

RECLAMATION

Managing Water in the West

Hydraulic Analyses of Sediment Disposal Sites

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U.S. Department of the Interior
Bureau of Reclamation

Disposal Sites Analysis

- **MODA (Meiners Oaks Disposal Area)**
 - Impact of disposal site on water surface elevations in Cozy Dell
 - Impact of disposal site on water surface elevations in Ventura River
 - Long term erosion of disposal site
- **BRDA (Baldwin Road Disposal Areas)**
 - Impact of disposal site on flows in Ventura River
 - Long term erosion of disposal site

MODA

- Analysis of historical channel alignments
- Analysis of design flows
- Impact of site on water surface elevations in Cozy Dell
- Impact of site on water surface elevations in Ventura River
- Erosion of disposal site

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1947 Aerial
Photo



Ventura River and Cozy Dell Historical Alignment 1947

0 250 500 1,000 Feet

Legend

- Cozy Dell Alignment
- Meiners Oaks Levee
- Current Cozy Dell Canyon Channel
- Meiners Disposal Area
- 10yr Flood Boundaries with Project
- Historical Channel Migration Zone

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1965 Aerial
Photo



Ventura River and Cozy Dell Historical Alignment 1965

0 250 500 1,000 Feet

Legend

- Cozy Dell Alignment
- Meiners Oaks Levee
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1970 Aerial
Photo



Ventura River and Cozy Dell Historical Alignment 1970

0 250 500 1,000 Feet

Legend

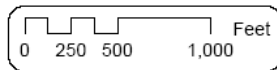
- Cozy Dell Alignment
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1978 Aerial
Photo



Ventura River and Cozy Dell Historical Alignment 1978



Legend

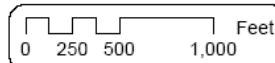
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1992 Aerial
Photo



Ventura River and Cozy Dell Historical Alignment 1992



Legend

- Cozy Dell Alignment
- Meiners Oaks Levee
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2005 Aerial
Photo



Ventura River and Cozy Dell Historical Alignment 2005

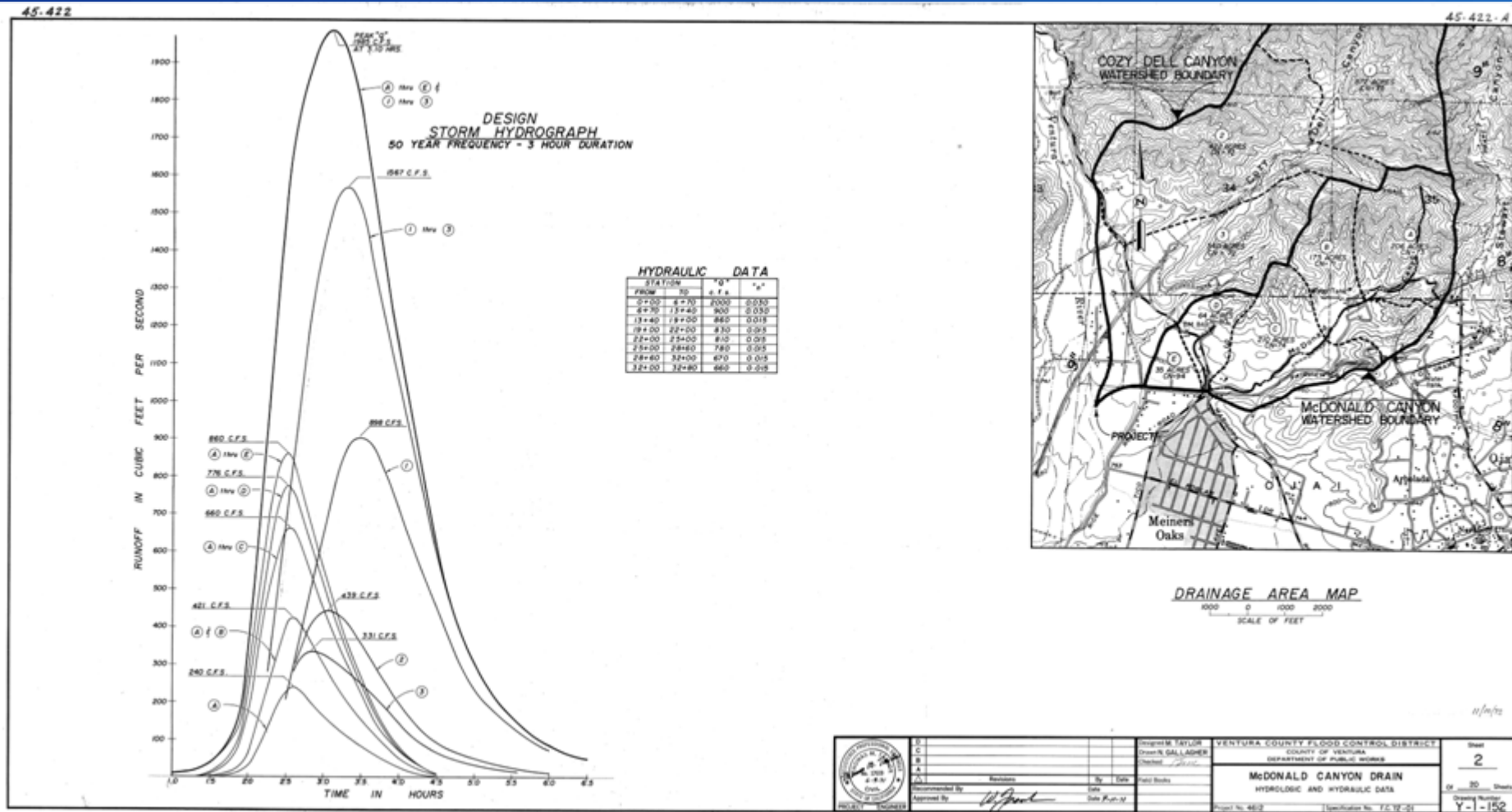
0 250 500 1,000 Feet

Legend

- Cozy Dell Alignment
- Meiners Oaks Levee
- Current Cozy Dell Canyon Channel
- Meiners Disposal Area
- 10yr Flood Boundaries with Project
- Historical Channel Migration Zone

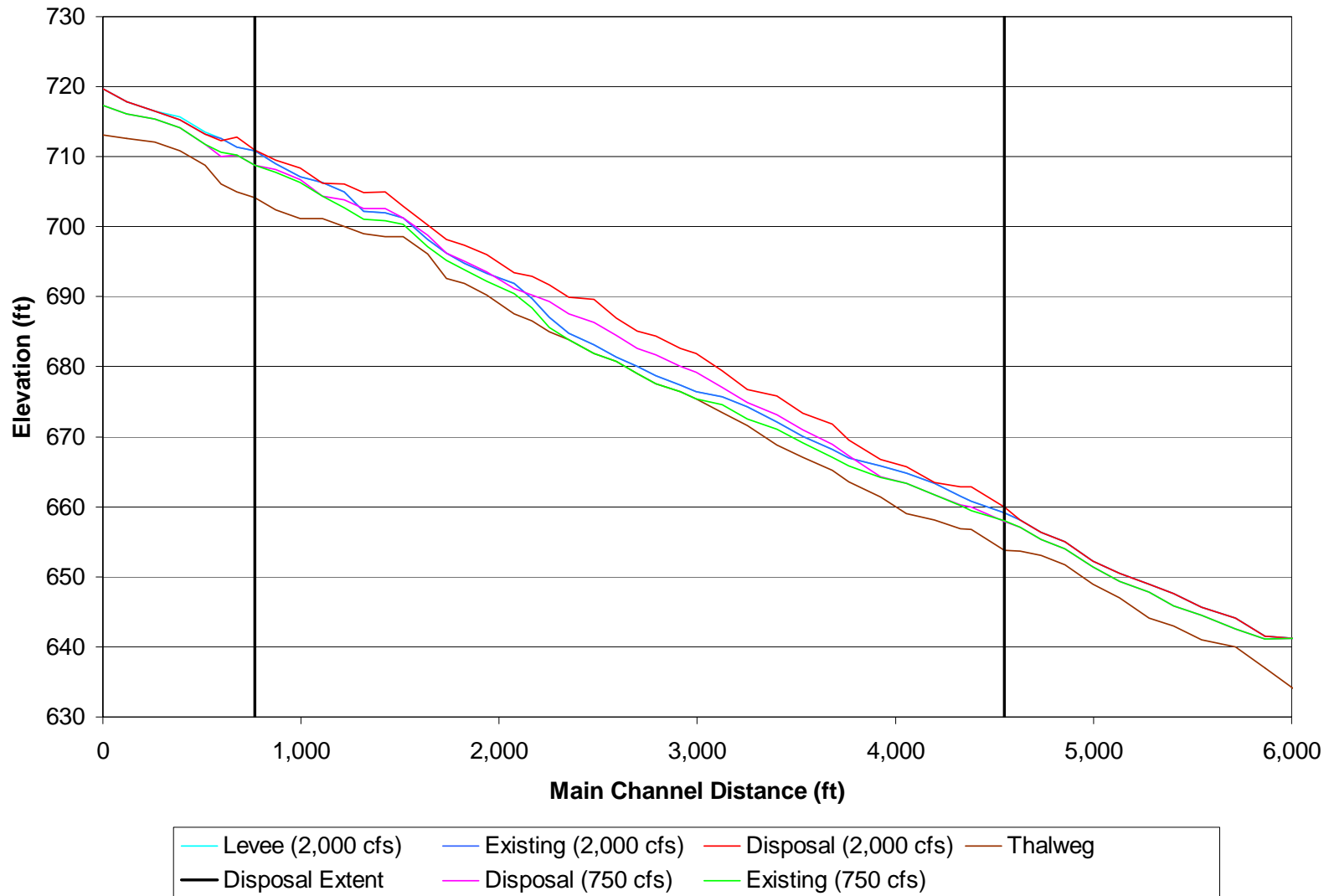
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Design Storms for Cozy Dell and McDonald Canyon



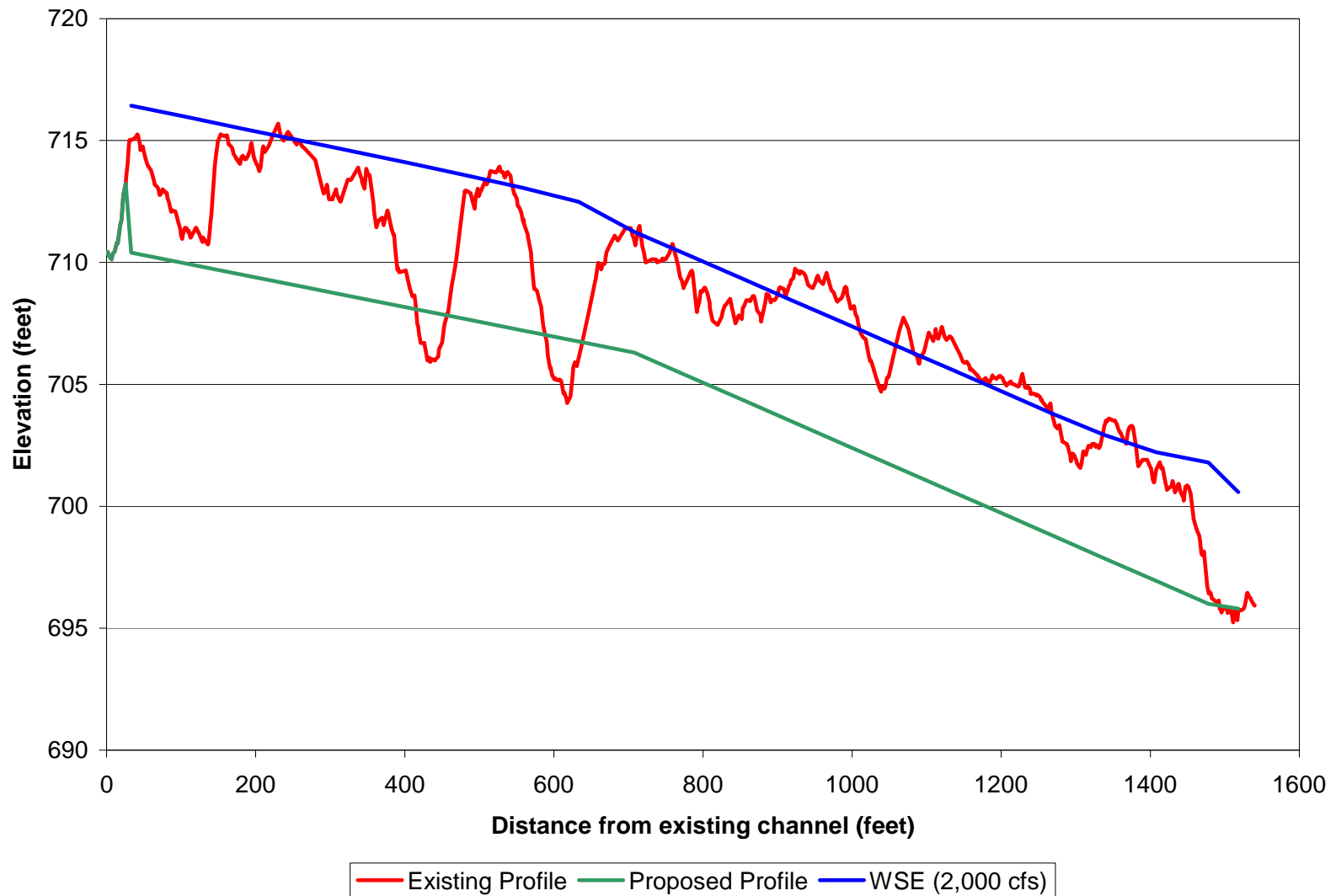
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Existing Cozy Dell Alignment



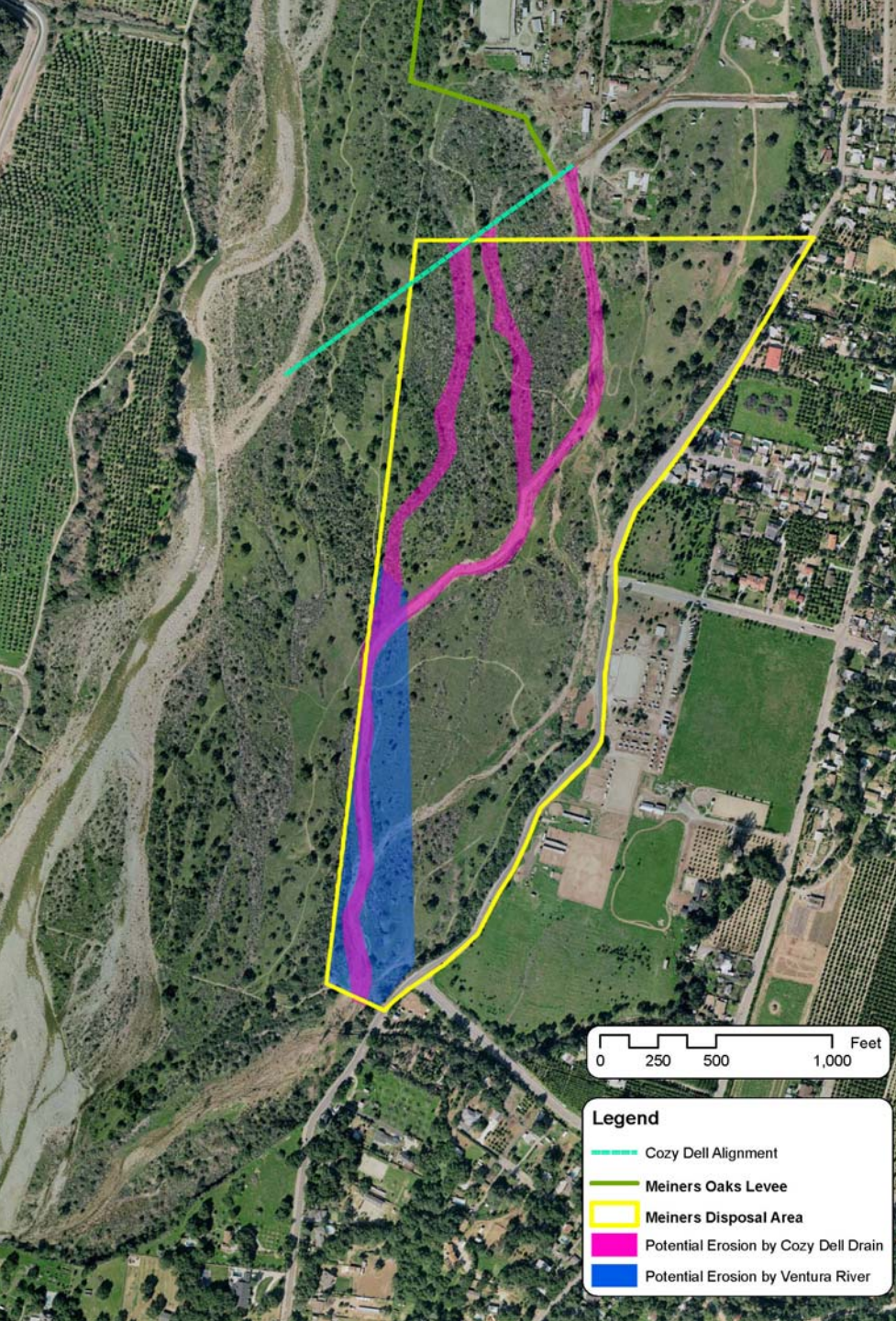
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Alternative Cozy Dell Alignment



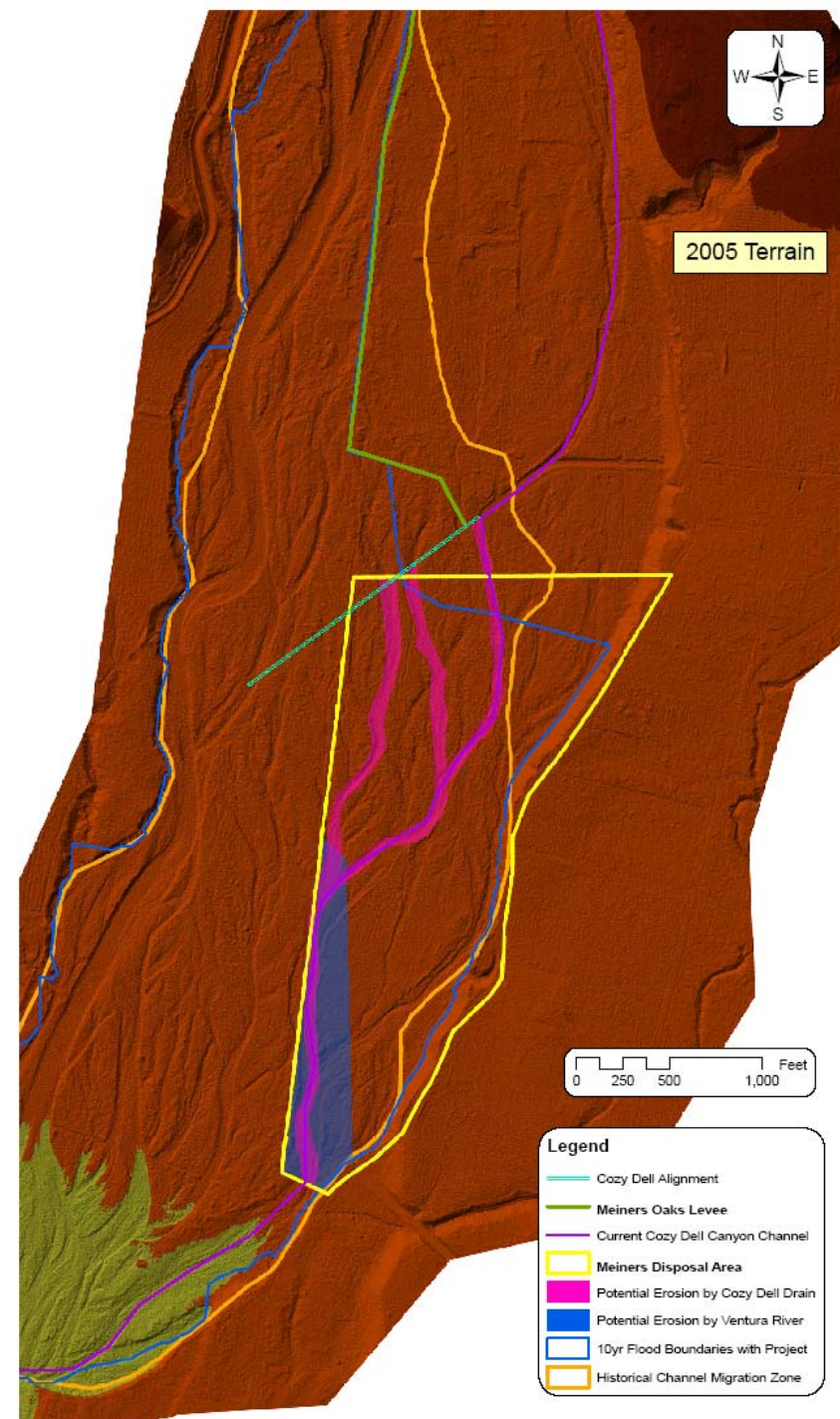
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Erosion of MODA

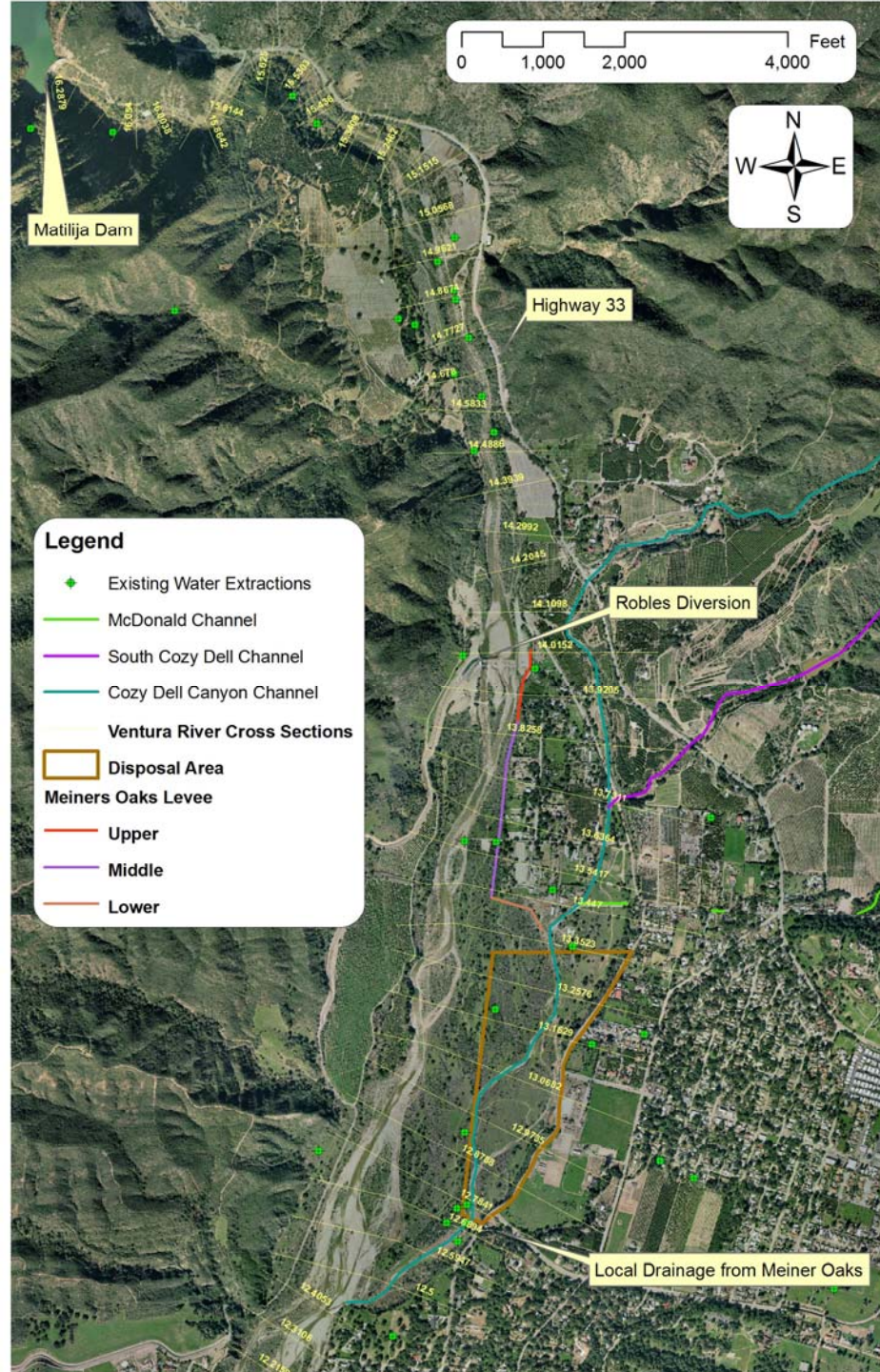


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Erosion of MODA



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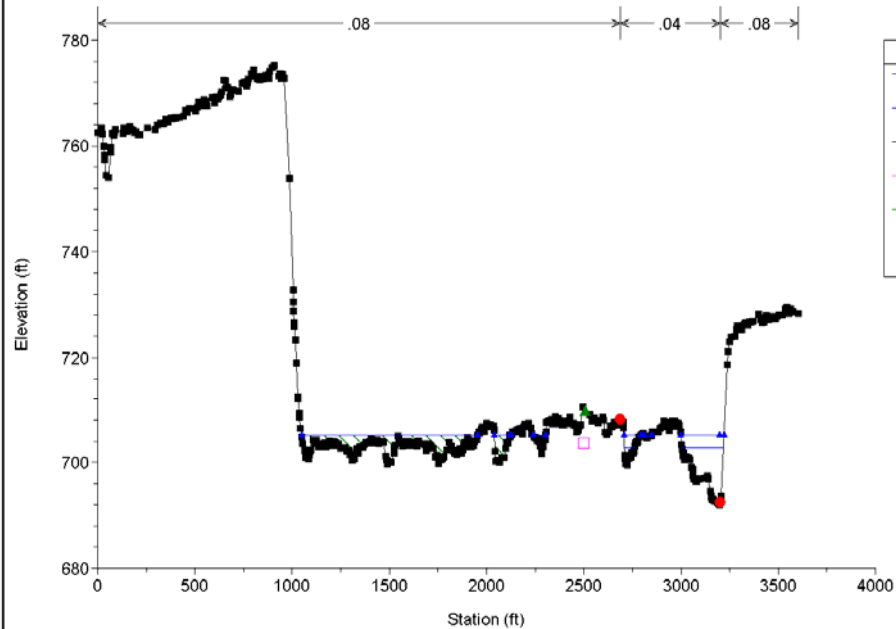


Effect of MODA on Water Surface Elevations in Ventura River

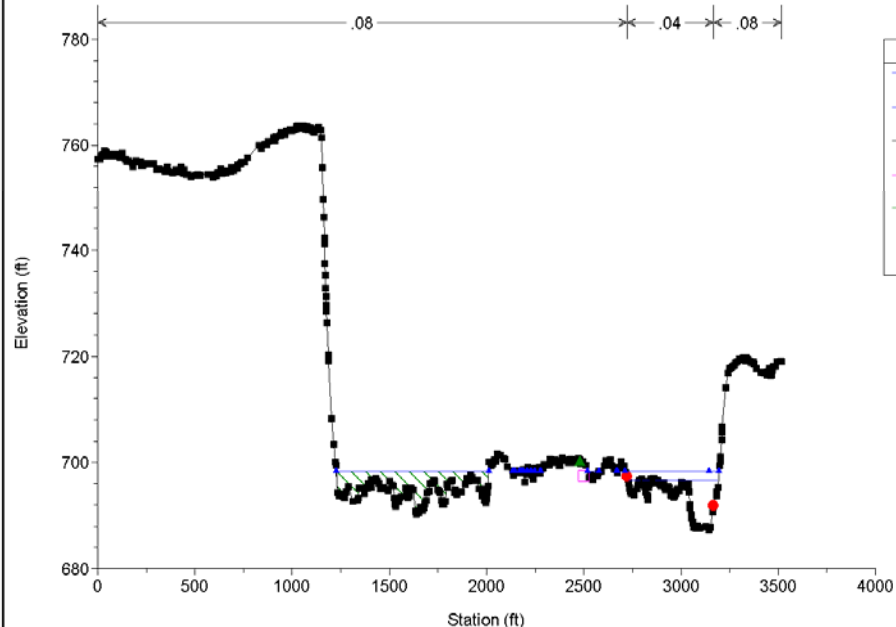
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Effect on Water Surface Elevations in Ventura River

Current Ventura River Plan: base plan flood flows 9/25/2007
RS = 13.2576



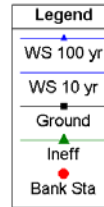
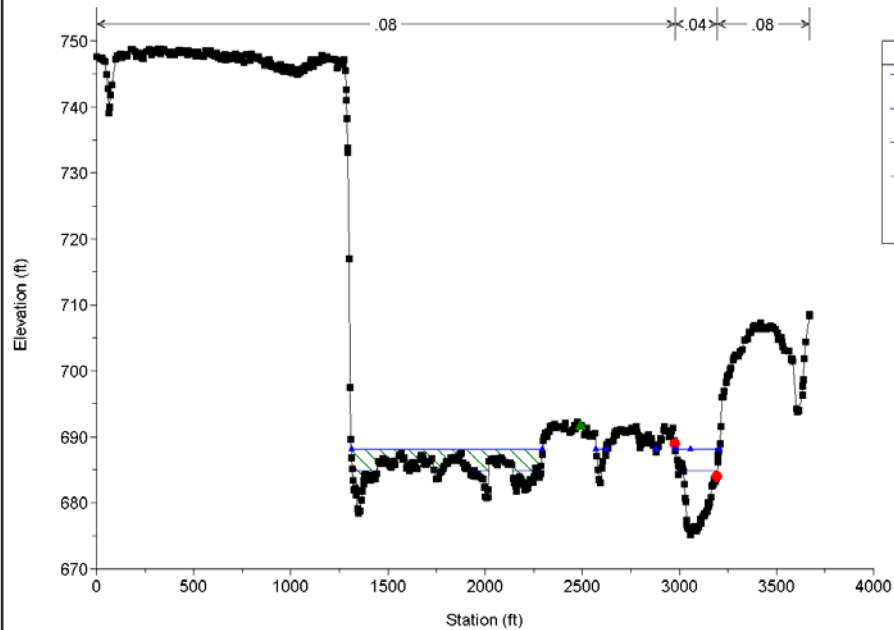
Current Ventura River Plan: base plan flood flows 9/25/2007
RS = 13.1629



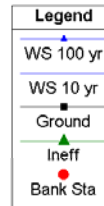
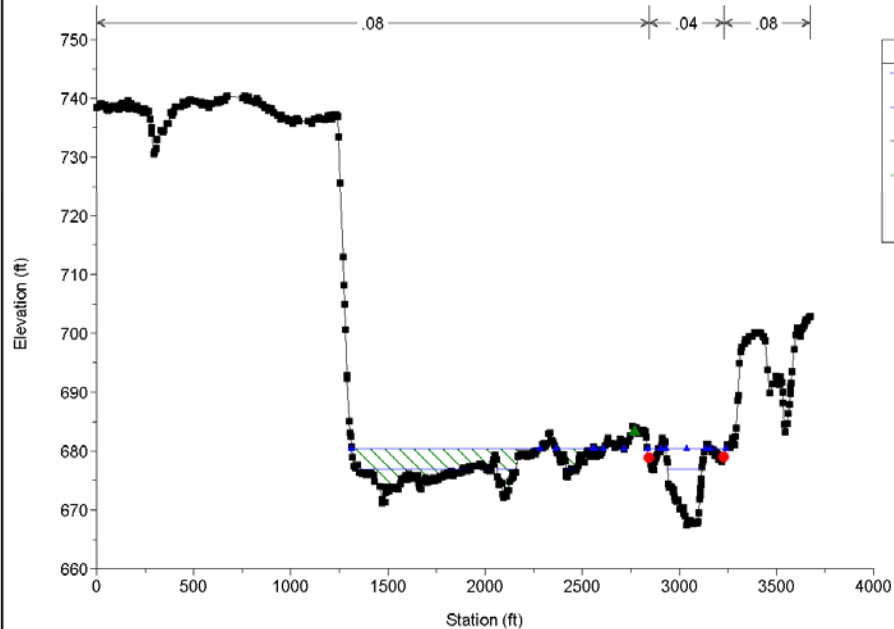
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Effect on Water Surface Elevations in Ventura River

Current Ventura River Plan: base plan flood flows 9/25/2007
RS = 13.0682



Current Ventura River Plan: base plan flood flows 9/25/2007
RS = 12.9735



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BRDA sites

- **Analysis of historical channel alignments**
 - Developed historical channel migration zones
- **Impact of sites on water surface elevations in Ventura River**
 - Assumed that the disposal sites would not convey water
- **Erosion of disposal site**
 - Estimated potential erosion due to Ventura River



Erosion of BRDA

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Erosion of BRDA

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Erosion of BRDA

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Summary - MODA

- Disposal site will not impact water surface elevations upstream of disposal site in Meiners Oaks
- The disposal site will have no significant impact on flood elevations or water velocities of the Ventura River
- Erosion of disposal site is restricted due to Meiner's Oak Levee

Summary - BRDA

- The disposal site will have no significant impact on flood elevations or water velocities of the Ventura River, except for a slight impact upstream of Baldwin Road Bridge
- Erosion of disposal sites varies depending on bridges, levees, and location relative to Ventura River