7 SUSTAINABILITY, CONSERVATION, AND OPEN SPACE ELEMENT

7.1 Introduction and Purpose

Conservation and sustainability are guiding concepts of planning that are incorporated throughout the General Plan. According to the U.S. Environmental Protection Agency (EPA), "To pursue sustainability is to create and maintain the conditions under which humans and nature can exist in productive harmony to support present and future generations." In the context of the General Plan, it is to take responsibility for the urban development and population growth projected during the planning period and the resulting potential impacts on the environment. Maintaining a sustainable community will require an integrated approach to planning and development that fully examines all costs (long- and short-term) and balances those against the long-term environmental and social needs of the community. By implementing sustainable design measures and policies, Woodland can decrease and offset consumption of natural resources and reduce its contribution to global climate change.

"To pursue sustainability is to create and maintain the conditions under which humans and nature can exist in productive harmony to support present and future generations."

The Sustainability, Conservation, and Open Space Element establishes goals and policies for the conservation of natural resources in Woodland. Woodland's natural resources – water, natural habitats, wildlife, vegetation, agricultural soils, minerals, and air – contribute to the city's economy and the quality of life of Woodland residents. These resources exist in limited quantity and as a result, the General Plan promotes thoughtful planning and resource management that can help inform community discussion about weighing environmental conservation with other General Plan goals. The General Plan seeks to balance planned growth with conservation and enhancement of the area's natural resources.

Open space is protected for the preservation of natural resources, among other purposes.

The Sustainability, Conservation, and Open Space Element is organized as follows:

- **Section 7.1: Introduction and Purpose.** Introduces the topics covered in this Element and outlines the Element's relationship to State law and the Visioning Statement and Guiding Principles.
- **Section 7.2: Water Resources.** Addresses surface water and groundwater resources and water conservation efforts.
- **Section 7.3: Biological Resources and Open Space for Conservation.** Considers habitats and natural vegetation and special-status species.
- **Section 7.4: Agricultural and Soil Resources.** Discusses farmland in and surrounding the Planning Area as well as soil resources.
- **Section 7.5: Mineral Resources.** Addresses natural gas and other mineral resources in the Planning Area.
- **Section 7.6: Cultural and Archaeological Resources.** Considers the preservation of prehistoric, cultural and archaeological resources.
- **Section 7.7: Air Quality and Greenhouse Gases.** Discusses air pollutants and contaminants, greenhouse gas emissions and climate change.
- **Section 7.8: Goals and Policies.**

For additional background data and information on these topics, refer to the *Opportunities and Challenges, Issues and Options* report. For more information on climate change refer to the City's Climate Action Plan (CAP).

Relationship to State Law

The Sustainability, Conservation, and Open Space Element combines two of the seven required elements of a General Plan: the Conservation Element, which is required to address the conservation, development, and utilization of natural resources; and the Open Space Element, which is required to address open space lands used for a variety of purposes.

Specifically, California Government Code Sections 65302(d) and Section 65560(b) and Sections 5097.9 and 5097.993 of the Public Resources Code mandate the Conservation and Open Space Elements to address the following key topics listed in Table 7-1.

Relationship to Vision and Guiding Principles

The Sustainability, Conservation, and Open Space Element aligns with the community's vision of Woodland as a "sustainable city," "healthy community," and "leader in sustainable agriculture." In addition, it directly supports the following Guiding Principles:

- **Environmental Stewardship:** Foster a sustainable community for the next generation and protect and improve the quality of the natural environment.
- **Agricultural Heritage:** Preserve and protect prime agricultural lands and their uses within and surrounding the community.

TABLE 7-1: LAND USE TOPICS REQUIRED BY STATE LAW

Required Topic	*Addressed in this Element*	*Location if not addressed in this Element*
Conservation		
Water and its hydraulic force	Partially	Water supply and demand are covered in the Public Facilities and Services Element. Flooding is addressed in the Safety Element.
Forests	No	Not applicable. The City has no forest resources.
Soils	Yes	
Rivers, creeks, streams, and other waters	Yes	
Harbors and fisheries	No	There are no harbors or fisheries in the Planning Area.
Wildlife	Yes	
Minerals and other natural resources	Yes	
Effects of planned development on natural resources on public lands	Yes	
Effects of planned development on natural resources on military installations	No	There are no military installations in or immediately around the Planning Area.
Flood corridors	No	Flooding is addressed in the Safety Element.
Groundwater recharge	Yes	
Stormwater management	No	Stormwater management is addressed in the Public Facilities and Services Element.

TABLE 7-1: LAND USE TOPICS REQUIRED BY STATE LAW

Required Topic	*Addressed in this Element*	*Location if not addressed in this Element*
Open Space		
Open space for preservation of natural resources, including: • Areas required for the preservation of plant and animal life • Habitat areas for fish and wildlife species • Areas required for ecologic and other scientific study purposes • Rivers, streams, bays, and estuaries • Coastal beaches, lakeshores, banks of rivers and streams • Watershed lands	Yes	
Open space for the managed production of resources, including: • Forest land • Range land • Agricultural lands • Areas of economic importance for the production of food and fiber • Areas required for recharge of groundwater basins • Bays, estuaries, marshes, rivers, and streams important for commercial fisheries • Areas containing mineral deposits	Yes	
Open space for outdoor recreation, including: • Areas of outstanding scenic, historic, and cultural value • Areas particularly suited for park and recreation purposes • Access to lakeshores, beaches, rivers, and streams • Areas that link major recreation and open space land such as utility easements, river banks, stream banks, and scenic highway corridors	No	Parks and recreation are addressed in the Public Facilities and Services Element.

TABLE 7-1: LAND USE TOPICS REQUIRED BY STATE LAW

Required Topic	*Addressed in this Element*	*Location if not addressed in this Element*
Open space for public health and safety, including: • Earthquake fault zones • Unstable soil areas • Floodplains • Watersheds • High fire risk areas • Areas required for the protection of water quality and water reservoirs • Areas required for the protection and enhancement of air quality • Other areas which require special management or regulation because of hazardous or special conditions	Partially	Earthquake fault zones, unstable soil areas, floodplains, high fire risk areas, and other areas that require special management or regulation because of hazardous or special conditions are addressed in the Safety Element.
Open space in support of the mission of military installations, including: • Areas adjacent to military installations and military training routes • Areas underlying restricted military airspace	No	There are no military installations in or immediately around the Planning Area.
Open space for the protection of Native American places, features, and objects, including: • Sanctified cemeteries • Places of worship • Religious or ceremonial sites • Sacred shrines • Historic, cultural or sacred sites • Historic or prehistoric ruins • Burial grounds • Archeological or historic sites • Inscription sites • Rock art	Yes	

7.2 Water Resources

Water resources are important not only for residents and businesses, but also for agriculture, natural habitats and other aspects of the natural environment. Careful stewardship is critical to conserve and protect surface water and groundwater sources and ensure water quality. Surface water and groundwater resources and quality are covered below. The topics of flooding and flood protection are addressed in the Safety Element.

Water supply and demand are addressed in the Public Facilities and Services Element.

Woodland is located in the eastern portion of Yolo County within the Sacramento River Hydrologic Region. Two miles to the east are the Yolo West Levee Bypass and the Sacramento River. Willow Slough and Putah Creek are located to the south, and Lower Cache Creek is approximately one-half mile northeast of the voter-approved Urban Limit Line (ULL). Woodland has a Mediterranean climate and typically experiences hot, dry summers and temperate, rainy winters. Winter precipitation comes from the North Pacific storm track, averaging just less than 20 inches per year. Woodland's annual precipitation falls from October to April, with the majority falling between the months of November and March.

Surface Water

Surface Water Resources

Woodland lies within portions of four major watersheds, including the Sacramento River, Cache Creek, Putah Creek, and Willow Slough watersheds. Surface water in Yolo County and the Woodland area generally drains to the Yolo West Levee Bypass on the eastern edge of the county. Much of the surrounding agricultural land is irrigated through a series of canals and drainage ditches connected to these waterways. Figure 7-1 illustrates the major waterways near the Planning Area.

The City of Woodland, City of Davis, and University of California, Davis have partnered on a regional surface water supply project, which secures the use of surface water from the Sacramento River. This increases the City's water supply while reducing the impact on groundwater sources. The project began operation in summer 2016 and is essential in allowing the City to meet future water demand.

For additional information about this project and surface water supply, refer to the Public Facilities and Services Element.

Cache Creek originates northwest of Woodland. The waterway terminates at the Cache Creek settling basin, just northeast of the Woodland Planning Area. Photo: Yolo County.

Surface Water Quality

While surface water quality of water bodies in the Woodland area is generally good, four nearby water bodies are identified on a list of impaired water bodies maintained by the State pursuant to Section 303(d) of the Clean Water Act. As of 2010, the Sacramento River from Knight's Landing through the Sacramento-San Joaquin Delta is listed as impaired by mercury and pesticides. These chemicals are found at their highest concentrations at discharge points along the creeks that receive run-off from agricultural fields, abandoned mines, and their associated waste materials. Pollutants from these sources are generally transported from upstream areas. Cache Creek is also listed as a significant contributor of mercury to the Delta due to historic mercury mining activities further upstream in Lake County, geothermal springs, the erosion of naturally occurring mercury-containing soils, and atmospheric deposition. In addition, Putah Creek is listed for boron and mercury, and Willow Slough is listed for boron and pathogens.

Groundwater

Groundwater Resources

The Planning Area overlies the Lower Cache-Putah Subarea within the East Yolo Subbasin of the greater Sacramento Valley Groundwater Basin. The natural gradient of the aquifer runs from west to east, following the valley topography, and draining into the Sacramento-San Joaquin Delta. It is estimated that the Lower Cache-Putah Subarea has an estimated storage capacity of 2.7 million acre-feet.[1]

The ASR program and groundwater supply is discussed further in the Public Facilities and Services Element.

Now that the regional surface water supply project has come online, Woodland's reliance on groundwater as a source of potable water has decreased significantly. The aquifer in Woodland and the surrounding area is not considered to be in overdraft. In addition, Woodland is planning to implement an Aquifer Storage and Recovery (ASR) program beginning in Fall 2016 which will further improve groundwater supplies in Woodland.

1 Yolo County. 2005 (January). Background Report for the Yolo County General Plan Update. Prepared by: Jones & Stokes, Cotton Bridges Associates, Inc., Fehr & Peers Associates, Inc., House Agricultural Consultants, and Applied Development Economics.

Groundwater Quality

Groundwater quality is generally considered adequate for agricultural and municipal uses, although it tends to be "very hard." There are some localized areas throughout the basin that have been recorded to have high concentrations of boron. Electrical conductivity, an indicator of salinity, has continued to increase in some areas. Groundwater near Cache Creek has been noted to contain higher concentrations of selenium, nitrate, and boron. Other areas just west of Woodland have been identified as having high levels of nitrates.

Groundwater Management

In September 2014, a three-bill legislative package, comprised of AB 1739 (Dickinson), SB 1168 (Pavley), and SB 1319 (Pavley), was signed into law. Collectively known as the Sustainable Groundwater Management Act (SGMA), these laws provide for the sustainable management of groundwater supplies by local authorities. The legislation requires the formation of local groundwater sustainability agencies (GSAs) that must assess conditions in their local water basins and adopt groundwater management plans that are tailored to the resources and needs of their communities by January 31, 2020. The Yolo County Farm Bureau has partnered with the Water Resources Association of Yolo County to begin the planning process for SGMA implementation and the creation of a GSA.

The City of Woodland prepares annual water quality reports. Results from the shallow and intermediate depths of the aquifer have indicated some areas with contaminant levels that nearly meet maximum concentration levels for nitrates, salts, and other elements. Three of Woodland's wells have been taken offline due to the level of nitrates nearing the maximum contaminant limit. In addition, City wells have been found to contain hexavalent chromium, a naturally occurring metal in soil and water. In 2014, the California Department of Public Health enacted a maximum contaminant level for hexavalent chromium of 10 parts per billion. The new regulation is restricting the use of many of the City's existing wells. Because remediation is prohibitively expensive, the new surface water supplies from the surface water project along with the use of blending wells and implementation of an aquifer storage and recovery system have been important in offsetting issues with affected wells and ensuring a reliable future water supply.

"Water-wise" landscaping incorporates native and drought tolerant plants to conserve water and create attractive alternatives to turf.

The General Plan promotes efficient water use and aims to update landscape water conservation standards.

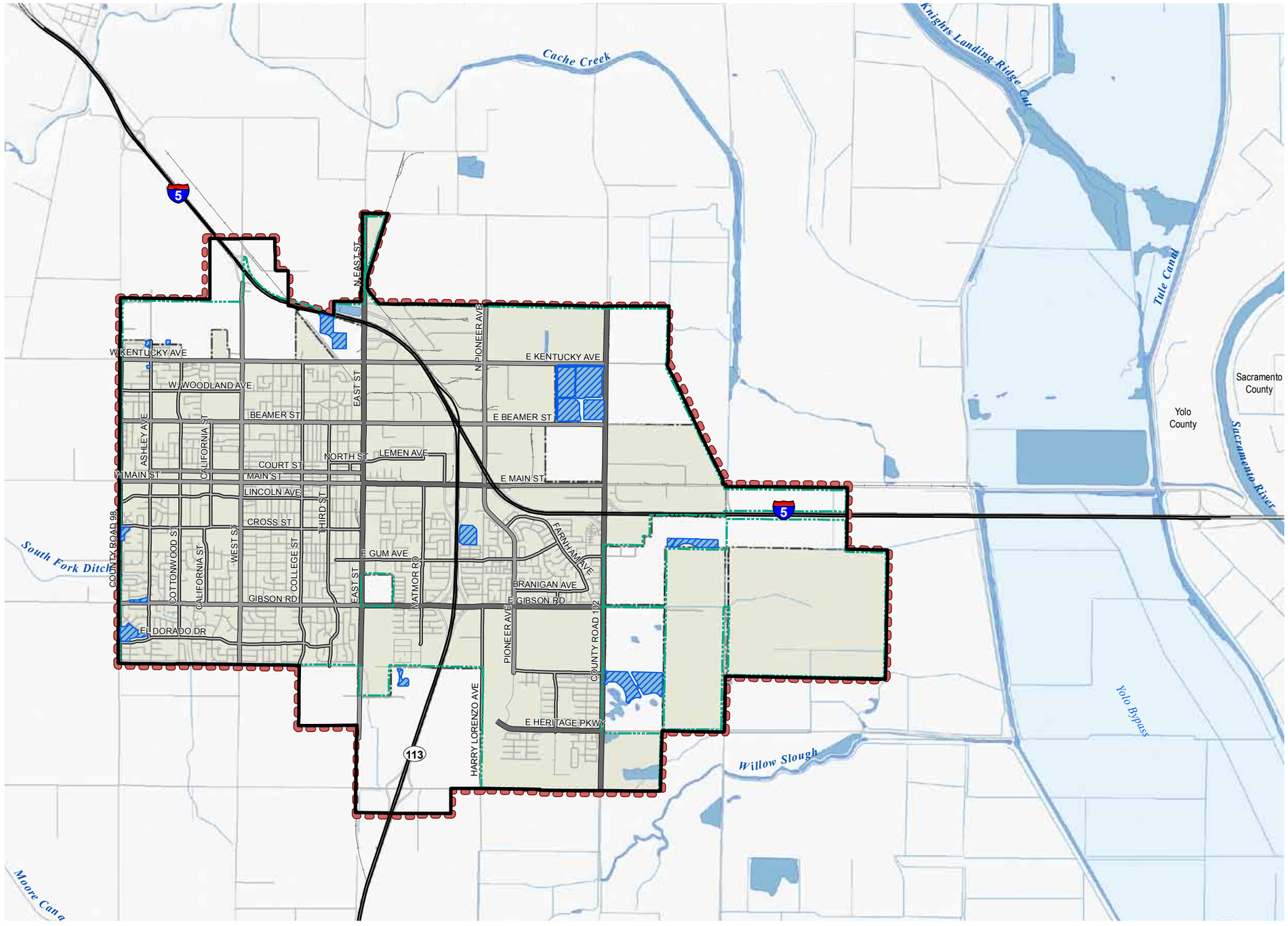
Water Conservation Efforts

The City of Woodland has supported efforts to reduce water demand through conservation and other measures. Senate Bill x7-7 (SBx7-7) was enacted in November 2009 as part of the Urban Water Management Planning Act. SBx7-7 requires water suppliers to increase water conservation efforts. The legislation sets an overall goal of reducing urban per capita demand by 20 percent by the year 2020. Urban retail water suppliers that do not meet the water conservation requirements of SBx7-7 are not eligible for State water grants or loans.

In compliance with State law, the City has installed water meters throughout Woodland and uses a consumption-based billing schedule for water utility building. The completion of the City's water meter installation program was expected to reduce demand by about 15 percent per year, helping the City to meet the State's SBx7-7 goals. In fact, the City is already successfully meeting or exceeding the water conservation requirements required by SBx7-7, as the City achieved a total annual water use reduction of 47 percent by 2014.

In addition, the City promotes "water-wise" landscapes that rely on native and drought tolerant plants while ensuring adequate water for existing and new trees. Water-wise landscapes draw much less water during hot, peak water-use months; reduce the potential for discharge of pollutants into the stormwater system; and provide welcome habitat for beneficial insects and birds. The City of Woodland hosts a free water-wise residential landscape tour each year that promotes creative alternatives to turf. In addition, the City's website provides planting plans for water-wise mow strips that provide guidance on plant selection and placement.

FIGURE 7-1: SURFACE WATER HYDROLOGY



Surface Water Bodies
Detention Basin

Transportation
Highways
Principal Arterials
Minor Arterials
Collectors
Local Roads

Boundaries
Planning Area
Urban Limit Line
Sphere of Influence (SOI)

0 6,000
FEET

NORTH

Base Map: City of Woodland
X60285491 020 06/17

Source: City of Woodland 2016, Dyett and Bhatia 2017

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7.3 Biological Resources and Open Space for Conservation

Habitats and Natural Vegetation

Habitat types within the Planning Area include annual grasslands, alkali sink, freshwater wetlands and drainages. In addition, a number of other habitats can be found within a two-mile radius of the ULL, including riparian forest, freshwater marsh, riverine and lake habitats. With the exception of annual grasslands, all of these habitats are considered to be sensitive habitat types, meaning they have a high ecological value or function, are somewhat rare, or are of concern to federal, state and/or local agencies. Habitats, including sensitive habitat types identified in the Yolo Habitat Conservancy database, are shown in Figure 7-2.

Annual Grasslands

There are approximately 500 acres of annual grasslands within the Planning Area. This habitat area is dominated by nonnative grasses and broad-leaved plants, including mouse barley, Mediterranean barley, rip gut brome, soft chess, Italian rye grass, and oat. Grasslands in the Planning Area are generally subject to some level of regular maintenance or other type of disturbance, including disking or mowing. A few scattered parcels of annual grassland are found along Kentucky Avenue in the northern portion of the Planning Area and along County Road 102 in the southeastern portion of the Planning Area.

Sensitive Habitat Types

Alkali Sink

Alkali sink habitat is a shrub-dominated community that occurs on alkaline soils. This habitat supports six special-status plant species known to occur within the Planning Area. Roughly 95 acres of alkali sink habitat is located in the southeastern portion of the Planning Area, occurring both east and west of CR 102 in undeveloped areas south of the Water Pollution Control Facility and north of Willow Slough.

The only waterways located within Woodland's Planning Area are agricultural drainages. Cache Creek and Willow Slough are located north and south of the Planning Area, respectively.

Freshwater Wetlands

Freshwater wetlands form in seasonally flooded or saturated soils in depressions or at the edges of streams, rivers, ponds, lakes, ditches and canals. They may also exist in artificially created depressions designed to contain stormwater in urban or agricultural areas. This habitat type occurs in some locations within the southeastern portion of the Planning Area as well as along Cache Creek and Willow Slough.

Drainages, Riverine Habitat, and Lake

Drainages are also considered to be sensitive habitats by the Yolo County Natural Heritage Program. Agricultural drainages within the Planning Area include the Maple Canal and Farmer's Central Ditch. The Maple Canal flows through the southwest corner of the Planning Area. Farmer's Central Ditch follows the southern edge of the Planning Area boundary, and then flows south in the vicinity of Sports Park Drive, west of SR 113.

Riverine and lake habitat is limited to areas north and south of the Planning Area, where these habitat types are primarily associated with Cache Creek and Willow Slough.

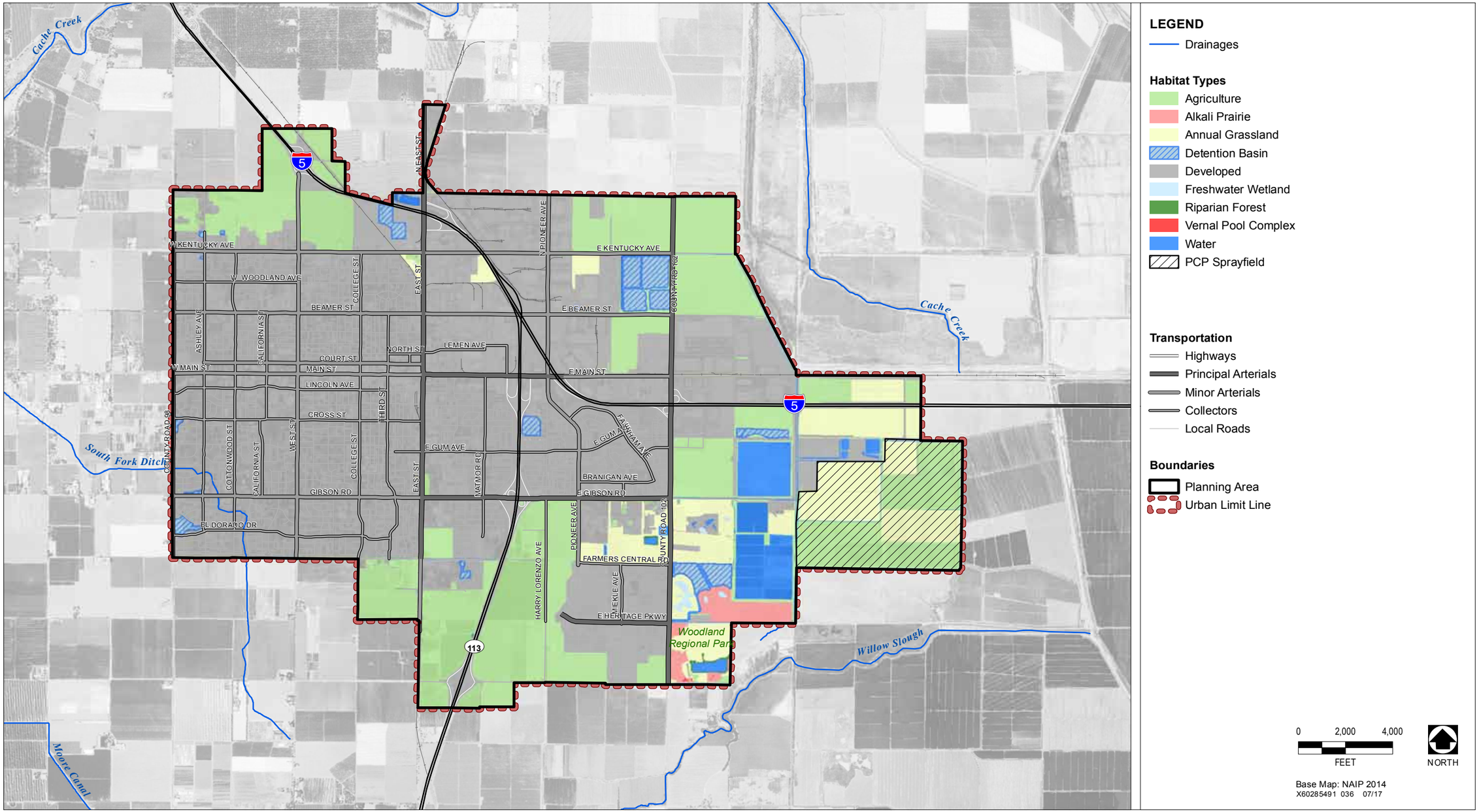
Riparian Forest

Riparian forests are structurally diverse, tree-dominated habitats that occur along the margins of perennial water bodies. Riparian forest is located north of Interstate 5 near the northeastern edge of the Planning Area boundary and along the Cache Creek levee system and Cache Creek Settling Basin. Willow Slough, located south of the southeastern edge of the Planning Area boundary, also supports a narrow band of riparian forest.

Freshwater Marsh

Freshwater marsh and associated wetlands form in permanently flooded or saturated soils in depressions or at the edges of streams, rivers, ponds, ditches and canals. Freshwater marsh habitat does not occur within the Planning Area, but is found adjacent to the southern edge of the Planning Area boundary, north of Willow Slough.

FIGURE 7-2: HABITATS



Source: City of Woodland 2016, Yolo County 2013, SACOG 2013, Dyett & Bhatia 2013, Yolo County NHP 2013, USGS 2010, USFWS 2009, NWI 2013, Center for Natural Lands Management 2015, Yolo County HCP/NCCP 2015

TABLE 7-2: SPECIAL-STATUS WILDLIFE SPECIES WITH POTENTIAL TO OCCUR WITHIN THE PLANNING AREA

Species	*Federal*[1]	*State*[2]	*Habitat*	*Potential for Occurrence in the Planning Area*
Giant garter snake *Thamnophis gigas*	T	T	Cultivated rice, freshwater marsh, and slow moving streams or canals	**Likely to occur.** Nine occurrences documented within two miles of the Planning Area
Burrowing owl *Athene cunicularia*	-	SSC	Nests in mammal burrows, rock cavities in grassland and scrub	**Could occur.** One occurrence documented within two miles of the Planning Area
Mountain plover *Charadrius montanus*	-	SSC	Forages in short grasslands and plowed agricultural fields where vegetation is sparse and trees are absent	**Likely to occur.** One occurrence documented within the Planning Area
Swainson's hawk *Buteo swainsoni*	-	T	Nests in riparian forests and isolated trees, open woodlands, and woodland margins; nests and forages in grasslands and agricultural fields.	**Known to occur.** Numerous occurrences documented throughout Planning Area.
Tricolored blackbird *Agelaius tricolor*	-	SSC	Forages in agricultural lands and grasslands; nests in marshes, riparian scrub, and other areas that support cattails or dense thickets of shrubs or herbs	**Likely to occur.** Two occurrences documented in the Planning Area
Western snowy plover *Charadrius alexandrinus nivosus*	T	SSC	Nests and forages on sandy and gravelly beaches along the coast and the shores of inland alkali lakes	**Could occur.** One occurrence documented in the Planning Area

Notes:

1. Federal: T = Listed as threatened under ESA
2. State: T = Listed as threatened under CESA; SSC = Considered a species of special concern by CDFW

Source: California Natural Diversity Database (CNDDB), 2013; U.S. Fish and Wildlife Service (USFWS), 2013.

Woodland Regional Park

The Woodland Regional Park is a 160-acre property located east of CR 102 and south of CR 25 in the southeastern portion of the Planning Area. Unique alkali soils in the Regional Park provide habitat for a suite of rare native plants. The lands to the east of the Regional Park are privately owned, including a parcel adjacent to most of the east side of the Park that is part of a three-unit conservation easement managed by the Center for Natural Lands Management. The other two units are located on the north side of CR 25.

Sensitive habitats present at the Woodland Regional Park include northern claypan vernal pools, valley sink scrub, alkali meadow, and seasonal wetlands. However, these habitats were not mapped by the Yolo Natural Habitat Program because they cover such small areas, and as a result, are not detailed on Figure 7-2.

The City and the Yolo Habitat Conservancy are in negotiations to establish a conservation easement over the majority of the park site to protect it as valuable habitat.

Special-Status Species

Wildlife

A total of six special-status wildlife species are known to occur or have the potential to occur in the Planning Area. Two species are listed as Federally threatened, two are listed as State threatened and four are listed as State species of special concern. There are no special-status fish species that are known to occur in the Planning Area. Additionally, no critical habitat for special-status species is found in the Planning Area or the surrounding radius of two miles.

The locations of special-status wildlife documented in the California Natural Diversity Database within two miles of the Planning Area are shown in Figure 7-3. These species are also listed in Table 7-2, along with their status, habitat, and potential to occur in the Planning Area.

The giant garter snake, Swainson's hawk, and the tri-colored blackbird are special-status wildlife species that have been known to occur in or within two miles of the Planning Area. Photos: Yolo Natural Heritage Program.

Alkali milk vetch, palmate-bracted bird's beak, and San Joaquin spearscale are three of the six special-status plant species with the potential to occur in the Planning Area. Photos: Yolo Natural Heritage Program.

Vegetation

As shown in Table 7-3, six special-status plant species have been documented in the Planning Area. One species, palmate-bracted bird's beak, is federally and State listed as endangered. The other five special-status species have California Rare Plant Rank of 1B, indicating that these species are considered rare or endangered and are tracked by the California Native Plant Society. The locations of special-status plants documented in the California Natural Diversity Database within two miles of the Planning Area are shown in Figure 7-3.

Habitat Conservation Plan/Natural Community Conservation Plan

Yolo County and its cities are undertaking a planning process for a comprehensive countywide Habitat Conservation Plan/Natural Community Conservation Plan (HCP/NCCP) to address the effects of growth throughout the county on biological resources. The primary goal of the HCP/NCCP is the conservation of 12 State- and federally-listed rare, threatened, and endangered species; and species of special concern.

When adopted, the HCP/NCCP will set forth mitigation and conservation requirements for regional loss of habitat that would apply to most developed activities. Adoption of the HCP/NCCP is anticipated by the end of 2017.

TABLE 7-3: SPECIAL-STATUS PLANT SPECIES WITH POTENTIAL TO OCCUR WITHIN THE PLANNING AREA

Species	*Federal*[1]	*State*[2,3]	*Habitat*	*Potential for Occurrence in the Planning Area*
Alkali milk-vetch *Astragalus tener var. tener*	-	1B.2	Alkaline soils within playas, vernal pools, and adobe clay valley and foothill grassland habitats; 0 to 196 foot elevation Bloom: March–June	**Known to occur.** Two occurrences documented within the Planning Area
Brittlescale *Atriplex depressa*	-	1B.2	Alkaline clay soils within chenopod scrub, meadow and seeps, playas, vernal pools, and valley and foothill grassland habitats; 0 to 1,050 foot elevation Bloom: April–October	**Known to occur.** Four occurrences documented within the Planning Area
San Joaquin spearscale *Atriplex joaquinana*	-	1B.2	Alkaline soils on chenopod scrub, meadow and seeps, playas, and valley and foothill grassland; 3 to 2,740 foot elevation Bloom: April–October	**Known to occur.** Three occurrences documented within the Planning Area and one occurrence documented within two miles of the Planning Area
Heckard's pepper-grass *Lepidium latipes*	-	1B.2	Alkaline flats in valley and foothill grassland; 6 to 656 foot elevation Bloom: March–May	**Known to occur.** Two occurrences documented within the Planning Area and one occurrence documented within two miles of the Planning Area
Palmate-bracted bird's beak *Chloropyron palmatum*	E	E, 1B.1	Alkaline chenopod scrub and valley and foothill grassland; 16 to 510 foot elevation Bloom: May–October	**Known to occur.** Three occurrences documented within the Planning Area
Saline clover *Trifolium hydrophilum*	-	1B.2	Marshes and swamps, vernal pools, and mesic, alkaline valley and foothill grassland; 0 to 984 foot elevation Bloom: April–June	**Known to occur.** One occurrence documented within the Planning Area

Notes:

1. Federal: E = Listed as endangered under ESA
2. State: E = Listed as endangered under CESA
3. California Rare Plant Ranks and extensions 1B = Rare or endangered in California and elsewhere; .1 = Seriously endangered in California (>80 percent of occurrences are threatened and/or high degree and immediacy of threat); .2 = Fairly endangered in California (20 to 80 percent of occurrences are threatened)

Source: U.S. Fish and Wildlife Service (USFWS), 2013; California Natural Diversity Database (CNDDB), 2013; California Native Plant Society, 2013.

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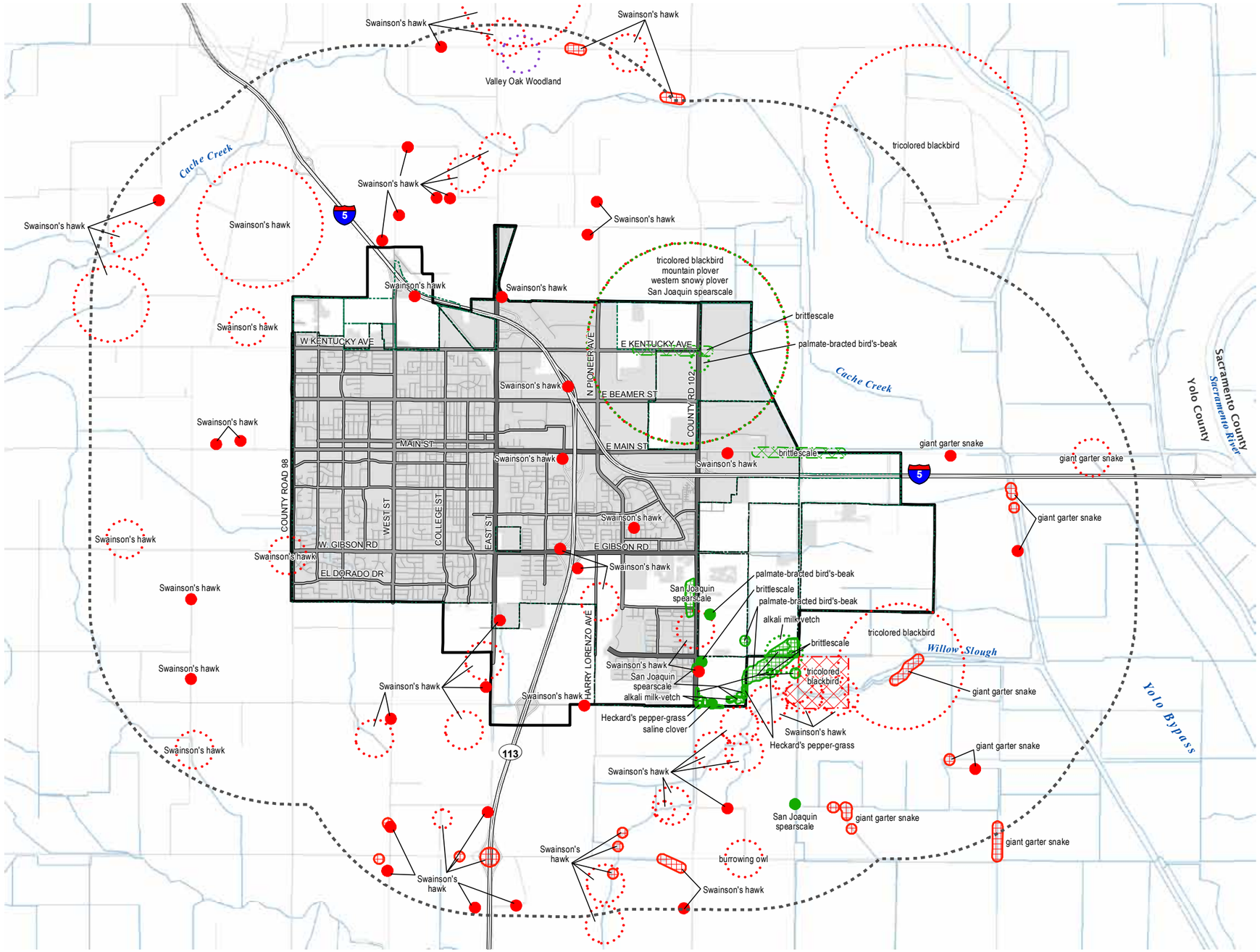
FIGURE 7-3: SPECIAL STATUS SPECIES OCCURRENCE WITHIN A 2-MILE SEARCH RADIUS



- Plant - Accuracy Class 1
- Plant - Accuracy Class 2
- Plant - Accuracy Class 3
- Plant - Accuracy Classes 4-9
- Animal - Accuracy Class 1
- Animal - Accuracy Class 2
- Animal - Accuracy Class 3
- Animal - Accuracy Classes 4-9
- Terrestrial Community - Accuracy Classes 4-9
- Highways
- Principal Arterials
- Minor Arterials
- Collectors
- Local Roads
- Ramps
- Planning Area
- Sphere Of Influence
- City Limits

CNDDB Accuracy Class 1: Reported occurrence is a point; location considered accurate to within the minimum mappable unit of 80 meters.

CNDDB Accuracy Class 2: Reported location is an area with defined boundaries.

CNDDB Accuracy Class 3: Reported location is a non-specific area; buffer added to represent degree of uncertainty in reported location.

CNDDB Accuracy Classes 4-9: Reported location considered accurate within the radius shown.

0 0.375 0.75 1.5 Miles

Data Source: City of Woodland, California, 2013; Yolo County, 2013; SACOG Mapping Center, 2013; Dyett & Bhatia, 2013; CDFW, 2013; USGS, 2010

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7.4 Agricultural and Soil Resources

Agricultural Resources

Farmland in the Planning Area

The California Department of Conservation uses the Important Farmlands Inventory to classify five different categories of agricultural land:

- **Prime Farmland** is farmland with the best combination of physical and chemical features able to sustain long term agricultural production. This land has the soil quality, growing season, and moisture supply needed to produce sustained high yields. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date.
- **Farmland of Statewide Importance** is farmland similar to Prime Farmland but with minor shortcomings, such as greater slopes or less ability to store soil moisture. Land must have been used for irrigated agricultural production at some time during the four years prior to the mapping date.
- **Unique Farmland** is farmland of lesser quality soils used for the production of the state's leading agricultural crops. This land is usually irrigated but may include nonirrigated orchards or vineyards as found in some climatic zones in California. Land must have been cropped at some time during the four years prior to the mapping date.
- **Farmland of Local Importance** is land of importance to the local agricultural economy as determined by each county's board of supervisors and a local advisory committee. In Yolo County, Farmland of Local Potential is identified as a subcategory under **Farmland of Local Importance** that refers to land that contains prime or statewide soils that are not presently irrigated or cultivated.
- **Grazing Land** is land on which the existing vegetation is suited to the grazing of livestock.

As shown in Figure 7-4, Woodland currently contains all five types of agricultural land within the Planning Area, including 1,545 acres of Prime Farmland. The majority of Prime Farmland acreage is located within the SP-1 boundary to the south and the SP-3 boundary and Flood Study Area to the northwest.

New growth identified by the General Plan will be located in the Urban Limit Line (ULL) to protect farm land and open space.

Woodland's topography is generally level, so with use of proper irrigation technique, the risk of soil erosion is low.

The Planning Area consists of 23 different soil types.

Preservation of Farmland

The General Plan plays an important role in the conservation of farmland because the city's growth over the General Plan horizon will be guided by General Plan policies and the Land Use Diagram. While the General Plan emphasizes infill development, projected growth in the Planning Area will also necessitate some conversion of agricultural land to urban uses. However, all new growth areas identified by this General Plan are located within the ULL. The primary purpose of the ULL is to allow for development and densification of Woodland over the long term while preserving and protecting agricultural, natural resource, and open space uses outside of the boundary.

Soil Resources

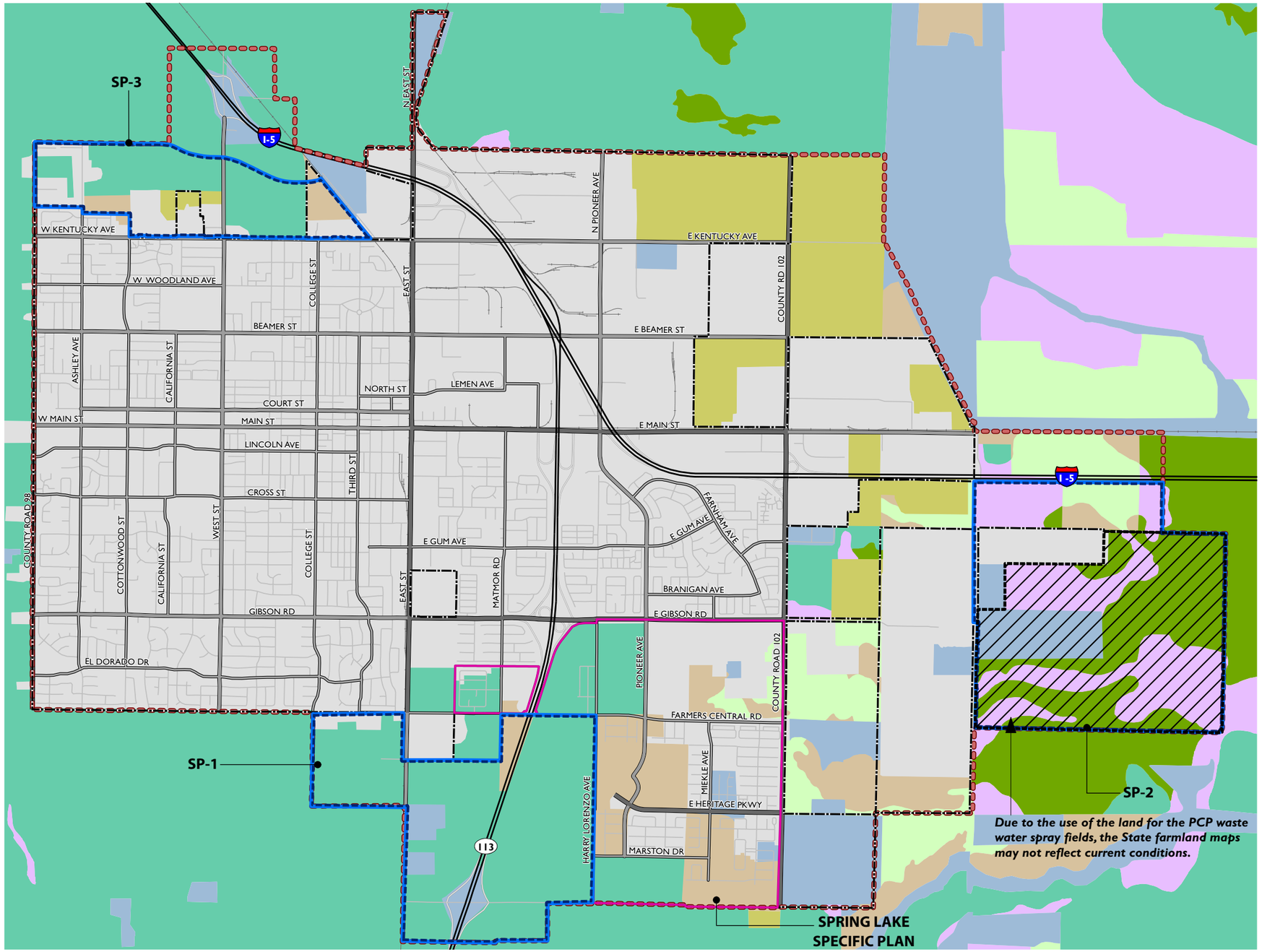
Soils in the Planning Area

A region's geology ultimately determines the types of soils that cover its surface, and soils have implications for agricultural productivity, natural hazards, and development potential. In general, soils in Woodland are characterized by deep, poorly drained, fine-grained materials that may contain a high percentage of organic materials. The Planning Area consists of a total of 23 different detailed soil types, with Yolo silt loam being most prevalent. From a development perspective, important considerations regarding soils include their potential to shrink and swell with changes in moisture (affecting structures built on them) and to erode (see below). For a more detailed discussion of soils and their characteristics, see the Environmental Impact Report.

Soil Erosion

Soil erosion is a process by which soil materials are worn away and transported to another area, either by wind or water. Rates of erosion can vary depending on the soil material and structure, and the placement and level of human activity. Soil containing high amounts of silt can be easily eroded, while sandy soils are less susceptible. Erosion is most likely to occur on sloped areas with exposed soil. In the case of agricultural or open space uses, erosion potential is highest when there is little vegetation. Soil erosion matters for agricultural land because it causes the fertile topsoil to wash away. However, topography in the Planning Area is generally level, and the erosion potential for soils is therefore generally low.

FIGURE 7-4: FARMLAND



Farmland Category

- Prime Farmland
- Farmland of Statewide Importance
- Unique Farmland
- Farmland of Local Importance
- Farmland of Local Potential
- Grazing Land
- Urban and Built Up Land
- Other Land
- PCP Sprayfield
- Highways
- Principal Arterials
- Minor Arterials
- Collectors
- Local Roads
- Ramps
- Railroads
- New Specific Plan Boundary
- Spring Lake Specific Plan Boundary
- Urban Limit Line

Note: See Policy 2.A.3 related to agricultural mitigation.

Note: Source data for farmland cateogry is from 2012. Some additional urban development has occured since then.

Note: This map may change over time with future Department of Conservation updates. Please review the latest map provided by the Department of Conservation, Division of Land Resource Protection, Farmland Mapping and Monitoring Program.

0 0.375 0.75 1.5 Miles

Data Source: Farmland Mapping and Monitoring Program (FMMP), 2012; City of Woodland, California, 2013; Yolo County, 2013; SACOG Mapping Center, 2013; Dyett & Bhatia, 2013

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7.5 Mineral Resources

Aggregate

Cache Creek and its floodplain is a source of aggregate resources, but all of these resource areas are located outside the Planning Area. Six aggregate mines are currently in operation along Cache Creek. The operations of Teichert Aggregates Woodland are the closest, located about two to three miles west of the Planning Area.

Natural Gas

In recent years, natural gas has become more important to the regional economy. According to the California Department of Conservation Division of Oil, Gas, and Geothermal Resources (DOGGR), there are approximately 25 gas fields located within Yolo County, including several within the Planning Area, as illustrated in Figure 7-5. Gas-bearing formations are generally located far beneath the earth's surface, and nearby wells are generally in excess of 2,000 feet deep, with some more than a mile in depth. There are no active natural gas wells within the City limits, although there are natural gas wells within the Planning Area. Gas wells require a permit from DOGGR and Yolo County, which requires CEQA review and applies permit conditions to protect water quality, prevent blowouts, and ensure proper spacing of wells.

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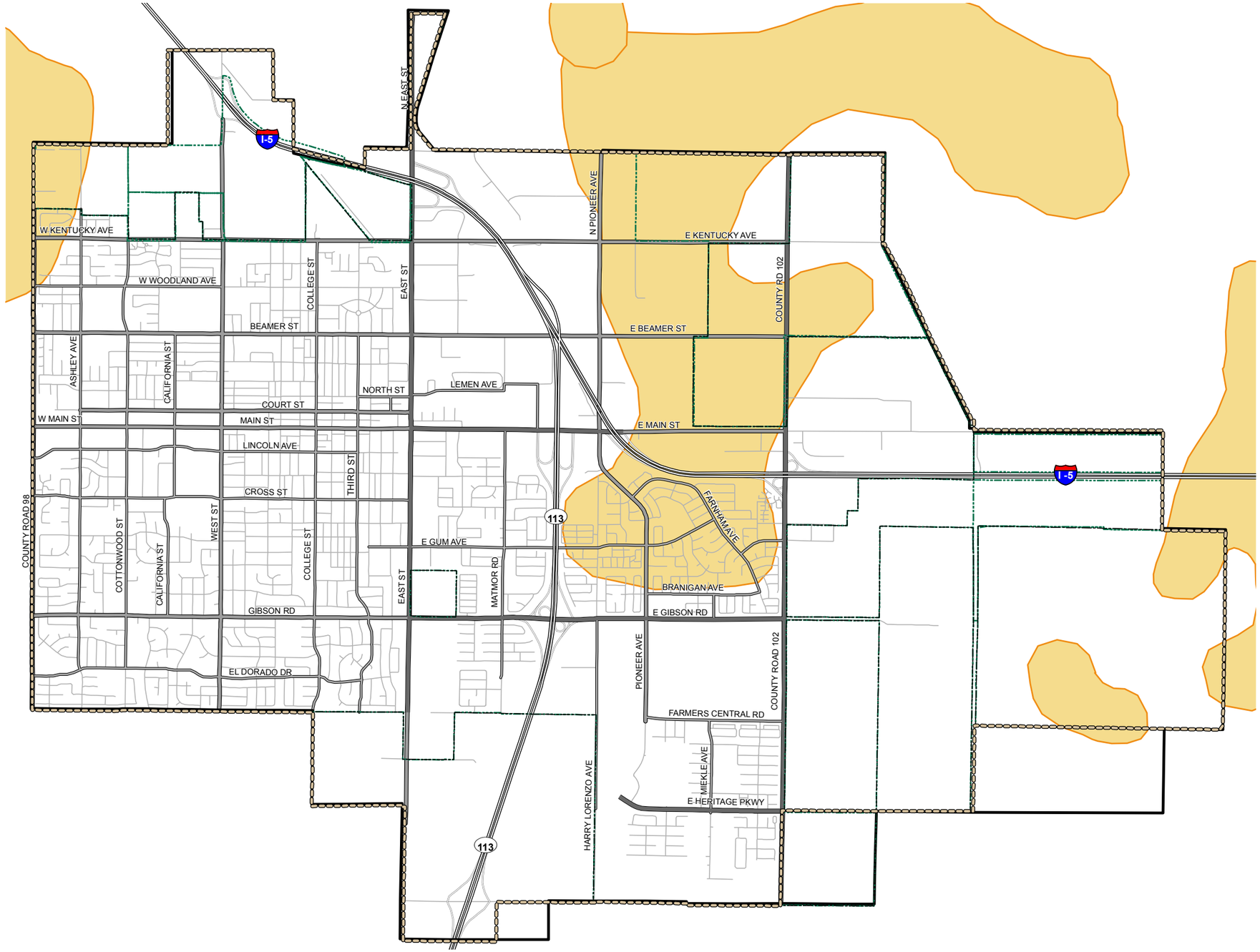
FIGURE 7-5: NATURAL GAS FIELDS



Data Source: City of Woodland, California, 2013; Yolo County, 2013; SACOG Mapping Center, 2013; Dyett & Bhatia, 2013; California Department of Conservation, Division of Oil, Gas, and Geothermal Resources, 2005

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7.6 Cultural and Archaeological Resources

In addition to a desire by the community to protect cultural resources, State laws, most notably CEQA, protect archaeological and other cultural resources. Cultural resources are defined as buildings, sites, structures, or objects that may have historical, architectural, archaeological, cultural, or scientific importance.

Before the settlement of the area by Europeans, the Woodland area was populated by the Poo-e-win, a dialect group of the Hill Patwin native Americans. Like most Patwin groups, the Poo-e-win occupied the major river courses and tributary drainages of their territory, such as the Sacramento River, Cache and Putah Creeks, and in some cases, springs. Only places high enough to keep them above the rising waters of seasonal floods were selected for permanent villages, or tribelets. The Poo-e-win tribelet of Yo'doi at one time occupied the present site of Knights Landing, and probably occupied the Woodland area in seasonal camps for hunting and seed gathering. Of special importance to the Poo-e-win and their neighbors was a main trading trail which followed the course of Cache Creek. This trade route served as an important means of cultural and social interchange in addition to a vital economic supply line for the Patwin and their neighbors – the Nomlaki to the north, the Nisenan to the east, and the Pomo to the west.

Woodland also has a number of historic resources, which are addressed in detail in the Land Use, Community Design, and Historic Preservation Element.

No prehistoric resources have been formally recorded in Woodland, and evidence of early native peoples who occupied the area is scarce. Any artifacts or information is therefore valuable. Policies in this Element seek to identify and preserve any archaeological resources that might be disturbed by development activity. Woodland also has a number of historic resources, which are addressed in detail in the Land Use, Community Design, and Historic Preservation Element.

7.7 Air Quality and Greenhouse Gases

Air Quality

Protecting and improving air quality is important to Woodland and communities across California, as certain kinds of air pollutants are directly harmful to human health and the health of the natural environment, including water quality and plant and animal life.

Climate and Atmospheric Conditions

Woodland is located in the Sacramento Valley Air Basin. The Sacramento Valley typically experiences hot dry summers and mild rainy winters, with temperatures ranging from 20 to 115 degrees Fahrenheit throughout the year. In the summer, average highs are in the mid 90s, while average lows in the winter are around 40 degrees. Average annual rainfall is just less than 20 inches, and snowfall is very rare. Prevailing winds are moderate in strength and vary from dry land flows from the north to moist clean breezes from the south. The mountains surrounding the Sacramento Valley create a barrier to airflow, which can trap air pollutants in the Valley, particularly in the autumn and early winter.

Ozone season in the Sacramento Valley occurs from May through October. It is characterized by stagnant morning air or light winds, with the Delta sea breeze arriving in the afternoon and evening out of the southwest. Usually, this evening breeze transports airborne pollutants out of the Sacramento Valley. However, from July to September, this is often prevented by a phenomenon called the "Schultz Eddy." Instead of allowing the prevailing wind patterns to flow north out of the Valley, the Schultz Eddy causes winds to circle back south. This means that air pollutants that would otherwise be transported out of the Valley are instead blown back into it, exacerbating pollution levels and increasing the likelihood of violating federal or State standards.

Criteria Air Pollutants

The California Air Resources Board (ARB) and the U.S. Environmental Protection Agency (EPA) focus on the following air pollutants as indicators of ambient air quality: ozone, carbon monox-

ide (CO), nitrogen dioxide (NO_2), sulfur dioxide (SO_2), respirable particulate matter (PM_{10}), fine particulate matter ($PM_{2.5}$), and lead. These pollutants, which are most linked with impacts to human health, are commonly called "criteria air pollutants."

Health-based air quality standards have been established for these pollutants by the ARB at the State level and by EPA at the national level. These standards, which include a margin of safety, were established to protect the public from adverse health impacts resulting from exposure to air pollution. California has also established standards for sulfates, visibility-reducing particles, hydrogen sulfide, and vinyl chloride.

Diesel-fueled engines release particulate matter in high concentration along transportation routes.

Sources

Within the Yolo-Solano Air Quality Management District (YSAQMD or the Air District), mobile sources, such as vehicles, are the largest contributors of carbon monoxide, nitrogen oxides, and reactive organic gases (ROG). Reactive organic gases and nitrogen oxides are ozone precursors and therefore, mobile sources are a key target for reducing ozone concentrations in the region. Stationary sources, including fuel combustion and industrial processes, are responsible for the majority of sulfur oxide emissions. Area-wide sources, such as solvent evaporation and landscape maintenance equipment, account for most particulate matter emissions.

Attainment Status

The region's major air quality problem is ozone generation, followed by respirable particulate matter and fine particulate matter concentrations. Between 2009 and 2011, the Woodland monitoring station registered multiple days above the State and Federal eight-hour ozone standards, but no exceedances of the State one-hour standard. The State 24-hour respirable particulate matter standard was exceeded at least once in each year, but the national 24-hour standard was not exceeded during the same period. Measured concentrations of fine particulate matter exceeded the national standard once in the past three years.

To determine whether a region's air quality is healthful or unhealthful, contaminant levels in ambient air samples are compared to the CAAQS and the NAAQS. Both ARB and EPA designate an area's attainment status relative to the state and national standards, respectively, for criteria air pollutants. The purpose of these desig-

nations is to identify areas with air quality problems and thereby initiate planning efforts for improvement.

The three basic designation categories are "nonattainment," "attainment," and "unclassified." Attainment status indicates that standards are met, while nonattainment status indicates they are not. The unclassified designation is used in areas that cannot be classified on the basis of available information as meeting or not meeting the standards. With respect to the CAAQS, the Air District is currently designated as a nonattainment area for ozone and respirable particulate matter, and as an attainment or unclassified area for all other pollutants. With respect to the national standards, the YSAQMD is designated as a nonattainment area for ozone and fine particulate matter and as an attainment or unclassified area for all other pollutants.

Toxic Air Contaminants

Concentrations of toxic air contaminants (TACs) are also used as indicators of ambient air quality conditions. TACs are pollutants that occur at relatively low concentrations and are associated with carcinogenic and other adverse health risks, but for which no ambient air quality standards have been established.

According to the *California Almanac of Emissions and Air Quality,* the majority of the estimated health risk from TACs is attributed to relatively few compounds, the most dominant being particulate matter exhaust from diesel-fueled engines. Diesel particulate matter concentrations are typically highest along major transportation routes with high proportions of heavy-duty diesel truck traffic. Concentrations drop off substantially with increased distance from these roadways. For example, ARB reported a 70 percent drop in particulate matter concentrations at a distance of 500 feet from a roadway compared to concentrations in areas adjacent to a roadway. Health risk along major transportation routes is anticipated to improve over time as ARB requires diesel trucks and buses to be retrofitted with particulate matter filters.

TAC Sources

Existing TAC sources in the Woodland area include mobile sources, stationary sources, and areawide sources. Mobile sources are dispersed on roadways throughout the Planning Area. State Route 113 and Interstate 5 both serve heavy-duty diesel trucks which emit TACs to which nearby land uses may be exposed. Devel-

opment anticipated under this General Plan, along with regional growth, would increase vehicular traffic on I-5 and SR 113. However, advances in emissions technology, turnover in vehicles, and increasingly stringent emission standards would likely reduce average emission rates.

In addition, there are a number of stationary sources of TACs in the Planning Area, including gasoline-dispensing facilities, natural gas heaters, paint and adhesives facilities, concrete production, lumber cutting facilities, woodworking, emergency backup diesel engines, and grain milling. Areawide TAC emissions are not monitored and tracked as closely as stationary or major roadway sources because of the dispersed nature of areawide TAC sources. Typically, areawide TAC sources are dependent on consumer behavior, which makes data difficult to gather. However, ARB has developed TAC emissions inventories that provide a baseline level of TAC emissions.

Odor

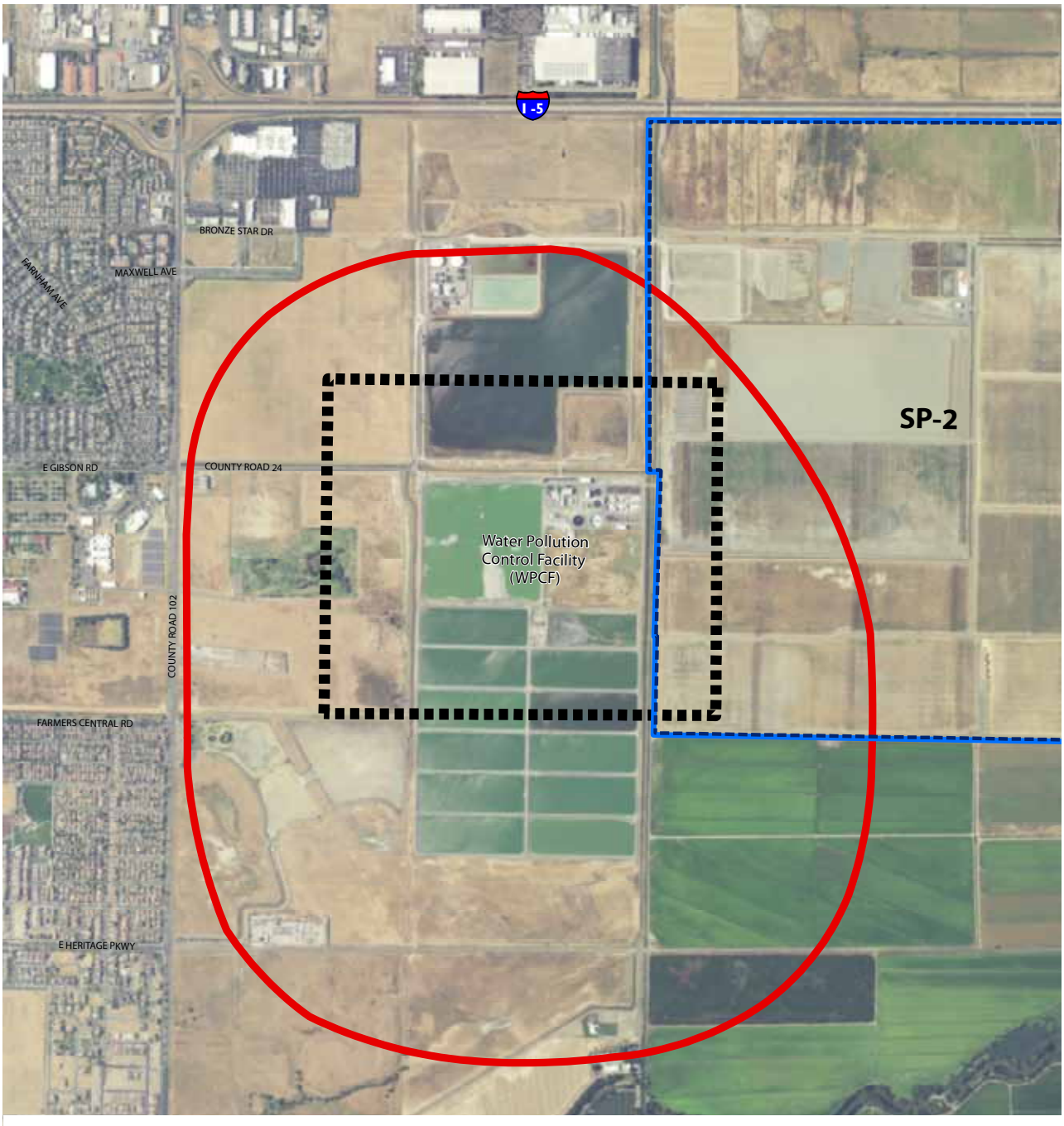
Odors are generally regarded as an annoyance rather than as a health hazard. However, manifestations of a person's reaction to foul odors can range from psychological (e.g., irritation, anger, or anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting, and headache). With respect to odors, the human nose is the sole sensing device, and the ability to detect odors varies considerably among the population. In addition, an odor that is offensive to one person may be perfectly acceptable to another. An unfamiliar odor is more easily detected and is therefore more likely to result in complaints than a familiar one.

Odor Sources

Woodland has several facilities and land uses that could be considered potential odor sources. The Water Pollution Control Facility (WPCF) is located just east of CR 102. The headworks area includes an influent pump station, screens, and grit removal, all of which are open air and not currently equipped with any odor controls. The pond system can receive raw sewage influent and effluent during times of maintenance or peak flows, which, during warmer weather, can also generate odor emissions. Figure 7-6 provides a graphical view of the recommended buffer distances for different odor mitigations. Odors associated with the WPCF must be mitigated to acceptable levels in conjunction with planning and development for any land within the odor buffer shown in Figure 7-6.

Recommended distances for odor mitigation from the headworks and sludge stabilization ponds are shown in Figure 7-6.

FIGURE 7-6: ODOR IMPACT AREA



No Odor Mitigations Necessary Outside this Boundary

Minimum Recommended Odor Buffer

New Specific Plan Boundary (SP-2)

0 750 1,500 3,000 Feet

Data Source: NEXGEN Utility Management, January 2015; City of Woodland, California, 2013;

Pacific Coast Producers (PCP), a tomato canning facility, has a contract with the City that allows water used in the manufacturing process to be discharged across agricultural fields owned by the City in the east side of the Planning Area, within the area identified as SP-2. As the organic matter in the residual water decomposes, odor emissions are generated that have impacted local residents in the past. PCP has invested more than $3 million dollars to reduce potential odor sources from its operations, including implementation of measures such as water saving processing improvements, and adding calcium nitrate and Bioxide to its wastewater to reduce organic loading rates (i.e., odor-generating source). The company is also planning to employ a new sprinkler irrigation system that is anticipated to help reduce its odor emissions. PCP and the City have joined together to purchase and utilize a sophisticated computerized odor plume tracking system to identify odor sources and assist both entities with mitigation efforts. Before development of SP-2 occurs, the treatment of PCP's processing water must be alternatively accommodated. Moving the sprayfields away from the city or modifying their processing water treatment process would likely significantly reduce or eliminate the odor impacts experienced by residents.

Other potential odor sources that could impact the Planning Area include the Yolo County Central Landfill, which is located approximately seven miles southeast of Downtown. The Yolo County Animal Services Shelter and the County Fairgrounds (particularly livestock shows) have also been identified as odor sources at different times of the year. Industrial uses, such as manufacturing facilities, biomass storage, and food processing, also constitute potential odor sources. In addition, the agricultural uses that surround the city can generate odors from a variety of processes, such as agricultural burning, livestock pens, fertilization, and composting. The City of Woodland and the Air District work in cooperation with industrial facilities and agricultural producers to limit the odor emissions associated with manufacturing processes and agricultural burning.

Greenhouse Gases

Gases that trap heat in the Earth's atmosphere are called greenhouse gases (GHGs). These gases play a critical role in determining the Earth's surface temperature. Some GHGs occur naturally and are emitted to the atmosphere through natural processes and hu-

man activities, while others are created and emitted solely through human activities. The six primary GHGs are:

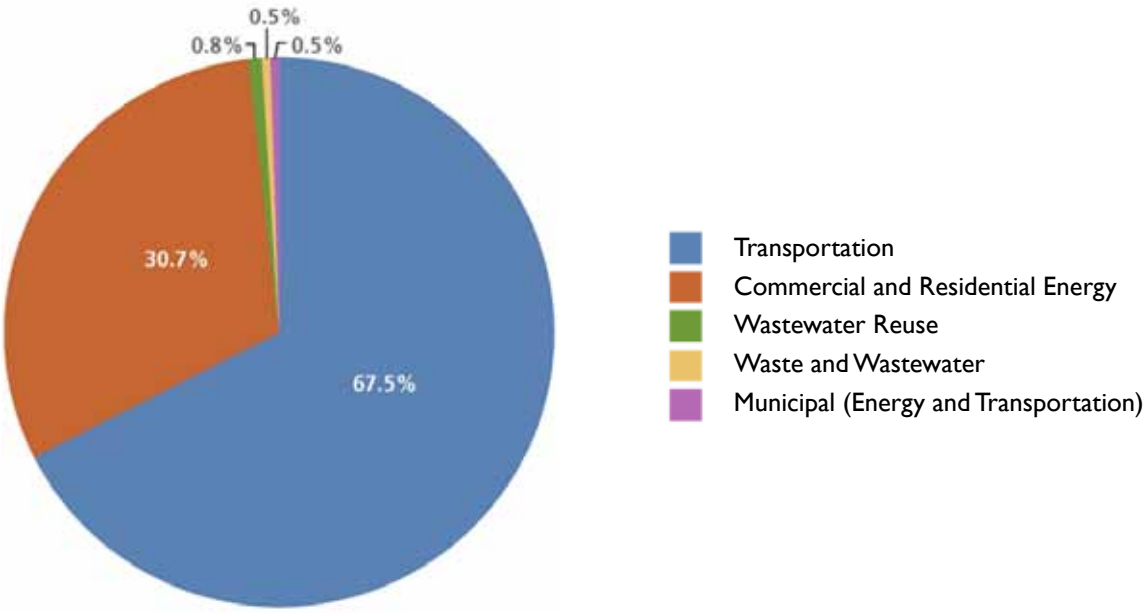
- **Carbon dioxide (CO_2),** emitted as a result of fossil fuel combustion, with contributions from cement manufacture;
- **Methane (CH_4),** produced through the anaerobic decomposition of waste in landfills, animal digestion, decomposition of animal wastes, production and distribution of natural gas and petroleum, coal production, and incomplete fossil fuel combustion;
- **Nitrous oxide (N_2O),** typically generated as a result of soil cultivation practices, particularly the use of commercial and organic fertilizers, fossil fuel combustion, nitric acid production, and biomass burning;
- **Hydrofluorocarbons (HFCs),** primarily used as refrigerants;
- **Perfluorocarbons (PFCs),** originally introduced as alternatives to ozone depleting substances and typically emitted as by-products of industrial and manufacturing processes; and
- **Sulfur hexafluoride (SF_6),** primarily used in electrical transmission and distribution systems.

GHG emissions contributing to global climate change are attributable, in large part, to human activities associated with the transportation, industrial/manufacturing, utility, residential, commercial, and agricultural emissions sectors. In California, the transportation sector is the largest emitter of GHGs, accounting for 38 percent of statewide emissions in 2010. Electricity generation is the second largest emitter.

Sources of GHGs in Woodland

In order to better understand the sources and magnitude of GHG emissions, public and private entities at the Federal, State, and local level are developing GHG inventories. In 2012, the City of Woodland worked with UC Davis to develop an estimate of communitywide emissions for the baseline year 2005. Figure 7-7 presents the City of Woodland's GHG emission sectors by their relative contribution to the city's total emissions. Baseline annual emissions in Woodland were determined to be approximately 544,145 metric tons of carbon dioxide equivalent per year. Of the total GHG emissions, over two thirds were generated from transportation.

FIGURE 7-7: 2005 CITY OF WOODLAND GHG EMISSIONS BY CATEGORY



Source: City of Woodland Climate Action Plan, 2017

General trends in GHG emissions call for significant changes over the coming decades in transportation systems and in the ways energy is produced and consumed. Policies in this General Plan encourage a shift to renewable energy use and the improvement of community-wide energy conservation. This includes the promotion of smart energy choices for residents and businesses and land use planning that allows residents to meet more of their daily needs (commute trips, shopping, etc.) without requiring long automobile trips. In addition, there are a number of economic benefits to increased energy efficiency that could benefit the City, as well as its residents and businesses.

In Woodland, the largest contributors to greenhouse gas emissions are the transportation sector (predominantly motor vehicles) and electricity used in residential and commercial buildings.

Global Climate Change

Global climate change is currently one of the most significant scientific, economic, and political issues in the United States. Climate change refers to a change in the average climate of the earth that may be measured by wind patterns, storms, precipitation, and temperature. The baseline by which these changes are measured originates in historical records identifying temperature changes that have occurred in the distant past, such as during previous ice ages. The rate of temperature change has typically been incremental, with warming and cooling occurring over the course of thousands of years. In the past 10,000 years, the earth has experienced incremental warming as glaciers retreated across the globe. However, scientists have observed an unprecedented increase in the rate of warming over the past 150 years, roughly coinciding with the global industrial revolution.

Potential Impacts in California

According to the California Climate Action Team (CCAT), accelerating global climate change has the potential to cause a number of adverse impacts in California, including but not limited to:

- A shrinking Sierra snowpack that would threaten the state's water supply;
- Public health threats caused by higher temperatures, more severe storms and other weather events, and more smog;
- Damage to agriculture and forests due to reduced water storage capacity, rising temperatures, increasing salt water intrusion, flooding, and pest infestations;
- Critical habitat modification and destruction;
- Eroding coastlines;
- Increased wildfire risk; and
- Increased electricity demand.[2]

These impacts have and will continue to have considerable costs associated with them. The City of Woodland must consider not only how it can reduce its contribution to greenhouse gas emissions, but also how the City can adapt to climate change's impacts and maintain resilience to global warming over time.

2 California Climate Action Team, April 2006.

Climate Action Plan (CAP)

Woodland is committed to helping reduce the effects of rapid climate change. The city's Climate Action Plan (CAP) outlines Woodland's overall strategy to reduce GHG emissions. It identifies specific implementation measures the City will undertake and quantifies their impacts, in order to comply with State directives for reducing GHGs. The California AB 32 Scoping Plan seeks to bring California to a low carbon future, reducing emissions to 1990 levels by 2020. As part of that reduction, the plan asks municipal governments to reduce their emissions by at least 15 percent by 2020 compared with current levels (current levels are defined as 2008 levels or earlier). The AB 32 Scoping Plan also directs local governments to assist the state in meeting California's emissions goals.

The CAP proposes a 2020 emissions reduction target equivalent to 15 percent below the city's 2005 levels. It provides a community-based policy framework to address community-wide GHG emissions sources. Specifically, the CAP is designed to:

- Translate high-level objectives and quantified goals into a realistic, understandable set of implementation actions;
- Demonstrate that significant reductions in GHG emissions are attainable through local actions;
- Inspire community members to work collectively to achieve these reductions;
- Dovetail with General Plan policies that are required to address climate change impacts and adaptation, including those for land use, transportation, building design, and infrastructure; and
- Provide a predictable approach to mitigation strategies for the compliance of future development projects with CEQA.

The General Plan directly supports CAP targets with several policies aimed at monitoring and reducing GHG emissions.

7.8 Goals and Policies

Goal 7.A **Protect Water Supply and Quality.** Protect and enhance the natural quantity and qualities of surface water and groundwater resources in the Woodland area.

See also policies in the Public Facilities and Services Element.

Policy 7.A.1 **Surface Water Project.** Continue to cooperate with the City of Davis and UC Davis to operate the Surface Water Project in order to balance the groundwater supply and protect against aquifer overdrafts and water quality degradation.

Policy 7.A.2 **Groundwater Management.** Support local efforts to establish a Groundwater Sustainability Agency and adopt a Groundwater Management Plan. Ensure that the City of Woodland and local watershed agencies retain local authority to regulate and manage groundwater.

Policy 7.A.3 **Watershed Protection.** Support local and regional efforts to protect the Sacramento River, Cache Creek, Putah Creek, and Willow Slough watersheds.

Policy 7.A.4 **Best Management Practices.** Continue to require the use of feasible and practical best management practices (BMPs) and promote Low Impact Development to protect receiving waters from the adverse effects of construction activities and urban and agricultural runoff.

Policy 7.A.5 **Landscape Water Conservation Standards.** Ensure consistency with the State water conservation requirements and Model Ordinance provided by the DWR as well as review and update the City's water conservation requirements and ordinance as needed.

Policy 7.A.6 **Education.** Continue efforts to educate the residents and businesses of Woodland about wise water use.

Goal 7.B **Maintain and Protect Biological Resources.** Maintain and protect natural habitats throughout the Planning Area, especially types that are considered sensitive by the Yolo HCP/NCCP. Protect sensitive wildlife and plant species.

Policy 7.B.1 **Habitat Conservation Plan/Natural Community Conservation Plan.** Continue to participate in the planning process for the countywide Habitat Conservation Plan/Natural Community Conservation Plan. Once adopted, fully implement the Plan to mitigate the impacts of growth projected under the General Plan on plant and wildlife habitats in the Woodland area.

Evaluate the opportunity for adoption and implementation of a Local Conservation Plan to provide additional clearance under the California Environmental Quality Act (CEQA) for general biological resource impacts.

Policy 7.B.2 **Sensitive Habitat Types.** Support and cooperate with efforts of other local, State, and Federal agencies and private entities engaged in the preservation and protection of sensitive habitat types from incompatible land uses and development. Sensitive habitat types include alkali sink, freshwater wetlands, freshwater marsh, riparian forest, drainages, riverine habitat, and lakes.

Policy 7.B.3 **Special-Status Species.** Support preservation of the habitats of Federally- or State-listed rare, threatened, endangered, and/or other special status species. Encourage Federal and State agencies, as well as other resource conservation organizations, to acquire and manage endangered species' habitats.

Policy 7.B.4 **Fish and Wildlife.** Support the management efforts of the California Department of Fish and Wildlife to maintain and enhance the productivity of important wildlife species by protecting identified critical habitat for these species from incompatible suburban, rural residential, or recreational development.

Policy 7.B.5 **Open Space for Conservation.** Where appropriate, permanently protect as open space areas of natural resource value, including sensitive habitat types (e.g. alkali sink and prairie, freshwater wetlands, freshwater marsh, riparian forest, drainages). Maintain connectivity between open space areas designated for habitat conservation values within the Planning Area as well as linkages to adjacent habitats outside the Planning Area, such as Willow Slough, Cache Creek, and habitat preserves to the east.

(EIR Mitigation Measure 4.4-1b)

Policy 7.B.6 **Open Space Buffer.** Continue to work with Yolo County and the City of Davis to maintain the permanent open space buffer between County Roads 27 and 29 and its existing wildlife habitat values.

(EIR Mitigation Measure 4.4-2a).

Policy 7.B.7 **Woodland Regional Park.** Protect and maintain Woodland Regional Park as an important wildlife preserve and habitat for special-status plants and allow for public access that is compatible with and promotes public education of the site's habitat value.

(EIR Mitigation Measure 4.4-1b)

Policy 7.B.8 **Native and Compatible Non-Native Plant Species.** Require developers to use native and compatible non-native species, especially drought-resistant species, to the extent possible in order to preserve the visual integrity of the landscape, provide benefits for native wildlife, and ensure that a variety of plants suited to the region are maintained.

(EIR Mitigation Measure 4.4-2a).

Policy 7.B.9 **Tree Canopy.** Manage, enhance, and improve the city's tree canopy as a valuable ecological resource.

Policy 7.B.10 **Urban Forest Management Plan.** Establish an urban forest management plan, overseen by a licensed arborist, to guide the protection and enhancement of the urban forest. Work with agencies such as the Woodland Tree Foundation in this effort.

Policy 7.B.11 **Sensitive Site Planning.** Site new development to maximize the protection of native tree species and special-status plant and wildlife habitats.

(EIR Mitigation Measure 4.4-1b)

Goal 7.C Preserve Farmland. Promote preservation and economic viability of agricultural land surrounding the ULL.

See also policies in the Land Use, Community Design, and Historic Preservation Element.

Policy 7.C.1 **Annexation.** Annex land to the City only as it is needed for development of designated growth areas. Annexation of agricultural land will not be permitted except in conjunction with approved urban development consistent with the General Plan.

Policy 7.C.2 **Agricultural Uses Within the ULL.** Where agriculture exists within the ULL, support existing agricultural uses until urban development (consistent with the General Plan) occurs on these properties.

Policy 7.C.3 **Surrounding Agricultural Land.** Encourage Yolo County to conserve agricultural soils, preserve agricultural land surrounding the ULL, and promote the continuation of existing agricultural operations.

Policy 7.C.4 **Compatibility.** Ensure that urban development within the ULL does not affect the economic viability of adjacent agricultural practices located outside the ULL.

Policy 7.C.5 **Agricultural Buffer.** Require new development that occurs at the edge of the ULL to be set back a minimum of 150 feet from adjacent agricultural land where possible. Equivalent means of providing agricultural buffers may be considered by the Planning Commission on a case by case basis for parcels where development potential would be precluded or severely limited as a result of the required buffer size. The buffer shall be landscaped/vegetated and may include public right of way.

(EIR Mitigation Measure 4.2-3)

Goal 7.D **Protect Mineral Resources.** Cooperate with regional agencies to protect significant mineral resources in the Planning Area that may be identified in the future.

Policy 7.D.1 **Natural Gas.** Encourage the County to consider compatibility with land uses planned in the City's General Plan when considering applications for natural gas wells within the Planning Area.

Policy 7.D.2 **Plan After Discovery.** If previously unknown important mineral resources are discovered in the Planning Area, work with Yolo County and appropriate state agencies to determine a course of action to protect and sustainably manage the resources, consistent with land uses planned in the City's General Plan.

Goal 7.E **Preserve Prehistoric, Cultural, and Archaeological Resources.** Preserve and protect areas and sites of prehistoric, cultural, and archaeological significance.

Policy 7.E.1 **Potentially Significant Sites.** Ensure that development avoids potential impacts to sites determined to be archeologically, paleontologically, or culturally significant.

Policy 7.E.2 **Discovery of Resources.** If cultural, archaeological, or paleontological resources are discovered during construction, ensure their evaluation and protection, as appropriate, in accordance with applicable Federal and State laws and regulations.

Policy 7.E.3 **Tribal Cultural Resources.** Ensure required tribal consultation regarding tribal cultural resources.

Goal 7.F **Improve Air Quality and Reduce Greenhouse Gas Emissions.** Protect and improve air quality in the Woodland area with the goal of attaining State and Federal health-based air quality standards.

Policy 7.F.1 **YSAQMD Thresholds.** Utilize air quality thresholds of significance set by the YSAQMD.

Policy 7.F.2 **Best Management Practices.** Require all projects to implement Best Management Practices (BMPs) for reducing air pollutant emissions associated with the construction and operation of development projects as a standard City condition of approval.

(EIR Mitigation Measure 4.3-1b)

Policy 7.F.3 **Protect Sensitive Receptors.** For the purposes of environmental review of potential toxic air contaminant impacts, consider residentially designated land uses, hospitals and other medical facilities, residential care facilities, schools, day care centers, and playgrounds to be "sensitive receptors." Discourage the location of new sensitive receptor uses within 500 feet of a limited access state highway (SR 113 and 1-5). Implement applicable buffer distances recommended by the California Air Resources Board between sensitive uses and sources of substantial pollutant concentrations.

(EIR Mitigation Measure 4.3-3a)

Policy 7.F.4 **Landscaping to Improve Air Quality.** Promote the increase of community-wide tree canopy and the use of plants and trees that are efficient pollutant absorbers.

Policy 7.F.5 **Electric Equipment.** Promote inclusion of features such as exterior electrical outlets in new residential development to encourage the use of electric and other alternative fuel equipment.

Policy 7.F.6 **Odor Mitigation.** Require odors associated with the wastewater treatment plant to be mitigated to acceptable levels in conjunction with planning and development for any land within the odor impact area identified in Figure 7-6. Require an odor mitigation study to be prepared to identify specific measures to be undertaken, including identification of required implementation timing and any necessary financing, as secured through a Development Agreement, or other mechanism acceptable to the city, prior to commencement of development.

Refer to the Land Use, Community Design, and Historic Preservation Element and the Public Facilities and Services Element for additional policies regarding the wastewater treatment plant and development in the surrounding areas.

Policy 7.F.7 **Inventory of Greenhouse Gas Emissions.** Continue to maintain inventories of community-wide greenhouse gas emissions and greenhouse gas emissions from City operations and track related solid waste, energy, economic, and environmental data. Update the inventories periodically as additional data and methodologies become available.

Policy 7.F.8 **Reduce Vehicle Miles Travelled.** Continue to work in conjunction with the YSAQMD and other agencies to establish and implement additional transportation control measures that will reduce vehicle travel and improve air quality.

Policy 7.F.9 **Climate Action Plan.** Implement the Climate Action Plan to achieve the city's greenhouse gas reduction targets by 2020, 2035, and 2050.

Policy 7.F.10 **Public Awareness of Climate Change and Adaptation.** Promote public awareness of the impacts of global climate change and provide information regarding steps that residents and businesses can take to reduce greenhouse gas emissions and adapt to its effects.

Policy 7.F.11 **Climate Change Resilience.** Ensure resilience to the impacts of global climate change by considering these effects (including but not limited to increasing temperatures, heavier storms and other weather events, increased fire risk) in emergency preparedness planning.

See also policies 8.F.1 and 8.F.2.

Policy 7.F.12 **MTP/SCS Consistency.** For projects seeking to utilize available CEQA streamlining, determine project consistency with the MTP/SCS as a component of application review.

(EIR Mitigation Measure 4.5-2)

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