9 RESOURCE CONSERVATION

This element describes the City's environmental and geological setting, and outlines policies relating to biological resources and habitat, drainage and erosion, water quality, air quality, and historical resources conservation. Resource-protection regulations enacted by ordinance will establish specific regulations to protect natural features and ensure compatible project design.

9.1 BIOLOGICAL RESOURCES AND HABITAT

Diverse biological and wetlands habitats exist within the Southwest Hills area.

Pittsburg's setting in the Sacramento/San Joaquin Delta region, along with varied topography and habitats, give it a diverse range of plant and animal life. Pittsburg is located on the southern border of Suisun Bay, in the northern portion of Contra Costa County. The area's Mediterranean climate supports a mosaic of grasslands, wetland communities, and scattered stands of trees.

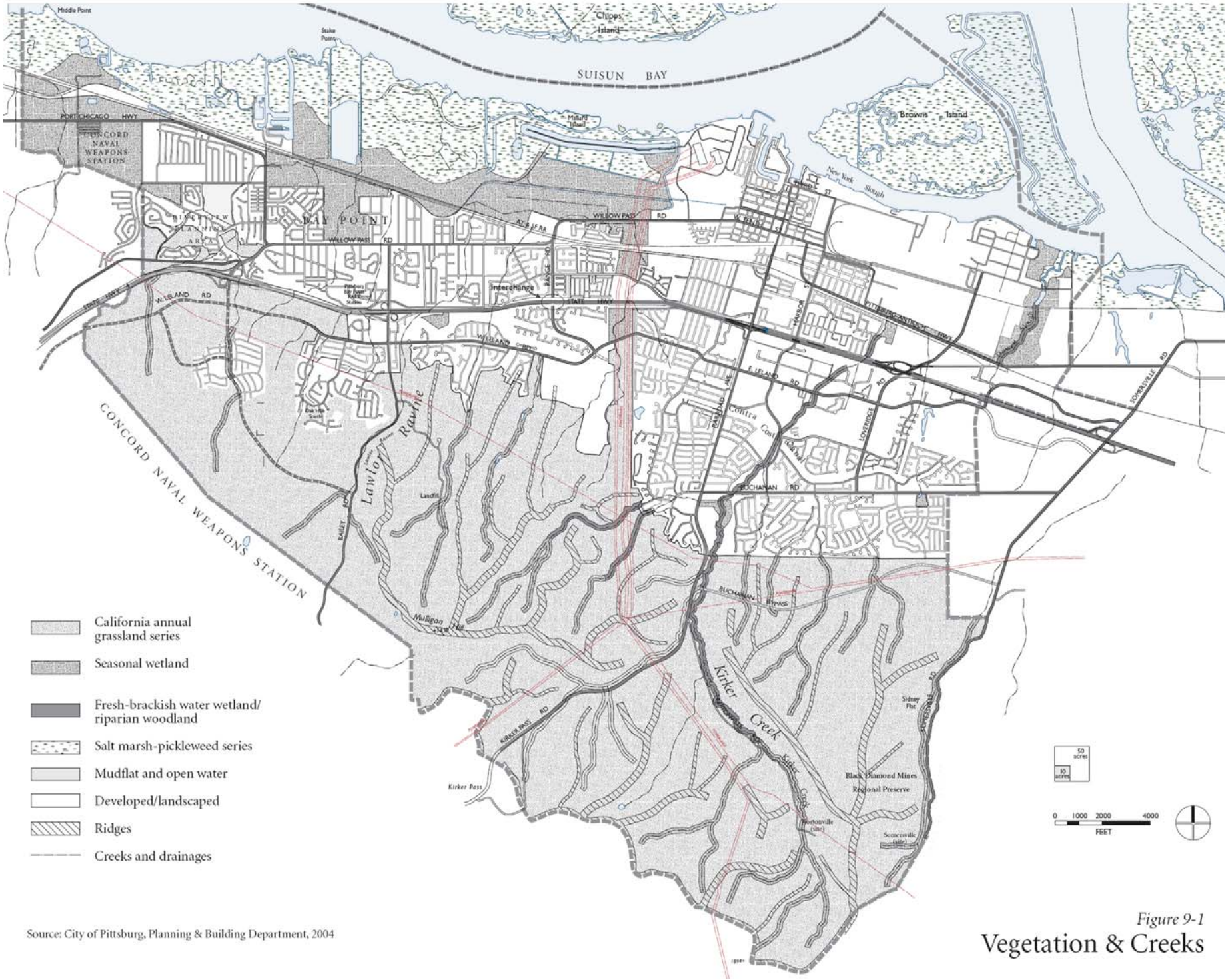
OPEN SPACE

The Planning Area contains a significant amount of open space, which is valuable as both a visual resource and as habitat for oak woodlands, wetlands and riparian wildlife. Intermittent streams and uninhabited areas also contribute to air and water quality in the hills and tidelands. The East Bay Regional Park District (EBRPD) manages two regional preserves within the Planning Area: the Browns Island Regional Shoreline and the Black Diamond Mines Regional Preserve. The remaining natural Delta shoreline habitat on Browns Island and grasslands habitat at Black Diamond Mines are preserved for threatened or endangered species, habitat enhancement for other rare species, and protection of the unique and diverse ecology of the areas as a whole.

The topography of the southern portion of Pittsburg is such that relatively smaller ridgelines filter into and merge with larger ridgelines. These larger ridgelines, which are designated as major ridgelines in Figure 9-1, are the highest and most visually prominent ridgelines along the southern skyline. Preserving these ridgelines from development will help preserve the aesthetic value of the viewshed.

RESOURCE PRODUCTION

The Planning Area contains one of the only two places in the San Francisco Bay Area where coal was mined. The discovery of coal in the 1850s led to construction of Black Diamond Mines, the first source of fossil fuel in California. Sand mining was also conducted starting in the late 1920s. Due to competition from other energy sources, the mines closed in 1949. Historical remnants of Black Diamond's



Source: City of Pittsburg, Planning & Building Department, 2004

Figure 9-1
Vegetation & Creeks

mining operations, as well as the former mining towns of Nortonville and Somersville, can still be found in the southern hills. While coal mining no longer takes place, livestock still graze in the hills.

There are currently no significant mineral deposits or active mining operations in the Planning Area. The hills south of City limits may contain mineral deposits, though their significance is not known. A small portion of the hills is considered farmland of local importance. Over 3,500 acres of land in the Planning Area is currently under Williamson Act contracts, which entitle landowners to property tax reductions in exchange for preserving their land as agricultural or open space. Williamson Act contracts are automatically renewed each year for at least 10 years, unless cancellation is sought. These lands are considered agricultural preserves.

VEGETATION AND WILDLIFE

Historic vegetation in Pittsburg included native grassland, oak woodlands, riparian communities, and coastal salt and brackish marshes. Figure 9-1 shows the vegetative communities within the Planning Area.

The Planning Area hosts an abundance of vegetation types, with a diverse population of plant species. Vegetative communities can be divided into two categories based on habitat sensitivity:

- *Level One* communities are those that are or most closely resemble (in form and function) native habitats. Within the Planning Area, these include grassland, salt marsh-pickleweed series, seasonal wetland, riparian woodland, and the open waters of Suisun Bay.

- *Level Two* communities are areas that have been significantly altered by humans and include development and landscaping. These areas provide minimal habitat for native vegetation and wildlife.

Human intervention and development have altered the landscape, restricting natural vegetation primarily to undeveloped hillside areas. The southern third of the Planning Area is largely undeveloped open space with large expanses of

rolling grassy hills, while the northern edge consists of salt and brackish marshlands at New York Slough. These natural areas may be suitable for several threatened and endangered plant and animal species, such as the Western pond turtle, California red-legged frog, San Joaquin kit fox, Berkeley kangaroo rat, Tricolored blackbird, White-tailed kite, Mt Diablo manzanita, Alkali milk-vetch, Diamond-petaled poppy, and Mason's lilaeopsis. Areas of particular biological concern within the Planning Area include Browns Island Regional Shoreline and Black Diamond Mines Regional Preserve and environs. Special status species which may be found within the Planning Area are listed in Table 9-1.

WETLANDS

Wetlands are ecologically productive habitats that support a variety of both plant and animal life. The importance and sensitivity of wetlands has increased with population growth as a result of their role as recharge areas and filters for water supplies. However, much of the region's wetlands have been filled for urban development. Two types of wetlands occur within the Planning Area:

- *Fresh emergent wetlands* within Pittsburg occur in Kirker Creek, Lawlor Ravine, and several of their tributaries located in the Mount Diablo foothills. This habitat is generally considered one of the most productive habitats for wildlife because it offers water, food and cover. Habitat modification in the northern planning area has severely reduced the vegetative structure of the habitat and its overall value for wildlife.

- *Saline emergent wetlands*, found along tidal salt marshes, serve as an important habitat for many threatened species such as the California clapper rail, salt marsh harvest mouse, and California black rail.

Table 9-1
Special Status Species Known to Occur or Potentially Occurring within Pittsburg Planning Area

Common Name (Scientific Name)	*Status1 Fed/ CA/ CNPS*	*General Habitat (Habitat Type Abbreviation) 2*
Invertebrates		
Antioch dunes anthicid beetle (Anthicus antiochensis)	FSS/ --	Presumed extinct – known only from the Antioch Dunes (D)
San Joaquin dune beetle (Coelus gracilis)	FSS/ --	Fossil dunes along the western edge of San Joaquin County; extirpated from Antioch Dunes; requires sandy substrates. (D)
Molestan blister beetle (Lytta molesta)	FSS/ --	Central Valley from Contra Costa to Kern and Tulare Counties; collected at Brentwood. (CG/ CH)
Antioch cophuran robberfly (Cophura hurdi)	FSS/ --	Only specimen known collected at Antioch. (CG/ CH)
Antioch efferian robberfly (*Efferia antiochi*)	FSS/ --	Not available. (UK)
Yellow banded andrenid bee (*Perdita hirticeps luteocincta*)	FSS/ --	Visits flowers of *Gutierrezia californica*. (CG)
Antioch andrenid bee (*Perdita scituta antiochensis*)	FSS/ --	Visits flowers of *Eriogonum*, *Gutierrezia californica*, *Heterotheca grandiflora*, and *Lessingia glandulifera*. (CG)
Antioch multilid wasp (*Myrmosula pacifica*)	FSS/ --	Not available. (UK)
Antioch specid wasp (*Philanthus nasilis*)	FSS/ --	Known only from the Antioch Dunes. (D)
Langes metalmark butterfly (*Apodemia mormo langei*)	FE/ --	Stabilized dunes along the San Joaquin River. Endemic to the Antioch Dunes; primary host plant is *Eriogonum nudum* var. *auriculatum*. (D)
Middlekaufs shieldback katydid (*Idiostatus middlekaufi*)	FSS/ --	Not available. (UK)
Reptiles		
Western pond turtle (*Clemmys marmorata*)	FSS/ CSC	An aquatic turtle of streams, ponds and marshes; requires basking sites. Potential habitat occurs in large drainages and preserves in the Planning Area. (OW/ FW)
Alameda whipsnake (*Masticophis lateralis euryxanthus*)	FT/ CT	Valley foothill hardwood habitat; south-facing slopes with a mosaic of shrubs, oaks and grasses. (RW/ CG)
Giant garter snake (*Thamnophis gigas*)	FT/ CT	Freshwater and low-gradient streams; highly aquatic. The planning area occurs on the fringe of this species' range. (RW/ FW)
Amphibians		
California tiger salamander (*Ambystoma californiense*)	FC/ CSC	Annual grasslands with underground refugia & seasonal water for breeding. Suitable habitat includes the grassland hills in the southern portion of the planning area. (FW/ CG)

Table 9-1 (continued)
Special Status Species Known to Occur or Potentially Occurring within Pittsburg Planning Area

Common Name (Scientific Name)	*Status1 Fed/ CA/ CNPS*	*General Habitat (Habitat Type Abbreviation) 2*
California red-legged frog (*Rana aurora draytonii*)	FT/ CSC	The Planning Area's wetlands provide limited breeding habitat for this species. Occurrences of the red-legged frog have been reported in Stoneman Park and along Kirker Pass Road. (FW/ RW/ CG)
Mammals		
San Joaquin kit fox (*Vulpes macrotis mutica*)	FE/ CT	Resident of California grasslands, particularly along creeks. Reported at Black Diamond Mines Regional Preserve and surrounding foothills, including areas near Kirker Pass Road. (CG)
Salt marsh harvest mouse (*Reithrodontyomys raviventris*)	FE/ CE	Salt marshes along the Planning Area's northern fringe provide suitable habitat. (SM/ BM)
San Joaquin pocket mouse (*Perognathus inornatus inornatus*)	--/ CSC	Grasslands and blue oak savannas; friable soils. Suitable habitat includes the grassland hills in the southern portion of the planning area. (CG)
Berkeley kangaroo rat (*Dipodomys heermanni*)	--/ SA	Open grassy hilltops and clearings in chaparral; require fine, deep, well-drained soils. Suitable habitat includes the grassland hills in the southern portion of the planning area. (CG)
Birds		
Great blue heron (*Ardea herodias*)	--/ SA	Local salt marshes provide foraging habitat for herons. (RW/ FW/ BW)
Short-eared owl (*Asio flammeus*)	--/ SA	Local salt marshes provide foraging habitat for this owl. (SM/ BW)
Northern harrier (*Circus cyaneus*)	--/ CSC	Suitable nesting habitat could include grassy meadows and margins within the planning area. (RW/ CG)
Salt marsh common yellowthroat (*Geothlypis trichas sinuosa*)	FSS/ CSC	Local marshes provide suitable foraging habitat for this yellowthroat. (FW/ BW/ SM)
California black rail (*Laterallus jamaicensis coturniculus*)	FSS/ CT	Salt marshes on Stake Point and the eastern fringe of the Planning Area provide habitat for rails. (SM/ MF/ BW)
California clapper rail (*Rallus longirostris obsoletus*)	FE/ CE	Cordgrass salt marshes on the eastern fringe of the Planning Area provide habitat for rails. (SM/ MF/ BW)
California least tern (*Sterna antillarum browni*)	FE/ CE	Colonial breeder on bare or sparsely vegetated, flat substrates. Nests near the Mirant power plant and Concord Naval Weapons Station. (SM/ MF/ BW/ OW)
California brown pelican (*Pelecanus occidentalis californicus*)	FE/ CE	California brown pelican is a seasonal visitor to the region. (OW)

Table 9-1 (continued)
Special Status Species Known to Occur or Potentially Occurring within Pittsburg Planning Area

Common Name (Scientific Name)	*Status1 Fed/ CA/ CNPS*	*General Habitat (Habitat Type Abbreviation) 2*
Tricolored blackbird (*Agelaius tricolor*)	FSS/ CSC	Nests colonially near fresh or brackish water marshy areas with dense tules, cattails or thickets. Brackish marshes along the Delta provide suitable habitat for this species. (FW/ BW/ RW)
White-tailed kite (*Elanus leucurus*)	--/ SA	Grassland foothills with scattered oaks for nesting and perching; open grasslands or marshlands for foraging. Suitable habitat includes the grassland hills in the southern Planning Area. (CG/ RW)
Suisun song sparrow (*Melospiza melodia mazillaris*)	FSS/ CSC	Resident of brackish water marshes on Suisun Bay. Frequents cattails, tules, and pickleweed vegetation, and also vegetative tangles in sloughs. (BW/ FW/ SM)
Burrowing owl (*Athene cunicularia)*	--/CSC (burrow sites)	Annual grasslands with mammal burrows, especially those of California ground squirrel. (CG)
Plants		
Large-flowered fiddleneck (*Amsinckia grandiflora*)	FE/ CE/ 1B	Valley and foothill grasslands, open oak woodland, on light soils. Known from only three natural occurrences. (CG)
Mt. Diablo manzanita (*Arctostaphylos auriculata*)	--/ --/ 1B	Canyons and slopes, on sandstone, in chaparral. (CH)
Alkali milk-vetch (*Astragalus tener* var. *tener*)	--/ --/ 1B	Alkali playa, valley and foothill grassland, vernal pools. Low ground or alkali flats and flooded lands; in annual grassland, playas or vernal pools. (CG/ FW)
Suisun Marsh aster (*Aster lentus*)	FSS/ --/ 1B	Marshes and swamps, both freshwater and brackishwater, in the San Joaquin and Sacramento River Delta. (FW/ BW)
Heartscale (*Atriplex cordulata*)	FSS/ --/ 1B	Saline or alkaline places in valley and foothill grassland or alkali scrub. (SP)
San Joaquin spearscale (*Atriplex joaquiniana*)	FSS/ --/ 1B	In seasonal alkaline meadows or alkali sink scrub. (SP)
Big tarplant (*Blepharizonia plumosa* ssp. *plumosa*)	--/ --/ 1B	Dry hills and plains in valley and foothill grassland. (CG)
Soft bird's-beak (*Cordylanthus mollis* ssp. *mollis*)	FE/ CR/ 1B	Coastal salt marsh; within the tidal zone. (SM/ BM)
Dwarf downingia (*Downingia pusilla*)	--/ --/ 2	Vernal pools in valley and foothill grasslands. (FW)
Mt. Diablo buckwheat (*Eriogonum truncatum*)	--/ --/ 1A	Dry, exposed clay or rock surfaces; 1000-2000 ft.; chaparral, coastal scrub, valley and foothill grasslands. (CG)
Contra Costa wallflower (*Erysimum capitatum* ssp *angustatum*)	FE/ CE/ 1B	Stabilized dunes near Antioch along the San Joaquin River. (D)

Table 9-1 (continued)
Special Status Species Known to Occur or Potentially Occurring within Pittsburg Planning Area

Common Name (Scientific Name)	*Status1 Fed/ CA/ CNPS*	*General Habitat (Habitat Type Abbreviation) 2*
Diamond-petaled poppy (*Eschscholzia rhombipetala*)	FSS/ --/ 1A	Valley and foothill grassland; Inner Coast Ranges. (CG)
Stink bells (*Fritillaria agrestis*)	--/ --/ 4	Valley and foothill grasslands, oak woodlands; on clay flats; sometimes on serpentine. (CG)
Diablo rock-rose (*Helianthella castanea*)	FSS/ --/ 1B	Openings in chaparral and broadleaved upland forest. (SP)
Brewer's dwarf-flax (*Hesperolinon breweri*)	FSS/ --/ 1B	Grassland, open oak woodland, and openings in chaparral, often on serpentinite. SP)
California hibiscus (*Hibiscus lasiocarpus*)	--/ --/ 2	Moist, freshwater-soaked river banks and low peat islands in sloughs. (FW/ RW)
Delta tule-pea (*Lathyrus jepsonii var. jepsonii*)	FSS/ --/ 1B	Freshwater and brackishwater marshes. (BW/ SM)
Mason's lilaeopsis (*Lilaeopsis masonii*)	FSS/ CR/ 1B	Riparian scrub and freshwater or brackishwater marshes; in tidal zones in muddy or silty soil formed through river deposition or river bank erosion. (FW/ BW/ RW)
Delta mudwort (*Limosella subulata*)	--/ --/ 2	Mud banks of the Delta in marshy or scrubby riparian vegetation. (BW/ FW)
Showy madia (*Madia radiata*)	--/ --/1B	Grassy slopes in valley and foothill woodland and cismontane woodland. (CG)
Colusa grass (*Neostapfia colusana*)	FPT/ CE/ 1B	Relatively deep vernal pools. (FW)
Antioch Dunes evening-primrose (*Oenothera deltoides* ssp. *howellii*)	FE/ CE/ 1B	Known from remnant river bluffs and partially stabilized sand dunes near Antioch and on Brown's Island. (D)
Mt. Diablo phacelia (*Phacelia phacelioides*)	FSS/ --/ 1B	Chaparral cismontane woodland, on rock outcrops and talus slopes, 2,000-3,800 ft. (SP)
Rock sanicle (*Sanicula saxatilis*)	FSS/ SR/ 1B	Broadleafed upland forest, chaparral; bedrock outcrops and talus slopes 2,000-4,100 ft. (SP)
Rayless ragwort (*Senecio aphanactis*)	--/ --/ 1B	Cismontane woodland and coastal scrub; 90-2,400 ft. (SP)
Most beautiful jewelflower (*Streptanthus albidus* ssp. *peramoenus*)	FSS/ --/ 1B	Chaparral, valley and foothill grassland; serpentine outcrops on ridges and slopes; 450-3,200 ft. (SP)
Caper-fruited tropidocarpum (*Tropidocarpum capparideum*)	--/ --/ 1A	Alkaline hills in valley and foothill grassland; last seen in 1889. (SP)

(1) Status Codes::

FEDERAL: (U.S. Fish and Wildlife Service)

FE = Listed as Endangered (in danger of extinction) by the Federal Government.

FT = Listed as Threatened (likely to become endangered within the foreseeable future) by the Federal Government.

FPE/FPT = Proposed for Listing as Endangered or Threatened.

FC = Candidate information now available indicates that listing may be appropriate.

Table 9-1 (continued)
Special Status Species Known to Occur or Potentially Occurring within Pittsburg Planning Area

FSS = Former category 2 candidates for listing as threatened or endangered. Now unofficially considered federal sensitive species.
FP = Fully Protected by the Marine Mammal Protection Act.
BEPA = Bald Eagle Protection Act (1940) (50 CFR 22).

STATE: (California Department of Fish and Game)

CE = Listed as Endangered by the State of California.
CT = Listed as Threatened by the State of California.
CR = Listed as Rare by the State of California (plants only).
CSC = California Species of Special Concern. This is a management designation used to track animal species with declining breeding populations in California.
SA = Considered a Special Animal by the California Department of Fish and Game.
3503.5 = Protection for nesting species of Falconiformes (hawks) and Strigiformes (owls) under California Fish and Game Code.

CALIFORNIA NATIVE PLANT SOCIETY:

List 1A = Plants presumed extinct in California.
List 1B = Plants rare, threatened, or endangered in California and elsewhere.
List 2 = Plants rare, threatened, or endangered in California but more common elsewhere.
List 3 = Plants about which more information is needed.
List 4 = Plants of limited distribution ("watch list").

(2) Habitat Type Abbreviations:

SM = Salt marsh
MF = Mud flat
OW = Open water
FW = Freshwater wetland
BW = Brackish water wetland
RW = Riparian woodland
CG = California annual grassland
D = Dunes
CH = Chaparral/coastal scrub
UK = Unknown
SP = Specific habitat information provided in text.

Source: California Department of Fish and Game, 1997; California Native Plant Society, 1995.

GOALS: BIOLOGICAL RESOURCES AND HABITAT

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 (see Table 9-1).

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

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

POLICIES: BIOLOGICAL RESOURCES AND HABITAT

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

Development located in or adjacent to these ecologically sensitive areas must complete a site-specific assessment of biological resources as part of the development review process. The City's environmental review process would be used to impose appropriate mitigation measures as required by State and federal agencies to reduce impacts on sensitive habitat and special status species.

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

Non-native vegetation originally introduced as landscaping, such as giant reed, currently threaten habitat for threatened and endangered plant and animal species within the City. Guidelines should be developed that include a list of native species that may be planted as part of landscaping associated with future development. Drought tolerant and low maintenance species should be emphasized. Removal of invasive species may also be required if they are a notable fire hazard in parks or open space.

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.

Hillside Protection

9-P-4 Revise and readopt the City's Hillside Planned Development District to regulate urban growth in the southern hills. Include development standards as part of the zoning district, and refer to it during project review.

Development standards within the Hillside Planned Development District should limit development in hillside areas, emphasizing 1) retention or stabilization of unstable slopes, 2) major and minor ridgelines as designated by Figure 4-2, and 3) creeks, swales, and wetlands that contribute to hillside drainage (See also Chapter 10: Health and Safety for discussion on slopes and drainage).

9-P-5 Work with Contra Costa County, the East Bay Regional Park District, and the City of Antioch, to expand the regional open-space system in the southern hills to preserve California annual grasslands habitat.

9-P-6 In order to preserve viewsheds of the southern hills, preserve major ridgelines (shown in Figure 9-1) throughout the Planning Area. Revise the Municipal Code per Policy 4-P-1: building pads and structural elements shall be located at least 150 feet away from (horizontally) the crest of a major ridgeline.

9-P-7 During the design of hillside residential projects, encourage clustering of housing to preserve large, unbroken blocks of open space, particularly within sensitive habitat areas. Encourage the provision of wildlife corridors to ensure the integrity of habitat linkages.

9-P-8 As a condition of approval of new development, ensure revegetation of cut-and-fill slopes with native plant species.

In addition, planting on some existing slopes could contribute to Pittsburg's image and would be a justified public cost.

Creekways and Wetlands

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.

9-P-10 Prohibit development within creek setback areas, except as part of greenway enhancement (for example, trails and bikeways). Encourage developers to reserve space outside of the creek setbacks where endangered species habitat makes trail development inappropriate.

9-P-11 Ensure that riparian corridor characteristics are retained. Encourage the retention and/or reestablishment of creeks in the design of new development.

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

While much of the marshland and mudflats in the Planning Area are intact, potential for reclamation exists in areas where these have been destroyed, especially along the industrial waterfronts. Potential for this reclamation may exist as some of these sites are converted to other uses.

A potential way to promote the value of Pittsburg's natural resources is through education. The City could heighten public awareness of the importance of local marshlands for roosting and nesting sites for migrating waterfowl by creating interpretive facilities with educational displays along the marshlands when possible.

9-P-13 Ensure that special-status species and sensitive habitat areas are preserved, as required by State and federal agencies, during redevelopment and intensification of industrial properties along the

Pittsburg's downtown waterfront marina (sign reads "Pittsburg Yacht Club") is an important ecological and recreational resource.

Suisun Bay waterfront. Limit dredging and filling of wetlands and marshlands, particularly adjacent to Browns Island Preserve.

9-P-14 Work with industrial property-owners along the waterfront to improve urban runoff and water quality levels within Suisun Bay wetlands.

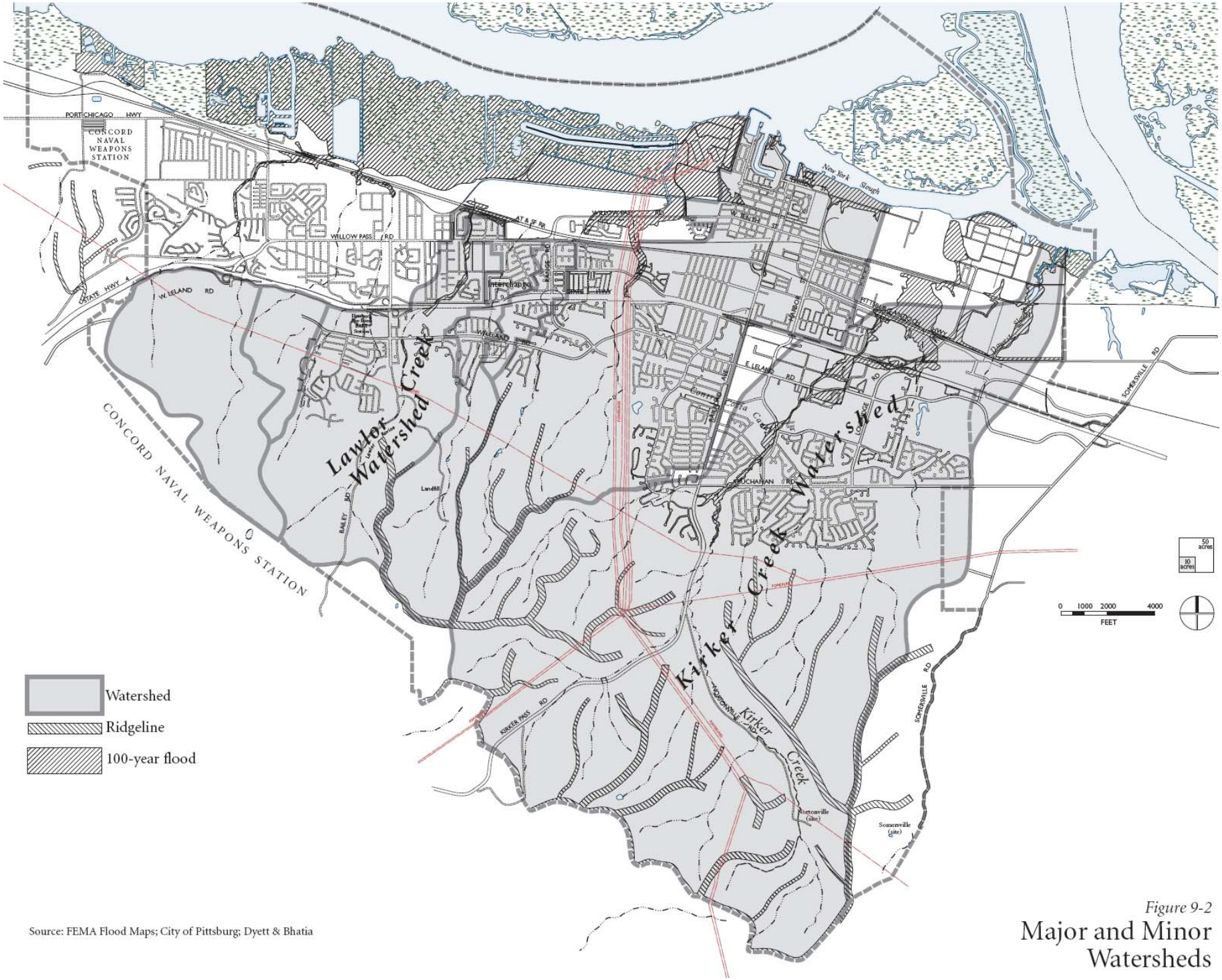
9.2 DRAINAGE AND EROSION

The developed portions of the Pittsburg Planning Area are within two major watersheds: the western portion of the Lawlor Creek watershed, which drains into Suisun Bay, and the central and eastern portions of the Kirker Creek watershed, which drains into the New York Slough. In addition, there are six minor watersheds. Major and minor watersheds within the Planning Area are shown in Figure 9-2.

The existing drainage system in Pittsburg is comprised primarily of channelized creeks fed by groundwater, surface runoff, and underground storm drains. The City maintains the system within incorporated areas. In unincorporated areas, responsibility for storm drain maintenance lies with the Contra Costa County Flood Control District. Development within the watersheds has the potential to lead to erosion of sediment and increases in surface water run-off entering the City's storm drainage system.

The storm drain facilities under the Contra Costa Canal also have the potential to become impaired if sedimentation were to occur from new upstream development. Obstruction of storm drains could cause sedimentation and debris to enter the Canal right-of-way, and potentially overtop into the Canal and/or exert pressure and damage the Canal lining or other facilities. This would result in contamination of Contra Costa Water District's potable water supply.

Pittsburg's creeks are also a key part of the City's open space network. They are valuable physical, aesthetic, recreational, and ecological assets. Protection of creeks not only preserves surface water quality, but also reduces flood risks, preserves bio-diversity and habitat, minimizes erosion of stream banks, and prevents downstream siltation.



Source: FEMA Flood Maps; City of Pittsburg; Dyett & Bhatia

Figure 9-2

Major and Minor Watersheds

GOALS: DRAINAGE AND EROSION

9-G-4 Minimize the runoff and erosion caused by earth movement by requiring development to use best construction management practices (BMPs).

9-G-5 Preserve and enhance Pittsburg's creeks for their value in providing visual amenity, drainage capacity, and habitat value.

9-G-6 Preserve and protect the Contra Costa Canal from storm drainage and runoff contaminating the City's municipal water supply.

POLICIES: DRAINAGE AND EROSION

9-P-15 As part of development plans, require evaluation and implementation of appropriate measures for creek bank stabilization, as well as necessary Best Management Practices (BMPs) to reduce erosion and sedimentation. Encourage preservation of natural creeks and riparian habitat as best as possible.

9-P-16 Establish development standards for new construction adjacent to riparian zones to reduce sedimentation and flooding. Standards should include:

- *Requirements that low berms or other temporary structures such as protection fences be built between a construction site and riparian corridor to preclude sheet-flooding stormwater from entering the corridors during the construction period.*
- *Requirements for installation of storm sewers before construction occurs to collect stormwater runoff during construction.*

9-P-17 To prevent flood hazards in the Kirker Creek watershed, ensure that new development minimizes paved areas, retaining large blocks of undisturbed, naturally vegetated habitat to allow for water infiltration.

Additional flood control mitigation may include intermixing areas of pavement with the naturally vegetated infiltration sites to reduce the concentration of stormwater runoff from pavement and structures.

9-P-18 *Require an encroachment permit from Contra Costa Water District (CCWD) for any storm drain facility crossing or encroaching onto Contra Costa Canal rights-of-way. Require all crossings to be constructed in accordance with CCWD standards and requirements.*

9-P-19 *As part of the City's Zoning Ordinance, establish regulations for the preservation of mature trees. Include measures for the replacement of all mature trees removed.*

Trees are valuable along creeks and watersheds because their root systems help stabilize topsoil and reduce erosion.

9-P-20 *As part of project review and approval, establish maintenance districts to ensure uniform maintenance for selected channels and creeks.*

9-P-21 *As part of project review and CEQA documentation, require an assessment of downstream drainage (creeks and channels) and City storm-water facilities impacted by potential project runoff.*

Calculate potential sedimentation and runoff based on the maximum storm event and determine necessary capacity of the downstream drainage system. If the project presents potential downstream sedimentation, runoff or flooding issues, require additional mitigation including but not limited to limitations on grading, construction only in dry seasons, and funding for downstream improvements, maintenance, and repairs.

9.3 WATER QUALITY

POINT SOURCES

"Point" sources—fixed structures or land uses—can potentially affect surface and groundwater supplies by discharging into the local storm drain system. These discharges consist mostly of effluent from industrial facilities and municipal wastewater systems, and are regulated under the Federal Water Pollution Control Act of 1972, more commonly known as the Clean Water Act. Waste discharges are regulated through the National Pollutant Discharge Elimination System (NPDES), with specific requirements established in each NPDES permit. NPDES permits are required for stormwater runoff in urban areas, and are administered by the California Regional Water Quality Control Board (RWQCB).

Because watersheds are not limited to municipal boundaries, regional watershed protection and pollution prevention efforts are important to maintaining the health of the local water supply. Pittsburg participates in a joint municipal NPDES permit with all other cities in Contra Costa County, under the County's Clean Water Program. In addition to these regulations, the San Francisco Bay Region Basin Plan stipulates that discharges into cold or warm water habitats should not increase the natural temperature of the receiving waters by more than five degrees Fahrenheit.

Many of the City's industrial and service commercial sites are sources of soil and groundwater contamination. Examples of substances released by these businesses are petroleum hydrocarbons, metals, and volatile organic compounds. Contamination may be due to leaking under ground storage tanks, surface chemical releases, and accidental spills. The RWQCB identifies and monitors contaminated sites, and publishes listings of sites known to cause soil and groundwater pollution.

NONPOINT SOURCES

"Nonpoint" sources of pollution include general pollutants from streets, open areas, and urban lands. Runoff from these sources is generally not collected and directed into a wastewater treatment plant because it is difficult to regulate and

manage. This includes runoff from roads and parking lots due to leaking cars and exhaust emissions, as well as industrial emissions and erosion.

The hills south of the city limits consist primarily of rangeland. Thus, the only potential sources of surface water pollution are organic waste produced by cattle, runoff from the area's few inhabitants, and residue and debris from vehicles traveling on Kirker Pass Road. These materials are ultimately washed into local stream and drainage channels and carried by Kirker Creek through the City and into the Delta.

BEST MANAGEMENT PRACTICES

In order to address several potential pollution sources, the City has developed a set of Best Management Practices (BMPs). The southern portion of Kirker Creek, New York Slough, and Suisun Bay are all identified as resources of special recreational and habitat value, and have been assigned high priority for their restoration. The focus of the BMPs is to ensure the City's water resources are not degraded by stormwater runoff. These practices include street sweeping, storm drain stenciling, above and below ground facility inspections, household hazardous waste programs, spill cleanup, reduction of herbicide and pesticide use, diversion and treatment of runoff, and annual catch basin maintenance.

The City must also implement BMPs to the maximum extent practicable in order to comply with the joint municipal NPDES permit, under the County's Clean Water Plan. The City has developed a Stormwater Management Plan to help ensure compliance with the NPDES permit.

GOALS: WATER QUALITY

9-G-7 Comply with Regional Water Quality Control Board regulations and standards to maintain and improve the quality of both surface water and groundwater resources.

9-G-8 Ensure that soil and groundwater pollution is addressed during redevelopment and reuse projects.

Preserving the water quality of waterways, such as Kirker Creek Channel in the Garcia Avenue area near intersection with Piedmont, is a priority for the City.

POLICIES: WATER QUALITY

9-P-22 Continue working with the Regional Water Quality Control Board in the implementation of the National Pollutant Discharge Elimination System (NPDES), with specific requirements established in each NPDES permit.

9-P-23 Require new urban development to use Best Management Practices to minimize creek bank instability, runoff of construction sediment, and flooding.

The City's BMPs will ensure that new development projects consider the effects of construction debris and sediment on local water supplies. However, it is imperative that the City review and update the BMPs to promote state-of-the-art construction practices.

9-P-24 Reduce sedimentation and erosion of waterways by minimizing site disturbance and vegetation removal along creek corridors.

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

9-P-26 Monitor water quality in the local creek and reservoir system to ensure clean supplies for human consumption and ecosystem health.

9-P-27 Protect water quality by reducing non-point sources of pollution and the dumping of debris in and near creeks, storm drains, and Contra Costa Canal. Continue use and implementation of the City's storm drain marking program in newly developed or redeveloped areas.

The quality of groundwater and water flowing into the City's creeks is most likely to be affected by non-point pollution sources in Pittsburg. Urban development can potentially pose a threat to surface and groundwater quality through construction sediment, use of insecticides and herbicides, and related increases in automobile use.

9-P-28 Prepare and disseminate information about the harmful effects of toxic chemical substances and safe alternative measures.

Brochures and a page on the City's Web site describing the harmful effects of toxic chemicals and alternatives, including information about safe alternatives to toxics for home and garden use, should be made available to residents of Pittsburg.

9.4 AIR QUALITY

Three types of air pollutants affect air quality in Pittsburg – criteria air pollutants, toxic air contaminants, and odors and nuisances. The major source of air pollutants in Pittsburg is motor vehicle emissions. Heavy commute patterns throughout the San Francisco Bay Area have resulted in poor regional air quality levels. However, newer model vehicles are producing 'cleaner' auto emissions, and will counteract the negative air quality impacts associated with increased vehicle use.

Criteria and toxic air contaminants (as described below) are controlled by the Bay Area Air Quality Management District (BAAQMD). The City has a more direct role in regulating odors and nuisances, and the release of particulate matter at construction sites.

CRITERIA AIR POLLUTANTS

Criteria air pollutants—carbon monoxide, ozone, and particulate matter, including nitrogen dioxide, sulfur dioxide, PM-10, and lead—are most pervasive in urban environments, and state and national ambient air quality standards have been established for them. The Bay Area's topographical and wind factors reduce local concentrations of criteria air pollutants in Pittsburg. Motor vehicles are expected to continue to be a major source category for regional emissions.

Residential, industrial and commercial development in Pittsburg contributes to regional emissions. Emissions are also generated through industrial and

commercial operations and building energy use. Residents and workers may experience occasional violations of PM-10 standards due to construction activities and other local dust sources, and may experience elevated concentrations of carbon monoxide along congested freeway segments and at congested intersections.

The primary role of cities in achieving and maintaining regional air quality is through land use decision-making, which can affect vehicle miles traveled, and through other measures to manage the emission of pollutants. BAAQMD identifies specific Transportation Control Measures (TCMs) which, together with other approaches, may help reduce emissions in Pittsburg, contributing to regional pollution control efforts.

TOXIC AIR CONTAMINANTS

Praxair facility located on California Avenue at Loveridge Road intersection supplies atmospheric, process and specialty gases, high-performance coatings, and related services and technologies.

Toxic air contaminants are those pollutants that occur at relatively low concentrations and are associated with carcinogenic or other adverse health effects, but for which no ambient air quality standards have been established. These pollutants are typically carcinogens, mutagens, or reproductive toxins. Regulation of toxic air contaminants is achieved through federal and State controls on individual sources. The preferred technique for reducing toxic air emissions is source reduction, and as part of a local control strategy in the Bay Area, all applications for new stationary sources are reviewed to ensure compliance with required emission controls and limits.

The ambient background of toxic air contaminants is the combined result of many diverse human activities, including gasoline stations, automobiles, dry cleaners, industrial operations, hospital sterilizers, and painting operations. In general, mobile sources contribute more significantly to health risks than do stationary sources. Generally, ambient concentrations of toxic air contaminants are similar throughout the urbanized area of the Bay Area. BAAQMD regulates toxic air contaminants from stationary sources through their permit process; mobile sources of toxic air contaminants are regulated indirectly through vehicle emissions standards and through fuel specifications. Cities have a role in reducing public exposure to toxic air contaminants through ensuring sufficient buffer zones around stationary sources and by reducing vehicle trips.

ODORS AND NUISANCES

Odors and nuisances include those emissions which occur infrequently but which have the potential to generate citizen complaints. BAAQMD records indicate that certain industrial facilities in Pittsburg occasionally generate citizen complaints. Increased buffering of incompatible uses and control of dust from construction are potential local approaches to controlling odors and nuisances.

AIR QUALITY MONITORING STATIONS

BAAQMD operates a regional network of air pollution monitoring stations that provide information on ambient concentrations of criteria air pollutants and toxic air contaminants. The City's main monitoring station is located at 583 West Tenth Street, near the Mirant (formerly PG&E) power plant. This monitoring station was built after the power plant went into commission, to ensure that the plant did not negatively affect air quality levels on adjacent sites.

SENSITIVE RECEPTORS

Some people are more sensitive than others to air pollutants. Heightened sensitivity may be caused by health problems, proximity to the emissions source, and duration of exposure to air pollutants. Sensitive receptors are facilities that house or attract children, the elderly, people with illnesses, or others who are especially sensitive to the effects of air pollution. Hospitals, schools, convalescent facilities, and residential areas are examples of sensitive receptors which should be not be located near point sources, such as the heavy industrial uses east of Downtown.

GOALS: AIR QUALITY

9-G-9 Work toward improving air quality and meeting all Federal and State ambient air quality standards by reducing the generation of air pollutants from stationary and mobile sources.

9-G-10 Reduce the potential for human discomfort or illness due to local concentrations of toxic contaminants, odors and dust.

9-G-11 Reduce the number of motor vehicle trips and emissions accounted to Pittsburg residents and encourage land use and transportation strategies that promote use of alternatives to the automobile for transportation, including bicycling, bus transit, and carpooling.

POLICIES: AIR QUALITY

9-P-29 Cooperate with the Bay Area Air Quality Management District to achieve emissions reductions for ozone and its precursor, PM-10.

9-P-30 Cooperate with Bay Area Air Quality Management District to ensure compliance with dust abatement measures during construction.

These measures would reduce particulate emissions from construction and grading activities.

9-P-31 Encourage preparation of Transportation Demand Management plans for major employers in the City.

The City should institute a variety of land use and design policies to promote transit use, such as increased land use density in the vicinity of transit centers, mixed uses, creation of pedestrian-oriented spaces through building design, orienting buildings entrances toward transit routes, reducing parking requirements, provision of bus shelters, and promoting energy-efficient building design (potentially adopting a standard of 10 percent greater energy-efficiency than required by the state's Title 24 building codes).

9-P-32 Minimize emissions and air pollution from City operations by using alternative-fuel vehicles, as feasible.

9-P-33 Encourage new residential development and remodeled existing homes to install clean-burning fireplaces and wood stoves.

Residential woodburning is a growing source of localized air pollution. Woodsmoke released from fireplaces and wood stoves contains carbon monoxide, nitrogen dioxide, and PM-10. Pollution can be reduced by installing gas fireplaces or EPA certified wood heaters.

9.5 HISTORICAL AND CULTURAL RESOURCES

Pittsburg is the site of a number of historical and archeological resources. While only about one-third of Pittsburg has been studied for cultural resources, five archeological sites are known to exist. In addition, historical resources from Pittsburg's coal and steel eras are still present. The existence of both historical buildings and archeologically sensitive areas in Pittsburg speak to the importance of policies that preserve such aspects of the City's heritage.

HISTORICAL RESOURCES

Pittsburg played an important role in the history of Contra Costa County. As one of the earliest industrial centers in the County, the City's historical resources encompass a broad range of activities. Resources from various aspects of the City's history reflect its role in industry, transportation, the military, and entertainment:

- *Industry*. The discovery of coal in the 1850s led to construction of Black Diamond Mines, the first source of fossil fuel in California. In 1911, Columbia Steel Company (later US Steel, now USS-POSCO) opened its doors within Pittsburg.

  Then in 1916, production began at the Western Chemical plant (now DOW Chemical), which has become the largest non-refinery chemical production complex in the western United States. Small-scale fishing fleets docked out of Pittsburg Marina throughout the 1920s, and several canneries sprung up along the waterfront to accommodate the fishing industry.

- *Transportation*. Early railroads were constructed along Railroad Avenue and across the Pittsburg-Antioch Highway to transport coal from Black Diamond Mines to the San Joaquin River for shipment. Shipping operations were conducted from a small wharf on New York Slough.

- *Military*. Built in 1942, Camp Stoneman served as a staging and embarkation facility for troops during World War II and the Korean conflict. The base was deactivated in 1954.

- *Entertainment*. The Black Diamond Theater (1909) and the Palace Theater (1910), both on York Street, were the first theaters to present movies in Contra Costa County. Vogue Theater (circa early 1930's) on Railroad and Central Avenues is also historically significant.

New York Landing Historical District

To recognize and preserve the unique historical resources in Pittsburg, the City established the New York Landing Historical District in 1981. District boundaries were determined by researching the history and architectural significance of buildings in the area. Buildings in the Historical District were constructed between 1914 and 1930, and reflect the architectural styles prevalent during that time period. Some structures, while not considered significant in and of themselves, enhance the overall character of the district.

The Historical District is located at the core of Downtown Pittsburg. Railroad Avenue forms the central spine of the district, which has the following boundaries: Third Street to the north, Sixth Street to the south, Cumberland Street to the east, and Black Diamond Street to the west. This area is associated with many significant historical events, including the Rancho Los Medanos land grant, the first post office in Contra Costa County (built in the 1840s and initially located at Second and Black Diamond Streets), and sites of early fishing canneries, steamboat shops (for loading coal) and steel mills. The City’s historical resources are listed in Table 9-2 and illustrated in Figure 9-3 (except Resources 27-33, which are located outside of the New York Landing Historical District vicinity).

Table 9-2

Pittsburg Historical Resources

#	*Location*	*Name*	*Date Constructed*	*National Register Status*	*Building Condition*
	E. Third St.	New York Landing Historical District		Eligible for Separate Listing	
1	150, 160 E. Third St.	Greenberg Building	1925	Historical District Contributor	refurbished
2	190 E. Third St.	Green Building	1925	Historical District Contributor	refurbished
3	200 E. Third St.	Liberty Hotel	1925	Historical District Contributor	refurbished
4	10 E. Fourth St.	Burlessas Building	1922	Historical District Contributor	refurbished
5	515 Railroad Ave.	Post Dispatch	1924	Local Listing Only	refurbished
6	153 E. Fourth St.	King Parker Building	1929	Historical District Contributor	existing
7	163 E. Fourth St.	Montgomery Ward Building	1929	Historical District Contributor	refurbished
8	190 E. Fourth St.	Aiello Building	1923	Historical District Contributor	existing
9	501–509 Railroad Ave.	Post Office Building	1930	Local Listing Only	refurbished
10	24 E. Fifth St.	Scampini Building	1925	Historical District Contributor	existing
11	510 Black Diamond St.	Lepori Building	1924	Historical District Contributor	refurbished
12	348 Cumberland St.	Last Chance Building	1926	Historical District Contributor	refurbished
13	301 Railroad Ave.	National Building	1922	Historical District Contributor	refurbished
14	306 Railroad Ave.	Martinetti Building	1914	Historical District Contributor	refurbished
15	323 Railroad Ave.	National Dollar Store	1924	Historical District Contributor	refurbished
16	324 Railroad Ave.	Lazio Building	1924	Historical District Contributor	refurbished
17	356 Railroad Ave.	Royce Building	1914	Historical District Contributor	existing
18	368 Railroad Ave.	Demetrakopulos Building	1914	Historical District Contributor	existing
19	371 Railroad Ave.	California Theater	1920	Historical District Contributor	façade rehab only
20	395 Railroad Ave.	Sols Clothing Store	1920	Historical District Contributor	refurbished
21	415 Railroad Ave.	Contra Costa County Bank	1921	Historical District Contributor	refurbished
22	430 Railroad Ave.	Bank of America	1921	Historical District Contributor	refurbished
23	485 Railroad Ave.	Woulf & Ury Building	1926	Historical District Contributor	refurbished
24	W. Eighth St.	Black Diamond School	1914	May Become Eligible	existing

Table 9-2 (continued)

Pittsburg Historical Resources

#	*Location*	*Name*	*Date Constructed*	*National Register Status*	*Building Condition*
25	E. Ninth St.	Pittsburg 7th Day Adventist Church	1919	Appears Eligible	refurbished
26	W. Eighth St.	St. Peter Martyr Church	1925	Appears Eligible	existing
27	Black Diamond Wy.	Coulter Pine	—	Local Listing Only	
28	Buchanan Rd.	Fages Crespie Turnback Camp	1772	Local Listing Only	
29	Harbor St.	Camp Stoneman Military Chapel	1942	Local Listing Only	
30	Nortonville Rd.	Mine Shafts	1850	Local Listing Only	
31	Nortonville Rd.	Latimer Ranch & Home	1850	Local Listing Only	
32	Pittsburg-Antioch Hwy.	Pittsburg Mine Railroad	1866	Local Listing Only	
33	Railroad Ave.	Camp Stoneman Gates	1942	Local Listing Only	

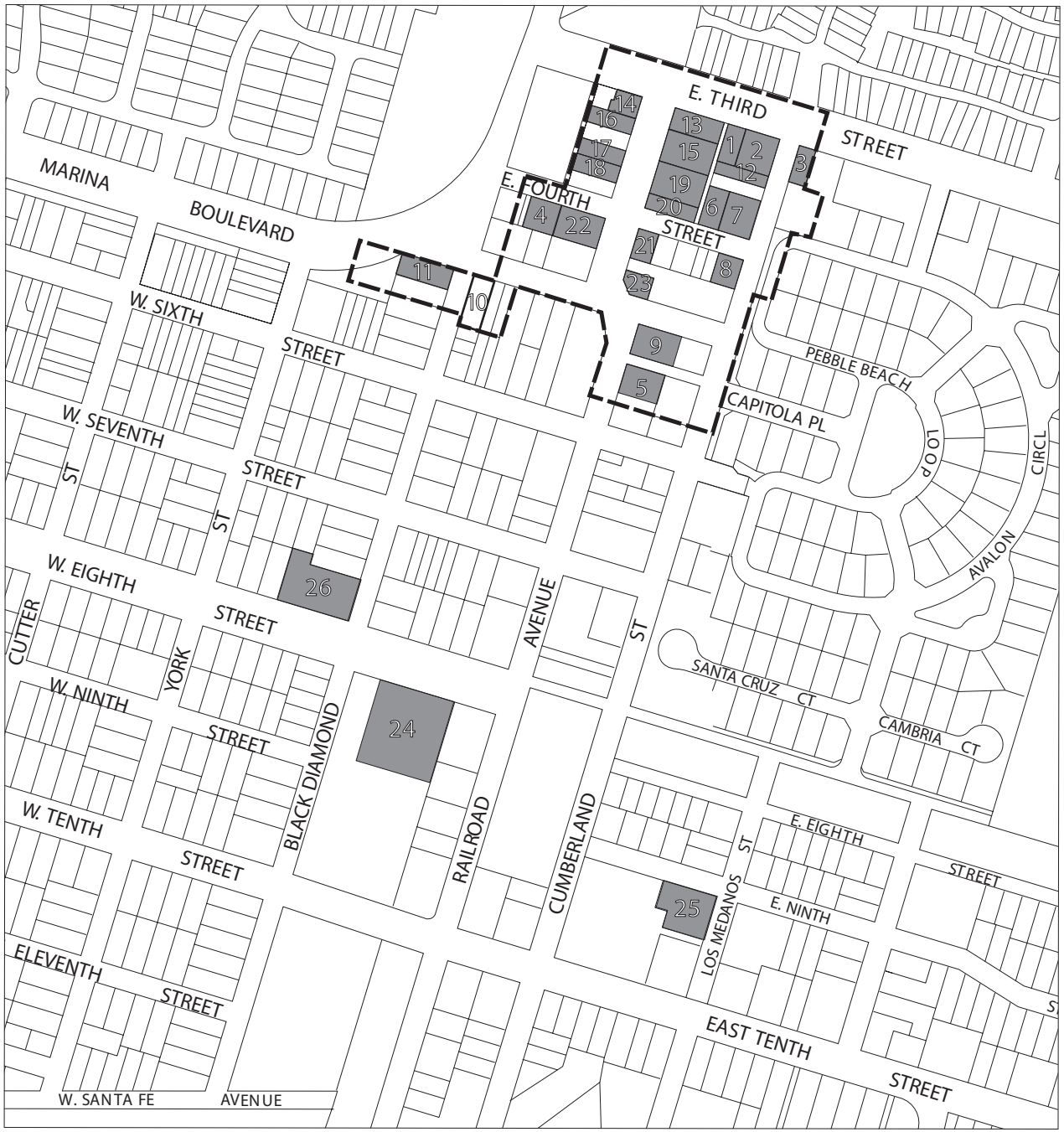
Source: California Office of Historic Preservation, 1997; City of Pittsburg.

ARCHEOLOGICAL RESOURCES

The Pittsburg Planning Area encompasses a number of environmental settings including those where archeological sites may be found. Most Native American archeological sites in Pittsburg are in the form of small to large shell middens, some of which may contain human remains. These sites tend to be situated on alluvial flats and along historic margins, as well as near sources of water.

The Planning Area contains a number of Native American archeological and historical areas that may be considered sensitive. An area that may be considered sensitive could mean one or more of the following:

- Archeological sites have been identified in these areas;
- Based on current knowledge, there is a high probability of identifying unrecorded archeological sites; or
- Archeological sites have been identified in this area and there is a high potential for identifying additional sites.



1-25 Historic Building

10 Non-Extant Historic Building

New York Landing District

0 1/8 1/4 MILES

Source: California Office of Historic Preservation, 1997; New York Landing Historical District; City of Pittsburg Development Services Department, 2010.

Figure 9-3

Historic Resources

Pittsburg's waterfront location and industrial history make the existence of additional archeological resources likely. Archeological surveys are appropriate for specific plans and large project development activities. If site conditions indicate the presence of archeological resources, all building activity should cease until appropriate mitigation measures are in place.

GOALS: HISTORICAL AND CULTURAL RESOURCES

9-G-12 Encourage the preservation, protection, enhancement and use of structures that:

- *Represent past eras, events and persons important in history;*
- *Provide significant examples of architecture;*
- *Embody unique and irreplaceable assets to the City and its neighborhoods; and*
- *Provide examples of the physical surroundings in which past generations lived.*

9-G-13 Encourage municipal and community awareness, appreciation, and support for Pittsburg's historic, cultural, and archeological resources.

POLICIES: HISTORICAL AND CULTURAL RESOURCES

9-P-34 Encourage the preservation of varied architectural styles that reflect the cultural, industrial, social, economic, political and architectural phases of the City's history.

9-P-35 Expand the role of the City's Historical Resources Commission, currently responsible for only the New York Landing Historical District, to include all historical resources. The Commission should be responsible for designating historical resources, and acting as the community's liaison on these issues. However, the role of reviewing development proposals and remodelings in the Historical District should be transferred to the Planning Commission.

9-P-36 Provide for the educational and cultural enrichment of this and future generations by fostering knowledge of our heritage.

Education and cultural enrichment of Pittsburg's citizens will be a key element in the preservation of Pittsburg's historical and cultural resources. The Historic Resources Commission should implement interpretive facilities within the Historical District, including displays and signs to promote education and understanding of existing historical resources.

9-P-37 Redefine the New York Landing Historical District to designate and preserve historical structures not currently located within the district boundaries.

There are several structures outside the geographically distinct boundaries of the Historical District (See Figure 9-3: Historical Resources) that are important reflections of the City's history: for example, Black Diamond Grammar School (West Eighth and Black Diamond Streets), Pittsburg Seventh Day Adventist Church (East Ninth and Los Medanos Streets), Saint Peter Martyr Church (West Eighth and Black Diamond Streets), Presbyterian Church (East Leland Road), and Hindu Temple (Crestview Drive). While these are not part of the Historical District, these resources are important and should be protected accordingly.

9-P-38 Explore mechanisms to incorporate Pittsburg's industrial heritage in historic and cultural preservation.

Pittsburg is one of the few Bay Area communities with a strong industrial past. The City's past can be preserved through adaptive reuse of buildings, as is already occurring in downtown, and incorporation of aspects and relics of old structures in new public parks and open space. Emphasis should be placed on the preservation of relics from the coal, steel and canning industries that provided the base upon which the City developed.

9-P-39 Ensure the protection of known archeological resources in the City by acquiring a records review for any development proposed in areas of

known resources. If such resources are found, limit urban development in the vicinity or account for the resources.

9-P-40 *In accordance with State law, ensure the preparation of a resource mitigation plan and monitoring program by a qualified archeologist in the event that archeological resources are uncovered.*

CEQA requires the evaluation of any archeological resource on the site of a development project. State law also protects these resources. City involvement in the identification, mitigation, and monitoring of project impacts on these resources will ensure the protection of Pittsburg's cultural heritage.

9-P-41 *If archeological resources are found during ground-breaking for new urban development, halt construction immediately and conduct an archeological investigation to collect all valuable remnants.*

9-P-42 *Develop an identification and preservation system for cultural resources—those places or structures that qualify as "important" or "unique" to local community, ethnic, or social groups.*

9-P-43 *During redevelopment and rehabilitation of older residential units, ensure that the development process complies with the lead testing requirements established by Bay Area Air Quality Management District, Contra Costa County Environmental Health District, and Housing and Urban Development.*