

SITE REUSE ASSESSMENT

OPPORTUNITY AREA A: NRG REVITALIZATION SITE



This Site Reuse Assessment Report addresses existing conditions, physical environmental conditions, regulatory conditions, land use conditions, and community health indicators associated with Opportunity Area A, the NRG site.

Topics:

- Community and Stakeholder Preferences
- Evaluation of Infrastructure
- Physical Environmental Conditions
- Land Use Assessment
- Market Feasibility
- Community Health Assessment
- Historic Properties and Special-Status Species Preservation
- Other Topics

TABLE OF CONTENTS

Table of Contents.....	i
1. Introduction.....	1
2. Community and Stakeholder Preferences.....	3
3. Evaluation of Infrastructure.....	6
Water Infrastructure.....	6
Wastewater Infrastructure.....	6
Stormwater Infrastructure.....	6
Energy Infrastructure.....	6
Solid Waste Infrastructure.....	6
Infrastructure Opportunities.....	6
Public Services.....	11
4. Physical Environmental Conditions.....	13
Physical Setting.....	13
Geologic Setting and Geologic Hazards.....	14
Hazardous Materials and Waste Sites.....	17
Hydrological Setting.....	31
Wildlife and Habitat.....	31
5. Land Use Assessment.....	36
Existing Land Uses.....	36
Land Use Regulations.....	36
Land Use Constraints.....	43
Interviews with Land Use Officials.....	46
6. Land Use Scenarios.....	47
Land Use Alternatives.....	47
Land Use Designations and Zoning.....	53
Residential Growth.....	55
Employment-Generating Growth.....	56
Community Services and Amenities.....	56
Circulation.....	57
Regulatory and Entitlement Requirements.....	57
7. Market Indicators.....	58
Population, Households, and Income.....	58
Business Characteristics and Employment.....	59
Job Growth by Land Use Alternative.....	60
8. Community Health Assessment.....	61
Community Health Indicators.....	61
Community Health Analysis.....	65
Historic Properties and Special-Status Species Preservation.....	68
9. Other Topics.....	69

Site Disposition.....69
 Branding Plan69

List of Tables

Table 1: Soil Types 14
 Table 2: Site Cleanup and Hazardous Facilities (Envirostor)..... 17
 Table 3: Cover Types - California Wildlife Habitat Relationship System33
 Table 4: Land Use Designations And Overlays.....53
 Table 5: Land Use Designations - Acreage Comparisons.....55
 Table 6: Residential Growth – Housing Units and Population Comparison.....55
 Table 7: Employment Growth – Non-Residential Development and Jobs Comparison.....56
 Table 8: Population and Household Characteristics.....58
 Table 9: Employed Residents by Occupation Characteristics.....59
 Table 9: Business Characteristics and Type by Number of Businesses and Employee.....60
 Table 10: Population Characteristics by Sensitive Population and Socioeconomic Factor Indicators in Area A Census Tracts62
 Table 11: Pollution Burden by Pollution Indicators in Area A Census Tracts62
 Table 12: Car Ownership.....65
 Table 13: Community Health Indicators Comparison.....66

List of Figures

Figure 1: Opportunity Area A Location2
 Figure 2a: Existing Water Infrastructure7
 Figure 2b: Existing Sewer Infrastructure8
 Figure 2c: Existing Stormwater Infrastructure9
 Figure 2d: Existing Energy Infrastructure 10
 Figure 3: Existing Public Services Facilities 12
 Figure 4: Safety Constraints 18
 Figure 5: Pittsburg Power Plant Parcels.....20
 Figure 6: Resource Constraints32
 Figure 7: Existing General Plan Land Use Designations37
 Figure 8: Assessed Uses.....38
 Figure 9: Sea Level Rise Scenarios 44
 Figure 10: Area A - NRG Revitalization Site Alternative A49
 Figure 11: Area A - NRG Revitalization Site Alternative B50
 Figure 12: Area A - NRG Revitalization Site Alternative C51
 Figure 13: Area A - NRG Revitalization Site Alternative D52
 Figure 14: Community Health Indicators.....64

1. INTRODUCTION

This Site Reuse Assessment Report was prepared to summarize existing conditions and community input and to evaluate conceptual land use plans, at a programmatic level, for Opportunity Area A. Opportunity Area A, the NRG Site, is located Area A is located in the northwestern portion of the City along the Suisun Bay waterfront, west of the Downtown area, as shown in Figure 1. Opportunity Area A is also referred to as Area A throughout this report.

The Site Reuse Assessment includes the following sections:

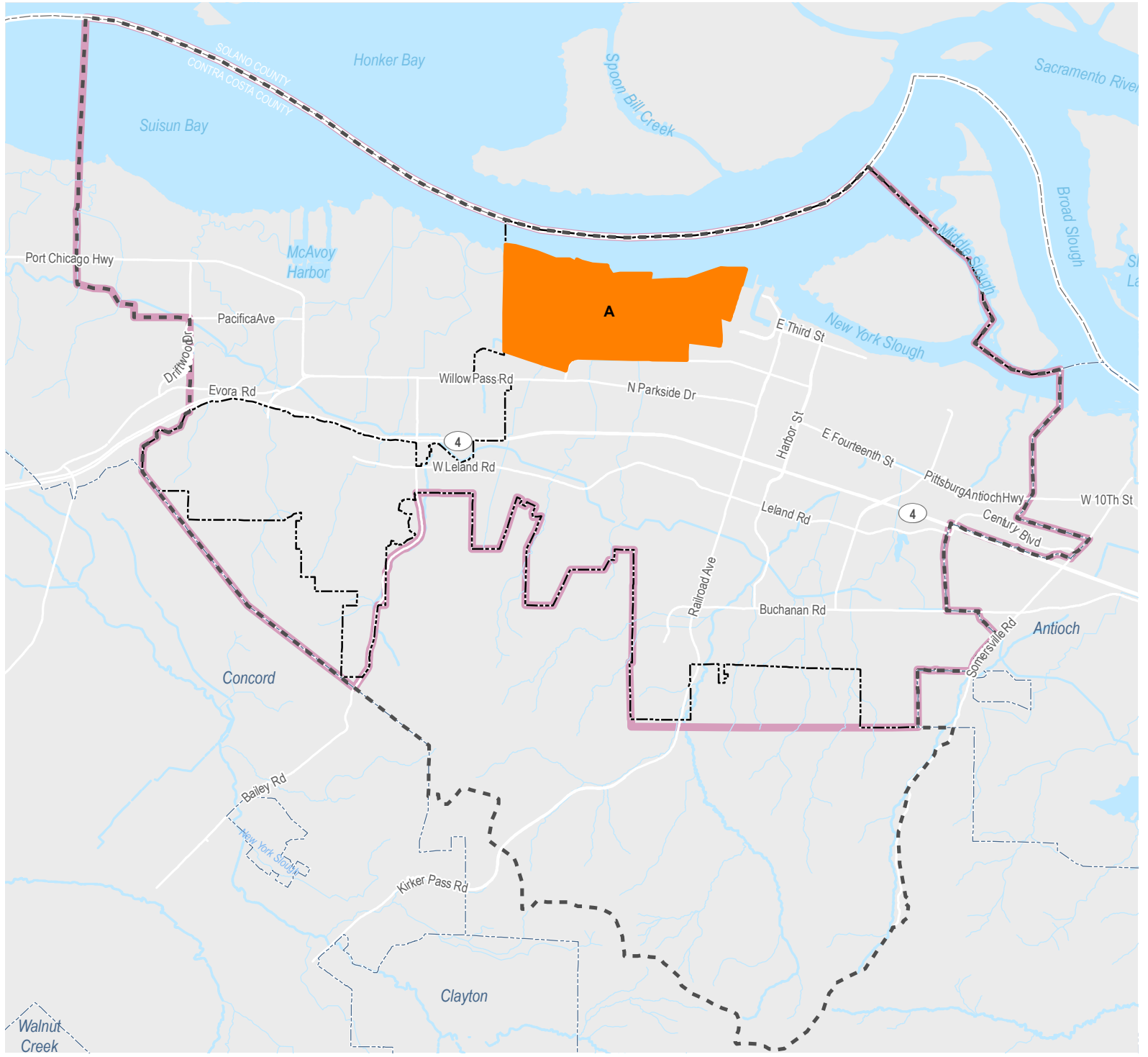
1. Introduction: This section introduces Area A and describes the content of the report.
2. Community and Stakeholder Preferences: This section summarizes community and stakeholder input received to date regarding Area A.
3. Evaluation of Infrastructure: This section summarizes water, wastewater, stormwater, energy, solid waste, and public services infrastructure present in Area A.
4. Physical Environmental Conditions: This section describes the existing setting of Area A in terms of geology, geologic hazards, known hazardous materials and waste sites, hydrology, wildlife, and habitat.
5. Land Use Assessment: This section describes the existing land uses in Area A, land use regulations, and land use constraints.
6. Land Use Scenarios: This section describes the three land use alternatives developed for Area A and describes land use designations, growth projections, and employment projections for each alternative.
7. Market Indicators: This section describes population and business demographics for the Area A market area as well as the larger General Plan Planning Area.
8. Community Health Assessment: This section summarizes community health indicators for Area A and compares the three land use alternatives in terms of effects on community health indicators.
9. Historic Properties and Special Status Species Preservation: This section summarizes historic properties and special status species and habitat conditions for Area A.
10. Other Topics: This section identifies site disposition and branding considerations that will be addressed in the Site Reuse Plan.

Figure 1:

OPPORTUNITY AREA A

Legend

-  Pittsburg City Limits
-  Pittsburg Sphere of Influence
-  Planning Area
-  Neighboring City
-  Opportunity Areas



2. COMMUNITY AND STAKEHOLDER PREFERENCES

In August and September 2020, the City hosted an on-line virtual workshop and survey to receive community input related to land use preferences for four opportunity areas in the City, including Area A (the NRG Revitalization Site). The virtual workshop informed the community of the City’s related efforts for the Envision Pittsburgh General Plan Update and the Brownfields Revitalization Planning effort. The virtual workshop included a video presentation that introduced the effort and described the purpose of the workshop, an on-line ‘tour’ introducing the four opportunity areas and identifying their locations and key characteristics, and a survey for participants to share their preferences and priorities for each opportunity area with the City.

216 residents, workers, property owners, and other interested parties responded to the survey. Of the respondents, 86% live in Pittsburgh, 14% live elsewhere and work in Pittsburgh, 3% live elsewhere and own property or a business in Pittsburgh, and 4% live outside of the City and are interested in Pittsburgh’s future. 65% of respondents own their home, 17% rent, 15% live with extended family or friends, and 3% had other living situations. Respondents were asked to identify their priorities for each of the four opportunity areas and to identify preferences for the type of growth and uses in each opportunity area.

The survey respondents’ top priorities and preferences for residential, employment-generation, commercial, and parks, open space, recreation, and civic uses for the NRG Revitalization Site. In addition to the input summarized below, many respondents provided written responses identifying their preferences for future uses and priorities in each opportunity area. An excerpt of comments made regarding Area A are provided below under Comment Excerpts.

The complete survey results, including all written responses, are included in the Pittsburgh Opportunity Sites Survey Results document, which is available on the project’s website: pittsburg.generalplan.org (Documents & Maps) or through [this link](#).

VIRTUAL WORKSHOP SURVEY INPUT				
TOP OVERALL PRIORITIES	RESIDENTIAL PREFERENCES	EMPLOYMENT-GENERATING PREFERENCES	COMMERCIAL PREFERENCES	PARKS, OPEN SPACE, RECREATION, AND CIVIC PREFERENCES
<ul style="list-style-type: none"> • Conserve natural resources • Improve environmental health • Provide recreational opportunities, including youth services • Provide open space • Climate adaptation 	<ul style="list-style-type: none"> • Housing accessible to disabled persons • Live/work housing • Traditional single-family residential • Mixed use residential 	<ul style="list-style-type: none"> • Research and development • Clean manufacturing • Sustainable energy production • Medical facilities 	<ul style="list-style-type: none"> • Community-serving commercial • Commercial recreation • Neighborhood-serving commercial • Commercial entertainment 	<ul style="list-style-type: none"> • Park • Open space • Playground • Plaza

COMMENT EXCERPTS

The following excerpts are written comments regarding priorities for Area A and recommendations regarding land uses for Area A made by survey participants:

Site Priorities

“Proper clean up of Brownfield sites”

“Family friendly area for the long term.”

“celebrating Pittsburg’s growing diversity.”

“A waterfront park with recreation and cultural centers.”

“Surely sea level rise has got to be the #1 project for you to undertake.”

“Build the Great California Delta Trail along the river through this property.”

“Would love to see a mixed-use retail/office/housing development there like Santana Row.”

“Waterfront park with ferry, cafe, shuttle through downtown to bart”

“Please create a larger learning library facility as opposed to the one by the freeway.”

“clean energy construction like solar panels that provides jobs”

“Waterfront amenities”

“Considering that it is really hard to get to the downtown area, whatever is built there has to be an “attraction that people really want to go see or do.”

“This is Pittsburg’s time to shine and be very unique.”

Land Uses

“Mix of homes, community services, Marina development with cafe. Employment site”

“Let it return to its natural habitat”

“Open space for parks”

“Environmentally friendly and well designed.”

“Fishing pier and park walking trails”

“Youth/adult sports facility that can host tournaments, or rentals for training and games.an attraction stimulating local economy, retail, lodging and restaurants and other services.”

“It seems that any land use will be strongly influenced by the projected sea level rise...”

“I would like to see a mixture of things such as home living, parks, and commercial buildings as well as fun family places to gather.”

“i like the idea of a destination place that highlights the beauty in Pittsburg. lots of open space, but also a place where the community can gather to enjoy “retail” activities - small stores, art shops, etc.”

“This is a large space that sits on Pittsburg’s waterfront. It is an opportunity for Pittsburg to become a destination, instead of an afterthought.”

“Bayshore access.”

“Open parks for walking and hiking. Small coffee shops and Cafes.”

“climate adaptation and conservation”

“open space”

Protected wetlands - anything that goes up needs monitored security”

“I would like the Miwok Tribe to be given restitution by giving the land back.”

“I’d love to see area where community and nature come together and nature integrated with the buildings them self like a garden on a side of a build (it can be done it’s so cool) free food!!!!”

Climate adaptation and flood protection through rain gardens and maybe some other options as listed in this project here (<http://www.resilientbayarea.org/south-bay-sponge>) and wetland rehabilitation because wetlands are crucial ecosystems!!”

“Open area”

“Section 8 housing!! Or a community pool, would love to see a water park & the city of Pittsburg employees can run it like at Buchanan “

“Land should be used for the community- not focused on business and money.”

“Restaurants and a marina with rental watercraft.

“Some kind of environmental area that absorbs sea-level rise. Do NOT waste our limited City resources by filling the area and then building any kind of buildings on this land.”

“We Work office space for startup companies. Similar to We Work in SF.”

“I love my community and I would love to see anything that enriches family and community coming to Pittsburg”

“Beach area”

“Open land park”

“DO NOT DEVELOP THIS LAND. These are beautiful marshes. They are a treasure that needs to be protected. Please protect these lands and make them accessible to the public. This could be such a beautiful park and destination for sports games, walking, flying kites, etc.”

Open air market (that can be used for farmers markets, night markets, pop ups, and other shoreline events)”

“Skate park”

“Bars! Night life. Water park, a “shoreline amphitheater” give people a reason to want to come to Pittsburg to have fun!”

“Boating and create an internal bay for boating and boat rentals. Like Newport Beach/ balboa”

“Install a landmark like a Ferris wheel”

“K-12 school:

“Waterfront park with ferry, cafe, shuttle through downtown to bart. This would mitigate commuter traffic if we had a ferry. We also need more money drawing attractions to build Pittsburg back to where it once was, a thriving metropolis!”

“Mid-rise Office, residential and retail”

“walking trails”

“Traditional single-family residential”

“Open space”

3. EVALUATION OF INFRASTRUCTURE

WATER INFRASTRUCTURE

Water infrastructure within Area A is shown in Figure 2a. As shown, existing water mains, hydrants, service connections, meters, pressure zone nodes, and fittings are located adjacent to the site. A pressure zone node is located in the south-central portion of Area A, and an abandoned water main and service connection are located in the eastern portion of Area A.

WASTEWATER INFRASTRUCTURE

Water infrastructure within Area A is shown in Figure 2b. As shown, sewer mains, abandoned sewer mains, manholes, abandoned manholes, fittings, and cleanouts are located adjacent to the site. These facilities typically end at the boundary of Area A. A sewer main is located along the southern boundary of Area A adjacent to Willow Pass Road. The sewer main includes five abandoned manholes with a fitting at its western terminus.

STORMWATER INFRASTRUCTURE

Stormwater infrastructure within Area A is shown in Figure 2c. As shown, storm mains, manholes, pump structures, catch basins, culvert ditches, and v-ditches (i.e., “v”-shaped open channel ditches) are located adjacent to the site. These facilities typically end at the boundary of Area A. A storm main with a manhole at the terminus of the main is located at the southwestern corner of Area A. Additionally, a culvert ditch, v-ditch, pump structure, and catch basin are located in the south-central portion of Opportunity Area.

ENERGY INFRASTRUCTURE

Energy infrastructure within Area A is shown in Figure 2d. As shown, gas transmission pipelines, hazardous liquid pipelines, and electric transmission lines are located throughout Area A. These facilities typically connect the NuStar Energy site and Pittsburg Power Plant to off-site energy infrastructure to the south and west. PG&E continues to operate the switchyard, where numerous transmission lines of the same voltage are interconnected and where the power system voltage is changed by transformers, and maintains several high voltage overhead electric transmission lines that are routed south from the switchyard to off of the site in an electric transmission corridor.

SOLID WASTE INFRASTRUCTURE

According to the 1986 Facility Assessment (RFA) completed for the Pittsburg Power Plant facility, 18 solid waste management units (SWMUs) are located in Area A. All of the SWMUs are located at the Power Plant facility site. The Pittsburg Power Plant facility is located in the northeast portion of Area A. Four of the 16 SWMUs are Resource Conservation and Recovery Act (RCRA) regulated units. Nine of the 16 SWMUs have a current status of “closed”, five have a current status of “not carried forward following RFA” (i.e., the SWMU does not pose a release potential), one has a current status of “closure pending”, and one is “active”. The active SWMU is currently managed and monitored under waste discharge requirements issued by the Regional Water Quality Control Board to Mirant Delta.

INFRASTRUCTURE OPPORTUNITIES

Water, sewer, and stormwater infrastructure is available. The infrastructure is in place to serve the PG&E facility on the site as well as the non-operational former power plant. While there are limited opportunities to reuse existing infrastructure, it is anticipated that such opportunities will be limited to the basins and ditches associated with the stormwater infrastructure and the remaining infrastructure for the former power plant would need to be demolished and replaced.

Figure 2a

EXISTING WATER INFRASTRUCTURE

Legend

- NRG Revitalization Site
- Pittsburg City Limits
- County Boundary
- Backflow
- Service Connection
- Meter
- Pressure Zone Node
- Hydrant
- Fitting
- Main
- Abandoned

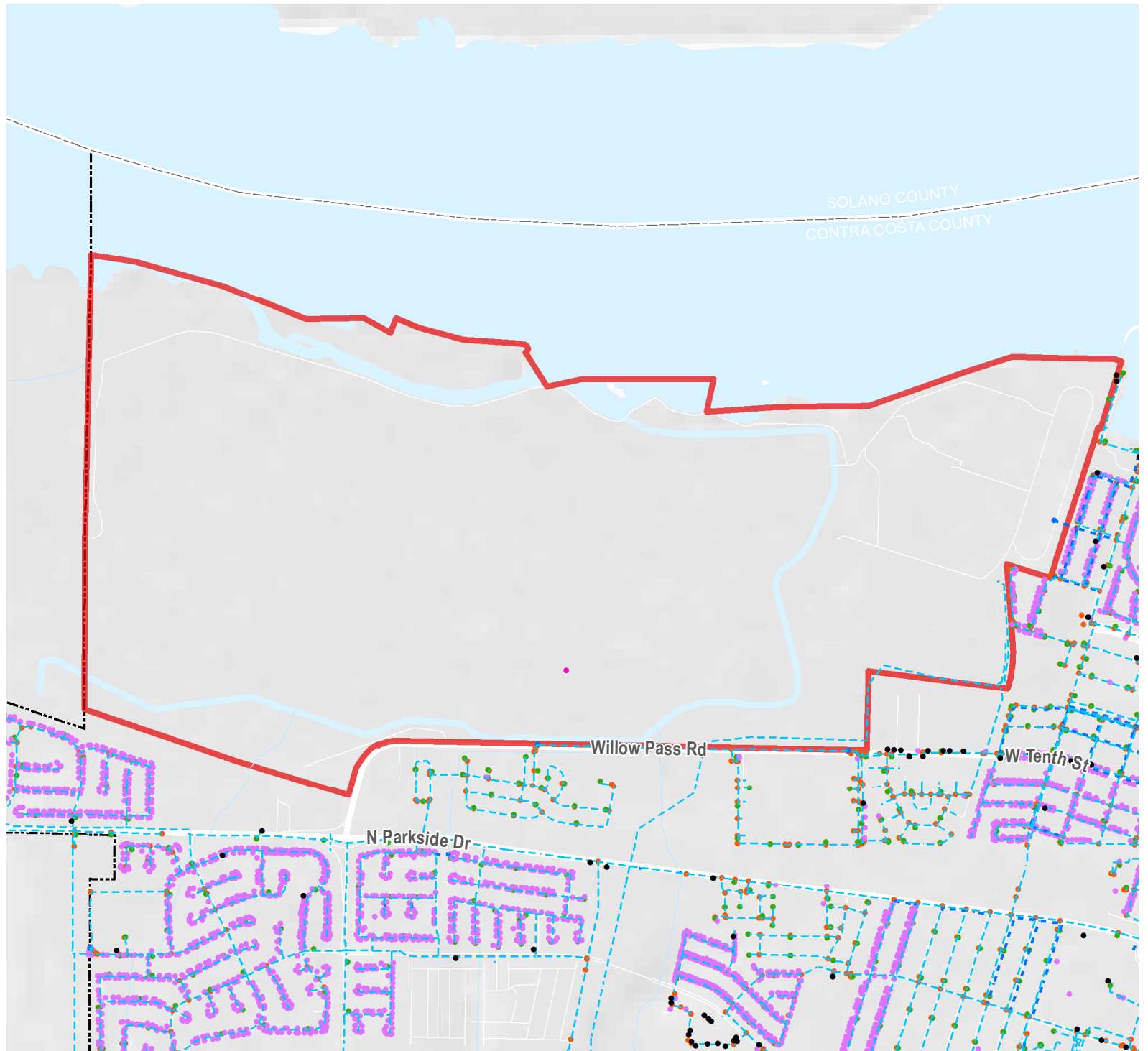











Figure 2b

EXISTING SEWER INFRASTRUCTURE

Legend

-  NRG Revitalization Site
-  Pittsburg City Limits
-  County Boundary
-  Clean Out
-  Fitting
-  Abandoned Manhole
-  Manhole
-  Sewer Main
-  Abandoned Main

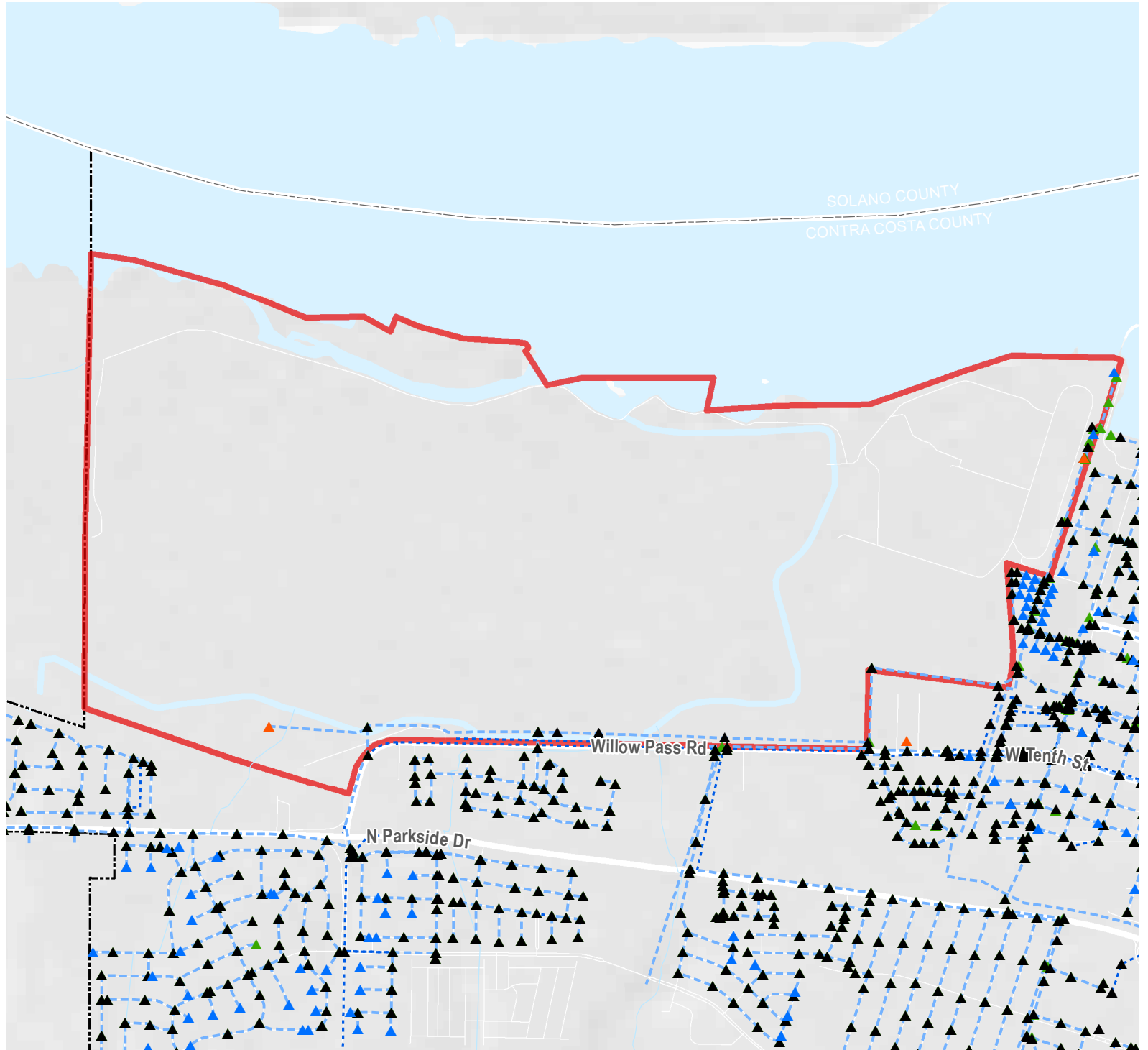











Figure 2c

EXISTING STORM WATER INFRASTRUCTURE

Legend

-  NRG Revitalization Site
-  Pittsburg City Limits
-  County Boundary
-  Pump Structure
-  Manhole
-  Catch Basin
-  Storm Main
-  CL-Ditch
-  V-Ditch

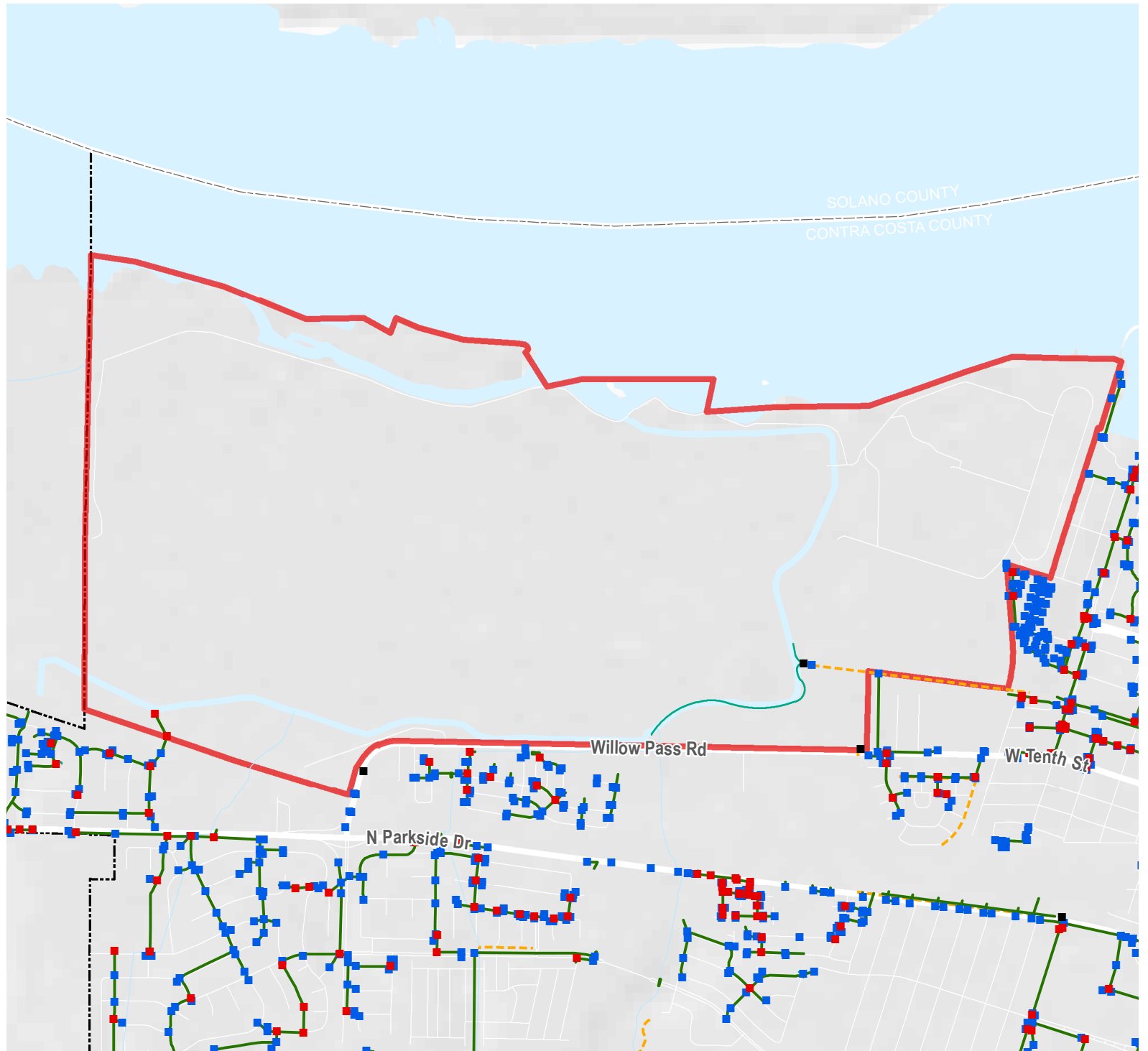






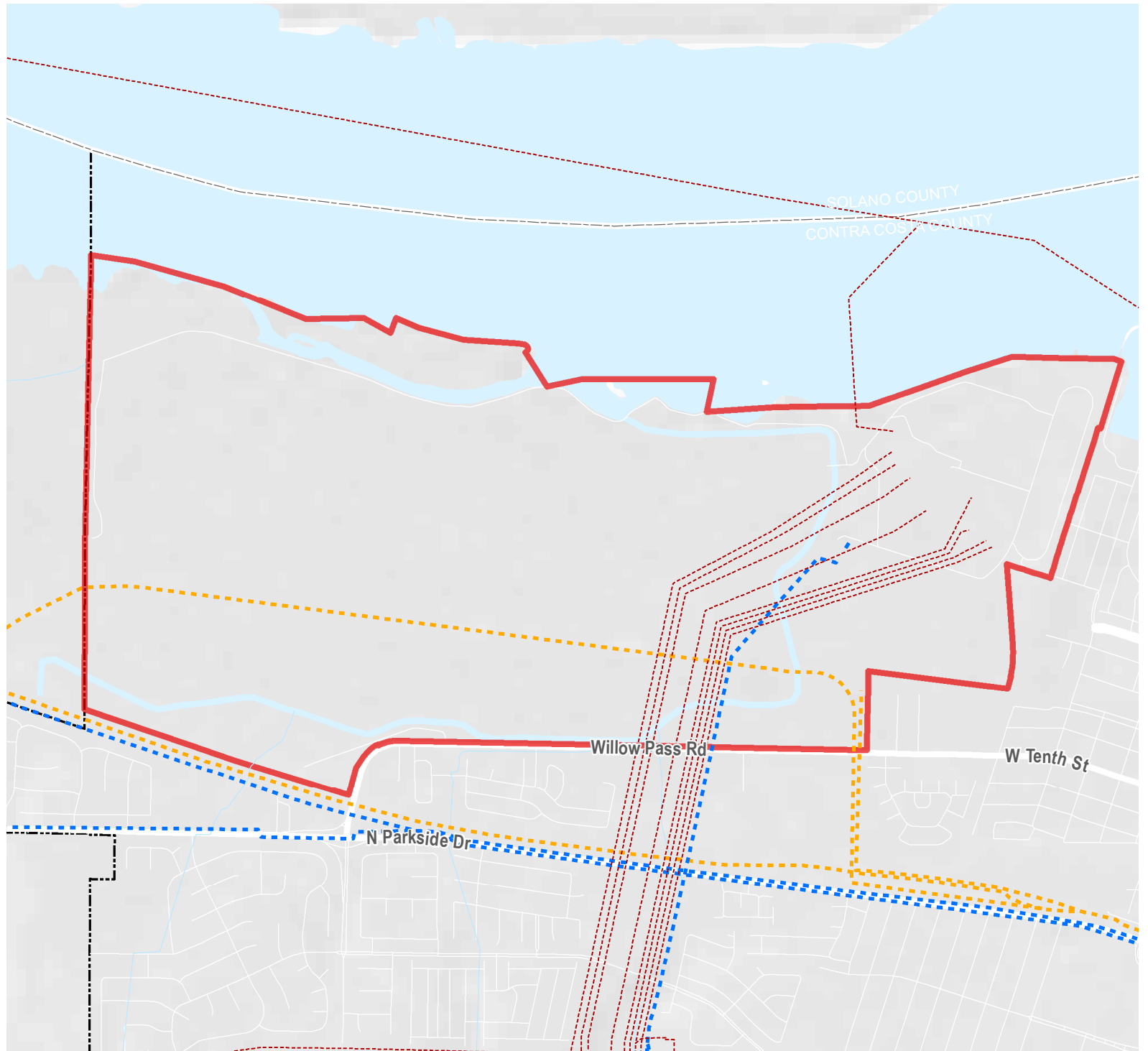


Figure 2d

EXISTING ENERGY INFRASTRUCTURE

Legend

-  NRG Revitalization Site
-  Pittsburg City Limits
-  County Boundary
-  Gas Transmission Pipeline
-  Hazardous Liquid Pipeline
-  Electric Transmission Line



PUBLIC SERVICES

FIRE PROTECTION

The Contra Costa County Fire Protection District (CCCFPD), provides fire protection services to the Pittsburg Planning Area. The CCCFPD boundaries encompass the central and northern portions of Contra Costa County (CCC), extending from the City of Antioch in the east to the eastern border of the City of Richmond in the west, and as far south as the northern border of the City of Moraga. The CCCFPD provides fire suppression (structural, vehicle, and vegetation fires) and prevention, Advanced Life Support (ALS) for medical emergencies, rescue, dispatch, initial hazardous materials response, fire inspection, plan review, and education.

The CCCFPD has three fire stations within the Pittsburg City limits (stations 84, 85, and 87) and one station (Station 86) within the Bay Point Area within the SOI. Each fire station is staffed with three personnel 24 hours a day. CCCFPD fire station locations nearest the Area A are shown in Figure 3. All three CCCFPD stations located in the City are within 1.25 miles of the Area A. The nearest station to the Area A is Station 84, located approximately 0.95 miles southeast of the southern Area A boundary. Stations are generally staffed by one captain, one engineer, and one firefighter.

The CCCFPD employs 11 Battalion chiefs, one Fire Chief, one Deputy Chief, four Assistant Fire Chiefs and one Fire Marshall. The CCCFPD maintains a minimum daily staffing of 82 personnel, and the total number of employees within the CCCFPD, including both sworn and non-sworn employees, is currently 333 individuals. In 2018, the CCCFPD received over 60,000 emergency and non-emergency calls for service. The CCCFPD's current response time goal for emergency and non-emergency calls is five minutes to 90 percent of all calls received. According to CCCFPD, the average ambulance response time, as of 2018, was 4 minutes and 38 seconds.

The Insurance Service Office (ISO), an advisory organization, classifies fire service in communities from 1 to 10, indicating the general adequacy of coverage. Communities with the best systems for water distribution, fire department facilities, equipment and personnel and fire alarms and communications, receive a rating of 1. CCCFPD has an ISO rating of 3.

POLICE PROTECTION

The Pittsburg Police Department (PPD) is responsible for providing law enforcement services in the City, including patrol, crime prevention, parking and traffic control, community awareness, investigations, and temporary holding facilities. The PPD is located at 65 Civic Avenue as shown on Figure 3. This station is located approximately 0.8 miles southeast of the southern Area A boundary.

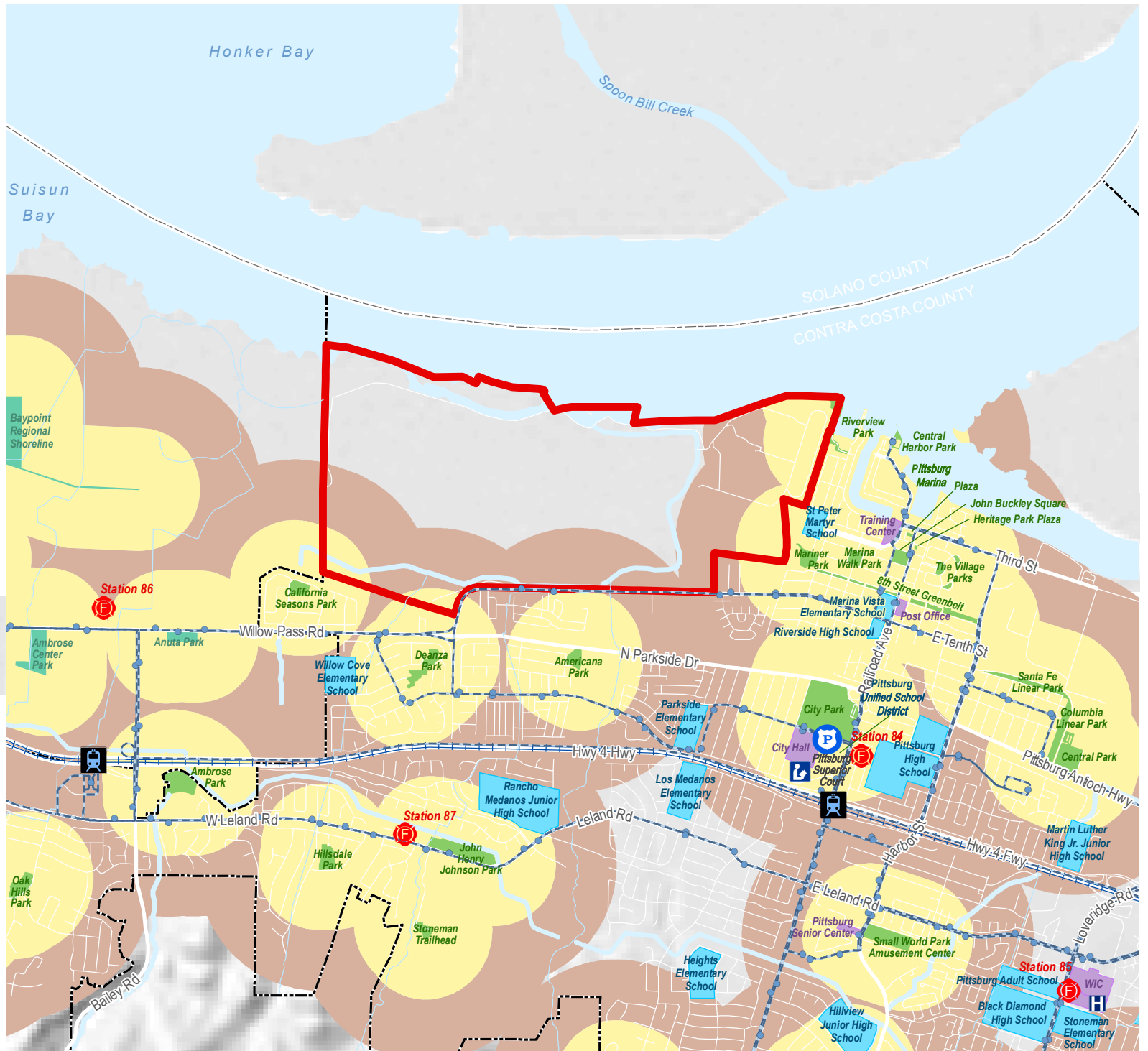
The Department is responsible for community policing, has a Special Weapons and Tactics Team, and conducts Emergency Preparedness training. Similar to other cities, the PPD relies on the Sheriff's Office for search and rescue services and long-term holding facilities, County Animal Control for animal services, and the City of Walnut Creek for bomb squad services. Additionally, PPD contracts with the Sheriff's Office for dispatch services.

Figure 3

EXISTING PUBLIC SERVICE FACILITIES

Legend

- NRG Revitalization Site
- Pittsburg City Limits
- County Boundary
- BART Station
- BART Line
- Bus Stop
- Bus Route
- Fire Station
- Police Station
- Diamond Ridge Health Care Center
- Library
- Public Place
- School
- City Park
- County Park
- Quarter-Mile Buffer of Parks
- Half-Mile Buffer of Parks



4. PHYSICAL ENVIRONMENTAL CONDITIONS

The following section describes the physical features and resources, geologic setting and geologic hazards, hazardous sites, hydrological setting, and wildlife and habitat setting.

PHYSICAL SETTING

Area A is located in the northwestern portion of the City along the Suisun Bay waterfront. Much of Area A contains marsh and wetland habitat. A decommissioned power plant (the Pittsburg Power Plant) and other improvements are located on the eastern portion of Area A. The facilities associated with the Power Plant include a cooling water canal area with two sets of cooling towers, a southern tank farm area (which includes a spill containment basin, a gas regulator station, and nine tanks), a northern power plant area (which includes seven tanks and the power plant), and a switchyard. Additionally, a historical fill area is located west of the Pittsburg Power Plant along Willow Pass Road. Further, a NuStar Energy facility is located adjacent to Willow Pass Road and the railroad tracks along the southern boundary of Area A. The NuStar Energy facility contains an office building in addition to the oil and gas facility. The oil and gas facility includes two large storage tanks, and approximately 15 towers.

SCENIC HIGHWAYS

A scenic highway is generally defined by Caltrans as a public highway that traverses an area of outstanding scenic quality, containing striking views, flora, geology, or other unique natural attributes. A highway may be designated scenic depending upon how much of the natural landscape can be seen by travelers, the scenic quality of the landscape, and the extent to which development intrudes upon the traveler's enjoyment of the view.

One highway section in Contra Costa County is listed as a Designated Scenic Highway by the Caltrans Scenic Highway Mapping System; the segment of State Route 24 from the east portal of the Caldecott Tunnel to State Route 680 near Walnut Creek. The Area A is not visible from this roadway segment.

SCENIC CORRIDORS

A scenic corridor is the view from the road that may include a distant panorama and/or the immediate roadside area. A scenic corridor encompasses the outstanding natural features and landscapes that are considered scenic. It is the visual quality of the man-made or natural environments within a scenic corridor that are responsible for its scenic value. Commonly, the physical limits of a scenic corridor are broken down into foreground views (zero to one quarter mile) and distant views (over one quarter mile). In addition to distinct foreground and distant views, the visual quality of a scenic corridor is defined by special features, which include:

- Focal points - prominent natural or man-made features which immediately catch the eye.
- Transition areas - locations where the visual environment changes dramatically.
- Gateways - locations which mark the entrance to a community or geographic area.

The City of Pittsburg General Plan does not designate any scenic corridors.

SCENIC RESOURCES AREAS

The City's General Plan identifies open space, viewshed areas, ridgelines, hillsides, and creeks as visual and aesthetic resources. Figure 4-1, Viewshed Analysis, of the General Plan delineates areas that merit ridgeline and hillside protection. The Area A is not located near any viewsheds identified in General Plan Figure 4-1.

RIDGES AND SHORELINE

The City’s General Plan identifies major and minor ridgelines in the southern hills of the Planning Area. General Plan Figure 4-2, Major and Minor Ridgelines, of the General Plan delineates areas that have steep slopes. The Area A does not contain any major or minor ridgelines, and these ridgelines are not located in the vicinity.

The City’s current General Plan also notes that the Delta shoreline is one of the City’s most identifiable resources, although it is not designated as a scenic resource. Views of the Delta shoreline from public spaces are limited. The General Plan notes that waterfront development standards should also ensure that new development projects are designed to provide maximum views of the shoreline. Increasing the shoreline’s presence within Pittsburg can provide local residents with an improved sense of community identity. Because the Area A is located along the Suisun Bay, development of the Area A should be accompanied by waterfront development standards to ensure views of the shoreline are maximized.

The Area A is not located near any other scenic resources.

GEOLOGIC SETTING AND GEOLOGIC HAZARDS

TOPOGRAPHY

The topography of the Area A ranges in elevation from approximately 5 to 20 feet above sea level. Pittsburg consists of two general topographic zones: the lowland zone and the hillside zone. The lowland zone corresponds to estuarine and flatland soils, and the hillside zone includes steep slopes and rocky soils. The Area A is located in the lowland zone.

In the **Lowland Zone**, estuarine (coastal) areas are underlain by Bay Mud, which consists of unconsolidated silt and clay with abundant organic material, local peat, sand, and gravel lenses or discontinuous beds (USGS, 1973). Local deposits of artificial fill occur along the margins of Suisun Bay, particularly around the power plant and in filled channels. Old fill (generally placed before the 1950s) typically consisted of heterogeneous material. Engineering challenges associated with coastal areas include weak compressible soils and risk of liquefaction. The flatland areas of Pittsburg are underlain by alluvial deposits, unconsolidated flood-plain deposits, sand, silt, gravel, and clay, irregularly interstratified.

SOILS

Soils in Area A were identified A using the NRCS Web Soil Survey program. Table 1 below identifies the type and range of soils found in the Area A. As shown in Table 1, the majority of soils within the Area A consist of clay soils and sandy loams. Below is a brief description of prominent soils within the Area A.

TABLE 1: SOIL TYPES

NAME	ACRES IN AREA A
Antioch loam, 0 to 2 percent slopes, MLRA 14	60.43
Capay clay, 0 to 3 percent slopes, MLRA 17	13.82
Clear Lake clay, 0 to 15 percent slopes, MLRA 15	133.58
Joice muck, MLRA 16	618.29
Omni silty clay	121.66
Sycamore silty clay loam, 0 to 2 percent slopes, MLRA 17	26.62
Water	43.05

SOURCE: NRCS WEB SOIL SURVEY 2020.

The **Antioch** series of soils consist moderately well to somewhat poorly drained soils. Runoff varies from slow to medium, and permeability is very slow. These soils are located in the southwestern portion of Area A.

The **Capay** series consists of moderately well drained soils on lower edges of valley fill and on old benches that have been slowly dissected. These soils formed in alluvium from sedimentary rock and have slow runoff and slow permeability. These soils are located along the southern and southeastern boundaries of Area A.

The **Clear Lake** series of soils consist of very deep, poorly drained soils that formed in fine textured alluvium derived from mixed rock sources. Runoff varies from negligible to high, and permeability is slow to very slow. These soils are located along the eastern and northeastern boundaries of Area A.

The **Joice** series of soils consist of poorly drained soil that formed from hydrophytic plant remains and mixed alluvium. Runoff is very slow, and permeability is rapid. These soils are located in the center of and along the waterfront within Area A.

The **Omni** series of soils consist of very deep, poorly drained soils that formed in mixed sediments. Runoff varies from very slow to slow, and permeability is slow. These soils are located in the eastern portion of Area A.

The **Sycamore** series consists of poorly drained soils that formed in alluvium from sedimentary rock. These soils are on flood plains. These soils are located along the southern boundary of Area A.

FAULTS AND SEISMICITY

Faults: A fault is a fracture in the crust of the earth along which rocks on one side have moved relative to those on the other side. A fault trace is the line on the earth's surface defining the fault. Displacement of the earth's crust along faults releases energy in the form of earthquakes and in some cases in fault creep. Most faults are the result of repeated displacements over a long period of time.

Surface rupture occurs when movement on a fault deep within the earth breaks through to the surface. Surface ruptures have been known to extend up to 50 miles with displacements of an inch to 20 feet. Fault rupture almost always follows preexisting faults, which are zones of weakness. Rupture may occur suddenly during an earthquake or slowly in the form of fault creep. Sudden displacements are more damaging to structures because they are accompanied by shaking.

The U.S. Geological Survey identifies potential earthquake fault lines within four miles of Area A. The closest faults include an unnamed fault approximately four miles to the west of Area A, the Concord fault approximately five miles to the southwest of Area A, and the Montezume Hills fault approximately 3.5 miles northeast of the Planning Area.

Seismicity: The amount of energy available to a fault is determined by considering the slip-rate of the fault, its area (fault length multiplied by down-dip width), maximum magnitude, and the rigidity of the displaced rocks. These factors are combined to calculate the moment (energy) release on a fault. The total seismic energy release for a fault source is sometimes partitioned between two different recurrence models, the characteristic and truncated Gutenberg-Richter (G-R) magnitude-frequency distributions. These models incorporate our knowledge of the range of magnitudes and relative frequency of different magnitudes for a particular fault. The partition of moment and the weights for multiple models are given in the following summary.

Earthquakes are generally expressed in terms of intensity and magnitude. Intensity is based on the observed effects of ground shaking on people, buildings, and natural features. By comparison, magnitude is based on the amplitude of the earthquake waves recorded on instruments, which have a common calibration. The Richter scale, a logarithmic scale ranging from 0.1 to 9.0, with 9.0 being the strongest, measures the magnitude of an earthquake relative to ground shaking.

The California Geological Survey estimates a 10% probability of exceeding 30-50 percent of gravity at peak ground acceleration over the next 50 years in the City, as well as other communities within Contra Costa County. Moving west toward the Hayward fault, the estimates increase up to 70 percent or more of gravity at peak ground acceleration.

The Significant United States Earthquake data published by the USGS in the National Atlas identifies earthquakes that caused deaths, property damage, and geologic effects or were felt by populations near the epicenter. No significant earthquakes are identified within Area A; however, significant earthquakes are documented in the region.

Alquist-Priolo Special Study Zone: The California Geologic Survey (CGS) evaluates faults with available geologic and seismologic data and determines if a fault should be zoned as active, potentially active, or inactive. If CGS determines a fault to be active, then it is typically incorporated into a Special Studies Zone in accordance with the Alquist-Priolo Earthquake Hazard Act. Alquist-Priolo Special Study Zones are usually one-quarter mile or less in width and require site-specific evaluation of fault location and require a structure setback if the fault is found traversing a project site. Area A is not within an Alquist-Priolo Special Study Zone. The nearest Alquist-Priolo fault zone, the Concord fault zone, is located approximately five miles southwest of Area A.

NATURALLY OCCURRING ASBESTOS

The term “asbestos” is used to describe a variety of fibrous minerals that, when airborne, can result in serious human health effects. Naturally occurring asbestos is commonly associated with ultramafic rocks and serpentinite. Ultramafic rocks, such as dunite, peridotite, and pyroxenite are igneous rocks comprised largely of iron-magnesium minerals. As they are intrusive in nature, these rocks often undergo metamorphosis, prior to their being exposed on the Earth’s surface. The metamorphic rock serpentinite is a common product of the alteration process. Naturally occurring asbestos is identified within Contra Costa County, although it is all located to the south of the Planning Area near Walnut Creek. There is no naturally occurring asbestos mapped within Area A.

PALEONTOLOGICAL RESOURCES

Among the natural resources deserving conservation and preservation are the often-unseen records of past life buried in the sediments and rocks below the pavement, buildings, soils, and vegetation which now cover most of the area. These records – fossils and their geologic context – undoubtedly exist in below the surface in areas in and near Pittsburg, and span millions of years in age of origin. Fossils constitute a non-renewable resource: once lost or destroyed, the exact information they contained can never be reproduced.

Paleontology is the science that attempts to unravel the meaning of these fossils in terms of the organisms they represent, the ages and geographic distribution of those organisms, how they interacted in ancient ecosystems and responded to past climatic changes, and the changes through time of all of these aspects.

The sensitivity of a given area or body of sediment with respect to paleontological resources is a function of both the potential for the existence of fossils and the predicted significance of any fossils which may be found there. The primary consideration in the determination of paleontological sensitivity of a given area, body of sediment, or rock formation is its potential to include fossils. Information that can contribute to assessment of this potential includes: 1) direct observation of fossils within the project area; 2) the existence of known fossil localities or documented absence of fossils in the same geologic unit (e.g., “Formation” or one of its subunits); 3) descriptive nature of sedimentary deposits (such as size of included particles or clasts, color, and bedding type) in the area of interest compared with those of similar deposits known elsewhere to favor or disfavor inclusion of fossils; and 4) interpretation of sediment details and known geologic history of the sedimentary body of interest in terms of the ancient environments in which they were deposited, followed by assessment of the favorability of those environments for the preservation of fossils.

The most general paleontological information can be obtained from geologic maps, but geologic cross sections (slices of the layer cake to view the third dimension) must be reviewed for each area in question. These usually accompany geologic maps or technical reports. Once it can be determined which formations may be present in the subsurface, the question of paleontological resources must be addressed. Even though a formation is known to contain fossils, they are not usually distributed uniformly throughout the many square miles the formation may cover. If the fossils were part of a bay environment

when they died, perhaps a scattered layer of shells will be preserved over large areas. If on the other hand, a whale died in this bay, you might expect to find fossil whalebone only in one small area of less than a few hundred square feet. Other resources to be considered in the determination of paleontological potential are regional geologic reports, site records on file with paleontological repositories and site-specific field surveys.

Paleontologists consider all vertebrate fossils to be of significance. Fossils of other types are considered significant if they represent a new record, new species, an oldest occurring species, the most complete specimen of its kind, a rare species worldwide, or a species helpful in the dating of formations. However, even a previously designated low potential site may yield significant fossils.

HAZARDOUS MATERIALS AND WASTE SITES

This section describes the existing environmental setting as it existing or historic hazardous sites located within the Plan Area. The primary sources of information for the following discussion includes the Envirostor Data Management System (administered by the Department of Toxic Substances Control [DTSC]), the Hazardous Waste and Substances Sites (Cortese) List (administered by the DTSC), GeoTracker (administered by the State Water Resources Control Board), and the Solid Waste Information System (SWIS) (administered by CalRecycle). Figure 4 shows the active hazardous sites located within the vicinity of Area A (as identified by the available hazardous site databases).

ENVIROSTOR DATA MANAGEMENT SYSTEM

The DTSC maintains the *Envirostor Data Management System*, which provides information on hazardous waste facilities (both permitted and corrective action) as well as any available site cleanup information. This site cleanup information includes: Federal Superfund Sites (NPL), State Response Sites, Voluntary Cleanup Sites, School Cleanup Sites, Corrective Action Sites, Tiered Permit Sites, and Evaluation / Investigation Sites. The hazardous waste facilities include: Permitted–Operating, Post-Closure Permitted, and Historical Non-Operating. Figure 4 provides a map of the hazardous sites within the Area A that the available databases (including the Envirostor database) classify as having an active cleanup status.

There are two listings located on the Area A listed in the Envirostor database. Listings are also categorized by project type and project status. A discussion of each of the sites with an active cleanup status follows the table (note: the status provided by the database does not always correlate with the *cleanup* status of the site – asterisks are provided in Table 2 for the site that has active cleanup status).

TABLE 2: SITE CLEANUP AND HAZARDOUS FACILITIES (ENVIROSTOR)

NAME	STATUS	PROJECT TYPE	ADDRESS
Pittsburg Generating Station (CAT080011695)	Closed*	Non-Operating	696 West 10th Street, Pittsburg
PG&E Shell Pond/Carbon Black Area and Power Plant (80001834)	Active	Corrective Action	696 West 10th Street, Pittsburg
Willow Pass Site (07650004)	Inactive - Needs Evaluation	School Investigation	Willow Pass Road & Nantucket Drive, Pittsburg

**NOTE: SITES ARE CONSIDERED ACTIVE IF THEY HAVE A STATUS OF EITHER ACTIVE, CERTIFIED/OPERATION & MAINTENANCE, CERTIFIED O&M – LAND USE RESTRICTIONS ONLY, PROTECTIVE FILER, OR HAZARDOUS WASTE DISPOSAL LAND USE, PER THE DTSC CLASSIFICATION SYSTEM. SEE THE ENVIROSTOR WEBSITE FOR FURTHER DETAIL: [HTTPS://WWW.ENVIROSTOR.DTSC.CA.GOV/PUBLIC/](https://www.envirostor.dtsc.ca.gov/public/)*

SOURCE: CALIFORNIA DEPARTMENT OF TOXIC SUBSTANCES CONTROL, ENVIROSTOR DATABASE, 2020.

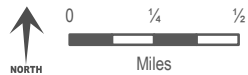
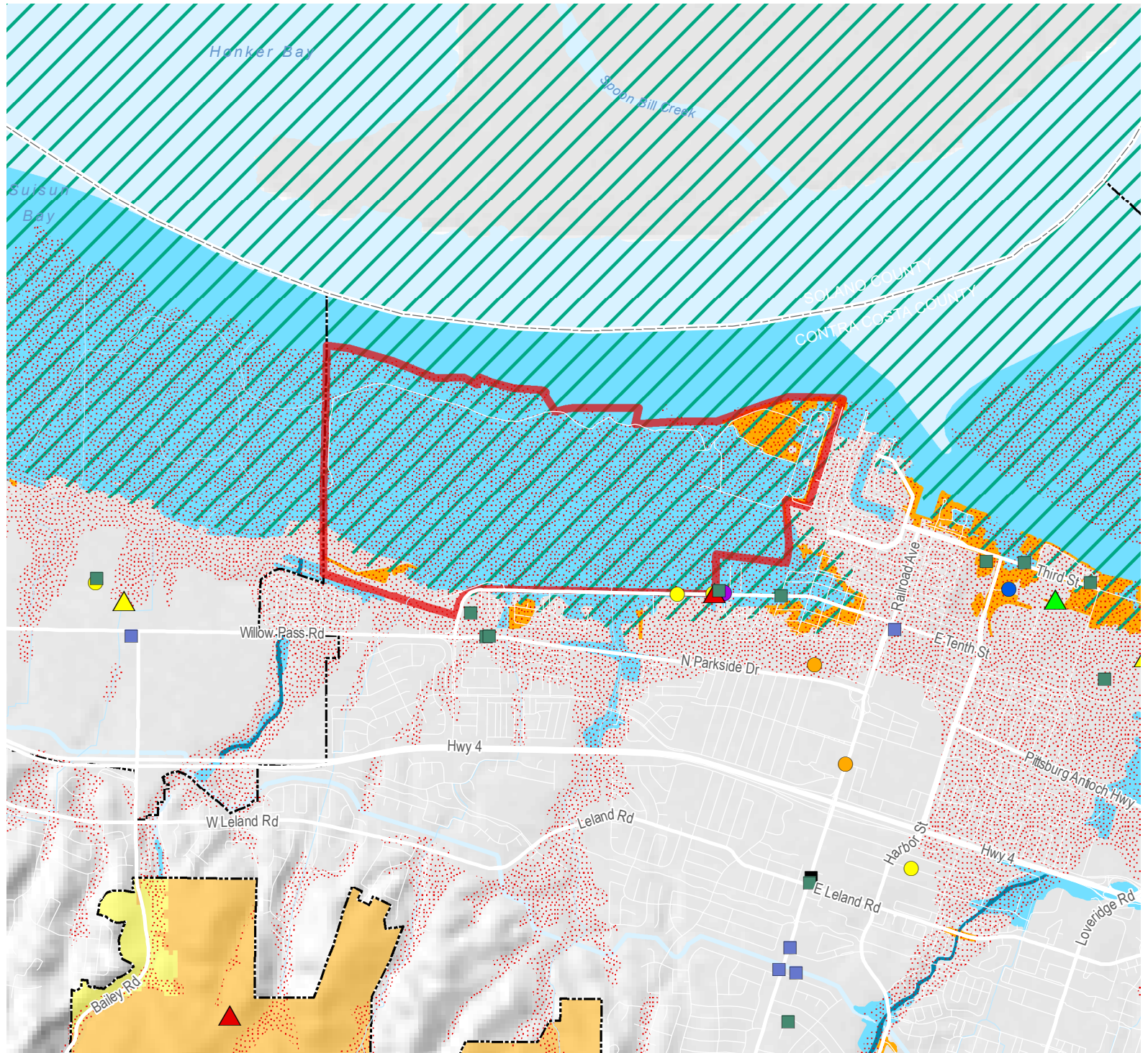
These sites are described in further detail below.

Pittsburg Generating Station. This site is located at 696 West 10th Street. The entire facility including the Pittsburg Power Plant, and the Shell Pond and Carbon Black Area property belonged to PG&E until 1999. In 1987, DTSC issued PG&E a

Figure 4

SAFETY CONSTRAINTS

- Legend**
- Opportunity Area A
 - Pittsburg City Limits
 - County Boundary
 - Seismic Hazard Zone - Liquefaction
 - New Melones Dam Inundation Area
- FEMA Designation**
- 100-yr Flood Zone
 - Regulatory Floodway
 - 500-yr Flood Zone
- Fire Hazard Severity Zones**
- Moderate
 - High
- Envirostor Active Cleanup Site**
- Corrective Action
 - Non-Operating
 - State Response
 - Voluntary Cleanup
- Geotracker Cleanup Site**
- Cleanup Program Site
 - LUST Cleanup Site
 - Military Cleanup Site
- Major Emitters**
- Cogeneration
 - Electricity Generation
 - Other Combustible Source



Hazardous Waste Facility Permit to conduct treatment and storage at the facility. This permit expired in September 1992. PG&E Pittsburg submitted a renewal application for continued operation of the existing permit in March 1992. On January 20, 1995, a permit was issued to PG&E.

In 1999, PG&E sold portions of the Facility to Southern Energy LLC and retained ownership of the Shell Pond and Carbon Black Area property. On March 11, 1999, the permit was transferred to Southern Energy LLC and on April 17, 2003 the permit was modified to reflect the change in the name of the owner and operator to Mirant Delta LLC (Mirant). This permit had an expiration date of January 19, 2005. On January 31, 2005, Mirant submitted a RCRA Closure Certification Report to DTSC.

The Report addressed the closure of four RCRA regulated units. The four regulated units were (1) Boiler Chemical Cleaning Solution Pond, (2) Boiler Chemical Cleaning Rinse Pond, (3) Air Preheater Wash Pond, and (4) Demineralization Neutralization Pond. On April 28, 2005, DTSC acknowledged the closure certification and determined that the four hazardous waste management units at Mirant closed. DTSC, however, in the same letter required Mirant to conduct a groundwater monitoring event for the four regulated units in January 2006 and submit the groundwater sampling results to DTSC by March 1, 2006. The requirement is to account for the potential of liner-induced concentrations which may exceed either Maximum Contaminants Levels (MCLs). On September 19, 2005, DTSC authorized release of Mirant from maintaining financial assurance.

Starting in the Fourth Quarter of 2005, Mirant submitted quarterly groundwater monitoring reports. In the Second Quarter 2006 Report Mirant DTSC concluded that the statistical exceedance of potassium at the power plant site was due to natural processes and not the result of a release at the facility. DTSC approved this conclusion. In a letter dated March 30, 2007, DTSC confirmed the technical completeness of all reports and determined that Mirant had fulfilled conditions agreed upon with DTSC, and declared as completed the closure of the Power Plant portion of the Facility. It is noted that while this site clean-up effort was closed, subsequent activities at the site led to additional environmental investigation and remediation as discussed below under the PG&E Shell Pond/Carbon Black Area and Power Plant heading.

PG&E Shell Pond/Carbon Black Area and Power Plant: This site includes both the Pittsburg Power Plant site and the P&E Shell Pond/Black Carbon Area site.

Pittsburg Power Plant: This approximately 1,052-acre facility consists of the following Assessor's Parcel Number (APNs), which are owned and are historically or currently used as shown in Figure 5 and summarized in the following bulleted list:

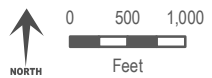
- The **Mallard Island Parcel** is an NRG Delta, LLC (NRG) property (APN 096-100-015) that is approximately 50.5 acres with no historical or current industrial use.
- The **Parcel West of Water District Parcel** is an NRG property (APN 096-100-027) that is approximately 75.08 acres with no historical or current industrial use.
- The **Southwest Parcel** is an NRG property (APN 096-100-029) that is approximately 21.35 acres with no historical or current industrial use.
- The **Large Southern Parcel** is an NRG property (APN 096-100-031) that is approximately 230.807 acres with historical use as former fill area, and no current use; planned uses exist in southwestern corner for the NRG Solar Plant.
- The **Large Northern Parcel** is an NRG property (APN 096-100-032) that is approximately 497.19 with cooling water canal and cooling towers (not in use) and western portion of Power Plant industrial area.
- The **Power Plant Parcel** is an NRG property (APN 096-100-033) that is approximately 23.638 acres that is used as the Power Plant industrial area.
- The **Tank Farm Parcel** is an NRG property (APN 096-100-034) that is approximately 115.498 acres and is used as a tank farm.

Figure 5

PITTSBURG POWER PLANT

Legend

- NRG Revitalization Site
- Pittsburg City Limits
- County Boundary
- Parcel West of Water District Parcel
- Southwest Parcel
- Mallard Island Parcel
- Large Southern Parcel
- Large Northern Parcel
- Power Plant Parcel
- Switchyard
- Tank Farm Parcel
- NuStar Energy Facility
- Cooling Water Canal Area
- Spill Containment Basin
- Historical Fill Area
- Gas Regulator Station
- Cooling Towers



- The **Switchyard** is a PG&E property (APN 096-100-035) that is approximately 38.26 acres and is used as a switchyard.

The Pittsburg Power Plant includes all of Area A, plus a portion of the adjacent land located off-site west of the Area (near McAvoy Road). See Figure 5 for the location of the parcels associated with the Pittsburg Power Plant. Figure 5 is based on the identification of site-specific uses identified in the Human Health Risk Assessment prepared by Haley & Aldrich, LLC in May 2020 and it is noted that there are portions of the site that are not assigned a use in the assessment.

Numerous hazardous materials investigations for the Power Plant have been completed over the last approximately 30 years. As such, Envirostor includes numerous site documents for this site. Each document is described in the following bulleted list:

- A **Supplemental RCRA Facility Investigation Work Plan** (June 23, 2017) was prepared by CH2M HILL Engineers, Inc. for the Pittsburg Power Plant facility. This Work Plan provides a report on the current conditions that was used to identify the scope of work for supplemental environmental investigation activities following a 1998 Phase II Environmental Site Assessment (ESA) Report (Fluor Daniel GTI, Inc., 1998). The Work Plan also includes the methodology for implementing the scope of work to meet the following seven project objectives:
 - Detail the methodology to gather the data needed to make decisions on interim measures/stabilization prior to the implementation of a final corrective measure.
 - Identify and characterize sources of chemicals of potential concern (COPCs) that exceed the site screening levels (SSLs).
 - Define the nature, degree, and extent of the COPCs that exceed the SSLs.
 - Define the rate of movement and direction of flow for the COPCs in the soil and groundwater.
 - Characterize the potential pathways of migration for the COPCs in the soil and groundwater.
 - Identify actual or potential human receptors, ecological receptors, or both.
 - Support the development of alternatives from which a corrective measure will be selected by the DTSC.
 - Outline a schedule for implementation of the activities.

The Supplemental RCRA Facility Investigation Work Plan was approved by the DTSC on August 8, 2017.

- A **Source Area Technical Memorandum** (April 24, 2019) was prepared by Jacobs Engineering on behalf of PG&E for the Pittsburg Power Plant facility. The memorandum is intended to support the development and implementation of an agreement between PG&E and the DTSC defining the remaining RCRA Corrective Action obligations by PG&E at the facility. The technical memorandum provides background information about PG&E's ownership and operations, former RCRA facilities, and previous investigations evaluating the potential release of hazardous waste or hazardous waste constituents into the environment. The technical memorandum also provides background information on parts of the facility covered by other RCRA Corrective Action Consent Agreements and on ownership and responsibilities by other parties. Based on the background information and results of previous investigations, this technical memorandum provides recommendations outlining remaining RCRA Corrective Action obligations by PG&E. The results and conclusions of the Source Area Technical Memorandum are as follows:
 - **Facility Background:** In 1999, a land use covenant was recorded with Contra Costa County that prohibits the development or use of the power plant for permanent or temporary lodging (including hotels, motels, and residential development), hospital or other healthcare facility, school, daycare center for children, park, playground, or other recreational use. Accordingly, the reasonably anticipated future use of the easternmost portion of the facility is for commercial/industrial land use. In addition to restricting future land use, the land use covenant recorded in 1999 prohibits the use of groundwater for any domestic or similar purposes, including drinking, cooking, washing, showering, or bathing. Further, groundwater within the upper aquifer could likely be excluded from what the state considers to be suitable, or potentially suitable, for municipal or domestic water supply because of elevated total dissolved solids (TDS) concentrations in groundwater. Previous investigations have reported TDS

mean concentrations of 7,000 milligrams per liter (mg/L) and 4,100 mg/L in groundwater samples (Fluor Daniel GTI, 1998a, CH2M 2018). These mean TDS concentrations are greater than the exception criterion of 3,000 mg/L for considering groundwater as a suitable or potentially suitable domestic water supply (California State Water Resources Control Board, 1988).

- Previous Investigations:
 - 1986: RCRA Facility Assessment: A.T. Kearney, Inc. and Science Applications International Corporation (A.T. Kearney and SAIC) completed the RCRA Facility Assessment (RFA) at the facility. The RFA was conducted to identify solid waste management units (SWMUs) and evaluate their potential for environmental release. A total of 18 SWMUs were identified at the facility during the RFA. Two of the SWMUs identified, Shell Pond (SWMU 4.18) and Carbon Pile (SWMU 4.12) are currently undergoing RCRA corrective action under a separate DTSC corrective action consent agreement. SWMUs 4.18 and 4.12 are not located in Area A; both are located in the PG&E Shell Pond/Black Carbon Area site. See discussion further below for further details. The locations of the 16 remaining SWMUs are all located in the northeast portion of the Power Plant facility (in the northeastern portion of Area A). Descriptions of the 16 SWMUs in Area A, as well as evaluation and closure activities, are provided in Table 1 of the Technical Memorandum. Of the 16 SWMUs, four were identified in the RFA for further evaluation and carried forward into a 1991 RCRA Facility Investigation (RFI); the SWMUs that were recommended in the RFA for further evaluation were SWMUs 4.4, 4.6, 4.8, and 4.15. Based on information gathered during the RFA, the remaining 12 SWMUs were not carried forward for additional investigation or assessment because the SWMUs did not appear to pose a release potential at the time of the reporting (A.T. Kearney and SAIC, 1986).
 - 1991: PG&E completed an RFI (Mittelhauser Corporation, 1991) that included further investigation and assessment of the four SWMUs recommended for further action in the RFA (SWMUs 4.4, 4.6, 4.8, and 4.15) and of SWMU 4.13 (Units 1 to 6 Secondary Regulator Gas Oil Pits). The 1991 RFI concluded that although there was evidence of past releases at four of these SWMUs, there was no need for further action at all five SWMUs. Additional information on the RFI investigation and assessment can be found in Table 1 of the Technical Memorandum.
 - 1997-1999: The closure process and status of the 16 SWMUs identified in the RFA and located within the industrial area are summarized in Table 1 of the Technical Memorandum. Of the 16 SWMUs, 11 were addressed by PG&E prior to the transfer of the power plant property in 1999. The RFA identified five SWMUs which did not appear to pose a release potential at the time of the reporting: SWMUs 4.7 (Air Flotation Oil/Water Separator), 4.11 (Waste Sandblasting Grit Pile), 4.14 (Hazardous and Solid Waste Storage), 4.16 (Liquid Hazardous Waste Drum Storage Area), and 4.17 (Steam Cleaning Area) and were subsequently not carried forward from the RFA (A.T. Kearney and SAIC, 1986). Additionally, six SWMUs were closed through the 1991 RFI and subsequent closure activities. Of the 16 SWMUs, three were active hazardous waste units for which the responsibility for management and closure was transferred to Southern Energy Delta LLC and its successor companies, and management and closure occurred after 1999. Three SWMUs: 4.1 (Boiler Chemical Cleaning Ponds), 4.2 (Air Preheater Wash Pond), and 4.3 (Demineralizer Neutralization Pond) were drained, cleaned, and sampled in 2004 per a DTSC-approved closure plan prepared for Mirant Delta (Fletcher Consultants, 2005). DTSC acknowledged that closure performance standards of cleanup levels for residential land use had been met and closed the SWMUs pending one additional groundwater monitoring event (DTSC, 2005). Results of the groundwater monitoring event were submitted and DTSC granted closure of the SWMUs to

Mirant Delta in 2007 (DTSC, 2007). Two SWMUs are either active or pending closure and for which the responsibility for management and closure was transferred to Southern Energy Delta LLC and its successor companies. One SWMU 4.5 (Oily Water Storage Pond/API Separator) is still an active Class II SWMU with waste discharge requirements issued by the Regional Water Quality Control Board in 2006 to Mirant Delta. There is an ongoing groundwater monitoring program conducted on behalf of GenOn (current owner) in accordance with the Waste Discharge Requirement Order No. R2-2006-0057 for operation and monitoring requirements (Water Board, 2006). The status of SWMU 4.9 (Oil Sludge Pond) is unknown. The 1986 RFA report identified SWMU 4.9 (Oil Sludge Pond) as an active RCRA unit. By the time of the Phase I Environmental Site Assessment (ESA) in 1997, the pond was shown on report maps as having been removed. A closure certification report for SWMU 4.9 was prepared by the Mark Group in 1990 and was still pending agency approval in 1997 (CDM, 1997). Responsibilities for SWMU 4.5 and SWMU 4.9 are the responsibility of Southern Energy and its successor companies (PG&E and Southern Energy Delta, LLC, 1998).

- 1997: PG&E contracted Camp Dresser & McKee Inc. (CDM) to perform a Phase I ESA of its facility. The Phase I ESA identified 28 recognized environmental conditions (RECs) within the study area and RECs associated with surrounding properties. The Phase I ESA grouped the RECs by the following areas:
 - General
 - Fuel tank farm
 - Switchyard
 - Non-operational area
 - Power generation and operations area
 - Surrounding properties

Table 2 of the Technical Memorandum lists the RECs identified in the Phase I ESA and provides a description of the potential source.

- 1998: Two Phase II ESAs were completed throughout 1998, including a Phase II ESA for the non-generation portion of the facility (which included the PG&E-retained switchyard), and a Phase II ESA for the larger Pittsburg Power Plant area. The results of the findings of both studies are included in Table 2 of the Technical Memorandum. The non-generation Phase II ESA advanced eight soil borings and collected 17 soil samples and one groundwater sample from the southwestern corner of the switchyard area. The Pittsburg Power Plant Phase II ESA used a biased grid sampling approach to investigate the potential source areas associated with the RECs identified in the Phase I ESA for the presence of contamination. Most of the RECs were identified in the industrial area of the facility, and the Pittsburg Power Plant Phase II ESA included extensive sampling throughout the industrial area. Data collection during the Phase II ESA included drilling of soil borings and collection of soil samples; installation of temporary groundwater monitoring wells and collection of groundwater samples from hydropunch points, temporary well points and temporary monitoring wells, collection of groundwater samples from permanent monitoring wells, and collection of sediment samples from surface water drainage locations. The data collected during the Pittsburg Power Plant Phase II ESA was evaluated to determine if the soil or groundwater required additional remediation to protect human health and the environment or comply with current environmental regulations (Fluor Daniel GTI, 1998a).
- 1998: A supplemental RFI was also conducted in 1998 to build on and complement the environmental investigation data set collected during implementation of the 1998 Phase II

ESA; to provide a current assessment of the extent of constituents of potential concern (COPCs) in soil and groundwater; and to address data quality concerns associated with the Phase II ESA data. An overview of the findings from the supplemental RFI report has been summarized in Table 2 of the Technical Memorandum.

- 2015-2016: A soil investigation in the southern portion of the facility (APN 096-100-031) in an area of the facility that NRG was planning to develop as a solar plant (CH2M, 2016). This area was previously investigated during the Phase II ESA because of potential contamination from offsite properties, soil piles, and potential landfill areas. An additional 104 soil samples were collected in 2015, to supplement the samples collected during the Phase II ESA. A screening level human health risk evaluation was also completed to evaluate potential risks due to constituents in soil. The results of the screening level human health risk evaluation concluded that the remaining soil contamination does not pose a significant risk to current or future users of the area and does not pose a risk to the degradation of groundwater. DTSC concurred with the conclusion of the soil investigation that no further action was required at the area (DTSC, 2016).
- Recommendations and Path Forward:
 - SWMUs: No further PG&E responsibilities remain in regard to the SWMUs.
 - Phase I ESA and Supplemental Investigations: The Phase I ESA identified potential source areas based on PG&E's operations of the power plant. The Phase I ESA source areas are located in the industrial area, identified based on the historical document reviews and known operational site history of the entire facility. The boundary of the industrial area (shown in blue on Figure 3 of the Technical Memorandum) therefore defines the boundaries of the site recommended to be addressed in the Facility-initiated Consent Agreement associated with PG&E's operations. The site to be addressed in the Facility-initiated Consent Agreement is approximately 325 acres. Land outside of the industrial area (or not addressed by the Shell Pond Corrective Action Consent Agreement) that did not contain potential source areas, and did not contain industrial buildings or equipment, is considered nonindustrial. The nonindustrial area of the facility should be excluded from further Corrective Action associated with PG&E's operations. Extensive investigation throughout the industrial area was performed to evaluate and characterize potential releases from the Phase I ESA source areas. Concentrations of VOCs, TPH, and PAHs in soil and groundwater found during the Phase II ESA were generally not able to be replicated in replacement samples collected during the supplemental RFI. Samples with VOC or PAH concentrations in soil or groundwater greater than SSLs are limited. TPH was not found in soil or groundwater at concentrations above the SSL, and no further action is recommended for VOCs, TPH, and PAHs in both soil and groundwater. Additional evaluation of the soil data is recommended using more refined assumptions to inform further RCRA Corrective Action obligations by PG&E for metal contamination in soil. additional evaluation of the groundwater data is recommended using more refined assumptions to further inform RCRA Corrective Action obligations by PG&E for metal contamination in groundwater.
 - Inaccessible Areas: Three potential source areas were not able to be sampled or investigated during the Phase II ESA and supplemental RFI due to inaccessibility (inability to enter the switchyard area). Those inaccessible areas are the following:
 - Transformer oil discharged to the rock blotter
 - Dielectric fluid potential release from underground piping
 - Dielectric fluid release from two aboveground storage tanks

The inaccessible areas identified, as well as areas immediately below tanks, sumps, and other infrastructure will remain inaccessible until the structures are removed. Extensive soil and groundwater sampling conducted throughout the industrial area does not indicate substantial releases, and potential site-related soil or groundwater contamination in the inaccessible areas is assumed to be localized. It is recommended that an institutional control be established as an interim measure to control the development of the inaccessible areas. PG&E will monitor development plans, and when these inaccessible areas become accessible, an investigation may need to be conducted to determine whether corrective measures are required.

- Path Forward: A screening level human health risk assessment (SLHHRA) is proposed to evaluate those constituents found in soil and groundwater at concentrations greater than SSLs during the site investigations. The SLHHRA will be supplemented by an ecological risk assessment if potentially complete exposure pathways are defined. Site-specific background values for groundwater will be assessed to refine the risk assessments results and to define media cleanup goals, if any. Following completion of the risk assessment and background metals evaluation described above, the results will be compiled, and additional evaluation steps defined, as appropriate, depending on risk assessment results and defined uncertainties. The risk assessment will evaluate the need for Corrective Action and COCs and media of concern for the defined receptors and exposure routes. The combined evaluation will document the need for additional Corrective Action to supplement institutional controls.
- A **Groundwater Sampling Results Summary** (September 16, 2019) was prepared by Jacobs Engineering on behalf of PG&E for the Pittsburg Power Plant facility. A Supplemental RCRA Facility Investigation (RFI) groundwater monitoring and sampling event was performed in November 2017 to collect groundwater samples from existing groundwater monitoring wells, consistent with the Supplemental RCRA Facility Investigation Work Plan (Jacobs, 2017), approved by DTSC on August 8, 2017. During the risk assessment process, it was determined that additional groundwater data were needed to perform the required evaluations. In addition to groundwater sampling, a monitoring well elevation survey was conducted to provide updated and consistent land survey data to assess groundwater elevations and gradient. The California Environmental Protection Agency, DTSC was notified of the groundwater sampling and land survey on July 1 and approved the event in an email dated July 2, 2019 (DTSC 2019). This letter provides a description of the field activities performed in July 2019, and reports the collected data. The data collected from the July 2019 event will be combined with previous data collected at the Facility for evaluation in forthcoming risk assessment reports. The Groundwater Sampling Results Summary was approved by the DTSC on December 30, 2019.
- A **Preliminary Conceptual Site Model (CSM)** (November 19, 2019) was prepared by Jacobs Engineering Group Inc. on behalf of PG&E for the Pittsburg Power Plant facility. The Preliminary CSM summarizes primary sources of contamination, impacted media, release mechanisms, transport and exposure media, and potential exposure routes for human and ecological receptors. The study area includes the historical fill area, cooling water canal area, northern power plant area, and southern tank farm area. In summary, while primary sources of metal contamination in soil may be attributed to PG&E historic operations or naturally occurring at the site, there is no evidence of a substantial release at the site. The results and conclusions of the Preliminary CSM were as follows:
 - Soil is the primary impacted media and COPCs are limited to metals including antimony, arsenic, cobalt, mercury, and lead with cobalt detected above the preliminary soil screening levels (SSLs) at the greatest frequency. The primary release mechanism for COPCs to subsurface soil, soil pore water, and groundwater is via infiltration of precipitation and surface runoff and the degree of metal transport to surface soil and groundwater depends on geochemical conditions in the soil. Less-significant release mechanisms include soil weathering and erosion.

- Groundwater is the primary transport media at the site, with a local westward groundwater flow expected to discharge either to the Cooling Water Canal or the bay. The distance of trace metal transport in groundwater is dependent upon the geochemical conditions in the aquifer and properties of the trace metals of concern. As the constituents found in soil and groundwater at concentrations greater than SSLs were primarily metal constituents that are also naturally occurring, additional background evaluation of site-specific background values for groundwater will be performed.
- Potential current and future human receptors may be exposed to COPCs in soil, outdoor or indoor air, and groundwater. The Human Health Risk Assessment (HHRA) (discussed below) assesses potential risk from exposure to COPCs via these potential complete exposure pathways identified for current and future receptors.
- Ecological receptor groups that have the potential for exposure at the site include terrestrial plants, soil invertebrates, birds, mammals, and aquatic organisms (including plants, invertebrates, and fish). Terrestrial receptors, including terrestrial plants, soil invertebrates, birds and mammals, have the potential to be exposed to soil. Groundwater that is tidally influenced may migrate to Suisun Bay and expose aquatic organisms to COPCs. The ecological risk assessment will assess potential risk from exposure to COPCs via these potential complete exposure pathways identified for current and future receptors.

The Preliminary CSM was approved by the DTSC on February 19, 2020.

- An **Agreement for Facility-Initiated Corrective Action** for the site was entered between PG&E and the DTSC (December 30, 2019). The Agreement covers the entirety of the Pittsburg Power Plant facility. The facility was engaged in hazardous waste management pursuant to a Hazardous Waste Treatment and Storage Permit granted by DTSC on September 24, 1987 and renewed on January 20, 1995. The purpose of the agreement is for PG&E to conduct corrective action to address a release or threatened release of any hazardous waste or hazardous constituents at or from the Power Plant facility under the oversight of DTSC. Based on the information available to PG&E and DTSC, the facility is or may be contaminated with hazardous waste and hazardous constituents, including total petroleum hydrocarbons (TPH) in soil, TPH and polynuclear aromatic hydrocarbons (PAHs) in groundwater, metals in groundwater, and volatile organic compounds (VOCs) in groundwater. Exhibit C of the Agreement includes the scope of work.
- An **Ecological Risk Assessment** (ERA) (April 28, 2020) was prepared by Jacobs Engineering Group Inc. on behalf of PG&E for portions of the Pittsburg Power Plant facility. The ERA includes a screening level ERA (SLERA) and Step 3a of a baseline ERA (BERA). The results and conclusions of the BERA Step 3a were as follows:
 - Soil: No chemicals of ecological concern (COECs) were identified for soils in the Cooling Water Canal Area or the Historical Fill Area. No further action is recommended for ecological receptors under current and potential future land uses.
 - Groundwater: No COECs were identified in potentially tidally influenced groundwater. Elevated concentrations of iron and nickel are believed to be a result of local geology and high turbidity in the samples. These metals are evaluated in more detail in the Groundwater Trace Metals Assessment being produced concurrently with this ERA. No further action is recommended for ecological receptors under current and potential future land uses.

The ERA was approved by the DTSC on July 14, 2020.

- A **Human Health Risk Assessment** (HHRA) (May 5, 2020) was prepared by Haley & Aldrich, LLC, on behalf of PG&E. The HHRA addresses the remaining RCRA corrective action obligations associated with past operations of the facility, specifically an approximately 325-acre portion that consists of a main power plant area, switchyard, tank farms, cooling towers with cooling water canal, and a fill area. The HHRA was specifically conducted for soil in accessible areas of the site and groundwater. Potential human health risks were evaluated for current and hypothetical future on-site receptors within specific on-site exposure areas, and current off-site receptors at residential and commercial/industrial properties in the vicinity of these exposure areas. The conclusions of the HHRA are as follows:

- Northern Power Plant Area:
 - Remedial action or other forms of risk management (i.e., institutional controls) for chemicals of potential concern (COPC) in soil and groundwater in the Northern Power Plant Area are not necessary to protect the health of current on-site workers, current, off-site residents, and commercial/industrial workers in the vicinity of the area, or hypothetical future on-site commercial/industrial workers.
 - Certain protective measures for hypothetical future on-site construction workers may be recommended to limit potential particulate inhalation exposures to nickel and cobalt in Northern Power Plant Area soil, and potential direct contact exposure to arsenic, TPH, and CPAHs in Northern Power Plant Area groundwater.
- Southern Tank Farm Area:
 - Remedial action or other forms of risk management (i.e., institutional controls) for COPCs in soil and groundwater in the Southern Tank Farm Area are not necessary to protect the health of current on-site workers or current off-site residents and commercial/industrial workers in the vicinity of the area.
 - Remedial action or other forms of risk management (i.e., institutional controls) for COPCs in groundwater in the Southern Tank Farm Area are not necessary to protect the health of hypothetical future on-site commercial/industrial workers.
 - Levels of arsenic above background in Southern Tank Farm Area soil may require remedial action or other forms of risk management (i.e., institutional controls) prior to potential commercial/industrial redevelopment of this area of the site. Detected concentrations of arsenic in Southern Tank Farm Area soil above the DTSC-approved BTV of 13.6 mg/kg range from 14 mg/kg to 200 mg/kg.
 - Certain protective measures for hypothetical future on-site construction workers may be recommended to limit direct contact exposures to arsenic in Southern Tank Farm Area soil, potential particulate inhalation exposures to nickel and cobalt in Southern Tank Farm Area soil, and potential direct contact exposure to arsenic and CPAHs in Southern Tank Farm Area groundwater.
- Cooling Water Canal Area:
 - Remedial action or other forms of risk management (i.e., institutional controls) for COPCs in groundwater in the Cooling Water Canal are not necessary to protect the health of hypothetical future on-site commercial/industrial workers.
 - Levels of arsenic above background in Cooling Water Canal soil may require remedial action or other forms of risk management (i.e., institutional controls) prior to potential commercial/industrial redevelopment of this area of the site. Detected concentrations of arsenic in Cooling Water Canal soil above the DTSC-approved BTV of 13.6 mg/kg range from 14 mg/kg to 44 mg/kg.
 - Certain protective measures for hypothetical future on-site construction workers may be recommended to limit potential direct contact exposures to arsenic in Cooling Water Canal soil, potential particulate inhalation exposures to nickel and cobalt in Cooling Water Canal soil, and potential direct contact exposure to arsenic in Cooling Water Canal groundwater.
- Historical Fill Area:
 - Remedial action or other forms of risk management (i.e., institutional controls) for COPCs in soil and groundwater in the Historical Fill Area are not necessary to protect the health of current off-site residents in the vicinity of the area or hypothetical future commercial/industrial workers.

- Certain protective measures for hypothetical future on-site construction workers may be recommended to limit potential direct contact exposures to arsenic in Historical Fill Area soil, and potential direct contact exposure to arsenic in Historical Fill Area groundwater.

The HHRA was approved by the DTSC on July 7, 2020.

PG&E Shell Pond/Carbon Black Area: The PG&E Shell Pond/Black Carbon Area site includes a Shell Pond Area, Carbon Black Area, and Materials Handling Area. This area is located outside of Area A. Numerous hazardous materials investigations for the PG&E Shell Pond/Black Carbon Area site have been completed over the last approximately 40 years. The hazardous concerns on this site pertain to the SWMUs. As noted above, two of the SWMUs identified, Shell Pond (SWMU 4.18) and Carbon Pile (SWMU 4.12) are currently undergoing RCRA corrective action under a separate DTSC corrective action consent agreement. The **Corrective Measures Implementation Plan for SWMU 4.12 and SWMU 4.18** (June 17, 2020) was prepared by ERM-West, Inc. The DTSC approved the Implementation Plan on July 23, 2020.

The Corrective Measures Implementation Plan (CMIP) presents the corrective actions to be implemented to address waste impacts identified in SWMU 4.12 (Carbon Black Area) and SWMU 4.18 (former wastewater treatment pond). The selected remedies have been designed to protect human health and the environment in accordance with the RCRA and requirements of the RCRA Corrective Action Consent Agreement (effective date June 2017) entered into between the California Environmental Protection Agency DTSC and PG&E.

SWMU 4.12 is a 20-acre former wastewater pond and carbon black management area and SWMU 4.18 is a 73-acre former wastewater treatment pond located within a 292-acre parcel in Bay Point (located west of Area A). SWMUs 4.12 and 4.18 were constructed in the late 1930s to 1940s to receive storm water and wastewater from a commercial ammonia plant owned by the Shell Oil Products Company (Shell). SWMU 4.12 originally included an 11-acre pond constructed in the 1940s. In the 1950s, the original 11-acre pond was full and the adjacent 72-acre wastewater pond in SWMU 4.18 was constructed and used by Shell. SWMU 4.12 was subsequently used for carbon black management until 1971. The Hysol division of the Dexter Corporation, an adhesives manufacturer, began discharging to SWMU 4.18 in the late 1960s in addition to Shell contributions. In 1973, PG&E purchased the pond and surrounding land, including SWMUs 4.12 and 4.18, for the planned Pittsburg Power Plant expansion, which did not occur. All discharges (stormwater) to SWMU 4.18 were terminated in 1980.

Since the early 1980s, PG&E has conducted investigations, monitoring, and remedial activities at the Site. The remedial activities at SWMU 4.12 have included waste removal, grading, and revegetation with a clean soil cover. An interim waste excavation was completed in 1997, and in 2011, a corrective measure was initiated that included grading and revegetation of portions of SWMU 4.12. In 2018, in response to a grass fire that ignited the waste material in SWMU 4.12, a fire risk management program that consisted of placing a soil cover over unvegetated portions of the SWMU was completed as an interim measure. The remedial activities at SWMU 4.18 included a water cover for dust and odor management, and a limited amount of waste and impacted sediment removal by dredging. The dredging removal action was terminated days after initiation due to nuisance odor conditions.

Because the 2011 removal remedy for SWMU 4.18 was not implemented in 2012, PG&E initiated review of alternative remedial options. This required confirming the current conditions for the SWMU 4.18 media that could not be removed. A supplemental RCRA Facility Investigation (RFI) was performed in 2014 and 2015 to establish the current Site conditions and provide data necessary to update the HHRA and conduct an ERA. DTSC determined that the Site had been adequately characterized and the data were sufficient and appropriate for remedy decision-making purposes.

The HHRA (RPS 2017) and ERA (ERI 2018a) were completed following the supplemental RFI work. The DTSC approved the two reports in 2017 and 2018, respectively. The findings of these assessments were used in the 2018 March and June RCRA FIRST meetings to establish the CAOs for both SWMUs. An ERA addendum (ERI 2018b) was submitted in December 2018 to incorporate additional surface water sampling activities completed in SWMU 4.18 after submittal of the initial ERA report.

Between 2013 and 2018, PG&E conducted pilot studies to:

- Investigate the ability of selected plant species to grow in the SWMU 4.18 waste and impacted native materials given the salinity and chemical concentrations present in native materials.
- Reduce constituent of concern (COC) concentrations through phytoremediation and/or enhanced biodegradation via naturally occurring microbes. COCs include polycyclic aromatic hydrocarbons (PAHs), metals (primarily copper, lead, mercury and molybdenum), cyanide, TPH-d, and TPH-mo.
- Mitigate odors and dust, which would allow for the removal of the water cap from portions of SWMU 4.18.

The results of the pilot and laboratory studies and the Site corrective actions completed in accordance with the two prior Corrective Measures Study documents provided the basis for the proposed corrective action approach presented in this CMIP.

Based on the results of the comparative analysis, the following remedial options were selected for each SWMU:

- SWMU 4.12: Managed natural recovery (MNR) with implemented soil cover:
 - Excavation within selected areas and on-site consolidation of excavated material, followed by placement of a soil cover across the excavated areas, consolidated materials, and poorly vegetated portions of the SWMU with reseeded (already completed).
 - Establishment of vegetation (already completed) to enhance the naturally occurring biological and chemical processes for dust and odor control, and achieve CAOs.
 - Post-remediation monitoring and inspections to verify the CAOs are met and determine if any maintenance actions are needed.
- SWMU 4.18: MNR:
 - Phased approach with isolation and dewatering of portions of the Site Application of compost and/or soil and amendments with irrigation to the remedial areas as necessary to enhance the naturally occurring biological and chemical processes for odor reduction and to achieve the CAOs.
 - Establishment of vegetation to enhance the naturally occurring biological and chemical processes for dust and odor control, and achieve the CAOs.
 - Post-remediation monitoring and inspections to verify the CAOs are met and determine if any maintenance actions are needed.

These corrective measures are protective of human health and the environment, pose the least impact to the adjacent community and environment, reduce/eliminate long-term liability by destroying/isolating the impacts, are most sustainable, and are the most cost-effective options that meet the remedy decision factors. The corrective measure options will also incorporate the following components:

- Post-remediation monitoring to evaluate the effectiveness of the corrective measure components.
- Institutional controls, including prohibited land uses in the form of land use covenants for SWMUs 4.12 and 4.18.

Willow Pass Site. This site contains approximately 40 acres located at Willow Pass Road/Nantucket Drive in Pittsburg. This school site has a status of “Inactive – Needs Evaluation as of 10/25/2005”. The past uses of the site were unknown, and the potential medias affected include soil and surface water. The potential contaminants of concern include arsenic, benzene, lead, methyl tertbutyl ether (MTBE), and polynuclear aromatic hydrocarbons (PAHS).

A Phase 1 Environmental Site Assessment (ESA) was completed for the site in 2005. According to a DTSC letter dated May 11, 2005, the Phase I ESA concluded that a Preliminary Environmental Assessment (PEA) is required. The PEA should address, but may not be limited to, the following recognized environmental conditions:

- Impacts from the Mirant Pittsburg Power Plant to the soil onsite.
- Impacts from the lagoons adjacent to the site.
- Impacts to the groundwater from the spills from the Mirant Pittsburg Power Plant.
- Impacts to the site associated with the Union Pacific Railroad tracks on the northern border.

Pursuant to California Education Code Section 517213.1, subdivision (a)(a)(B), if the Pittsburg Unified School District (District) elects to pursue site acquisition or construction, the District shall enter into an Environmental Oversight Agreement (EOA) with DTSC to oversee the preparation of the PEA. The District requested that project be placed on hold as of August 15, 2005.

CORTESE LIST

The Hazardous Waste and Substances Sites (Cortese) List is a planning document used by the State, local agencies, and developers to comply with the California Environmental Quality Act requirements in providing information about the location of hazardous materials release sites. Government Code Section 65962.5 requires the California Environmental Protection Agency to develop at least annually an updated Cortese List. California Department of Toxic Substances Control (DTSC) is responsible for a portion of the information contained in the Cortese List. Other State and local government agencies are required to provide additional hazardous material release information for the Cortese List. There are no Cortese list sites in or in the immediate vicinity of the Area A.

GEOTRACKER

GeoTracker is the State Water Resources Control Board's online database that provides access to statewide environmental data and tracks regulatory data for the following types of sites:

- Leaking underground fuel tank (LUFT) cleanup sites;
- Cleanup Program Sites (CPS; also known as Site Cleanups and formerly known as Spills, Leaks, Investigations, and Cleanups [SLIC] sites);
- Military sites (consisting of military underground storage tank [UST] sites, military privatized sites, and military cleanup sites [formerly known as DoD non-UST]);
- Land disposal sites (landfills); and
- Permitted UST facilities.

In June of 2020, a search was performed using GeoTracker to identify any known or suspected (reported but not yet confirmed) sources of environmental hazards within the Area A. Figure 4 provides a map of the hazardous sites within the vicinity of Area A.

There are no hazardous sites within the Area A listed on GeoTracker; however, several are located in the immediate vicinity.

Leaking Underground Storage Tanks (LUST)

There are no sites listed in the GeoTracker database for Leaking Underground Storage Tanks (LUST).

Cleanup Program Sites

There are no sites listed in the GeoTracker database as Cleanup Program Sites within Area A.

HYDROLOGICAL SETTING

REGIONAL HYDROLOGY

Area A is located along the Suisun Bay. As shown in Figure 6, the following wetland types are found on-site: Lake, Freshwater Emergent Wetland, Freshwater Pond, Estuarine and Marine Wetland, and Estuarine and Marine Deepwater.

The City of Pittsburg is located in the Kirker Creek-Frontal Suisun Bay Estuaries, Suisun Bay Estuaries, Suisun Bay Islands, and Markley Canyon-San Joaquin River watersheds. Runoff by the city drains into Suisun Bay and New York Slough. Most runoff in Area A is conveyed by storm drains located in developed areas to the Suisun Bay.

WILDLIFE AND HABITAT

BIOREGION

Pittsburg is located within the Bay Area/Delta Bioregion. The Bay Area/Delta Bioregion extends from the Pacific Ocean to the Sacramento Valley and San Joaquin Valley bioregions to the northeast and southeast, and a short stretch of the eastern boundary joins the Sierra Bioregion at Amador and Calaveras counties. The bioregion is bounded by the Klamath/North Coast on the north and the Central Coast Bioregion to the south. The Bay Area/Delta Bioregion is one of the most populous areas of the state, encompassing the San Francisco Bay Area and the Sacramento-San Joaquin River Delta. The water that flows through the Delta supplies two-thirds of California's drinking water, irrigating farmland, and sustaining fish and wildlife and their habitat. The bioregion fans out from San Francisco Bay in a jagged semi-circle that takes in all or part of 12 counties: Alameda, Contra Costa, Marin, Napa, San Francisco, San Joaquin, San Mateo, Santa Clara, Solano, Sonoma, and parts of Sacramento and Yolo. The habitats and vegetation of the Bay Area/Delta Bioregion are as varied as the geography.

VEGETATION

Historic vegetation in the Area A included native grassland, riparian communities, and coastal salt and brackish marshes. The Area A consists of salt and brackish marshlands, which has potential for inhabitation by several threatened and endangered plant and animal species.

WILDLIFE

Agricultural and ruderal vegetation in the city provides habitat for both common and special-status wildlife populations. For example, some commonly observed wildlife species in the region include: California ground squirrel (*Spermophilus beecheyi*), California vole (*Microtus californicus*), coyote (*Canis latrans*), raccoon (*Procyon lotor*), opossum (*Didelphis virginiana*), striped skunk (*Mephitis mephitis*), red-tailed hawk (*Buteo jamaicensis*), northern harrier (*Circus cyaneus*), American kestrel (*Falco sparverius*), white-tailed kite (*Elanus leucurus*), American killdeer (*Charadrius vociferus*), gopher snake (*Pituophis melanoleucus*), garter snake (*Thamnophis species*), and western fence lizard (*Sceloporus occidentalis*), as well as many native insect species. There are also several bat species in the region. Bats often feed on insects as they fly over agricultural and natural areas.

Locally common and abundant wildlife species are important components of the ecosystem. Due to habitat loss, many of these species must continually adapt to using agricultural, ruderal, and ornamental vegetation for cover, foraging, dispersal, and nesting. Area A is located within an area identified as critical habitat for the Delta Smelt by the as well as the potential to contain multiple special-status species according to the United States Fish & Wildlife Service. Figure 6 provides a map of the critical habitat within SFN Site. Area A is largely undeveloped and contains numerous wetland types over the majority of the area. As such, Area A provides suitable habitat for wildlife species that have been documented in the region. In particular, special-status species which prefer wetland and coastal habitat types could be present on-site.

Figure 6

RESOURCE CONSTRAINTS

Legend

- NRG Revitalization Site
- Pittsburg City Limits
- County Boundary

National Wetlands Inventory

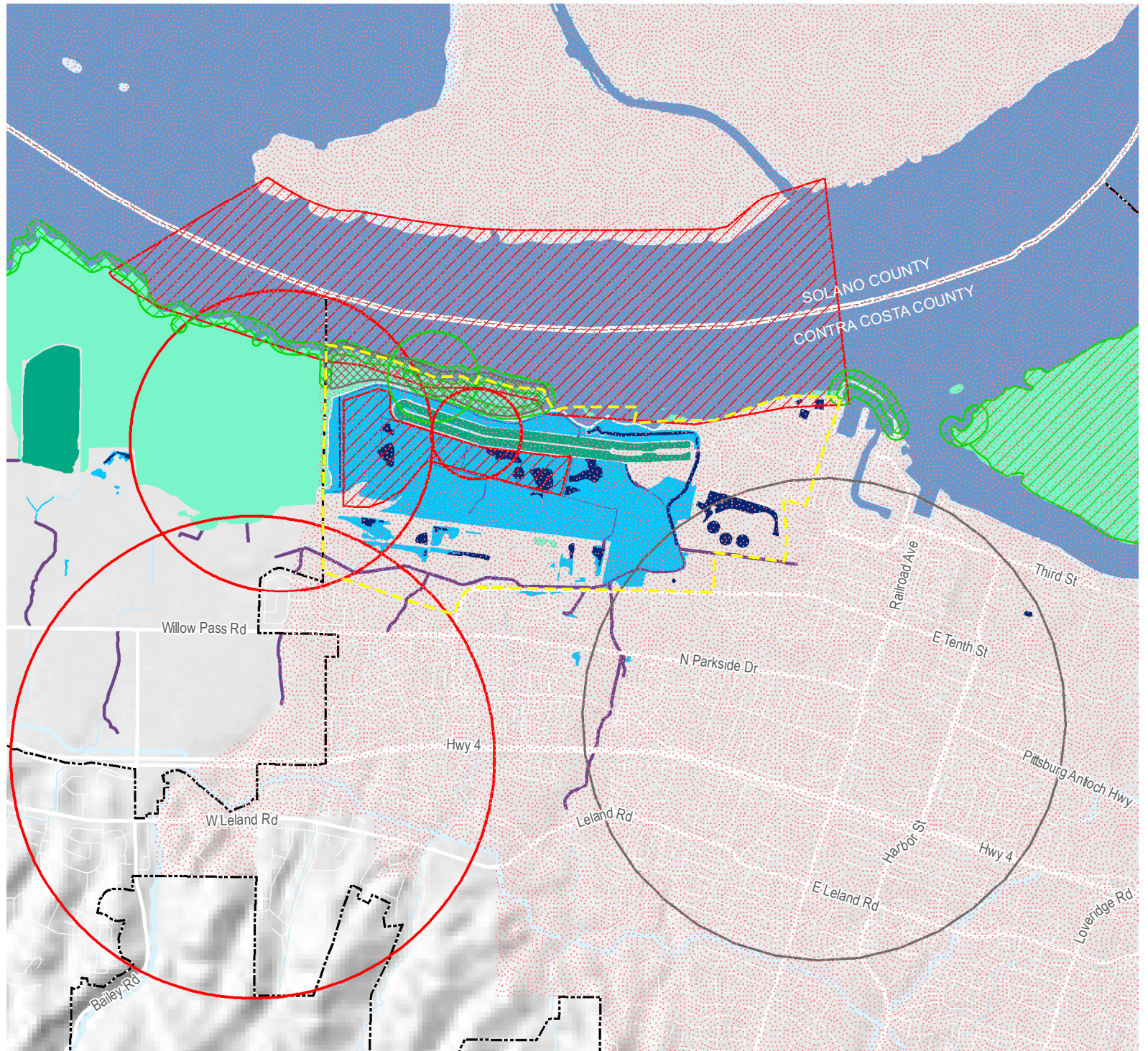
- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Pond
- Lake
- Riverine

Special Status Species

- Plant (specific)
- Plant (non-specific)
- Plant (circular)
- Animal (non-specific)
- Animal (circular)
- Multiple (specific)
- Multiple (circular)

USFWS Critical Habitat

- Delta Smelt Critical Habitat



PLANT COMMUNITIES

Agricultural and natural plant communities provide habitat for a variety of biological resources in the region. Sensitive habitats include those that are of special concern to resource agencies or those that are protected under a Habitat Conservation Plan, Natural Community Conservation Plan, CEQA, the Fish and Game Code, or the Clean Water Act (CWA). Additionally, sensitive habitats are usually protected under specific policies from local agencies.

California Wildlife Habitat Relationship System

The California Wildlife Habitat Relationships (CWHR) habitat classification scheme has been developed to support the CWHR System, a wildlife information system and predictive model for California's regularly-occurring birds, mammals, reptiles and amphibians. When first published in 1988, the classification scheme had 53 habitats. At present, there are 59 wildlife habitats in the CWHR System: 27 tree, 12 shrub, 6 herbaceous, 4 aquatic, 8 agricultural, 1 developed, and 1 non-vegetated.

The CWHR System identified nine cover types (wildlife habitat classifications) in Area A out of the 59 types in the State. These include: Annual Grassland, Estuarine, Fresh Emergent Wetland, Irrigated Hayfield, Lacustrine, Marsh, Riverine, Saline Emergent Wetland, Urban.

Table 3 identifies the total area by acreage for each cover type (classification) found in in Area A. A brief description of each cover type follows.

TABLE 3: COVER TYPES - CALIFORNIA WILDLIFE HABITAT RELATIONSHIP SYSTEM

COVER TYPE	AREA A (ACRES)
Annual Grassland	23.40
Estuarine	13.43
Fresh Emergent Wetland	170.07
Irrigated Hayfield	7.12
Lacustrine	67.02
Marsh	0.16
Riverine	5.11
Saline Emergent Wetland	431.67
Urban	299.47

Source: CALFIRE FRAP Vegetation (FVEG15-1) "best available" land cover data, spanning 1990 to 2014.

Developed Cover Types

Irrigated Hayfield normally has a 2- to 6-month initial growing period, depending on climate, and soil, this habitat is dense, with nearly 100 percent cover and average height is about 1.5 feet. Planted fields generally are monocultures (the same species or mixtures or a few species with similar structural properties). Structure changes to a lower stature following each harvest, grows up again and reverts to bare ground following plowing or discing. Plowing may occur annually, but is usually less often. Layering generally does not occur in this habitat. Unplanted "native" hay fields may contain short and tall patches. If not harvested for a year, they may develop a dense thatch of dead leaves between the canopy and the ground. Within Area A, there are 7.12 acres of Irrigated Hayfield habitat.

Urban habitats are not limited to any particular physical setting. Three urban categories relevant to wildlife are distinguished: downtown, urban residential, and suburbia. The heavily-developed downtown is usually at the center, followed by concentric zones of urban residential and suburbs. There is a progression outward of decreasing development and increasing vegetative cover. Species richness and diversity is extremely low in the inner cover. The structure of urban vegetation varies, with five types of vegetative structure defined: tree grove, street strip, shade tree/lawn, lawn, and shrub cover. A distinguishing feature of the urban wildlife habitat is the mixture of native and exotic species. Within Area A, there are 299.47 acres of urban habitat.

Herbaceous Cover Types

Annual Grassland habitat occurs mostly on flat plains to gently rolling foothills. Climatic conditions are typically Mediterranean, with cool, wet winters and dry, hot summers. The length of the frost-free season averages 250 to 300 days. Annual precipitation is highest in northern California. Within Area A, there are 23.40 acres of annual grassland habitat.

Fresh Emergent Wetland habitats occur on virtually all exposures and slopes, provided a basin or depression is saturated or at least periodically flooded. They are most common on level to gently rolling topography. They are found in various depressions or at the edge of rivers or lakes. Soils are predominantly silt and clay, although coarser sediments and organic material may be intermixed. In some areas organic soils (peat) may constitute the primary growth medium. Climatic conditions are highly variable and range from the extreme summer heat to winter temperatures well below freezing. Within Area A, there are 170.07 acres of fresh emergent wetland habitat.

Saline Emergent Wetland habitat occur along the margins of bays, lagoons, and estuaries sheltered from excessive wave action. At their lower margin they are exposed once every 24 hours; whereas, at their upper margin, submergence is short and infrequent, followed by weeks or months of continuous exposure. Characteristic or distinctive vascular plant species ranging from lower saline sites to higher or brackish sites are cordgrass, pickleweed, Humboldt cordgrass, glasswort, saltwort, jaumea, California seablite, seaside arrowgrass, alkali heath, seashore saltgrass, spearleaf saltweed, shoregrass, the endangered birdsbeak, common glasswort, sea-lavender, brass-buttons, saltmarsh dodder, gumweed, salt rush, tufted hairgrass, Pacific alkali bulrush, Olney bulrush, tule bulrush, California bulrush, common cattail, tropical cattail, cinquefoil, and coast carex. Frost-free days range from 330 to 365. Within Area A, there are 431.67 acres of saline emergent wetland habitat.

Aquatic Cover Types

Riverine habitats can occur in association with many terrestrial habitats. Riverine habitats are found adjacent to many rivers and streams. Riverine habitats are also found contiguous to lacustrine and fresh emergent wetland habitats. This habitat requires intermittent or continually running water generally originating at some elevated source, such as a spring or lake, and flows downward at a rate relative to slope or gradient and the volume of surface runoff or discharge. Velocity generally declines at progressively lower altitudes, and the volume of water increases until the enlarged stream finally becomes sluggish. Over this transition from a rapid, surging stream to a slow, sluggish river, water temperature and turbidity will tend to increase, dissolved oxygen will decrease, and the bottom will change from rocky to muddy. Within Area A, there are 5.11 acres of riverine habitat.

Lacustrine habitats are inland depressions or dammed riverine channels containing standing water. These habitats may occur in association with any terrestrial habitats, Riverine, or Fresh Emergent Wetlands. They may vary from small ponds less than one acre to large areas covering several square miles. Depth can vary from a few inches to hundreds of feet. Typical lacustrine habitats include permanently flooded lakes and reservoirs, and intermittent lakes and ponds (including vernal pools) so shallow that rooted plants can grow over the bottom. Most permanent lacustrine systems support fish life; intermittent types usually do not. Within Area A, there are 67.02 acres of lacustrine habitat.

Estuarine habitats occur on periodically and permanently flooded substrates and open water portions of semi-enclosed coastal waters where tidal seawater is diluted by flowing fresh water (Ellison 1983). This mix of fresh and ocean waters usually forms a horizontal salinity gradient that varies by area and location with seasonal variations in fresh water inflow and tidal action. In California, estuarine habitats include coastal lagoons containing waters of more uniform salinity than true estuaries, or waters with vertical rather than horizontal salinity gradients. Within Area A, there are 13.43 acres of estuarine habitat.

Marsh habitats within the City are located along the Suisun Marsh waterfront area. The Suisun Marsh is the largest contiguous brackish (a mixture of fresh and sea water) wetland in the western United States. The lands and waters of this ecosystem also are home to a wide variety of plants, fish and wildlife that depend upon a balance of fresh and saline waters

for their survival. The Suisun Marsh is also an important stop on the Pacific Flyway, providing food and habitat for migratory birds across the world. Within Area A, there are 0.16 acres of marsh habitat.

5. LAND USE ASSESSMENT

EXISTING LAND USES

GENERAL PLAN LAND USES

As shown in Figure 7, Area A is designated Open Space and Industrial by the City's Land Use Map. Surrounding land uses to the west are designated Open Space and Industrial. Land to the south is designated Low Density Residential, Medium Density Residential, General Commercial, Service Commercial, Park, and Public/Institutional. The area to the east is designated Low Density Residential, Medium Density Residential, High Density Residential, Service Commercial, Park, and Public/Institutional.

ASSESSED LAND USES

Existing assessed land uses refer to the existing built environment and site uses, which may be different from the land use or zoning designations applied to land for planning purposes. Existing uses are based on data provided by the County Assessor. As shown in Figure 8, Area A currently includes commercial, institutional, and miscellaneous uses. The majority of the Opportunity Area is classified as vacant by the County Assessor.

LAND USE REGULATIONS

The land use regulations discussion describes laws and regulations that guide land use decisions. Adopted plans that pertain to Area A are also described.

STATE

California Environmental Quality Act

The California Environmental Quality Act (CEQA) was developed to protect the quality of the environment and the health and safety of persons from adverse environmental effects. Discretionary projects are required to be reviewed consistent with the requirements of CEQA to determine if there is potential for the project to cause a significant adverse effect on the environment. Depending on the type of project and its potential effects, technical traffic, noise, air quality, biological resources, and geotechnical reports may be needed. If potential adverse effects can be mitigated, a mitigated negative declaration is required. If potentially adverse effects cannot be mitigated, an environmental impact report is required. These documents have mandated content requirements and public review times.

LOCAL

City of Pittsburg General Plan

The City's current General Plan was last comprehensively updated in 2001, and an update to the Housing Element was completed in 2015. The General Plan Diagram embodies several ideas and principles, including:

Compact urban form. All growth, with the exception of the Bay Point unincorporated community and a small amount of clustered low-density residential hillside development, is contiguous to existing City limits.

Promotion of Downtown as a focus of activity. Plan policies seek to increase Downtown population, as well as non-residential activity, to enhance vitality and provide a market for commercial uses. Policies that promote development standards that build on Downtown's traditional urban pattern are identified.

Modulated development intensities that reflect accessibility. Development intensities are modulated to reflect accessibility to transit and services. The General Plan designates highest intensities in Downtown and around the Pittsburg/Bay Point BART Station, and lowest intensities in the constrained hillside areas.

Figure 7

GENERAL PLAN LAND USES

Legend

-  NRG Revitalization Site
-  Pittsburg City Limits
-  County Boundary
- General Plan Land Use Designation**
-  Low Density Residential
-  Medium Density Residential
-  High Density Residential
-  Business Commercial
-  Community Commercial
-  Service Commercial
-  Marine Commercial
-  Industrial
-  Mixed Use
-  Open Space
-  Park
-  Public/Institutional
-  Utility/ROW
-  Downtown Low Density Residential
-  Downtown Med Density Residential
-  Downtown High Density Residential
-  Downtown Commercial
-  Water

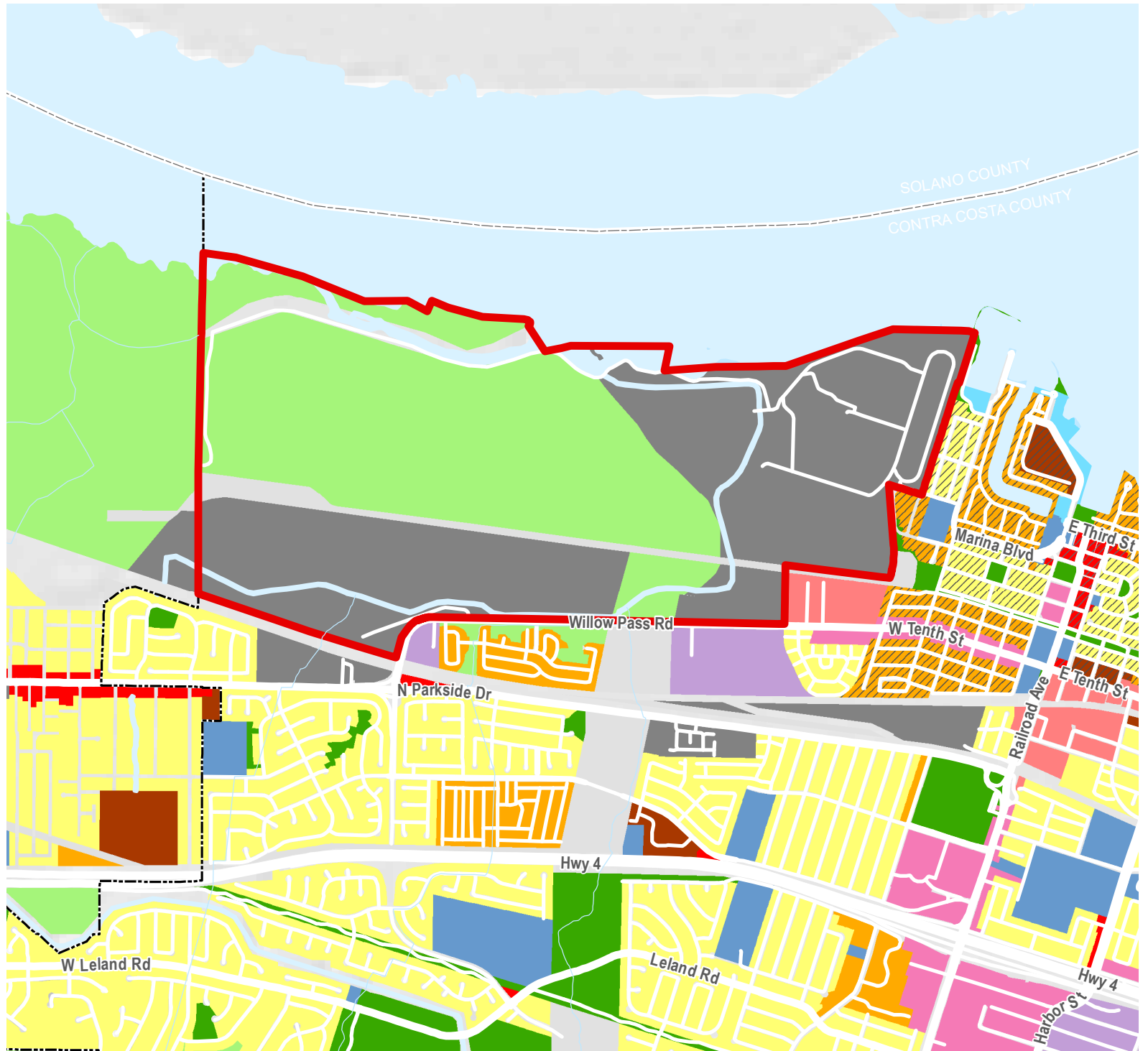









Figure 8

EXISTING LAND USE CONDITIONS

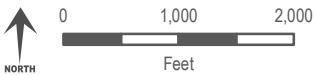
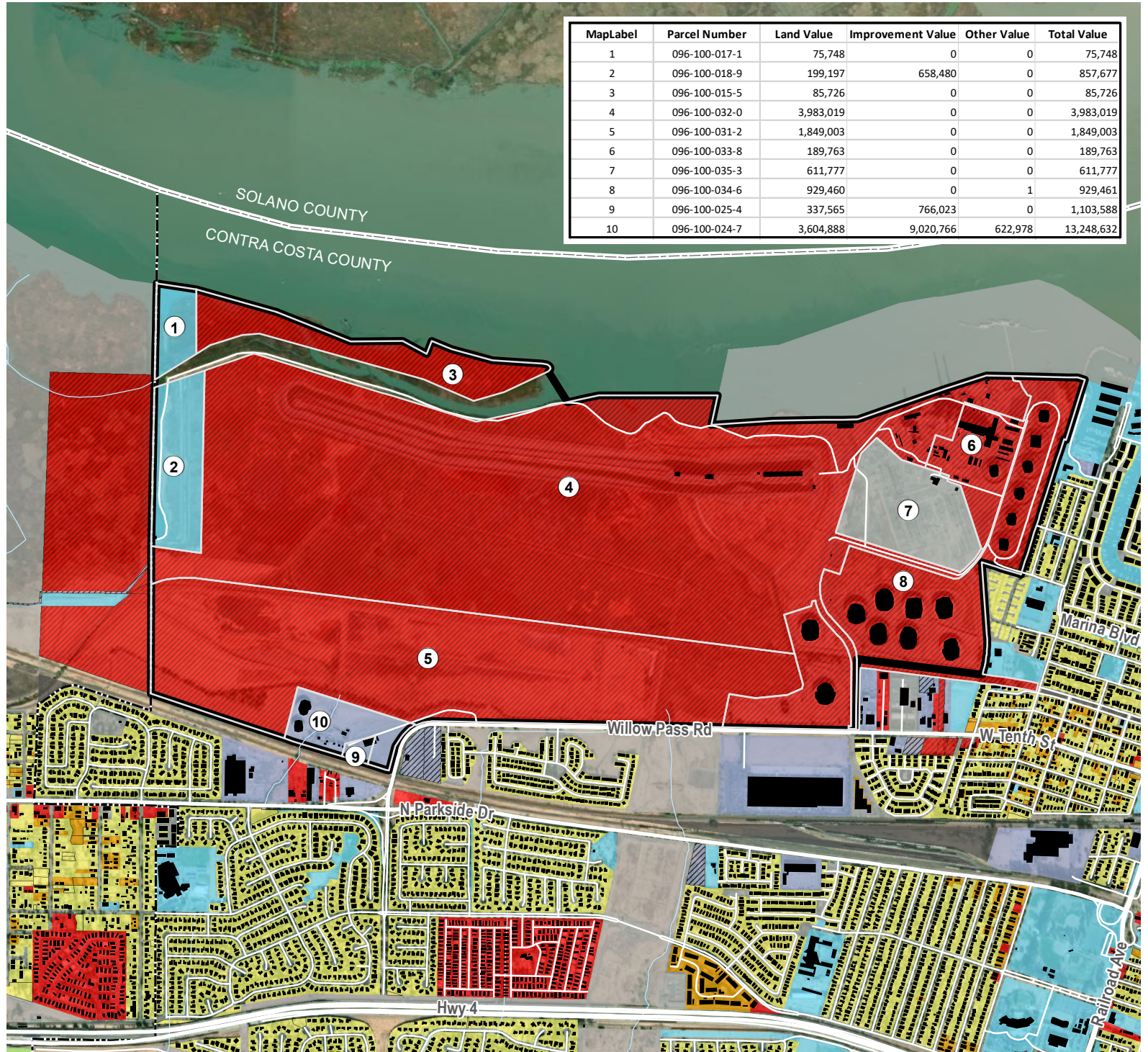
Legend

-  Opportunity Area A
-  Parcel within Site
-  Pittsburg City Limits
-  County Boundary
-  Building Footprints

Assessed Land Uses

-  Single Family Residential
-  Single Family Residential - Vacant
-  Multi-Family Residential
-  Multi-Family Residential - Vacant
-  Commercial
-  Commercial - Vacant
-  Industrial
-  Industrial - Vacant
-  Institutional
-  Land
-  Miscellaneous
-  Uncategorized

MapLabel	Parcel Number	Land Value	Improvement Value	Other Value	Total Value
1	096-100-017-1	75,748	0	0	75,748
2	096-100-018-9	199,197	658,480	0	857,677
3	096-100-015-5	85,726	0	0	85,726
4	096-100-032-0	3,983,019	0	0	3,983,019
5	096-100-031-2	1,849,003	0	0	1,849,003
6	096-100-033-8	189,763	0	0	189,763
7	096-100-035-3	611,777	0	0	611,777
8	096-100-034-6	929,460	0	1	929,461
9	096-100-025-4	337,565	766,023	0	1,103,588
10	096-100-024-7	3,604,888	9,020,766	622,978	13,248,632



Promotion of infill development. In order to minimize encroachment into the hillsides, reverse and prevent blight, promote economic development, and efficiently provide services, the Plan encourages use and revitalization of vacant and underutilized sites. These include areas in and around Downtown (West Tenth Street and Harbor Street), around Railroad Avenue and East Leland Road, the Pittsburg/Bay Point BART Station, and complementary and viable uses on vacant sites in existing neighborhoods.

Increased connectivity between and within neighborhoods. Major arterial streets are designated to result in increased connectivity between neighborhoods in different subareas. In addition, policies for locating local streets are included to ensure neighborhood-level connections while providing flexibility to project developers.

Designation of mixed-use and pedestrian-oriented activity centers. New neighborhood centers are envisioned in the form of mixed-use pedestrian-oriented centers. Designated centers include the area surrounding the West Leland Road/San Marco Boulevard intersection. In addition, mixed-use or multi-use development is encouraged surrounding the Pittsburg Center BART Station, between East Leland Road and State Route 4.

Increased diversity in housing types. The General Plan seeks to expand the range of housing types currently available in Pittsburg through designation of sites for low-density hillside development, as well as higher-density residential development in selected locations. This allows for a diverse range of housing opportunities for residents of different social/economic sectors. Plan policies also provide for increased flexibility in single-family development by encouraging small-lot (Downtown and arterial corridors) or executive-style and custom/estate (Southern Hills) housing design.

Protection of ridgelines and creeks, and expansion of the trail and park network. The General Plan identifies major and minor ridgelines, and establishes development guidelines to protect them. Additionally, the Plan identifies a network of open space along creeks in new growth areas that will be realized over time. These open space areas will also facilitate development of a network of bikeways and pedestrian trails.

Flexibility and mixed-use areas. To provide flexibility and encourage mixed-use development, the use and intensity regulations provide variable development standards and incentives for mixed-use development in locations such as Downtown and neighborhood centers.

Land uses in Pittsburg have been developed based on the Land Use Map, goals, and policies established by the City's General Plan. The City's General Plan includes broad goals that guide land use and planning decisions within the City. The goals most related to the topic of land use include:

Land Use Element

GOAL 2-G-1: Maintain a compact urban form within the City's projected municipal boundary. Ensure that hillside lands not environmentally suitable for development are maintained as open space.

GOAL 2-G-2: Promote large-scale office/business development, and reserve sites for Business Commercial uses in designated locations accessible from regional transportation systems.

GOAL 2-G-3: Emphasize concentrated commercial development, rather than linear commercial strips.

GOAL 2-G-4: Provide a range of development intensities, with the highest intensities in Downtown and in areas accessible to transit and services, and lower intensities in hillsides and at the City's southern edge.

GOAL 2-G-5: Promote a diversity of housing types, including opportunities for hillside estate development, as well as smaller lot, infill, and high-density housing.

GOAL 2-G-6: Maintain programs and provide incentives for use of vacant infill land and reuse and revitalization of underutilized sites.

GOAL 2-G-7: Promote flexibility and diversity in land use arrangements, including mixed-use development in appropriate areas.

GOAL 2-G-8: Ensure that hillside development enhances the built environment, improves safety through slope stabilization, is respectful of topography and other natural constraints, and preserves ridgelines and viewsheds.

GOAL 2-G-9: Exercise leadership in securing development and preserving open space consistent with the General Plan in portions of the Planning Area that will ultimately be inside the city boundaries.

Growth Management Element

GOAL 3-G-1: Manage the City's growth to balance development of housing options and job opportunities, protection of open space and habitat areas, construction of transportation improvements, and preservation of high quality public facilities.

GOAL 3-G-2: Realize the opportunities afforded by establishment of the Voter Approved Urban Limit Line to allow the City to grow in such a way as to diversify and expand the employment base, develop a range of housing opportunities, increase the depth of municipal fiscal resources, enhance the quality of urban life for all Pittsburg residents and prohibit urban development beyond the Voter Approved Urban Limit Line.

GOAL 3-G-3: Provide a range of development intensities, with the highest intensities in Downtown and in areas approximate to transit and services, and lower intensities in hillsides and at the City's southern edge.

GOAL 3-G-4: Maintain programs and provide incentives for use of vacant infill land and reuse and revitalization of underutilized sites. (Land Use Goal 2-G-6)

GOAL 3-G-5: Ensure that new residential, commercial and industrial growth within the Voter- Approved Urban Limit Line pays its share of the costs for the construction of facilities needed to serve that growth.

Land Use Designations

As noted previously, Area A is designated Open Space and Industrial by the City's Land Use Map. The descriptions for these two City land use designations as stated in the current General Plan are included below:

Industrial - Manufacturing, wholesale, warehousing and distribution, commercial and business services, research and development, and storage uses are permitted, in addition to agricultural, food and drug, and industrial processing. Only small restaurant and ancillary commercial uses would be appropriate, subject to appropriate design standards. The maximum FAR is 0.5, and increases in the maximum FAR may be permitted up to 0.8, for uses with low employment intensities. Performance standards in the Zoning Ordinance will minimize potential environmental impacts.

Open Space - Much of the City's Planning Area is rural privately-owned land that falls within the open space designation. This classification accommodates any greenbelts and/or urban buffer areas that may be designated in the future. Greenbelts are open space, parkland, and agricultural areas located outside urban areas, as opposed to urban parks located within developed areas. Generally, there are two primary criteria that identify lands as open space:

Resource Conservation. Includes sites with environmental and/or safety constraints, such as riparian corridors, sensitive habitats, and wetlands. Development is limited to one housing unit per existing legal parcel, and no construction is allowed on land within the parcel that is unsuitable for development.

Agriculture and Resource Management. Includes orchards and cropland, grasslands, incidental agricultural or related sales, and very low-density rural residential areas, not to exceed one housing unit per 20 acres. One housing unit may be built on each existing parcel, and agriculture is allowed with fewer restrictions on keeping animals than in the residential classifications.

Permitted residential development may be clustered in locations with little or no environmental constraints. However, land area with the open space designation is not to be used in calculating allowable density.

Planning Subareas

The City’s current General Plan defines 15 subareas. The City’s subareas are defined geographically, following either major transportation routes, such as Highway 4 or the BNSF railroad, or City/neighborhood boundaries. The Area A is located within the Northwest River Subarea. Two major uses are located in the Northwest River subarea: the former NRG Energy Power Plant, and a small portion of the former Concord Naval Weapons Station. The remainder of Northwest River consists of marshland.

City of Pittsburg Zoning Ordinance

Title 18 of the Pittsburg Municipal Code is the City’s Zoning Ordinance. The Zoning Ordinance carries out the policies of the General Plan by classifying and regulating the uses of land and structures within the City, consistent with the General Plan. The purpose of the Zoning Ordinance is to protect and promote the public health, safety, and general welfare, and to implement the policies of the City’s General Plan. More specifically, the Zoning Ordinance is intended to:

- A. Provide a precise guide for the physical development of the city in order to:
 - 1. Preserve the character and quality of residential neighborhoods,
 - 2. Foster convenient, harmonious and workable relationships among land uses, and
 - 3. Achieve the arrangement of land uses described in the general plan;
- B. Promote economic stability of existing land uses that are consistent with the General Plan and protect them from intrusions by inharmonious or harmful land uses;
- C. Prevent excessive population densities and overcrowding of land or buildings;
- D. Ensure the provision of adequate open space for light, air and fire safety;
- E. Permit the development of office, commercial, industrial, and related land uses that are consistent with the General Plan, in order to strengthen the city’s economic base;
- F. Conserve and enhance the city’s architectural and cultural resources;
- G. Conserve and enhance key visual features of Pittsburg’s setting, including the riverfront and major ridgelines, consistent with the general plan;
- H. Require adequate off-street parking and loading facilities, and promote a safe, effective traffic circulation system;
- I. Ensure that service demands of new development will not exceed the capacities of streets, water and utilities, and other public services;
- J. Encourage a built environment of the highest design and architectural quality.

Division III of the Zoning Ordinance outlines the base district regulations, Division IV outlines the overlay district regulations, and Division V outlines the general land use regulations.

Trust Lands Use Plan

The California Legislature granted sovereign tidelands and submerged lands located within the City limits to the City of Pittsburg under Senate Bill 551, Chapter 422, Statutes of 2011. These granted lands, referred to herein as Trust Lands, are held in trust for the people of California. The City prepared the Trust Lands Use Plan in 2017 in conformance with State law to establish the City’s long-term vision for the management and operation of the Trust Lands in conformance with the California Constitution, granting statutes and the Public Trust Doctrine. The majority of Area A is within the Trust Lands Use

Plan. While the Trust Lands Use Plan does not establish any specific land use designations for the project site, it establishes a framework to foster access, preservation, and integration so that all Californians may enjoy natural views, store and launch watercraft, fish, learn, and benefit from the goods produced on the City's waterfront. The Trust Lands Use Plan establishes the following goals:

GOAL 1 - Provide increased pedestrian connections to and vistas of the Suisun Bay/New York Slough waterfront.

GOAL 2 - Promote a local trail and linear park system to provide access to regional open space areas, as well as connections between neighborhoods.

GOAL 3 - Maximize public access to and recreational facilities along the City's waterfront areas.

GOAL 4 - Promote improved views of the shoreline from public parks and rights-of-way.

GOAL 5 - Protect sensitive marshland habitats along the New York Slough waterfront.

GOAL 6 - Preserve existing wetlands and salt marshes along the Suisun Bay

GOAL 7 - Undertake a leadership role in the coordination and completion of infrastructure improvements, and in the facilitation of environmental remediation.

GOAL 8 - Protect conservation areas, particularly habitats that support special status species, including species that are state or federally listed as endangered, threatened, or rare.

GOAL 9 - Support the reclamation of wetlands and marshlands along local industrial waterfronts.

GOAL 10 - Minimize the runoff and erosion caused by earth movement by requiring development to use best construction management practices (BMPs).

GOAL 11 - Preserve and enhance Pittsburg's creeks for their value in providing visual amenity, drainage capacity, and habitat value.

GOAL 12 - Comply with Regional Water Quality Control Board (RWQCB) regulations and standards to maintain and improve the quality of both surface water and groundwater resources.

GOAL 13 - Ensure that soil and groundwater pollution is addressed during redevelopment and reuse projects.

GOAL 14 - Minimize risk to life and property from geologic and seismic hazards.

GOAL 15 - Locate development outside of flood-prone areas unless mitigation of flood risk is assured.

GOAL 16 - Develop a high-quality public park system for Pittsburg that provides varied recreational opportunities accessible to all City residents. Provide parks that reflect the diversity of Pittsburg's natural setting, including creeks and waterways, tree stands, rock outcroppings, and topography.

GOAL 17 - Support and promote the active use of regional open space areas by local residents.

GOAL 18 - Improve linkages between the waterfront, Downtown core, and other recreational open spaces within the City.

LAND USE CONSTRAINTS

FEMA FLOOD ZONES

The FEMA mapping provides important guidance for the City in planning for flooding events and regulating development within identified flood hazard areas. The FEMA's National Flood Insurance Program is intended to encourage State and local governments to adopt responsible floodplain management programs and flood measures. As part of the program, the NFIP defines floodplain and floodway boundaries that are shown on Flood Insurance Rate Maps (FIRMs). The FEMA FIRM for the Area A is shown on Figure 4.

Areas that are subject to flooding are indicated by a series of alphabetical symbols, indicating anticipated exposure to flood events:

Zone A: Subject to 100-year flooding with no base flood elevation determined. Identified as an area that has a one percent chance of being flooded in any given year.

Zone AE: Subject to 100-year flooding with base flood elevations determined.

Zone AH: Subject to 100-year flooding with flood depths between one and three feet being areas of ponding with base flood elevations determined.

500-year Flood Zone: Subject to 500-year flooding. Identified as an area that has a 0.2 percent chance of being flooded in a given year.

As shown in Figure 4, most of the Opportunity Area is located in the 100-year floodplain. Two areas of the Area Are located in the 500-year floodplain: one area in the northeastern corner of the area along the waterfront, and one area in the southwestern corner of the Opportunity Area.

SEA LEVEL RISE

The San Francisco Bay Conservation and Development Commission (BCDC) *Adapting to Rising Tide Bay Area Sea Level Rise Analysis and Mapping Project* mapped sea level rise scenarios that include Area A, using the BCDC's *Adapting to Rising Tides* tool. Figure 9 illustrates the level and location of sea level rise inundation over four sea level rise scenarios, ranging from 12 inches to 96 inches of sea level rise. As shown, while the 12-inch sea level rise scenario would result in approximately 67.1 acres of the site being inundated, primarily in the northwest portion. The 48- through 96-inch sea level rise scenarios anticipate significantly larger areas of inundation that affect the majority of the site, with 852.0 acres of the site inundated under the 48-inch scenario, 940.1 acres of the site inundated under the 77-inch scenario, and 948.8 acres inundated under the 96-inch scenario, as shown on Figure 9. These scenarios provide a range of sea level rise approximately consistent with the predictions for sea level rise by the National Oceanic and Atmospheric Administration, which predicts that that sea level rise will increase by 0.3 to 2.5 meters (12 to 98 inches) by 2100, depending on the future GHG emissions levels.

TSUNAMIS

Depending on the location of an incident, a tsunami can reach the California coast in as little as ten minutes, for a local-source earthquake, or take from five to 14 hours, for a distant-source earthquake. The Great Alaskan earthquake of 1964 generated a tsunami that killed 12 people and destroyed 30 blocks in Crescent City, California. Area A is not within a tsunami risk area.

SEISMIC GROUND SHAKING


The potential for seismic ground shaking in California is expected. As a result of the foreseeable seismicity in California, the State requires special design considerations for all structural improvements in accordance with the seismic design provisions

Figure 9








SEA LEVEL RISE SCENARIOS

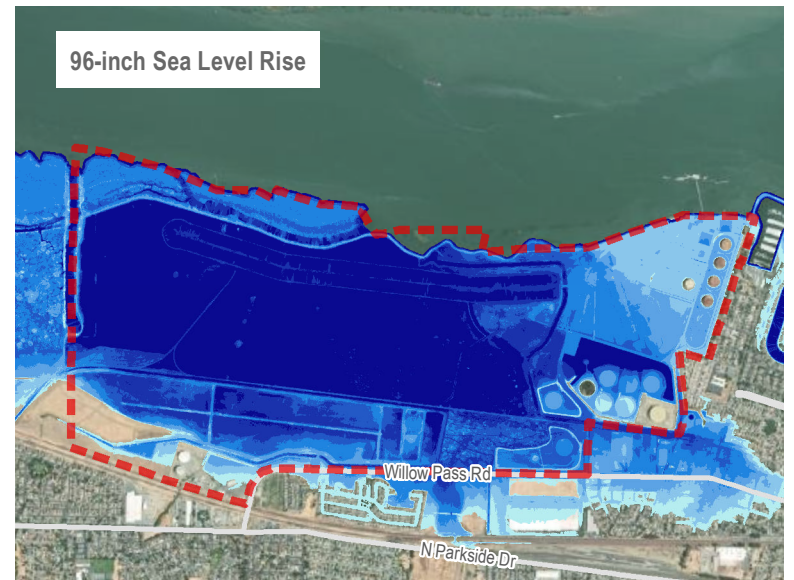
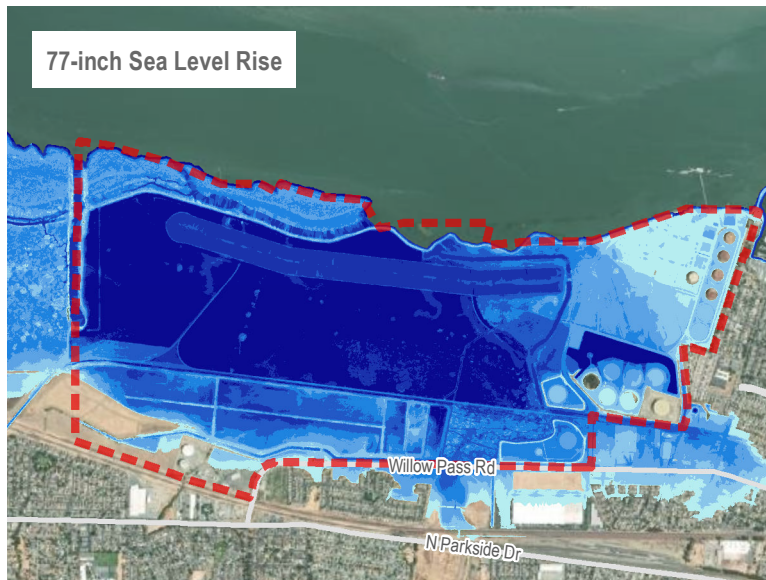
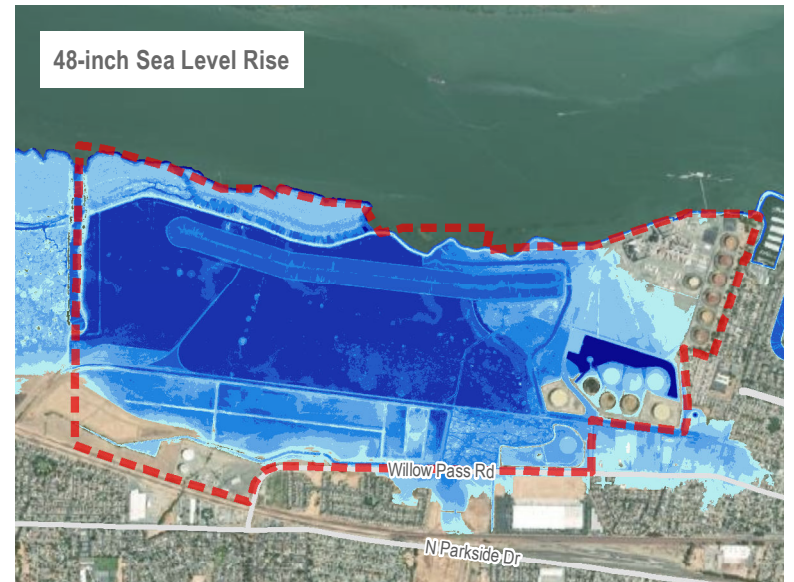
ADAPTING TO RISING TIDES
PROGRAM - BAY CONSERVATION
AND DEVELOPMENT COMMISSION

Legend

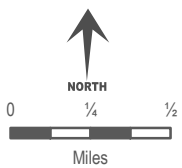
 NRG Revitalization Site

Depth of Flooding in Feet

-  0 - 2
-  2 - 4
-  4 - 6
-  6 - 8
-  8 - 10
-  10 - 12
-  12+



Sources: San Francisco Bay Conservation and Development Commission (BCDC) "Adapting to Rising Tides" program, City of Pittsburg, Contra Costa County. Map date: May 5, 2021.



Acres of Flooded Area within the NRG Revitalization Site by Flood Depth and Sea Level Rise Scenario

Sea Level Rise Scenario	Depth of Flooding in Feet						Total
	0-2	2-4	4-6	6-8	8-10	10-12	
12 inches	46.0	8.2	11.0	1.1	0.4	0.2	67.1
48 inches	55.6	131.8	119.0	125.8	140.9	266.9	852.0
77 inches	56.0	67.4	114.2	133.1	127.5	135.8	940.1
96 inches	12.3	64.8	71.1	134.5	120.5	125.8	419.9

in the California Building Code. These seismic design provisions require enhanced structural integrity based on several risk parameters.

FAULT RUPTURE

A fault rupture occurs when the surface of the earth breaks as a result of an earthquake, although this does not happen with all earthquakes. These ruptures generally occur in a weak area of an existing fault. Ruptures can be sudden (i.e. earthquake) or slow (i.e. fault creep). The Alquist-Priolo Fault Zoning Act requires active earthquake fault zones to be mapped and it provides special development considerations within these zones. Area A does not have surface expression of active faults and fault rupture is not anticipated.

LIQUEFACTION

Liquefaction typically requires a significant sudden decrease of shearing resistance in cohesionless soils and a sudden increase in water pressure, which is typically associated with an earthquake of high magnitude. The potential for liquefaction is highest when groundwater levels are high, and loose, fine, sandy soils occur at depths of less than 50 feet. Figure 4 provides a map of the liquefaction hazard zones. As shown in the figure, Area A could be subject to liquefaction during or after an earthquake.

LATERAL SPREADING

Lateral spreading typically results when ground shaking moves soil toward an area where the soil integrity is weak or unsupported, and it typically occurs on the surface of a slope, although it does not occur strictly on steep slopes. Oftentimes, lateral spreading is directly associated with areas of liquefaction. The potential for liquefaction exists in the hillside and waterfront areas; because Area A is located along the waterfront, lateral spreading of the soils may occur.

LANDSLIDES

Landslides include rockfalls, deep slope failure, and shallow slope failure. Factors such as the geological conditions, drainage, slope, vegetation, and others directly affect the potential for landslides. One of the most common causes of landslides is construction activity that is associated with road building (i.e. cut and fill). Because Area A is relatively flat, the potential for landslides in Area A is low.

EXPANSIVE SOILS

Expansive soils can undergo significant volume change with changes in moisture content. They shrink and harden when dried and expand and soften when wet. If structures are underlain by expansive soils, it is important that foundation systems be capable of tolerating or resisting any potentially damaging soil movements. In addition, it is important to limit moisture changes in the surficial soils by using positive drainage away from buildings as well as limiting landscaping watering.

According to the NRCS Web Soil Survey, the portions of the City that have a moderate to high potential are located along the waterfront and hillside areas. Because Area A is located along the waterfront, the shrink-swell potential is moderate to high.

EROSION

Erosion naturally occurs on the surface of the earth as surface materials (i.e. rock, soil, debris, etc.) are loosened, dissolved, or worn away, and transported from one place to another by gravity. Two common types of soil erosion include wind erosion and water erosion. The steepness of a slope is an important factor that affects soil erosion. Erosion potential in soils is influenced primarily by loose soil texture and steep slopes. Loose soils can be eroded by water or wind forces, whereas soils with high clay content are generally susceptible only to water erosion. The potential for erosion generally increases as a result of human activity, primarily through the development of facilities and impervious surfaces and the removal of vegetative cover.

The NRCS Web Soil Survey was used to identify the erosion potential for the soils in Area A. This NRCS data summarizes those soil attributes used by the Revised Universal Soil Loss Equation Version 2 (RUSLE2) for each soil map unit. Soil property data for each map unit component includes the hydrologic soil group, erosion factors Kf for the surface horizon, erosion factor T, and the representative percentage of sand, silt, and clay in the surface horizon.

Erosion factor K indicates the susceptibility of a soil to sheet and rill erosion by water. Values of K range from 0.02 to 0.69. Other factors being equal, the higher the value, the more susceptible the soil is to sheet and rill erosion by water. Within Area A, the erosion factor Kf varies from 0.24 to 0.37, which is considered a low to moderate potential for erosion. The wind erosion potential ranges from moderate-to-high during the spring, summer, and fall, however this potential for wind erosion diminish during the winter.

COLLAPSIBLE SOILS

Collapsible soils undergo a rearrangement of their grains and a loss of cementation, resulting in substantial and rapid settlement under relatively low loads. Collapsible soils occur predominantly at the base of mountain ranges, where Holocene-age alluvial fan and wash sediments have been deposited during rapid run-off events. Soils prone to collapse are commonly associated with manmade fill, wind-laid sands and silts, and alluvial fan and mudflow sediments deposited during flash floods. During an earthquake, even slight settlement of fill materials can lead to a differentially settled structure and significant repair costs. Differential settlement of structures typically occurs when heavily irrigated landscape areas are near a building foundation. Examples of common problems associated with collapsible soils include tilting floors, cracking or separation in structures, sagging floors, and nonfunctional windows and doors. Collapsible soils have not been identified in Area A as an issue. However, in areas subject to potential liquefaction, the potential for liquefaction induced settlement is present.

SUBSIDENCE

Land subsidence is the gradual settling or sinking of an area with little or no horizontal motion due to changes taking place underground. It is a natural process, although it can also occur (and is greatly accelerated) as a result of human activities. Common causes of land subsidence from human activity include: pumping water, oil, and gas from underground reservoirs; dissolution of limestone aquifers (sinkholes); collapse of underground mines; drainage of organic soils; and initial wetting of dry soils. Subsidence has not been identified as an issue in Area A.

INTERVIEWS WITH LAND USE OFFICIALS

As part of the development of the alternatives for Area A, the consultant team and City staff team, including representatives from the City Manager's office, Community Development Department, including Planning, and Environmental Services met in October 2020, November 2020, and January 2021 and discussed potential reuse and revitalization options for the site. City staff identified applicable regulatory framework, including environmental remediation overseen by DTSC, Trust Lands requirements, and the City's land use and planning regulations, policies, and requirements, that need to be considered as part of the planning effort of the site. Potential development opportunities, including a range of residential intensities, industrial, recreational, and open space uses were discussed along with revisions to the City's General Plan land use map to facilitate cleanup and reuse of the site.

As part of the preparation of a development plan for the site, the grading and site plan will have to identify appropriate measures to remove the project site from the 100-year floodplain. This effort should also address potential sea level rise scenarios to reduce potential impacts of sea level rise on future users of the site. Geotechnical and hydrological reports will be required to be prepared by qualified engineers that identify how proposed development will address flooding, geotechnical, and soils constraints. Similarly, future development proposals will need to identify remediation steps that will be taken to comply with DTSC requirements and health and safety standards applicable to for future uses of the site.

6. LAND USE SCENARIOS

Four land use and development alternatives were devised for Area A, including a "Business as Usual" scenario. Development of the three alternatives considered the applicable federal, state, and local regulatory framework, including the City's Public Trust Lands Use Plan for relevant sites as well as input from stakeholders and residents associated with preferred land uses and development types, and the market demand for various residential, commercial, mixed-use, industrial, and other uses. An overview of the alternatives is provided below; please note that the land use designations are described in more detail under the Land Use Designations discussion.

LAND USE ALTERNATIVES

ALTERNATIVE A: BALANCED RESIDENTIAL AND ECONOMIC GROWTH

The Balanced Residential and Economic Growth Alternative identifies potential changes in land use and development intensity to encourage balanced growth between employment- and revenue-generating uses, such as commercial and industrial development, and a range of residential housing types.

Alternative A examines development of this area with a master-planned community with waterfront-oriented retail and commercial uses, medium and higher density residential development, and community and neighborhood parks. This alternative provides for the highest amount of residential development and more designated Open Space than Alternatives B, C, and D.

Figure 10 depicts the land use plan and summarizes growth for Area A under Alternative A.

ALTERNATIVE B: EMPLOYMENT-FOCUSED GROWTH

The Employment-Focused Growth Alternative identifies potential changes in land use and development intensity to accommodate a significant amount of new employment-generating development, with a continued emphasis on industrial development as well as commercial, mixed use, and visitor-oriented growth, as well as continuing to accommodate residential development.

Alternative B examines designation of this area as primarily Industrial and Employment Center Industrial uses, which would accommodate a range of industrial, research and technology, office, energy, manufacturing, warehousing, distribution, manufacturing, and office uses, as well as designating a portion of the waterfront for Marina Commercial and Parks uses. This alternative provides for more employment-related uses than Alternatives A, C, and D and increases Open Space lands in comparison to Alternatives C and D.

Figure 11 depicts the land use plan and summarizes growth for Area A under Alternative B.

ALTERNATIVE C: EXISTING GENERAL PLAN

The Existing General Plan Alternative reflects a "Business as Usual" approach and pertains to buildout according to the existing General Plan Land Use Map, originally adopted in 2001 as amended through 2020.

Figure 12 depicts the land use plan and summarizes growth for Area A under Alternative C.

ALTERNATIVE D: AUGUST 2021 MAP

The August 2021 Map incorporates preliminary Planning Commission and City Council comments on Alternatives A through C. Alternative D identifies potential changes in land use and development intensity to accommodate a significant amount of new employment-generating development, with a continued emphasis on industrial development as well as commercial, mixed use, and visitor-oriented growth, as well as accommodating residential development, including medium and very high density residential uses.

Alternative D examines designation of this area as primarily Industrial and Employment Center Industrial uses, which would accommodate a range of industrial, research and technology, office, energy, manufacturing, warehousing, distribution, manufacturing, and office uses, as well as designating a portion of the waterfront for Marina Commercial and Parks uses. This alternative provides for more employment-producing uses than Alternatives A and C and increases Open Space lands in comparison to Alternative C.

Figure 13 depicts the land use plan and summarizes growth for Area A under Alternative D.

Figure 10: Area A - NRG Revitalization Site Alternative A

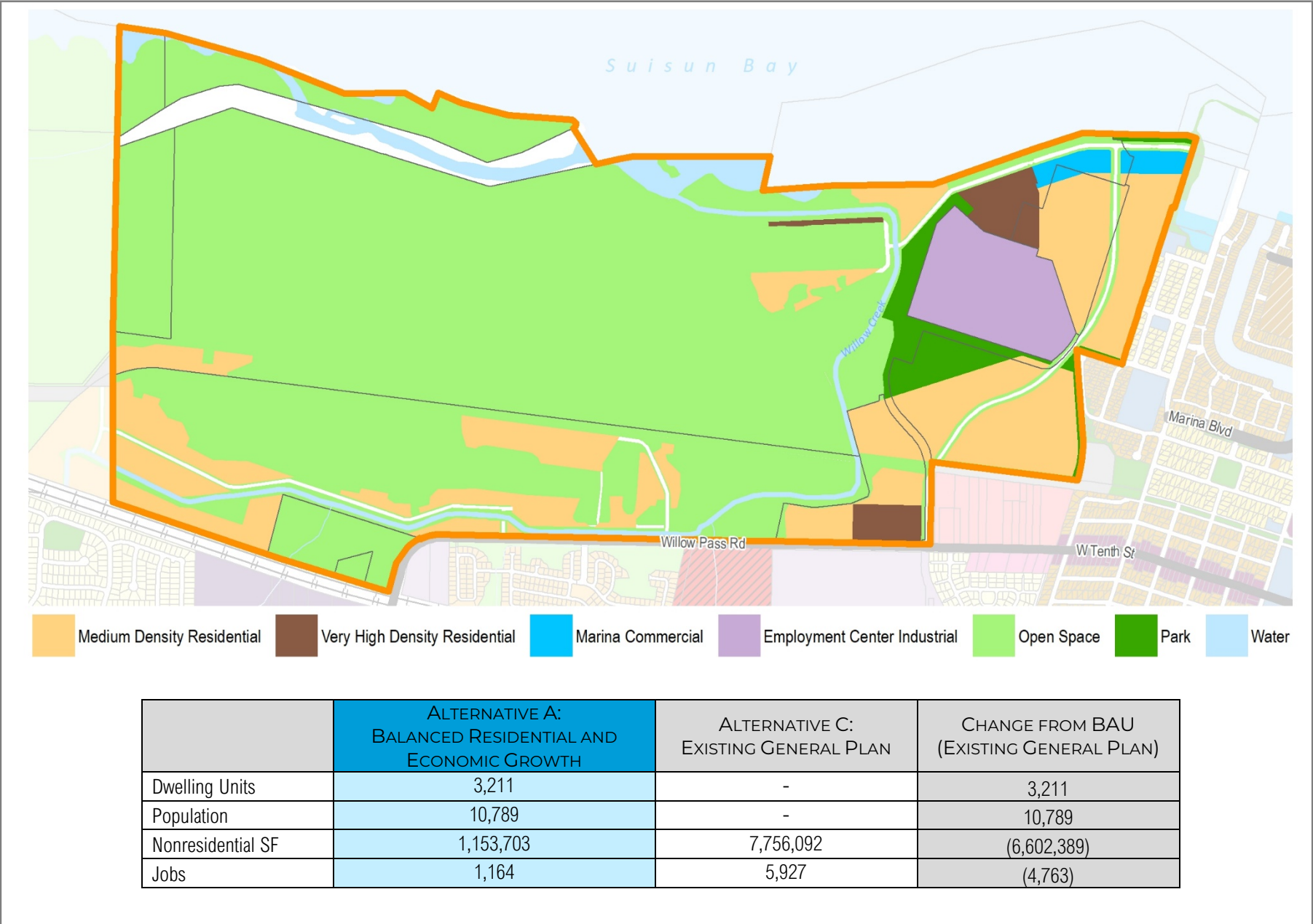


Figure 11: Area A - NRG Revitalization Site Alternative B

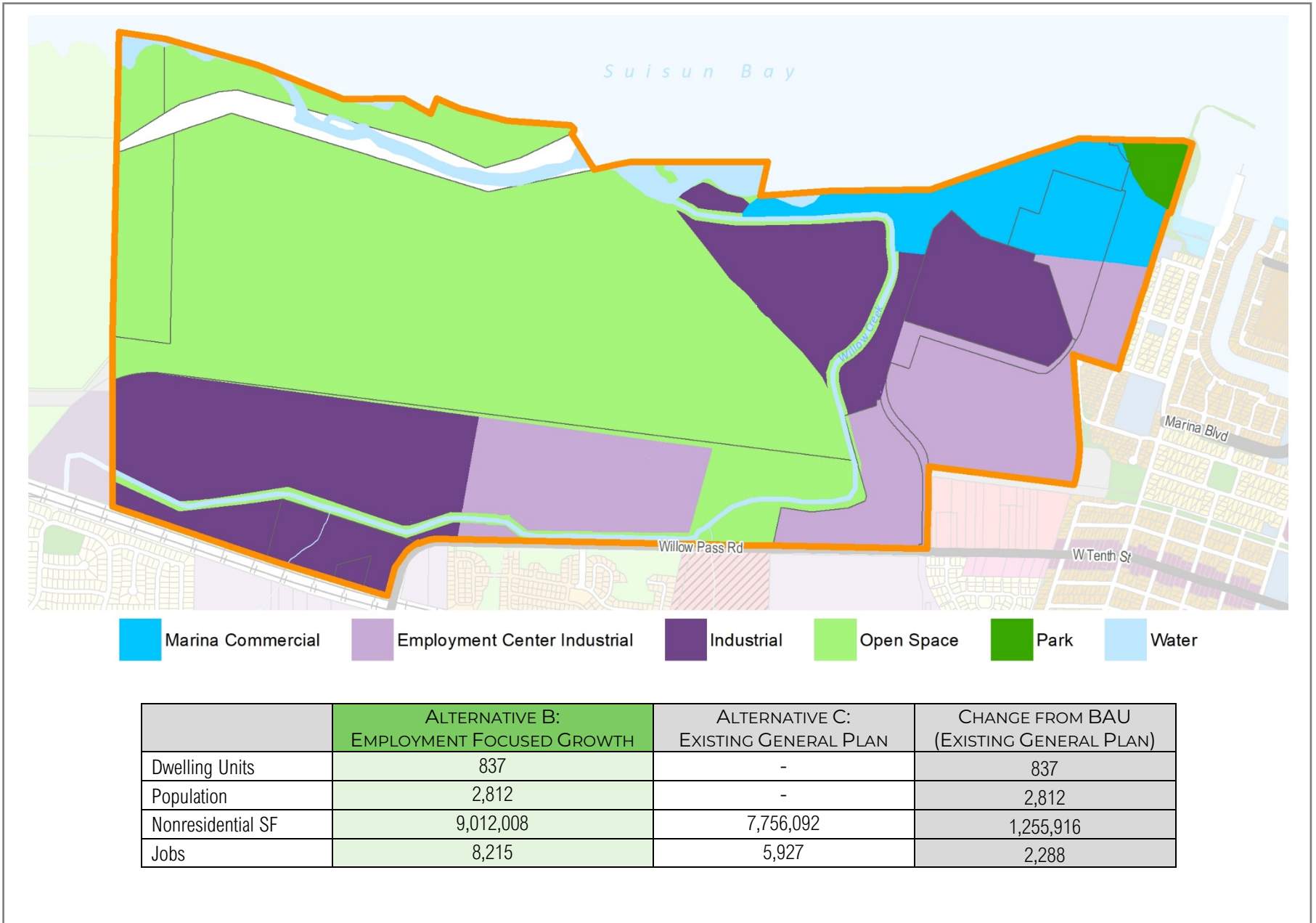


Figure 12: Area A - NRG Revitalization Site Alternative C

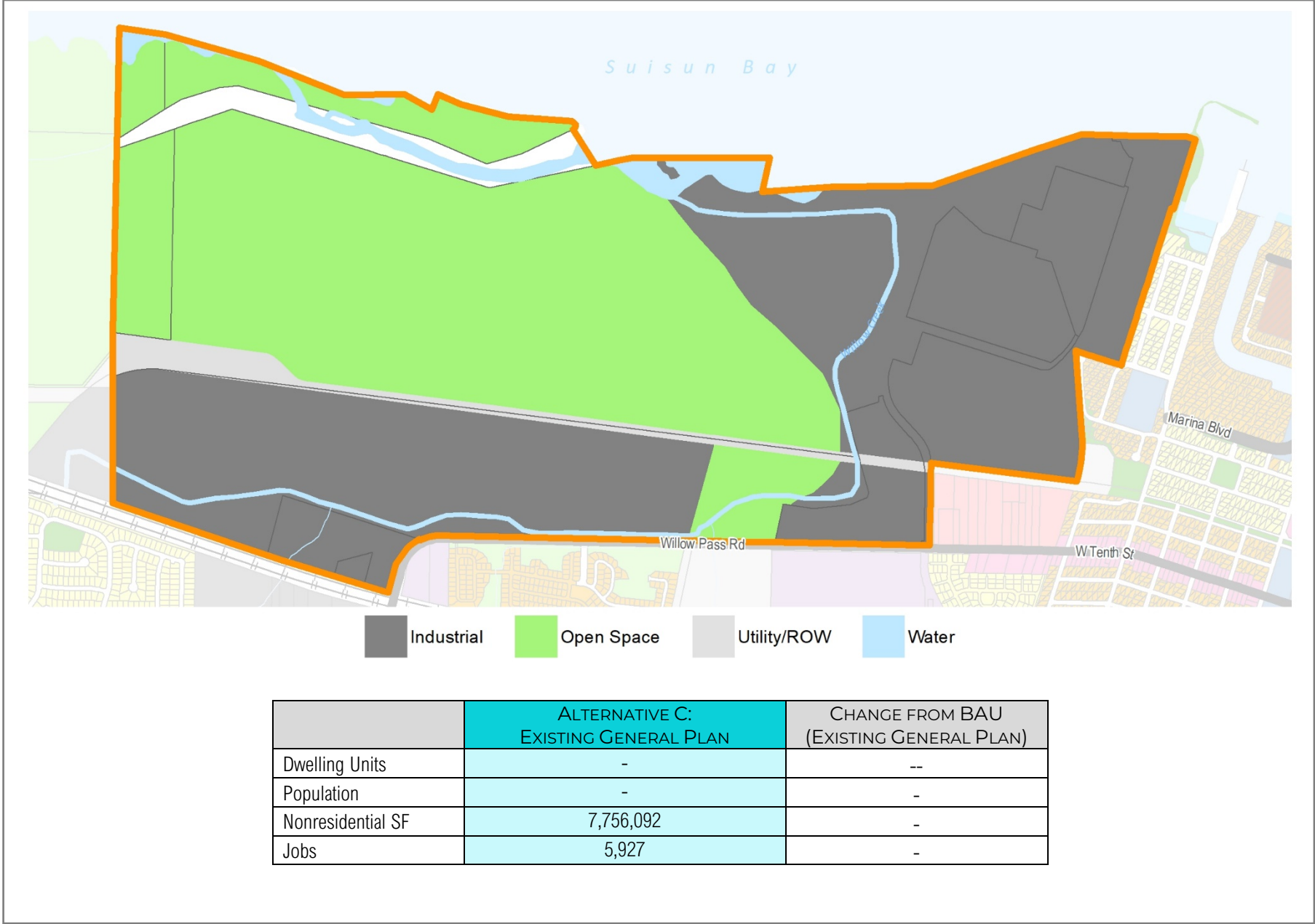
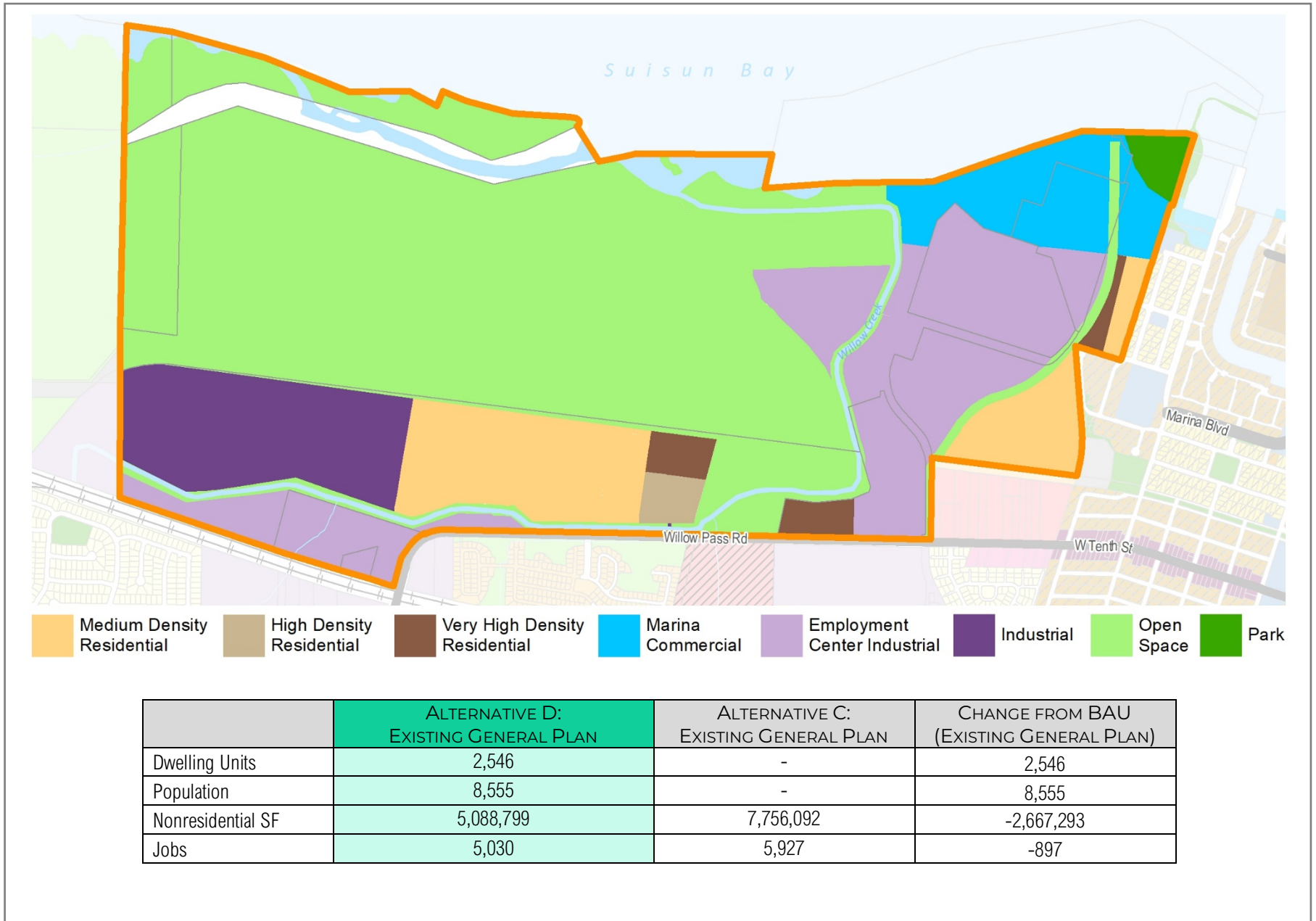


Figure 13: Area A - NRG Revitalization Site Alternative D



LAND USE DESIGNATIONS AND ZONING

The General Plan land use designations included in one or more alternatives are identified in Table 4, along with a description of any specific modifications to land use designations associated with one or more alternatives.

TABLE 4: LAND USE DESIGNATIONS AND OVERLAYS

GENERAL PLAN LAND USE DESIGNATION OR OVERLAY	EXISTING GENERAL PLAN	MAXIMUM DENSITY/FAR
	DENSITY / FAR	LAND USE MAP ALTERNATIVES
<p>Medium Density Residential Allowed housing types may include one- or two-story garden apartments, townhouses, and attached or detached single-family residences. The Zoning Ordinance may permit zero lot-line or small-lot detached residential units in some or all areas.</p>	Density: 7-14 units per gross acre FAR: -	Alternative A: 8-20 units per gross acre Alternative B: 8-16 units per gross acre Alternative C: 8-20 units per gross acre
<p>Very High Density Residential Allows multi-family housing and attached single family housing types, such as apartments and condominiums.</p>	Not applicable	All Alternatives: 31-50 units per acre 0.15 FAR for neighborhood-serving commercial, services, and office uses
<p>Regional Commercial Provides commercial acreage for large-scale retailers and big-box retail centers and auto dealerships, designed to attract shoppers from a wide market area.</p>	Density: Not specified FAR: Non-residential ¹ : 0.5 Residential ² : 0.25	No change
<p>Marine Commercial Business and professional services, offices, convenience sales, restaurants, public marketplaces, repair services, specialty retail (such as boat sales and repair), hotel/motel with a coastal orientation, recreational facilities, research and development, custom manufacturing, and marinas are all accommodated.</p>	Density: Not specified FAR: 0.5 for retail, recreation, and restaurant uses; 1.0 for offices; 1.5 for hotels; no separate FAR for residential	All Alternatives: Rename Marine Commercial and emphasize recreational and visitor-oriented uses, including privately operated recreation complexes (sports complexes, aquatic centers, etc.), and experience-oriented entertainment or recreation
<p>Industrial Manufacturing, wholesale, warehousing and distribution, commercial and business services, research and development, and storage uses are permitted, in addition to agricultural, food and drug, and industrial processing. Only small restaurant and ancillary commercial uses would be appropriate, subject to appropriate design standards. Performance standards in the Zoning Ordinance will minimize potential environmental impacts.</p>	Density: - FAR: Non-residential: 0.5, except 0.8 allowed for low-employment-intensity uses	All Alternatives: Increase maximum FAR to 1.0 for uses with low employment intensities
<p>Employment Center Industrial Intended to provide sites for administrative, financial, business, professional, medical, and public offices, business incubators, research and development, custom and light manufacturing, limited assembly, warehousing and distribution, technology and innovation, energy, hospitals and large-scale medical facilities, services, and supporting commercial uses. Development standards and buffering requirements will prevent significant adverse effects on adjacent residential uses. Performance standards in the Draft General Plan will</p>	New designation	All Alternatives: 1.5 FAR; accommodate professional, office, medical, research/technology, business park, service commercial, and warehousing uses; industrial uses allowed subject to performance standards

GENERAL PLAN LAND USE DESIGNATION OR OVERLAY	EXISTING GENERAL PLAN	MAXIMUM DENSITY/FAR
	DENSITY / FAR	LAND USE MAP ALTERNATIVES
minimize potential environmental impacts, particularly in relation to ECI development proximate to residential, schools, other uses with sensitive receptors, and disadvantaged communities.		
Public/Institutional Intended to provide for schools, government offices, transit sites, public utilities, other facilities that have a unique public or quasi-public character, such as cultural facilities, religious institutions, fraternal organizations, and similar uses.	Density: None specified FAR: None specified	All Alternatives: Total residential and non-residential FAR: 0.6
Parks/Recreation Provides for parks, recreation complexes, community fields, public golf courses, stadiums, greenways, and local and regional trails.	Density: - FAR: None specified	No change
Open Space Accommodates existing and future greenbelts and/or urban buffer areas that may be designated in the future. Greenbelts are open space, parkland, and agricultural areas located outside urban areas, as opposed to urban parks located within developed areas.	Density: - (Resource Conservation) FAR: None specified	No change
Utility/ROW Intended to designate land area dedicated to utilities, infrastructure, or road right-of-way.	Density: - FAR: None specified	No change
OVERLAYS		
PG&E Conversion Corridor New overlay designation applied to the PG&E transmission line corridor extending from the Pittsburg PG&E Power Plant through the City to the Contra Costa Canal. This overlay designation is intended to provide for the relocation of the power plant and the conversion of the transmission line corridor to urban and recreation uses.	New designation	All Alternatives: Based on underlying land use designation

Source: City of Pittsburg, 2020; De Novo Planning Group, 2021

Table 5 summarizes the General Plan land use designations proposed under each alternative by acreage. The land use designations are depicted on the land use maps associated with each alternative, as shown in Figure 10 (Alternative A), Figure 11 (Alternative B), Figure 12 (Alternative C), and Figure 13 (Alternative D). Following the selection of a preferred alternative for this area, a more detailed land use plan that includes the implementing zoning districts will be prepared for the Site Reuse Plan.

As shown in Table 5, Alternative A would provide the most residential, parks, and open space acreage, while Alternative C provides the most land designated for industrial uses. Alternative B does not provide for residential designations, but rather provides for a range of commercial and industrial land use designations and 53% of the site as open space. Alternative D provides for industrial and marina commercial uses, while also providing for 12% of the site for residential uses and providing for more open space than Alternative C, but a similar amount to Alternative B.

TABLE 5: LAND USE DESIGNATIONS - ACREAGE COMPARISONS

LAND USE DESIGNATION	ALTERNATIVE A		ALTERNATIVE B		ALTERNATIVE C (EXISTING GENERAL PLAN)		ALTERNATIVE D (SEPTEMBER 2021)	
	ACRES	%	ACRES	%	ACRES	%	ACRES	%
RESIDENTIAL LAND USE DESIGNATIONS								
Medium Density Residential	175.4	18%	0.0	0%	0.0	0%	91.8	9%
High Density Residential	0	0%	0	0%	0	0%	7.1	1%
Very High Density Residential	18.6	2%	0.0	0%	0.0	0%	16.5	2%
Total Residential	193.9	20%	0.0	0%	0.0	0%	115.4	12%
COMMERCIAL AND INDUSTRIAL LAND USE DESIGNATIONS								
Employment Center Industrial	38.4	4%	163.6	17%	0.0	0%	164.6	17%
Industrial	0	0%	229.2	23%	508.9	52%	77.8	8%
Marine/Marina Commercial	8.2	1%	64.0	6%	0.0	0%	52.9	5%
Total Commercial and Industrial	46.6	5%	456.8	46%	508.9	52%	295.3	30%
PARKS AND OPEN SPACE LAND USE DESIGNATIONS								
Park	25.8	3%	7.9	1%	0.0	0%	7.9	1%
Open Space	707.2	72%	521.6	53%	448.1	45%	567.6	58%
Total Parks and Open Space	733.0	74%	529.5	54%	448.1	45%	575.5	58%
OTHER LAND USE DESIGNATIONS								
Utility/ROW	0.0	0%	0.0	0%	29.3	3%	0.0	0%
Public/Institutional	12.7	1%	0.0	0%	0.0	0%	0.0	0%
Total Other	12.7	1%	0.0	0%	29.3	3%	0.0	0%

Source: De Novo Planning Group, 2021

RESIDENTIAL GROWTH

As shown in Table 6, Alternative A would generate the most housing opportunities, with capacity for approximately 3,211 dwelling units and a population of 10,789 persons. Alternative D would generate approximately 2,546 housing units and a population of 8,555. Alternative B would result in a modest amount of housing, primarily associated with residential development in conjunction with Marina Commercial uses, with potential for 837 units and a population of 2,812. Alternative C does not include any land use designations that accommodate residential units and would not yield any housing.

TABLE 6: RESIDENTIAL GROWTH – HOUSING UNITS AND POPULATION COMPARISON

	ALTERNATIVE A	ALTERNATIVE B	ALTERNATIVE C	ALTERNATIVE D
HOUSING UNITS				
Single-Family Residential	1,701	-	-	834
Multiple-Family Residential	1,510	837	-	1,712
Total Units	3,211	837	-	2,546
POPULATION GROWTH				
Population	10,789	2,812	-	8,555

Source: De Novo Planning Group, 2021

EMPLOYMENT-GENERATING GROWTH

As shown in Table 7, Alternative B would accommodate the most employment-generating growth, through allowing a variety of retail, service, office, commercial recreation, hotel, industrial, and public-quasi-public uses totaling 9.0 million square feet and accommodating approximately 8,215 jobs. Alternative D would accommodate 5,030 jobs and would focus on jobs in the industrial sectors, while also generating a range of retail, service, office, recreation, and other employment opportunities. While Alternative C would designate more land in terms of acreage for employment-generating uses, it would limit employment opportunities to primarily the industrial and public-quasi-public sectors and result in 5,927 jobs. Alternative A would also generate a range of retail, service, office, industrial, recreation, and other employment opportunities with capacity for approximately 1.2 million square feet of non-residential development and 1,164 associated jobs.

TABLE 7: EMPLOYMENT GROWTH – NON-RESIDENTIAL DEVELOPMENT AND JOBS COMPARISON

	ALTERNATIVE A	ALTERNATIVE B	ALTERNATIVE C	ALTERNATIVE D
NONRESIDENTIAL SQUARE FOOTAGE				
Retail	82,541	464,625	-	368,246
Service	215,282	1,143,050	-	929,302
Office	100,400	427,601	-	385,622
Commercial Recreation	32,341	250,824	-	175,435
Hotel	24,256	188,118	-	131,576
Institutional	-	-	-	-
Light Industrial	451,799	2,972,367	2,327,511	1,845,521
Heavy Industrial	138,600	2,725,727	4,643,021	786,877
Public/Quasi-Public	108,485	839,695	785,560	466,221
Total Non-Residential	1,153,703	9,012,008	7,756,092	5,088,799
EMPLOYMENT				
Jobs	1,164	8,215	5,927	5,030

Source: De Novo Planning Group, 2021

COMMUNITY SERVICES AND AMENITIES

Both Alternatives A and B would provide a range of services and amenities available to the community. Alternative A would provide a greater amount of parks (25.8 acres) and open space (707.2 acres) than Alternatives B, C, or D and would provide for the most publicly accessible community amenities, including a shoreline park, a community park with ball fields, and open space that would have opportunities for public viewing points and access. Alternative B would provide 7.9 acres of parks and 521.6 acres of open space and would also provide a shoreline park and opportunities for public access to open space. Alternative D would provide 7.9 acres of park and 567.6 acres of open space and would provide opportunities for a shoreline park and public access to the waterfront and open space, similar to Alternative B.

Alternatives A, B, and D would each designate a portion of the site as Marina Commercial, 8.2, 64.0, and 52.9 acres respectively. This designation can accommodate both community- and visitor-oriented waterfront uses. This designation could accommodate a ferry terminal, water park, and private recreation facilities, as well as a range of waterfront-oriented tourism, service, and industrial uses.

Alternative C is anticipated to development with an employment focus and would not provide significant opportunities for community-serving uses and amenities.

CIRCULATION

All four alternatives would have primary access points on Willow Pass Road. All three alternatives would require development of an internal roadway system, including pedestrian and bicycle facilities, to serve future uses. Alternatives A, B, and D provide opportunities for increased vehicle, bicycle, and pedestrian connections to the community, with the potential for a bicycle/pedestrian connection to Downtown area at Riverview Park and potential for a pedestrian and bicycle connection via an existing utility/right-of-way corridor that could connect with West 8th Street. Potential circulation opportunities will be reviewed in greater detail upon selection of a preferred land use plan for the site.

REGULATORY AND ENTITLEMENT REQUIREMENTS

CITY OF PITTSBURG

The City of Pittsburg is the Lead Agency with authority for approval of any proposed land uses and entitlement requests on the site. Specific approvals and entitlements will vary depending on the specific future project that is pursued for the site. Actions that would be required from the City include, but are not limited to, the following:

- Adoption/approval as Lead Agency, pursuant to the State Guidelines for Implementation of the California Environmental Quality Act (CEQA), Section 15050, of CEQA documentation for any proposed project, which is anticipated to require an Environmental Impact Report (EIR);
- Adoption of any necessary Findings of Fact, Statement of Overriding Considerations, and Mitigation Monitoring and Reporting Program under CEQA;
- Approval of any Lot Line Adjustment and/or Tentative and Final Subdivision Map to accommodate modifications to the existing parcels for a proposed project;
- Approval of any Master Plan, Site Plan, and Design Review (Discretionary Application) to approve a proposed site plan, which includes site configuration, design, and location of proposed uses;
- Approval of application for project coverage under the East Contra Costa County Habitat Conservation Plan/Natural Community Conservation Plan;
- Approval of a Development Agreement;
- Approval of Grading and Infrastructure Plans, which would include demolition of existing uses, grading of the site, and installation of appropriate infrastructure to accommodate a proposed project; and
- Issuance of Grading Permits and Building Permits prior to construction of a proposed project.
- It is anticipated that the General Plan Amendment for the preferred alternative for this site would be processed as part of the Envision Pittsburg General Plan Update and would not require a separate project-level General Plan Amendment.

OTHER GOVERNMENTAL AGENCY APPROVALS

Approvals and permits may be required by a number of other governmental agencies. Specific approvals and entitlements will vary depending on the specific future project that is pursued for the site. Actions that may be required include, but are not limited to, the following:

Bay Area Air Quality Management District – Approval of construction permits. Stationary source permits may also be required for certain industrial and commercial uses.

California Department of Fish and Wildlife – Approval of any required Lake or Streambed Alteration Agreement.

California Department of Toxic Substances Control – Acceptance/approval of corrective actions for site mitigation and restoration and site clearance for the proposed land uses.

California State Lands Commission – Approval of lease on Trust Lands.

Regional Water Quality Control Board– Approval of Waste Discharge Requirements, as well as an National Pollutant Discharge Elimination System (NPDES) permit required during construction operations.

United States Army Corps of Engineers – Approval of the required Section 404 of the Clean Water Act permit should there be any impacts to any on-site wetlands or Waters of the U.S.

7. MARKET INDICATORS

Market indicators, including population, housing, median income, home values, labor force, employment, and businesses were analyzed for the City of Pittsburg General Plan Planning Area and for the NRG site market analysis area, which reflects a ½-mile radius around Area A.

POPULATION, HOUSEHOLDS, AND INCOME

Table 8 summarizes population, household, and income characteristics for Area A’s market area and the Planning Area. Area A has a population of 14,963 persons and 28,104 households, reflecting approximately 16% of the total Planning Area population and households. In Area A, the average household size is 3.43 persons (2020) and the majority of housing units are owner-occupied (58.5%). The median household income is \$64,393, which is approximately 14% less than the median income for the Planning Area of \$74,699.

The median home value in Area A is \$342,214 and is approximately 15% less than the Planning Area median home value of \$392,300. Area A and the Planning Area both are considered moderately affordable, with a housing affordability index over 100 but below the national average of 124. Households are typically considered cost-burdened if they spend more than 30% of their income on mortgage, in Area A and the Planning Area, owner households average approximately 22% of their income for mortgage costs.

TABLE 8: POPULATION AND HOUSEHOLD CHARACTERISTICS

	PLANNING AREA	AREA A	AREA A AS % OF PLANNING AREA
POPULATION CHARACTERISTICS			
2020 Population	93,125	14,963	16.1%
Median Age	34.9	34.1	97.7%
Per Capita Income (2020)	\$28,984	\$23,953	82.6%
HOUSEHOLD CHARACTERISTICS			
2020 Households	28,104	4,352	15.8%
2020 Average Household Size	3.30	3.43	103.9%
Median Household Income (2020)	\$74,699	\$64,393	86.2%
HOUSING CHARACTERISTICS			
2020 Housing Units	29,743	4,712	15.8%
Owner Occupied Housing Units	56.9%	58.5%	102.8%
Renter Occupied Housing Units	37.6%	33.8%	89.9%
Vacant Housing Units	5.5%	7.6%	138.2%
2020 Median Home Value	\$392,300	\$342,214	87.2%

AFFORDABILITY AND MORTGAGE			
Housing Affordability Index	105	103	98.1%
Percent of Income for Mortgage	21.9%	22.2%	101.4%

Source: ESRI Business Analyst, 2021

Data Notes: Per Capita Income represents the income received by all persons aged 15 years and over divided by the total population.

Housing Affordability Index has a base of 100, representing an area where the median income is sufficient to qualify for a loan on a home valued at the median home price and not be cost-burdened (spend more than 30 percent of their income on housing-related costs).

BUSINESS CHARACTERISTICS AND EMPLOYMENT

Table 9 summarizes employed residents by occupation in the Planning Area and the Area A market area. Table 10 summarizes the number of businesses and number of employees for business categories, based on SIC code, for the Planning Area and the Area A market area. Area A has approximately 6,175 residents employed in the labor force. Residents in the Planning Area are primarily employed in white collar (50.8%) occupations, followed by services (26.2%) and blue collar occupations (23.0%). In Area A, white collar occupations also reflect the highest employment category at approximately 45%, followed by services (30.2%) and blue collar (24.5%).

There are 1,631 businesses in the Planning Area with 17,029 employees. In Area A market area, there are 177 businesses with 1,831 employees. It is noted that both the Planning Area and Area A export employees, meaning there are fewer jobs available than residents in the labor force. In Area A, there are only 1,831 jobs although the employed population is 6,175 persons. This reflects 0.3 jobs available per member of the labor force. Similarly, there are 1,831 jobs per 4,712 housing units in the Area A market area, resulting in 0.4 jobs per housing unit.

The highest jobs category in the Area A market area is the services industry (32.3%) followed by manufacturing (25.7%), wholesale trade (10.8%), and retail trade (10.3%).

TABLE 9: EMPLOYED RESIDENTS BY OCCUPATION CHARACTERISTICS

OCCUPATION	PLANNING AREA	AREA A	AREA A AS% OF PLANNING AREA
Total 2020 Employed Population 16+	38,185	6,175	16.2%
White Collar	50.8%	45.3%	89.2%
Management/Business/Financial	12.0%	12.1%	100.8%
Professional	14.8%	10.1%	68.2%
Sales	9.4%	10.5%	111.7%
Administrative Support	14.6%	12.6%	86.3%
Services	26.2%	30.2%	115.3%
Blue Collar	23.0%	24.5%	106.5%
Farming/Forestry/Fishing	0.4%	0.6%	150.0%
Construction/Extraction	8.4%	10.7%	127.4%
Installation/Maintenance/Repair	3.5%	3.2%	91.4%
Production	4.2%	2.8%	66.7%
Transportation/Material Moving	6.5%	7.3%	112.3%

Source: ESRI Business Analyst, 2021

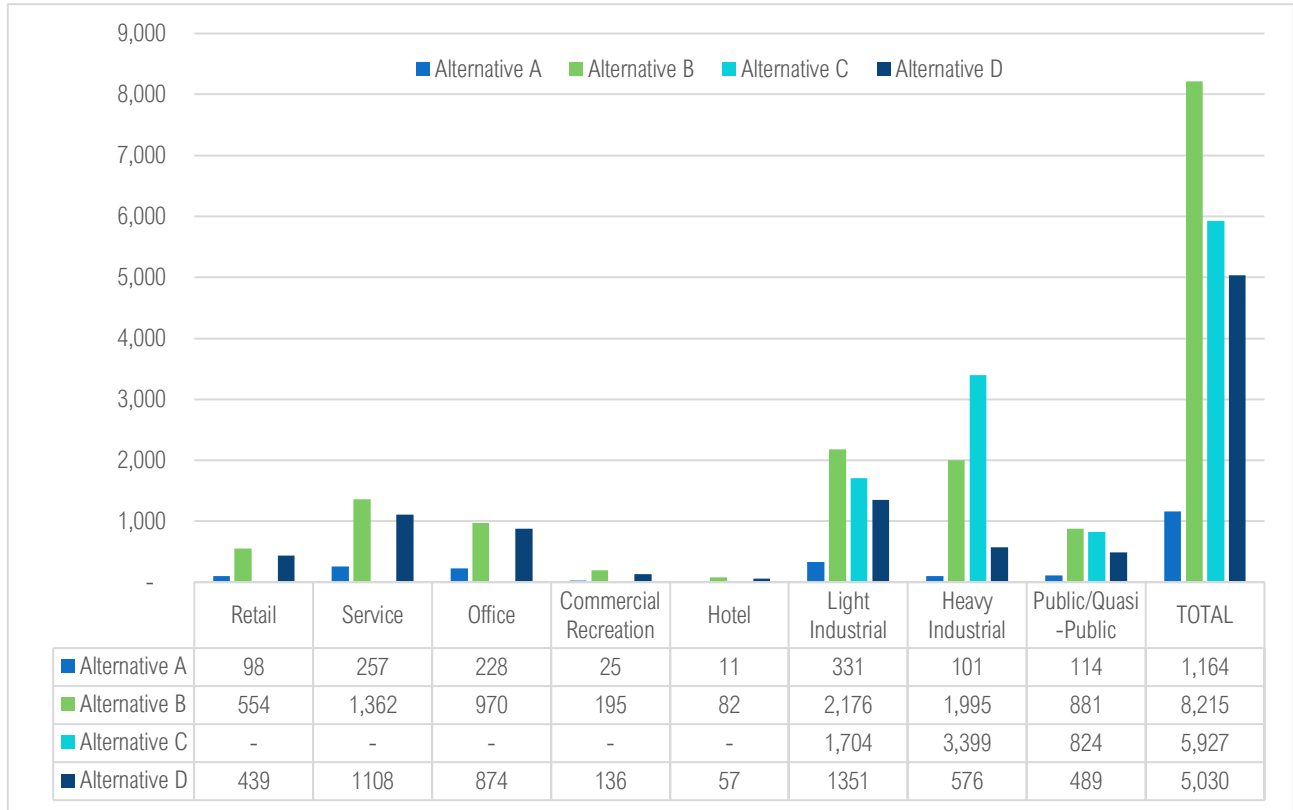
TABLE 9: BUSINESS CHARACTERISTICS AND TYPE BY NUMBER OF BUSINESSES AND EMPLOYEE

	PLANNING AREA				AREA A			
OVERALL CHARACTERISTICS								
Total Businesses	1,631				177			
Total Employees/Jobs	17,029				1,831			
Total Residential Population	93,125				14,963			
Employee/Residential Population Ratio (per 100 Residents)	18				12			
TYPE BY STANDARD INDUSTRIAL CLASSIFICATION CODE								
BUSINESS TYPE	PLANNING AREA				AREA A			
	BUSINESSES		EMPLOYEES		BUSINESSES		EMPLOYEES	
	#	%	#	%	#	%	#	%
Agriculture & Mining	28	1.7%	126	0.7%	5	2.8%	20	1.1%
Construction	129	7.9%	666	3.9%	14	7.9%	181	9.9%
Manufacturing	53	3.2%	1,762	10.3%	11	6.2%	470	25.7%
Transportation	42	2.6%	345	2.0%	11	6.2%	57	3.1%
Communication	18	1.1%	81	0.5%	2	1.1%	9	0.5%
Utility	7	0.4%	206	1.2%	0	0.0%	6	0.3%
Wholesale Trade	65	4.0%	1,686	9.9%	7	4.0%	197	10.8%
Retail Trade	334	20.5%	3,889	22.8%	30	16.9%	189	10.3%
Finance, Insurance, Real Estate	130	8.0%	608	3.6%	11	6.2%	36	2.0%
Services	601	36.8%	5,330	31.3%	59	33.3%	591	32.3%
Government	49	3.0%	2,290	13.4%	4	2.3%	69	3.8%
Unclassified Establishments	174	10.7%	40	0.2%	22	12.4%	5	0.3%
Totals	1,631	100.0%	17,029	100.0%	177	100.0%	1,831	100.0%

JOB GROWTH BY LAND USE ALTERNATIVE

Each of the alternatives would increase local employment opportunities. Alternative A would provide jobs at a rate comparable to existing conditions, while Alternatives B and C would both provide significant increases in jobs, particularly in comparison to housing generation. As shown in Chart 1, Alternative B would produce the most jobs, at 8,215 jobs, followed by Alternative C (5,927 jobs), then Alternative A (1,164 jobs). Under Alternative C, jobs would be limited to light and heavy industrial and public/quasi-public sectors, while both Alternatives A and C would accommodate jobs in the retail, service, office, commercial recreation, hotel, light and heavy industrial, and public/quasi-public categories.

CHART 1: JOBS CREATION COMPARISON



8. COMMUNITY HEALTH ASSESSMENT

COMMUNITY HEALTH INDICATORS

This section addresses community health and wellness for Area A. This section provides an overview of existing economic and pollution exposure in Area A and describes components of the built environment that may impact human health and socioeconomic conditions.

HEALTH AND SOCIOECONOMIC CHARACTERISTICS

To understand the existing health and socioeconomic conditions of Area A, Table 4 lists the percentiles for sensitive population and socioeconomic factor indicators for the Area A Census Tracts (Census Tracts 3090 and 3141.02). The majority of Area A is within Census Tract 3141.02. The eastern developed portion of Area A is within Census Tract 3090.

The sensitive population indicators reflect the communities’ health and the socioeconomic factor indicators describe educational attainment, income level, employment, and housing conditions and burden. In combination with the environmental/pollution data included in Table 10, the data forms the basis of the CalEnviroScreen (CES) scores. For each indicator, scores of 75% or higher represent a high burden on the population. Based upon the indicators, Area A is substantially burdened by the sensitive population indicators and moderately burdened by the socioeconomic factor indicators. Both Area A Census Tracts are highly burdened in the asthma and cardiovascular disease indicators. Census Tract 3090 has a medium burden for all socioeconomic factors, while Census Tract 3141.02 has a medium burden for four of the five socioeconomic factors. Census Tract 3141.02 has a high burden in the unemployment indicator.

TABLE 10: POPULATION CHARACTERISTICS BY SENSITIVE POPULATION AND SOCIOECONOMIC FACTOR INDICATORS IN AREA A CENSUS TRACTS

Indicator (%)	Census Tract 3090	Census Tract 3141.02
Sensitive Population Indicators		
Asthma	98.83	98.83
Low Birth Weight	60.50	31.95
Cardiovascular Disease	97.03	97.03
Socioeconomic Factor Indicators		
Education	27.18	67.34
Linguistic Isolation	13.12	71.76
Poverty	37.95	65.13
Unemployment	80.71	91.37
Housing Burden	79.40	72.81
Total Population Characteristics Score	75.09	86.74



Source: California Office of Environmental Health Hazard Assessment, CalEnviroScreen 3.0, 2019.

POLLUTION EXPOSURE AND AIR QUALITY

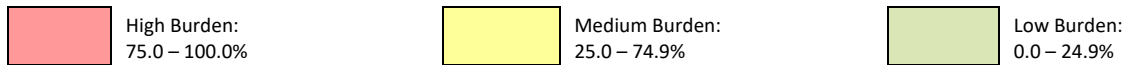
The various forms and sources of air and water pollution and hazardous waste often disproportionately affect DACs. This is typically due to the existence and relative concentration of pollution-emitting sources within close proximity to the communities. Disproportionate exposure to pollutants is linked to variety of negative health impacts, including but not limited to, asthma, cardiovascular diseases, cancer, and other potentially fatal conditions.

Based on CES data, Table 11 lists the percentile of pollution burden for the twelve CES pollution indicators within the Area A Census Tracts. Scores of 75% or higher represent a high pollution burden. Based upon this metric, Census Tracy 3090 in Area A has two indicators with a medium burden and five indicators with a high burden. Census Tracy 3141.02 in Area A has five indicators with a medium burden and three indicators with a high burden. In both Area A Census Tracts, groundwater hazards and impaired water bodies both have high burdens, and toxic releases from facilities has a medium burden. The following indicators have a high burden in Census Tracy 3090: cleanup sites, groundwater hazards, hazardous waste, impaired water bodies, solid waste sites.

TABLE 11: POLLUTION BURDEN BY POLLUTION INDICATORS IN AREA A CENSUS TRACTS

Indicator (%)	Census Tract 3090	Census Tract 3141.02
Air Quality: Ozone	22.34	22.34
Air Quality: PM2.5	17.81	17.81
Air Quality: Diesel Particulate Matter	42.20	21.54
Pesticide Use	-	-
Toxic Releases from Facilities	66.86	62.82
Traffic Density	12.21	83.53
Drinking Water Contaminants	8.83	34.33
Cleanup Sites	98.98	45.99
Groundwater Hazards	95.96	87.97
Hazardous Waste	99.87	25.76
Impaired Water Bodies	98.63	80.63

Indicator (%)	Census Tract 3090	Census Tract 3141.02
Solid Waste Sites	93.19	22.64
Total Pollution Burden Score	68.84	46.56



Source: California Office of Environmental Health Hazard Assessment, CalEnviroScreen 3.0, 2019.

PUBLIC FACILITY LOCATIONS

Access and availability of public facilities is an aspect of the built-environment that may disproportionately limit the opportunities of communities. If communities have unequal access to public facilities, or if a city does not provide adequate facilities for public use, communities may be limited in their ability to access necessary key resources. Adequate planning of parks, and transportation infrastructure can ensure that all communities within a county have equal access to resources. Limited access to resources as a result of inadequate public facilities can lead to reduced lifespan, poorer health outcomes, and diminished mental well-being.

Figure 14 show the locations of the community facilities within proximity to Area A. As shown on Figure 14, seven daycares, three City government buildings, one County government building, the Pittsburg Historical Society, the Pittsburg Library, and a community center are located within one mile of Area A. Government and community buildings within proximity to Area A are located along major streets and transit routes.

Access to health care and mental health services is an important determinant of health and disease prevention, and increased access is very likely to improve public health. Preventive measures, such as screening for common health problems like diabetes and respiratory illnesses, dental care, and vaccinations have been shown to reduce the incidence and severity of illnesses, and are often less expensive than care once someone has become sick.

Major medical service providers near Area A are located outside of the city. Concord Hospital located at 2540 East Street, Concord, and the John Muir Walnut Creek Medical Center located at 1601 Ygnacio Valley Road, Concord, are the closest major hospitals to Area A. The closest general hospital to Area A is the Kaiser Permanente Hospital located at 3400 Delta Fair Boulevard in Antioch, approximately 3.5 miles to the southeast.

ACCESS TO FOOD RETAILERS

The Healthy Food Financing Initiative (HFFI) Working Group considers a food desert as a low-income census tract where a substantial number or share of residents has low access to a supermarket or large grocery store. Additionally, the USDA developed a Food Access Research Atlas that identifies “Food deserts” in the United States at the census tract level. The 2008 U.S. Department of Agriculture (USDA) Farm Bill defined a food desert as an “area in the United States with limited access to affordable and nutritious food, particularly such an area composed of predominantly lower income neighborhoods and communities.”

Figure 14 shows groceries and supermarkets in the vicinity of Area A. As shown, there are six grocery stores and three supermarkets within 1.5 miles of Area A.

In addition to the proximity of grocery and food sources within an area, the types of food sources available are important for determining adequacy of food access. The USDA Food Research Atlas data shows that there were approximately five grocery stores within a mile of Area A as of 2020.

Figure 14

COMMUNITY HEALTH INDICATORS

Legend

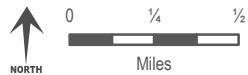
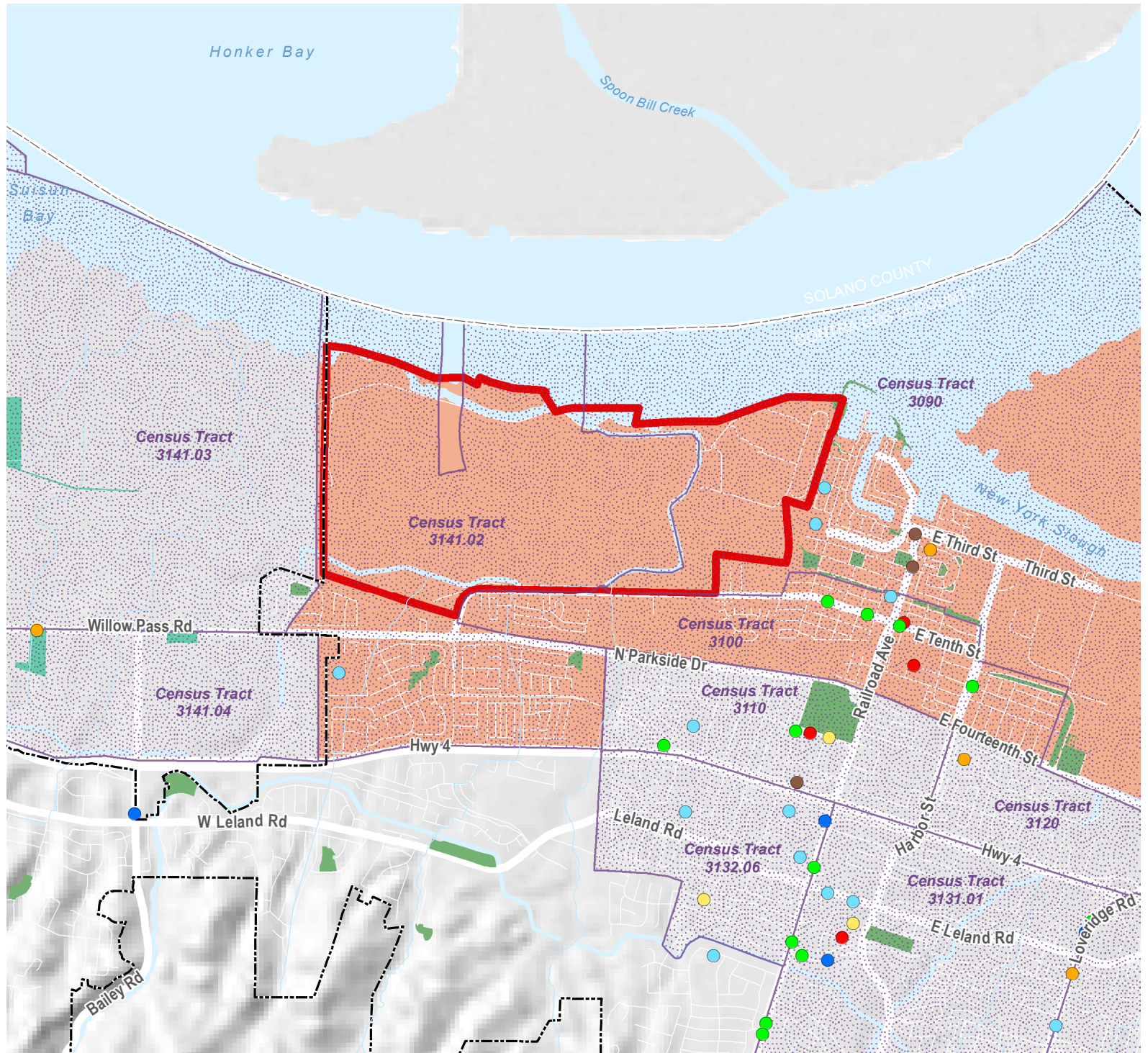
- NRG Revitalization Site
- Pittsburg City Limits
- County Boundary
- Disadvantaged Community
- Food Desert

Community Facilities

- City Government Building
- Community Center
- County Government Building
- Library, Museum, Cultural Center
- Daycare Center
- City Park
- County Park

Food Stores

- Grocery
- Supermarket



The lack of proximate grocery stores has the greatest affect in locations where residences do not own vehicles or have sufficient access to transit. Table 12 lists the number of and percent of households without vehicles within the city and the Area A Census Tracts. For the Area A Census Tracts, a lower percentage of households in this area do not own vehicles when compared to the overall city vehicle ownership. Grocery stores and supermarkets within proximity to Area A are located along major streets and transit routes, helping to mitigate community residents’ potential lack of access to the stores where the community is well-served by transit.

TABLE 12: CAR OWNERSHIP

CITY/ CENSUS TRACT	# OF HOUSEHOLDS	# OF HOUSEHOLDS WITHOUT VEHICLES	% OF HOUSEHOLDS WITHOUT VEHICLES
CITYWIDE			
City of Pittsburg	21,069	1,325	6.29%
Area A Census Tracts			
3090	1,296	33	2.55%
3141.02	1,673	76	4.54%

Source: United States Census Bureau, American Fact Finder, 2017 Estimates.

COMMUNITY HEALTH ANALYSIS

The community health implications of each alternative, in terms of effects on community health indicators and threats to sensitive populations, is summarized in Table 13. This summary takes into account the types of uses accommodated under each alternative, proximity of sensitive receptors and potentially disadvantaged areas to intense uses, and the potential for each alternative to increase community services and amenities accessible to disadvantaged populations.

TABLE 13: COMMUNITY HEALTH INDICATORS COMPARISON

ALTERNATIVE A	ALTERNATIVE B	ALTERNATIVE C	ALTERNATIVE D
SOCIOECONOMIC FACTORS			
Housing			
Alternative A would provide for a range of housing types, including apartments, condominiums, townhomes, and single family clustered housing, that would increase the diversity of housing choices. The very high density residential uses allowed under this alternative would be suitable to accommodate affordable housing and would have the potential to reduce housing burdens.	Alternative B would primarily accommodate mixed use and waterfront-oriented housing associated with the Marina Commercial designation. While this designation would allow densities that may accommodate affordable housing, it is anticipated that this alternative would accommodate primarily market-rate housing.	Alternative C would continue existing industrial uses and would accommodate any housing, thus, no increased diversity of housing choice or affordable housing would occur.	Alternative D would provide for a range of housing types, including apartments, condominiums, townhomes, and single family clustered housing and mixed use and waterfront-oriented housing associated. While the Marina Commercial designation would allow densities that may accommodate affordable housing, it is anticipated that this alternative would accommodate primarily market-rate housing.
Jobs and Employment			
Alternative A would provide the least amount of jobs (1,164), but would accommodate employment across a variety of sectors as shown in Chart 1.	Alternative B would create the most jobs (8,215) and would create the most varied jobs opportunities. This alternative would allow for a range of professional, technological, services, recreation, and community-oriented employment.	Alternative C would provide the second highest amount of jobs. This alternative would create the highest amount of jobs in the heavy industrial sector, followed by the light industrial and public-quasi-public sectors as shown in Chart 1.	Alternative D would create the third-highest amount of jobs (5,030) and would create varied jobs opportunities. This alternative would allow for a range of professional, technological, services, recreation, and community-oriented employment.
Pollution			
Alternatives A, B, and D would require the highest levels of site remediation to address previously-identified hazards and contamination as the potential for residential, lodging, and recreation uses under these alternatives requires clean-up of hazardous materials at a higher standard than would be required for the industrial and public/quasi-public uses allowed under Alternative C.	Alternatives A, B, and D would require the highest levels of site remediation to address previously-identified hazards and contamination as the potential for residential, lodging, and recreation uses under these alternatives requires clean-up of hazardous materials at a higher standard than would be required for the industrial and public/quasi-public uses allowed under Alternative C.	Alternative C would require the lowest levels of site remediation to address previously-identified hazards and contamination as the types of jobs and uses allowed under this alternative do not involve the potential for residential, lodging, and recreation uses. Alternative C would have the highest potential for intensive and potentially polluting uses and future uses would require project-specific review and	Alternatives A, B, and D would require the highest levels of site remediation to address previously-identified hazards and contamination as the potential for residential, lodging, and recreation uses under these alternatives requires clean-up of hazardous materials at a higher standard than would be required for the industrial and public/quasi-public uses allowed under Alternative C.

ALTERNATIVE A	ALTERNATIVE B	ALTERNATIVE C	ALTERNATIVE D
<p>Alternative A would have the least intensive uses of all alternatives and would have the lowest potential for environmental hazards associated with industrial uses or uses that result in toxic air contaminants.</p>	<p>Alternative B would have less intensive uses than Alternative C, but would allow industrial uses that would require project-specific review and mitigation to ensure that potential risks are adequately addressed.</p>	<p>mitigation to ensure that potential risks are adequately addressed.</p>	<p>Alternative D would have less intensive uses than Alternative C, but would allow industrial uses that would require project-specific review and mitigation to ensure that potential risks are adequately addressed.</p>
Public Facilities Access			
<p>Alternative A would provide the largest amount of parks and open space and would include a community-oriented park with ball fields, a shoreline park that connects to Riverview Park, and would have the potential to accommodate a school site in the residentially-designated area of the site. This alternative would provide the most opportunities in increasing access to public facilities. Alternative A would also provide trails and connections to adjacent pedestrian/bicycle paths to increase access to on-site recreation opportunities.</p>	<p>Alternative B would provide for more parks and open space than Alternative C and would include a shoreline park that connects to Riverview Park. While this alternative would increase access to public facilities, this alternative would not include a community park with ball fields and the pedestrian/bicycle network envisioned under Alternative A.</p>	<p>Alternative C would not provide public facilities, services, or amenities and is the least beneficial alternative in this category.</p>	<p>Similar to Alternative B, Alternative D would provide for more parks and open space than Alternative C and would include a shoreline park that connects to Riverview Park. While this alternative would increase access to public facilities, this alternative would not include a community park with ball fields and the pedestrian/bicycle network envisioned under Alternative A.</p>
Food Access			
<p>Alternative A includes a portion of the site designated for Marina Commercial uses that can accommodate grocery stores and smaller produce, fish, and other markets. This alternative has the potential to increase community access to nutritious foods.</p>	<p>Alternative B includes a portion of the site designated for Marina Commercial uses that can accommodate grocery stores and smaller produce, fish, and other markets. This alternative has the potential to increase community access to nutritious foods.</p>	<p>Alternative C would not provide grocery stores, farmers markets, or otherwise increase access to nutritious foods and is the least beneficial alternative in this category.</p>	<p>Alternative B includes a portion of the site designated for Marina Commercial uses that can accommodate grocery stores and smaller produce, fish, and other markets. This alternative has the potential to increase community access to nutritious foods.</p>

HISTORIC PROPERTIES AND SPECIAL-STATUS SPECIES PRESERVATION

HISTORIC PROPERTIES

There are no historic structures or properties on Area A.

SPECIAL-STATUS SPECIES

The following discussion is based on a background search of special-status species that are documented in the CNDDDB, the CNPS Inventory of Rare and Endangered Plants, and the USFWS endangered and threatened species lists. The background search was regional in scope and focused on the documented occurrences within 1 and 15 miles (16 U.S. Geological Survey [USGS] Quadrangles) of Pittsburg.

SPECIAL-STATUS PLANTS

The search revealed documented occurrences of 23 special-status plant species within one mile of the Pittsburg General Plan Update Planning Area. The search revealed documented occurrences of 70 special-status plant species within approximately 15 miles of the Pittsburg General Plan Update Planning Area.

Area A does not provide suitable habitat conditions for many of the 70 special-status plant species which have been documented in the Pittsburg General Plan Update Planning Area. As noted previously, Area A is located along the Suisun Bay and the following wetland types are found on-site: Lake, Freshwater Emergent Wetland, Freshwater Pond, Estuarine and Marine Wetland, and Estuarine and Marine Deepwater. The wetland areas in Area A provide suitable habitat for special-status plant species which are associated with these aquatic and marsh habitats.

The southern and eastern portion of Area A is largely developed with urban uses. The urban areas of Area A do not provide suitable habitat for any special-status plant species.

SPECIAL-STATUS ANIMALS

The search revealed documented occurrences of 28 special-status animal species within one mile of the Pittsburg General Plan Update Planning Area. The search revealed documented occurrences of 82 special-status animal species within approximately 15 miles of the Pittsburg General Plan Update Planning Area.

Area A does not provide suitable habitat conditions for many of the 82 special-status animal species which have been documented in the Pittsburg General Plan Update Planning Area. The wetland areas in Area A provide suitable habitat for special-status animal species which are associated with aquatic and marsh habitats.

The southern and eastern portion of Area A is largely developed with urban uses. The urban areas of Area A do not provide suitable habitat for most of the special-status animal species. Limited nesting habitat for birds exists in the landscape trees in the urban areas of Area A. The landscape trees closest to the wetland areas would likely provide the most suitable nesting habitat.

Alternatives A and B have been designed to preserve the largest amount of open space and would preserve the most habitat. Each Alternative would be reviewed for project-specific impacts to special-status species and sensitive habitats and, as part of the CEQA process, would be subject to mitigation measures developed based on identified project-level impacts to reduce effects to special-status species and sensitive habitats.

9. OTHER TOPICS

SITE DISPOSITION

Site disposition and transfer options will be addressed in the Site Reuse Plan, following identification of the preferred land use alternative for Area A.

BRANDING PLAN

Recommendations for a Revitalize Pittsburg Branding Plan, including suggestions to market the Revitalization Sites, solicit developers, and attract end-users, will be included in the Site Reuse Plan with a focus on implementing the preferred land use alternative for Area A.