



## Pittsburg Solar Recreational Vehicle/Boat Storage

### Initial Study – Mitigated Negative Declaration

*prepared by*

**City of Pittsburg**

65 Civic Avenue

Pittsburg, California 94565

Contact: Christie Robinson, Acting Planning Manager

*prepared with the assistance of*

**Rincon Consultants, Inc.**

449 15th Street, Suite 303

Oakland, California 94612

**March 2022**



**RINCON CONSULTANTS, INC.**

Environmental Scientists | Planners | Engineers

[rinconconsultants.com](http://rinconconsultants.com)

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Appendix AQ	Air Quality and Greenhouse Gas CalEEMod Outputs
Appendix BIO	Planning Survey Report
Appendix CUL	Cultural Resources Report
Appendix GEO	Design Level Geotechnical Investigation
Appendix PLN	Project Site Plans
Appendix SWP	Stormwater Control Plan
Appendix TRA	Trip Generation Analysis

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# Initial Study

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The City of Pittsburg, as the Lead Agency, prepared this Initial Study for the Pittsburg Solar Recreational Vehicle (RV)/Boat Storage Project (“project”) in compliance with the California Environmental Quality Act (CEQA), the CEQA Guidelines (California Code of Regulations [CCR] Section 15000 et. Seq.), and the regulations and policies of the City of Pittsburg, California.

## 1. Project Title

Pittsburg Solar Recreational Vehicle/Boat Storage Project

## 2. Contact Person and Phone Number

Christie Robinson, Acting Planning Manager  
[actingplanningmanager@pittsburgca.gov](mailto:actingplanningmanager@pittsburgca.gov)  
(925)252-4920

## 3. Project Location

The project site is located at the southwest junction of the Pittsburg-Antioch Highway and Arcy Lane in the City of Pittsburg, Contra Costa County. Regional access to the site would be available using State Route (SR) 4. Directly north of the site is the Pittsburg-Antioch Highway, on the other side of which are several industrial uses, including sanitation and energy generation. Beyond that is the New York Slough, part of the Sacramento-San Joaquin River Delta, to the north. To the south is a Union Pacific railway line and further south are commercial uses up to SR 4, beyond which are single family homes. Immediately to the west of the project site is a commercial landscape center, with other commercial uses further west. To the east are commercial uses up to Auto Center Drive, beyond which are single family homes. Figure 1 shows the regional location of the project site, Figure 2 provides an aerial image of the project site in its neighborhood context.

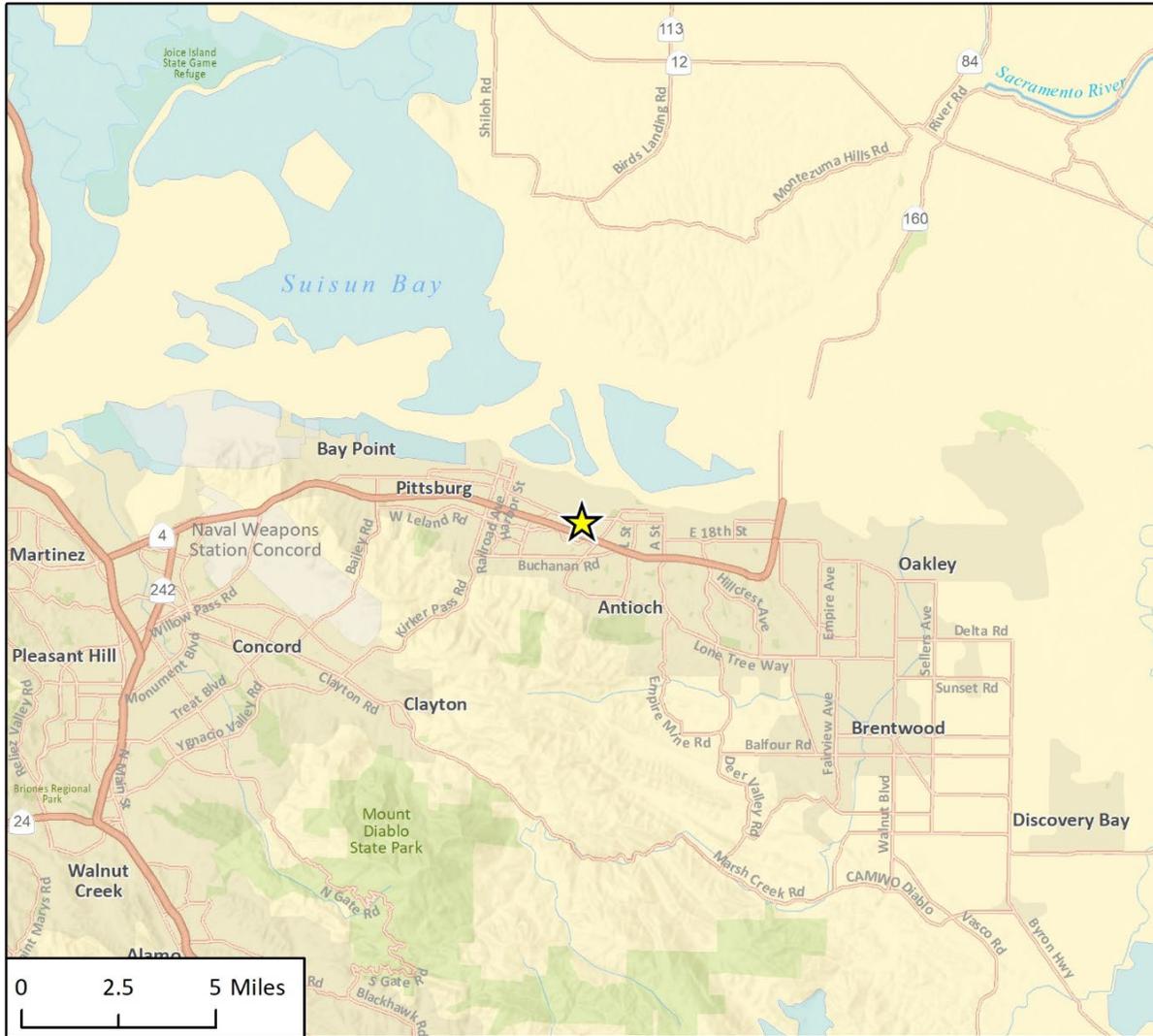
## 4. Project Sponsor’s Name and Address

Chris Koenig  
23 Railroad Avenue, Suite 164  
Danville, California 94526

## 5. General Plan Designation and Zoning District

The site is designated Service Commercial (CS) by the City of Pittsburg 2020 General Plan and is zoned as a CS district. CS designations are often populated by automobile repair, contractor’s services, and other heavy maintenance activities. Permitted land uses in CS zones include residential, commercial, industrial, and governmental, pending additional use regulations or temporary activity permits for various subtypes of land uses.

Figure 1 Regional Location



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★ Project Location

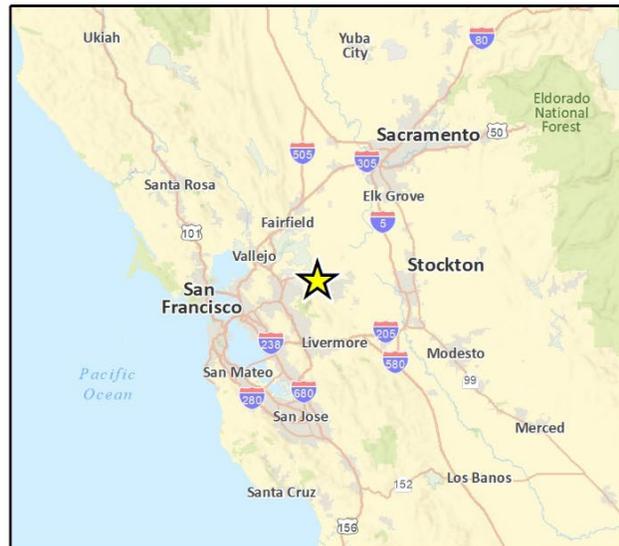
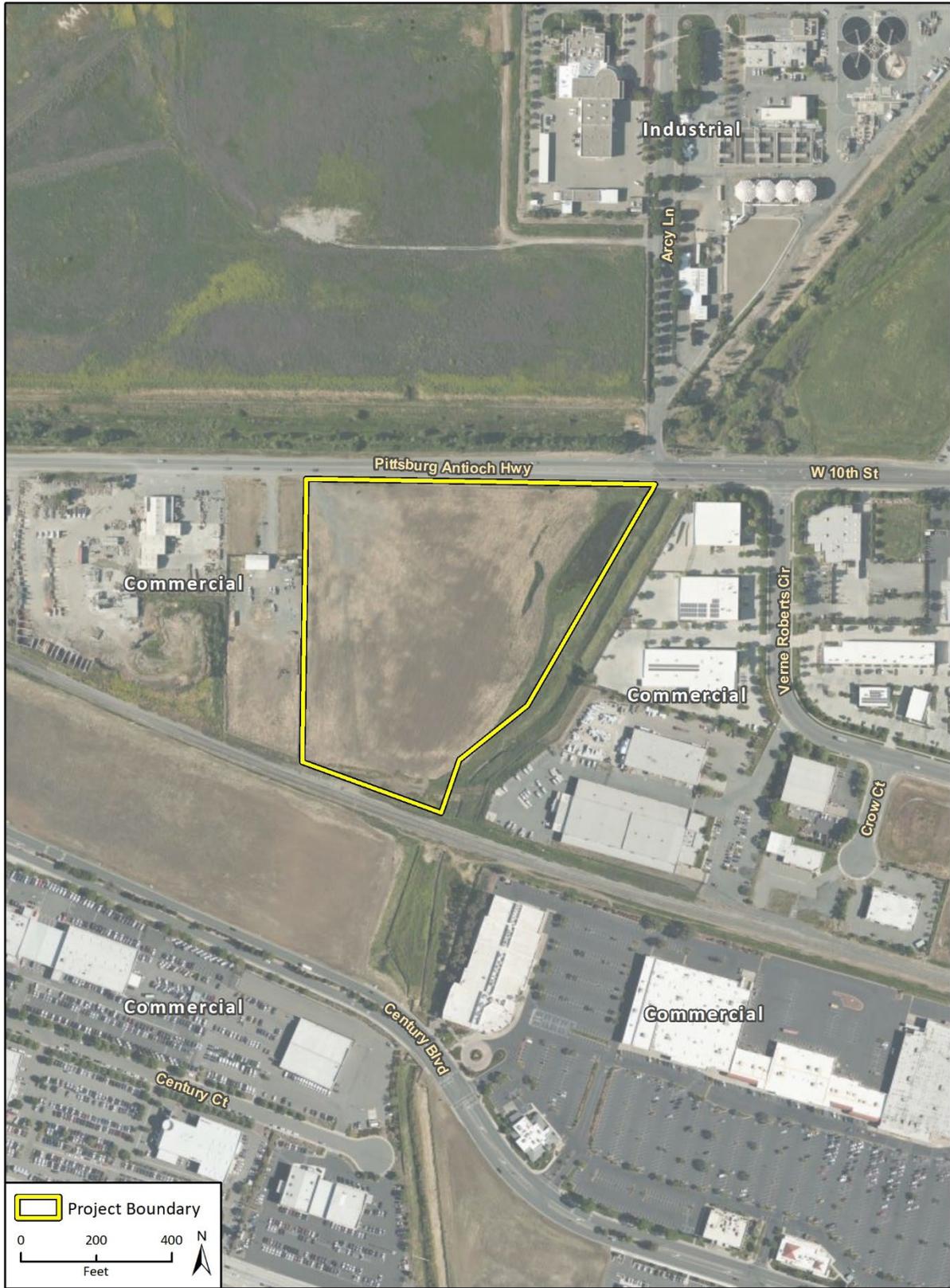


Fig 1 Regional Location

Figure 2 Project Location



## 6. Lead Agency Name and Address

City of Pittsburg  
65 Civic Avenue  
Pittsburg, California 94565

## 7. Project Description

The proposed project would involve the construction of a boat and recreational vehicle (RV) storage facility (facility) capped with a solar roof/shade structure on the 12.5-acre lot. The facility would be situated on approximately 10 acres of the site, while the balance of 2.5 acres, a wetland and hillside, would remain undeveloped. Of the developed lot acreage, approximately 0.5 acres would be used for landscaping along the project's frontage and approximately 0.4 acre would be used for two bio-retention areas along site's northern and eastern edges.

The bioretention treatment areas would be constructed to prevent stormwater runoff into the Contra Costa Canal Spillway to the east and existing gutters on the Pittsburg Antioch Highway as an Integrated Management Practice. One bioretention area would encompass 13,150 square feet along the eastern boundary of the project site, and the other would be 3,860 square feet in the northwestern corner of the project site. The water that passes through the eastern bioretention area would be treated and effectively irrigate the wetlands around the Contra Costa Canal Spillway. Construction of the bioretention areas would follow guidelines provided by the Contra Costa Clean Water Program's Stormwater C.3 Guidebook. The bioretention areas would collect any trash that may runoff from the storage facility and maintenance would be required to remove and dispose of that trash periodically.

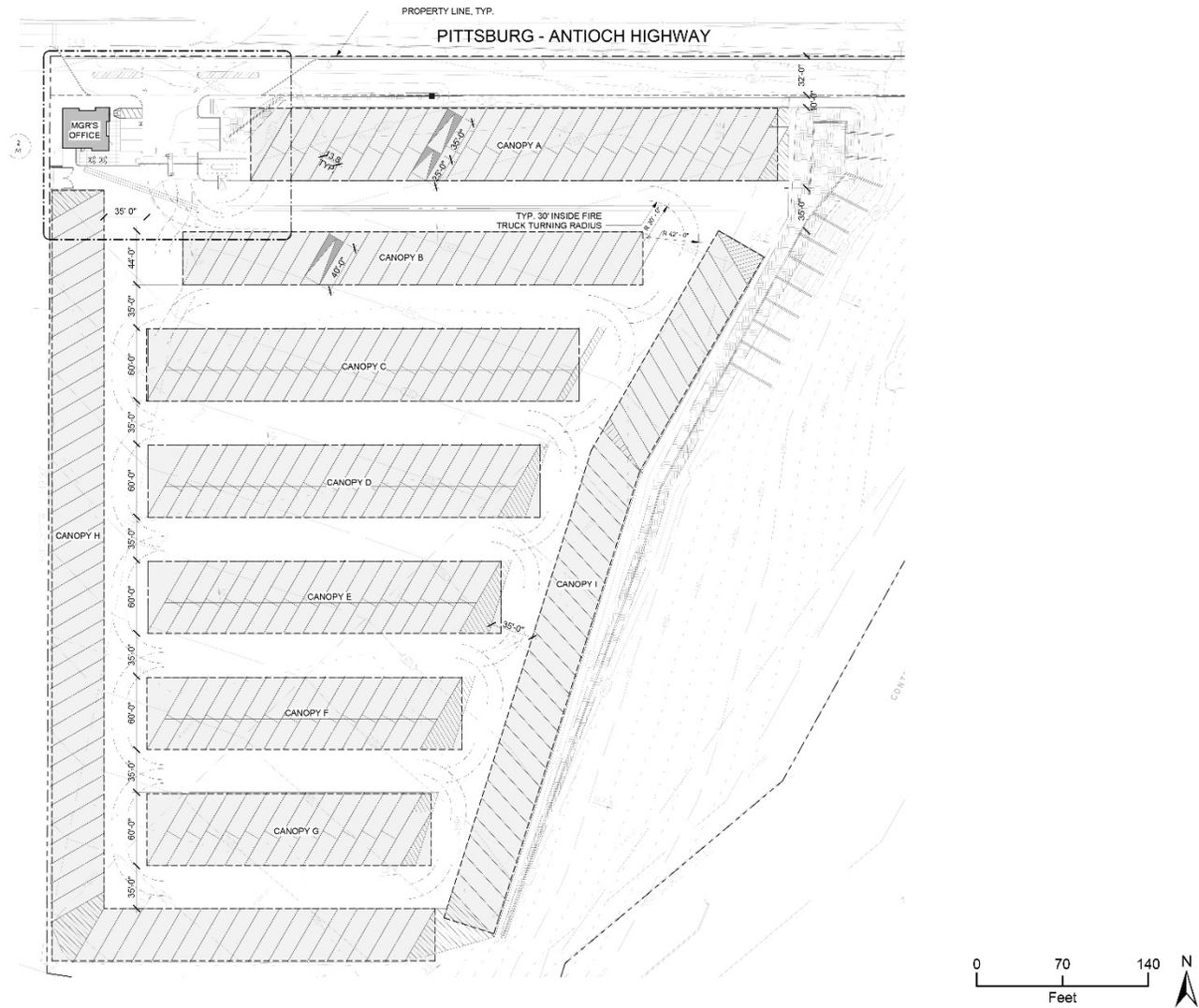
The project would include approximately 191,920 square feet of solar-covered canopies on nine acres and would provide 220 storage parking stalls under the canopies, with the capacity to accommodate up to 302 parking stalls depending on the size of boats or RVs. Five of the solar covered canopies would be located through the center of the project site and two would be located on the perimeter of the development area of the site. Parking for RVs and boats on the project site would be entirely covered by the solar covered canopies. All RV and boat parking on the site would be striped at a 60-degree angle and sizing would vary. The project would also include a 1,243 square-foot management office building, with one parking spot within an attached indoor garage located in the northeastern portion of the project site. In addition, in the northeastern corner of the project site, there would be five standard parking spaces, including one electric vehicle (EV) parking station, and one van accessible parking space provided for customers. As part of project operation, the project would also include amenities such as an outdoor ice machine, an aboveground propane station, and a RV wastewater dump station in the northeastern corner of the project site. The project would be screened by landscaping, including trellis and vine features, and a 10-foot tall stone-accented wrought-iron fence. Lighting would be installed on the interior and exterior of the perimeter fence and office building.

Table 1 summarizes information about the project and Figure 3 shows the proposed site plan, and Figure 4 shows plans for the main office from an eastward perspective.

**Table 1 Project Summary**

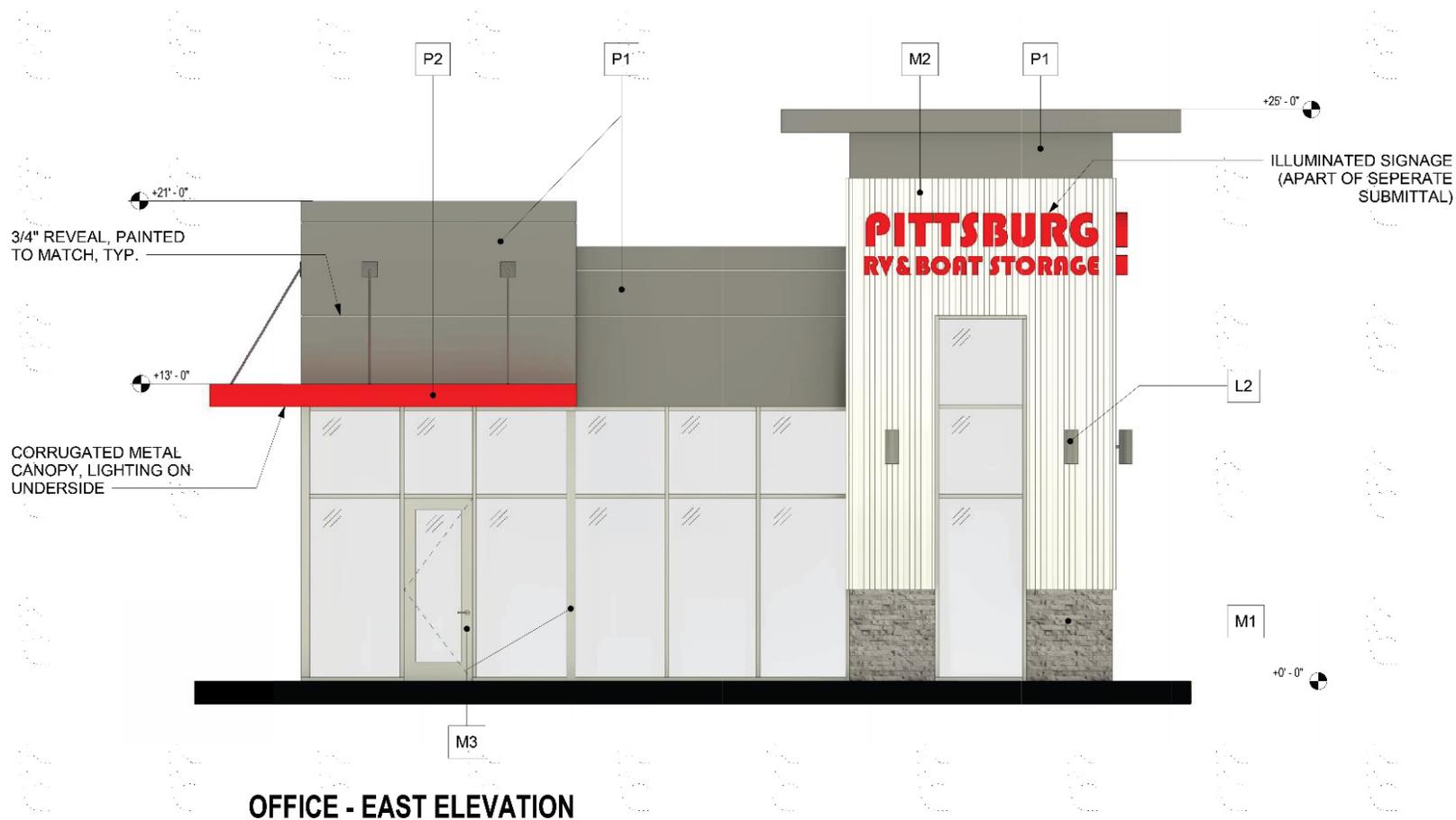
<b>Building Area</b>	<b>Number of Square Feet</b>
Solar Canopy	191,920
Managers Office	1,243
<b>Total</b>	<b>193,163</b>
<b>Number of RV/Boat Stalls</b>	
<b>Canopy A</b>	
44 feet x 13.8 feet	1
60 feet x 13.8 feet	25
<b>Canopy B</b>	
44 feet x 13.8 feet	23
<b>Canopy C</b>	
60 feet x 13.8 feet	21
<b>Canopy D</b>	
60 feet x 13.8 feet	18
<b>Canopy E</b>	
60 feet x 13.8 feet	16
<b>Canopy F</b>	
60 feet x 13.8 feet	14
<b>Canopy G</b>	
44 feet x 13.8 feet	1
60 feet x 13.8 feet	12
<b>Canopy H</b>	
44 feet x 13.8 feet	53
<b>Canopy I</b>	
44 feet x 13.8 feet	36
<b>Total</b>	<b>220</b>
<b>Parking</b>	<b>Number of Stalls</b>
Standard	5
Van Accessible	1
Source: Appendix PLN	

Figure 3 Site Plans



Source: FCGA Architecture, 2021.

Figure 4 Main Office



Source: FCGA Architecture, 2021.



## **Access and Circulation**

Access to the facility would be from a driveway located on the southern portion of Pittsburg/Antioch Highway. A sliding gate with a passcode-enabled gate entry keypad would be constructed to provide secure access to the facility. An internal road would provide vehicular access to parking stalls. The interior vehicular circulation would be built to accommodate large RVs and trucks, with minimum 35-foot drive aisles to allow for safe turning. Fire apparatus access would be maintained per Contra Costa Fire Protection District requirements throughout the project site.

## **Hours of Operation**

The proposed project's office hours would be Monday through Friday from 7:00 am to 7:00 pm and would be staffed by one employee during office hours. The site would be accessible to customers 24 hours per day, seven days per week via a gate keypad for any entrance or exit.

## **Green Building Features**

The proposed project would include energy efficient lighting, reclaimed water for outdoor use, water-efficient fixtures, water-efficient irrigation, one electric vehicle charging stall, and would be entirely powered by the solar panels on site. The office use would require an estimated 20 kilowatts of energy for the office use and the car canopies would generate approximately 3 megawatts of energy. Solar on the project site would be expected to generate power for up to 600 homes in the area, annually.

## **Utilities**

Power currently extends to the site, provided by Marin Clean Energy. The project site does not currently have sewer or water connections. The proposed project would provide septic tanks appropriate to accommodate wastewater from the RV wastewater dump station and wastewater generated at the site. A recycled water line is also proposed as part of the project. The proposed project would also include the construction of a well to provide potable water in the bathroom, office, and for the ice machine.

## **Construction**

Construction activities would involve site preparation, grading, trenching for pipelines, facility construction, paving, and architectural coating. Impervious ground cover to be constructed would be approximately 9.2 acres of the project site. Construction equipment and construction personnel would be staged onsite. The project is anticipated to begin in March 2022 and would be completed by December 2022. Construction would occur between the hours of 6:00 a.m. and 8:00 p.m., Monday through Friday.

Table 2 below describes the estimated preparation and construction schedule.

**Table 2 Preparation and Construction**

Stage	Estimated Start Date	Estimated End Date	Estimated Number of Employees Onsite
Site Preparation	March 2022	March 2022	5
Grading	March 2022	April 2022	10
Building Construction	May 2022	December 2022	15
Paving	April 2022	May 2022	10
Architectural Coating	October 2022	November 2022	10

## 8. Surrounding Land Uses and Setting

The surrounding neighborhood includes adjacent industrial and commercial land uses and open space and nearby residential uses. The southern portion of the site is bordered by an abandoned railroad, beyond which are several car dealerships and SR 4. Further south of SR 4 are single family residences. To the east of the site is the Contra Costa Canal Spillway and various commercial businesses, including a storage facility and a Costco. To the north of the site is Pittsburg-Antioch Highway and further north is open space that is bordered by industrial use, including the Delta Diablo Sanitation District, Delta Household Hazardous Collection Facility, and Delta Energy Center. To the west of the site is a junkyard and landscape center. The New York Slough is approximately 1 mile north of the project site and the Antioch-Pittsburg Amtrak station is located approximately 1.6 miles northeast of the site. The site is currently undeveloped and covered with dense grasses and weeds. There are two trees along the edge of the seasonal wetland.

## 9. Other Public Agencies Whose Approval is Required

The City of Pittsburg is the only public agency with discretionary authority to approve this project. The following permit and approval is required from the City prior to project construction:

- Conditional Use Permit for RV/Boat storage use

## 10. Have California Native American Tribes Traditionally and Culturally Affiliated with the Project Area Requested Consultation Pursuant to Public Resources Code Section 21080.3.1?

The City has received two requests from California Native American tribes to be notified of proposed projects in the City, pursuant to Public Resources Code (PRC) Section 21080.3.1. An information request letter was delivered to the Native American Heritage Commission (NAHC) on September 10, 2021 and NAHC responded on October 14, 2021 indicating that a search of their Sacred Lands Files (SLF) returned negative results.

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## Environmental Factors Potentially Affected

This project would potentially affect the environmental factors checked below, involving at least one impact that is “Potentially Significant” or “Less than Significant with Mitigation Incorporated” as indicated by the checklist on the following pages.

- |  |   |   |
|--|---|---|
| <input type="checkbox"/> Aesthetics                      | <input type="checkbox"/> Agriculture and Forestry Resources | <input type="checkbox"/> Air Quality                          |
| <input checked="" type="checkbox"/> Biological Resources | <input checked="" type="checkbox"/> Cultural Resources      | <input type="checkbox"/> Energy                               |
| <input checked="" type="checkbox"/> Geology/Soils        | <input type="checkbox"/> Greenhouse Gas Emissions           | <input type="checkbox"/> Hazards & Hazardous Materials        |
| <input type="checkbox"/> Hydrology/Water Quality         | <input type="checkbox"/> Land Use/Planning                  | <input type="checkbox"/> Mineral Resources                    |
| <input type="checkbox"/> Noise                           | <input type="checkbox"/> Population/Housing                 | <input type="checkbox"/> Public Services                      |
| <input type="checkbox"/> Recreation                      | <input type="checkbox"/> Transportation                     | <input checked="" type="checkbox"/> Tribal Cultural Resources |
| <input type="checkbox"/> Utilities/Service Systems       | <input type="checkbox"/> Wildfire                           | <input type="checkbox"/> Mandatory Findings of Significance   |

## Determination

Based on this initial evaluation:

- I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
- I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions to the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
- I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
- I find that the proposed project MAY have a “potentially significant impact” or “less than significant with mitigation incorporated” impact on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

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- I find that although the proposed project could have a significant effect on the environment, because all potential significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

*Christie Robinson*

March 17, 2022

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Signature

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Date

Christie Robinson

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Planner

---

Printed Name

---

Title

# Environmental Checklist

## 1 Aesthetics

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Except as provided in Public Resources Code Section 21099, would the project:				
a. Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

### Setting

The project site is an undeveloped parcel surrounded by industrial and commercial usage. The site's landscape is covered by ruderal vegetation and includes no trees. A junkyard borders the site directly to the west, commercial uses border the site to the east, an abandoned railroad borders the site to the south, and north across the Pittsburg-Antioch Highway are several industrial uses. Figure 5 and Figure 6 provide northern and southwestern viewpoints from the proposed project site. Views of the Delta shoreline from public spaces are limited and unavailable through or from the project site. The ridgelines in the southern portion of the City are also identified within the General Plan as identifiable visual resources, although they are not designated as scenic resources. The project site is approximately 14.7 miles northeast from a designated State Scenic Highway, SR 24 (California Department of Transportation [Caltrans] 2021).

**Figure 5 Project Site Looking North**



**Figure 6 Project Site Looking Southwest**



## Regulatory Setting

A scenic corridor is the view from a road that may include a distant panorama and/or the immediate roadside area (City of Pittsburgh 2019a). The City's adopted General Plan does not designate any scenic corridors (City of Pittsburgh 2001). The City's General Plan also notes that the Delta shoreline is one of the City's most identifiable visual resources, although it is not designated as a scenic resource (City of Pittsburgh 2019a). CS zoning applies to 87.7 acres within the City. General Plan Policy 4-P-5 calls to use landscaping, signs, lighting, and other visual features to announce the gateway along regional roadways.

Pittsburg Municipal Code (PMC) sets forth design guidelines for CS zoning in Chapter 18.52, including front setbacks of 10 feet, a maximum floor to area ratio (FAR) of 0.5, a maximum height of 50-feet, and a minimum of 7 percent of a site set aside for landscaping.

### *City of Pittsburgh Design Guidelines – Commercial/Industrial*

**Section IV.** includes development review design guidelines for commercial and industrial projects that are relevant to the proposed project (City of Pittsburgh 1996).

- a. Parking areas should be screened from view from any public right-of-way (beaming or hedge-type plant material). Parking areas should be broken up (landscape islands, projections, etc.) to eliminate vast areas of parking especially along street frontages.
- c. Existing trees on site should be incorporated into the project side design, unless waived by the City Planner or Planning Commission.
- f. Continuous horizontal roof lines should be broken up whenever possible. An expanse should not exceed 50 (fifty) feet in length unless architecture or size dictate a greater expanse.
- g. Building entries should be designed as a focal point. They should be designed to set the theme or be the primary feature of the building or commercial center.
- h. Building elevations (example: rear of shopping centers) visible from public rights-of-way should be addressed in design review and treated appropriately.
- j. All roof mounted equipment should be screened completely from view from all public rights-of-way. A site-line study may be necessary to determine appropriate screening method.
- k. All Structures, including, but not limited to, "tilt-up" type structures, should have structural reliefs and articulated entries (Encourage the creation of shadow lines).
- m. Downspouts should be designed into the façade of the building unless architecturally treated.
- n. Add murals, lattice or some other spaceframe type treatment to blank walls visible from public view.
- o. Prototype or "theme" architecture is discouraged.
- p. New or remodeled buildings should be designed to be compatible in design, color and materials with adjacent development.
- q. The street-oriented elevations shall be designed so as not to present the appearance of a rear elevation (i.e., no loading doors or large blank walls, absence of architectural features found on other elevations, and limited landscaping as typically found on interior property lines).
- r. Trash enclosures should include area for collection of recyclables.

## Impact Analysis

*a. Would the project have a substantial adverse effect on a scenic vista?*

A scenic vista is usually defined as a panoramic view from an elevated position or a long-range view from a public vantage point. This can include views of natural features or of the built environment, when architecture and landscaped boulevards offer high-value views of an area considered important to the sense of place. The City of Pittsburg General Plan identifies the ridgelines and Delta shoreline in Pittsburg as identifiable visual resources within the City but are not designated scenic resources (City of Pittsburg 2010b). There are no scenic vistas within or near the project site, or that would be impacted by development of the project site. The project would have no impact.

**NO IMPACT**

*b. Would the project substantially damage scenic resources, including but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?*

The nearest State-designated scenic highway is SR 24 from the east portal of the Caldecott Tunnel to Interstate 680 near Walnut Creek (Caltrans 2021). The City of Pittsburg is not visible from this route. The nearest eligible scenic highway is SR 4 from SR 160 near Antioch to Route 84 near Brentwood (Caltrans 2021). The project site is not located within this portion of SR 4 and is not visible from it. As such, project implementation would have no effect on scenic resources in view of a state scenic highway. There would be no impact.

**NO IMPACT**

*c. Would the project, in non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?*

The on-site office would be constructed with insulated metal panel siding, meant to imitate a stucco style, and include metal and stone accents on the rest of the building. The project would be screened from the roadway by landscaping including trellis and vine features. There would be a 10-foot tall, stone-accented wrought-iron fence around the entrance to the storage area. The existing on-site visual quality and surrounding scenic quality is generally poor because the site is vacant and untended. The contemporary and minimal design of the office and the storage area itself would not degrade the visual character.

The project would be located in an area designated and zoned as CS. Sites in CS areas generate high volumes of vehicle traffic and other potential adverse impacts. Allowable uses include storage and similar uses, which would include the proposed project. The project's design would follow development standards outlined in PMC Chapter 18.52 for CS districts, as shown in Table 3.

**Table 3 Compliance with PMC Development Standards**

Development Classification	City Standard	Project
Front Setback	10 foot minimum	10 feet
Floor Area Ratio	0.5 maximum	0.35 <sup>1</sup>
Structure Height	50 foot maximum	25 feet
Lot Coverage	60 percent maximum	35 percent
Site Landscaping	7 percent minimum	7.3 percent <sup>2</sup>

<sup>1</sup> The lot is 544,848 square feet. The office building would be 1,243 square feet and the solar canopy would be 191,920 square feet.

<sup>2</sup> 39,900 square feet would be landscaped.

The project would comply with Pittsburg Design Guidelines for Commercial and Industrial projects. The project’s parking area and solar canopy would be screened by fencing and landscaping surrounding the project site. There are no existing trees on the site to be incorporated into the project design. The office building would be in compliance with guidelines dictating design of structures.

Therefore, development of the project site under the CS zoning designation would not conflict with applicable zoning requirements and regulations governing scenic quality and impacts would be less than significant.

**LESS THAN SIGNIFICANT IMPACT**

*d. Would the project create a new source of substantial light or glare that would adversely affect daytime or nighttime views in the area?*

The project site is in an urbanized area with relatively high levels of existing lighting. The adjacent uses generate light and glare along all sides of the property. Primary sources of light adjacent to the project site are lighting associated with the existing industrial and commercial buildings, including building-mounted and perimeter lighting, as well as interior lighting visible through windows; streetlights; and headlights from vehicles on nearby streets. The project site currently does not generate light, as it is undeveloped land. The primary source of glare adjacent to the project site is the sun’s reflection from metallic and glass surfaces on buildings and on vehicles parked in adjacent parking areas.

The proposed project would incorporate exterior lighting around the entrance and sides of the building for the safety of customers accessing the storage facility, which would be accessible 24 hours a day, seven days a week. Interior lighting would be visible through the office building’s windows. Cars accessing the storage facility would add a source of light to the area, however lighting from these cars would be brief as they access the site. These light sources would not have a significant impact on the night sky, as they would only incrementally add to the existing background light levels already present from the surrounding street lighting and urban development. Further, there are no sensitive receptors in the project vicinity. The nearest sensitive receptors are residences located approximately 0.3 mile south of the project site, across SR 4. Because of the existing, relatively high ambient lighting levels near the project site and lack of nearby residential development, project development would not substantially alter this condition. Impacts related to lighting would be less than significant.

The proposed project would include building materials, such as windows that may create some glare, but this glare would be minimal and would be screened by the fencing surrounding the

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project site. The rooftop solar panels would produce glare, but there currently are no sightlines in the project vicinity above the proposed building or solar canopy, as all surrounding buildings are one-story. Because parking areas would be housed underneath solar panel canopies, there would be minimal glare from parked vehicles and boats. Further, there are no sensitive receivers in the project vicinity that would be adversely affected by glare. Overall, the proposed project would not create a substantial source of glare that would adversely affect day or nighttime views. Impacts related to glare would be less than significant.

**LESS THAN SIGNIFICANT IMPACT**

## 2 Agriculture and Forestry Resources

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Conflict with existing zoning for agricultural use or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)); timberland (as defined by Public Resources Code Section 4526); or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

### Setting

The project site is in an urban area and is currently undeveloped. The City of Pittsburg does not have any land zoned for agricultural use (City of Pittsburg 2010a).

The California Department of Conservation (DOC) manages the Farmland Mapping and Monitoring Program to assess and record suitability of land for agricultural purposes. In each county, the land is analyzed for soil and irrigation quality and the highest quality land is designated as Prime Farmland. The project site and vicinity are designated as Urban and Built-Up Land and the site does not have any identified agricultural or forest land (DOC 2016a).

## Regulatory Setting

PRC Section 12220(g) defines forest land as:

“land that can support 10-percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits.”

PRC Section 4526 defines timberland as:

“land, other than land owned by the federal government and land designated by the board as experimental forest land, which is available for, and capable of, growing a crop of trees of a commercial species used to produce lumber and other forest products, including Christmas trees. Commercial species shall be determined by the board on a district basis.”

Government Code Section 51104(g) defines a timberland production zone as:

“an area which has been zoned pursuant to Section 51112 or 51113 and is devoted to and used for growing and harvesting timber, or for growing and harvesting timber and compatible uses, as defined in subdivision (h).”

## Impact Analysis

- a. *Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?*
- b. *Would the project conflict with existing zoning for agricultural use or a Williamson Act contract?*

The project site and surrounding area is located entirely in the Urban and Built Up Land area and is not zoned for agricultural use (DOC 2016a). Project implementation would only modify the project site; therefore, no Prime Farmland, Unique Farmland, or Farmland of Statewide Importance would be affected by project implementation and no impact would occur.

### NO IMPACT

- c. *Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code Section 12220(g)); timberland (as defined by Public Resources Code Section 4526); or timberland zoned Timberland Production (as defined by Government Code Section 51104(g))?*
- d. *Would the project result in the loss of forest land or conversion of forest land to non-forest use?*
- e. *Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use?*

The City of Pittsburg does not have any land zoned for forestry (City of Pittsburg 2010a). While some vegetation is present on the project site, the site itself is not considered forest or timberland. The project site does not provide forest and timber resources. As such, the project would not convert forest or timberland uses, and no impact would occur.

### NO IMPACT

### 3 Air Quality

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

#### Air Quality Standards and Attainment

The project site is located within the San Francisco Bay Area Air Basin (the Basin), which is under the jurisdiction of the Bay Area Air Quality Management District (BAAQMD). As the local air quality management agency, the BAAQMD is required to monitor air pollutant levels to ensure that state and federal air quality standards are met and, if they are not met, to develop strategies to meet the standards.

Depending on whether or not the standards are met or exceeded, the Basin is classified as being in “attainment” or “nonattainment.” Under state law, air districts are required to prepare a plan for air quality improvement for pollutants for which the district is in non-compliance. The BAAQMD is in non-attainment for the state and federal ozone standards, the state and federal PM<sub>2.5</sub> (particulate matter up to 2.5 microns in size) standards and the state PM<sub>10</sub> (particulate matter up to 10 microns in size) standards and is required to prepare a plan for improvement (BAAQMD2017a). The health effects associated with criteria pollutants for which the Basin is in non-attainment are described in Table 4.

**Table 4 Health Effects Associated with Non-Attainment Criteria Pollutants**

Pollutant	Adverse Effects
Ozone	(1) Short-term exposures: (a) pulmonary function decrements and localized lung edema in humans and animals and (b) risk to public health implied by alterations in pulmonary morphology and host defense in animals; (2) long-term exposures: risk to public health implied by altered connective tissue metabolism and altered pulmonary morphology in animals after long-term exposures and pulmonary function decrements in chronically exposed humans; (3) vegetation damage; and (4) property damage.
Suspended particulate matter (PM <sub>10</sub> )	(1) Excess deaths from short-term and long-term exposures; (2) excess seasonal declines in pulmonary function, especially in children; (3) asthma exacerbation and possibly induction; (4) adverse birth outcomes including low birth weight; (5) increased infant mortality; (6) increased respiratory symptoms in children such as cough and bronchitis; and (7) increased hospitalization for both cardiovascular and respiratory disease (including asthma). <sup>a</sup>
Suspended particulate matter (PM <sub>2.5</sub> )	(1) Excess deaths from short- and long-term exposures; (2) excess seasonal declines in pulmonary function, especially in children; (3) asthma exacerbation and possibly induction; (4) adverse birth outcomes, including low birth weight; (5) increased infant mortality; (6) increased respiratory symptoms in children, such as cough and bronchitis; and (7) increased hospitalization for both cardiovascular and respiratory disease, including asthma. <sup>1</sup>

<sup>1</sup> More detailed discussions on the health effects associated with exposure to suspended particulate matter can be found in the following documents: United States Environmental Protection Agency (USEPA), Air Quality Criteria for Particulate Matter, 2004. Source: USEPA 2018

## Air Quality Management

The Bay Area 2017 Clean Air Plan provides a plan to improve Bay Area air quality and protect public health as well as the climate. The legal impetus for the Plan is to update the most recent ozone plan, the 2010 Clean Air Plan, to comply with state air quality planning requirements as codified in the California Health and Safety Code. Although steady progress has been made toward reducing ozone levels in the Bay Area, the region continues to be designated as non-attainment for both the one-hour and eight-hour state ozone standards as noted previously. In addition, emissions of ozone precursors in the Bay Area contribute to air quality problems in neighboring air basins. Under these circumstances, state law requires the Clean Air Plan to include all feasible measures to reduce emissions of ozone precursors and reduce transport of ozone precursors to neighboring air basins (BAAQMD 2017a).

In 2006, the United States Environmental Protection Agency (USEPA) tightened the national 24-hour PM<sub>2.5</sub> standard regarding short-term exposure to fine particulate matter from 65 µg/m<sup>3</sup> (micrograms per cubic meter) to 35 µg/m<sup>3</sup>. Based on air quality monitoring data for years 2006-2008 showing that the region was slightly above the standard, the USEPA designated the Bay Area as non-attainment for the 24-hour national standard in December 2008. This triggered the requirement for the Bay Area to prepare a State Implementation Plan (SIP) submittal to demonstrate how the region would attain the standard. However, data for both the 2008-2010 and the 2009-2011 cycles showed that Bay Area PM<sub>2.5</sub> levels currently meet the standard. On October 29, 2012, the USEPA issued a proposed rule to determine that the Bay Area has attained the 24-hour PM<sub>2.5</sub> national standard. Based on this, the Bay Area is required to prepare an abbreviated SIP submittal that includes an emission inventory for primary (directly emitted) PM<sub>2.5</sub>, as well as precursor pollutants that contribute to formation of secondary PM in the atmosphere and amendments to the BAAQMD New

Source Review to address PM<sub>2.5</sub> (adopted December 2012).<sup>1</sup> However, key SIP requirements to demonstrate how a region will achieve the standard (i.e., the requirement to develop a plan to attain the standard) will be suspended as long as monitoring data continues to show that the Bay Area attains the standard.

In addition to preparing the “abbreviated” SIP submittal, the BAAQMD has prepared a report entitled *Understanding Particulate Matter: Protecting Public Health in the San Francisco Bay Area* (BAAQMD 2012). The report will help guide the BAAQMD’s ongoing efforts to analyze and reduce PM in the Bay Area to protect public health better. The Bay Area will continue to be designated as “non-attainment” for the national 24-hour PM<sub>2.5</sub> standard until the district elects to submit a “redesignation request” and a “maintenance plan” to the USEPA, and the agency approves the proposed redesignation.

### Significance Thresholds

This analysis uses the BAAQMD’s May 2017 CEQA Air Quality Guidelines to evaluate air quality. The May 2017 Guidelines include revisions made to the 2010 Guidelines, addressing the California Supreme Court’s 2015 opinion in the *California Building Industry Association vs. Bay Area Air Quality Management District*, 62 California 4th 369 (BAAQMD 2017b). Therefore, the numeric thresholds in the May 2017 BAAQMD CEQA Air Quality Thresholds were used for this analysis to determine whether the impacts of the project exceed the thresholds identified in Appendix G of the CEQA Guidelines.

The BAAQMD has developed screening criteria to provide lead agencies and project applicants with a conservative indication of whether a project could result in potentially significant air quality impacts. If all the screening criteria are met by a project, the lead agency or applicant would not need to perform a detailed air quality assessment of their project’s air pollutant emissions and air quality impacts would be considered less than significant. These screening levels are generally representative of new development on greenfield sites without any form of mitigation measures taken into consideration. Storage facilities, such as the one proposed in this project, are not a land use type for which BAAQMD derived screening criteria for operational or construction emissions (BAAQMD 2017b).

Therefore, the project must meet numeric significance thresholds. Table 5 presents the significance thresholds for construction and operational-related criteria air pollutant and precursor emissions used for the purposes of this analysis. These represent the levels at which a project’s individual emissions of criteria air pollutants or precursors would result in a cumulatively considerable contribution to the Basin’s existing air quality conditions. For the purposes of this analysis, the proposed project would result in a significant impact if construction or operational emissions would exceed any of the thresholds shown in Table 5.

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<sup>1</sup> PM is made up of particles emitted directly, such as soot and fugitive dust, as well as secondary particles formed in the atmosphere from chemical reactions involving precursor pollutants such as oxides of nitrogen (NO<sub>x</sub>), sulfur oxides (SO<sub>x</sub>), volatile organic compounds (VOC), and ammonia (NH<sub>3</sub>).

**Table 5 Air Quality Thresholds of Significance**

Pollutant/ Precursor	Construction-Related Thresholds		Operation-Related Thresholds	
	Average Daily Emissions (lbs/day)	Maximum Annual Emissions (tpy)	Average Daily Emissions (lbs/day)	Maximum Annual Emissions (tpy)
ROG	54	10	54	10
NO <sub>x</sub>	54	10	54	10
PM <sub>10</sub>	82 (exhaust)	15	82	15
PM <sub>2.5</sub>	54 (exhaust)	10	54	10

Notes: tpy = tons per year; lbs/day = pounds per day; NO<sub>x</sub> = oxides of nitrogen; PM<sub>2.5</sub> = fine particulate matter with an aerodynamic resistance diameter of 2.5 micrometers or less; PM<sub>10</sub> = respirable particulate matter with an aerodynamic resistance diameter of 10 micrometers or less; ROG = reactive organic gases

Source: Table 2-1, BAAQMD 2017b.

The BAAQMD does not have quantitative thresholds for fugitive dust emissions during construction. Instead, the BAAQMD recommends Best Management Practices (BMPs) be implemented to reduce fugitive dust emissions. The project would implement the BAAQMD *Basic Construction Mitigation Measures* as a project design feature. The BMPs include the following:

1. All exposed surfaces (e.g., parking areas, staging areas, soil piles, graded areas, and unpaved access roads) shall be watered two times per day.
2. All haul trucks transporting soil, sand, or other loose material off-site shall be covered or maintain at least two feet of freeboard.
3. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.
4. All vehicle speeds on unpaved roads shall be limited to 15 mph.
5. Enclose, cover, water daily or apply non-toxic soil binders to exposed stockpiles (dirt, sand, etc.)
6. All roadways, driveways, and sidewalks to be paved shall be completed as soon as possible. Building pads shall be laid as soon as possible after grading unless seeding or soil binders are used.
7. Install sandbags or other erosion control measures to prevent silt runoff to public roadways.
8. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure Title 13, Section 2485 of California Code of Regulations). Clear signage shall be provided for construction workers at all access points.
9. All construction equipment shall be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified visible emissions evaluator.
10. Post a publicly visible sign with the telephone number and person to contact at the lead agency regarding dust complaints. This person shall respond and take corrective action within 48 hours. The air district's phone number shall also be visible to ensure compliance with applicable regulations.

In the absence of a qualified Community Risk Reduction Plan, BAAQMD has established the following *Thresholds of Significance* for local community risks and hazards associated with TACs and PM<sub>2.5</sub> for assessing individual source impacts at a local level. Impacts would be significant if:

- The project would result in an increased cancer risk of > 10 in one million
- The project would result in an increased non-cancer (i.e., Chronic or Acute) risk of > 1.0 Hazard Index
- The project would result in an ambient PM<sub>2.5</sub> concentration increase of > 0.3 µg/m<sup>3</sup> annual average

A project would be considered to have a cumulatively considerable impact if the aggregate total of current and proposed TAC sources within a 1,000 feet radius of the project fence-line in addition to the project would exceed the *Cumulative Thresholds of Significance*. Impacts would be significant if:

- The project would result in an increased cancer risk of > 100 in one million
- The project would result in an increased non-cancer (i.e., Chronic or Acute) risk of > 10 Hazard Index
- The project would result in an ambient PM<sub>2.5</sub> concentration increase of > 0.8 µg/m<sup>3</sup> annual average

Excess cancer risks are defined as those occurring more than or above and beyond those risks that would normally be associated with a location or activity if toxic pollutants were not present. Non-carcinogenic health effects are expressed as a hazard index, which is the ratio of expected exposure levels to an acceptable reference exposure level.

BAAQMD defines sensitive receptors as facilities or land uses that include members of the population that are particularly sensitive to the effects of air pollutants, such as children, the elderly, and the chronically ill. These facilities include residences, school playgrounds, child-care centers, retirement homes, and convalescent homes.

## **Methodology**

Air pollutant emissions generated by project construction and operation were estimated using the California Emissions Estimator Model (CalEEMod), version 2020.4.0. CalEEMod uses project-specific information, including the project's land uses, square footages for different uses (e.g., apartments low-rise and general office), and location, to model a project's construction and operational emissions. The analysis reflects the construction and operation of the project as described in the project description. The following discussion is based on an air quality and greenhouse gas assessment, included as Appendix AQ. The modeling was based on the construction schedule provided in the project description.

Operational emissions modeled include mobile source emissions (i.e., vehicle emissions), energy emissions, and area source emissions. Mobile source emissions are generated by vehicle trips to and from the project site. The daily trip generation rates were sourced from the project Trip Generation Analysis (Appendix TRA). Construction would occur over approximately 10 months. It is conservatively estimated that material would be imported and exported to account for excavation and fill during grading, in accordance with Mitigation Measure GEO-1, found in Section 7, *Geology and Soils*. Further, it is conservatively assumed that the material import and export would not be balanced. Additionally, trenching for the recycled water pipeline is assumed to occur during the grading phase. The construction equipment used to model emissions is subject to change, but the

analysis herein used conservative estimates for the duration of time a given piece of equipment would be used during construction hours.

## **Impact Analysis**

*a. Would the project conflict with or obstruct implementation of the applicable air quality plan?*

The California Clean Air Act requires that air districts create a Clean Air Plan that describes how the jurisdiction will meet air quality standards. The most recently adopted air quality plan is the BAAQMD 2017 Plan. The 2017 Plan updates the most recent Bay Area plan, the 2010 Clean Air Plan, pursuant to air quality planning requirements defined in the California Health and Safety Code. To fulfill state ozone planning requirements, the 2017 control strategy includes all feasible measures to reduce emissions of ozone precursors—ROG and NO<sub>x</sub>—and reduce transport of ozone and its precursors to neighboring air basins. The 2017 Plan builds upon and enhances the BAAQMD's efforts to reduce emissions of fine particulate matter and TACs. The 2017 Plan does not include control measures that apply directly to individual development projects. Instead, the control strategy includes control measures related to stationary sources, transportation, energy, buildings, agriculture, natural and working lands, waste management, water, and super-GHG pollutants.

The 2017 Plan focuses on two paramount goals:

- Protect air quality and health at the regional and local scale by attaining all national and state air quality standards and eliminating disparities among Bay Area communities in cancer health risk from TACs
- Protect the climate by reducing Bay Area GHG emissions to 40 percent below 1990 levels by 2030, and 80 percent below 1990 levels by 2050

Under BAAQMD's methodology, a determination of consistency with the 2017 Plan should demonstrate that a project:

- Supports the primary goals of the air quality plan
- Includes applicable control measures from the air quality plan
- Does not disrupt or hinder implementation of any air quality plan control measures

A project that would not support the 2017 Plan's goals would not be considered consistent with the 2017 Plan. On an individual project basis, consistency with BAAQMD quantitative thresholds is interpreted as demonstrating support for the clean air plan's goals. As discussed under criterion (b) below, the project would not exceed BAAQMD significance thresholds related to air quality emission), the project would not result in exceedances of BAAQMD thresholds for criteria air pollutants and thus would not conflict with the 2017 Plan's goal to attain air quality standards. The 2017 Plan includes goals and measures to increase the use of electric vehicles, promote the use of on-site renewable energy, and encourage energy efficiency. The project includes features that are consistent with these goals and measures, namely constructing a solar panel canopy above the parking stalls that would generate power to support the project and residential uses in the vicinity. Therefore, the project would not conflict with or obstruct the implementation of an applicable air quality plan and the project would have a less than significant impact.

### **LESS THAN SIGNIFICANT IMPACT**

- b. *Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?*

Project construction would generate temporary construction emissions (direct emissions) and long-term operational emissions (indirect emissions). Project construction generated temporary air pollutant emissions are associated with fugitive dust (PM<sub>10</sub> and PM<sub>2.5</sub>) and exhaust emissions from heavy construction vehicles, in addition to reactive organic gases (ROG) that would be released during the drying phase following application of architectural coatings. Long-term emissions associated with project operation would include emissions from vehicle trips (mobile sources); electricity use (energy sources); and landscape maintenance equipment, consumer products and architectural coating associated with on-site development (area sources).

### Construction Emissions

Table 6 summarizes the estimated maximum daily emissions of pollutants during construction on the project site. As shown in the table, the BAAQMD thresholds would not be exceeded, and impacts would be less than significant.

**Table 6 Estimated Maximum Daily Construction Emissions (lbs/day)**

Construction Year	ROC	NO <sub>x</sub>	CO	SO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
2022	6	52	39	<1	12	6
BAAQMD Thresholds	54	54	N/A	N/A	82	54
<b>Threshold Exceeded?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>

lbs/day = pounds per day; ROC = reactive organic compounds, NO<sub>x</sub> = nitrogen oxides, CO = carbon monoxide, SO<sub>2</sub> = sulfur dioxide, PM<sub>10</sub> = particulate matter 10 microns in diameter or less, PM<sub>2.5</sub> = particulate matter 2.5 microns or less in diameter

Notes: All emissions modeling was completed made using CalEEMod. See Appendix AQ for modeling results. Some numbers may not add up due to rounding. Emission data is pulled from “mitigated” results, which account for compliance with regulations (including BAAQMD Regulation 8 Rule 3) and project design features. Emissions presented are the highest of the winter and summer modeled emissions.

### Operational Emissions

As shown in Table 7 and Table 8, operational emissions would not exceed BAAQMD criteria pollutant thresholds. Therefore, project operation would not result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment, and impacts would be less than significant.

**Table 7 Estimated Maximum Daily Operational Emissions (lbs/day)**

Emissions Source	ROC	NO <sub>x</sub>	CO	SO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Area	<1	<0.1	<0.1	0	<0.1	<0.1
Energy	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Mobile	<1	<1	2	<0.1	<1	<1
<b>Total</b>	<b>&lt;1</b>	<b>&lt;1</b>	<b>2</b>	<b>&lt;1</b>	<b>&lt;1</b>	<b>&lt;1</b>
BAAQMD Thresholds	54	54	N/A	N/A	82	54
<b>Threshold Exceeded?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>

lbs/day = pounds per day; ROC = reactive organic compounds, NO<sub>x</sub> = nitrogen oxides, CO = carbon monoxide, SO<sub>2</sub> = sulfur dioxide, PM<sub>10</sub> = particulate matter 10 microns in diameter or less, PM<sub>2.5</sub> = particulate matter 2.5 microns or less in diameter

Notes: All emissions modeling was completed made using CalEEMod. See Appendix AQ for modeling results. Some numbers may not add up due to rounding. Emission data is pulled from “mitigated” results, which account for compliance with regulations (including [including BAAQMD Regulation 8 Rule 3) and project design features. Emissions presented are the highest of the winter and summer modeled emissions.

**Table 8 Estimated Annual Operational Emissions (tons/year)**

Emissions Source	ROG	NO <sub>x</sub>	CO	SO <sub>2</sub>	PM <sub>10</sub>	PM <sub>2.5</sub>
Area Sources	<1	<0.1	<0.1	0	<0.1	<0.1
Energy Sources	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Mobile Sources	<0.1	<0.1	<1	<0.1	<0.1	<0.1
<b>Total</b>	<b>&lt;0.1</b>	<b>&lt;0.1</b>	<b>&lt;1</b>	<b>&lt;0.1</b>	<b>&lt;0.1</b>	<b>&lt;0.1</b>
BAAQMD Thresholds	10	10	N/A	N/A	15	10
<b>Threshold Exceeded?</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>	<b>No</b>

ROG = reactive organic gases, NO<sub>x</sub> = nitrogen oxides, CO = carbon monoxide, SO<sub>2</sub> = sulfur dioxide, PM<sub>10</sub> = particulate matter 10 microns in diameter or less, PM<sub>2.5</sub> = particulate matter 2.5 microns or less in diameter

Notes: All emissions modeling was completed made using CalEEMod. See Appendix AQ for modeling results. Some numbers may not add up due to rounding. Emission data is pulled from “mitigated” results, which account for compliance with regulations (including BAAQMD Regulation 8 Rule 3) and project design features. Emissions presented are the highest of the winter and summer modeled emissions.

**LESS THAN SIGNIFICANT IMPACT**

c. *Would the project expose sensitive receptors to substantial pollutant concentrations?*

**Carbon Monoxide Hotspots**

A CO hotspot is a localized concentration of CO that is above a CO ambient air quality standard. Localized CO hotspots can occur at intersections with heavy peak hour traffic. Specifically, hotspots can be created at intersections where traffic levels are sufficiently high such that the local CO concentration exceeds the federal 1-hour standard of 35.0 ppm or the federal and state 8-hour standard of 9.0 ppm (CARB 2016).

BAAQMD recommends comparing project’s attributes with the following screening criteria as a first step to evaluating whether the project would result in the generation of CO concentrations that

would substantially contribute to an exceedance of the *Thresholds of Significance*. The project would result in a less than significant impact to localized CO concentrations if:

1. The project is consistent with an applicable congestion management program for designated roads or highways, regional transportation plan, and local congestion management agency plans.
2. The project would not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour.
3. The project traffic would not increase traffic volumes at the affected intersections to more than 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited (e.g., tunnel, parking garage).

Based on the project Trip Generation Analysis, the project would generate 90 daily trips (Appendix TRA). The project trip generation is far below the screening thresholds listed above. Therefore, the impact of localized CO emissions would not be significant.

## **Toxic Air Containments**

TACs are defined by California law as air pollutants that may cause or contribute to an increase in mortality or an increase in serious illness, or which may pose a present or potential hazard to human health. The following subsections discuss the project's potential to result in impacts related to TAC emissions during construction and operation.

### *Construction*

Construction-related activities would result in temporary project-generated emissions of diesel particulate matter (DPM) exhaust emissions from off-road, heavy-duty diesel equipment for site preparation, grading, trenching, excavation, building construction, and other construction activities. DPM was identified as a TAC by CARB in 1998 (CARB 2021).

For assessing community risks and hazards, BAAQMD recommends a 1,000-foot influence area around the project site boundary. No sensitive receptors were identified within 1,000 feet of the project site, and the closest sensitive receptors are approximately 1,500 feet south of the project site. Therefore, given the distance of receptors and temporary nature of construction, risks and hazards from construction activities would not expose sensitive receptors to substantial TAC concentrations. Impacts would be less than significant.

### *Operation*

Sources of operational TACs include, but are not limited to, land uses such as freeways and high-volume roadways, truck distribution centers, ports, rail yards, refineries, chrome plating facilities, dry cleaners using perchloroethylene, and gasoline dispensing facilities. The project does not include construction of new gas stations, dry cleaners, highways, roadways, or other sources that could be considered new permitted or non-permitted source of TAC or PM<sub>2.5</sub> in proximity to receivers. In addition, the project would not introduce a new stationary source of emissions and the mobile emissions generated from the project would be minimal and spread over a broad geographical area. Furthermore, there are no sensitive receptors within 1,000 feet of the project. Therefore, project operation would not expose nearby sensitive receivers to substantial pollutant concentrations. Impacts would be less than significant.

## **LESS THAN SIGNIFICANT IMPACT**

- d. *Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?*

During construction activities, heavy equipment and vehicles would emit odors associated with vehicle and engine exhaust and during idling. However, these odors would be intermittent and temporary and would cease upon completion, and odors disperse with distance. Overall, project construction would not generate other emissions, such as those leading to odors, affecting a substantial number of people. Construction-related impacts would be less than significant.

Table 3-3 in the BAAQMD's 2017 *CEQA Air Quality Guidelines* provides odor-screening distances for land uses that have the potential to generate substantial odor complaints. The uses in the table include wastewater treatment plants, landfills or transfer stations, refineries, composting facilities, confined animal facilities, food manufacturing, smelting plants, and chemical plants (BAAQMD 2017b). Odors are typically associated with industrial projects involving the use of chemicals, solvents, petroleum products, and other strong-smelling elements used in manufacturing processes, as well as sewage treatment facilities and landfills. The proposed development is a storage facility, which is not a land use typically associated with odors. The facility would include a septic system; however, it would be buried at a depth in accordance with Contra Costa Health Services (CCHS), which is responsible for review, permitting, and inspection of septic tanks, discussed further in Section 7, *Geology and Soils*. The septic system would be required to implement odor control and solid-liquefying chemicals and must be used in the chemical toilet holding tank at all times the chemical toilet is available for use (CCHS 2018). Project operation would not generate other emissions, such as those leading to odors, that would affect a substantial number of people. Therefore, impacts related to odor during operation would be less than significant.

**LESS THAN SIGNIFICANT IMPACT**

# 4 Biological Resources

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

This section utilizes a Planning Survey conducted by Marcus H. Bole & Associates on October 17, 2021 and peer reviewed by Rincon Consultants and is included as Appendix BIO.

## **Existing Setting**

The project site is covered in ruderal non-native grasses and forbs, and includes two trees. The site is relatively flat, with elevations ranging from approximately 20 to 40 feet above mean sea level. Portions of the site have been filled with gravel to facilitate vehicle access. The Contra Costa Canal Spillway, which is classified as a man-made aqueduct, is east of the project site. The Antioch-Pittsburg Highway runs north of the proposed site and facilitates regular vehicle movement around the perimeter of the site. Consistent traffic to the north, commercial uses to the east and west, and the Union Pacific railway and more commercial uses to the south impede potential wildlife access to and from the site.

There are more than 23 special-status plant species and more than 15 special-status wildlife species that may occur in the project vicinity, according to California Department of Fish and Wildlife (CDFW). None of the plant species are expected to occur on the site considering the years of extensive disturbance. Vegetation on the site currently includes ruderal vegetation such as, soft chess (*Bromus hordeaceus*), slender wild oats (*Avena barbata*), red brome (*Bromus madritensis* spp.), mustard (*Hirscheldia* spp. & *Brassica nigra*), and meadow fescue (*Festuca pratensis*) (Appendix BIO).

Only one of the special-status wildlife species is known to occur on or near the project site, the western burrowing owl (*Athene cunicularia*). Common wildlife observed onsite include the northern mockingbird (*Mimus polyglottos*), house finch (*Carpodacus mexicanus*), house sparrow (*Passer domesticus*), Western meadowlark (*Sturnella neglecta*), American robin (*Turdus migratorius*), and the American pipit (*Anthus rubescens*). Also observed are mammals such as raccoon (*Procyon lotor*), skunk (*Mephitis mephitis*), house mouse (*Mus musculus*), and the black-tailed jackrabbit (*Lepus californicus*) (Appendix BIO).

There is a 0.39 acre seasonal wetland in the northeastern portion of the site. The seasonal wetland is dominated by creeping spikerush (*Eleocharis macrostachya*), annual beard grass (*Polypogon monspeliensis*), broadleaf pepperweed (*Lepidium latifolium*), common tule (*Schoenoplectus acutus* var. *occidentalis*), and Mediterranean barely (*Hordeum marinum* ssp. *gussoneanum*). A single red willow (*Salix laevigata*) and a Fremont's cottonwood (*Populus fremontii*) exist along the edges of the seasonal wetland (Appendix BIO).

## **Regulatory Setting**

### *Federal Endangered Species Act*

The United States Congress passed the Federal Endangered Species Act (ESA) in 1973 to protect species that are endangered or threatened with extinction. The ESA is intended to operate in conjunction with the National Environmental Policy Act (NEPA) to help protect the ecosystems upon which endangered and threatened species depend. The ESA makes it unlawful to “take” a listed animal without a permit. Take is defined as “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect or attempt to engage in any such conduct.” Through regulations, the term “harm” is defined as “an act which actually kills or injures wildlife.” Such an act may include significant habitat modification or degradation where it actually kills or injures wildlife by significantly impairing essential behavioral patterns, including breeding, feeding, or sheltering.

### *Migratory Bird Treaty Act*

The Migratory Bird Treaty Act (MBTA) (16 USC Section 703) prohibits the killing of migratory birds or the destruction of their occupied nests and eggs except in accordance with regulations prescribed by the United States Fish and Wildlife Service (USFWS). The bird species covered by the MBTA includes nearly all of those that breed in North America, excluding introduced (i.e., exotic) species (50 Code of Federal Regulations Section 10.13). Activities that involve the removal of vegetation including trees, shrubs, grasses, and forbs or ground disturbance has the potential to affect bird species protected by the MBTA.

### *Clean Water Act, Section 401*

The Clean Water Act (Section 401) requires water quality certification and authorization for placement of dredged or fill material in wetlands and OWUS. In accordance with the Clean Water Act, criteria for allowable discharges into surface waters have been developed by the State Water Resources Control Board, Division of Water Quality. The resulting requirements are used as criteria in granting National Pollutant Discharge Elimination System (NPDES) permits or waivers, which are obtained through the Regional Water Quality Control Board (RWQCB) per the Clean Water Act (Section 402). Any activity or facility that will discharge waste (such as soils from construction) into surface waters, or from which waste may be discharged, must obtain an NPDES permit or waiver from the RWQCB. The RWQCB evaluates an NPDES permit application to determine whether the proposed discharge is consistent with the adopted water quality objectives of the basin plan.

### *California Endangered Species Act*

The California Endangered Species Act (CESA) is similar to the ESA, but pertains to state-listed endangered and threatened species. The CESA requires state agencies to consult with the CDFW when preparing documents to comply with the CEQA. The purpose is to ensure that the actions of the lead agency do not jeopardize the continued existence of a listed species or result in the destruction, or adverse modification of habitat essential to the continued existence of those species. In addition to formal listing under the federal and state endangered species acts, “species of special concern” receive consideration by CDFW. Species of special concern are those whose numbers, reproductive success, or habitat may be threatened.

### *California Fish and Wildlife Code*

The California Fish and Wildlife Code (Section 3503.5) states that it is “unlawful to take, possess, or destroy any birds in the order Falconiformes (hawks, eagles, and falcons) or Strigiformes (all owls except barn owls) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto.” Take includes the disturbance of an active nest resulting in the abandonment or loss of young. The California Fish and Wildlife Code (Section 3503) also states that “it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto.”

### *Rare and Endangered Plants*

The California Native Plant Society (CNPS) maintains a list of plant species native to California with low population numbers, limited distribution, or otherwise threatened with extinction. This information is published in the Inventory of Rare and Endangered Vascular Plants of California.

**Pittsburg Solar Recreational Vehicle/Boat Storage**

Potential impacts to populations of CNPS-ranked plants receive consideration under CEQA review. The CNPS California Rare Plant Rank (CRPR) categorizes plants as the following:

- Rank 1A: Plants presumed extinct in California;
- Rank 1B: Plants rare, threatened, or endangered in California or elsewhere;
- Rank 2: Plants rare, threatened, or endangered in California, but more numerous elsewhere;
- Rank 3: Plants about which we need more information; and
- Rank 4: Plants of limited distribution.

The California Native Plant Protection Act (California Fish and Game Code Section 1900-1913) prohibits the taking, possessing, or sale within the state of any plants with a state designation of rare, threatened, or endangered as defined by CDFW. An exception to this prohibition allows landowners, under specific circumstances, to take listed plant species, provided that the owners first notify CDFW and give the agency at least 10 days to retrieve (and presumably replant) the plants before they are destroyed. Fish and Wildlife Code Section 1913 exempts from the ‘take’ prohibition ‘the removal of endangered or rare native plants from a canal, lateral ditch, building site, or road, or other right of way.’”

*East Contra Costa County Habitat Conservation Plan/Natural Community Conservation Plan*

The East Contra Costa County Habitat Conservation Plan/Natural Community Conservation Plan (HCP/NCCP) is intended to provide an effective framework to protect natural resources in eastern Contra Costa County, while improving and streamlining the environmental permitting process for impacts on endangered species. The HCP/NCCP Plan allows Contra Costa County and the City of Pittsburg, among other jurisdictions, to control endangered species permitting for activities and projects in the region that they perform or approve. The HCP/NCCP Plan provides for comprehensive species, wetlands, and ecosystem conservation and contribute to the recovery of endangered species in northern California. Contra Costa County, the City, and other jurisdictions would then be able to use those permits to extend take authorization to development and other activities that meet the terms of the HCP/NCCP Plan. The HCP/NCCP Plan proposes to provide take authorization for 28 listed and non-listed species (i.e., covered species). The HCP/NCCP Plan includes conservation measures to protect all 28 list and non-listed species, whether they are currently listed.

*Pittsburg General Plan*

The biological resources and wetlands policies in the Resource Conservation Element of the City’s General Plan aim to protect and sustainably manage the unique biological resources and wetlands in the city. The goal and policies related to biological resources and wetlands are shown below:

**Policy 2-P-44:** Ensure—through a combination of on- and off-site mitigation—that new development results in no net loss of wetlands.

**Goal 9-G-1:** 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-G-2:** Guide development in such a way that preserves significant ecological resources.

**Goal 9-G-3:** Support the reclamation of wetlands and marshlands along local industrial waterfronts.

**Policy 9-P-1:** Ensure that development does not substantially affect special status species, as required by State and federal agencies. Conduct assessments of biological resources as required by CEQA prior to approval of development within habitat areas of identified special status species.

**Policy 9-P-2:** Establish an on-going program to remove and prevent the reestablishment of invasive species and restore native species as part of development approvals on sites that include ecologically sensitive habitat.

**Policy 9-P-3:** Participate in the development of a regional Habitat Conservation Plan (HCP) and consider its adoption for preservation of native species throughout eastern Contra Costa County.

**Policy 9-P-9:** Establish creek setbacks along riparian corridors, extending a minimum of 50 to 150 feet laterally on each side of the creekbed. Setback buffers for habitat areas of identified special status species and wetlands may be expanded as needed to preserve ecological resources.

**Policy 9-P-12:** Protect and restore threatened natural resources, such as estuaries, tidal zones, marine life, wetlands, and waterfowl habitat.

**Policy 9-P-25:** Encourage rehabilitation and revegetation of riparian corridors and wetlands throughout the City to contribute to bioremediation and improved water quality.

## Impact Analysis

- a. *Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?*

According to the CNDDDB, more than 23 special-status plant species are known to occur in the project vicinity. These plants occur in specialized habitats, i.e., brackish and freshwater marshes, swamps, and riparian scrub. It is highly unlikely that special status plants occur within the project site, since the project area has been extensively disturbed over the years and there are areas of gravel scattered over the ground (Appendix BIO).

Existing trees adjacent to the project site could contain bird nests and birds that are protected under the Migratory Bird Treaty Act (MBTA). Protected birds include all common songbirds, waterfowl, shorebirds, hawks, owls, eagles, ravens, crows, native doves and pigeons, swifts, martins, swallows, and others, including their body parts (feathers, plumes etc.), nests, and eggs. Project construction could have the potential to adversely affect protected nesting birds. Therefore, the project would be required to implement Mitigation Measure BIO-1.

According to the CNDDDB, more than 15 special-status wildlife species are known to occur in the project vicinity. The only special status species that has the potential to occur onsite or in the project vicinity is the western burrowing owl (*Athene cunicularia*) (Appendix BIO). The Contra Costa County HCP has indicated that the site's ruderal grassland habitat is considered suitable breeding and foraging habitat for the western burrowing owl. Owls were not detected on the site during field surveys conducted by Marcus H. Bole & Associates from September to October 2021; however, the site does support the California ground squirrel (*Otospermophilus beecheyi*) whose burrows are

used by the western burrowing owl for nesting and general habitation in the region. Only a few burrows were found onsite, and those burrows did not exhibit the presence of the western burrowing owl (molted feathers, cast pellets, prey remains, eggshell fragments, or excrement). There could also be western burrowing owls in ground nests. However, the potential to encounter western burrowing owls on the project site during ground disturbance activities would remain. Therefore, implementation of Mitigation Measure BIO-1 to protect burrowing owls would be required to reduce impacts to be less than significant.

## **Mitigation Measure**

### *BIO-1 Nesting Bird Avoidance*

To avoid impacts to nesting birds and raptors, vegetation removal and initial ground disturbance shall occur outside the nesting bird breeding season (March 1 through August 31). If construction must begin during the nesting bird breeding season, a nesting bird and raptor pre-construction survey shall be conducted by a qualified biologist in the disturbance footprint plus a 250-foot buffer, no more than two weeks prior to the initiation of construction activities. If the project is phased, a subsequent pre-construction survey shall be conducted prior to each phase of construction, if there is a break in construction activities greater than two weeks. If no active nests are observed, no further action would be required.

Pre-construction nesting bird and raptor surveys should be conducted during the time of day when birds are active and should be of sufficient duration to reliably conclude presence/absence of nesting birds and raptors on the project site and in the designated buffer. A report of the nesting bird and raptor surveys results, if applicable, shall be submitted to the City for review and approval prior to clearance for grading. If nests are found, their locations shall be flagged and mapped onto an aerial photograph of the project site at a scale no less than 1" = 200' and/or recorded with the use of a GPS unit. Avoidance buffers shall be established around active nests. Depending upon the species, suitable minimum buffers may be as follows:

- Non-raptor species – minimum of 50 feet
- Raptor species – minimum of 250 feet

Appropriate buffers shall be determined and demarcated by a qualified biologist. If active nests are present, all construction work shall be conducted outside the established buffer zone from the nest. No ground disturbance shall occur in this buffer until the qualified biologist confirms that breeding/nesting is completed and all the young have fledged. If buffer zones are determined to be infeasible, a qualified biological monitor must be on-site to monitor construction activities in the buffer zones to ensure active nests and nesting birds are not impacted. Nesting bird surveys are not required for construction activities that occur between September 1 and January 31.

Implementation of Mitigation Measure BIO-1 would ensure protection of nesting birds and would reduce impacts to less than significant.

**LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED**

- b. *Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?*
- c. *Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?*
- f. *Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?*

The project site does not support existing natural plant or wildlife communities; however, there is a 0.39-acre seasonal wetland on the northeastern portion of the project site. There are several grasses, one red willow (*Salix laevigata*) and a Fremont's cottonwood (*Populus fremontii*) on or at the edge of the wetland. The wetland swale is in an area that is significantly lower in elevation from most of the project site and would be difficult to develop. The swale does not lie within a discernable drainage way and was likely created as a borrow pit from when the Contra Costa Canal was constructed (Appendix BIO). The swale collects seasonal precipitation from a small watershed to the south of the swale. There is no exit (culvert) for precipitation to continue a northerly flow under the Pittsburg-Antioch Highway so it sits in the depression, becoming the seasonal wetland, until it is subject to either evaporation or percolation.

The Pittsburg General Plan calls for protection and conservation of riparian habitats, creeks, shorelines, and wetlands in Goal 9-G-3 and Policies 2-P-44, 9-P-9, 9-P-12, and 9-P-25. The project site is located within the East Contra Costa County HCP/NCCP area (East Contra Costa County Habitat Conservation Plan Association 2006), which provides for a streamlined permitting process to protect wetlands and mitigate impacts. The HCP/NCCP calls for payment or restoration when a jurisdictional wetland is impacted by construction. If the on-site jurisdiction wetland, (i.e., the seasonal swale in the northeastern portion of the project site) were to be impacted by construction, mitigation measures in the HCP/NCCP and USACE directives would be triggered. To avoid impacting the seasonal wetland during project construction Mitigation Measure BIO-2 would be required. Operational runoff on the seasonal wetland would be prevented through use of bioretention areas, which would prevent pollutants from entering the wetland but would still allow water filtration and would continue to provide a water source for the seasonal wetland area.

## **Mitigation Measure**

### *BIO-2 Wetlands Buffer*

During project construction, the seasonal wetland within the northeastern portion of the project site shall be avoided and protected with a 25-foot buffer. During construction, the wetland and buffer shall be fenced and protected with silt fence/straw wattles. Signage shall also be installed prohibiting access to the fenced off area. Installation and maintenance of the wetland buffer shall be confirmed by a CDFW or East Contra Costa HCP/NCCP qualified biologist.

Compliance with Mitigation Measure BIO-2 would ensure protection of wetlands and reduce impacts to wetlands to less than significant.

### **LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED**

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- d. *Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?*

The project site consists of ruderal vegetation and disturbed areas. Land use in the vicinity are primarily commercial or industrial with no connectivity to natural habitats and is therefore not expected to support wildlife movement. The project site is in an urbanized area and is surrounded by developed land. The site is not located within a known regional wildlife movement corridor or other sensitive biological area as indicated by the USFWS Critical Habitat portal or CDFW Biogeographic Information and Observation System (USFWS 2020; CDFW 2020). The project would have no impact to wildlife movement corridors.

**NO IMPACT**

- e. *Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?*

Implementation of the proposed project would not involve the removal of trees. Therefore, the project would not conflict with any local policies or ordinances protecting biological resources, including Chapter 18.84, Article XIX of PMC that includes tree preservation and protection standards for removal, maintenance, and planting for which a permit is required to remove and protected trees on a site. The project would not conflict with other local policies or ordinances related to environmental resources. Therefore, impacts would be less than significant.

**LESS THAN SIGNIFICANT IMPACT**

# 5 Cultural Resources

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

In July 2021, Genesis Society Archaeological – Historical – Cultural Resource Management Services (Genesis Society) prepared a cultural resources study, which included: a cultural resources records search at the California Historical Resources Information System Northwest Information Center (NWIC), located at Sonoma State University; an NAHC SLF search, and a pedestrian field survey (Jensen 2021). This study was peer reviewed by Rincon in September 2021 and is included as Appendix CUL.

This section provides an analysis of the project’s impacts on cultural resources, including historical and archaeological resources, as well as human remains. CEQA requires a lead agency to determine whether a project may have a significant effect on historical resources (Public Resources Code [PRC], Section 21084.1). A historical resource is a resource listed in, or determined to be eligible for listing in, the California Register of Historical Resources (CRHR); a resource included in a local register of historical resources; or any object, building, structure, site, area, place, record, or manuscript a lead agency determines to be historically significant (CEQA Guidelines, Section 15064.5[a][1-3]).

A resource shall be considered historically significant if it:

1. Is associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage;
2. Is associated with the lives of persons important in our past;
3. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
4. Has yielded, or may be likely to yield, information important in prehistory or history.

In addition, if it can be demonstrated that a project would cause damage to a unique archaeological resource, the lead agency may require reasonable efforts be made to permit any or all of these resources to be preserved in place or left in an undisturbed state. To the extent that resources cannot be left undisturbed, mitigation measures are required (PRC, Section 21083.2[a], [b]).

PRC, Section 21083.2(g) defines a unique archaeological resource as an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it:

1. Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information;
2. Has a special and particular quality such as being the oldest of its type or the best available example of its type; or
3. Is directly associated with a scientifically recognized important prehistoric or historic event or person.

## **Impact Analysis**

- a. Would the project cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?*

Rincon completed a review of historical topographic maps and aerial imagery to ascertain the development history of the project site. Historical topographic maps from 1908 to 1965 depict the project site as undeveloped bounded to the north by current day Pittsburg-Antioch Highway, to the south by a rail line, and a water feature to the east (USGS 2021a; NETR Online 2021). Aerial imagery from 1949 depicts the project site as undeveloped with ranches and residential buildings to the east and west, as well as the highway to the north, and the rail line to the south (NETR Online 2021). Imagery from 1957 to 1987 depict the project site similar to that of 1949, with grading of the project site throughout various years (NETR Online 2021). From 1969 to 1995, topographic maps show commercial development to the east and west of the project site, with no development within the project site (USGS 2021a; NETR Online 2021). Imagery from 1987 depict the residence to the east demolished, and commercial development starting in 1993, carried through 2021 (NETR Online 2021).

There are no identified cultural resources within the project site. The aerial imagery and historical topographic map review did not identify the project site as being developed, nor did it identify any potential built environment resources within the project site. Additionally, the Genesis Society survey and research were returned with negative results for cultural resources within the project site. Therefore, no built environment resources are present that may be impacted by the project. There would be no impact to built environment resources on the project site.

### **NO IMPACT**

- b. Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?*

An NWIC records search was performed to identify previously recorded cultural resources, as well as previously conducted cultural resources studies within the project site and a 0.25-mile radius surrounding it. The National Register of Historic Places (NRHP), the CRHR, the Office of Historic Preservation Historic Properties Directory, the California Inventory of Historic Resources, the Archaeological Determinations of Eligibility list, as well as historic topographic map and aerial imagery review were also reviewed (Appendix CUL).

The NWIC records search identified 41 cultural resources studies conducted within a 0.25-mile radius of the project site, seven of which evaluated portions of the project site. The NWIC search

identified five previously recorded cultural resources within a 0.25-mile radius of the project site, none of which occur within the project site.

The site has been disturbed by grading starting in 1987 at the earliest. Additionally, substantial development surrounds the project site in all directions. On July 25, 2021, Genesis Society conducted an intensive pedestrian survey by walking 20-meter interval parallel transects across the project site. There was some evidence of previous farming, ranching, grubbing, and grading disturbance to the project site, as well as modern trash dumping. No prehistoric or historic-period archaeological or built environment resources were identified during the efforts; therefore, it was concluded that no resources will be affected by the project (Appendix CUL).

Rincon contacted the NAHC on September 10, 2021, to request an updated SLF search of the project site. The NAHC emailed a response on October 14, 2021, stating the SLF search was negative.

As the SLF search was returned with negative results, and no prehistoric resources were identified within the project site, the project site is considered to have low archaeological sensitivity. However, it is possible that unanticipated archaeological deposits and/or human remains could be encountered and damaged during ground-disturbing activities, especially if those activities would occur in less-disturbed areas. Consequently, mitigation would be necessary to reduce potential impacts to archaeological resources, including those that may be considered historical resources.

## **Mitigation Measure**

### *CUL-1 Worker's Environmental Awareness Program*

An environmental professional shall conduct a Worker's Environmental Awareness Program (WEAP) training on archaeological sensitivity for all construction personnel prior to the commencement of any ground-disturbing activities within the project area. The training material should be developed by an archaeologist who meets or exceeds the Secretary of Interior's Professional Qualification Standards for archaeology (National Park Service [NPS] 1983). Archaeological sensitivity training should include a description of the types of cultural material that may be encountered, cultural sensitivity issues, regulatory issues, and the proper protocol for treatment of the materials in the event of a find.

### *CUL-2 Unanticipated Discovery of Cultural Resources*

If archaeological resources are encountered during construction, work within 50 feet of the find shall be halted and a qualified archaeologist meeting the Secretary of Interior's Professional Qualification Standards for archaeology (National Park Service 1983) shall immediately be contacted to evaluate the find pursuant to Public Resources Code Section 21083.2. If necessary, the evaluation may require preparation of a treatment plan and archaeological testing for determining CRHR eligibility. If the discovery proves to be significant under CEQA and cannot be avoided by the project, additional work may be warranted, such as data recovery excavation, to mitigate any significant impacts to significant resources. If the resource is of Native American origin, the NAHC shall be contacted to ensure that the Most Likely Descendant can assess the find. Any reports required to document and/or evaluate unanticipated discoveries shall be submitted to the City of Pittsburg for review and approval and submitted to the NWIC after completion. Recommendations contained within prepared reports shall be implemented throughout the remainder of ground disturbance activities.

*CUL-3 Archaeological and Tribal Construction Monitoring*

In the event of the identification of cultural resources on the project site, a professionally qualified archaeologist and Tribal representative shall monitor ground-disturbing construction conducted during project implementation. The monitors shall observe ground-disturbing construction to identify potential archaeological deposits and avoid or limit damage to such deposits. The monitors shall have the discretion to reduce the intensity of monitoring, or suspend such monitoring, if field conditions clearly indicate that no potential intact archaeological deposits could be encountered. Should an intact archaeological deposit be identified, the monitors shall be empowered to temporarily halt construction in the vicinity of the find. The archaeologist shall, in consultation with the Tribal representative and City, evaluate the eligibility of the deposit for inclusion in the California Register of Historical Resources. If the deposit is eligible, the project shall attempt to feasibly avoid damage to the deposit (e.g., redesign or capping). If avoidance is not feasible, the archaeologist shall, in consultation with the Tribal representative and City, develop and implement a plan to recover the scientifically consequential data represented by the deposit in a manner respectful of tribal concerns. A report of the finds of any resource evaluation and/or data recovery efforts shall be submitted to the Northwest Information Center in Sonoma State as a condition for access to its archives. Implementation of Mitigation Measure CUL-1 through CUL-3 would reduce impacts to cultural resources to less than significant.

**LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED**

- c. *Would the project disturb any human remains, including those interred outside of formal cemeteries?*

The cultural resources records search did not identify cemeteries or archaeological resources containing human remains within the project site. However, the discovery of human remains is always a possibility during ground disturbing activities, as would be required for development within the site. Human burials outside of formal cemeteries often occur in prehistoric archaeological contexts. In addition to being potential archaeological resources, human burials have specific provisions for treatment in California Public Resources Code Section 5097. Additionally, the California Health and Safety Code (Sections 7050.5, 7051, and 7054) has specific provisions for the protection of human burial remains. Existing regulations address the illegality of interfering with human burial remains, and protects them from disturbance, vandalism, or destruction. Public Resources Code Section 5097.98 also addresses the disposition of Native American burials, protects such remains, and establishes the NAHC as the entity to resolve any related disputes.

If human remains are found, the State of California Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. In the event of an unanticipated discovery of human remains, the County coroner must be notified immediately. If the human remains are determined to be prehistoric, the coroner will notify the NAHC, which will determine and notify a most likely descendant (MLD). The MLD shall complete the inspection of the site within 48 hours of notification and may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials. Compliance with Public Resources Code Section 5097.98 and State of California Health and Safety Code Section 7050.5 would ensure impacts to human remains are less than significant.

**LESS THAN SIGNIFICANT IMPACT**

## 6 Energy

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

### Electricity

In 2020, California’s total electric generation was 272,576 gigawatt-hours (GWh), of which 190,913 GWh was produced in-state (California Energy Commission [CEC] 2020). California’s non-CO<sub>2</sub> emitting electric generation sources accounted for more than 51 percent of the total in-state generation, which was down from about 53 percent in 2019. Contra Costa County consumed approximately 9,639 GWh of electricity, or 3.4 percent of the electricity generated in California, in 2019 (CEC 2019a). If electricity is required during construction, the project would use electricity provided by Marin Clean Energy (MCE) or Pacific Gas and Electric (PG&E). The project would generate its own electricity on site through solar panels once operational. Table 9 details electricity consumption in Contra Costa County and California, and for the provider, PG&E. The City of Pittsburg has not adopted an energy efficiency plan but encourages the use of solar power with General Plan Policy 2-P-19, which calls to revise the City’s Subdivision Ordinance to encourage solar access and other energy-saving devices.

**Table 9 2019 County, State, and Provider Electricity Consumption**

Energy Type	Contra Costa	PG&E <sup>1</sup>	California	Proportion of PG&E Consumption	Proportion of Statewide Consumption <sup>2</sup>
Electricity (GWh)	9,639	78,390	282,194	28%	3.4%

GWh = gigawatt-hours

<sup>1</sup> MCE delivers energy through PG&E

<sup>2</sup> For reference, the population of Contra Costa County (979,431 persons) is approximately 2.5 percent of the population of California (39,466,855 persons) (California Department of Finance 2021).

Source: CEC 2021c

## Petroleum

To reduce statewide vehicle emissions, California requires that all motorists use California Reformulated Gasoline (CaRFG), a cleaner formulation of gasoline that results in lower emissions of ozone, CO and other air pollutants when burned. Californians consumed approximately 1.7 billion gallons of diesel fuel and 12.6 billion gallons of gasoline in 2020 (CEC 2020). Gasoline is the most used transportation fuel in California and is used by light-duty cars, pickup trucks, and sport utility vehicles (CEC 2018). Diesel is the second most used fuel in California and is used primarily by heavy-duty-trucks, delivery vehicles, buses, trains, ships, boats and barges, farm equipment, and heavy-duty construction and military vehicles (CEC 2018). Both gasoline and diesel are primarily petroleum-based, and their consumption releases greenhouse gas (GHG) emissions, including carbon dioxide (CO<sub>2</sub>) and NO<sub>x</sub>.

In 2019, approximately 39.4 percent of the state’s energy consumption was used for transportation activities (USEIA 2020). Californians presently consume over 19 billion gallons of motor vehicle fuels per year (CEC 2018). Though California’s population and economy are expected to grow, gasoline demand is projected to decline from roughly 15.6 billion gallons in 2017 to between 12.1 billion and 12.6 billion gallons in 2030, a 19 percent to 22 percent reduction. This decline comes in response to both increasing vehicle electrification and higher fuel economy for new gasoline vehicles (CEC 2018). Fuel consumption in Contra Costa County in comparison with California is shown in Table 10

**Table 10 2020 Annual Gasoline and Diesel Consumption**

Fuel Type	Contra Costa County (gallons)	California (gallons)	Proportion of Statewide Consumption <sup>1</sup>
Gasoline	336 million	12.6 billion	2.7%
Diesel	23 million	1.8 billion	1.3%

<sup>1</sup> For reference, the population of Contra Costa County (979,431 persons) is approximately 2.5 percent of the population of California (39,466,855 persons) (California Department of Finance 2021).

Source: CEC 2020

## Impact Analysis

- a. *Would the project result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?*

During project construction, energy would be consumed in the form of petroleum-based fuels used to power off-road construction vehicles and equipment on the project site, construction worker travel to and from the project site, and vehicles used to deliver materials to the site. The project would require site preparation and grading, including hauling material off-site; pavement and asphalt installation; building construction; architectural coating; and landscaping and hardscaping.

The total consumption of gasoline and diesel fuel during project construction was estimated using the assumptions and factors from CalEEMod (Appendix AQ). Table 11 presents the estimated construction energy consumption, indicating construction equipment, hauling and vendor trips, and worker trips would consume approximately 6,576 gallons of gasoline and 39,314 gallons of diesel fuel over the project construction period. Fuel consumption calculations can be found in Appendix AQ.

**Table 11 Estimated Fuel Consumption During Construction**

<b>Fuel Type</b>	<b>Gallons of Fuel</b>
Diesel Fuel (Construction Equipment)	34,206
Diesel Fuel (Hauling & Vendor Trips)	5,108
Other Petroleum Fuel (Worker Trips)	6,576
<b>Total</b>	<b>45,890</b>

Source: Appendix AQ

The construction energy estimates are conservative because the equipment used in each phase of construction was assumed to be operating 8 hours of every construction day in the phase the equipment would be used. In reality, not all equipment would be used on every construction day nor all day. Project construction would be temporary and typical of similar projects. Construction equipment would be maintained to all applicable standards, and construction activity and associated fuel consumption and energy use would be temporary and typical for construction sites. It is also reasonable to assume contractors would avoid wasteful, inefficient, and unnecessary fuel consumption during construction to reduce construction costs. In addition, construction contractors would be required to comply with the provisions of 13 California Code of Regulations (CCR) Sections 2449 and 2485, which prohibit diesel-fueled commercial motor vehicles and off-road diesel vehicles from idling for more than five minutes, which would minimize unnecessary fuel consumption. Construction equipment would be subject to the USEPA Construction Equipment Fuel Efficiency Standard (40 Code of Federal Regulations Parts 1039, 1065, and 1068), which would minimize inefficient fuel consumption. Therefore, the project would not involve the inefficient, wasteful, and unnecessary use of energy during construction, and the construction-phase impact related to energy consumption would be less than significant.

### **Operational Energy Demand**

Project operation would increase energy demand in the form of gasoline consumption as the project would generate its own renewable energy on site. Increased gasoline consumption would be associated with new vehicle trips to and from the site. The estimated annual VMT that would be generated by the project (Appendix AQ) is used to calculate operational gasoline consumption. Table 12 shows the estimated total annual fuel consumption of the project using the estimated VMT and the assumed vehicle fleet mix (Appendix AQ). In addition to fuel consumption, project operation would consume approximately 0.09 GWh of electricity per year, or less than 1 percent of total electricity use in Contra Costa County in 2019 (CEC 2019a).

The project includes the construction of solar canopies over the parking stalls that would generate approximately 3 megawatts of energy per day, which would power the on-site office (which would require 20 kilowatts of energy per day). This would offset other regional demand for nonrenewable energy.

**Table 12 Estimated Project Annual Energy Consumption**

Source	Energy Consumption <sup>1</sup>	
<b>Transportation Fuels<sup>2</sup></b>		
Gasoline	9,544 gallons	1,048 MMBtu
Diesel	1,556 gallons	198 MMBtu
Electricity	0.09 GWh	307 MMBtu
<b>Total Project Energy Consumption</b>		<b>1,573 MMBtu</b>

MMBtu = million metric British thermal units; GWh = gigawatt hours

<sup>1</sup> Energy consumption is converted to MMBtu for each source.

<sup>2</sup> The estimated number of average daily trips associated with the project is used to determine the energy consumption associated with fuel use from operation of the project. According to CalEEMod calculations (see Appendix AQ), the project would result in approximately 214,572 annual VMT.

See Appendix AQ for CalEEMod output results for electricity and natural gas usage and fuel consumption calculations

The project would be required to comply with all standards set in California Building Code (CBC) Title 24, which would minimize the wasteful, inefficient, or unnecessary consumption of energy resources during operation. California’s Green Building Standards Code (CALGreen; California Code of Regulations, Title 24, Part 11) requires implementation of energy efficient light fixtures and building materials into the design of new construction projects.

Furthermore, the 2019 Building Energy Efficiency Standards (CBC Title 24, Part 6) requires newly constructed buildings to meet energy performance standards set by the Energy Commission. As the name implies, these standards are specifically crafted for new buildings to result in energy efficient performance so that the buildings do not result in wasteful, inefficient, or unnecessary consumption of energy. The standards are updated every three years and each iteration is more energy efficient than the previous standards. Furthermore, the project would have the capacity to generate 3 MW of renewable energy on site and would further reduce its use of nonrenewable energy resources. Therefore, project operation would not result in wasteful or unnecessary energy consumption.

**LESS THAN SIGNIFICANT IMPACT**

*b. Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?*

The project would be subject to local, regional, and state energy requirements and thus, would not conflict or obstruct a state or local plan for renewable energy or energy efficiency. The on-site solar system would offset 100 percent of the project’s energy use and generate enough solar renewable energy (approximately 2 megawatt hours per year) to supply approximately 600 homes in Pittsburg and the surrounding area. The project would supply the solar energy generated to MCE as a part of MCE’s Feed-in Tariff program, whereby MCE purchases the solar energy at a discounted rate and sells the energy under MCE’s Local Sol energy option. Thus, the project would support Senate Bill 100, which calls for a 100 percent clean and carbon-free California by 2045. The project would be required to comply with all state and local plans for renewable energy and energy efficiency. Therefore, the project would not conflict with any state or local plans for energy efficiency, and this impact would be less than significant.

**LESS THAN SIGNIFICANT IMPACT**

# 7 Geology and Soils

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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Would the project:

a. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
1. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4. Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

This discussion is based on a design-level geotechnical investigation, conducted by Berlogar Stevens & Associates on June 11, 2018, and is included as Appendix GEO.

## **Setting**

Active faults are defined by the State of California to be a fault that has surface displacement within the Holocene time (approximately the last 10,000 years). Potentially active faults as defined by the State of California are faults that have shown evidence of surface displacement during the Quaternary (last 1.6 million years). Any fault that is sufficiently active describes a fault that has some evidence of Holocene displacement on one or more of its segments or branches. Associated issues with earthquakes include landslides, which is a movement of surface material down a slope. Other issues include lateral spread and liquefaction, which are processes in which material flows in a fluid-like movement; lateral spread refers to this movement over a gentle slope during a landslide, and liquefaction refers to water-saturated sediment losing strength due to ground-shaking. Subsidence and collapse can also occur, which refer to the caving in or sinking of land.

The Bay Area contains both active and potentially active faults. Major active faults in or near Pittsburg include the Clayton fault located approximately 5 miles southwest of the site, the Davis fault located approximately 4.1 miles east of the site, and the Concord fault located approximately 10 miles southwest of the site (DOC 2015).

Expansive soils are soils that swell in density and volume as they absorb water and contract as they lose water. Associated problems include cracking and deterioration of roadway surface, as they expand and contract during seasonal wet and dry cycles. According to the Natural Resource Conservation Service's Web Soil Survey, multiple soil types that occur in Pittsburg have a potential for shrinking and swelling behavior, including but not limited to Brentwood Clay loam, Capay clay, and Rincon clay loam (NRCS 2021). In areas underlain by expansive soils, the shrinking and swelling of soil can disrupt or damage paved surfaces. The project site is topographically flat and soils are classified as Rincon clay loam (NRCS 2021).

The project site is situated in the Suisun Bay within the Coast Ranges geomorphic province of California (California Geological Survey 2002). The surface geology of the project site is entirely mapped as Quaternary old (Pleistocene) alluvial-fan and fluvial deposits (Qpaf), derived from modern stream courses (Helley and Graymer 1997). Pleistocene alluvial-fan and fluvial deposits consist of dense brown gravely and clayey sand or clayey gravel that fines upward to sandy clay and locally contain freshwater mollusks and extinct late Pleistocene vertebrate fossils (Helley and Graymer 1997). Based on the findings of the site-specific geotechnical investigation, the subsurface borings did not encounter any significant fill deposits and typically encountered an upper soil layer consisting of several feet of very stiff to hard silty clay (Appendix GEO). The sedimentary deposits underlying the soil layer were described as predominately very stiff to hard silty to sandy clays and dense clayey sands, which is consistent with the lithology description provided by Helley and Graymer (1997; Appendix GEO).

The paleontological sensitivities of the geologic units underlying the project site were evaluated based on a desktop review of existing data, including geologic maps, published literature, and online fossil locality and collections databases. Fossil collections records from the Paleobiology Database (PBDB) and University of California Museum of Paleontology (UCMP) online database were reviewed for known fossil localities in Contra Costa County (Paleobiology Database 2021; UCMP 2021). Based on the available information contained within existing scientific literature and the UCMP database, paleontological sensitivities were assigned to the geologic units underlying the

project site. The potential for impacts to significant paleontological resources is based on the potential for ground disturbance to directly impact paleontologically sensitive geologic units.

The UCMP reports 49 vertebrate fossil localities from unnamed Pleistocene units in Contra Costa County (UCMP 2021). In addition, the PBDB reports five localities in the northern East Bay region (i.e., western parts of Contra Costa and Alameda Counties) (PBDB 2021). Collectively, these localities have produced nearly the full suite of Pleistocene fossil specimens of elephant relatives (*Mammuthus* and *Mammut*), ground sloths (*Glossotherium* and *Megalonyx*), horse (*Equus*), bison (*Bison*), and camels (*Camelops* and *Hemiauchenia*). Based on the paleontological locality searches and literature review, the mapped geologic unit within the project site (i.e., Quaternary old alluvial-fan and fluvial deposits [Qpaf]) is assigned a high paleontological sensitivity, in accordance with SVP standards (PBDB 2021; UCMP 2021; SVP 2010).

The Society of Vertebrate Paleontology (SVP) has developed a system for assessing paleontological sensitivity and describes sedimentary rock units as having high, low, undetermined, or no potential for containing significant nonrenewable paleontological resources (SVP 2010). This criterion is based on rock units within which vertebrate or significant invertebrate fossils have been determined by previous studies to be present or likely to be present

## **Regulatory Setting**

### *Federal and State*

#### **ALQUIST-PRIOLO EARTHQUAKE FAULT ZONING ACT**

Following the 1989 Loma Prieta earthquake, the Seismic Hazards Mapping Act (SHMA) was passed by the California legislature in 1990. The SHMA (PRC Chapter 7.8, Section 2690-2699.6) directs the Department of Conservation, California Geological Survey to identify and map areas prone to liquefaction, earthquake-induced landslides and amplified ground shaking. It also requires that agencies only approve projects in seismic hazard zones following site-specific geotechnical investigations to determine if the identified hazard is present and the inclusion of appropriate mitigation to reduce earthquake-related hazards.

#### **SEISMIC HAZARDS MAPPING ACT**

The Seismic Hazards Mapping Act of 1990 was enacted, in part, to address seismic hazards not included in the Alquist-Priolo Act, including strong ground shaking, landslides, and liquefaction. Under the Alquist-Priolo Act, the State Geologist is responsible for identifying and mapping seismic hazards. CGS Special Publication 117, adopted in 1997 by the State Mining and Geology Board, constitutes guidelines for evaluating seismic hazards other than surface faulting and for recommending mitigation measures as required by PRC Section 2695(a). In accordance with the mapping criteria, the CGS seismic hazard zone maps identify areas with the potential for a ground shaking event that corresponds to 10 percent probability of exceedance in 50 years.

The purpose of the Seismic Hazards Mapping Act is to reduce the threat to public health and safety and to minimize the loss of life and property by identifying and mitigating seismic hazards. Cities, counties, and state agencies are directed to use seismic hazard zone maps developed by CGS in their land-use planning and permitting processes. The Seismic Hazards Mapping Act requires site-specific geotechnical investigations prior to permitting most urban development projects in seismic hazard zones.

## **NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM**

Construction projects which disturb one or more acres of soil or are part of a larger common plan of development that disturbs one or more acres of soil must obtain coverage under the statewide NPDES General Permit for Discharges of Stormwater Associated with Construction Activity (Construction General Permit Order 2009-0009-DWQ). In order to obtain coverage under the Construction General Permit, a project-specific Stormwater Pollution Prevention Plan (SWPPP) must be prepared. The SWPPP outlines BMPs to reduce stormwater and non-stormwater pollutant discharges, including erosion control, minimizing contact between construction materials and precipitation, and strategies to prevent equipment leakage or spills.

## **Impact Analysis**

*a.1. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?*

The project site is not in an Earthquake Fault Zone as defined by the Alquist-Priolo Earthquake Fault Zoning Act, and no known active or potentially active faults exist on the site. Thus, the likelihood of surface rupture occurring from active faulting at the site is low. The project site would not likely be subject to ground rupture. Furthermore, the project site would not be developed with residential uses and would be estimated to have one employee who would be at the site approximately twelve hours per day. Under the Alquist-Priolo Act, development of a building for human occupancy, such as a commercial or residential building, is restricted near active fault traces. Other facilities, such as non-occupied buildings, roads, utilities, or parking areas, are not subject to this restriction. A structure for human occupancy is defined in the Alquist-Priolo Act as a structure that is occupied a minimum of 2,000 person/hours per year. The proposed office would be the only structure on the site intended for human occupancy (during office hours). The nearest fault to the project site is the Concord Fault, located 10 miles southwest of the site. As such, the structure intended for human occupancy on site would be located far enough away from the fault and would be required to be constructed pursuant to current CBC seismic requirements.

Therefore, the risk of loss, injury, or death involving rupture of a known earthquake fault would be less than significant.

## **LESS THAN SIGNIFICANT IMPACT**

*a.2. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking?*

Major earthquakes have occurred in the vicinity of Pittsburg in the past and can be expected to occur again in the near future (Pittsburg 2010b). Strong ground shaking at the project site could result from a rupture of faults near the City or of the major regional earthquake faults in the Bay Area. Such strong ground shaking could damage structures on the project site. However, no residential structures would be constructed on the site that could be vulnerable to collapse during ground shaking. As discussed above, under criteria a.1, the commercial structure would be located 10 miles northeast of the nearest fault, which would reduce the risk of loss, injury, or death involving strong seismic ground shaking.

Further, the structure would be required to be constructed to meet current seismic standards in the current CBC intended to ensure that buildings could withstand the adverse effects of strong ground shaking. With compliance with required compliance with all applicable City building and fire code standards, as well as the CBC (CBC, Title 24 of the California Code of Regulations), regarding seismic safety, design and construction of the proposed project would be engineered to withstand the expected ground acceleration that may occur at the project site. Additionally, PMC Section 15.88.050 requires that project applicants submit a Soils and Engineering Geology Report that includes a discussion about seismic activity that may affect the development. Project construction would also be subject to review and approval by City building and safety officials prior to project approval. Proper engineering, including compliance with the CBC, would minimize the risk to life and property associated with potential seismic activity in the area. Impacts related to seismic shaking would therefore be less than significant

**LESS THAN SIGNIFICANT IMPACT**

*a.3. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction?*

Liquefaction, which is primarily associated with unconsolidated, saturated materials, is most common in areas of sand and silt or on reclaimed lands. In these areas, ground failure and differential settlement could result from a severe earthquake, damaging paved surfaces and elevated structures. Liquefaction potential is highest in areas underlain by poorly engineered Bay fills, Bay mud, and unconsolidated alluvium. The northeast portion, comprising most of the project site, is identified as being within a liquefaction zone (DOC 2016b). However, the sandy soils encountered in the borings taken in the geotechnical investigation were dense to very dense and were predominantly hard clayey sand (Appendix GEO). Further, the groundwater depth is approximately 35 feet below ground surface (Appendix GEO). Therefore, the risk of liquefaction would be low. Additionally, the proposed office structure would be sited on the northwestern portion of the project site and would not be located within a liquefaction zone. Therefore, impacts would be less than significant.

**LESS THAN SIGNIFICANT IMPACT**

*a.4. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving landslides?*

The project site is a flat, undeveloped, approximately 12.5-acre parcel in an urbanized area of the City. As there are no significant slopes in the project vicinity, no substantial landslide risks would be associated with the site. Pursuant to the USGS Landslide Inventory, the project site is not within a landslide hazard zone (USGS 2021b). Impacts related to landslides would be less than significant.

**LESS THAN SIGNIFICANT IMPACT**

*b. Would the project result in substantial soil erosion or the loss of topsoil?*

The proposed project would include construction activities that could potentially result in soil erosion. The project would be required to follow applicable CMC requirements and would be subject to the erosion control requirements of PMC Chapter 15.88. Pursuant to Section 15.88.030(B), "all land-disturbing or land-filling activities or soil storage shall be undertaken in a manner designed to minimize surface runoff, erosion and sedimentation." In addition to local erosion control regulations, development would be required to comply with the NPDES

Construction General Permit Requirements, which would limit peak post-project runoff levels to pre-project levels. The project applicant would also be required to prepare a SWPPP, a sediment and erosion control plan that describes the activities to prevent stormwater contamination, control sedimentation and erosion, and comply with the requirements of the statewide permit. Therefore, the project would have a less than significant impact from soil erosion or the loss of topsoil.

#### **LESS THAN SIGNIFICANT IMPACT**

- c. *Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?*
- d. *Would the project be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?*

The project site is not within an area mapped as having landslides (USGS 2021b). Therefore, the project has a low potential for slope instability occurring at the site and impacts would be less than significant.

Project construction would have impacts regarding expansive soils as near-surface soils are classified as moderately to highly expansive (Appendix GEO). There would be a paved surface that would contain personal property, RVs and boats. Compliance with CBC and PMC Chapter 15.88 would minimize potential loss of property due to the site's location on expansive soils. Expansive soil's ability to undergo significant shrinking or swells due to moisture content may result in unacceptable settlement or heave of structures, pavements and concrete slabs-on-grade supported over these materials. This settlement or heaving could have adverse impacts to anyone employed at or using the facilities of the proposed project. To reduce the potential detrimental effects of expansive soils implementation of Mitigation Measures GEO-1 through GEO-5 would be required to further address expansive soils on the project site. Therefore, impacts would be less than significant with mitigation incorporated.

### **Mitigation Measures**

#### *GEO-1 Site Preparation and Grading*

The project applicant and/or their contractor shall cut off above ground vegetation at ground surface and remove it by scraping with grading equipment. Exposed subgrade in areas that are at a finished grade, have been cut to a finished grade, or that would receive fill shall be scarified to a depth of 12 inches, be moisture conditioned and compacted. If soft or saturated soils are encountered during excavation and compaction, then the applicant's Geotechnical Engineer shall determine if deeper excavations shall be required to expose firm soils.

If conventionally reinforced non-structural concrete slab-on-grade floors and pavements are used, expansive soils shall be removed or over-excavated and replaced with non-expansive soils as fills, which shall be placed in thin lifts of 6 to 9 inches. The onsite soil shall be free of deleterious matter or rocks greater than 4 inches in largest dimension. The material used as fills shall be relatively impervious when compacted. Clean sand or very sandy soil is not acceptable, as they may drain into the expansive soils below, which could result in swelling. To meet acceptable conditions as non-expansive fill, the fill must meet the following properties and be property moisture conditioned, placed, and compacted:

- 20 to 50 percent passing no. 200 sieve
- Maximum 12 plasticity index
- 40 maximum liquid limit
- 20 maximum expansion index
- Expansive on-site clayey soils – 85 to 90 percent relative compaction at no less than 5 percent over the optimum moisture content.
- Non-expansive import soils – at least 90 percent relative compaction at no less than 3 percent over the optimum moisture content.
- The top 12 inches of finished subgrade in pavement areas should be moisture conditioned to at least 3 percent above the optimum moisture content and compacted to at least 93 percent relative compaction.
- Aggregate base in pavement areas, including below concrete slabs for vehicle parking, should be moisture conditioned to at least 3 percent above the optimum moisture content and compacted to at least 95 percent relative compaction.

Observation and soil density tests shall be performed by the Geotechnical Engineer to assist the contractor in obtaining the required degree of compaction and proper moisture content. The Geotechnical Engineer shall be notified at least 48 hours prior to commencement of grading to discuss procedures and methods with the contractor. The City shall review and approve the Geotechnical Engineer's soil density tests prior to providing building permits for the project.

#### *GEO-2 Utility Trenches*

To maintain the desired support for foundations, the project applicant and/or their contractor shall locate utility trenches running parallel or near-parallel to building foundations away from the foundation such that the base of the trench excavation is located above an imaginary plane having an inclination of 1 horizontal to 1 vertical (1H:1V), extending downward from the bottom edge of the foundation toward the trench location. Where trench locations are restricted and must be in close proximity to foundations, footings or slab edges located adjacent to utility trenches shall be deepened during the design of the project as necessary so that their bearing surfaces are below an imaginary plane having an inclination of 1H:1V, extending upward from the bottom edge of the adjacent utility trench.

The walls of trenches extending into the clayey soils will likely stand in vertical cuts in the upper 4 to 5 feet with appropriate shoring, provided proper moisture content in the soils is maintained and that the trench walls are not subjected to vibration or surcharge loads above the excavation. Where weaker soils are encountered in the upper 4 to 5 feet of the site or trenches extend deeper than 5 feet, trench sidewalls shall be sloped no steeper than 1H:1V in stiff cohesive soil. In the event that granular soils are encountered, trench sidewalls shall be no steeper than 1.5H:1V in moist granular soils and no steeper than 2H:1V in dry granular soils. Flatter trench slopes may be required if seepage is encountered during construction or if exposed soil conditions differ from those encountered in our borings. Heavy construction equipment, building materials, excavated soil, and vehicular traffic shall not be allowed within 5 feet of the top (edge) of the excavation.

Utility trench backfill above the bedding and shading materials may consist of on-site soils that have been processed to remove rock fragments over 4 inches in largest dimension, rubbish, vegetation and other undesirable substances. Backfill materials shall be placed in level lifts about 4 to 12 inches in loose thickness, moisture conditioned and mechanically compacted. Lift thickness will be a

function of the type of compaction equipment in use. Thinner lifts (4- to 6-inch lifts) shall be required for manually operated equipment, such as wackers or vibratory plates, and thicker lifts possible where a sheepsfoot wheel is used on the stick of an excavator. Jetting shall not be used for densification of backfill on this project. Trench backfill consisting of on-site fine-grained soil (clays) shall be moisture conditioned to about 5 percent above optimum and compacted to between 85 and 90 percent relative compaction. Where sand or well-graded gravel would be used as backfill, it shall be moisture conditioned to slightly above the optimum moisture content and compacted to at least 93 percent relative compaction.

Prior to subgrade preparation, utility trench backfill in the pavement areas shall be properly placed and compacted. The top 12 inches of soils for pavement subgrade shall be scarified, moisture conditioned to at least 3 percent above the optimum moisture content and compacted to at least 93 percent relative compaction to provide a smooth, unyielding surface. The compacted subgrade shall be non-yielding when proof-rolled with a loaded ten-wheel truck, such as a water truck or dump truck, prior to pavement construction. Subgrade soils shall be maintained in a moist and compacted condition until covered with the complete pavement section. Class 2 aggregate base shall conform to the requirements found in Caltrans Standard Specifications Section 26. The aggregate base shall be placed in thin lifts in a manner to prevent segregation, uniformly moisture conditioned to slightly above the optimum moisture content and compacted to at least 95 percent relative compaction to provide a smooth, unyielding surface. The City shall review and approve utility trenching prior to providing building permits for the project.

### *GEO-3 Surface Drainage and Bioretention Areas*

The project applicant and/or their contractor shall design grading so that surface water shall not be allowed to collect on or adjacent to structures or pavements. Final site grading shall provide surface drainage away from structures, pavements and slabs-on-grade to reduce the percolation of water into the underlying soils. If recommended surface gradients cannot be met or where there are landscape areas around the structure that cannot drain freely through sheet flow, area drains shall be considered. Even with the recommended gradients there is a potential that ponding conditions may develop adjacent to the building over time. Where positive drainage around building cannot be established and maintained as part of the site grading design, area drains shall be provided.

Pavement areas shall be sloped and drainage gradients maintained to carry surface water off the site. Typical pavement design includes surface gradients of 2 percent in asphalt concrete pavement areas to provide surface drainage and to reduce the potential for water to penetrate into the pavement structure. Current site gradient is about 1.4 percent. The slope gradient shall not be creased, with increases for drainage where possible.

Bioretention swales and basins shall be located at least 5 feet away from foundations, pavements and exterior concrete flatwork. Bioretention swales and basins in close proximity to foundations have the potential to undermine the foundation or cause a reduction in the soil bearing capacity. Bioretention swales and basins located in close proximity to pavements and exterior concrete flatwork can cause settlement of these structures as well as cracking associated with lateral extension of these structures with lateral movement of the supporting soils. Where a 5 foot separation is not practical or possible due to site constraints, bioretention areas located within five feet of foundations, pavements or concrete flatwork shall be constructed with structural side walls capable of withstanding the loads from the adjacent improvements. In the case of a building foundation in close proximity to a bioretention area, a deepened foundation edge designed as a retaining structure may be an option. The applicant's Civil Engineer shall coordinate their work with

the foundation designer. The foundation or foundation slab edge section shall extend 6 inches below a plane projected up from the base of the bioretention basin toward the foundation at a slope of 1H:1V. Lateral earth pressures on the foundation or down-turned slab edge shall be considered by the foundation designer. Precast units may be an expedient method of installing bioretention facilities that are capable of supporting concrete flat work, roadways and foundations.

Bioretention areas located within 5 feet of building foundations or pavements shall also be lined with impermeable liners. A perforated drain pipe shall be provided within the basin when a liner is installed or where the site soils have a low permeability rate and infiltration capacity (i.e., the clay soils at the subject site). The perforated pipe shall lead to a solid-wall pipe to convey accumulated water to a suitable point of discharge. The City shall review and approve surface drainage and bioretention areas prior to providing building permits for the project.

#### *GEO-4 Building Foundations*

The project applicant and/or their contractor shall design foundation plans such that the proposed building shall be supported by conventional, relatively shallow continuous strip footings along the building perimeter and at interior load bearing walls, with spread footings for columns. All footings shall be founded on engineered fill, as described under Mitigation Measure GEO-1, or undisturbed native soils. The footings shall be designed using an allowable soil bearing pressure of 3,000 pounds per square foot (psf) for dead plus live loads. The allowable bearing pressure should be increased by one-third when considering the effects of short-term wind or seismic loads. Continuous footings shall have a minimum width of 12 inches and shall be embedded a minimum of 24 inches below the lowest adjacent exterior finish grade or pad grade for interior column footings. Continuous strip footings shall be reinforced with a minimum of two number 5 deformed reinforcing steel bars at the top and two at the bottom to provide structural continuity, to permit spanning of local irregularities in soil conditions and to aid in reducing the potential for abrupt differential settlement. The applicant's Structural Engineer shall determine the actual width and reinforcement of the foundations.

Lateral loads shall be resisted by friction between the base of the slab and the supporting subgrade, or by passive resistance acting against the vertical faces of the foundations. An allowable friction coefficient of 0.35 between the foundation and supporting subgrade shall be used. For passive resistance, an allowable equivalent fluid weight of 250 pounds per cubic foot (pcf) acting against the perimeter of the foundation shall be used for design purposes. The passive pressure would be assumed to act starting at the top of the lowest adjacent finish grade in paved areas and at a depth of 1 foot below finish grade in unpaved areas. The passive lateral load resistance value discussed above is only applicable where the concrete for the foundation is placed directly against either undisturbed or properly compacted soils.

Total post-construction settlement under static building loads shall be less than approximately 3/4-inch with differential settlement along perimeter walls that are approximately 1/2-inch in 40 feet. Should the bearing pressures exceed those discussed herein, there would be an impact on the estimated settlement.

The footing excavations shall be observed by the Geotechnical Engineer prior to placement of rebar in the footings. The soil in the footings shall not be permitted to dry out during construction. The foundation excavations shall be watered regularly during the hot summer months to prevent drying of the exposed soils in the footing excavation. Concrete for footings shall be placed against undisturbed engineered fill soils. The City shall review and approve the Structural Engineer's building plans prior to providing building permits for the project.

## *GEO-5 Concrete Specifications*

### **CONCRETE FLOOR SLABS**

The project applicant and/or their contractor shall design all conventionally reinforced “non-structural” interior concrete floor slabs to be supported by non-expansive fill as discussed under Mitigation Measure GEO-1. Where subgrade soils have lost moisture, the subgrade soils shall be moisture conditioned through soaking to reestablish a soil moisture content of at least 3 percent above optimum within a few days of concrete placement.

The slabs shall be designed for soils with high expansion potential. At a minimum, reinforcement consisting of No. 4 steel reinforcing bars (rebar) at 18 inches on center each way shall be used. General practice is to place the steel reinforcement at mid-height in the slab. Care must be taken during construction to keep the reinforcement from being pushed to the bottom of the slab. The actual required steel reinforcement and placement of the reinforcing steel shall be determined by the project Structural Engineer. The minimum recommended steel would not prevent the development of slab cracks but would aid in keeping the construction joints and minor cracks associated with concrete shrinkage relatively tight and in reducing the potential for differential movement between adjacent panels.

Slab control joints shall be spaced in accordance with the recommendations presented in the ACI Manual of Concrete Practice. For a 5-inch-thick slab a maximum spacing of 12.5 feet each way is recommended. In the event that control or contraction joints are to be constructed by saw cutting of the slabs, saw cuts shall be made by soff-cut sawing. Saw cuts for contraction joints are generally made within 4 to 12 hours after the initial hardening of the concrete, as required by atmospheric conditions. The contractor shall be responsible for monitoring of the concrete during initial set or hardening and to determine the optimal timing for cutting of the slabs. The use of low water/cement ratio concrete, water reducing agents, quality aggregates, limiting the amount of fine aggregates in the concrete mix and implementation of continuous curing as soon as the concrete is finished would all aid in reducing concrete shrinkage and cracking.

### **EXTERIOR CONCRETE FLATWORK**

With the exception of slabs subject to vehicular loads, exterior concrete flatwork such as on-site sidewalks can be placed directly on the prepared subgrade. The use of aggregate base as support for concrete flatwork shall be avoided except in traffic areas where required as part of a structural section. A 6-inch section (minimum section) of Class 2 aggregate base shall be used for support of concrete slabs that would be subjected to vehicular traffic.

Where on-site exterior concrete slabs-on-grade are planned, exterior slabs-on-grade (i.e., sidewalks) shall be cast free from adjacent footings or other edge restraint. Using a strip of ½-inch thick asphalt impregnated felt or other commercially available expansion joint material between the slab edges and the adjacent structure would accomplish this. Where there is a concern that a trip hazard could develop at doorways due to differential movement between the exterior slab-on-grade and the adjoining foundation, or where concrete flatwork abuts embedded curbs, consideration shall be given to tying the slab to the foundation or curb with reinforcing steel (rebar) dowels. Frequent construction or crack control (contraction) joints shall be provided in all concrete slabs where cracking is objectionable. Deep, scored joints spaced no more than 6 feet apart shall be considered to control shrinkage cracking. Scoring of contraction joints shall extend slightly deeper than one-quarter the slab thickness to be effective. Steel reinforcement (rebar as opposed to wire mesh) shall also be considered to reduce cracking and the potential for tripping hazards to develop between

adjacent concrete panels due to expansive soil movement and/or tree roots. Minimum reinforcement consisting of No. 3 steel reinforcing bars shall be 18 inches on center each. The minimum steel would not prevent the development of slab cracks but would aid in keeping the construction joints relatively tight and in reducing the potential for differential movement between adjacent panels.

Subgrade soils shall be properly moisture conditioned during grading operations and maintained until covered by concrete or restored prior to concrete placement if necessary. The moisture content of the subgrade soils shall be checked several days prior to the placement of concrete or baserock where required. The subgrade shall be wetted or presoaked to at least 5 percent over optimum moisture content prior to placing concrete. Even with proper site preparation there would be some effects of soil moisture change on concrete flatwork. The City shall review and approve the concrete floor and flatwork plans prior to providing building permits for the project.

### **Significance After Mitigation**

Implementation of Mitigation Measures GEO-1 through GEO-5 would reduce impacts to expansive soils to be less than significant.

#### **LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED**

- e. *Would the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?*

There is no sewer service available on the site, so a septic tank and leach fields would be located at the southern end of the project site. Sewage would be pumped via a small lift station from the RV waste dump station and office bathroom to the septic tank. Septic tank and leach field installation would be subject to review, approval, and permitting by CCHS prior to commencement of septic system construction. CCHS provides a Septic System Installation Checklist to guide installation of septic systems in the county (CCHS 2021). Further, Contra Costa County Ordinance No. 2018-25 amended Chapter 420-6 to include regulations regarding septic systems, which requires regular monitoring to provide maximum protection to water quality and public health by required minimum standards for the design, construction, operation, and abandonment of septic tanks (Contra Costa County 2018). Installation and use of the septic system would be required to follow CCHS guidelines and the Contra Costa County Ordinance Code and impacts to soils would be less than significant.

#### **LESS THAN SIGNIFICANT IMPACT**

- f. *Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?*

According to the geotechnical investigation, project-related ground disturbance would be limited to cuts and fills of approximately 2 feet or less in depth (Appendix GEO). Given the nature of project construction and existing site conditions, ground disturbance (i.e., excavations) would not extend below the boundary between the upper soil layer and deposits of Quaternary old (Pleistocene) alluvial-fan and fluvial deposits (Qpaf) and thus would be unlikely to impact fossiliferous deposits. Although project construction would not be expected to uncover paleontological resources, a remote possibility for such resources to be uncovered exists, and therefore impacts could be significant.

Mitigation Measure GEO-6 would be required to avoid impacts to paleontological resources in the event of unanticipated fossil discoveries. This measure would apply to project construction and would reduce the potential for impacts to unanticipated fossils present on site by providing for the recovery, identification, and curation of paleontological resources.

### **Mitigation Measure**

#### *GEO-6 Unanticipated Discovery of Paleontological Resources*

In the event an unanticipated fossil discovery is made during project construction, construction activity shall be halted within 50 feet of the fossil, and the applicant shall notify and retain a qualified professional paleontologist to evaluate the discovery, determine its significance, and determine if additional mitigation or treatment is warranted. Work in the area of the discovery shall resume once the find is properly documented and authorization is given to resume construction work. Any significant paleontological resources found during construction monitoring shall be prepared, identified, analyzed, and permanently curated in an approved regional museum repository under the oversight of a qualified paleontologist. The City shall review and approve the qualified paleontologist's findings once the report has been completed.

**LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED**

## 8 Greenhouse Gas Emissions

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

### Overview of Climate Change and Greenhouse Gases

Climate change is the observed increase in the average temperature of the Earth’s atmosphere and oceans along with other substantial changes in climate (such as wind patterns, precipitation, and storms) over an extended period of time. Climate change is the result of numerous, cumulative sources of GHG emissions contributing to the “greenhouse effect,” a natural occurrence which takes place in Earth’s atmosphere and helps regulate the temperature of the planet. The majority of radiation from the sun hits Earth’s surface and warms it. The surface, in turn, radiates heat back towards the atmosphere in the form of infrared radiation. Gases and clouds in the atmosphere trap and prevent some of this heat from escaping into space and re-radiate it in all directions.

GHG emissions occur both naturally and as a result of human activities, such as fossil fuel burning, decomposition of landfill wastes, raising livestock, deforestation, and some agricultural practices. GHGs produced by human activities include carbon dioxide (CO<sub>2</sub>), methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride. Different types of GHGs have varying global warming potentials (GWP). The GWP of a GHG is the potential of a gas or aerosol to trap heat in the atmosphere over a specified timescale (generally, 100 years). Because GHGs absorb different amounts of heat, a common reference gas (CO<sub>2</sub>) is used to relate the amount of heat absorbed to the amount of the gas emitted, referred to as “carbon dioxide equivalent” (CO<sub>2</sub>e), which is the amount of GHG emitted multiplied by its GWP. Carbon dioxide has a 100-year GWP of one. By contrast, methane has a GWP of 30, meaning its global warming effect is 30 times greater than CO<sub>2</sub> on a molecule per molecule basis (Intergovernmental Panel on Climate Change 2021).<sup>2</sup>

<sup>2</sup> The Intergovernmental Panel on Climate Change’s (2021) *Sixth Assessment Report* determined that methane has a GWP of 30. However, the 2017 Climate Change Scoping Plan published by the California Air Resources Board uses a GWP of 25 for methane, consistent with the Intergovernmental Panel on Climate Change’s (2007) *Fourth Assessment Report*. Therefore, this analysis utilizes a GWP of 25.

## Regulatory Framework

California implemented Assembly Bill (AB) 32, the “California Global Warming Solutions Act of 2006.” AB 32 required the reduction of statewide GHG emissions to 1990 emissions levels (essentially a 15 percent reduction below 2005 emission levels) by 2020 and the adoption of rules and regulations to achieve the maximum technologically feasible and cost-effective GHG emissions reductions. On September 8, 2016, the Governor signed Senate Bill 32 into law, extending AB 32 by requiring the State to further reduce GHG emissions to 40 percent below 1990 levels by 2030 (the other provisions of AB 32 remain unchanged). On December 14, 2017, the CARB adopted the 2017 Scoping Plan, which provides a framework for achieving the 2030 target. The 2017 Scoping Plan relies on the continuation and expansion of existing policies and regulations, such as the Cap-and-Trade Program and the Low Carbon Fuel Standard, and implementation of recently adopted policies and legislation, such as SB 1383 (aimed at reducing short-lived climate pollutants including methane, hydrofluorocarbon gases, and anthropogenic black carbon) and SB 100 (discussed further below). The 2017 Scoping Plan also puts an increased emphasis on innovation, adoption of existing technology, and strategic investment to support its strategies. As with the 2013 Scoping Plan Update, the 2017 Scoping Plan does not provide project-level thresholds for land use development. Instead, it recommends local governments adopt policies and locally appropriate quantitative thresholds consistent with a statewide per capita goal of six metric tons (MT) of CO<sub>2</sub>e by 2030 and two MT of CO<sub>2</sub>e by 2050 (CARB 2017a).

Other relevant state and local laws and regulations include:

- **SB 375:** The Sustainable Communities and Climate Protection Act of 2008 (SB 375), signed in August 2008, enhances the state’s ability to reach AB 32 goals by directing the CARB to develop regional GHG emission reduction targets to be achieved from passenger vehicles by 2020 and 2035. Metropolitan Planning Organizations are required to adopt a Sustainable Communities Strategy (SCS), which allocates land uses in the Metropolitan Planning Organization’s Regional Transportation Plan (RTP). On March 22, 2018, CARB adopted updated regional targets for reducing GHG emissions from 2005 levels by 2020 and 2035. The regional targets for the Metropolitan Transportation Commission (MTC), which includes Contra Costa County, are a reduction of 10 percent by 2020 and 19 percent by 2035 as compared to 2005 levels (CARB 2017b).
- **SB 100:** Adopted on September 10, 2018, SB 100 supports the reduction of GHG emissions from the electricity sector by accelerating the state’s Renewables Portfolio Standard Program. SB 100 requires electricity providers to increase procurement from eligible renewable energy resources to 33 percent of total retail sales by 2020, 60 percent by 2030, and 100 percent by 2045.
- **California Building Standards Code (California Code of Regulations Title 24):** The California Building Standards Code consists of a compilation of several distinct standards and codes related to building construction including plumbing, electrical, interior acoustics, energy efficiency, and handicap accessibility for persons with physical and sensory disabilities. The current iteration is the 2019 Title 24 standards. Part 6 is the Building Energy Efficiency Standards, which establishes energy-efficiency standards for residential and non-residential buildings in order to reduce California’s energy demand. Part 12 is the California Green Building Standards Code (CALGreen), which includes mandatory minimum environmental performance standards for all ground-up new construction of residential and non-residential structures.

## Significance Thresholds

Individual projects do not generate sufficient GHG emissions to influence climate change directly. However, physical changes caused by a project can contribute incrementally to significant cumulative effects, even if individual changes resulting from a project are limited. The issue of climate change typically involves an analysis of whether a project's contribution towards an impact would be cumulatively considerable. "Cumulatively considerable" means the incremental effects of an individual project are significant when viewed in connection with the effects of past projects, other current projects, and probable future projects (CEQA Guidelines Section 15064[h][1]).

In the 2017 BAAQMD CEQA Air Quality Guidelines, the BAAQMD outlines an approach to determine the significance of projects. The BAAQMD recommends that lead agencies determine appropriate GHG emissions thresholds of significance based on substantial evidence in the record. 2017 BAAQMD CEQA Air Quality Guidelines establish the following significance thresholds for operational GHG emissions from land use development projects (BAAQMD 2017b):

- Compliance with a qualified GHG reduction strategy
- Annual emissions less than 1,100 MT of CO<sub>2</sub>e per year
- Annual emissions less than 4.6 MT of CO<sub>2</sub>e per service population (residents and employees) per year

The BAAQMD mass emissions threshold of 1,100 MT of CO<sub>2</sub>e per year was designed to capture 90 percent of all emissions associated with projects in the Basin and require implementation of mitigation so that a considerable reduction in emissions from new projects would be achieved. According to the California Air Pollution Control Officers Association white paper *CEQA & Climate Change*, a quantitative threshold based on a 90 percent market capture rate is generally consistent with AB 32 (California Air Pollution Control Officers Association 2008). SB 32, codified in 2016, sets a more stringent emission reduction target of 40 percent below the 1990 level by 2030. Because BAAQMD has not adopted a threshold for 2030 yet, this analysis uses a bright-line threshold of 660 MT of CO<sub>2</sub>e per year (equivalent to a 40 percent reduction of the 1,100 MT of CO<sub>2</sub>e per year threshold based on the State's 2030 target).

The BAAQMD has not established a quantitative significance threshold for evaluating construction-related emissions, but it does recommend quantifying and disclosing construction-generated GHG emissions. As there is no way of knowing the lifespan of the proposed project, the total emissions generated during construction were amortized over 30 years and added to the operational emissions, and assessed against the BAAQMD's significance thresholds for operational GHG emissions.

## Methodology

GHG emissions associated with project construction and operation were estimated using CalEEMod, version 2020.4.0, with the assumptions described under Section 3, *Air Quality*, and Appendix AQ, in addition to trip generation rates and VMT estimates provided in Appendix TRA, and the following:

- **Energy Reductions.** The CEC's Building Energy Efficiency Standards describes numerous requirements to which new development must adhere to be compliant with the 2019 Title 24 standards. Additionally, the project would generate enough solar power to offset its energy use and supply energy for approximately 600 regional homes.

- **Water Usage.** CalEEMod does not incorporate water use reductions achieved by CALGreen (Part 11 of Title 24). New development would be subject to CALGreen, which requires a 20 percent increase in indoor water use efficiency and use of indoor water-efficient irrigation systems. Thus, in order to account for compliance with CALGreen, a 20 percent reduction in indoor water use and the use of water-efficient irrigation systems were included in the water consumption calculations for new development.

## Impact Analysis

- a. *Would the project generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?*

Project construction and operation would generate GHG emissions. Calculations of CO<sub>2</sub>, methane, and nitrous oxide emissions are provided to identify the magnitude of potential project effects.

Project construction would generate temporary GHG emissions primarily as a result of operation of construction equipment on-site as well as from vehicles transporting construction workers to and from the project site and heavy trucks to transport building materials and soil export. Project construction would generate an estimated total of 423 MT of CO<sub>2</sub>e, all of which would occur in 2022. Even without amortizing construction emissions, the 660 MT of CO<sub>2</sub>e threshold would not be exceeded.

Project operation would generate GHG emissions associated with area sources (e.g., fireplaces, landscape maintenance), energy and water usage, vehicle trips, and wastewater and solid waste generation. As shown in Table 13, annual project operational emissions would total approximately 76 MT of CO<sub>2</sub>e per year, or less than 0.1 MT of CO<sub>2</sub>e per service person per year, which would not exceed the locally-applicable, project-specific threshold of 3.2 MT of CO<sub>2</sub>e per year. Therefore, impacts would be less than significant.

**Table 13 Annual Operational GHG Emissions**

<b>Emission Source</b>	<b>Annual Emissions (MT of CO<sub>2</sub>e per year)</b>
<b>Operational</b>	<b>76</b>
Area	<0.1
Energy	13
Mobile	62
Solid Waste	1
Water	1
<b>Service Population (Residents + Employees)</b>	<b>74,498</b>
<b>Emissions per Service Person</b>	<b>&lt;0.1</b>
<b>Threshold</b>	<b>3.2</b>
<b>Threshold Exceeded?</b>	<b>No</b>

MT = metric tons; CO<sub>2</sub>e = carbon dioxide equivalents

Notes: Emissions modeling was completed using CalEEMod. See Appendix AQ for modeling results.

## LESS THAN SIGNIFICANT IMPACT

- b. *Would the project conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?*

Several plans and policies have been adopted to reduce GHG emissions in the Bay Area region, including the State's 2017 Scoping Plan and BAAQMD's Climate Protection Planning Program. The project's consistency with the 2017 Scoping Plan is discussed in the following subsection. The City's General Plan does not contain policies relating GHG emissions, but a Sustainability Plan is being drafted and would include policies related to emissions reductions. According to the City's GHG Emission Inventories (City of Pittsburg 2019), community wide emissions have reduced 9 percent from approximately 471,000 MT CO<sub>2</sub>e in 2005 to 428,500 MT CO<sub>2</sub>e in 2016. Further, emissions per capita has reduced 21 percent from 5.2 MT CO<sub>2</sub>e per capita to 4.2 MT CO<sub>2</sub>e per capita in the same time period.

### **2017 Scoping Plan**

The project would be consistent with CARB's 2017 Scoping Plan goals through project design, which includes complying with the latest Title 24 Green Building Code and Building Efficiency Energy Standards and creating its own energy, installing energy-efficient LED lighting, water-efficient faucets and toilets, and water efficient landscaping and irrigation. As discussed in Section 6, *Energy*, the project would generate its own renewable energy through on-site solar panels and would exceed Title 24 Green Building Code and Building Efficiency Energy Standards. Further, the project would produce and sell solar energy to PG&E or MCE to be used regionally, which would support SB 100 targets. Therefore, the project would be consistent with the 2017 Scoping Plan.

### **NO IMPACT**

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# 9 Hazards and Hazardous Materials

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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Would the project:

a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Be located on a site that is included on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e. For a project located in an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

## Setting

There are 55 listings on the EnviroStor database with a Pittsburg address. Of the 55 listings, eight are listed as corrective action, 13 as evaluation, one as military evaluation, eight as non-operating, one as operating, one as post-closure, one as school cleanup, eight as school investigation, four as state response, three as tiered permit, and seven as voluntary cleanup (City of Pittsburgh 2019a). The project site is not identified as any of these sites on the EnviroStor databases.

In May 2019, a GeoTracker search was performed to identify any known or suspected sources of environmental hazards within the City of Pittsburgh (City of Pittsburgh 2019a). There were 56 locations with a Pittsburg address listed in the GeoTracker database for Leaking Underground Storage Tanks (LUST). Fifty-one of the locations have undergone LUST cleanup and the State has closed the case. There are five locations in Pittsburg with an open case (City of Pittsburgh 2019a). The project site was not identified as a listed location containing a LUST. A subsequent GeoTracker search in October 2021 yielded no new listing in Pittsburg with an open LUST case.

The following databases were checked, pursuant to Government Code Section 95962.5, on October 28, 2021 for known hazardous materials contamination at the project site:

- **United States Environmental Protection Agency**
  - Comprehensive Environmental Response, Compensation, and Liability Information System/Superfund Enterprise Management System/ Envirofacts database search
- **State Water Resources Control Board**
  - GeoTracker search for leaking USTs and other cleanup sites
- **California Department of Toxic Substances Control**
  - EnviroStor search for hazardous facilities or known contamination sites
  - Hazardous Waste and Substances Site List (Cortese)

## Regulatory Setting

### *Department of Toxic Substances Control*

As a department of the California Environmental Protection Agency, the Department of Toxic Substances Control (DTSC) is the primary agency in California that regulates hazardous waste, cleans up existing contamination, and looks for ways to reduce the hazardous waste produced in California. DTSC regulates hazardous waste in California primarily under the authority of Resource Conservation and Recovery Act (RCRA) and the California Health and Safety Code.

DTSC also administers the California Hazardous Waste Control Law to regulate hazardous wastes. While the California Hazardous Waste Control Law is generally more stringent than Resource Conservation and Recovery Act, until the USEPA approves the California program, both state and federal laws apply in California. The California Hazardous Waste Control Law lists 791 chemicals and approximately 300 common materials that may be hazardous; establishes criteria for identifying, packaging, and labeling hazardous wastes; prescribes management controls; establishes permit requirements for treatment, storage, disposal, and transportation; and identifies some wastes that cannot be disposed of in landfills.

Government Code Section 65962.5 requires the DTSC, the State Department of Health Services, the SWRCB, and CalRecycle to compile and annually update lists of hazardous waste sites and land designated as hazardous waste sites throughout the state. The Secretary for Environmental Protection consolidates the information submitted by these agencies and distributes it to each city and county where sites on the lists are located. Before the lead agency accepts an application for a development project as complete, the applicant must consult these lists to determine if the site at issue is included.

If soil is excavated from a site containing hazardous materials, it is considered a hazardous waste if it exceeds specific criteria in Title 22 of the CCR. Remediation of hazardous wastes found at a site may be required if excavation of these materials is performed, or if certain other soil disturbing activities would occur. Even if soil or groundwater at a contaminated site does not have the characteristics required to be defined as hazardous waste, remediation of the site may be required by regulatory agencies subject to jurisdictional authority. Cleanup requirements are determined on a case-by-case basis by the agency taking jurisdiction.

Storage of hazardous materials at or above State-defined thresholds makes a facility subject to a Hazardous Materials Business Plan (HMBP). The Contra Costa Health Services – Hazardous Materials Programs is responsible for the HMBP program for the City of Pittsburg (Contra Costa Health Services 2020). A HMBP must be submitted if these thresholds for hazardous materials are met.

#### *Government Code Section 65962.5 (Cortese List)*

Section 65962.5 of the Government Code requires CalEPA to develop and update a list of hazardous waste and substances sites, known as the Cortese List. The Cortese List is used by the State, local agencies, and developers to comply with CEQA requirements. The Cortese List includes hazardous substance release sites identified by DTSC, SWRCB, and CalRecycle.

### **Impact Analysis**

- a. *Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?*
- b. *Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?*

Project construction would involve the transport, use, or disposal of hazardous materials (e.g., fuel and engine fluids for equipment, paint, and asphalt) but would not be expected to create conditions that could lead to the release of hazardous substances. Construction would be required to adhere to RCRA.

During operation, users of the storage facility would be prohibited from storing hazardous materials in their boats and RVs pursuant to lease signed agreements.

Compliance with applicable state and local regulations would reduce potential impacts associated with the routine transport, use, storage, or disposal of hazardous materials to less than significant levels.

### **LESS THAN SIGNIFICANT IMPACT**

**Pittsburg Solar Recreational Vehicle/Boat Storage**

- c. *Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?*

The closest school, Turner Elementary School, is approximately 0.5 mile south of the project site. Though potentially hazardous materials such as fuels, lubricants, solvents, and oils could be used during project construction, the transport, use and storage of any and all hazardous materials would be conducted in accordance with all applicable State and federal laws, such as the Hazardous Materials Transportation Act, Resource Conservation and Recovery Act, the California Hazardous Material Management Act, and the CCR, Title 22. Therefore, impacts would be less than significant

**LESS THAN SIGNIFICANT IMPACT**

- d. *Would the project be located on a site that is included on a list of hazardous material sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?*

As noted under *Setting* in Section 9, *Hazards and Hazardous Materials*, the site has not been included on a list of hazardous materials sites. Therefore, impacts would be less than significant.

**LESS THAN SIGNIFICANT IMPACT**

- e. *For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?*

The nearest airport to the project site is Buchanan Field Airport, which is located approximately 11.5 miles southwest of the project site. The City of Pittsburg is outside the Airport Influence Area for Buchanan Field Airport, as mapped in the Contra Costa County Airport Land Use Compatibility Plan (Contra Costa County Airport Land Use Commission 2000). Therefore, the project would be located outside the scope of an airport land use plan and more than 2 miles from the nearest airport, and it would not result in a safety hazard or excessive noise from airport activity. This impact would be less than significant.

**LESS THAN SIGNIFICANT IMPACT**

- f. *Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?*

The Pittsburg City Council adopted an Emergency Operations Plan (EOP) in December 2018 as a foundational document for the City's emergency management program (City of Pittsburg 2018). The EOP provides guidance to City staff to promote effective response and recovery operations in the event of an emergency.

The proposed project would not include any characteristics (e.g., permanent road closures) that would physically impair or otherwise interfere with emergency response or evacuation in the project vicinity. The City's standard conditions of approval related to construction staging and parking would ensure that potential temporary road closures during construction would not impair or otherwise interfere with emergency response or evacuation. The proposed project would be required to adhere to current and future requirements by the City of Pittsburg's EOP once operational. Accordingly, potential impacts related to interference with an adopted emergency response plan or emergency evacuation plan during operations would be less than significant.

**LESS THAN SIGNIFICANT IMPACT**

- g. Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury, or death involving wildland fires?*

The project site is in an urbanized area surrounded by commercial and industrial development. No adjacent wildlands or densely vegetated areas are located nearby that would represent a significant fire hazard. Additionally, the project does not fall within a Fire Hazard Severity Zone or Very High Fire Hazard Severity Zone for wildland fires (CAL FIRE 2021). Therefore, the project would not expose people or structures to significant hazards related to wildland fires and there would be no impacts.

**NO IMPACT**

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# 10 Hydrology and Water Quality

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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Would the project:

a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
(i) Result in substantial erosion or siltation on- or off-site;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(ii) Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(iii) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
(iv) Impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Information in this section is based on Stormwater Control Plan by Robert A. Karn & Associates, Inc. last revised in October 2021, which is included as Appendix SWP.

## **Setting**

The project site is approximately 12.5 acres and has an approximate elevation of 40 feet (USGS 2018). Site topography indicates a 1 to 2 percent northeasterly slope running towards the Contra Costa Canal Spillway and roadway. Water drains into the Contra Costa Canal Spillway along the eastern border of the project site. There is an existing storm drain system north of the project site on Pittsburg-Antioch Highway. The New York Slough is located approximately 1 mile north of the project site. The City of Pittsburg receives approximately 14 inches of rain annually, with rainfall concentrated in the winter months (CEC 2021). Storm runoff dissipates into soils or runs off into the Contra Costa Canal Spillway or roadway.

The project site overlies the Pittsburg Plain groundwater basin (City of Pittsburg 2021a). The groundwater depth is approximately 35 feet below ground surface (Appendix GEO). The Pittsburg Plain groundwater basin extends to the south inland from Suisun Bay to the north, between 1 and 3 miles and is fed by two major drainage basins, Kirker Creek and Willow Creek. The Pittsburg Plain groundwater basin is not considered critically over drafted by California Department of Water Resources (DWR), nor is it at risk of overdraft conditions considering that groundwater levels have remained fairly stable (City of Pittsburg 2021a). Therefore, no Groundwater Sustainability Agency needs to prepare a Groundwater Sustainability Plan for the Pittsburg Plain groundwater basin. Groundwater use in the City increased in 2020 to 1,480 acre-feet, a 28 percent increase from 2019, but only a 7 percent increase over the average from 2016 to 2020 (City of Pittsburg 2021a). Groundwater levels have remained stable.

## **Regulatory Setting**

### *National Pollutant Discharge Elimination System*

The federal government administers the NPDES permit program, which regulates discharges into surface waters under the Clean Water Act (CWA). The primary regulatory control relevant to the protection of water quality is the NPDES permit administered by the State Water Resources Control Board, which establishes requirements prescribing the quality of point sources of discharge and water quality objectives. These objectives are established based on the designated beneficial uses (e.g., water supply, recreation, and habitat) for a particular surface waterbody. The NPDES permits are issued to point source dischargers of pollutants to surface waters pursuant to Water Code Chapter 5.5, which implements the federal CWA. Examples include, but are not limited to, public wastewater treatment facilities, industries, power plants, and groundwater cleanup programs discharging to surface waters (State Water Resources Control, Title 23, Chapter 9, Section 2200). The Regional Water Quality Control Board (RWQCB) establishes and regulates discharge limits under the NPDES permits.

### *Clean Water Act*

Congress enacted the CWA, formerly the Federal Water Pollution Control Act of 1972, with the intent of restoring and maintaining the chemical, physical, and biological integrity of the waters of the U.S. The CWA requires states to set standards to protect, maintain, and restore water quality through the regulation of point source and non-point source discharges to surface water. The NPDES permit process regulates those discharges (CWA Section 402). NPDES permitting authority is

administered by the SWRCB and its nine RWQCBs. The project site is in a watershed administered by the San Francisco Bay RWQCB (San Francisco Bay RWQCB 2017).

#### *California Porter Cologne Water Quality Control Act*

The Porter Cologne Water Quality Control Act of 1967 requires the SWRCB and the nine RWQCBs to adopt water quality criteria to protect State waters. These criteria include the identification of beneficial uses, narrative and numerical water quality standards, and implementation procedures. The criteria for state waters in the region are contained in the *Water Quality Objectives* Chapter of the Basin Plan for the San Francisco Bay RWQCB (San Francisco Bay RWQCB 2017). The Water Quality Control Plan, or Basin Plan, protects designated beneficial uses of State waters through the issuance of Waste Discharge Requirements and through the development of TMDL. Anyone proposing to discharge waste that could affect the quality of the waters of the State must make a report of the waste discharge to the RWQCB or SWRCB, as appropriate, in compliance with Porter-Cologne Water Quality Control Act.

#### *Contra Costa Clean Water Program*

The City of Pittsburg is a contributing city to the Contra Costa Clean Water Program (CCCWP), which was established in 1991 in response to federal stormwater NPDES regulations. Per the CCCWP Stormwater C.3 Guidebook (CCCWP 2017), projects an acre or larger are required to submit a Stormwater Control Plan and incorporate Low Impact Designs based on the Low Development Site Design Guide for hydromodification (flow control). The plan must implement a combination of two or more of the following strategies: (1) preserve natural drainage features of the site; (2) implement pervious surfaces; (3) disperse runoff from some amount of roof or paved area to a vegetated area; (4) drain impervious surfaces to engineered integrated management practices.

#### *San Francisco Bay Regional Water Quality Control Board*

The City of Pittsburg is under the jurisdiction of RWQCB Region 2, the San Francisco Bay RWQCB. The San Francisco Bay RWQCB provides permits for projects that may affect surface waters and groundwater locally and is responsible for preparing the Water Quality Control Plan for the San Francisco Bay Basin (Basin Plan). The Basin Plan designates beneficial uses of water in the region and establishes narrative and numerical water quality objectives. The Basin Plan serves as the basis for the San Francisco Bay RWQCB's regulatory programs and incorporates an implementation plan to ensure water quality objectives are met.

#### *City of Pittsburg*

The City of Pittsburg is subject to stormwater requirements pursuant to the Municipal Regional Stormwater NPDES Permit (Order Number R2-2015-0049) for the San Francisco Bay Area. This permit is intended to reduce the discharge of pollutants in the City's municipal separate storm sewer system (MS4). The MS4 permit was issued jointly to the City and other local agencies in the regional Contra Costa Clean Water Program (California Regional Water Quality Control Board 2015). To achieve compliance with the regional program, and thus with the conditions of the most recently issued MS4 permit, the City has adopted local regulations. Specifically, Chapter 13.28 of the PMC establishes discharge requirements for all water entering the storm drain system generated on developed and undeveloped lands lying within City limits (City of Pittsburg 2019b).

Under PMC Section 13.28.090, the City requires BMPs to control the volume, rate, and potential pollutant load of stormwater runoff from new development and redevelopment projects as required by the City's MS4 permit (Pittsburg 2019b). Such BMPs include, where appropriate, Low Impact Development techniques to be implemented at New Development and Significant Redevelopment project sites. These techniques include infiltrating, storing, detaining, evapotranspiring (the release of water vapor from soil, other surfaces, and plants), and biotreating stormwater runoff close to its source (California Regional Water Quality Control Board 2015).

## **Impact Analysis**

- a. *Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?*
- c.(i) *Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would result in substantial erosion or siltation on- or off-site?*
- c.(ii) *Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?*
- c.(iii) *Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner that would create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?*

Project construction may impact water quality through erosion or through debris carried in runoff and thus would be subject to stormwater requirements under the Municipal Regional Stormwater NPDES Permit (Order Number R2-2015-0049) for the San Francisco Bay Area.

The proposed project would create approximately 135,000 square feet of impervious concrete surfaces, underneath an approximately 182,000 square foot discontinuous impervious solar canopy, which would exceed the 10,000 square feet impervious surface threshold. Therefore, the project would be required to implement BMPs under the MS4 permit. Two bioretention areas would be constructed to satisfy the BMP requirement, as described under *Project Description*. The bioretention areas would serve as flood mitigation, as they would allow substantial water filtration. Further, the bioretention areas would filter out debris and pollutants and allow stormwater runoff to replenish wetlands. And, as discussed under impacts c(iv) and d, the project site is not within a 100-year floodplain.

In addition, the project would involve disturbance of 12.5 acres, and thus would be required to comply with NPDES Construction General Permit Requirements, which would limit peak post-project runoff levels to pre-project levels. To comply with the Construction General Permit, the project applicant would have to prepare a SWPPP, which includes BMPs to control erosion and sediment. Construction BMPs could include silt fencing, fiber rolls, stabilized construction entrances, stockpile management, and solid waste management. Post-construction stormwater performance standards would also be required.

Compliance with existing regulatory requirements would ensure that the project would not violate water quality standards or waste discharge requirements and would not create substantial runoff water, otherwise degrade water quality, result in substantial erosion, flooding, or added polluted runoff. Impacts would be less than significant.

**LESS THAN SIGNIFICANT IMPACT**

- b. Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?*

Water for project construction and operation would be drawn from an on-site well, because there is no municipal water service to the site. Groundwater drawn for the proposed project would not be drawn from a municipal well but would utilize the same underlying groundwater basin. The well would be constructed in accordance with Contra Costa County Ordinance Code Chapter 414-4, which codifies requirements for wells, including appropriate permitting from the State Department of Health Services for potable water. This Ordinance was adopted into PMC Chapter 12.40 and is discussed further under Section 19, Utilities and Service Systems. The well water must also be protected from contamination in accordance with Section 414-4.807 of the Contra Costa County Code, which includes adequately chlorinating the well following construction.

Project construction would require minimal non-potable water for dust mitigation. Project operation would use water for the office bathroom, the ice machine, and solar panel cleaning one or two times per year. Recycled water would be used for cleaning of the on-site solar panels. Indoor water use would conservatively be 176,312 gallons per year (483 gallons per day) and outdoor water use would conservatively be 135,078 gallons per year (370 gallons per day) (Appendix AQ). This amount of water use would not substantially decrease groundwater supplies. The project would increase the amount of impervious surface, as discussed under criteria (a), but the subsequent runoff would be routed to the two onsite bioretention treatment areas. Runoff in the bioretention areas would irrigate the seasonal wetland and percolate back to the groundwater basin. Therefore, the project would not impede with sustainable groundwater management and impacts would be less than significant.

**LESS THAN SIGNIFICANT IMPACT**

- c.(iv) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would impede or redirect flood flows?*
- d. In flood hazard, tsunami, or seiche zones, would the project risk release of pollutants due to project inundation?*

The proposed project would add new impervious surfaces, both asphalt and the solar canopy. The project's stormwater control plan includes integrated management practices that would ensure that there would be no significant impediment or redirection of flood flows (Appendix SWP). Therefore, project implementation would not impede or redirect flood flows.

According to the Federal Emergency Management Agency Flood Insurance Rate Map, the project site is located in Zone X, which is characterized as an area of minimal flood hazard and having a less than 0.2 percent annual chance to be inundated by flood waters as a result of a storm event (Map #06013C0138G, September 30, 2015) (Federal Emergency Management Agency 2015). According to

the California Governor's Office of Emergency Services (Cal OES) MyHazards online database, the project site is not located in a 100-year floodplain (Cal OES 2015).

The City is not at risk from tsunamis (City of Pittsburg 2019a; see Table 4.2-4). The project site is located approximately 1 mile south of New York Slough. The nearest body of water that could experience seiche (water level oscillations in an enclosed or partially enclosed body of water) is the New York Slough. No other large bodies of water with the potential to inundate the project site by a seiche are located near the site. Therefore, the project would not result in the risk of release of pollutants due to inundation by a tsunami, seiche, or flooding. Impacts would be less than significant.

**LESS THAN SIGNIFICANT IMPACT**

- e. *Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?*

The San Francisco Bay RWQCB has designated water quality objectives in the county in the *Water Quality Control Plan for the San Francisco Bay Region* (Basin Plan) (San Francisco Bay RWQCB 2017). As discussed under criteria (a) and (b), the project would be required to comply with NPDES requirements and PMC Chapter 13.28. As discussed under criteria (a) and (b), the project would not use substantial groundwater, violate water quality standards, or degrade water quality during construction or operation. The septic system would be required to be installed and maintained in accordance with CCHS requirements and would not impact groundwater quality.

The on-site well, discussed under criteria (b), would be designed in accordance with Contra Costa County Ordinance Code Chapter 414-4 and installed pending permitting from the State Department of Health Services. The well would be constructed at a depth of at least 35 feet to reach the underlying groundwater from the Pittsburg Plain groundwater basin. The final design and depth of the well would be subject to site-specific observations made during a test hole or during the well drilling (University of California 2003). Construction and operation of the well in accordance with Contra Costa County code would prevent any contamination of groundwater and therefore protect water quality.

Additionally, adherence to state and local policies would further maintain water quality. Therefore, the proposed project would not interfere with water quality control plans or sustainable groundwater management plans. Impacts would be less than significant.

# 11 Land Use and Planning

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

## Setting

As stated in the *Project Description*, the project site currently has a land use designation of CS and has a CS zoning designation.

The CS land use designation provides for automobile repair, contractor’s services, and other heavy maintenance activities. Permitted land uses in CS zones include residential, commercial, industrial, and governmental, pending additional use regulations or temporary activity permits for various subtypes of land uses within those broader land use categories.

## Impact Analysis

a. *Would the project physically divide an established community?*

The project would be constructed in a fully urbanized area of Pittsburg. The project would not separate connected neighborhoods or land uses from each other. No new roads, linear infrastructure, or other development features are proposed that would divide an established community or limit movement, travel, or social interaction between established land uses. No impact would occur.

### NO IMPACT

b. *Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?*

The project site is located entirely in the City of Pittsburg. The project would be consistent with the General Plan designation of CS, since the General Plan lists storage and similar uses as an allowable use with a use permit. PMC Chapter 18.52 dictates that CS zones should be used for retail and service businesses opportunities between commercial and industrial areas. The project site is surrounded by commercial and industrial uses. Further, PMC lists boat and marine vessel storage and vehicle storage as allowable, pending a use permit. According to PMC Chapter 18.28, a use permit may be granted by the Zoning Administrator or Planning Commission if the use complies

**Pittsburg Solar Recreational Vehicle/Boat Storage**

with the General Plan, protects public health, safety, and general welfare, and ensures that the operation is compatible with existing and potential uses in the surrounding area. The project would also be required to comply with the City's Design Guidelines for and development regulations for the CS zoning designation as outlined in PMC Chapter 18.52 and discussed in Section 1, *Aesthetics*. Therefore, this impact would be less than significant.

**LESS THAN SIGNIFICANT IMPACT**

# 12 Mineral Resources

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

## Setting

Extractive resources known to exist in Contra Costa County include crushed rock near Mt. Zion, on the north side of Mt. Diablo, in the Concord area; shale in the Port Costa area; and sand and sandstone deposits, mined from several locations. Resources are mostly focused in the Byron area of southeast County (Contra Costa County 2005).

## Regulatory Setting

### *Surface Mining and Reclamation Act of 1975*

Pursuant to the mandate of the Surface Mining and Reclamation Act of 1975, the State Mining and Geology Board requires all cities to incorporate into their general plans mapped mineral resources designations approved by the State Mining and Geology Board. Some mineral resources can be found within Contra Costa County. However, there are no mineral resources in the Pittsburg area subject to the Surface Mining and Reclamation Act (Contra Costa County 2005).

## Impact Analysis

- a. *Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?*
- b. *Would the project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?*

There are no significant mineral deposits or active mining operations within the City of Pittsburg (City of Pittsburg 2019a). Therefore, the project would not result in the loss of availability of a known mineral resource or a locally important mineral resource recovery site. No impact would occur.

## **NO IMPACT**

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# 13 Noise

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project result in:				
a. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

## Overview of Noise and Vibration

### Noise

Sound is a vibratory disturbance created by a moving or vibrating source, which is capable of being detected by the hearing organs. Noise is defined as sound that is loud, unpleasant, unexpected, or undesired and may therefore be classified as a more specific group of sounds. The effects of noise on people can include general annoyance, interference with speech communication, sleep disturbance, and, in the extreme, hearing impairment (California Department of Transportation [Caltrans] 2013).

### HUMAN PERCEPTION OF SOUND

Noise levels are commonly measured in decibels (dB) using the A-weighted sound pressure level (dBA). The A-weighting scale is an adjustment to the actual sound pressure levels so that they are consistent with the human hearing response. Decibels are measured on a logarithmic scale that quantifies sound intensity in a manner similar to the Richter scale used to measure earthquake magnitudes. A doubling of the energy of a noise source, such as doubling of traffic volume, would increase the noise level by 3 dB; dividing the energy in half would result in a 3 dB decrease (Caltrans 2013).

Human perception of noise has no simple correlation with sound energy: the perception of sound is not linear in terms of dBA or in terms of sound energy. Two sources do not “sound twice as loud” as one source. It is widely accepted that the average healthy ear can barely perceive changes of 3 dBA, increase or decrease (i.e., twice the sound energy); that a change of 5 dBA is readily perceptible (8 times the sound energy); and that an increase (or decrease) of 10 dBA sounds twice (half) as loud (10.5 times the sound energy) (Caltrans 2013).

### **SOUND PROPAGATION AND SHIELDING**

Sound changes in both level and frequency spectrum as it travels from the source to the receiver. The most obvious change is the decrease in the noise level as the distance from the source increases. The manner by which noise reduces with distance depends on factors such as the type of sources (e.g., point or line), the path the sound will travel, site conditions, and obstructions.

Sound levels are described as either a “sound power level” or a “sound pressure level,” which are two distinct characteristics of sound. Both share the same unit of measurement, the dB. However, sound power (expressed as  $L_{pw}$ ) is the energy converted into sound by the source. As sound energy travels through the air, it creates a sound wave that exerts pressure on receivers, such as an eardrum or microphone, which is the sound pressure level. Sound measurement instruments only measure sound pressure, and noise level limits are typically expressed as sound pressure levels.

Noise levels from a point source (e.g., construction, industrial machinery, air conditioning units) typically attenuate, or drop off, at a rate of 6 dBA per doubling of distance. Noise from a line source (e.g., roadway, pipeline, railroad) typically attenuates at about 3 dBA per doubling of distance (Caltrans 2013). Noise levels may also be reduced by intervening structures; the amount of attenuation provided by this “shielding” depends on the size of the object and the frequencies of the noise levels. Natural terrain features, such as hills and dense woods, and man-made features, such as buildings and walls, can significantly alter noise levels. Generally, any large structure blocking the line of sight will provide at least a 5-dBA reduction in source noise levels at the receiver (Federal Highway Administration [FHWA] 2011). Structures can substantially reduce exposure to noise as well. The FHWA’s guidance indicates that modern building construction generally provides an exterior-to-interior noise level reduction of 10 dBA with open windows and an exterior-to-interior noise level reduction of 20 to 35 dBA with closed windows (FHWA 2011).

### **DESCRIPTORS**

The impact of noise is not a function of loudness alone. The time of day when noise occurs and the duration of the noise are also important factors of project noise impact. Most noise that lasts for more than a few seconds is variable in its intensity. Consequently, a variety of noise descriptors have been developed. The noise descriptors used for this study are the equivalent noise level ( $L_{eq}$ ), Day-Night Average Level (DNL; may also be symbolized as  $L_{dn}$ ), and the community noise equivalent level (CNEL; may also be symbolized as  $L_{den}$ ).

$L_{eq}$  is one of the most frequently used noise metrics; it considers both duration and sound power level. The  $L_{eq}$  is defined as the single steady-state A-weighted sound level equal to the average sound energy over a time period. When no time period is specified, a 1-hour period is assumed. The  $L_{max}$  is the highest noise level within the sampling period, and the  $L_{min}$  is the lowest noise level within the measuring period. Normal conversational levels are in the 60 to 65-dBA  $L_{eq}$  range; ambient noise levels greater than 65 dBA  $L_{eq}$  can interrupt conversations (Federal Transit Administration [FTA] 2018).

Noise that occurs at night tends to be more disturbing than that occurring during the day. Community noise is usually measured using Day-Night Average Level (DNL or  $L_{DN}$ ), which is the 24-hour average noise level with a +10 dBA penalty for noise occurring during nighttime hours (10:00 p.m. to 7:00 a.m.). Community noise can also be measured using Community Noise Equivalent Level (CNEL or  $L_{DEN}$ ), which is the 24-hour average noise level with a +5 dBA penalty for noise occurring from 7:00 p.m. to 10:00 p.m. and a +10 dBA penalty for noise occurring from 10:00 p.m. to 7:00 a.m. (Caltrans 2013).<sup>3</sup> The relationship between the peak-hour  $L_{eq}$  value and the  $L_{DN}$ /CNEL depends on the distribution of noise during the day, evening, and night; however noise levels described by  $L_{DN}$  and CNEL usually differ by 1 dBA or less. Quiet suburban areas typically have CNEL noise levels in the range of 40 to 50 CNEL, while areas near arterial streets are in the 50 to 60+ CNEL range (FTA 2018).

### *Groundborne Vibration*

Groundborne vibration of concern in environmental analysis consists of the oscillatory waves that move from a source through the ground to adjacent buildings or structures and vibration energy may propagate through the buildings or structures. Vibration may be felt, may manifest as an audible low-frequency rumbling noise (referred to as groundborne noise), and may cause windows, items on shelves, and pictures on walls to rattle. Although groundborne vibration is sometimes noticeable in outdoor environments, it is almost never annoying to people who are outdoors. The primary concern from vibration is that it can be intrusive and annoying to building occupants at vibration-sensitive land uses and may cause structural damage.

Typically, ground-borne vibration generated by manmade activities attenuates rapidly as distance from the source of the vibration increases. Vibration amplitudes are usually expressed in peak particle velocity (PPV) or root mean squared (RMS) vibration velocity. The PPV and RMS velocity are normally described in inches per second (in/sec). PPV is defined as the maximum instantaneous positive or negative peak of a vibration signal. PPV is often used as it corresponds to the stresses that are experienced by buildings (Caltrans 2020).

High levels of groundborne vibration may cause damage to nearby building or structures; at lower levels, groundborne vibration may cause minor cosmetic (i.e. non-structural damage) such as cracks. These vibration levels are nearly exclusively associated with high impact activities such as blasting, pile-driving, vibratory compaction, demolition, drilling, or excavation. The American Association of State Highway and Transportation Officials (AASHTO) has determined vibration levels with potential to damage nearby buildings and structures; these levels are identified in Table 14.

**Table 14 AASHTO Maximum Vibration Levels for Preventing Damage**

Type of Situation	Limiting Velocity (in/sec)
Historic sites or other critical locations	0.1
Residential buildings, plastered walls	0.2–0.3
Residential buildings in good repair with gypsum board walls	0.4–0.5
Engineered structures, without plaster	1.0–1.5

Source: Caltrans 2020

<sup>3</sup> Because DNL and CNEL are typically used to assess human exposure to noise, the use of A-weighted sound pressure level (dBA) is implicit. Therefore, when expressing noise levels in terms of DNL or CNEL, the dBA unit is not included.

Numerous studies have been conducted to characterize the human response to vibration. The vibration annoyance potential criteria recommended for use by Caltrans, which are based on the general human response to different levels of groundborne vibration velocity levels, are described in Table 15.

**Table 15 Vibration Annoyance Potential Criteria**

Human Response	Vibration Level (in/sec PPV)	
	Transient Sources	Continuous/ Frequent Intermittent Sources <sup>1</sup>
Severe	2.0	0.4
Strongly perceptible	0.9	0.10
Distinctly perceptible	0.25	0.04
Barely perceptible	0.04	0.01

in/sec = inches per second; PPV = peak particle velocity

<sup>1</sup> Continuous/frequent intermittent sources include impact pile drivers, pogo-stick compactors, crack-and-seat equipment, vibratory pile drivers, and vibratory compaction equipment.

Source: Caltrans 2020

## Regulatory Setting

### *City of Pittsburg General Plan*

The City of Pittsburg Noise Element contains goals and policies that are designed to include noise control in the planning process in order to maintain compatible land uses with acceptable environmental noise levels and protect Pittsburg residents from excessive noise. The Noise Element establishes the following goals and policies that would apply to the proposed project:

- Policy 12-P-1** As part of development review, use Figure 12-3 in the General Plan (Table 16 of this document) to determine acceptable uses and installation requirements in noise-impacted areas.
- Policy 12-P-3** Support implementation of State legislation that requires reduction of noise from motorcycles, automobiles, trucks, trains, and aircraft.
- Policy 12-P-4** Require noise attenuation programs for new development exposed to noise above normally acceptable levels. Encourage noise attenuation programs that avoid visible sound walls.
- Policy 12-P-7** Require the control of noise at the source through site design, building design, landscaping, hours of operation, and other techniques, for new development deemed to be noise generators.
- Policy 12-P-8** Develop noise attenuation programs for mitigation of noise adjacent to existing residential areas, including such measures as wider setbacks, intense landscaping, hours of operation, and other techniques, for new development deemed to be noise generators.
- Policy 12-P-9** Limit generation of loud noises on construction sites adjacent to existing development to normal business hours between 8:00 a.m. and 5:00 p.m.

**Policy 12-P-10** Reduce the impact of truck traffic noise on residential areas by limiting such traffic to appropriate truck routes. Consider methods to restrict truck travel times in sensitive areas.

**Table 16 Pittsburg Noise and Land Use Compatibility Matrix Table**

Land Use Category	Normally Acceptable <sup>1</sup>	Conditionally Acceptable <sup>2</sup>	Normally Unacceptable <sup>3</sup>	Clearly Unacceptable <sup>4</sup>
Residential-Single family	50-60	55-70	70-75	75-85
Residential- Multi-family	50-65	60-70	70-75	75-85
Transient Lodging, Motels, Hotels	50-65	65-70	70-80	80-85
School, Libraries, Churches, Hospitals*, Nursing Homes	50-70	60-70	70-80	80-85
Auditoriums, Concert Halls, Amphitheaters	NA	55-70	70-85	NA
Sports Arena, Outdoor Spectator Sports	NA	50-75	70-85	NA
Playgrounds, Parks	50-70	NA	67.5-75	77.5-85
Golf Courses, Riding Stables, Water Recreation, Cemeteries	50-75	NA	70-80	80-85
Office Buildings, Business Commercial and Professional	50-70	67.5-77.5	75-85	NA
Industrial, Manufacturing	50-75	70-80	75-85	NA

<sup>1</sup> Normally Acceptable: Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal conventional construction without any special noise insulation requirements.

<sup>2</sup> Conditionally Acceptable: New construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features are included in the design.

<sup>3</sup> Normally Unacceptable: New construction or development should be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements shall be made and needed noise insulation features shall be included in the design.

<sup>4</sup> Clearly Unacceptable: New construction or development should generally not be undertaken.

\* Because hospitals are often designed and constructed with high noise insulation properties, it is possible for them to be satisfactorily located in noisier areas.

Source: City of Pittsburg 2001

*City of Pittsburg Municipal Code (PMC)*

The City’s Municipal Code regulates noise in the city of Pittsburg. In PMC Section 9.44.010 prohibits the use of pile drivers, pneumatic hammers, and similar equipment between the hours of 10:00 p.m. and 7:00 a.m. The City’s Building and Construction Ordinance (Section 15.88.060.A.5) also prohibits grading noise, including warming up equipment motors, within 1,000 feet of a residence between the hours of 5:30 p.m. and 7 a.m. on weekdays, unless otherwise approved by the City Engineer. However, PMC does not establish numeric standards for construction noise.

*Noise Level Increases Over Ambient Noise Levels*

The operational and construction noise limits used in this analysis are set at reasonable levels at which a substantial noise level increase as compared to ambient noise levels would occur. Operational noise limits are lower than construction noise limits to account for the fact that permanent noise level increases associated with continuous operational noise sources typically

result in adverse community reaction at lower magnitudes of increase than temporary noise level increases associated with construction activities that occur during daytime hours and do not affect sleep. Furthermore, these noise limits are tailored to specific land uses; for example, the noise limits for residential land uses are lower than those for commercial land uses. The difference in noise limits for each land use indicates that the noise limits inherently account for typical ambient noise levels associated with each land use. Therefore, an increase in ambient noise levels that exceeds these absolute limits would also be considered a substantial increase above ambient noise levels. As such, a separate evaluation of the magnitude of noise level increases over ambient noise levels would not provide additional analytical information regarding noise impacts and therefore is not included in this analysis.

## Impact Analysis

- a. *Would the project result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?*

The proposed project would generate temporary noise increases during construction and long-term increases during operation.

## Construction

In the absence of applicable local noise level limits, this analysis references guidance from the FTA's *Transit Noise and Vibration Impact Assessment Manual* to establish a quantified threshold against which to assess the impact of construction noise (FTA 2018); FTA recommends that reasonable noise criteria may include those shown in Table 17. Construction would occur only during allowable hours under PMC Section 15.88; therefore, daytime noise criteria would be appropriate.

**Table 17 Construction Noise Criteria**

Land Use	Daytime L <sub>eq</sub> (8-hour)	Nighttime L <sub>eq</sub> (8-hour)
Residential	80	70
Commercial	85	85
Industrial	90	90

Source: FTA 2018.

Construction activity would result in temporary noise in the project site vicinity, exposing surrounding nearby receivers to increased noise levels. Project construction noise would be generated by heavy-duty diesel construction equipment used for earthworks, loading, unloading, and placing materials and paving. Typical heavy construction equipment during project grading could include dozers, loaders, graders, and dump trucks. It is assumed that diesel engines would power all construction equipment. Each phase of construction has a specific equipment mix, depending on the work to be accomplished during that phase. Each phase also has its own noise characteristics; some would have higher continuous noise levels than others, and some have high-impact noise levels. Construction noise would typically be higher during the more equipment-intensive phases of initial construction (i.e., site preparation and grading) and would be lower during the later construction phases (i.e., building construction and paving).

Equipment goes through varying load cycles and is operated intermittently to allow for non-equipment tasks such as measurement. Power variation is accounted for by describing the noise at a reference distance from the equipment operating at full power and adjusting it based on the duty cycle of the activity to determine the  $L_{eq}$  of the operation (FTA 2018). Reference noise levels for heavy-duty construction equipment were estimated using the FHWA Roadway Construction Noise Model (RCNM) (FHWA 2006). Typical construction noise levels from the FTA are shown in Table 18.

**Table 18 Typical Construction Noise Levels**

Equipment	25 feet from Source (dBA $L_{eq}$ )	50 feet from Source (dBA $L_{eq}$ )	100 feet from Source (dBA $L_{eq}$ )	200 feet from Source (dBA $L_{eq}$ )	500 feet from Source (dBA $L_{eq}$ )
Air Compressor	86	80	74	68	60
Backhoe	86	80	74	68	60
Concrete Mixer	91	85	79	73	65
Grader	91	85	79	73	65
Jack Hammer	94	88	82	76	68
Paver	91	85	79	73	65
Roller	91	85	79	73	65
Saw	82	76	70	64	56
Scraper	91	85	79	73	65
Truck	90	84	78	72	64

Source: Noise level at 50 feet from Federal Transit Administration, 2018. Noise levels at 25 feet, 100 feet, 200 feet, and 500 feet were extrapolated using a 6 dBA attenuation rate per doubling of distance. Each noise level assumes the piece of equipment is operating at full power for the expected duration to complete the construction activity. The duration varies widely between each piece of equipment. Noise levels also depend on the model and year of the equipment used.

The nearest sensitive noise receivers in the project vicinity are the residences located approximately 0.3 mile south of the project site across SR 4. Typical construction noise at 50 feet from a receptor would not exceed a noise level of 85 dBA  $L_{eq}$ , while a receptor that is 0.3 mile away would result in a noise level of approximately 55 dBA  $L_{eq}$ . This modeled noise level does not account for the intervening structures between the project site and the sensitive receivers. The commercial uses that are adjacent to the project site would also not be significantly impacted by project construction, considering that construction would occur 0.8 mile away and result in a modeled construction noise level of 67 dBA  $L_{eq}$ . Similarly, the industrial use to the north of the project site would be 900 feet from the center of construction activity, resulting in a modeled construction noise level of 60 dBA  $L_{eq}$ . Therefore, construction noise would not exceed the applicable threshold of 80 dBA  $L_{eq}$  for residential uses, 85 dBA  $L_{eq}$  for commercial uses, and 90 dBA  $L_{eq}$  for industrial uses. Impacts would be less than significant.

## Operation

The primary on-site noise sources associated with project operation would include vehicle circulation noise (e.g., engine startups, alarms, parking) and unloading noises.

### *Parking Lot Noise*

Typical noise sources associated with parking areas include tire squealing, door slamming, car alarms, horns, and engine start-ups. The proposed project includes parking stalls for approximately 507 RVs or boats. Table 19 shows typical noise levels at 100 feet from various noise sources

associated with parking lots. These are instantaneous noise levels which would occur for short bursts of time during the use of cars on the project site.

**Table 19 Maximum Noise Levels from Parking Lot Activity**

Source	Maximum Noise Level (dBA) at 100 Feet
Autos at 14 mph	44
Car Alarm Signal	63
Car Horns	61
Door Slams or Radios	58
Talking	30

Source: Gordan Bricken & Associates, 1996. Estimates are based on actual noise measurements taken at various parking lots.

As shown in Table 19 above, instantaneous parking lot noise could reach a maximum noise level of 63 dBA at a distance of 100 feet. Given the proposed use, noise levels would likely be louder on weekends when users may be more likely to take their RVs or boats in and out of storage.

Because the maximum noise levels shown in Table 19 and their instantaneous nature, noise from the project site would not exceed the City's noise standards for residential properties. The Pittsburg Noise and Land Use Compatibility Matrix Table, shown in Table 16, establishes the normally acceptable noise levels for residential, commercial, and industrial land uses. Instantaneous noise would not exceed these thresholds at the nearest sensitive receptor or the adjacent commercial or industrial land uses. The loudest individual noise sources in parking lot areas shown in Table 19, including car horns and car alarm signals, would occur infrequently and would be instantaneous in nature.

Moreover, the zoning and land use designation for the project is intended to provide an area for commercial businesses that may generate excessive noise and should be located in areas with other commercial or industrial uses. For example, there is a junkyard and landscaping supplies business directly to the west of the project site that would likely be generating greater operational noise levels. Further the nearest sensitive receiver is over 0.3 mile away and noise associated with project construction and operation would not reach them. Therefore, the project would have a less than significant impact from operational noise.

#### **LESS THAN SIGNIFICANT IMPACT**

*b. Would the project result in generation of excessive groundborne vibration or groundborne noise levels?*

Project construction would intermittently generate vibration on and adjacent to the project site. Vibration-generating equipment may include bulldozers and loaded trucks to move materials and debris, and vibratory rollers for paving. It is assumed that pile drivers, which generate strong ground borne vibration, would not be used during construction. Vibration-generating equipment on the project site would be used as close as approximately 225 feet from the nearest off-site structure to the east.

Unlike construction noise, vibration levels are not averaged over time to determine their impact. The most important factors are the maximum vibration level and the frequency of vibratory activity. Therefore, it is appropriate to estimate vibration levels at the nearest distance to off-site structures that equipment could be used, even though this equipment would typically be located farther from

off-site structures. As shown in Table 20, construction activity would generate vibration levels reaching an estimated 0.019 PPV in/sec at 225 feet, if vibratory rollers are used to pave asphalt. Vibration-generating equipment would be operated on a transient basis during construction.

**Table 20 Vibration Levels for Construction Equipment at Noise-Sensitive Receptors**

Equipment	PPV (in/sec)
	225 feet
Vibratory Roller	0.019
Large Bulldozer	0.008
Loaded Trucks	0.007
Jackhammer	0.003

Source: Caltrans 2013, equation 12

A maximum vibration level of 0.019 PPV in/sec at 225 feet during the potential use of vibratory rollers would not exceed 0.25 PPV in/sec, Caltrans’ recommended criterion for distinctly perceptible vibration from transient sources. Considering the existing distance to the nearest sensitive receiver, no vibration would be perceived at residences as a result of project construction. Construction activity that would generate loud noises (and therefore vibration) also would be limited to daytime hours on weekdays, which would prevent the exposure of sensitive receivers to vibration during nighttime and weekend hours. In addition, vibration levels would not exceed the Caltrans’ recommended criterion of 0.1 PPV in/sec for potential damage of historic and old buildings from transient vibration sources. Therefore, the impacts of vibration on people and structures would be less than significant.

The proposed project would not generate significant sources of vibration during operation, based on the nature of the proposed use. Therefore, operational vibration impacts would be less than significant.

**LESS THAN SIGNIFICANT**

- c. *For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?*

As discussed in Section 9, *Hazards and Hazardous Materials*, the nearest public airport is Buchanan Field Airport, which is located approximately 11.5 miles southwest of the project site. The project site is outside the Airport Influence Area for Buchanan Field Airport, as mapped in Figure 3B of the Contra Costa County Airport Land Use Compatibility Plan (Contra Costa County Airport Land Use Commission 2000). No private airstrips are located in the vicinity. Therefore, the project would not expose sensitive receptors to excessive noise levels from aircraft. This impact would be less than significant.

**LESS THAN SIGNIFICANT IMPACT**

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# 14 Population and Housing

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Induce substantial unplanned population growth in an area, either directly (e.g., by proposing new homes and businesses) or indirectly (e.g., through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

## Setting

According to the California Department of Finance (DOF), Pittsburg has an estimated population of 74,498 with 23,550 housing units (DOF 2021). The average number of persons per household is estimated at 3.34. The Association of Bay Area Governments (ABAG) provides projections for population in Pittsburg through the year 2040. ABAG projects the population of Pittsburg to be 91,615 by the year 2040 (ABAG 2017).

## Impact Analysis

- Would the project induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?*
- Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?*

The project would not involve the construction of infrastructure that could induce substantial population growth, such as new or increased capacity sewer or water lines, or the construction of new streets and roads. The project would not introduce a new population to the project site and would be serviced by a few employees who would likely already reside in the region. In addition, the project would not require the displacement of housing or people because there are no existing residences on the site. No impact related to population and housing would occur.

**NO IMPACT**

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# 15 Public Services

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
1 Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2 Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3 Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
4 Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
5 Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

## Setting

The Contra Costa County Fire Protection District (CCCFPD) provides fire and emergency medical services to the Bay Area Rapid Transit (BART) stations, regional parks, and unincorporated areas in the county, and fifteen cities including Pittsburg. CCCFPD operates three stations in Pittsburg (Station 84, Station 85, and Station 87), and three in neighboring Antioch (Station 81, Station 82, and Station 88) (CCCFPD 2021).

The Pittsburg Police Department (PPD) provides police protection services to the City. PPD operations division operates one police station in the City. The PPD patrol division is a 24/7 operation with more than 52 sworn officers and 27 civilian personnel (PPD 2021). In 2018, the PPD responded to 80,133 calls for service, which resulted in more than 2,800 arrests. The Pittsburg Police Department also operates the traffic division, investigations division, SWAT, crisis negotiation team, canine team, school resource officers, and several other divisions (PPD 2019).

The City of Pittsburg is served by three different school districts: the Pittsburg Unified School District, the Antioch Unified School District, and the Mt. Diablo Unified School District (Pittsburg 2020). In addition, adult education programs are available through the Pittsburg Adult Education Center, Los Medanos College, and Project Second Chance (City of Pittsburg 2021b).

The Pittsburg Public Works Department administers and maintains parks and other recreational facilities including community and senior centers. Public Works Department maintains

approximately 322 acres spread over 26 park facilities within the City of Pittsburg (City of Pittsburg 2021b).

## **Impact Analysis**

a. *Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:*

- 1 *Fire protection?*
- 2 *Police Protection?*
- 3 *Schools?*
- 4 *Parks?*
- 5 *Other public facilities?*

CCCFPD Fire Station 83 is approximately 1 mile southeast of the project site, at 217 Gentrytown Drive, Antioch, California. The project would be required to comply with all applicable fire code standards. In addition, the project site is in an urban area that is already served by the CCCFPD. Development of the site would be subject to review by the CCCFPD and would be required to meet all California Fire Code regulations for construction and operation. The project would not incrementally increase population in the area nor introduce structures which could generate the need for increased levels of fire department response.

The PPD is located approximately 2.5 miles west of the project site. The project would not introduce a new population and no habitable structures could be constructed on site. Therefore, the project would not incrementally increase population in the area nor introduce structures which could generate the need for increased levels of police response.

Turner Elementary School is located approximately 0.5 mile south of the project site. However, the project would not construct residences that would increase the number of school-aged children in the City. Therefore, the project would not result in the need for new or physically altered school facilities.

Marchetti Park in Antioch is located approximately 0.5 mile south of the project site. The project would not increase the population in the City. No habitable structures could be constructed on site. Therefore, the project would not add population that would contribute to substantial physical deterioration of existing recreational facilities.

The project would result in less than significant impacts to public services.

### **LESS THAN SIGNIFICANT IMPACT**

# 16 Recreation

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

## Setting

The City of Pittsburg Public Works and Recreation Departments administer and maintain parks and other recreational facilities including community and senior centers. The Public Works Department maintains approximately 322 acres spread over 26 park facilities within the City of Pittsburg (City of Pittsburg 2021c). Recreational activities and centers are also managed by the Recreation Department.

Parks nearest the project site include Marchetti Park in Antioch, approximately 0.5 mile south of the project site, Corteva Wetlands Preserve located approximately 0.5 mile northeast of the project site, and El Pueblo Park located approximately 1.5 miles west of the project site.

## Impact Analysis

- a. *Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?*
- b. *Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?*

As discussed in Section 15, *Public Services*, the project would not increase population and thus, would not increase, significantly accelerate or cause the physical deterioration of parks in the surrounding area. No habitable structure could be constructed on the site, and thus, the project would not introduce a new population to the City. Therefore, the project would not contribute to the acceleration or physical deterioration of parks. There would be no impact.

**NO IMPACT**

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# 17 Transportation

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible use (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Information for this section is based on a Trip Generation Analysis prepared by Abrams Associates on July 6, 2021 and is included as Appendix TRA.

## Setting

### Existing Roadway System

- **SR 4** is an eight-lane east-west freeway with High Occupancy Vehicle Lane in each direction that carries a high volume of traffic exceeding 140,000 vehicles in Pittsburg. The freeway’s median accommodates the Antioch BART line.
- **Pittsburg-Antioch Highway** is an east-west roadway north of the project site. It has one travel lane in each direction and no sidewalks. The posted speed limit is 50 miles per hour (mph).
- **Auto Center Drive** is a north-south roadway east of the project site. It has two travel lanes in each direction and sidewalks are provided on both sides of the roadway. The posted speed limit is 35 mph.

### Existing Pedestrian and Bicycle Facilities

There are no pedestrian facilities in the project vicinity. The commercial development to the east of the project site includes 2- to 3-foot-wide sidewalks. At the signalized intersections in the area, crosswalks and pedestrian push-button actuated signals are provided.

Bicycle facilities in the City (following the Caltrans bicycle facility classification) include the following:

- **Class 1 Bike Trail (Class I Bike Path)** – Bike paths provide a separate right-of-way and are designated for the exclusive use of people riding bicycles and walking with minimal cross-flow traffic. Such paths can be well situated along creeks, canals, and rail lines. Class 1 Bikeways can also offer opportunities not provided by the road system by serving as both recreational areas and/or desirable commuter routes.
- **Class 2 Bike Trail (Class II Bike Path)** – Bike lanes provide designated street space for bicyclists, typically adjacent to the outer vehicle travel lanes. Bike lanes include special lane markings, pavement legends, and signage. Bike lanes may be enhanced with painted buffers between vehicle lanes and/or parking, and green paint at conflict zones (such as driveways or intersections).
- **Class 3 Bike Route (Class III Bike Path)** – Bike routes provide enhanced mixed-traffic conditions for bicyclists through signage, striping, and/or traffic calming treatments, and to provide continuity to a bikeway network. Bike routes are typically designated along gaps between bike trails or bike lanes, or along low-volume, low-speed streets. Bicycle boulevards provide further enhancements to bike routes to encourage slow speeds and discourage non-local vehicle traffic via traffic diverters, chicanes, traffic circles, and/or speed tables. Bicycle boulevards can also feature special wayfinding signage to nearby destinations or other bikeways.

The City of Pittsburg currently has 43 miles of bikeways including 28 miles of Class II Bicycle Lanes and 13 miles of Class I Multi-Use paths including the 6.8-mile Delta de Anza Trail that connects with Bay Point and Antioch. Most streets within the City such as Buchanan Road, Harbor Street, California Avenue, Center Avenue, Loveridge Road, and Willow Pass Road have bike lanes with some gaps (City of Pittsburg 2019a). The City adopted the Pittsburg Moves Active Transportation Plan in February 2021, which recommends over 250 bicycle and pedestrian improvement projects and a comprehensive crosswalk policy. The plan includes a project to build a Class I Multi Use Path along Pittsburg-Antioch Highway directly north of the project site (City of Pittsburg 2021c).

#### *Existing Transit Service*

The Eastern Contra Costa Transit Authority operates Tri Delta Transit which provides transit service in Eastern Contra Costa County, serving the communities of Antioch, Brentwood, Pittsburg, Oakley, and the county of Contra Costa. The Eastern Contra Costa Transit Authority operates 62 fixed-route buses and 30 paratransit buses along over 650 bus stops (Tri Delta Transit 2021). In the project vicinity, there is a bus stop at Verne Roberts Circle and West 10<sup>th</sup> Street, approximately 500 feet east of the site.

BART provides fixed rail transit to eastern Contra Costa County. Currently, the terminus station for the East Bay Area's yellow line is in Antioch. Weekday service is provided on approximately 15-minute headways and weekend service are provided on approximately 20-minute headways. The Antioch-SFO/Millbrae Line connects to key regional employment centers, including Concord, Pleasant Hill, Walnut Creek, Oakland and San Francisco. Transfers to other lines can be made in Oakland. The Antioch BART station is approximately 1.5 miles northeast from the project site.

## Regulatory Setting

### *City of Pittsburg General Plan*

The Transportation Element of the General Plan is focused primarily on motor vehicle traffic. The following policies are relevant to the proposed project:

- Policy 7-P-1:** Require mitigation for development proposals that are not part of the Traffic Mitigation Fee program which contribute more than one percent of the volume to an existing roadway or intersections with inadequate capacity to meet cumulative demand.
- Policy 7-P-24:** Continue to designate appropriate truck routes, and discourage unnecessary through traffic in residential areas.

### *Pittsburg Moves Active Transportation Plan*

Adopted in February 2021, the Pittsburg Moves Active Transportation Plan sets forth goals and policies to promote better active transportation in the community to improve its health, mobility, livability, economy, and environment. The following policies are relevant to the proposed project:

- Policy 1.1:** Utilize Contra Costa Transportation Authority's (CCTA) Vehicle Miles Traveled (VMT) Analysis Methodology for Land Use Projects in Contra Costa for evaluating VMT impacts.
- Policy 1.2:** Discourage urban sprawl and other development projects that increase VMT. Support businesses and development projects that provide goods and services to residents within walking and biking distance of their homes.

## Impact Analysis

- a. *Would the project conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?*
- b. *Would the project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?*

The Trip Generation Analysis relied in trip generation rates from the Institute of Transportation Engineers (ITE). ITE does not provide a trip generation rate for RV and boat storage facilities, and therefore the analysis used the ITE rates for self-storage facilities, which is ITE land use code 151 (ITE 2017). Traffic associated with the proposed project would add 90 average daily trips (ADT), assuming 500 spaces of the facility are occupied. Peak trip generation for the facility would be highest on weekends. The facility would generate no more than 10 new vehicle trips during afternoon weekday rush hours when existing traffic would be highest (Appendix TRA).

In accordance with Pittsburg Moves Active Transportation Plan Policy 1.1, this analysis uses CCTA's VMT methodology to determine if the project's generated ADT is a significant impact. According to CCTA's VMT screening criteria, projects that generate or attract fewer than 110 daily vehicle trips cause a less than significant impact and do not require further analysis. The proposed project would generate 90 ADT and thus would meet the screening criteria. Therefore, VMT impacts would be less than significant.

The project would not contribute more than 1 percent of traffic volume to an existing roadway and would therefore not require mitigation measures, as laid out in Policy 7-P-1 of the City's General

Plan, which requires mitigation for projects that are not part of the Traffic Mitigation Fee program and that contribute more than 1 percent of the volume to an existing roadway with inadequate capacity to meet cumulative demand. The project site's designation as CS is intended to include uses that may potentially generate traffic and is intended for commercial and industrial uses. Therefore, the project would be consistent with General Plan Policy 7-P-24, considering that RVs and traffic hauling boats would not need to pass through residential neighborhoods in the vicinity to reach the project site. Therefore, the proposed project would be consistent with transportation policies and impacts would be less than significant.

**LESS THAN SIGNIFICANT IMPACT**

- c. *Would the project substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible use (e.g., farm equipment)?*

The project site would be accessible from the Pittsburg-Antioch Highway. The vehicle entryway to the facility would be 45 feet wide and contain directional arrows to indicate where traffic entering and exiting should flow. The entry gate would be wide enough (20 feet) to accommodate RVs and boats and the turn radius into the parking facility would be adequately sized to accommodate RVs and boats. There would be a wide shoulder for vehicles to slow before entering the facility and to accelerate when exiting onto the Pittsburg-Antioch Highway. The project would not introduce new roadways, a geometric design feature, or incompatible use to the area. Therefore, impacts related to hazards from geometric design feature or incompatible use would be less than significant.

**LESS THAN SIGNIFICANT IMPACT**

- d. *Would the project result in inadequate emergency access?*

The project site would be accessible via Pittsburg-Antioch Highway. Project construction would be required to provide proper emergency access to the site as part of design and would be required to comply with current California Fire Code for access. Adherence to required design and construction standards would reduce potential impacts related to emergency access to less than significant.

**LESS THAN SIGNIFICANT IMPACT**

# 18 Tribal Cultural Resources

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
<p>Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in a Public Resources Code Section 21074 as either a site, feature, place, or cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:</p> <p>a. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k)?</p> <p>b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.</p>	<p><input type="checkbox"/></p> <p><input type="checkbox"/></p>	<p><input checked="" type="checkbox"/></p> <p><input checked="" type="checkbox"/></p>	<p><input type="checkbox"/></p> <p><input type="checkbox"/></p>	<p><input type="checkbox"/></p> <p><input type="checkbox"/></p>

## Assembly Bill 52

As of July 1, 2015, California Assembly Bill 52 of 2014 (AB 52) was enacted and expands CEQA by defining a new resource category, “tribal cultural resources.” AB 52 establishes that “A project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment” (PRC Section 21084.2). It further states that the lead agency shall establish measures to avoid impacts that would alter the significant characteristics of a tribal cultural resource, when feasible (PRC Section 21084.3).

PRC Section 21074 (a)(1)(A) and (B) defines tribal cultural resources as “sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American tribe” and is:

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1. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or
2. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying these criteria, the lead agency shall consider the significance of the resource to a California Native American tribe.

AB 52 establishes a formal consultation process for California Tribes regarding those resources. The consultation process must be completed before a CEQA document can be adopted. Under AB 52, lead agencies are required to “begin consultation with a California Native American Tribe that is traditionally and culturally affiliated with the geographic area of the proposed project.” Native American tribes to be included in the process are those that have requested notice of projects proposed within the jurisdiction of the lead agency.

On October 27, 2021, the City of Pittsburg, pursuant to Public Resources 21080.3.1 and AB 52, sent notification letters via certified mail to seven California Native American Tribes that are traditionally and culturally affiliated with the project area. The letter was sent to representatives of the Amah Mutsun Tribal Band of Mission San Juan Bautista, Chicken Ranch Rancheria of Me-Wuk Indians, Guidiville Indian Rancheria, Muwekma Ohlone Indian Tribe of the SF Bay Area, Indian Canyon Mutsun Band of Costanoan, Nashville Enterprise Miwok-Maidu-Nishinam Tribe, North Valley Yokuts Tribe, The Confederated Villages of Lisjan, The Ohlone Indian Tribe, Tule River Indian Tribe, Wilton Rancheria, Wuksache Indian Tribe/Eshom Valley Band. On November 16, 2021, the Wilton Rancheria tribe requested additional information regarding the site and records searches, formal consultation was requested on November 23, and December 3, 2021, additional information was provided on December 17, 2021. No response was received and as such, consultation was concluded on January 15, 2022. On November 16, 2021, Chairperson Corrina Gould of the Confederated Villages of Lisjan requested additional information regarding the site and records searches formal consultation was requested on November 23 and December 3, 2021. Consultation was conducted on January 26, 2022 and additional information was provided on February 15, 2022. At the time of this publication, consultation is ongoing.

## **Impact Analysis**

- a. *Would the project cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code Section 21074 that is listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k)?*
- b. *Would the project cause a substantial adverse change in the significance of a tribal cultural resource as defined in Public Resources Code Section 21074 that is a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1?*

At the time of publication of the Initial Study, AB 52 consultation is ongoing. Neither the cultural resources records search nor SLF search identified cultural resources listed on or eligible for listing on the CRHR or a local register within the project site. However, there is always potential to uncover buried archaeological and Tribal cultural resources during ground disturbing activities, which could potentially be considered Tribal cultural resources eligible for listing in the CRHR or a local register or be considered tribal cultural resources. Should project construction activities encounter and

damage or destroy a Tribal cultural resource or resources, impacts would be potentially significant. Mitigation Measure TCR-1 would ensure that Tribal cultural resources are preserved in the event they are uncovered during construction and would reduce impacts regarding disrupting Tribal cultural resources to less than significant.

## **Mitigation Measure**

### *TCR-1 Inadvertent Discoveries During Construction*

In the event that cultural resources of Native American origin are identified during ground-disturbing activities, all earth disturbing work within 50 feet of the find shall be temporarily suspended or redirected until a qualified archaeologist has evaluated the nature and significance of the find; an appropriate Native American representative, based on the nature of the find, is consulted; and mitigation measures are put in place for the disposition and protection of any find pursuant to Public Resources Code Section 21083.2. If the City, in consultation with local Native Americans, determines that the resource is a tribal cultural resource and thus significant under CEQA, a mitigation plan shall be prepared and implemented in accordance with state guidelines and in consultation with local Native American group(s) prior to continuation of any earth disturbing work within the vicinity of the find. The plan shall include avoidance of the resource or, if avoidance of the resource is infeasible, shall outline the appropriate treatment of the resource in coordination with the appropriate local Native American Tribal representative and, if applicable, a qualified archaeologist. Examples of appropriate mitigation for Tribal cultural resources include, but are not limited to, protecting the cultural character and integrity of the resource, protecting traditional use of the resource, protecting the confidentiality of the resource, or heritage recovery.

### *TCR-2 Tribal Cultural Resources Reburial Area*

An area outside of the gated facility within the landscaped space of the final site plan, in consultation with the City and local Native Americans, shall be set aside for the reburial of Tribal Cultural Resources in the event that Tribal Cultural Resources are discovered on site. The landscape of the area shall consist of native and/or medicinally related vegetation and shall include a gathering area. The area shall have open access for any Tribal members and shall not be disturbed if Tribal Cultural Resources are reburied at this site.

Implementation of Mitigation Measure TRC-1 and TCR-2 would reduce impacts to Tribal cultural resources to less than significant.

**LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED**

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# 19 Utilities and Service Systems

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
Would the project:				
a. Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b. Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d. Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e. Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

## Potable Water and Wastewater

There is no water or sewer service reasonably close to the project site. Potable water would be provided to the project site after construction of an on-site well. Wastewater would be pumped via a small lift station from the trash enclosure and office building to a septic tank and leach fields in the southern portion of the project site. Additionally, a recycled water pipeline would be constructed to supply recycled water to the project site which would be used when non-potable water is adequate, such as cleaning of the solar panels or landscape irrigation.

Groundwater use in the City increased in 2020 to 1,480 acre-feet, a 28 percent increase from 2019, but only a 7 percent increase over the average from 2016 to 2020 (City of Pittsburg 2021a). Overall water supplies in Pittsburg are adequate to meet demand through 2045 in normal, dry, and consecutive dry years, according to the 2020 UWMP, as shown in Table 21 and Table 22.

**Table 21 City of Pittsburg Supply/Demand Balance Normal Year (acre feet)**

	2025	2030	2035	2040	2045
Supply Total	12,691	13,690	14,620	15,484	16,405
Demand Total	11,342	12,341	13,271	14,135	15,056
<b>Difference</b>	<b>1,349</b>	<b>1,349</b>	<b>1,349</b>	<b>1,349</b>	<b>1,349</b>

Source: City of Pittsburg 2021a

**Table 22 City of Pittsburg Supply/Demand Balance Multiple Dry Years (acre feet)**

		2020	2025	2030	2035	2040
First Year	Supply Total	12,691	13,690	14,620	15,484	16,405
	Demand Total	11,342	12,341	13,271	14,135	15,056
	Difference	1,349	1,349	1,349	1,349	1,349
Second Year	Supply Total	12,691	13,690	14,620	15,484	16,405
	Demand Total	11,342	12,341	13,271	14,135	15,056
	Difference	1,349	1,349	1,349	1,349	1,349
Third Year	Supply Total	12,139	13,089	13,972	14,793	15,668
	Demand Total	11,342	12,341	13,271	14,135	15,056
	Difference	797	748	701	658	612

Source: City of Pittsburg 2021a

## Stormwater

The site currently drains to storm drains in the adjacent roadway on Pittsburg-Antioch Highway where the flow joins with the Pittsburg stormwater system. Water also drains into the Contra Costa Spillway on the eastern end of the project site. Stormwater runoff is collected and disposed of by an integrated system of storm drains, inlets, curbside gutters, catch basins, drainage ditches, and man-made channels. Ultimately, stormwater that enters the City’s system drains to the Suisun Bay. The City of Pittsburg maintenance personnel inspect, clean, and maintain storm drains within the City and ensure inlets and drains are clear of debris to ensure stormwater flows freely (City of Pittsburg 2021d).

## Solid Waste

Mt. Diablo Resource Recovery manages all trash and recycling services in Pittsburg. Both residential and commercial solid waste is currently transported to and disposed of at the Keller Canyon Landfill southwest of the City. Table 23 shows the estimated remaining capacity and anticipated closure dates of Keller Canyon Landfill (CalRecycle 2019).

**Table 23 Estimated Landfill Capacities and Closure Dates**

Landfill Facility	Permitted Capacity (cubic yards)	Remaining Capacity (cubic yards)	Anticipated Closure Date
Keller Canyon	75,018,280	63,408,410	2030

Source: CalRecycle 2019b

## **Other Utilities**

Gas and electric utilities for construction would be provided by PG&E or MCE. Project operation would not require natural gas and would generate its own electricity from the proposed solar panel canopy. Infrastructure capable of supporting electric and telecommunications exists on the project site and in the project vicinity.

## **Impact Analysis**

- a. *Would the project require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?*
- c. *Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?*

## **Water and Wastewater**

The project would not result in any direct impacts to water or wastewater utilities facilities because the project would construct an on-site well and septic system to service the project's minimal water needs and wastewater generation. Construction and use of the well would abide by Contra Costa County Ordinance Code Chapter 414-4, as adopted into PMC Section 12.40. Prior to commencing work on a well, a permit would be required to be obtained by a licensed well driller and approved by a California Department of Health Services health officer. The well would be required to be sited in an adequately drained and pollution or contamination free location on the project site. The well must also be protected in accordance with Section 414-4.807 of the Contra Costa County Code, which includes adequately chlorinating the well following construction.

The office would include a restroom and potable water and ice would be offered to users of the storage facility, both of which would require potable water. The restroom and RVs and boats would dispose of human waste through a sanitary sewer line that would connect to the on-site septic system. Assuming a 20 percent wastewater generation rate, the project would generate 62,278 gallons of wastewater per year (171 gallons per day), based on overall water use of 311,390 gallons per year (853 gallons per day). The solar panel canopies would require maintenance cleaning (one or two times per year), which could require water from the well. The project would require a California Fire Code compliant water system, which is outlined in Section 507 (fire protection water supplies) and Section 904 (automatic sprinkler systems). Water supply is further discussed in Section 10, *Hydrology and Water Quality*, and the use of septic tanks is further discussed in Section 7, *Geology and Soils* under criterion e. The project would not require the construction of new or expanded water or wastewater facilities. Therefore, impacts would be less than significant.

## **Stormwater**

The project would comply with City standards and convey stormwater to the City's storm drain system and capture runoff in two bio-retention swales. Impacts to stormwater and associated stormwater management plans are discussed in Section 10, *Hydrology and Water Quality*. Stormwater would primarily be captured in the bioretention swales to accommodate for the increased pervious surfaces. The project would not require the construction of new or expanded stormwater facilities. Therefore, impacts would be less than significant.

## Electricity, Natural Gas, and Telecommunications

As discussed in Section 6, *Energy*, the project would not result in the wasteful, inefficient, or unnecessary consumption of energy. The project would be required to comply with all state and federal regulations regarding energy efficiency. The project would create a new source of energy, the solar canopy, which would be purchased by MCE or PG&E. Therefore, the project would not require new or expanded electric facilities. In addition, the project would not require the use of natural gas or telecommunications facilities; therefore, no impacts to those utilities would occur.

### NO IMPACT

- b. *Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?*

Project construction would temporarily use water for dust control. Operation would require potable water in the restroom and for the ice machine. Non-potable recycled water would also be used for maintenance of the solar canopy and landscaping irrigation. The project would rely on an on-site well that draws from the Pittsburg Plain groundwater basin to supply water. The Pittsburg Plain groundwater basin is not considered critically over drafted by DWR, nor is it at risk of overdraft conditions considering that groundwater levels have remained fairly stable (City of Pittsburg 2021a). Further discussion of groundwater supplies can be found in Section 10, *Hydrology and Water Quality* and were found to be sufficient. Considering the sufficiency of water supplies over multiple dry years and the project's minimal water usage, impacts to water supplies would be less than significant.

### LESS THAN SIGNIFICANT IMPACT

- d. *Would the project generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?*
- e. *Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?*

Project construction and operation would be required to divert 75 percent of solid waste per AB 341 and would be required to comply with PMC Chapter 8.06, which outlines how solid waste is removed and disposed of from a site. The project could generate 1.15 tons of solid waste per year or approximately 6 pounds per day during operation (Appendix AQ). Solid waste would be collected by Mt. Diablo Resource Recovery and then transferred to the Keller Canyon Landfill. Project generated waste would be less than 0.00009 percent of Keller Canyon Landfill's daily allowable waste limit of 3,500 tons per day (CalRecycle 2019b). Actual net waste generation could be lower as RVs and boats may dump their waste prior to arriving at the facility. The project's incremental increase in solid waste would not adversely affect solid waste facilities. The project would not adversely affect solid waste facilities and impacts would be less than significant.

### LESS THAN SIGNIFICANT IMPACT

## 20 Wildfire

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a. Substantially impair an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b. Due to slope, prevailing winds, and other factors, exacerbate wildfire risks and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c. Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d. Expose people or structures to significant risks, including downslopes or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

### Impact Analysis

- If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project substantially impair an adopted emergency response plan or emergency evacuation plan?*
- If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project, due to slope, prevailing winds, and other factors, exacerbate wildfire risks and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?*
- If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?*

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- d. *If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project expose people or structures to significant risks, including downslopes or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?*

The project site is not in a CAL FIRE designated very high fire hazard severity zone and is located approximately 15 miles east of the nearest very high fire hazard severity zone (CAL FIRE 2020). As such, project implementation would not impair any adopted emergency response plan or emergency evacuation plan; exacerbate wildfire risks; require the installation or maintenance of associated infrastructure that may exacerbate fire risk; or expose people or structures to significant risks, including downslopes or downstream flooding or landslides, as a result of runoff, post fire slope instability, or drainage changes in or near state responsibility areas or lands classified as very high fire severity zones. No impact would occur.

**NO IMPACT**

# 21 Mandatory Findings of Significance

	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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Does the project:

a. Have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

a. *Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?*

As discussed in this Initial Study, the project would have no impact, a less than significant impact, or a less than significant impact after mitigation with respect to all environmental issues. Regarding biological resources, the existing habitat onsite does currently support only one special status species, western burrowing owl, which would be protected by Mitigation Measure BIO-1. This mitigation measure would also protect any other nesting birds. Implementation of Mitigation Measure BIO-2 would reduce potential impacts to the on-site wetland to a less-than-significant level by requiring a wetlands buffer during construction. Further, the two bioretention areas would

protect and replenish the wetland during operation. No historical or archeological resources are known to occur at the project site, as stated in Section 5, *Cultural Resources*. Potential impacts to unknown cultural resources on the project site would be reduced to a less-than-significant level with implementation of Mitigation Measures CUL-1, CUL-2, CUI-3, TCR-1, and TCR-2, which would require notification and appropriate protective measures in the event of an unanticipated discovery of cultural or tribal cultural resources, training for handling of unanticipated discoveries, monitoring, and a reburial area within the project site.

**LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED**

- b. *Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?*

The proposed project was determined to have no impact in comparison to existing conditions for issue areas related to surrounding developments or natural resources. Therefore, as there would be no direct or indirect impacts, the proposed project would not contribute to cumulative impacts to these issue areas.

For all other issue areas, the proposed project would have either direct or indirect impacts that have been determined to be less than significant, or less than significant with mitigation incorporated. The project would not adversely affect biological, cultural, or other physical resources outside of the project site. Other impacts, such as air quality, GHG emissions, noise, transportation, and utilities impacts, would be minor and would not be cumulatively considerable. There are no major nearby proposed projects would potentially overlap with project construction. Therefore, construction equipment exhaust emissions, GHG emissions, noise would not overlap during construction. The effects of the project would not combine with impacts from other projects in the vicinity to result in a significant cumulative impact.

**LESS THAN SIGNIFICANT WITH MITIGATION INCORPORATED**

- c. *Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?*

Effects on human beings are generally associated with impacts related to issue areas such as air quality, geology and soils, hazards and hazardous materials, noise, and transportation. As discussed in this Initial Study, the project would have a less than significant impact or a less than significant with mitigation impact in each of these resource areas. Therefore, the project would not cause substantial adverse effects on human beings, either directly or indirectly and impacts associated with the project would be less than significant.

**LESS THAN SIGNIFICANT IMPACT**

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## List of Preparers

Rincon Consultants, Inc. prepared this Initial Study under contract to the City of Pittsburg. Persons involved in data gathering analysis, project management, and quality control are listed below.

### **RINCON CONSULTANTS, INC.**

Darcy Kremin, AICP, Director  
 Leslie Trejo, MUP, Project Manager  
 Jesse Voremberg, MS, Environmental Planner  
 Mimi McNamara, Environmental Planner  
 Chris Shields, Senior Environmental Scientist  
 Amanda R. Harvey, Ph.D., RPA, Senior Archaeologist  
 Courtney Montgomery, Archaeologist  
 Jorge Mendieta, Paleontologist

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