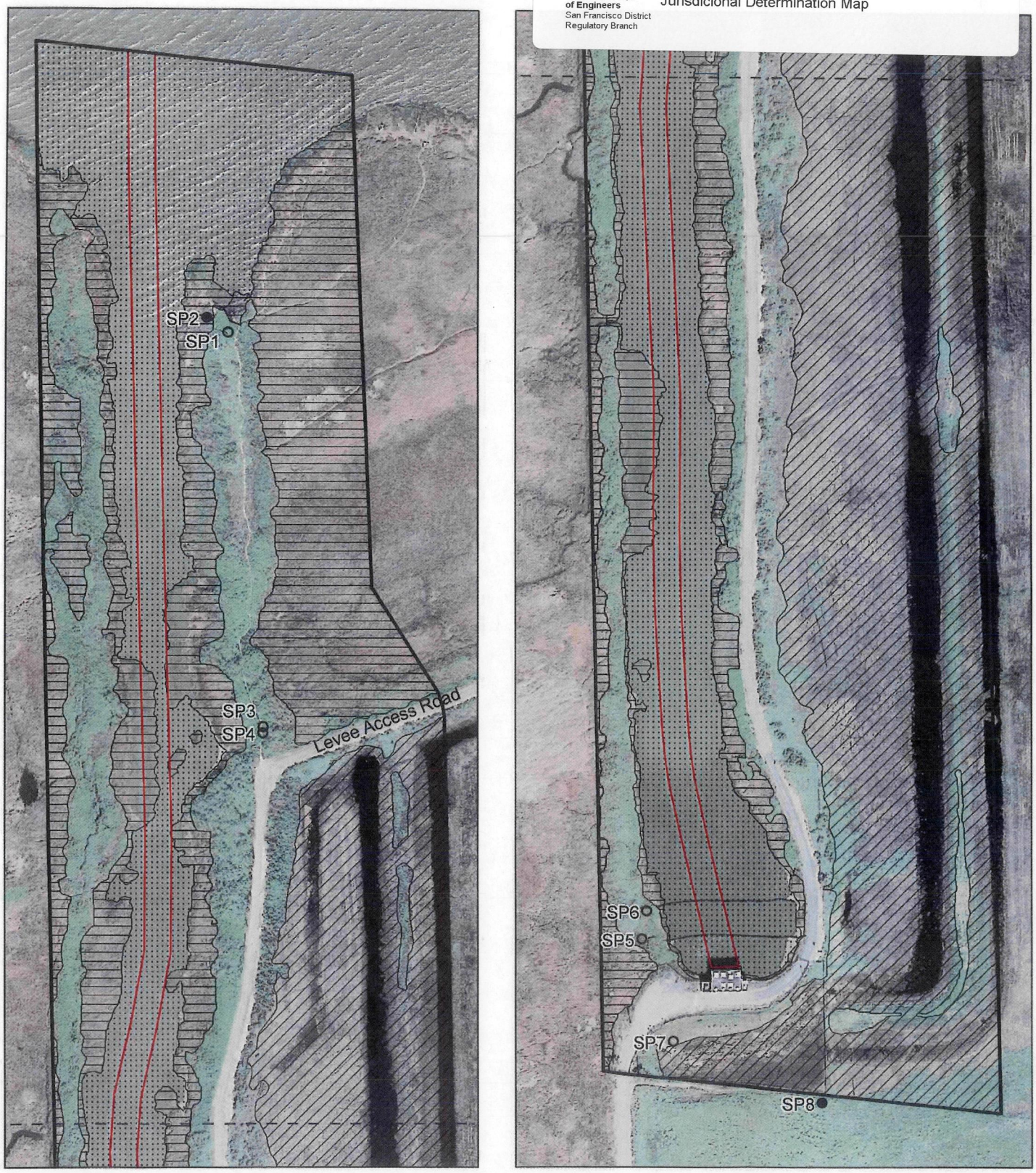
U.S. Army Corps of Engineers
San Francisco District
Regulatory Branch



NUAD Material

U.S. Army Corps of Engineers
San Francisco District
Regulatory Branch

figure 5
USACE File #2010-00209S
Mallard Slough Intake Channel
Maintenance Dredging
Jurisdicional Determination Map



Legend

Project Site
MatchLine
100 50 0 100 Feet
Jurisdictional Sample Point
Non-jurisdictional Sample Point
Permitted Dredge Area

Jurisdictional Features

Waters, Pump Station Channel (9.31 Acres)
Wetland, Non-tidal Seasonal Wetland (13.68 Acres)
Wetland, Tidal Brackish Marsh (8.69 Acres)

FIGURE 3

Contra Costa Water District
Mallard Intake Channel
Rehabilitation Project

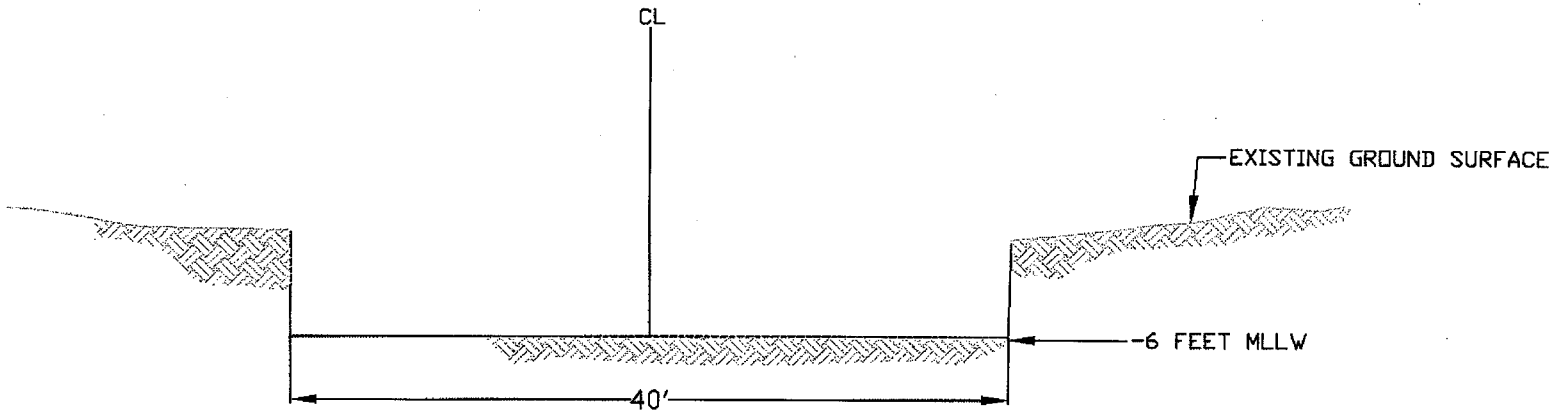
Waters of the United States

SOURCE: Aerials from Contra Costa County (04/2008)

I:\Common\CAPITAL Projects\FY 09 Capital Projects\109061 - Mallard Slough Channel Rehab\GIS\WetlandArea_wDredgeLimits.mxd (03/07/11)

figure 6
USACE File #2010-00209S
Mallard Slough Intake Channel
Maintenance Dredging
Channel Cross Section

U.S. Army Corps of Engineers
San Francisco District
Regulatory Branch



TYPICAL NEW CHANNEL CROSS SECTION

NOT TO SCALE

Typical Cross Section
Contra Costa Water District
Mallard Intake Channel Rehabilitation Project