

**Lower American River  
Bank Protection Working Group  
Meeting Outline w/ Timestamps  
August 13, 2024**

**Video Timestamps**

**Welcoming Remarks  
(Gregg Ellis, ICF)**

00:01:15 Welcoming remarks and meeting logistics

**Agenda Overview  
(William Polk and Hans Carota, USACE)**

00:05:30 Summary of topics being covered: hydraulic modeling, erosion risk drivers, reliability of vegetation as erosion protection, influence of past designs on Contract 3B

00:09:50 Project orientation map & overview of Lower American River Contracts 1, 2, 3B

**LAR Hydraulic Model Selection  
(Brian Wardman, *nhc*)**

00:13:20 Presentation outline: Model Selection, Model Development, Flora et al Literature Summary

00:16:22 Development of Project 2D Hydraulic Model

00:17:41 Why a 2D model was used

00:21:43 How vegetation is incorporated into 2D models

00:23:20 Literature Review- Flora et al. approaches for accounting for vegetation

00:25:48 Closing summary

00:27:35 Q&A session – hydraulic modeling

**Understanding Erosion Risk Drivers  
(Hans Carota & Dan Mielke, USACE)**

- 00:48:25 Background on identifying erosion risk drivers
- 00:54:20 Levee foundation erosion process
- 00:59:00 Examples of 1986 erosion along Lower American River
- 01:04:20 Site selection process: data collection, analytical tools, expert evaluations
- 01:08:28 Overview of erosion protection methods
- 01:10:15 Contract 3B: overview of segments and risk drivers
- 01:12:56 Contract 3B, Segment 4-3: introduction and risk drivers
- 01:17:20 Segment 4-3: existing site condition photos
- 01:18:55 Segment 4-3: cross sections depicting levee template and risk drivers
- 01:21:38 Segment 4-3: cross section depicting proposed erosion protection measures
- 01:24:00 Q&A session- erosion risk drivers

**Break      01:40:02 – 01:48:30**

**Reliability of Vegetation as Erosion Protection  
(Hans Carota, USACE)**

- 01:49:00 Vegetation benefits: Contract 2, Site 2-3 example
- 01:51:26 Vegetation failure modes (fluvial erosion) with photo examples
- 01:57:25 Vegetation limitations and velocity resistance
- 02:01:55 Q&A session-vegetation as erosion protection

**Influence of Past Designs on Contract 3B**  
**(William Polk, USACE, Brian Wardman, NHC)**

02:25:02 Site orientation: map of completed erosion protection sites to be discussed

02:27:10 Old Site 4

02:30:25 Sac Bank 10.0L and 10.6L -completed in 2011

02:33:10 Contract 1, Site 2-1- completed 2022

02:38:42 Contract 2, Site 2-3- completed 2023

02:42:05 Contract 2, Site 2-2- completed 2023, similar to proposed designs at C3B

02:44:37 Contract 3B design – 80% of work is bank toe protection, similar to Site 2-2

02:50:43 Q&A session- influence of past designs on Contract 3B