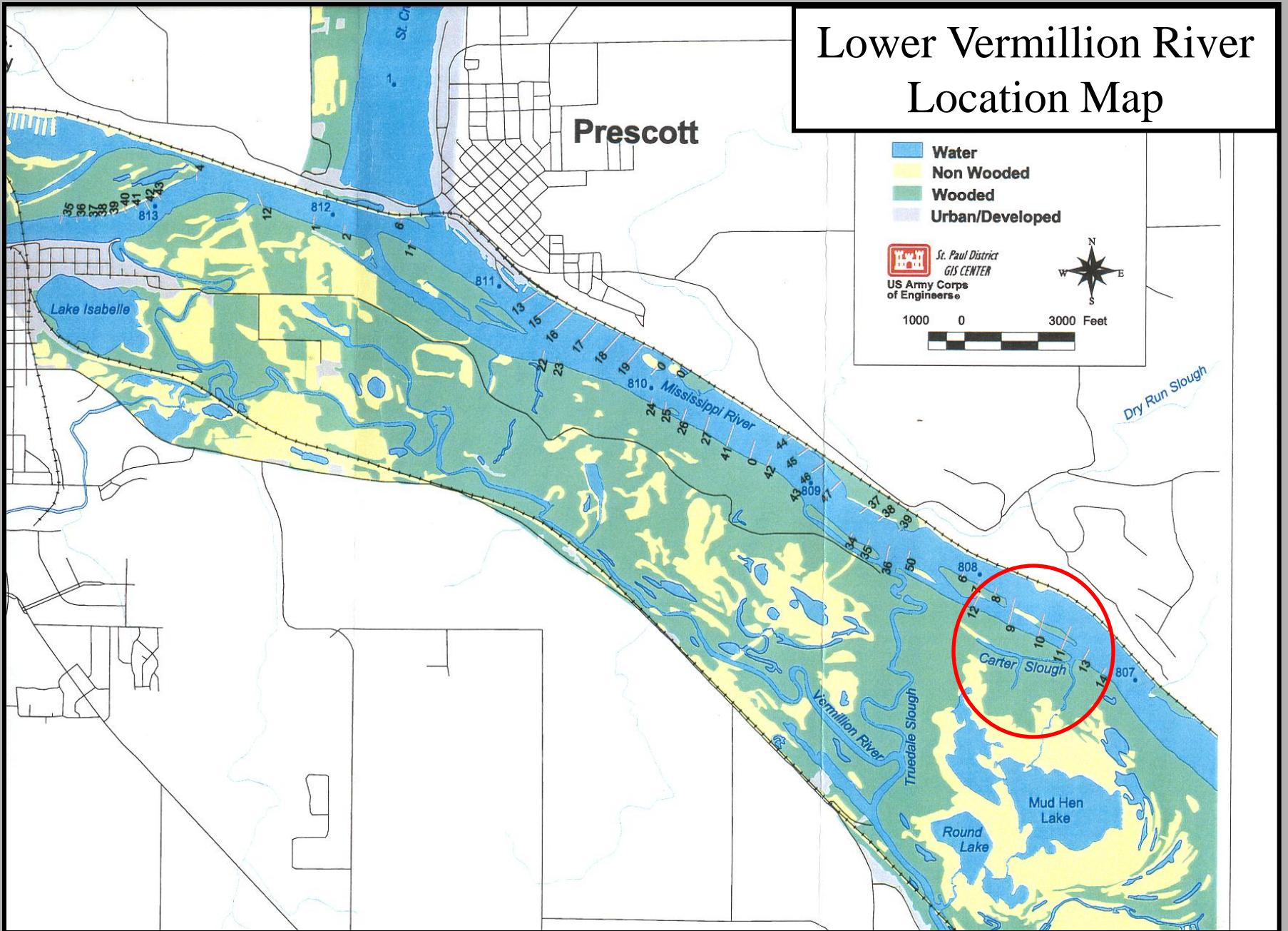
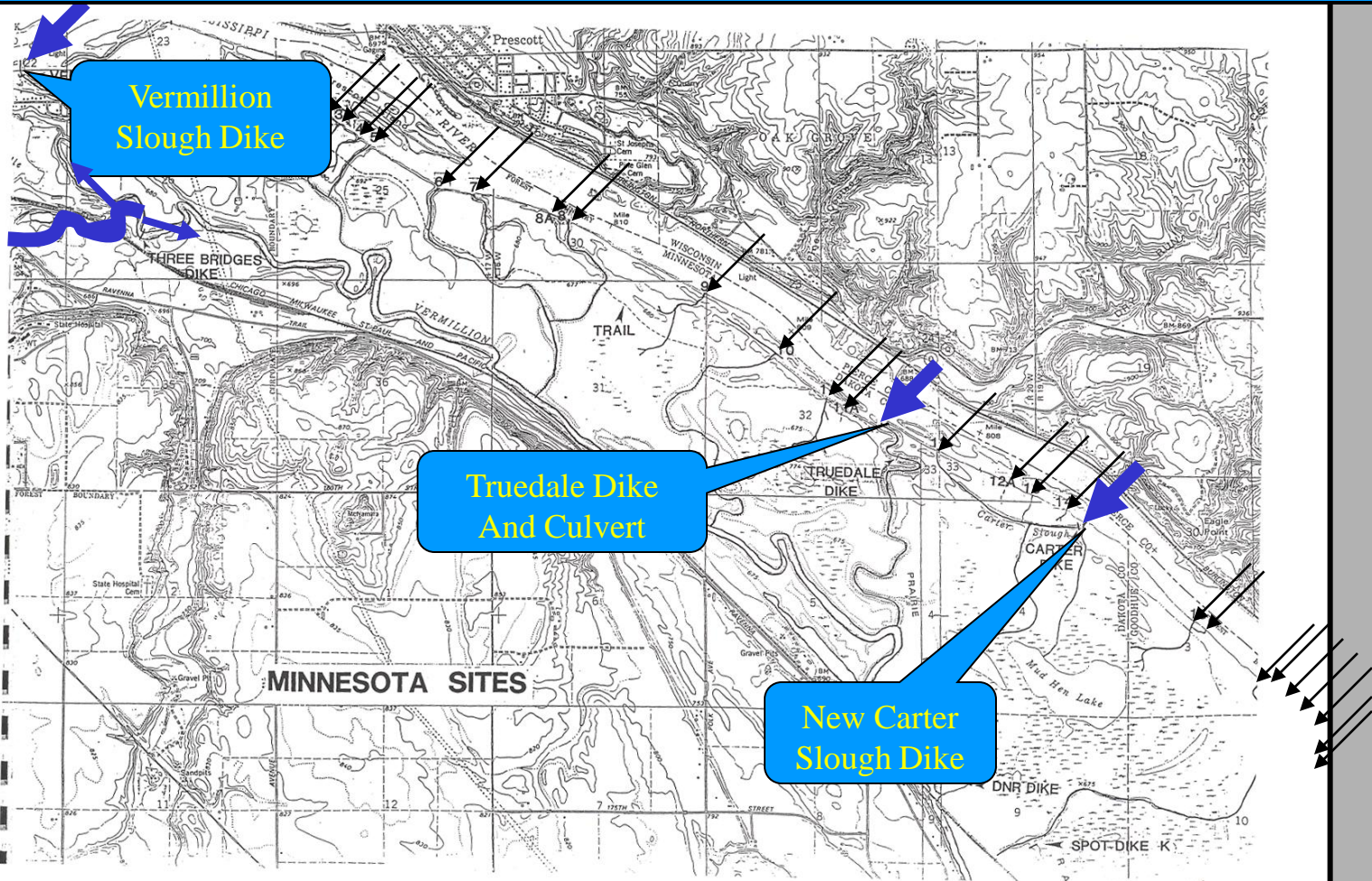


# Lower Vermillion River Location Map

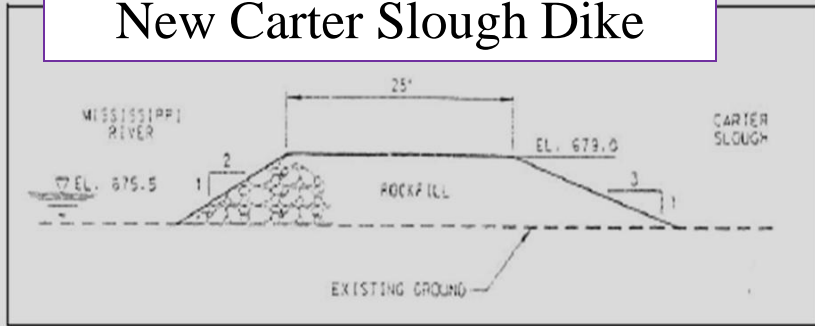


# 1987 Corps Inspection of Minnesota Embankment



28 Low Points in River Levee above Prairie Island

# New Carter Slough Dike

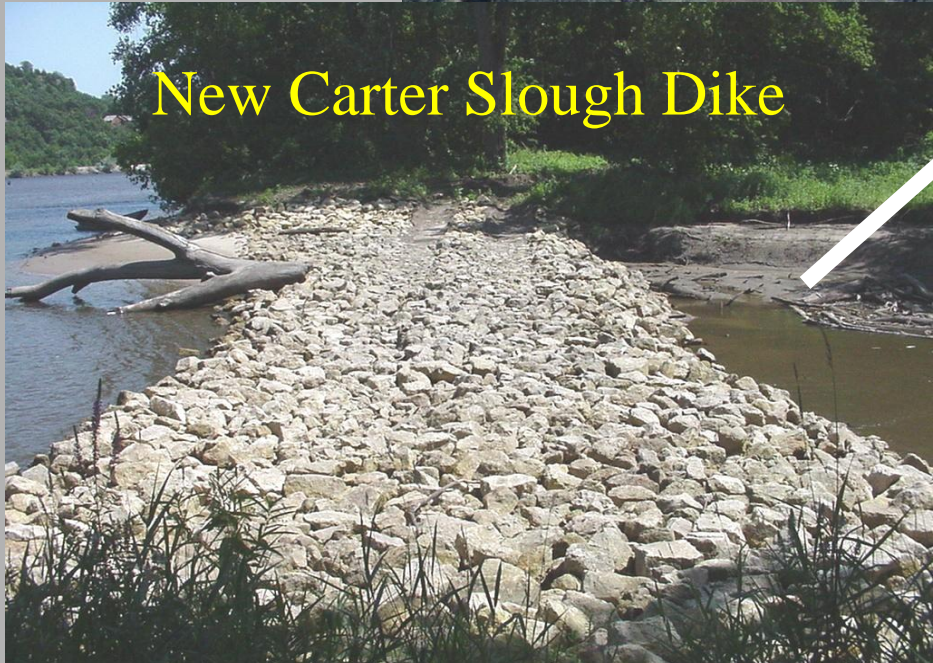


Source: USACE, 2002.

Figure 4-20. Carter Slough new 2002 dike section.  
Dike overtopped at 679.0 feet (NGVD 1912)



Mud Hen Lakes



# New Carter Slough Dike



MISSISSIPPI RIVER  
FLOW

CARTER SLOUGH  
FLOW

1V:2H

1V:2H

~100  
feet

1V:3H

1V:2H

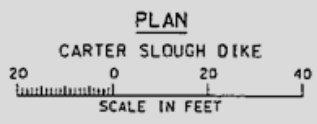
WARP SLOPE

WARP SLOPE



# New Carter Slough Dike

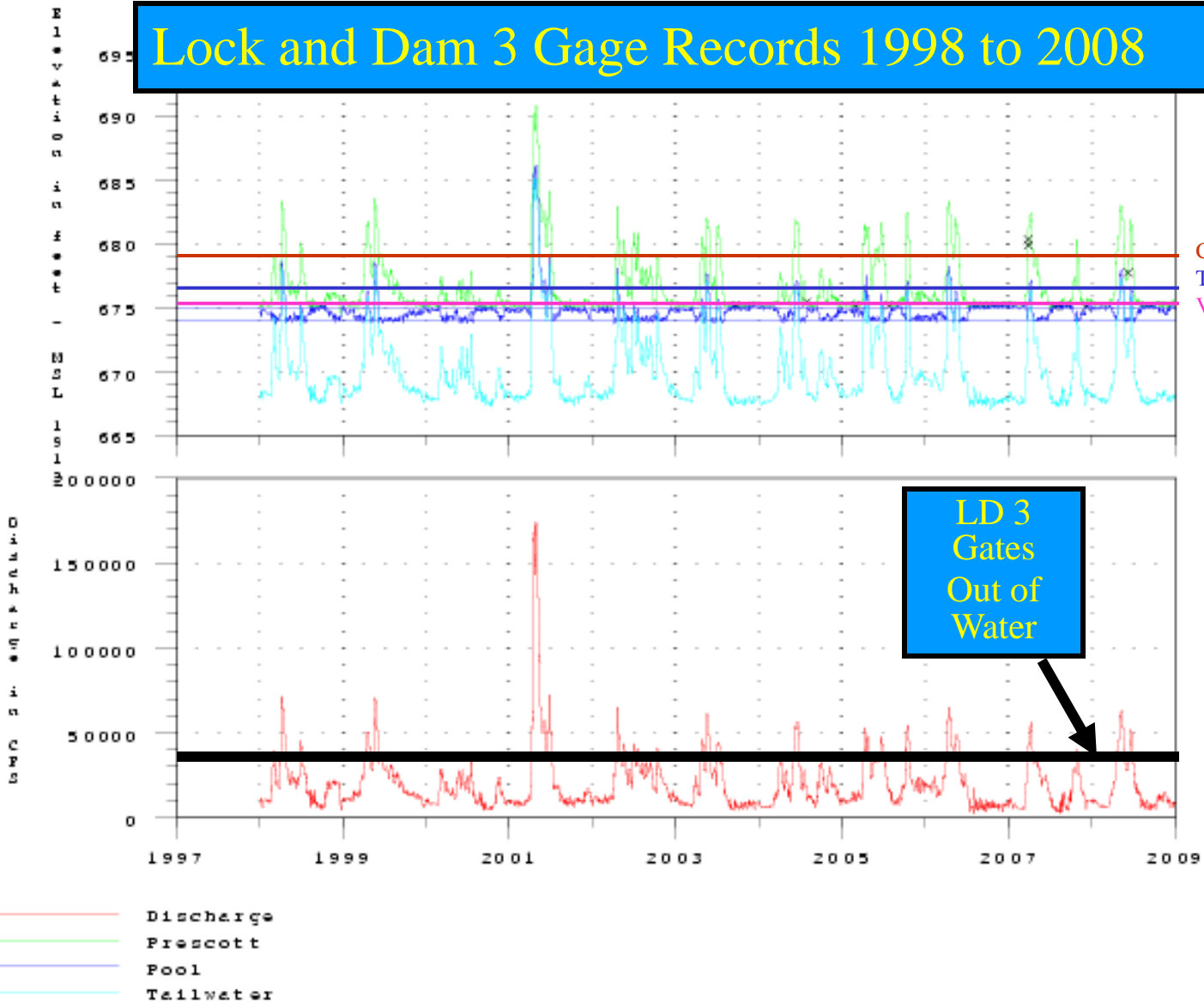
November 2000 Plan Sheet



# Lock and Dam 3 Gage Records 1998 to 2008

Overtopping  
Elevation

Carter Slough Dike  
Truedale Dike  
Vermillion Dike



# From the Lower Vermillion River TMDL Phase III Report

**Table 4-3. Frequency of Pool 3 Elevations Sufficient to Enter Lower Vermillion System (NGVD 1912)**

	Prescott	Total
	Critical Stage	Percent Greater
Vermillion Slough	675.3	49.85
Truedale Slough	676.78	25.71
Carter Slough (prior to 2002 )	677.8	19.56
Carter Slough (after 2002)	679.3	12.71

## Four Possible Solutions

- 1. Chink the dike structure with O&M dredge sand.**
  - 2 feet of sand on top
  - 4 feet of sand against the Mississippi side of the dike
  - about 350 cubic yards of sand.
- 2. Chink the dike structure with gravel.**
- 3. Grout the dike structure with cement.**
- 4. Drive sheetpile to a depth of 30 feet on the downstream side of the dike structure.**