

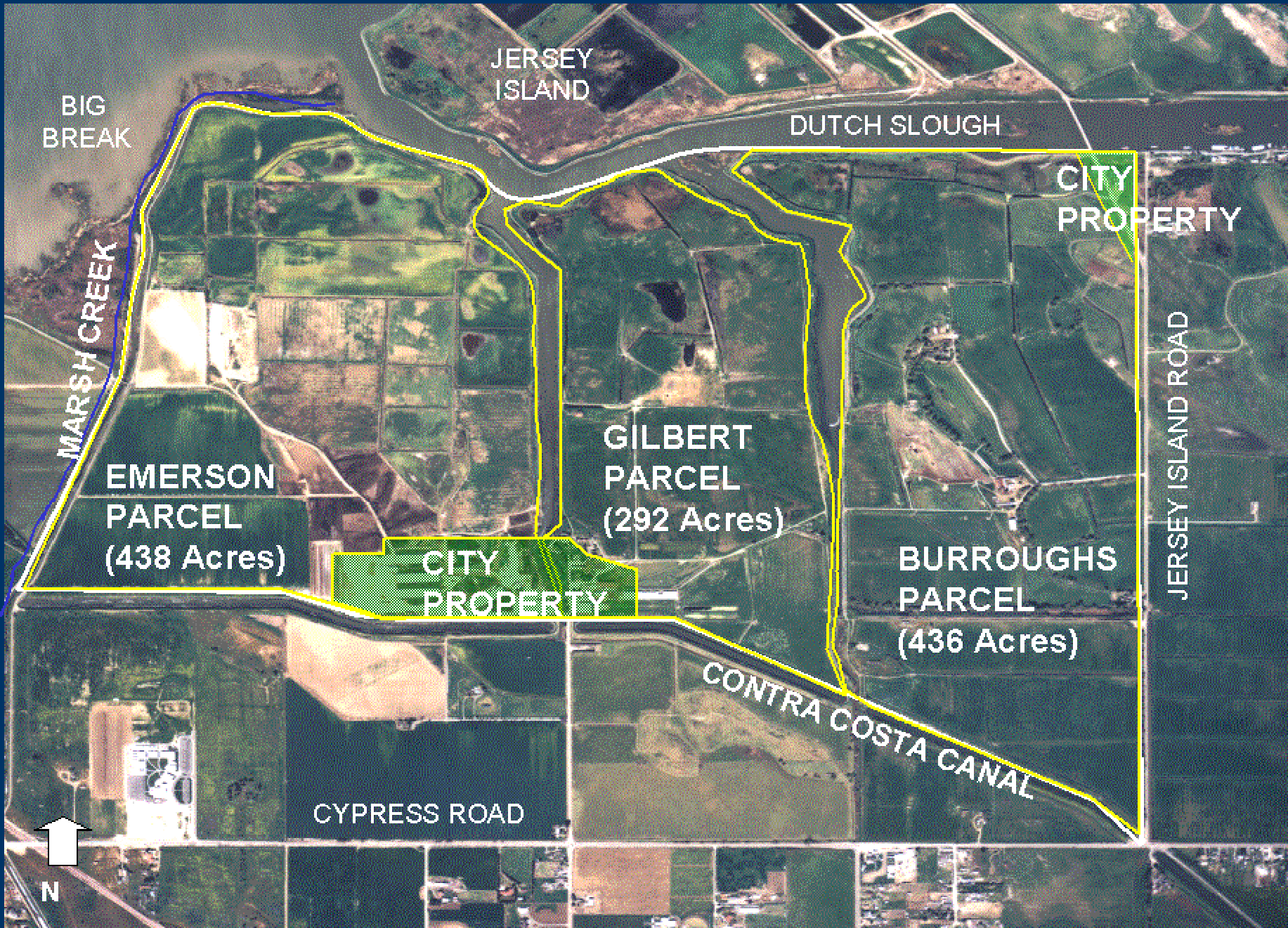
The Dutch Slough Wetland Restoration Project
Public Scoping Hearing
and
Restoration Committee Meeting
April 5, 2006
City of Oakley





Dutch Slough is at the mouth of Marsh Creek and adjacent to Big Break

Site Location

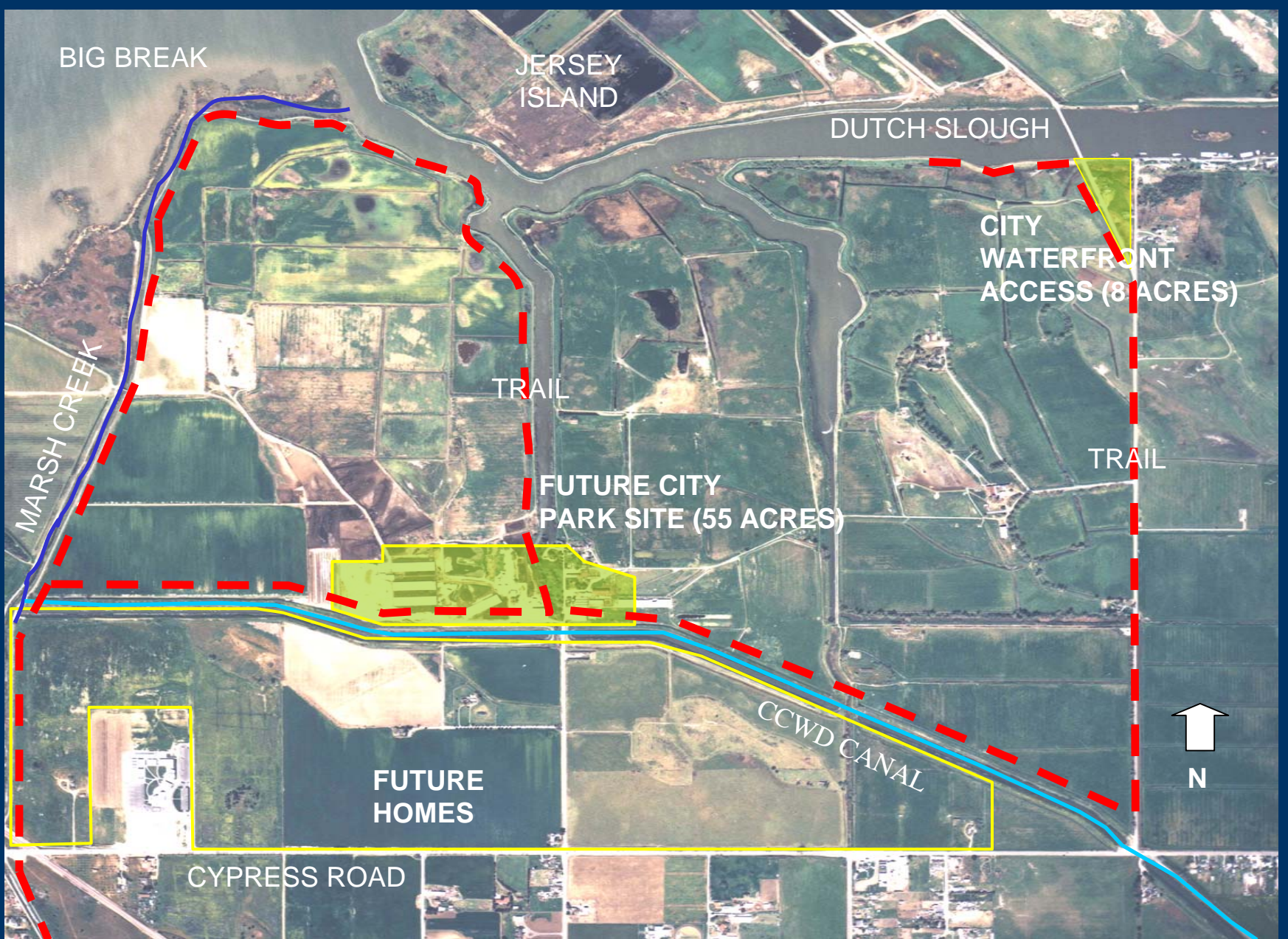


Project Goals and Objectives

1. Provide shoreline access, educational and recreational opportunities.
2. Benefit native species by re-establishing natural ecological processes and habitats.
3. Contribute to scientific understanding of ecological restoration by implementing the project under an adaptive management framework.

Implementation Commitments

1. Avoid, measure and mitigate degradation of drinking water quality.
2. Minimize the potential for mercury methylation and other water quality impacts.
3. Minimize the establishment of nuisance species through design and management.
4. Design and manage project to minimize negative affects on public health, such as conditions that promote the production of mosquitoes and associated diseases.
5. Avoid and/or mitigate impacts to existing infrastructure and easements on the project site.
6. Maintain existing flood protection on neighboring properties.



Future Public Access at Dutch Slough

Adaptive Management

- Designing restoration projects to improve our understanding of how ecosystems function.

Process

- Define measurable ecological objectives
- Articulate conceptual model
- Identify key uncertainties
- State hypothesis
- Design project to test hypothesis

Restoration Committee

Established to create a forum for regular information exchange about the Dutch Slough Restoration Project. The goals are to:

- Create better communication among agencies
- Distribute information about the restoration planning process
- Provide a forum to bring up and address key concerns
- Keep interested partners informed about other projects and regional issues that affect the Dutch Slough project

Milestones Completed

- Land acquisition
- Opportunities and constraints report
- Goals and objectives and implementation commitments
- Conceptual alternatives
- Biological and physical surveys
- Final feasibility report
- Community park and public access conceptual master plan

Current Activities

- Public outreach
- Environmental documentation
- Coordination with adjacent projects



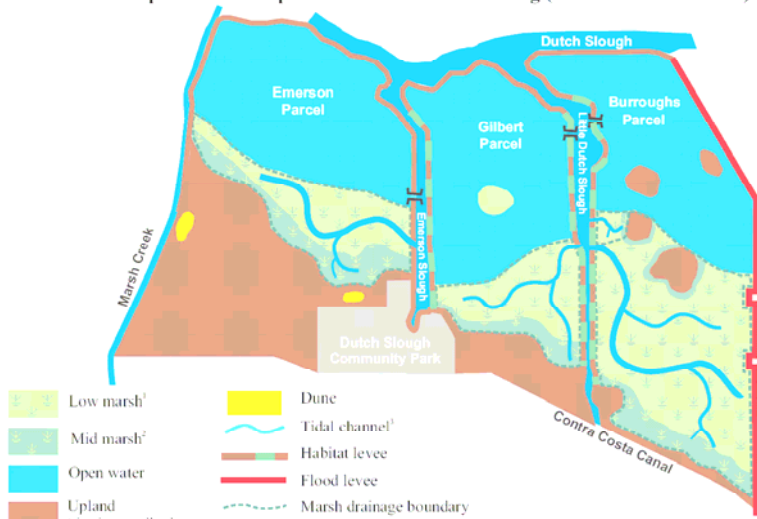
Thank you for helping to support
the Dutch Slough Wetland Restoration Project
Sunday May 1, 2005

**Oakley
Science Week
2005**





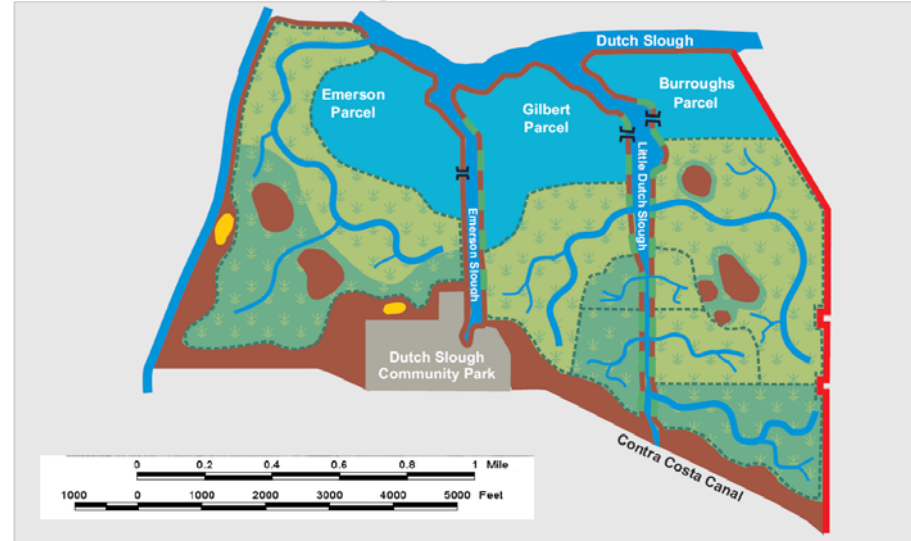
Alternative 1
Low Marsh and Open Water Emphasis with Minimal Grading (Low Cost Alternative)



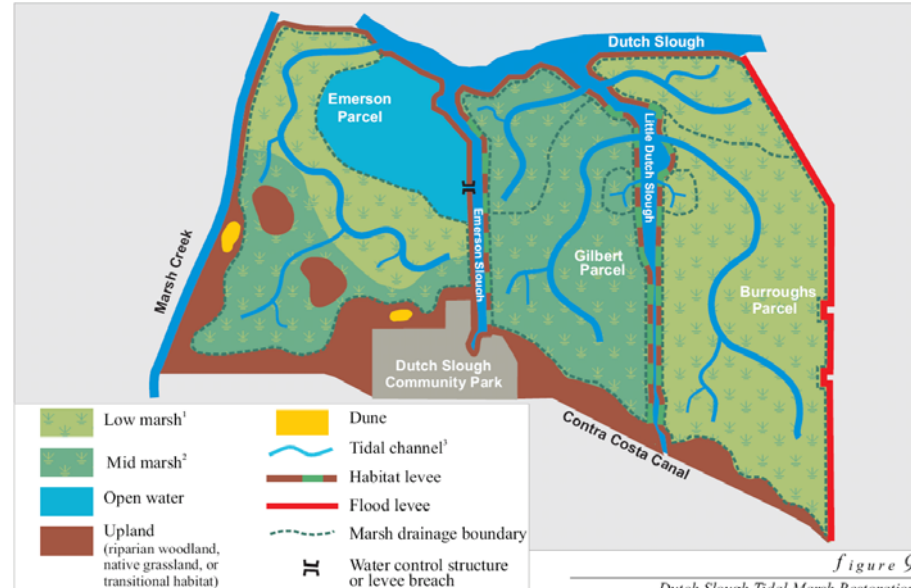
¹Low marsh elevation ranges from -0.8 to +0.2 ft NGVD (-0.5 to +0.5 ft MLLW)
²Mid marsh elevation ranges from +1.0 to +2.0 ft NGVD (-0.5 to +0.5 ft MTL)
³Conceptual channel networks not shown to scale; actual channel density will be much greater

Figure 8
No Action Alternative
and Alternative 1

Alternative 2
Mix of Mid Marsh, Low Marsh, and Open Water with Moderate Fill (Preferred Alternative)



Alternative 3
Mid Marsh and Low Marsh Emphasis with Imported Fill

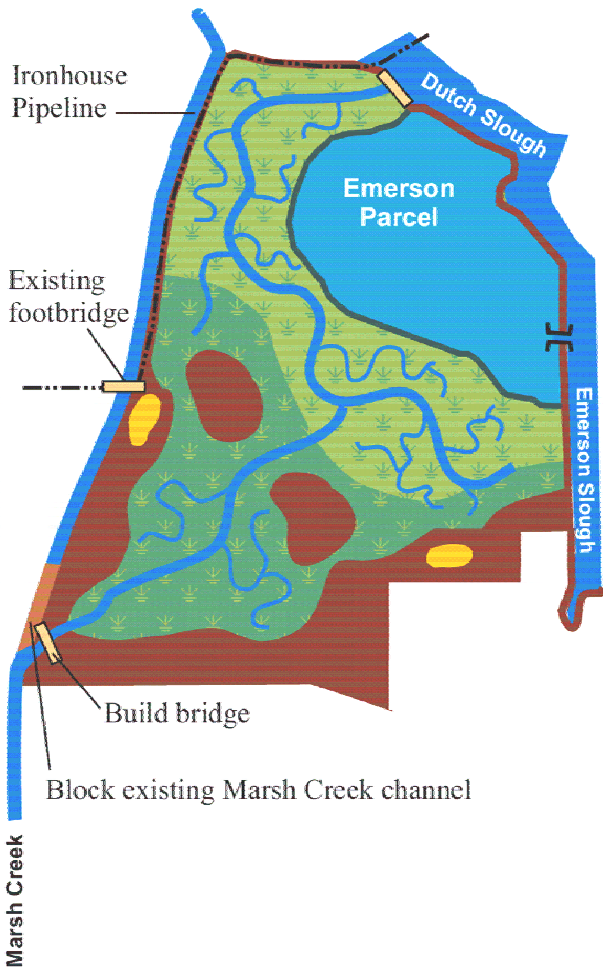


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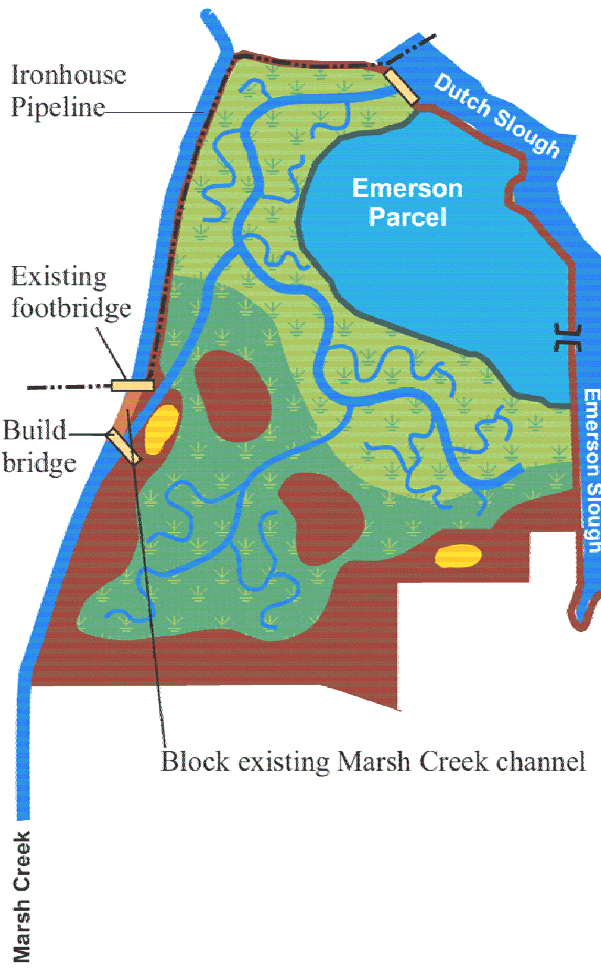
Figure 9
Dutch Slough Tidal Marsh Restoration
Alternatives 2 and 3

Dutch Slough Conceptual Plan and Feasibility Report

Option 1



Option 2



Option 3

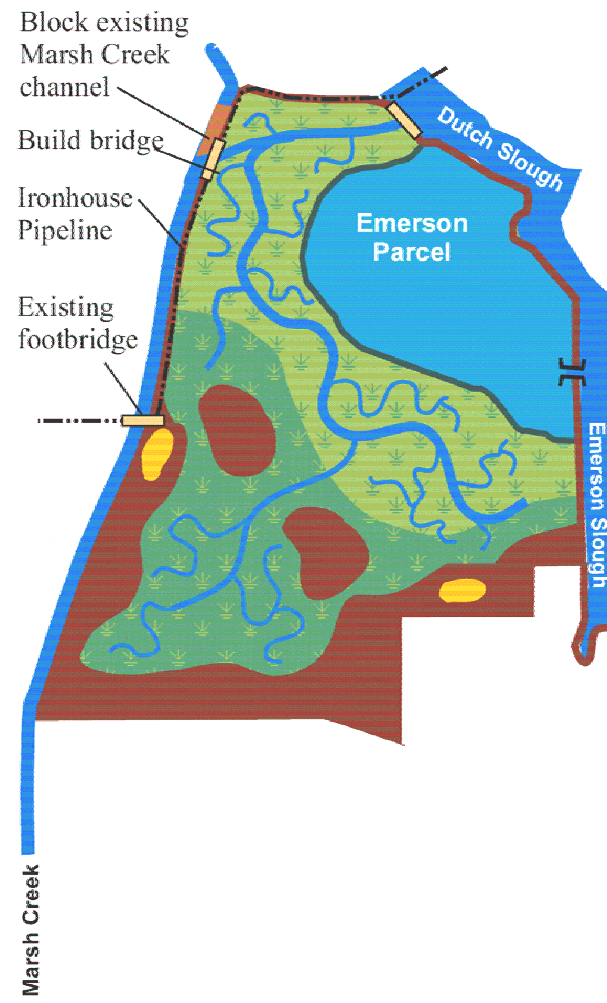
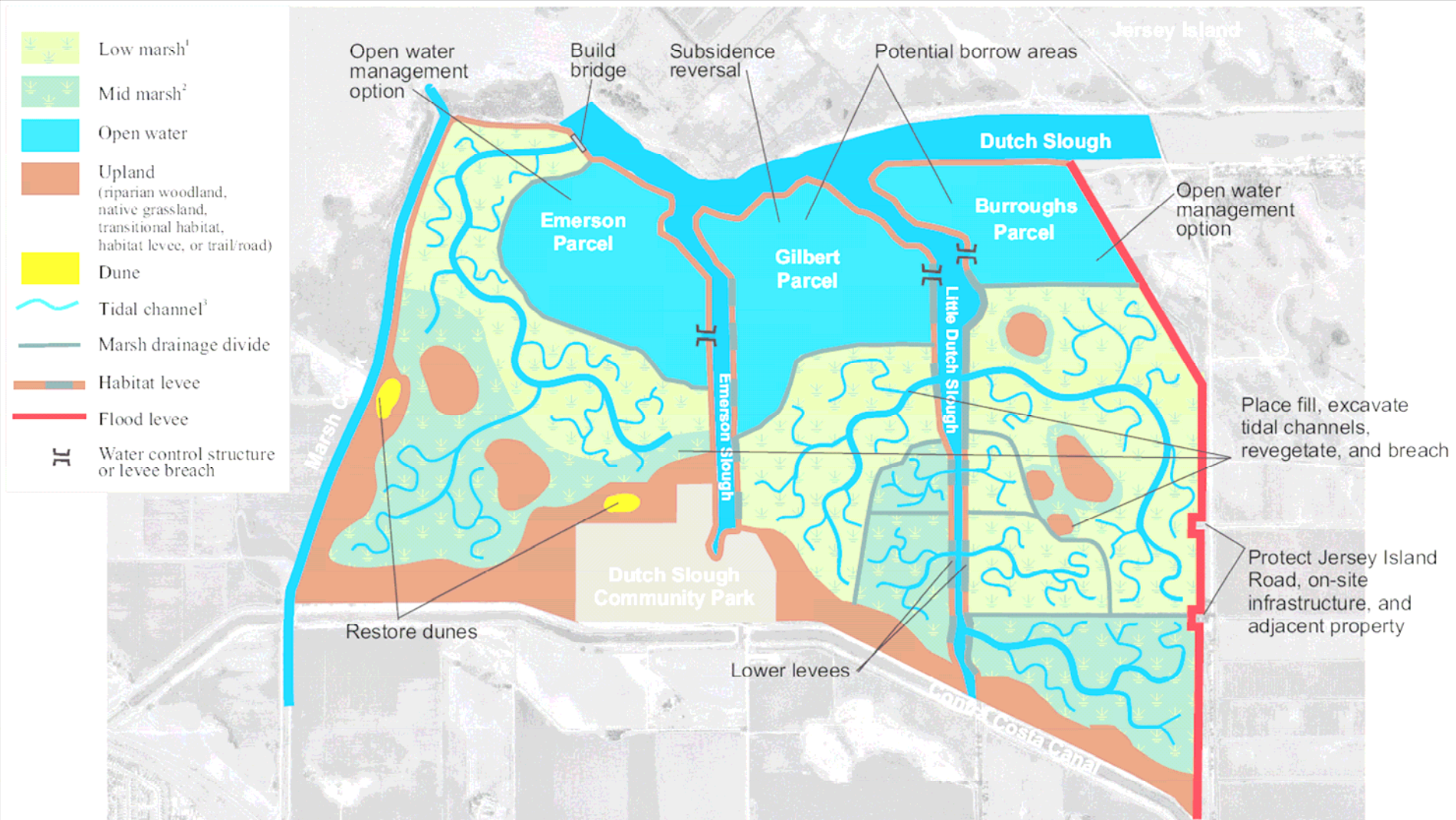


figure 11

Dutch Slough Tidal Marsh Restoration
Marsh Creek Delta Restoration



¹Low marsh elevation ranges from -0.8 to +0.2 ft NGVD (-0.5 to +0.5 ft MLLW)

²Mid marsh elevation ranges from +1.0 to +2.0 ft NGVD (-0.5 to +0.5 ft MTL)

³Conceptual channel networks not shown to scale

figure 12

Dutch Slough Tidal Marsh Restoration

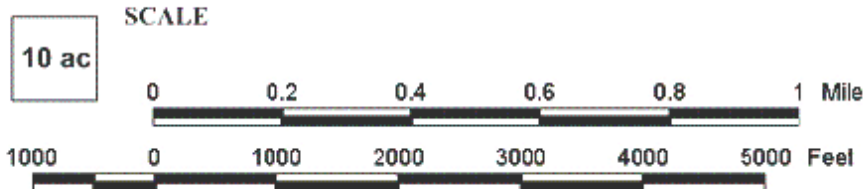
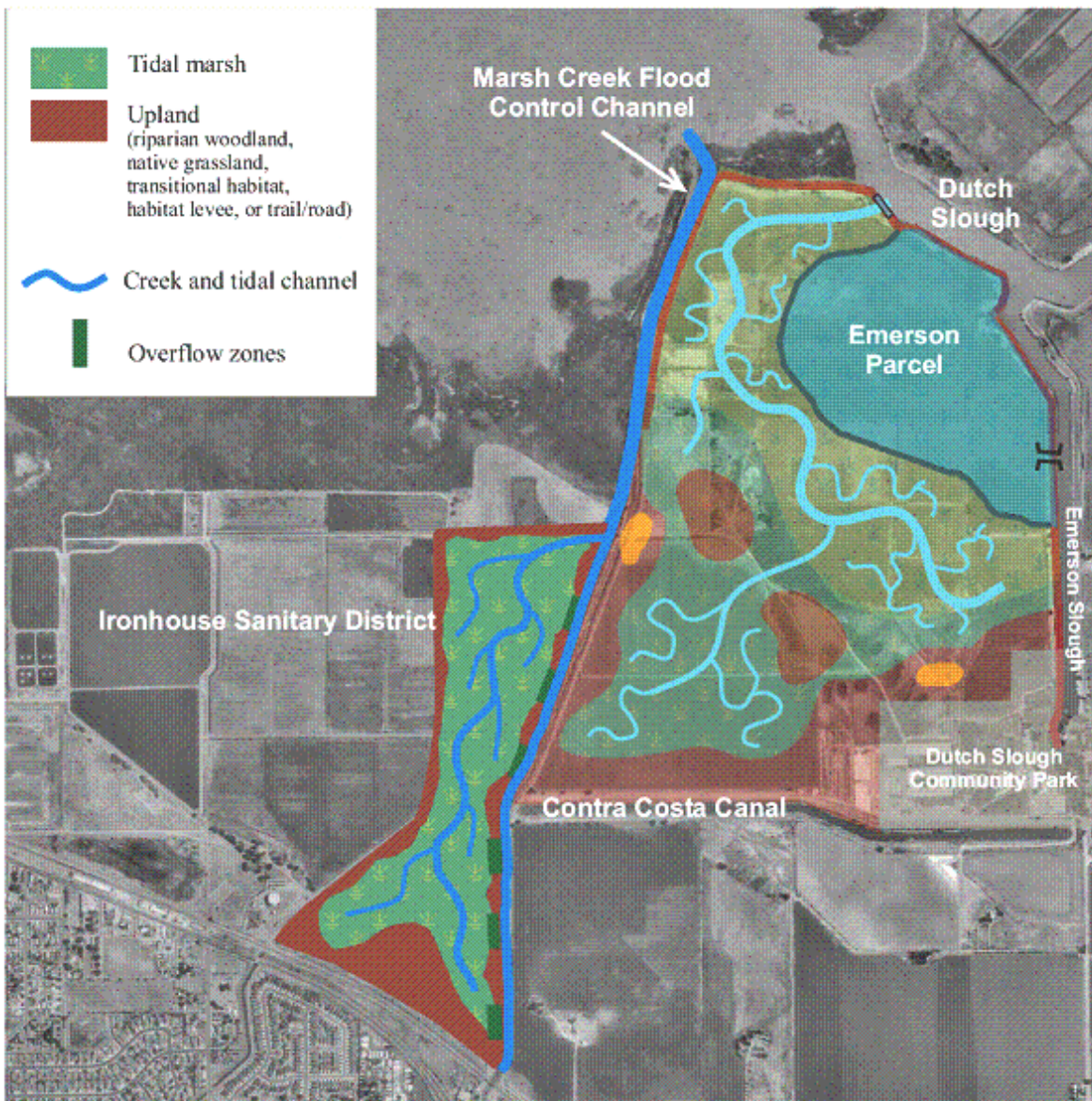
Alternative 2: Mix of Mid Marsh, Low Marsh, and Open Water with Moderate Fill (Preferred Alternative)

SCALE 0 0.2 0.4 0.6 0.8 1 Mile

1000 0 1000 2000 3000 4000 5000 Feet

10 ac

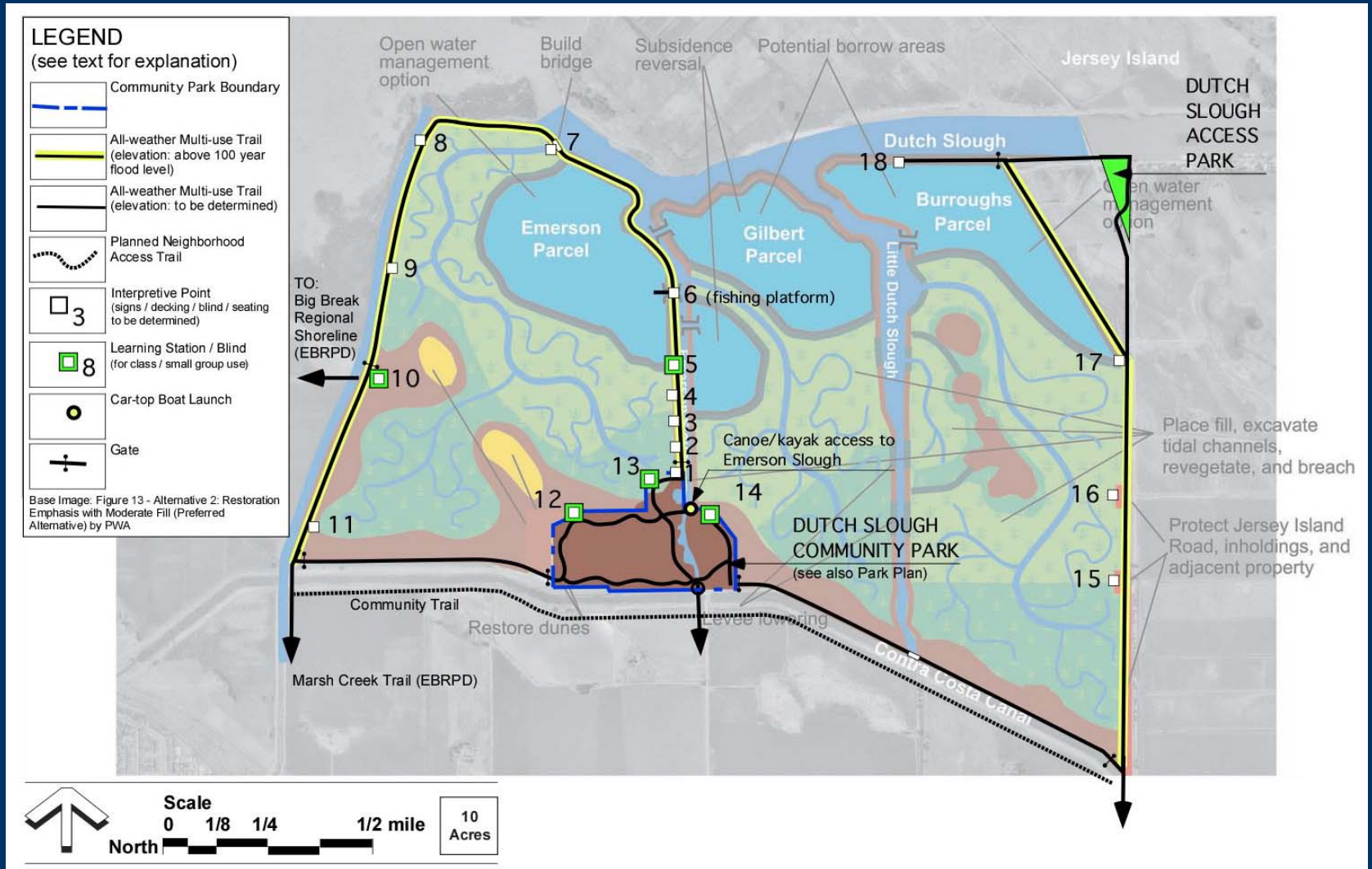
Marsh Creek Delta Restoration Project



Dutch Slough Community Park and Public Access Conceptual Master Plan



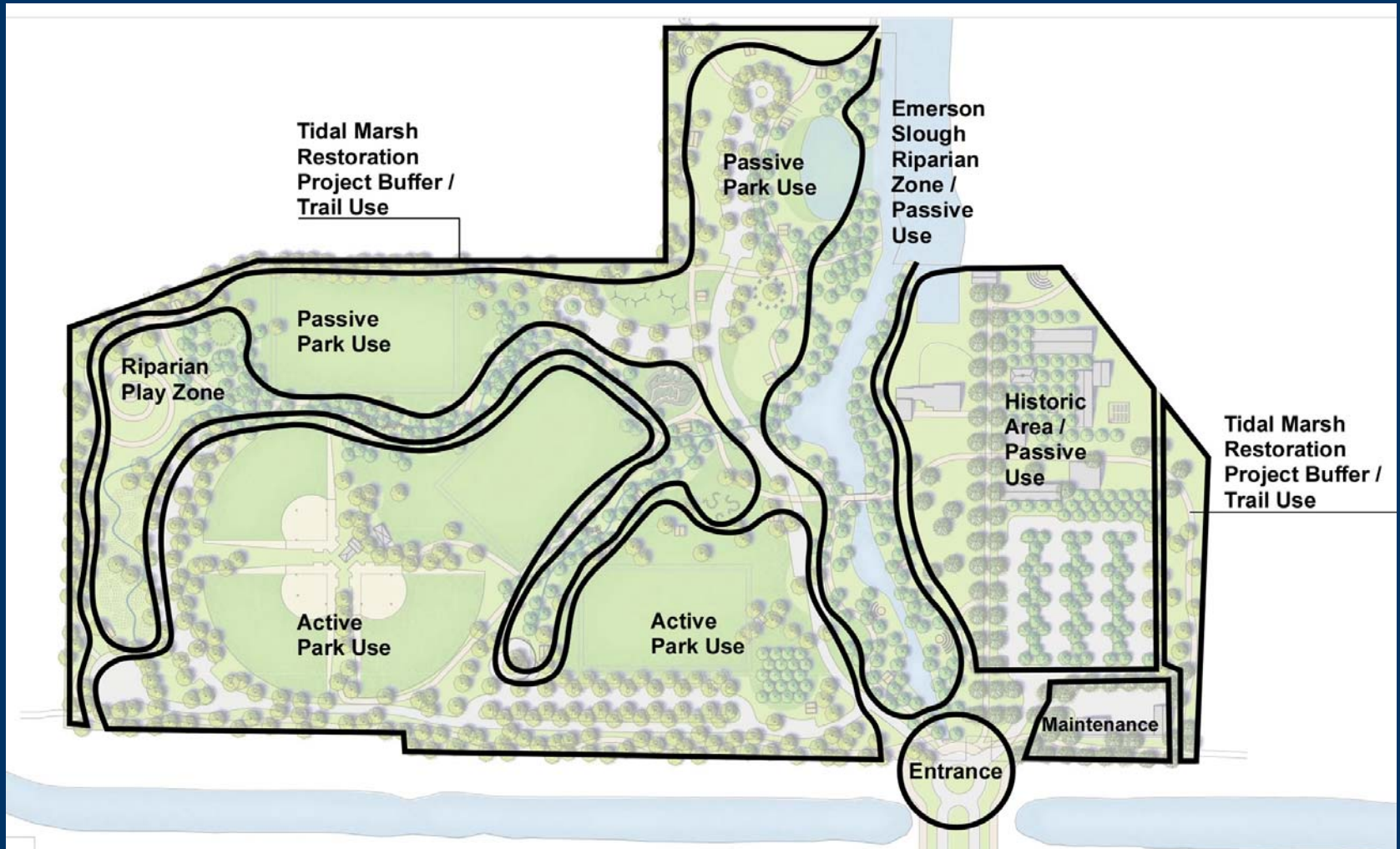
Community Park



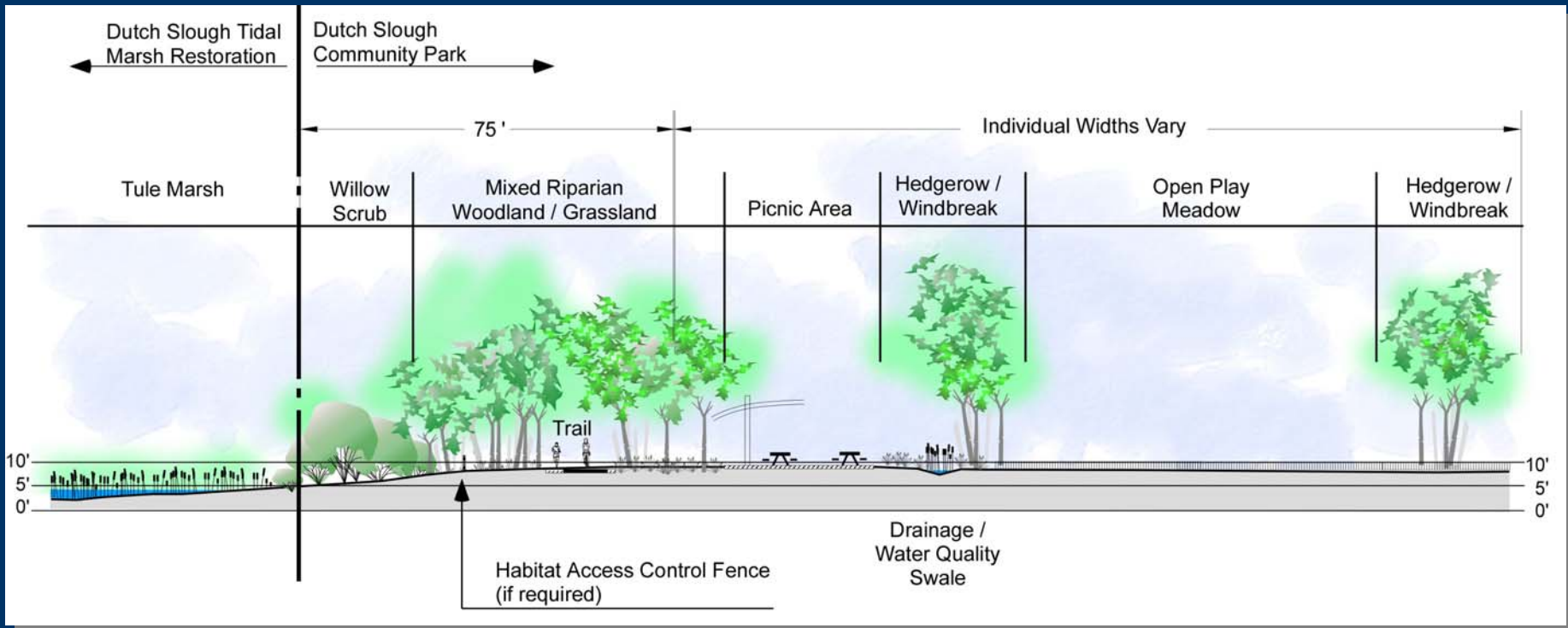
Trails and Public Access



Community Park – Multiple Use



Community Park – Use Zones



Botanic Name **Common Name**

Willow Scrub	
<i>Salix exigua</i>	sandbar willow
<i>Salix lasiolepis</i>	arroyo willow
<i>Salix lucida</i>	shining willow

Mixed Riparian Woodland	
<i>Acer negundo californicum</i>	box elder
<i>Alnus rhombifolia</i>	white alder
<i>Fraxinus latifolia</i>	Oregon ash
<i>Populus fremontii</i>	Fremont cottonwood
<i>Rosa californica</i>	wild rose
<i>Rubus urisunus</i>	California blackberry

Botanic Name **Common Name**

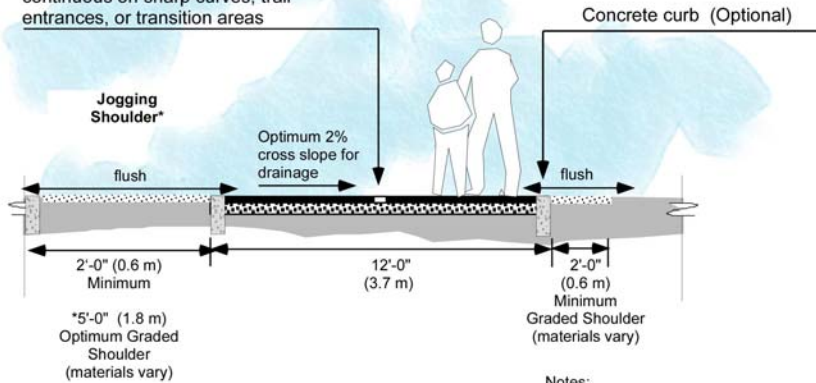
Grassland	
<i>Bromus californicus</i>	California brome
<i>Deschampsia californica</i>	tufted hairgrass
<i>Festuca californica</i>	California fescue
<i>Melica californica</i>	California oniongrass
<i>Nasella pulchra</i>	purple needlegrass

Intenal Park Windbreaks / Water Quality Swales	
<i>Alnus rhombifolia</i>	white alder
<i>Populus fremontii</i>	Fremont cottonwood
<i>Juncus bufonius</i>	toad rush
<i>Hordeum brachyantherum</i>	meadow barley
<i>Leymus triticoides</i>	creeping wildrye
<i>Typha angustifolia</i>	narrowleaf cattail

Tidal Marsh Compatibility

Multiple Use Trail - Dutch Slough Community Park Area

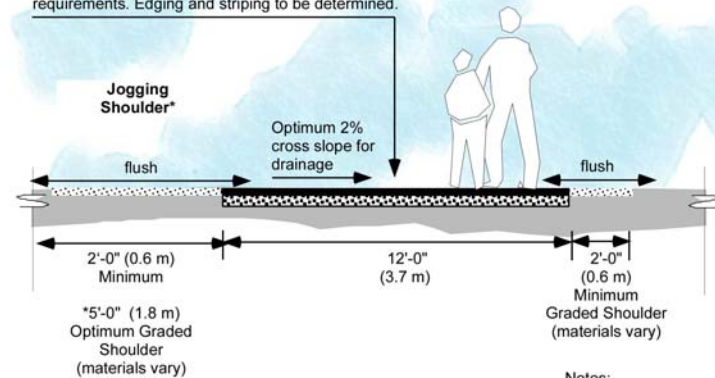
Centerline Stripe: 4" (100 mm) continuous on sharp curves, trail entrances, or transition areas



- Notes:
- Section shown illustrates optimum trail widths.
 - Trail pavement surface and shoulder widths may vary based on specific site/use conditions and consistent with CalTrans design standards.
 - Trail designed to accommodate use by maintenance and emergency access vehicles.

Multiple Use Trail - Tidal Marsh Restoration Area

All-weather materials suitable for ADA access. Structural cross-section to be determined based on maintenance and emergency vehicle loading requirements. Edging and striping to be determined.

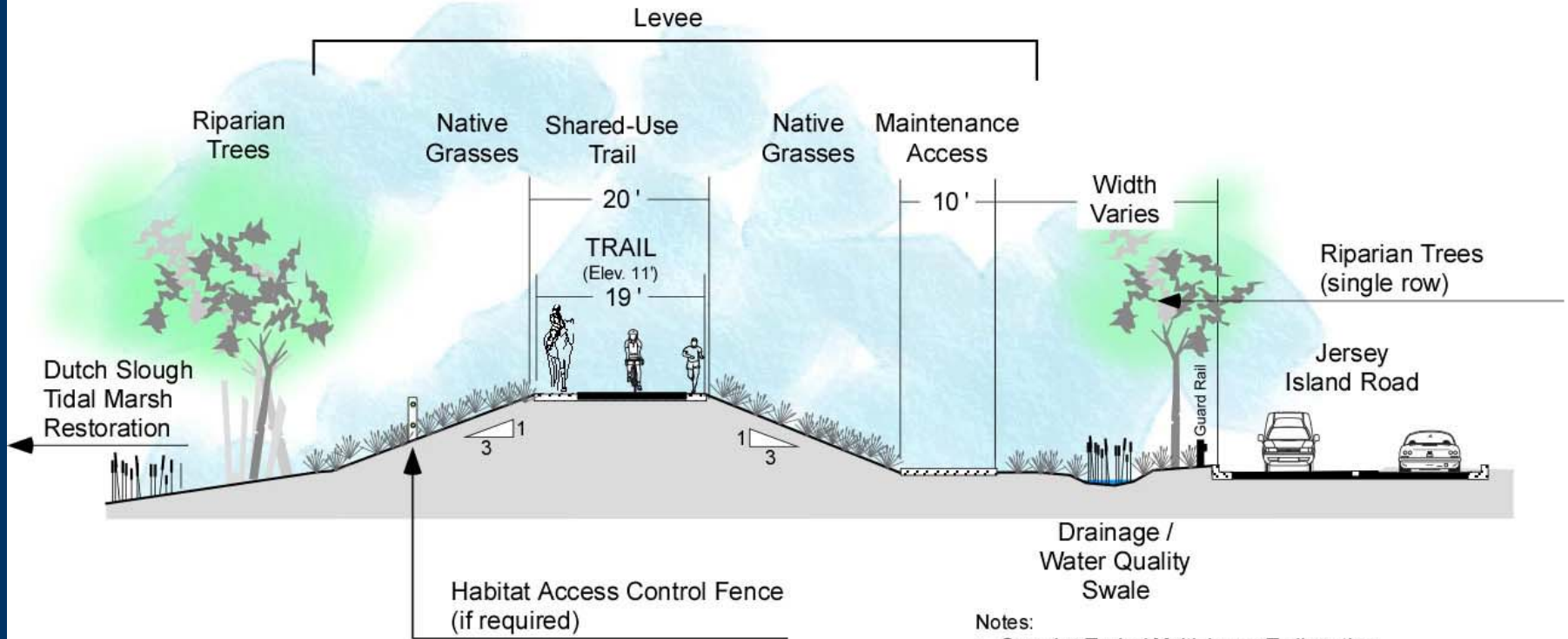


- Notes:
- Section shown illustrates optimum trail widths.
 - Trail pavement surface and shoulder widths may vary based on specific site/use conditions and consistent with CalTrans design standards.
 - Trail designed to accommodate use by maintenance and emergency access vehicles.

Trail Characteristics

- Community Park: 2.5 miles
- Tidal Marsh Restoration Project: 5.9 miles

Multiple Use Trail - Typical Section along Jersey Island Road Levee



Notes:

- See also Typical Multiple use Trail section
- Levee slopes on side facing the Tidal Marsh Restoration Area may be more shallow gradient than that indicated.
- Levee either widened at interpretive points or interpretive points constructed as decks extending over levee.

Trail Characteristics