

Brisbane Baylands

Planning Commission Public Hearing #2

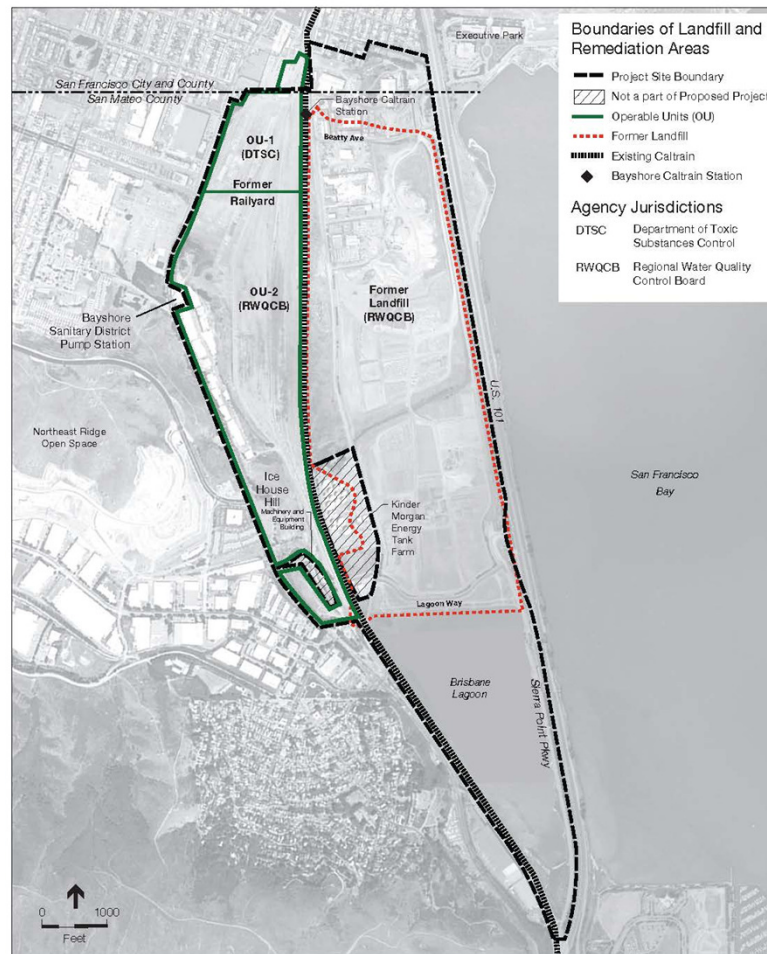
**Hazards & Hazardous Materials,
Geology, Hydrology & Water Quality**

October 8, 2015

Brisbane Baylands

Hazards and Hazardous Materials

Site Remediation and Title 27 Landfill Closure



Site Remediation and Title 27 Landfill Closure

Jurisdictional Authority

- Land Use
 - City of Brisbane
- Site Remediation
 - DTSC (OU-1)
 - RWQCB (OU-2)
- Title 27 Landfill Closure
 - RWQCB

Site Remediation and Title 27 Landfill Closure

- EIR provides programmatic review of site remediation and landfill closure
- Key Terms
 - Site characterization, waste characterization
 - Remediation
 - Title 27 Landfill Closure
 - Risk-based cleanup goals
 - Human health risk assessment

Existing Conditions: Former Railyard

- Operable Unit 1 (OU-1)
 - Volatile Organic Compounds (VOCs)
 - Petroleum Hydrocarbons (e.g., Bunker C oil)
 - Heavy metals
- Operable Unit 2 (OU-2)
 - Petroleum Hydrocarbons
 - Volatile Organic Compounds
 - Heavy metals

Existing Conditions: Former Landfill

- Reflects waste practices during its lifetime (1932-1967)
 - No liners or segregation of wastes
 - No leachate collection systems
 - No records of waste sources (residential, commercial/industrial, inert fill and liquid wastes)
- Approximately 12.5 million cubic yards of waste
- Interim cover placed on the landfill
- Monitoring of leachate and landfill gas ongoing
- Formal closure per CCR Title 27 required

Major Issues

- Adequacy of waste characterization
- Risk-based remediation standards
- Potential for cross-contamination
- Review process and responsibility for remediation and Title 27 landfill closure

Site Remediation and Title 27 Landfill Closure Process

- City identifies appropriate land uses within the Baylands (General Plan/Concept Plan level)
- Applicant completes plans for Title 27 landfill closure and Remedial Action Plans for OU-1 and OU-2
 - Regulatory agency review and revisions
 - Project-level CEQA Review
- Prepare Baylands development regulations (specific plan)
 - Project-level CEQA Review
- Undertake site remediation and Title 27 landfill closure
- Site-specific development within the Baylands

Brisbane Baylands

Geology and Seismicity

Geologic and Seismic Considerations

- Non-engineering fill overlying Bay Muds
- Highly active seismic region
- Potential for differential settlement
- Expansive and corrosive soils
- Potential for liquefaction

Brisbane Baylands

Hydrology and Water Quality

Water Quality Issues

- Total suspended solids
- Localized oils and grease
- Leachate seeps
- Construction impacts
- Urban pollutants in post-development runoff

Water Quality Mitigation

- Compliance with standards of:
 - Statewide NPDES permit
 - Brisbane's Municipal Regional Stormwater Permit Provision C.3
- Implementation of site-specific:
 - Requirements of the RWQCB
 - Stormwater Pollution Prevention Plan (SWPPP)
 - Stormwater Management Plan
- Leachate collection system as part of Title 27 landfill closure

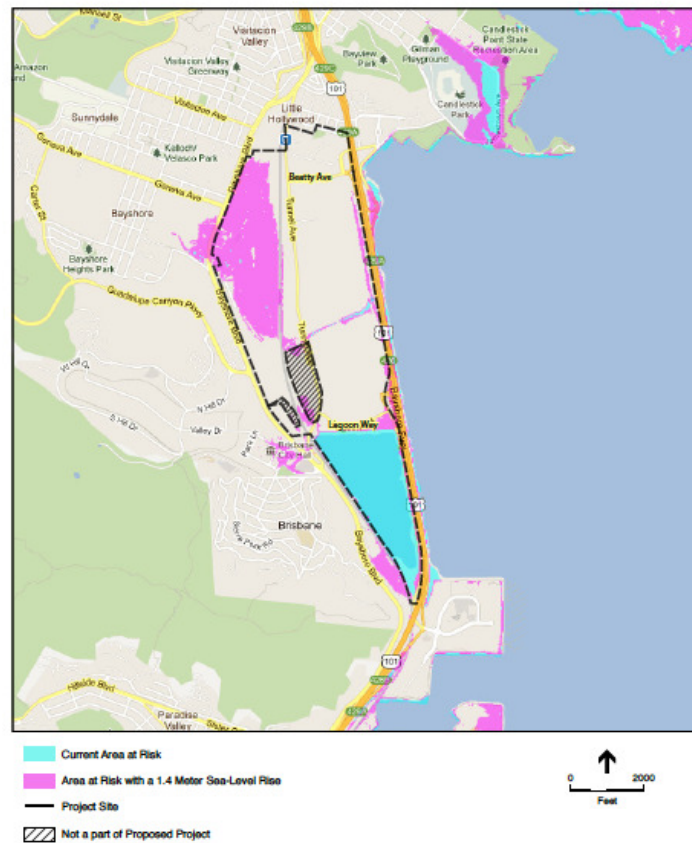
Flooding



SOURCE: ESA, 2012; FEMA, 2012

Brisbane Baylands - 206069
Attachment 2: Draft EIR Figure 4.H-3
100-Year Flood Zones

Sea Level Rise



SOURCE: Pacific Institute, 2012

Brisbane Baylands, 2006069
Attachment 3: Draft EIR Figure 4.H-4
Projected Sea Level Rise

Flooding Protection Criteria

- Convey peak flow from 25-year storm peak flow within underground piping system
- Convey 100-year storm peak flow within streets and underground piping system such that finished first floor elevations of buildings are 1 foot above 100-year storm flow elevation
 - With tidal flow
 - With 100 years of anticipated sea level rise

Hazards and Hazardous Materials

- DEIR and DEIR Comments reviewed by Dr. Susan Mearns of Mearns Consulting
- Responses to DEIR comments reflect Dr. Mearns' input
- Dr. Mearns provided independent peer review- not involved in preparation of the Draft EIR

Hazards and Hazardous Materials

- Dr. Susan Mearns
 - Holds a Ph.D. in Environmental Health Engineering
 - Holds several registrations with Cal EPA and OSHA
 - Has over 20 years of risk assessment, environmental management and consulting experience