Jacobs Avenue Levee

Informational Meeting
May 30, 2019

Hank Seemann, Deputy-Director
Humboldt County Department of Public Works
445-7741 or hseemann@co.humboldt.ca.us

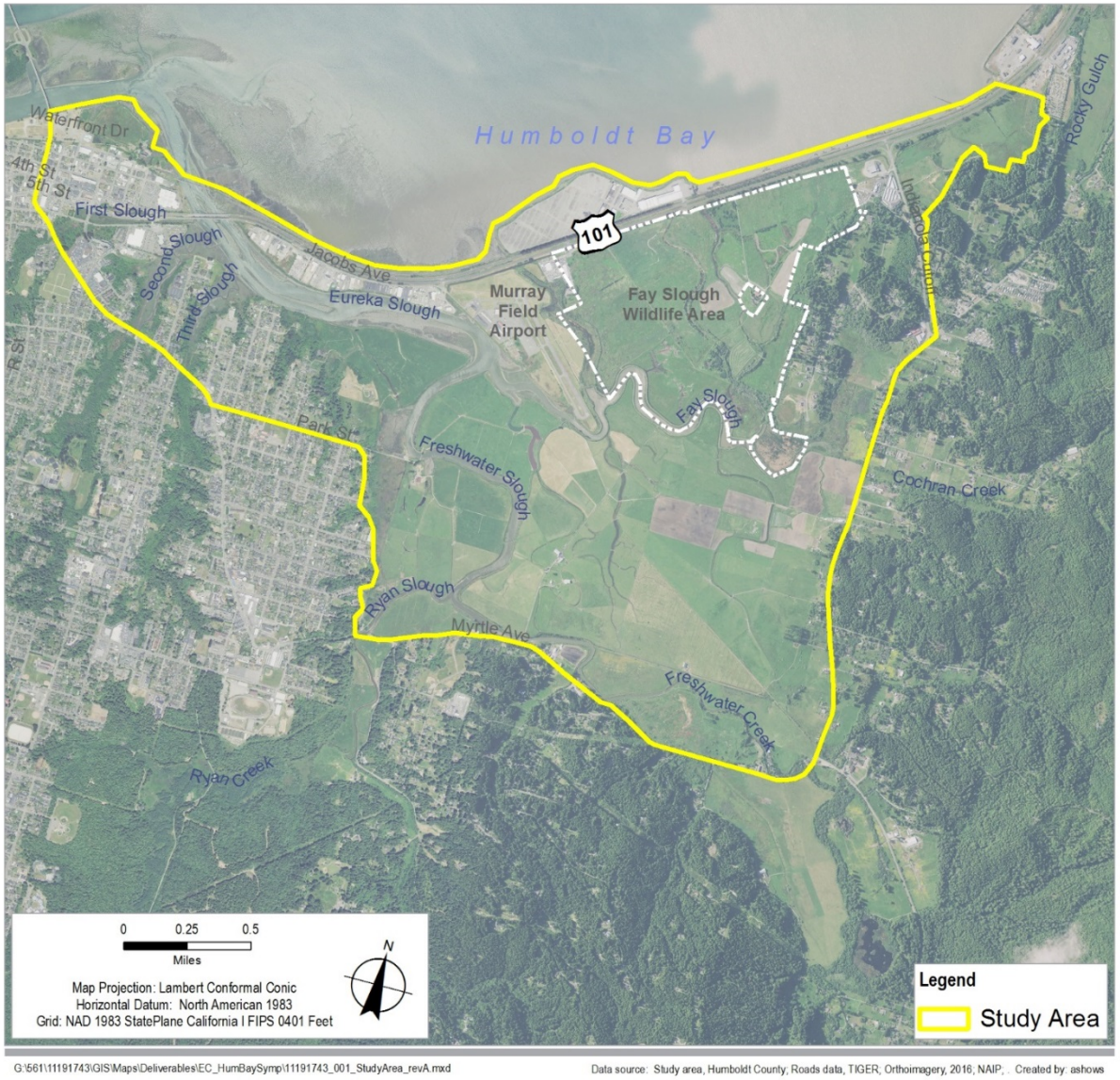
Jacobs Avenue Levee

Why are we here?

- The Jacobs Avenue area has unique flooding risks
- Humboldt County, City of Eureka, Caltrans, and Humboldt County Association of Governments would like to:

  1. Share information
  2. Hear your observations, concerns, questions, ideas
  3. Work together with you to reduce flooding risks and be better prepared for a major flood event

Sea Level Rise Planning Study



May 30, 2019

May 30, 2019

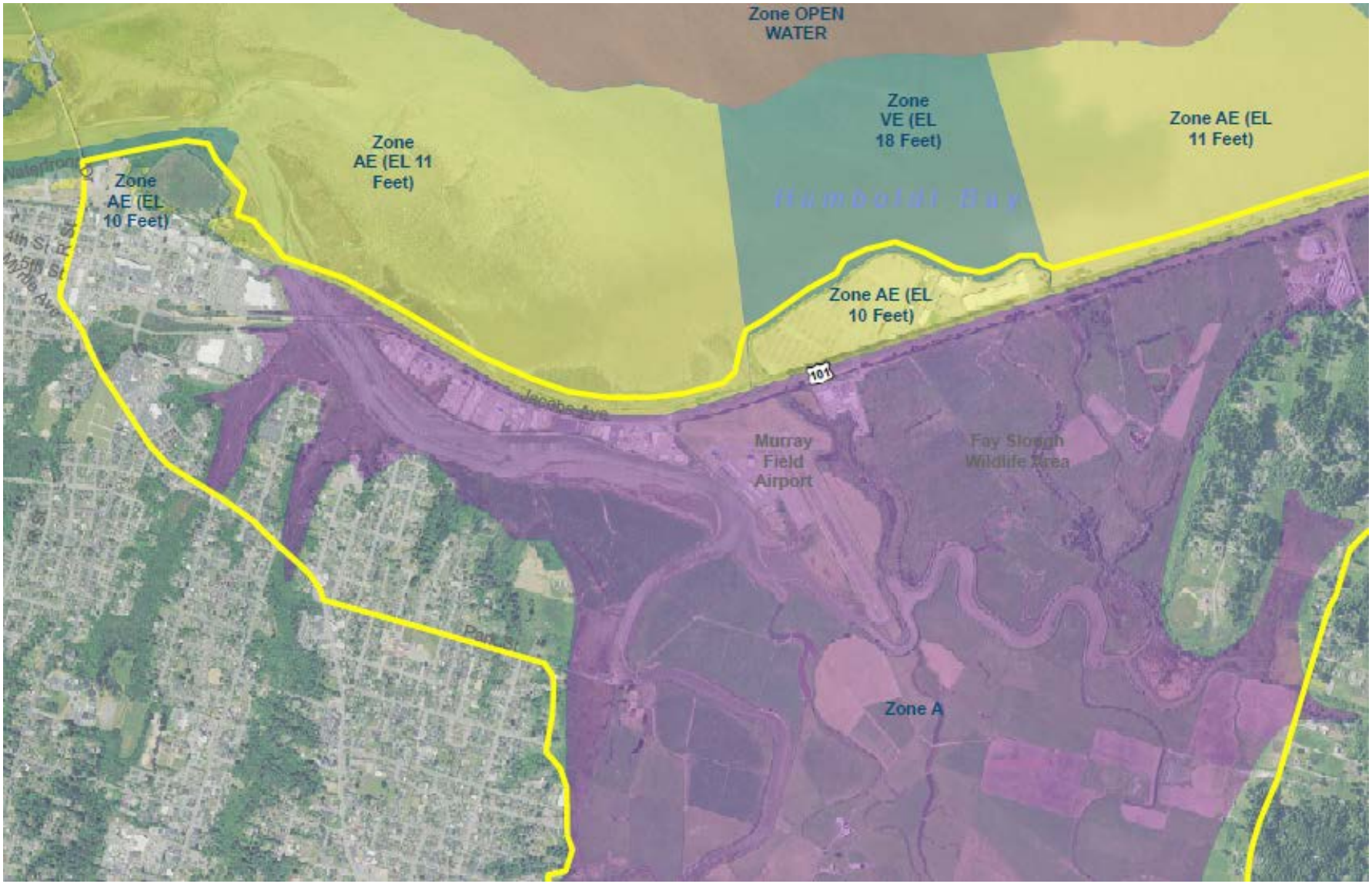

~1937


~1960

Jacobs Avenue Parcels and Businesses

May 30, 2019

FEMA Flood Hazard Map Information



May 30, 2019

GEOTECHNICAL REPORT

JACOBS AVENUE LEVEE EVALUATION PROJECT CITY OF EUREKA, CALIFORNIA

Prepared For:

Humboldt County Public Works Department

CGI Technical Services Inc.

Northern Hydrology and Engineering

P.O. Box 2515, McKinleyville, CA 95519
Telephone: (707) 839-2195; email: Jeff@northernhydrology.com

Engineering – Hydrology – Stream Restoration – Water Resources

TECHNICAL MEMORANDUM

Date: 21 March 2016

To: Hank Seemann
Deputy Director - Environmental Services
Humboldt County Public Works Dept.
1106 Second Street
Eureka, CA 95501

From: Jeffrey K. Anderson, P.E., C50713
Corin Pilkington

REGISTERED PROFESSIONAL ENGINEER JEFFREY K. ANDERSON No. 50713 CIVIL STATE OF CALIFORNIA

21 March 2016

Re: Jacobs Avenue Levee Bathymetric, Hydrologic and Hydraulic Study, Humboldt County, CA

INTRODUCTION AND BACKGROUND

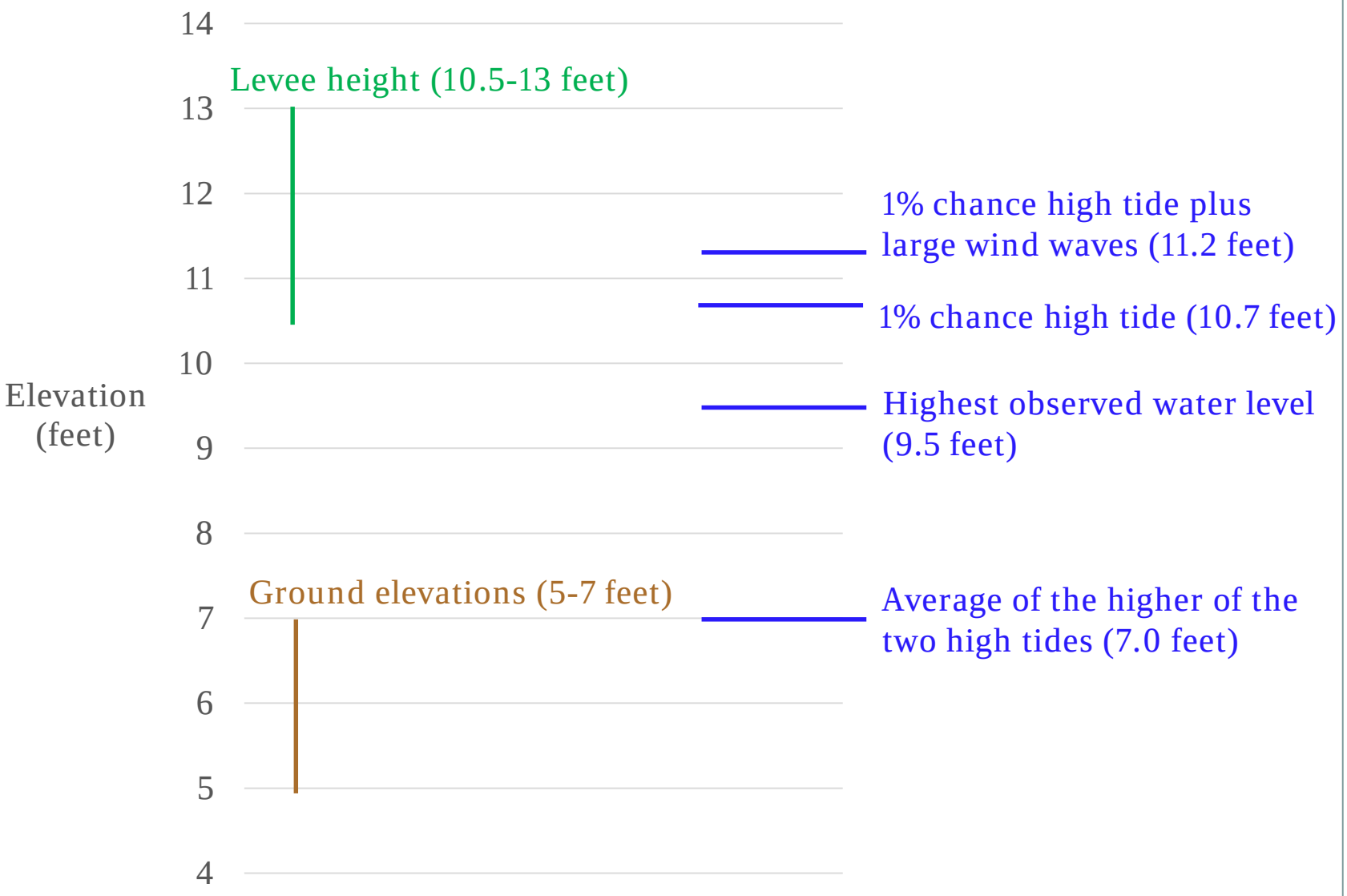
This technical memorandum describes a Hydrologic and Hydraulic Study (H&H Study) for the Jacobs Avenue Levee, conducted by Northern Hydrology & Engineering (NHE) for Humboldt County Public Works (County). The Jacobs Avenue Levee Project Area consists of the entire length of the Jacobs Avenue Levee and a portion of the Murray Field Levee, both located within a slough complex draining to Humboldt Bay (Figure 1). The purpose of the H&H Study is to provide water surface elevations along the Levee within the Project Area for 1% annual chance (100-yr) flood conditions, in support of the geotechnical evaluation of the Levee system.

The work products were developed under an agreement with the County, and include:

1. Collect bathymetric data in Eureka Slough. This task was conducted by GMA Hydrology, Inc., a subconsultant to NHE.
2. Estimate the 1% annual change peak fluvial discharge for Eureka Slough.
3. Determine water surface elevations for the 1% annual chance flood at five designated geotechnical cross-section locations for the following conditions:
   a. Develop a HEC-RAS hydraulic model to characterize fluvial flood conditions within the Project Area.
   b. Use an existing EFDC hydrodynamic model developed for Humboldt Bay by NHE to determine tidally driving flood levels.
4. Perform a general analysis of locally-generated wind waves to semi-quantitatively assess the effects of wind on 1% chance flood levels, to assist with freeboard analysis.
5. Compare results to the most recent readily available work products from FEMA's Open Pacific Coast Study.

All water surface elevations are in feet or meters referenced to NAVD88, unless noted otherwise.

Approximate Elevations



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Summary

- The Jacobs Avenue area occupies low ground protected by a levee
- There is no single entity responsible for the levee as a whole
- The level of flood protection provided by the levee has limits
- Need to be aware of flooding risks and “shared responsibilities”
- Flooding risks will increase over time due to sea level rise
- Major improvements to the levee would be complex and expensive

Jacobs Avenue Levee

Next Steps

- Open House 6:00-6:30 pm
- Survey forms (please return by June 30)
- Proposed meeting in August:
    1. More information on flood risk
    2. Discuss short-term actions to improve preparedness
    3. Discuss potential long-term actions