



Oakland International Airport Airport Perimeter Dike Improvement

Environmental Assessment and Initial Study

Public Scoping Workshop

January 13, 2011

5:30 to 6:30 PM

Oakland International Airport, Terminal 1

2nd Floor, In-Transit Lounge

Oakland, CA

Welcome

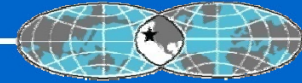
- Sign in at table near entrance
- To provide verbal comment tonight, fill out a speaker card
- To comment in writing use the provided comment sheet
 - Drop off at the end of the meeting
 - Mail or fax later
- Please hold comments and questions until end of presentation

Project Team Members

- Diane Heinze, P.E., Port of Oakland,
Environmental Assessment Supervisor
- Douglas Pomeroy, FAA,
Environmental Protection Specialist
- Arulnathan Rajendram, Ph.D., P.E., G.E., URS,
Engineering Project Manager
- Linda Peters, URS,
Environmental Project Manager

Agenda

- Introduction
- Project Overview
- Environmental Review Process
- Public Comments and Questions



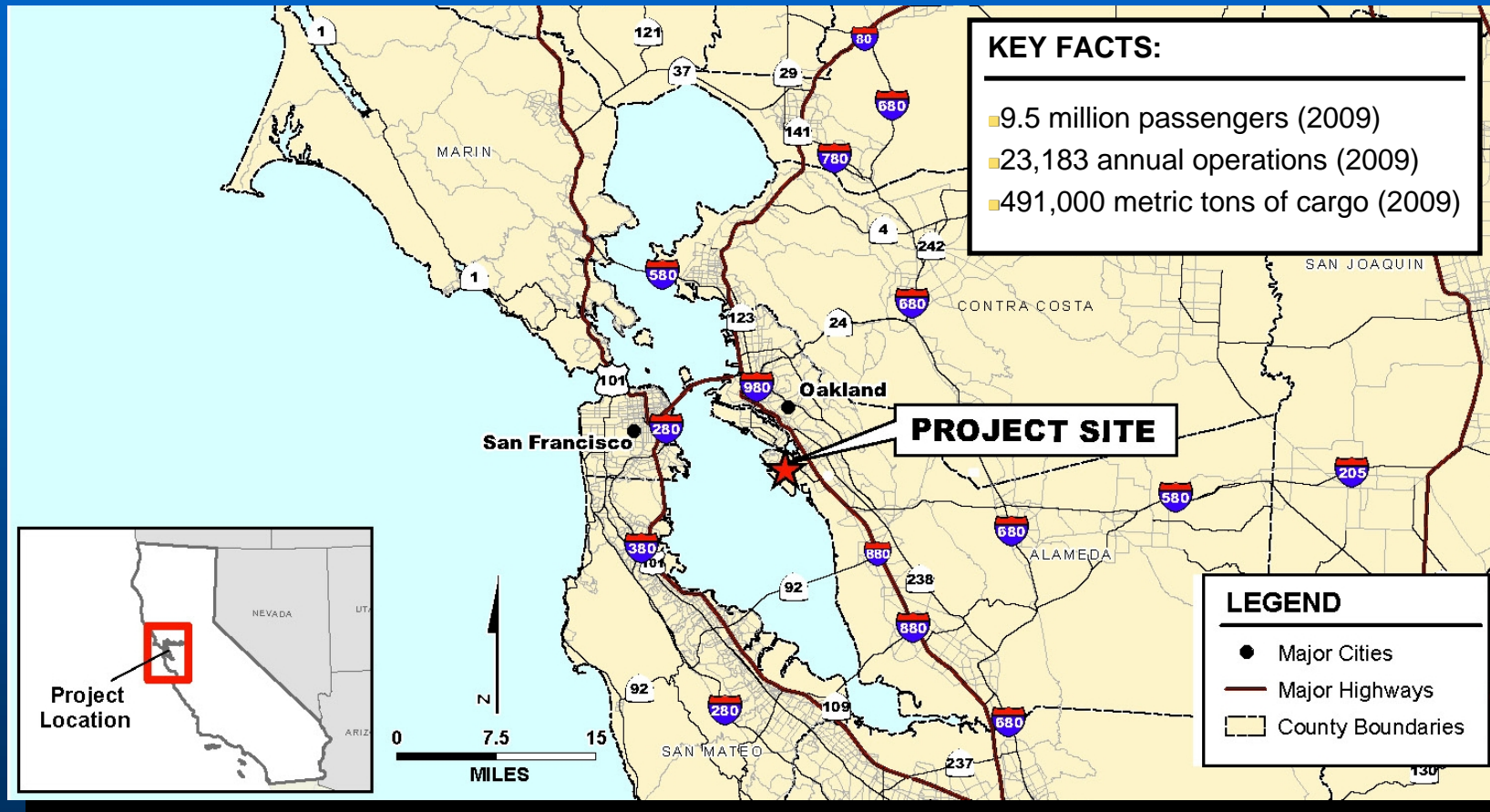
PORT OF OAKLAND

INTRODUCTION



PORT OF OAKLAND

Airport Location



Introduction

- FEMA remapping Flood Insurance Rate Maps
- Without certification, Oakland Airport may be in “Special Flood Hazard Area”
- FEMA certification requires documented ability to protect for 100-year flood
- OAK evaluated dike, determined improvements are needed
 - Flood control
 - Seismic stability



PORT OF OAKLAND

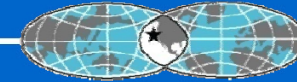
PERIMETER DIKE PROJECT OVERVIEW



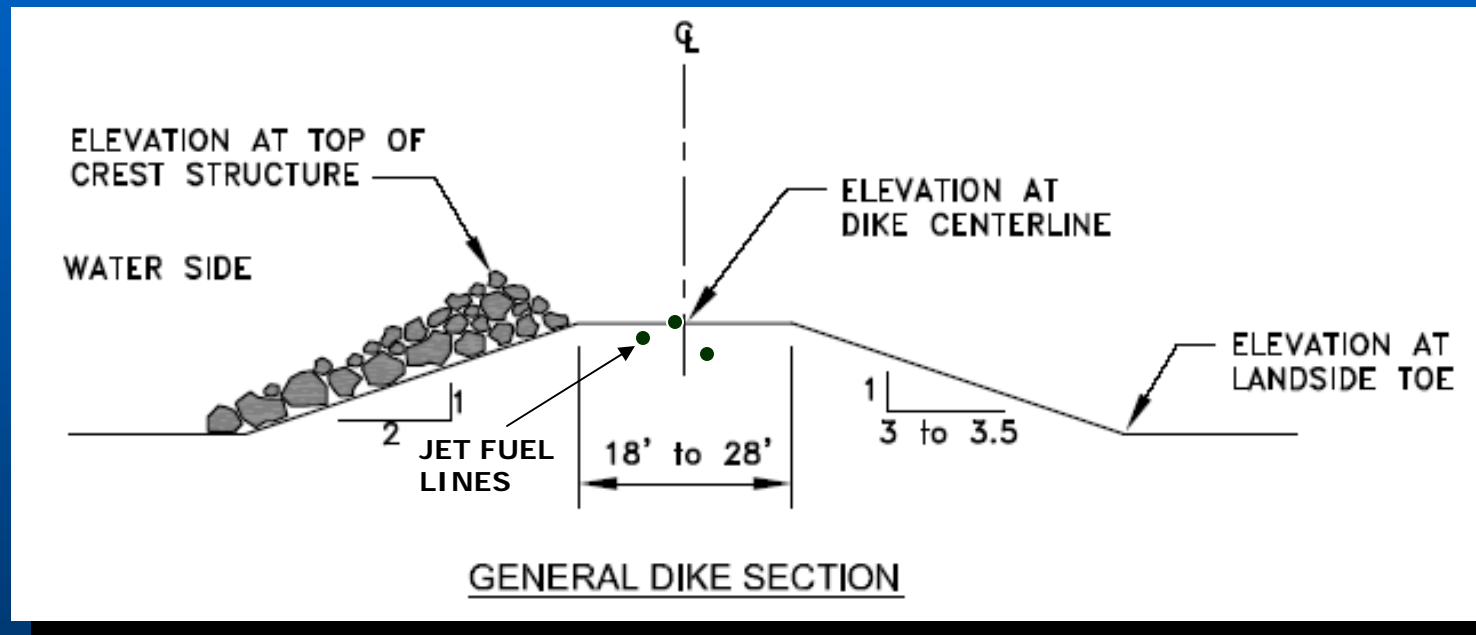
Project Background



- Three feet of a dike crest are buried under the dike crest of dike



Typical Dike Section



Soil Investigation

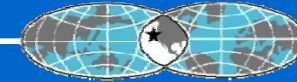
- Performed soil investigation
 - Drilled holes through dike and into foundation to observe and collect soil samples
 - Tested soil samples in laboratory for determining strength and other properties
- Confirmed existence of clay and sand
- Characterized foundation
- Developed engineering properties

Vulnerability Assessment

- Performed engineering analysis for static and seismic loads
 - Static load corresponds to a 100 year flood (1% annual exceedance flood)
 - Seismic load corresponds to a 1,000 year return period earthquake (10% chance of exceedance in 100 years)

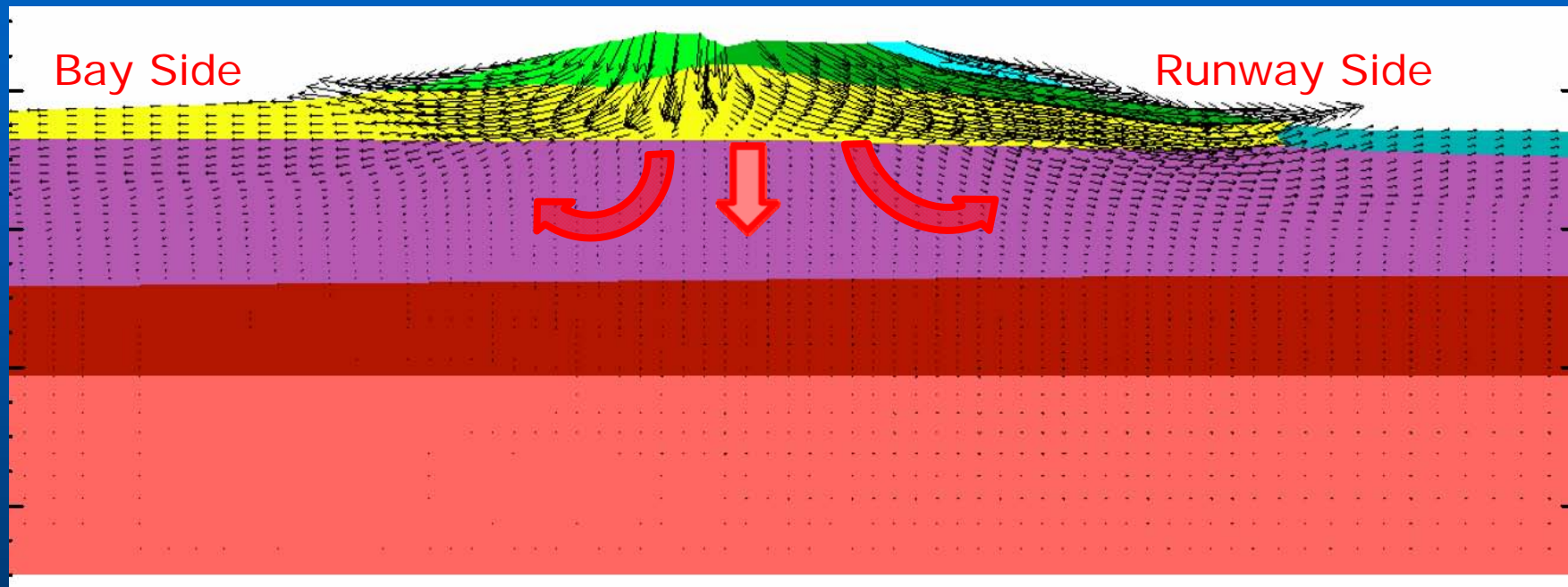
Vulnerability Assessment Results

- Analyses consisted of slope stability, seepage, erosion, overtopping, and seismic deformation
- Portions of dike do not meet FEMA standards for 100 year flood
- Portions of dike would not perform satisfactorily during a major earthquake



PORT OF OAKLAND

During a major earthquake...



During a major earthquake...

- Significant movements of dike and foundation
- Potential breaching of dike
- Flooding of runways and surrounding

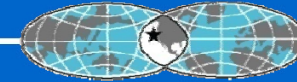
Dike did not breach during the 1989 Loma Prieta but experienced some movement



Proposed Dike Improvements

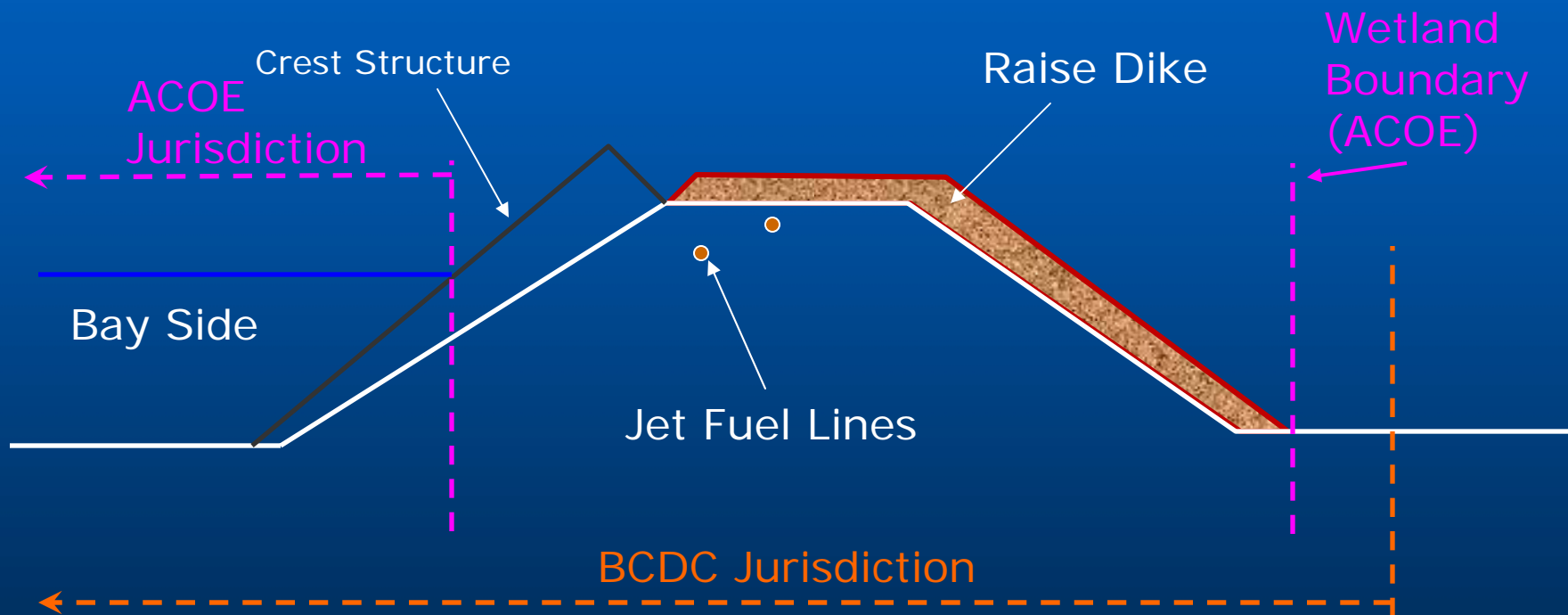
- Flood Control Measures
 - Raise dike structure
 - Construct stability berm
 - Construct slurry wall

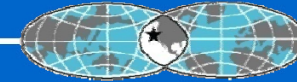
- Other Measures
 - Address sea-level raise
 - Condition assessment of jet fuel lines



Proposed Dike Improvements

Raising Dike (Typical)

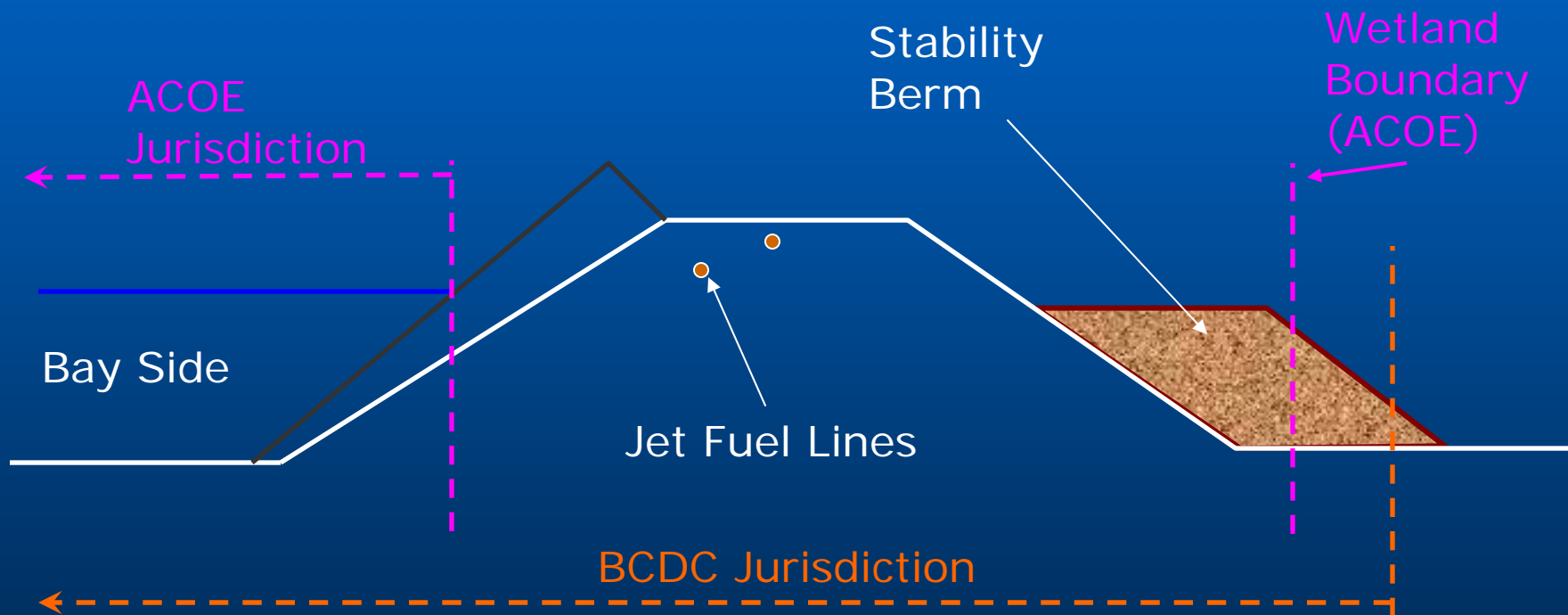


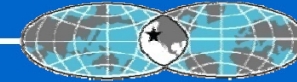


PORT OF OAKLAND

Proposed Dike Improvements

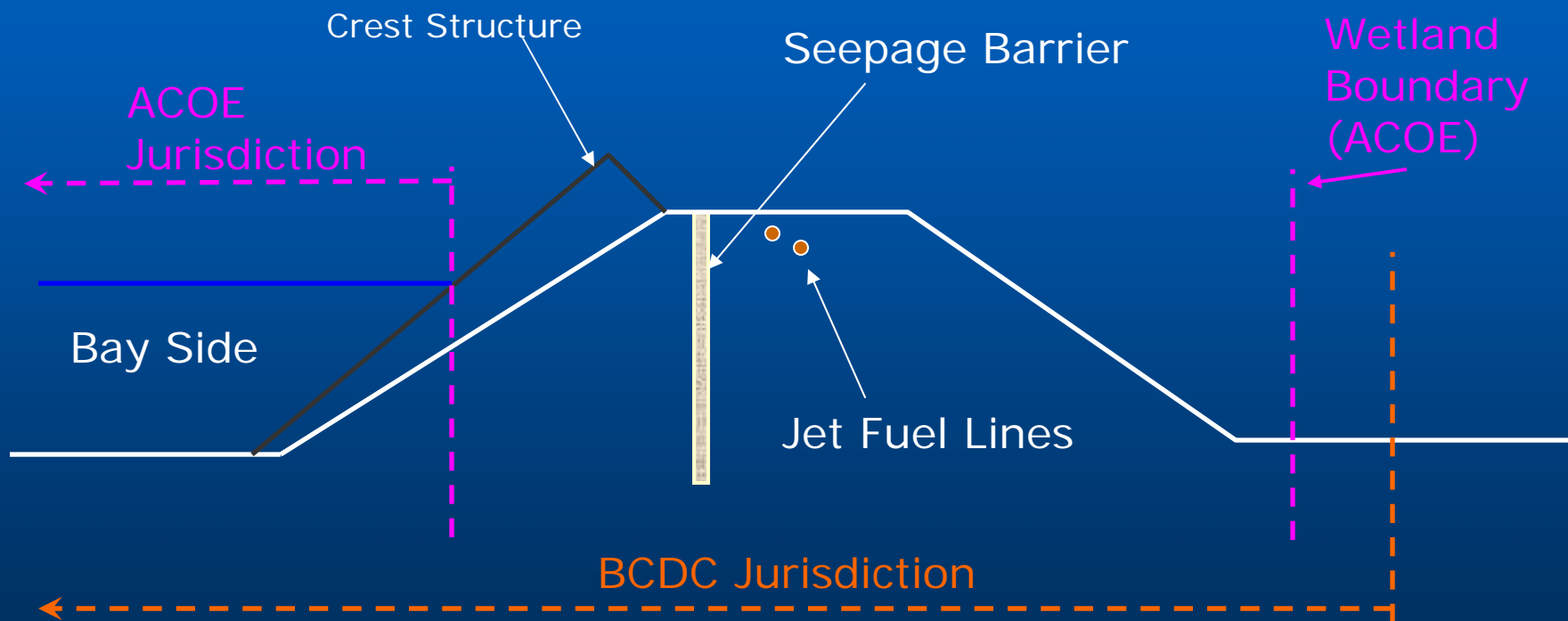
Constructing Stability Berm

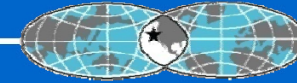




Proposed Dike Improvements

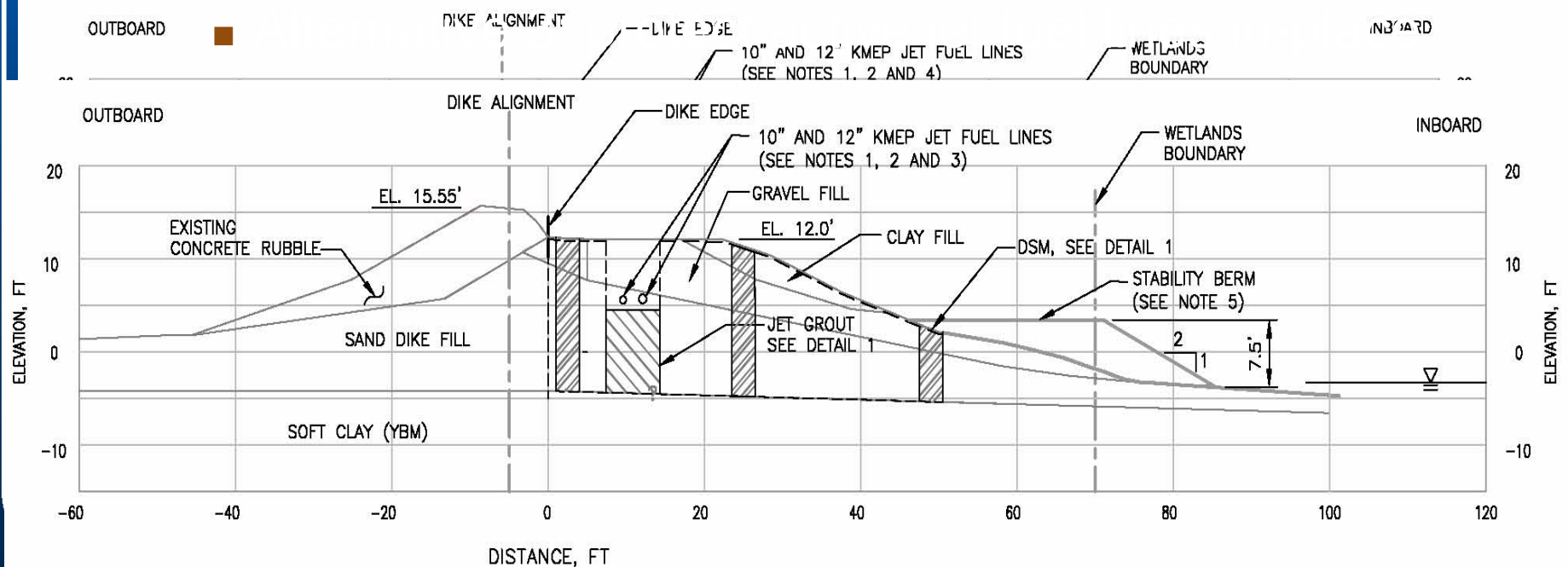
Constructing Slurry Wall





Proposed Dike Improvements

- Seismic Improvements
 - Deep soil-mixing or stone columns
 - Relocate active jet fuel lines
 - Alternative 1: entire relocation
 - Alternative 2: partial relocation



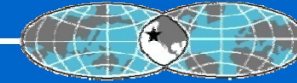


PORT OF OAKLAND

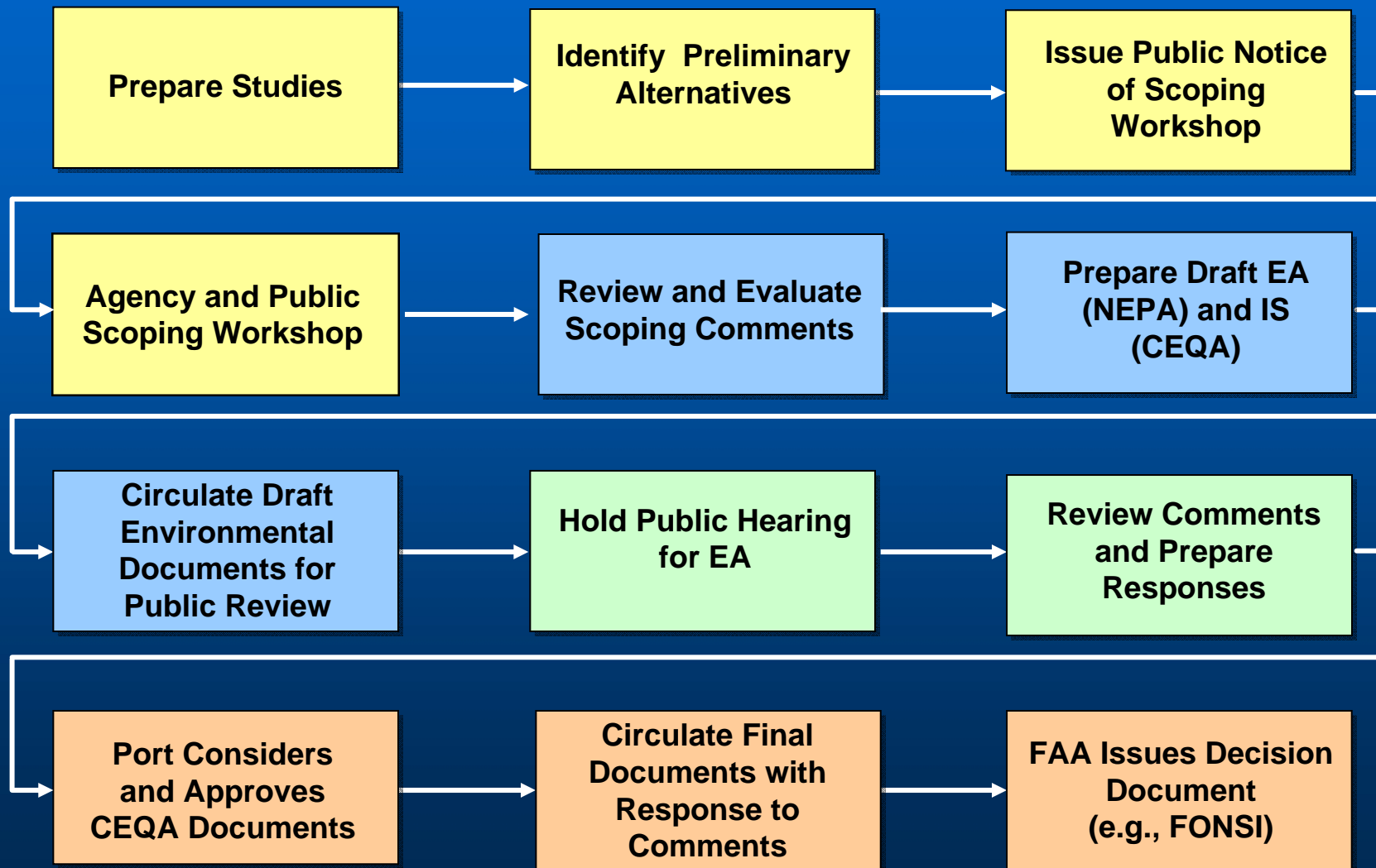
ENVIRONMENTAL REVIEW PROCESS

Environmental Review Process

- FAA funding requires review under the National Environmental Policy Act (NEPA), an Environmental Assessment (EA) is being prepared
- OAK is concurrently preparing an Initial Study (IS) in compliance with the California Environmental Quality Act (CEQA)
- Environmental analysis informs the planning, design, and construction process
- Analysis to include Proposed Project Alternatives and the No Project Alternative

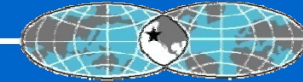


Environmental Review Process



Environmental Review Objectives

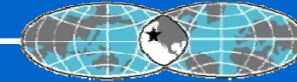
- Provide detailed description of the proposed project and existing environment
- Present potential environmental effects
- Identify ways to reduce environmental effects through mitigation
- Support agency decision-making process
- Encourage public participation



PORT OF OAKLAND

NEPA / CEQA Environmental Topics

- Air Quality (Including Greenhouse Gases)
- Compatible Land Use
- Fish/Wildlife/Plants
- Wetlands
- Farmlands
- Cultural Resources
- Noise
- Coastal Resources
- Visual Quality/Light Emissions
- Water Quality/Floodplains
- Hazardous Materials, Pollution Prevention, and Solid Waste
- Natural Resources/Energy Supply
- Socioeconomic Impacts, Environmental Justice, and Children's Health and Safety Risks
- Secondary (Induced) Impacts
- Cumulative Impacts
- CEQA Specific Topics (e.g., Geology & Soils)



Anticipated Schedule

2010	2011				2012				2013				2014				2015			
4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q	1Q	2Q	3Q	4Q
	Environmental Assessment/ Initial Study (12/10 – 2/12)																			
					Environmental Permitting (2/12 – 8/12)															
	Design (12/10 – 10/12)																			
					Construction (Flood Improvements) (8/12 – 5/13)															
													Construction (Seismic Improvements) (1/14 – 2/15)							



PORT OF OAKLAND

PUBLIC SCOPING COMMENTS

Public Comment Process

- Submit speaker cards to speak
- Wait until your name is called
- Speak clearly and state your name and association
- Verbal comment time is limited to 5 minutes
- Use comment forms for written input



Provide Written Comments

Comments due January 27, 2011

Diane Heinze, P.E.

Port of Oakland

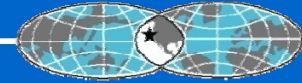
530 Water Street

Oakland, CA 94607

Phone: (510) 627-1759

Fax: (510) 465-3755

E-mail: dheinze@portoakland.com



PORT OF OAKLAND

**THANK YOU FOR YOUR
PARTICIPATION**