

Drainage Improvement Project Plan and Phase 1 Implementation

#### Drainage Improvement Project Plan



#### **Tidal Flooding Reduction**

- Elevate key infrastructure. Varies <6" to 4'
- Install backflow devices to prevent backflow to low lying areas.
- Install Coastal Barrier (dunes).

#### Drainage Improvement Project Plan



### Rainfall Flooding Reduction

- Install new open channel conveyance system, integrated within linear open space amenity.\*
- Install new piped conveyance system, were
- Install pump stations to provide drainage of low-lying infrastructure during high tides.

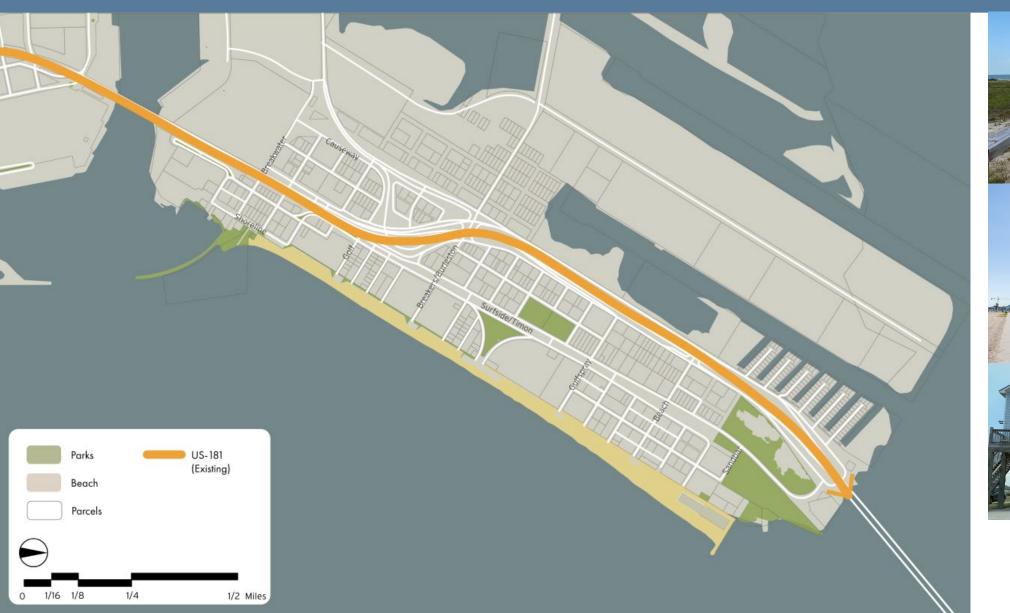
#### Drainage Improvement Project Plan



- Comprehensive improvement plan will be implemented in phases
- Phasing will be determined based on timing of funding availability and bridge progress

### North Beach Revitalization

**Existing Conditions** 





# North Beach Revitalization Bridge Replacement





#### North Beach Revitalization Neighborhood Assets





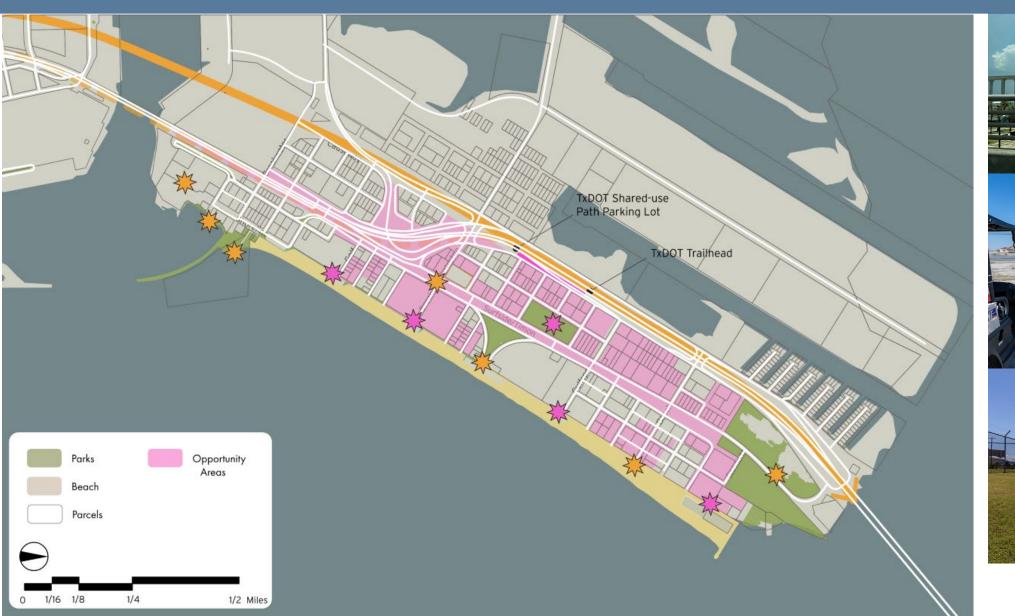
#### North Beach Revitalization

#### **Recent & Planned Investments**





#### North Beach Revitalization Opportunity Areas





## North Beach Revitalization Drainage Improvement Integration



## North Beach Revitalization Community Feedback

- Increase pedestrian connectivity to the beach, closing gaps in missing sidewalks
- Coordinate with overall North Beach multi-modal connectivity buildout
- Provide interest and attraction at varying tidal levels
- Accommodate water-based recreation, e.g. kayaking and paddle boats
- Coordinate to ensure design that does not preclude future expansion of the open channel
- Maintain water quality





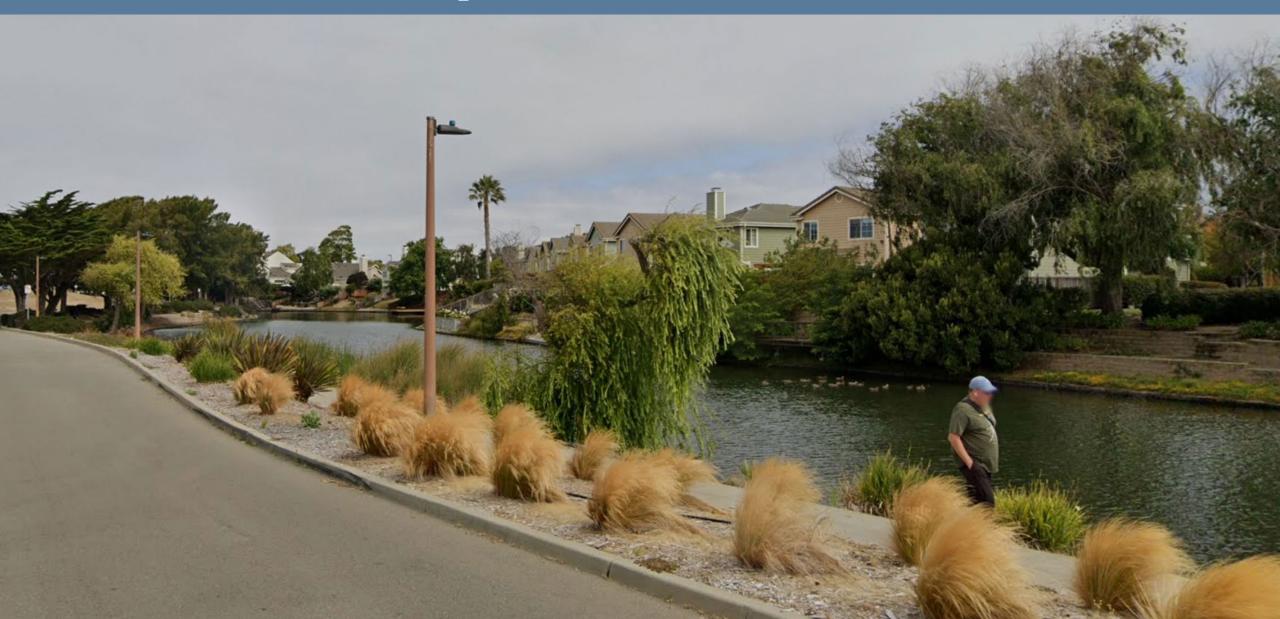
#### Linear Open Space + Open Channel























#### Phase 1 Projects



Surfside Park Improvements: Elevating parking, restroom and

active park areas

- Design-Build RFQ Oct. 2021
- Design-Build Contract Award Mar. 2022
- Design-Build Const. Start Mar. 2023



#### Phase 1 Projects



\$2.55M Gulfspray and Beach
Reconstruction: Elevating roadways,
elevating parking and pedestrian
improvements

- Design RFQ Est. Nov. 2022
- Design Contract Award Est. Apr. 2023
- Construction RFB Est. Mar. 2024
- Construction Start Est. Aug. 2024



#### Phase 1 Projects



#### Linear Open Space and Channel:

Elevating roadways, creating open channel, installing new northern outfall to Eco Park, temporary channel aeration/circulation system, redirect existing Gulfbreeze piped conveyance to linear open space channel with backflow prevention, linear open space activation improvements, pedestrian improvements

- Design RFQ Est. Nov. 2022
- Design Contract Award Est. Apr. 2023
- Construction RFB Est. Jun. 2024
- Construction Start Est. Oct. 2024

\*Phase to include stakeholder outreach regarding level of protection trade-offs (elevation and conveyance sizing), long-term multi-modal transportation build-out, linear park design standards. Phase to include sediment monitoring and maintenance plan recommendations.



#### Initial Funding Plan

#### Available Budget: \$14.05M

Bond 2020/2023	\$4.50M
ARPA	\$5.00M
Bond 2018 - Beach Avenue	\$1.00M
Bond 2018 - Gulfspray Pedestrian Access	\$0.30M
Bond 2018 - NB Primary Access Project	\$1.25M
(To be redirected to Gulfspray and Beach)	
FY 2023 General Fund	\$2.00M



#### **Future Phase Projects**



- epen channel, installing new southern outfall at Pearl Ave, temporary channel aeration/circulation system, new piped conveyance in Shoreline Blvd and adjoining streets with backflow prevention, linear open space activation improvements, pedestrian improvements
- Elevating roadways, competition of open channel, redirect existing piped conveyance to open channel with backflow prevention, complete linear open space activation improvements, pedestrian improvements
- Elevate roadways, construct coastal barrier, install pump stations



#### Recommendation

Staff recommends City Council adopt the North Beach Drainage Improvement Project, approve the Phase 1 construction of the proposed strategy, and repeal Ordinance No. 031970.